



## ***BNSF Safety Vision***

We believe every accident or injury is preventable. Our vision is that BNSF will operate free of accidents and injuries. BNSF will achieve this vision through:

**A culture** that makes safety our highest priority and provides continuous self-examination as to the effectiveness of our safety process and performance ...

**A work environment**, including the resources and tools, that is safe and accident-free where all known hazards will be eliminated or safeguarded ...

**Work practices and training** for all employees that make safety essential to the tasks we perform ...

**An empowered work force**, including all employees, that takes responsibility for personal safety, the safety of fellow employees, and the communities in which we serve.

## ***System Special Instructions***

### **All Subdivisions No. 11**

In Effect at 0001

Central, Mountain and  
Pacific Continental Time

**Sunday, October 30, 2005**

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In the individual division timetables, the number at the bottom of the schedule column entitled "Miles to Next Station" indicates total miles on the subdivision.

**1. Speed Restrictions**

All speeds are subject to modification by speed restrictions indicated under individual subdivision special instructions.

Passenger trains will be governed by freight train speed if passenger train speed is not specified under individual subdivision special instructions.

Unless defined differently in the individual subdivision special instruction, tons per operative brake (TOB) is defined as the gross trailing tonnage of the train divided by the total number of control valves.

**Maximum Speeds Permitted**

Freight trains up to 100 TOB ..... 60 MPH.  
 Trains 100 TOB and over ..... 45 MPH.  
 Trains handling empty cars ..... 55 MPH.

Exceptions:

1. Passenger/commuter equipment.
2. Empty articulated double stack equipment.
3. Empty coal trains may operate at a maximum authorized speed of 60 MPH if train list indicates no speed restricted equipment in train.
4. AutoMax Cars. (Refer to 1(C) regarding empty intermodal equipment).

On sidings ..... 20 MPH.  
 (Unless a different speed is indicated in the division timetable).  
 Key trains ..... 50 MPH.  
 Key trains on sidings ..... 10 MPH.  
 Trains moving in non signaled territory ..... 49 MPH.  
 Trains moving against current of traffic ..... 49 MPH.  
 Solid consist of military equipment ..... 55 MPH.  
 Trains and engines through turnouts ..... 10 MPH.  
 On tracks other than main tracks and sidings ..... 10 MPH.  
 Trains operating with lead controlling  
 CN (Canadian National) locomotives ..... 65 MPH.  
 Within Mechanical Department limits ..... 5 MPH.  
 Movements on or off turntables ..... 1 MPH.  
 Trains with welded rail loaded in open end gondolas ..... 45 MPH.  
 Light engines must not exceed maximum authorized speed for freight trains.

<b>Equipment</b>	<b>Main Line</b>	<b>Branch Line</b>
Roadrailer equipment (loaded or empty) .....	60 MPH.	60 MPH.
AMTK 1400 through AMTK 1569 (Material Handling Cars) .....	60 MPH.	60 MPH.
Flat cars, empty, NP 580400-580739 .....	50 MPH.	50 MPH.
Flatcars OTTX (loaded or empty) 90380-90446, 90911, 90933-91394, 91517, 91576-91592, 91628, 91735-91823, 92072-92350, 92678-92688, 92757, 93297, 93337, 93561-93563, 93745-93811, 94070-94114, 97052-97054, 97060-97201, 97244-97245, 97282-97312, 97351, 97394-97785, 97792-97937 .....	45 MPH.	45 MPH.
Gondolas: empty cars picked up enroute and not on conductor's wheel report or work order .....	50 MPH.	50 MPH.
Gondolas: loaded and empty PC 598500 through 598999, CR 598500 through 598990 SP 345000 through 345699 .....	45 MPH.	45 MPH.
Gondolas: empty KCS 801011 through 802930 EJE 4000 through 4999 CR 576026 through 579245 .....	45 MPH.	45 MPH.

Loram Rail Grinder traveling (not in work mode) as a train on its own power with a conductor or engineer pilot..... 60 MPH..... 60 MPH.  
 When controlling movement from the rear control cab in the lead ..... 40 MPH..... 40 MPH.  
 Exception:  
 When descending a 1% to 1.4 % grade. 20 MPH..... 20 MPH.  
 When descending a 1.5% or greater grade ..... 15 MPH..... 15 MPH.  
 Empty bulkhead flatcars picked up enroute and not on conductor's wheel report or work order ... 45 MPH..... 45 MPH.  
 Air dump cars, loaded ..... 45 MPH..... 45 MPH.  
 Clay Cars, RARW 3801-4199 ..... 45 MPH..... 45 MPH.  
 Empty bulkhead wallboard flatcars:  
 BN 616475 through 616674, CS 616375 through 616474, DJTX 9300 through 9398 and SOU 115250 through 115274 ..... 45 MPH..... 45 MPH.  
 Scale test cars ..... 35 MPH..... 25 MPH.  
 Exception: Scale test cars listed below have a minimum gross weight of 100,000 pounds and may move in any position in the train and at maximum authorized speed for which train is qualified:  
 WWBX 199917-199919, MP 15507, MP 15510-15512, UP 167579, UP 900700, UP 903600, BN 979019-979024, BN 979026-979036, FGWX 100000-500000  
 Ribbon rail cars, (loaded) ..... 35 MPH..... 25 MPH.  
 Ribbon rail cars, (empty) ..... 45 MPH..... 45 MPH.  
 Ribbon rail loading and unloading cars ..... 45 MPH..... 45 MPH.  
 Wedge plow or dozer, hauled in tow ..... 35 MPH..... 25 MPH.  
 Rotary plow, wrecking derrick, locomotive crane, pile driver or Jordan spreader, handled in trains ..... 30 MPH..... 25 MPH.  
 Exception: Locomotive cranes/pile drivers AT 199454 through AT 199468 may be handled in trains at a maximum of 45 MPH.  
 Trains or engines handling this and similar equipment which is moving on its own running gear must operate through the curved side of turnouts at a speed not exceeding one-half the maximum authorized speed for that turnout.  
 Locomotive cranes, wrecking derricks and other types of heavy work equipment must not be operated on any subdivision designated as a Branch Line unless authorized by dispatcher and roadmaster or covered by specific instructions.  
 The following equipment when handled in trains will be handled on rear end of train only, and is subject to the following maximum speeds:  
 Kershaw, RKCX 104 and 105 ..... 45 MPH..... 45 MPH.  
 Balfour Beatty, BU 3005 ..... 45 MPH..... 45 MPH.  
 Plasser Machines, PACX 250, 255,  
 281 and 293 ..... 45 MPH..... 45 MPH.  
 P 811 ..... 50 MPH..... 45 MPH.  
 Herzog, HZGX 200 ..... 45 MPH..... 45 MPH.  
 Loram, BC 09 and BC 17 ..... 50 MPH..... 45 MPH.  
 When moving coupled with maintenance of way tool cars, they must remain coupled to such cars.  
 Tank cars ACFX 17451 through 17495 ..... 45 MPH..... 45 MPH.  
 Tank cars NATX 10841 through 10865 ..... 45 MPH..... 45 MPH.  
 Tank cars:  
 DVLX 4001 through 4190 and the following UTLX cars:  
 76517                      76742 thru 76745                      78287 thru 78293  
 76539                      76747    78326  
 76556                      76748    78328 thru 78333  
 76558                      76750    78336 thru 78340  
 76568                      76751    78343  
 76595                      78256 thru 78269                      78344  
 76649                      78272    78347  
 76656                      78274    78348  
 76696                      78278    78350  
 76733                      78281    78353  
 76736 thru 76738                      78285 ..... 40 MPH..... 40 MPH.

CORX tank cars, when empty ..... 50 MPH..... 50 MPH.  
 CELX 6400-6455 and 10400-10443,  
 when loaded ..... 45 MPH..... 45 MPH.  
 (CELX 6400-6455 and 10400-10443, when loaded must not  
 be handled nearer than 6 cars from locomotive).

EMPTY Schnabel type cars:

APWX 1004 GEX 40010, 80002, 80003  
 BBCX 1000 GPIX 100  
 CAPX 1001 HEPX 200  
 CEBX 100, 101 KWUX 10  
 CPOX 820 WECX 101, 102, 200-203, 301  
 CWEX 1016 ..... 40 MPH..... 40 MPH.

All empty Schnabel cars listed must be handled on or near the  
 rear of trains not exceeding 100 cars in length, must not be  
 handled in trains requiring pusher service and must not be  
 humped or switched with motive power detached.

Hopper cars WFAH 84654 through 84700

and TUGX 36001 through 36125 ..... 45 MPH..... 45 MPH.

Empty covered hopper cars:

ASGX 1-50,  
 BCAX 50-149  
 CGLX 4200-4249,  
 CHTT 200400-200499  
 CRDX 3000-3014, CRDX 9905-9989, CRDX 9755-9904  
 CRDX 20100-20199, CRDX 20200-20209  
 CRDX 20300-20324, CRDX 20525-20724  
 CSXT 242000-242299  
 DME 29000-29324  
 DJLX 97300-97319, DJLX 97800-97999  
 ERCX 9400-9699  
 FLOX 3200-3241, FLOX 983400-983414  
 GACX 3000-3139, GACX 3150-3196  
 GACX 3202-3359, GACX 3486-3510, GACX 7959-8008  
 GCCX 55000-55099,  
 GPIX 9900-9999  
 IMRL 9200-9299  
 HS 1301-1331  
 LCEX 801-820, LCEX 824-898  
 NAHX 21000-21054, NAHX 29700-29867,  
 NAHX 320000-320399  
 NCUX 20001-20050, NCUX 20106-20130  
 NRLX 32500-32605, NRLX 32706-32725  
 NVCX 9500-9619  
 NS 294220-294319  
 RGCX 650-899, RGCX 902-1067  
 RGCX 1069-1142, RGCX 1183-1222, RGCX 5100-5102  
 RGCX 20051-20100  
 SDWX 9700-9919, SDWX 10000-10333, SDWX 11000  
 SHPX 132001-132056  
 SHPX 432118-432137, SHPX 432057-432116  
 TILX 2900-2904  
 WW 7001-7300 ..... 40 MPH..... 40 MPH.

(Unless no speed restriction is indicated by train  
 documentation)

Flatcars ATSF 190298, 209144, 209149,  
 loaded with track panels ..... 35 MPH..... 35 MPH.

**1(A). Control of Harmonic Rocking on Jointed Rail**

Under certain conditions, operation of trains between 13 MPH  
 and 21 MPH can cause derailments due to harmonic rocking  
 of cars. Where specified by individual subdivision special  
 instructions or general order, the following restrictions apply  
 when operating on jointed rail:

Freight trains, other than coal trains, ore trains, or trains  
 consisting entirely of empty equipment, which cannot maintain  
 a minimum speed of 21 MPH, must reduce speed to 13 MPH  
 or less until movement can again exceed 21 MPH.

**1(B). Maximum Speed of Engines**

Engines	MPH	When not controlled from leading unit (MPH)
Amtrak	90*	45
Metrolink	90*	45
Metra	79*	45
Souder (Sound Transit)	79*	45
All other classes	70	45

**Exception:** When the controlling locomotive of the train is a  
 car body type or has comfort design cab and is in the backing  
 position, maximum speed is 45 MPH.

\*Engine without cars must not exceed 70 MPH.

**1(C). Multiplatform Equipment-All Types and Single Unit  
 Intermodal Equipment TOB/Car Count and Speed  
 Restriction**

TSS Car Kind Codes	Car Description	Units or Segment- s	Maximum Car Length	Axle Count	Contr- ol Valves and/or Car Count	Trailers=T Container=C Either=T/C
Articulated cars						
QY	Doublestack	5	308 ft.	12	3	C
QV	Doublestack	3	190-204 ft.	8	2	T/C
QM	Spine Car	3	189 ft.	8	2	T/C
QC	Spine Car	3	189 ft.	8	2	T
QO	Spine Car	5	291 ft.	12	3	T/C
Q5	Spine Car	5	291 ft.	12	3	C
QE	Spine Car	5	291 ft.	12	3	T
FM	Twin Flat	2	88 ft.	6	2	C
M3F	Automax	2	144 ft.	6	2	
CSX	Superhopp- er	5	167 ft	12	3	
HT	Trough Car	13	279 ft	26	3/6#	
Non-Articulated Cars *						
QW	Doublestack	3	215-229.5 ft.	12	3	T/C
QX	Doublestack	4	286 ft.	16	4	T/C
QT	Doublestack	5	359 ft.	20	5	C
QB QD	Twin Flats	2	186 ft.	8	2	T
QL	Twin Flats	2	186 ft.	8	2	T/C
QDE	Front-Runner	4	188 ft.	8	4	T
Single Unit Intermodal Cars						
QU	Doublestack	1	72-77 ft.	4	1	T/C
QA	Front-Runner	1	51 ft.	2	1	T
QK	Doublestack	1	72 ft.	4	1	T/C

# For TOB calculation purposes, trough cars are counted as 6  
 cars each divided by total weight of the car. Refer to Special  
 Instructions, Item 3(C) for additional information on handling  
 this equipment.

Note: Multiplatform (articulated or non-articulated) intermodal  
 equipment (other than coal multiplatform equipment) is  
 identified with a single initial and number and its individual units  
 identified by a letter designation (refer to Special Instruction,  
 Item 41). Individual units of multiplatform solid drawbar-  
 connected (non-articulated) coal equipment are identified as  
 individual cars with a unique initial/number for each unit. Not all  
 conventional intermodal equipment is listed in the table.

**Car Kind Codes**

Car kind codes are usually 3 characters. On cars shown above, only the first two characters are required to identify car type, with the exception of CSX, M3F, and QDE.

**Definitions of Multiple-Unit Equipment**

*Articulated*—Refers to cars with multiple units (segments) that are connected with an articulated couplings that share a common truck.

*Non-Articulated*—Refers to cars with multiple units (segments) that are connected with solid drawbars. Each unit is a stand-alone unit and does not share a common truck with another unit.

**Tons Per Operative Brake (TOB)**

Tons per operative brake on cars above are determined by dividing the number of control valves/car count into the weight of the car. This can be determined without inspection as follows:

Articulated cars = total number of units divided by two, rounded up to next number divided into total weight of the car.  
(Example: five unit doublestack, Car kind code QY=3 by car count)

Non-articulated cars = total number of units divided into weight of car.  
(Example: Four Unit doublestack Car Kind Code QX=4 by car count)

**Speed**

In order to limit truck hunting, trains must not exceed 55 MPH unless all cars in train are loads. Caboose and any car loaded with container chassis are considered loads for the purpose of the rule.

*Articulated Cars*—Articulated spine cars (Car kind Codes QM, QC, QO, Q5, QE) are considered loads if it can be determined that car is loaded with at least one empty or loaded, container or trailer. Due to the load bearing characteristics of shared trucks on articulated cars, truck hunting is limited even when such cars have empty units. Empty articulated doublestack cars (Car Kind Codes QY or QV) and AutoMax cars (Car Kind Code M3F) may operate at maximum authorized speed when completely empty due to constant contact side bearings which prevent truck hunting.

\* *Non-Articulated Cars*—Non-articulated cars (Car Kind Codes QW, QX, QD, QB, QL, QT and QDE) are restricted to 55 MPH unless each unit is loaded with an empty or loaded trailer or container. These cars do not share a common truck and empty units are subject to truck hunting as with any empty, conventional car. (This may require a review of train documentation to determine). Non-articulated, Twin Flats (TTEX, FEC and CN) can be loaded with three 48'-57' or four 45' or shorter trailers. When loaded with three trailers, trailer can straddle the drawbar. Each unit must be loaded with all or one-half of a trailer to be considered loaded for movement at speeds greater than 55 MPH. (More than 90' of total trailer length shown on train documentation indicates each unit is loaded or the car must be visually inspected.)

**2. Locomotive and ETD Information**

Locomotives coupled together in multiple-unit configuration must be limited to 12 locomotives.

When locomotive consist exceeds 8 locomotives, 200 tons per locomotive exceeding 8 will be included when calculating TOB.

**2(A). 2-Way ETD Grade Reference Chart for 2-mile / 2% Grades**

Trains operating on the following grades listed must be equipped with an operable 2-way end-of-train telemetry device (ETD and HTD) or equivalent device. However, passenger trains do not require a 2-way EOT or equivalent device.

- Cajon Sub. .... MP 56.6 to MP 80, all tracks
- Raton Sub. .... MP 639 to MP 660
- Glorieta Sub. .... MP 775 to MP 810 and MP 818 to MP 842
- Pikes Peak Sub. .... MP 52 to MP 66
- Hi Line Sub. .... MP 1151 to MP 1166, both tracks
- Midway Sub. .... MP 0.5 to MP 5, both tracks
- St. Paul Sub. .... MP 430 to MP 5, both tracks
- Scenic Sub. .... MP 1694.5 to MP 1731.3
- Stampede Sub. .... MP 41.0 to MP 58.5
- San Diego Sub. .... MP 250 to MP 255 (SDN RR)
- Gateway Sub. .... MP 178.0 to MP 188.0

**On UP Railroad:**

- Mojave Sub. .... MP 331.3 to MP 381.3
- Moffat Tunnel Sub. .... MP 19 to MP 50 and MP 58.1 to MP 61.7
- Provo Sub. .... MP 630.5 to MP 638.1 and MP 652 to MP 682
- Roseville Sub. .... MP 115 to MP 170 and MP 195 to MP 210

2(B). Locomotive Data Tables

DC Traction Locomotives				
Model	Rated Powered Axles	Rated Dynamic Brake Axles	Horsepower	Weight
SW1	4	0	600	198,000
SW10	4	0	1,000	250,000
NW10	4	0	1,200	252,000
SW12	4	0	1,200	250,000
GP15	4	0	1,500	262,000
SW15	4	0	1,500	261,000
MK1200G	4	0	1,200	250,000
SWBL-W	4	0	1,500	262,000
GP7	4	0	1,500	249,000
GP9	4	4 *	1,750	259,000
GP9B	4	0	1,750	248,000
GP10	4	0	1,800	260,000
GP15 GP15-1	4	0	1,500	258,000
GP18	4	0	1,800	248,000
GP20	4	4 BT	2,000	261,000
GP28 M/P	4	4 BF	1,800	260,000
GP30	4	4 BT	2,500	262,900
GP35	4	4 BT	2,500	266,000
GP38, GP38-2	4	4 ET	2,000	285,000
GP39, GP39-2	4	4 EF #	2,300	270,000
GP40 M,E,-2	4	4 BF	3,000	278,000
GP40X	4	4 BF	3,000	278,000
GP50	4	4 EF	3,600	275,000
GP53, GP53L	4	4 EF	3,000	272,000
GP60M	5 +	5 EF +	3,800	274,000
GP60B	5 +	5 EF +	3,800	270,000
B23-7	4	4 EF	2,300	268,000
B30-7A	4	4 BF	3,000	275,000
B36-B-7	6 +	4 EF	3,600	280,000
B-39-8	6 +	5 EF +	3,900	280,000
B-40-8	6 +	5 EF +	4,000	283,000
SD7	6	5 BF +	1,500	314,500
SD9	6	5 *	1,750	368,000
SD18	6	0	1,800	349,000
SD35	6	5 * #	2,500	390,000
SD38-2	6	6 * #	2,000	368,000
SC38P	6	6 BF	2,000	391,000
TEBC6	6	6B	2,000	387,000
SD39	6	6 EF	2,500	389,000
SD40, SD40-2	6	6 EF * #	3,000	391,000
SD45, SD45-2	6	6 ET	3,600	395,000
SDFP45	6	6 ET	3,600	395,000
SD50	6	6 EF	3,600	388,000
SD60, SD60M	7 +	8 EF **+	3,800	401,000
SD70M	7 +	9 EF +	4,000	400,000
SD75M	7 +	9 EF +	4,300	394,000
C30-7	6	6 EF #	3,000	417,000
SF30C	6	6 EF	3,000	319,500
C36-7	6	6 EF	3,600	394,000
C40-8	7 +	8 EF +	4,135	394,000
C44-9W	8 +	8 EF +	4,400	392,000/419,000

- + Power or dynamic brake axle rating exceeds actual axles
- \* May not be equipped with dynamic brakes
- # May be equipped with standard range dynamic brake
- \*\* UP 6000-6059 are rated at 6 dynamic brake axles

AC Traction Locomotives				
Model	Rated Powered Axles	Rated Dynamic Brake Axles	Horsepower	Weight
C44AC <sup>1</sup> & C60/44AC <sup>1</sup>				
All TM operating	9 +	10 +	4400 <sup>3</sup>	420,000
1 TM c/o	9 +	8 +		
2 TM c/o	6	6		
3 TM c/o	4	5		
4 TM c/o	3	3		
5 TM c/o	2	2		
C60/44 <sup>1</sup> (UP 7300-7335)				
All TM operating	9 +	12 +	4400 <sup>3</sup>	420,000
1 TM c/o	9 +	10 +		
2 TM c/o	6	8 +		
3 TM c/o	4	6		
4 TM c/o	3	4		
5 TM c/o	2	2		
C44AC <sup>1</sup> (Canadian Pacific)				
All TM operating	9 +	8 +	4400 <sup>3</sup>	420,000
1 TM c/o				
2 TM c/o				
3 TM c/o				
4 TM c/o				
5 TM c/o				
C60AC <sup>1</sup>			6000	420,000
All TM operating	10 +	12 +		
1 TM c/o	10 +	10 +		
2 TM c/o	8 +	8 +		
3 TM c/o	6	6		
4 TM c/o	4	4		
5 TM c/o	2	2		
SD70MAC			4000	415,000
All TM operating	8 +	8		
1 Truck c/o	4	5		
SD80MAC			5000	420,000
All TM operating	9 +	10		
1 Truck c/o	5 +	5		
SD90/43MAC			4300 <sup>3</sup>	415,000
All TM operating	9 +	10		
1 Truck c/o	4	6		
SD90MAC			6000	415,000
All TM operating	11 +	11		
1 Truck c/o	6	6		

+ Power or dynamic brake axle rating exceeds actual axles  
<sup>1</sup> GE Locomotives (C44AC, C60AC, etc.) have one inverter per axle and can have individual traction motors cut out as with DC locomotives.  
<sup>2</sup> Dynamic braking is operational with Inverters/Traction motors cut out on AC locomotives.  
<sup>3</sup> Convertible unit to be upgraded to 6000 hp.  
 Note: It is permissible to cut out traction motors or trucks on units equipped with locked axle protection (GE AC, GE C40-8, GE C44-9 and EMD AC locomotives) in order to comply with the above axle limitations. All locomotives rated at 3,800 hp or less are given a rated powered axle rating (RPA) equal to their "actual" axles.

**2(C). TFM Locomotives**

TFM 1505 through 1515 must not be used as the lead locomotive in an engine consist.

**3. Equipment Restrictions**

The following equipment must be placed next ahead of caboose or at rear of cabooseless trains, except in work trains, unless otherwise indicated in the individual subdivision special instructions.

- Outfit cars (Exception: Univans may be placed anywhere in the train.)
- Pile drivers
- Locomotive cranes
- Ribbon rail loading and unloading cars
- Empty ribbon rail cars
- Rear end only cars
- Jordan spreaders
- Rotary snowplows
- Wedge plows
- Dozers

Except as provided in Item 1, scale test cars must be placed ahead of caboose or, on cabooseless trains, ahead of the last car.

Scale test cars must not be humped.

When locomotive cranes/pile drivers, wrecking derricks or similar equipment are being moved on their own wheels or on cars in a train, they will be handled on the rear of the train only.

**Exception:** Locomotive cranes/pile drivers AT 199454 through AT 199468 must be handled in trains next to the engine.

This equipment must be properly loaded and secured. Booms must be properly secured and, when possible, boom must be trailing. Equipment must be inspected before being moved. Such equipment is allowed to operate on any subdivision designated as Main Line but must not be operated on any subdivision designated as Branch Line unless authorized by roadmaster or covered by specific instructions. Equipment of this type must not be humped.

Spreaders and dozers being moved in trains must, when possible, be headed in the direction train is moving, and wings must be properly secured.

DODX 40000-40100 are cars belonging to the Department of Defense. Handbrakes on these cars must not be used to control movement and must be applied from a ground position while car is standing.

Loaded ribbon rail cars must not be:

- Coupled to other cars except buffer cars. (Buffer cars will be placed ahead of and behind ribbon rail cars at welding plant.)
- Handled in freight service with other cars unless authorized and train is equipped with Rail Movement Detectors (RMD).
- Separated for maintenance or repairs unless under direct supervision of a roadmaster.

**3(A). Multi-Platform and Stack Intermodal Cars**

Unless otherwise indicated in the individual subdivision special instructions, multiplatform stack intermodal cars are authorized for movement on tracks with weight limit of 177,000 pounds or more.

These cars must not be cut off in motion or struck by any car moving under its own momentum.

**3(B). Rotary/Rapid Discharge Coal Cars**

All cars equipped with dump door air lines, this includes foreign line cars, having:

- elevated hoses for dump door air line or,
- air brake train line on one side of coupler and the dump door air line on the other side (both hoses at end sill level) must have the dump door air line coupled between cars equipped in unit trains or in proper receptacle to prevent dragging when not in use.

Note: Connect door air line hoses to locomotives only when at unloading facility or shortly before unloading.

**3(C). Trough Cars—BN 552000 through BN 552022 (13 section articulated coal cars, 278 ft. long)**

**Speed restrictions**—None (unless there are restrictions on individual subdivisions based on gross weight of car and its axle equivalency).

<b>Gross Weight of Trough Car</b>	<b>Axle Equivalency</b>
855 tons .....	263,000 lb.
871 tons .....	268,000 lb.
884 tons .....	272,000 lb.
904 tons .....	278,000 lb.
917 tons .....	282,000 lb.
930 tons .....	286,000 lb.

**Switching restrictions**—Trough cars must not be cut off in motion or struck by any car moving under its own momentum.

**Coupling speed restrictions**—Due to unique design and experimental nature of this equipment, when coupling to or coupling with loaded Trough Cars, maximum speed must not exceed 2 MPH. To comply with this speed, when coupling to or coupling with loaded Trough Cars, stop movement 10 to 20 feet short of a coupling, then proceed to couple cars.

**Hand brakes** (there are four hand brakes per trough car)

- All four hand brakes are accessible only from the left side of the trough car.
- Operate hand brake only when car is stopped. Do not attempt to apply hand brake while car is moving.
- When hand brake is required, apply all four hand brakes on a car.
- When applying hand brakes because of grades, use the same required percentage of cars, rounded upward to the next **whole** car. For example: if there are 22 trough cars in a train, and the requirement is 10% of cars need hand brakes applied, then the requirement for hand brakes is 2.2 cars, rounded upward to 3 whole cars, so apply all four hand brakes on 3 trough cars.

**Air cut-out cocks** (there are three air cut-out cocks per trough car)

- All three air cut-out cocks are accessible only from left side of the trough car.
- Each air cut-out cock controls four trucks - two on each side of the control.
- To cut out air, pull up on rod end and pull out away from car, directions are on a decal above the air cut-out cock.

**Dump door line air hoses**

- The dump door line air hoses must be coupled between all trough cars, and must be coupled above train line air hoses.
- At front of train and rear of train, dump line air hoses must be secured so as not to drag on ground.
- Connect dump door air line hoses to locomotives only when at unloading facility or when near unloading facility shortly before unloading.

**3(D). V-Slope Flat Cars**

V-Slope Flat Car loads of pulpwood logs, without side retainers, are restricted to 35 MPH and must be observed closely enroute. Trains handling these cars will stop before passing through truss or girder bridges and crew will inspect cars to ensure safe passage through bridge before proceeding.

**3(E). Two-Axle Cars**

Hand brakes must not be depended upon to hold two-axle cars. When a two-axle car is set out, it must be chained to the rail or coupled to a non-two-axle car with operative hand brake.

**3(F). Air Dump Cars**

Employees are prohibited from riding in air dump cars. Cars must not be moved with doors open, except as necessary to clear material just dumped. Air dump cars must not be cut off in motion or struck by any car moving under its own momentum.

When air dump cars are being operated, the conductor must personally supervise the handling to see that all locked devices are in proper position and that all people are in the clear before charging actuating air line and before they are operated.

Only employees who are knowledgeable in the operation of air dump cars may operate such cars in unloading operations. When coupling actuating air hoses, not more than three air dump cars may be charged at a time.

Before charging the actuating air line, or before attempting to dump air dump cars, it must be known that protection against movement on adjacent tracks which could be fouled by material to be dumped, has been provided as follows:

- If the adjacent track is an auxiliary track, except where CTC is in effect, movement must not be permitted to pass air dump cars which are being charged or being unloaded.
- If the adjacent track is a main track, authority must be obtained as prescribed by MWOR Rule 6.3.1 (Main Track Authorization) or flag protection must be provided in both directions as prescribed by MWOR Rule 6.19 to control movement by the work area.

**3(G). Caboose Placement**

All cabooses other than the working caboose moving in trains for any reason, are to be handled on rear of train or just ahead of working caboose, except:

- Trains operating with helpers on the rear end must have cabooses other than the working caboose placed behind helpers.
- Trains or yard movements limited to maximum speed of 10 MPH may operate with caboose placed anywhere in train.
- Cars with defective couplers may be transported to repair facilities behind caboose.

**3(H). Georgetown Equipment Restrictions**

Georgetown Rail Equipment cars (cars with initials GREX) must not be cutoff in motion or struck by any car moving under its own momentum. They must not exceed 5 mph through other than mainline turnouts. "Georgetown Dump Train" car sets (series GREX 2000-2999, 4000-4999, 8000-8999) must be placed next ahead of the caboose or at the rear end of caboosless trains, except they may be in any location in work trains. Other GREX cars not in the series mentioned do not have train placement restrictions.

**3(I). GTTX Equipment**

All GTTX cars are restricted to rear end only unless the train consists entirely of GTTX equipment. No more than 25 GTTX cars may be handled in any train unless the train consists entirely of GTTX equipment.

**3(J). AMGX Equipment Restrictions**

Gondola cars in series AMGX that are solid drawbar connected must be placed as rear end cars only and are restricted to 50 MPH. For the purpose of this rule these cars may be placed in the rear five cars of the train. Solid blocks of this equipment may extend up to 20 cars from the rear of the train if the trailing car of the block is in the rear five cars.

**4. Geometry Test Car Instructions**

Engine(s) handling geometry test car(s) 80/81 and 85/86 may observe passenger train speed on curves not to exceed 70 MPH as shown in individual subdivision special instruction 1(A) provided the purpose of train is to test track structure.

Geometry test cars 80/81 and 85/86 must move in train by themselves and are not required to have an ETD at the rear of the car when the car is occupied.

GCOR Rule 7.3 and 7.9 must be used when switching and geometry test cars must not be cut off in motion or struck by any car moving under its own momentum. They must not be coupled with more force than is necessary to complete the coupling, not exceeding coupling speed of 2 MPH. These cars must receive careful handling at all times.

When not on a train, cars must be protected as prescribed by GCOR Rule 5.12 or 5.13. These cars are considered to be occupied at all times.

Geometry Test Cars 81 and 85 are equipped with Hot Bearing Simulators. If a hot bearing is indicated by a Trackside Warning Device (TWD), conductor will contact geometry car operator to determine if indicated axle is equipped with Hot Bearing Simulator, if equipped, inspection will not be required.

**5. Car Restrictions**

Item 2 of the individual subdivision special instructions indicates a maximum gross weight of car and a letter restriction (A through H).

The maximum gross weight of car restriction is applicable only to four-axle cars with a coupled length of 49 feet 6 inches or greater. The maximum gross weight of car restriction for cars shorter than 49 feet 6 inches, six-axle cars, eight-axle cars or other specialty cars can be obtained from Table 5 by cross referencing the car length and the letter restriction for the subdivision.

Example: Item 2, Individual Subdivision Special Instruction of subdivision XXX indicates a maximum gross weight of car of 143 tons, Restriction E.

- for hoppers 53' long, the maximum gross weight/car = 143 tons from Item 2 (or by looking at line 8, column E)

- for tank car 43' long, the maximum gross weight/car = 136 tons (line 6, column E)

Cars that do not meet the weight limits specified in Table 5 or in Item 2 of the individual subdivision special instructions or in any part of the following paragraphs are not permitted without authority of System Structures Department or BNSF Clearance Bureau. 35-ft. cars (BNSF 601090-601179) loaded to 143 tons may operate only on the Hibtac, Casco, Lakes (between Superior and Gunn) and Allouez Subdivisions. These cars must comply with weight limits indicated in Table 5 when operating on all other subdivisions.

Actual car weight may exceed the maximums by up to one ton due to weighing tolerances. Weight and length restrictions indicated in this section and in Item 2 of the individual subdivision special instructions do not apply to multiple-unit double stack well cars or locomotive cranes.

When single car movements apply to the movement of cars weighing over 143 tons and up to 157.5 tons as specified in Table 5 for '143X', single car movements shall denote that the car shall be separated from the locomotive and from other cars weighing more than 143 tons by at least one car weighing no greater than 143 tons. One train may contain up to ten '143X' cars weighing over 143 tons and up to 157.5 tons with separation meeting the single car movement definition noted above.

Car Restrictions										
Line No.	No/Axles and/or Car Length	Typical Car Types & Partial Listing of Representative Car Number Series	Maximum Weight of Car (Tons) Based on Car Restrictions Class A through H							
			A	B	C	D	E	F	G	H
1	4 axles & length less than 35'0"	Hopper	89	NP	89	NP	NP	NP	NP	NP
2	4 axles & length 35'0" to 36'11"	Hopper, tank cars BN 99000-99949, BN 98000-98189, BNSF 601090-601179	134	117	134	117	110	110	110	110
3	4 axles & length 37'0" to 38'11"	Hopper, tank cars ATSF 82056-82990, 176900-177861	141	123	141	123	117	117	117	117
4	4 axles & length 39'0" to 40'11"	Hopper, tank cars BN 435500-435999	143	131.5	143	131.5	123	123	123	123
5	4 axles & length 41'0" to 42'11"	Hopper, tank cars BN 476000-476019	143	143	143	143	134	134	134	131.5
6	4 axles & length 43'0" to 44'10"	Hopper, tank cars	143	143	143	143	136	136	134	131.5
7	4 axles & length 44'11" to 49'5"	Hopper, gondola, tank cars BN 686000-686054 COILCARE	143	143	143	143	143	136	134	131.5

Car Restrictions										
Line No.	No/Axles and/or Car Length	Typical Car Types & Partial Listing of Representative Car Number Series	Maximum Weight of Car (Tons) Based on Car Restrictions Class A through H							
			A	B	C	D	E	F	G	H
8	4 axles & length greater than or equal to 49'6"	Hoppers, flats, gondolas, tank cars	143X	143X	143	143	143	136	134	131.5
9	278'	13-unit trough car BN 552000-552022	930	930	930	930	884	884	871	NP
10a	6 axles	ACFX 88348-88373, CELX 6400-6458, CELX 10400-10438, DODX 40000-40573, DUPX 29400-29439, 29600-29666, HCMX 4402, KCS 700002-700053, KRL 600908-600910 NS 185541-185542,	197	197	197	197	197	197	185	NP
10b	6 axles	DODX 39810-39832, KRL 600430	197	197	185	185	185	178	175	NP
11	6 axles	Others	185	185	170	170	170	165	160	NP
12a	8 axles & length greater than or equal to 80'0"	ATSF 90001-90004, 90006-90007, ATSF 90011-90016, BN 631021	263	263	263	263	263	235	235	NP
12b	8 axles & length greater than or equal to 55'0" and less than 80'0"		263	255	263	255	235	235	235	NP
13	8 axles & length less than 55'0"	ATSF 90020-90023	220	195	220	195	180	180	180	NP

**6. Work Order: Instructions for Reporting Work**

Conductors and engine foremen are responsible for documenting and reporting all scheduled and unscheduled work performed during their tour of duty. Timely reporting by radio communication, telephone, cellular phones, and electronic devices such as computers is key to maintaining current inventory, accurate records and a successful operation.

Unless otherwise designated by the division, all trains except work trains and those trains currently reporting via the Work Order Reporting System will be required to use the Voice Train Reporting System to report arrivals, departures, pickups and setouts that were previously reported enroute or at the completion of their trips.

Communication between the train and the VTR System will be by MRAS/PBX radio and telephone.

When reporting by Voice Train Reporting and Work Order Reporting are not possible, conductors and engine foremen are expected to contact the Customer Support Specialist promptly after completion of work performed at each station.

Work orders issued to train and switch jobs will list all scheduled work.

Conductors and engine foremen must know the **proper TSS track numbers** where they report work. Refer to the TKLIST command in TSS for track numbers at a station or on a subdivision.

Train Work Order Package includes the following documents:

- Train list and profile
- FRA 215.9 Mechanical Defective Cars List (if applicable)
- Hazardous manifest (if train contains hazardous materials)
- Work order for each station
- Track list of each track to be worked
- Supplemental Work Order Form

The following reporting codes will be used to report work performed:

Reporting Codes	
Reporting Instructions for Scheduled/Unscheduled Work	
Code	
MO	<b>MOVE</b> - (Code, date, time, station name, zone/track/spot). Use only to reposition a placed car to correct customer inventory.
SP	<b>SPOT</b> - (Code, date, time, zone/track/spot) When cars are spotted to an industry track and no spot number is provided, use "01" as a spot number.
PU	<b>PULL</b> - (Code, date, pull time, station name, zone/track where cars are pulled from. Also include date, time station, zone/track where cars were left.)
IP	<b>INTRA-PLANT SWITCH</b> - (Code, date, time, zone/track/spot)
RS	<b>RESPOT</b> - (Code, date, time, zone/track spot)
PK	<b>PICKUP</b> - (Code, date, time, station name, track, location in train) Display train location using one of the following codes (HE-Head End, RE-Rear End, FB-Fill Behind). When filling behind cars in the train, enter the initial/number of the car the pickup will follow in standing order.
RR	<b>CARS RECEIVED IN INTERCHANGE</b> - (Code, date, time, station name, zone/track, and name of road)
SO	<b>SETOUT</b> - (Code, date, time, station name, zone, track, timetable direction and standing order) When track length will not hold all cars to be set out, enter first car initial/number and track where remaining cars were moved. If cars are set out on an interchange track, refer to reporting code DD.
TU	<b>CARS TURNED ON WYE OR TURNTABLE</b> - (Code, date, time, station name, zone/track/spot)
OF	<b>CARS OFFERED OR NEEDING OFFERED TO A CONNECTING ROAD</b> - (Code, date, time, station name, zone/track, name of road and person's name refusing cars)
DD	<b>CARS DELIVERED IN INTERCHANGE</b> - (Code, date, time, station name, zone/track, and name of road)
CC	<b>CARRIERS CONVENIENCE</b> - (Code, date, time, station name, zone, track where cars were left) Cars left on an industry track for carrier convenience must not include a spot number.
ND	<b>NOT DONE</b> - (When ND code is used, enter ND explanation code or a full written explanation.)

The following reporting codes will be used to report work not performed:

Reporting Codes	
Code	Not Done Codes and Definitions
AC	Work was already accomplished.
BO	Car ordered to spot/pull is bad ordered, derailed, needs clearance or inspection.
CG	Car missing from track or location.
CN	Car cannot be pulled - Customer responsibility - Explain reason.
CX	Car cannot be spotted - Customer responsibility - Explain reason.
FS	Full spot, no room to spot car.
HS	Could not perform switch on account of Hours of Service.
ID	Instructions from dispatcher.
IS	Instructions from supervisor.
MA	Mutual agreement with the customer.
NA	Not in train, not switched, unavailable.
NT	No overtime/short on time.
OW	Other reasons not caused by customer - Explain reason.
PR	Engine restrictions or problems - Explain reason.
RT	Work done on return trip or in other direction.
SA	Substituted another car in place of ordered equipment.
TB	Track blocked/out of service/not by customer - Explain reason.
UC	Unsafe conditions exist/weather - Explain reason.

**Reporting Methods**

*Radio* – With the exception of trains using the Work Order Reporting system or when reporting work trains, Voice Train Reporting using the MRAS/PBX system is the preferred method of reporting work. Conductors and engine foremen are expected to report as soon as possible after work is performed at each station. If Voice Train Reporting (VTR) or Work Order Reporting System (WORS) is used to report, it is not necessary to call Customer Support.

*Telephone or Cellular Phones* – Telephone or cellular phones assigned to conductors and engine foremen may be used when MRAS/PBX or radio communication is unavailable or radio is congested in order to provide timely reporting in the field.

*Electronic Device* – Computer reporting will not require any written documentation to be forwarded.

Conductors and engine foremen are required to call their designated Customer Support Specialist anytime there are questions or problems with work order information or work to be performed during their tour of duty.

**Work Order Codes**

There are three types of work order codes that appear on work orders: Request Codes, Status Codes and Hold Codes.

Request Codes	
Code	Displays Work to Be Performed
SP	<b>SPOT</b> - Customer request to spot car for loading/unloading.
PU	<b>PULL</b> - Customer request to move a car from an industry track to another track or scheduled destination.
IP	<b>INTRA-PLANT SWITCH</b> - Customer request to move a car originally spotted correctly to another spot or track within the industry. Cars are commonly moved per this request to complete loading, for inspection, etc. This switch is chargeable to the customer.
RS	<b>RESPOT</b> - This switch is not chargeable to the customer and should be used only when correcting a railroad error. Customer request to move a car to a different track or spot within the industry after being placed incorrectly.
TU	<b>CARS TURNED ON WYE OR TURNTABLE</b> - Request to turn a car previously spotted and re-spot.
PK	<b>PICKUP</b> - Cars available to be picked up by train, local, road switcher at station.
SO	<b>SETOUT</b> - Cars scheduled to be set out by train, local, road switcher at station.
Status Codes	
Displays Current Status of Cars (Does not require any work to be performed)	
Code	
PL	<b>PLACED</b> - Car on spot. (Displays car status and not a request.)
CP	<b>CP</b> - Constructive placement. (Condition between carrier and customer.)
OF	<b>CARS OFFERED OR NEEDING OFFER TO A CONNECTING ROAD</b> - Displays to the carrier, cars normally delivered in interchange cannot be delivered due to connecting road's inability or unwillingness to accept cars.
DD	<b>CARS DELIVERED IN INTERCHANGE</b> - Displays cars scheduled for interchange delivery to a connecting road.
Hold Codes	
Carrier/Customer Instructions Have Not Been Provided	
Code	
HOLD MT	Car not scheduled for outbound train. (Hold code appears in the Scheduled Train field.)
HOLD NI	Car has no instructions for spotting. (Hold code appears in the Scheduled Train field.)
HOLD HL	Car is HIWIDE and has not been scheduled to a train. (Hold code appears in the Scheduled Train field.)
HOLD LS	Car is on floating lease. (Hold code appears in the Scheduled Train field.)
HOLD ED	Car to be held for equipment distribution. (Hold code appears in the Scheduled Train field.)
HOLD WH	Car is to be held for weighing. (Hold code appears in the Scheduled Train field.)
HOLD OT	Car is to be held for local order. (Hold code appears in the Scheduled Train field.)
HOLD ME	Car is to be held for mechanical inspection. (Hold code appears in the Scheduled Train field.)
HOLD EH	Car is to be held for embargo. (Hold code appears in the Scheduled Train field.)
NC *	Non-credit customer. DO NOT SPOT. (Code appears in the SCHI field.)
DO *	Written delivery order. DO NOT SPOT. (Code appears in the SCHI field.)
SO *	Car billed shipper's order. DO NOT SPOT. (Code appears in the SCHI field.)
Zn Tk Sp * 00 00 00	* Do not spot cars with '00 00 00' in the ZNTKSP field or cars with NC, DO or SO in the SCHI field. (Cars may be pulled or picked up and moved to a location for further disposition when these codes are displayed.)

Work order documents will display work order codes as outlined by customer or carrier for specific instructions to conductors or engine foremen. They will be located in the

Special Car Handling Instructions (SCHI) column or in the Scheduled Train column.

**Hours of Service**

Conductors or engine foremen should plan ahead and report scheduled and unscheduled work before hours of service expire. Conductors and engine foremen who relieve crews whose hours of service have expired will be responsible for reporting work performed during their tour of duty. If a crew's hours of service expire and they are unable to report scheduled or unscheduled work, the information must be passed on to the relieving conductor, engine foreman or supervisor who will be responsible to report work for the previous job.

**Pick Up in Block**

When picking up cars, enroute, trains must pick up in block unless otherwise advised by train dispatcher or in conflict with current train make-up instructions.

**7. Dimensional and Special Shipment Restrictions**

All employees involved in handling dimensional or special shipments must be familiar with and are governed by these instructions.

Note: Dimensional loads on BNSF are defined as wider than 11' and/or higher than 17' ATR and/or longer than the length of the car.

- a. Any dimensional and/or oversize car or special shipment must be accompanied by one of the following: message included with train's work order, track bulletin or message issued by BNSF Clearance Bureau.
- b. Before a dimensional or special shipment can be moved in a train, yard forces or employee in charge of station where no yard forces on duty, must obtain permission from the train dispatcher. This does not relieve conductor from complying with Rule 1.47 of the General Code of Operating Rules. When yard supervisors are notified of expected arrival of wide cars, precautions must be taken to safeguard employees in yard.
- c. Before a dimensional shipment is picked up on line, conductor must obtain permission from the train dispatcher. When dimensional or special shipment is set out on line, conductor must promptly notify the train dispatcher.
- d. Train dispatcher must issue appropriate track warrant, track bulletin or message when dimensional shipment restricts opposing train and confirm message received.
- e. Train with dimensional shipment must not pass or be passed by a train in the same direction unless authorized by the train dispatcher or proper safeguards taken.
- f. To provide for close observation enroute, all dimensional shipments must be placed in a block next to the lead locomotive consist and Boeing dimensional shipments identified as having contents ACFTEQ on the train list, if any, must be ahead of all other dimensional shipments. Only 10 dimensional Boeing loads/empties contents of ACFTEQ may be placed in a train.

Note: In the application of the above, FTTX flatcars and autoveyors (car kind M3E and M3F) are not considered dimensional shipments. (See Item 46)

**Exceptions:**

1. On trains destined to or operating in the state of California, and train room permits, dimensional shipments must be no closer than the 6th car or platform from the lead locomotive consist.
2. Dimensional shipments, including idler cars moving with dimensional shipments, must be placed in compliance with minimum weight requirements

outlined in train make up rules. However, placement of dimensional shipments must otherwise be as close to lead locomotive as possible.

3. Trains received from foreign railroads with dimensional shipment placement other than described above, may proceed to a location specified by train dispatcher to correct the condition.
4. When dimensional shipment is found to be a shiftable load, GCOR Rule 1.37 will apply.
- g. Employees are prohibited from riding excessive dimension cars.
- h. Train crews handling dimensional and/or oversize car or special shipment car(s) approaching locations in CTC, interlocking or double track territory where these car(s) are restricted should communicate with the dispatcher and jointly determine if a meet or pass of any other equipment at the restricting location(s) can be accomplished safely.
- i. When the dimensional message indicates "Stop, Proceed on Hand Signals" at a bridge in conductor only operations, the following will apply:
  - Stop the train before entering the bridge.
  - Conductor will check the dimensional load for shifted contents.
  - Engineer will protect his side of the train through the mirror.
  - Conductor will protect the other side of the train.
  - Move through the bridge not exceeding 5 MPH until the dimensional shipment clears the bridge.

**8. Trackside Warning Devices (TWD)**

**8(A). Description**

Trackside warning devices (TWD) inspect passing trains for defects or monitor for unusual trackside conditions that could adversely affect the safe and efficient movement of trains. Examples of such devices include the following:

- Overheated journal bearings (hot box) (HBD)
- Hot wheels
- Dragging equipment detector (DED)
- High/Wide/Shifted load (SLD)
- High water detector
- Earth/Rock slide fence

Individual subdivision special instructions identify the following:

- Detector location
- Detector type

Unless otherwise stated, protection will be hot journal and dragging equipment with bidirectional operation.

Exceptions will be shown as follows:

- Northward direction only (NWD)
- Southward direction only (SWD)
- Eastward direction only (EWD)
- Westward direction only (WWD)
- Dragging equipment only (DED)
- Shifted load only (SLD)
- Detectors that protect bridges, tunnels or other structures
- Exception Reporting detector

When a shifted load or dragging equipment detector is actuated at a point where an adjacent main track or controlled siding may be obstructed, crew must provide protection as prescribed by Rule 6.23.

**8(B). Detector Radio Message**

A message "You have a defect" will be transmitted during train passage if a defect is detected. When this message is

received from a TWD, immediately reduce train speed to less than 30 MPH, utilizing train handling methods that minimize in-train forces. After train passes the detector, a radio message will be transmitted (unless defined as "Exception Reporting" or "Failure Reporting" in Item 5(B) of the individual division timetables).

This message will indicate "no defects" or will state any "alarms" or "integrity failures" that were detected during train passage.

The detector message is not complete until "Out" is received.

**Train Approaching Detector**

Except in emergency, when approaching train is within 150 feet of a TWD, DO NOT make a radio transmission until the entire train has passed the TWD.

**8(C). Detector Message and Train Crew Action**

Use the following table to determine crew requirements when a detector message is received. If detector indicates more than one detector message or circumstance, comply with each train crew action shown. Radios at Exception Reporting detectors will only transmit a message when an alarm is present. Do not report a failure to transmit to the train dispatcher as is required with other types of detectors.

Note: 5(A) indicates detectors that protect bridges, tunnels or other structures. 5(B) indicates other TWD locations.

Type Detector	Non-Alarm Message	Train Crew Action	Additional Instructions
5(A) or 5(B)	When detector announces "...no defects", "Maintenance Required" or when advised by signal maintainer or train dispatcher that there are no defects.	Proceed.	Report "Maintenance Required" to the train dispatcher, unless "Train Too Slow" is transmitted in the same message. Then, no report to the train dispatcher is required.
5(A)	"Integrity failure"	Stop, Make a walking inspection of both sides of entire train before reaching bridge, tunnel, or structure being protected.	Report integrity failure to train dispatcher.
5(A)	"Train too slow" or Crew is notified by train dispatcher or signal maintainer that TWD is out of service.	Proceed.	None
5(B)	"Train too slow" or "Integrity Failure" or "Maintenance Required" or Crew is notified by train dispatcher or signal maintainer that TWD is out of service.	Proceed.	Report "Integrity Failure" or "Maintenance Required" to the train dispatcher unless "Train Too Slow" is transmitted in the same message. Then, no report to the train dispatcher is required.

**Table No. 2 - 8(C) Alarm Message**

Type Detector	Alarm Message	Train Crew Action	Additional Instructions
5(A) or 5(B)	"First hot box right/left side axle XXX" or "First dragging equipment near axle XXX" or "First hot wheel right/left from axle XXX to axle XXX" or "First wide load right/left side near axle XXX" or "Shifted load right/left side near axle XXX"	<ol style="list-style-type: none"> <li>1. As soon as message "...you have a defect" is received, immediately reduce train speed to less than 30 MPH.</li> <li>2. Stop the train.</li> <li>3. inspect the indicated axle(s).</li> <li>4. If no defect is found, inspect 12 axles forward and 12 axles to the rear of the indicated axle regardless of whether a defect is found before reaching the 12th axle.</li> <li>5. Report findings to the train dispatcher.</li> <li>6. When defective car(s) are set out or continue in train, notify the train dispatcher and Mechanical Help desk.</li> </ol>	<p>Detector alarm message may identify more than one defect. Inspect train for all reported defects before proceeding.</p> <p>If detector alarm message does not include axle designation, inspect both sides of entire train.</p>
5(A) or 5(B)	"Excessive Alarms"	<ol style="list-style-type: none"> <li>1. As soon as message "... you have a defect" is received, immediately reduce train speed to less than 30 MPH.</li> <li>2. Stop the train.</li> <li>3. inspect the indicated axle(s).</li> <li>4. If no defect is found, inspect 12 axles forward and 12 axles to the rear of the indicated axle regardless of whether a defect is found before reaching the 12th axle.</li> <li>5. Inspect both sides of the remainder of the train from the last reported defect.</li> <li>6. Report findings to the train dispatcher.</li> <li>7. When defective car(s) are set out or continue in train, notify the train dispatcher and Mechanical Help desk.</li> </ol>	<p>Detector alarm message may identify more than one defect. Inspect train for all reported defects before proceeding.</p> <p>If detector alarm message does not include axle designation, inspect both sides of entire train.</p>

**Table No. 3 - 8(C) Other Circumstances**

Type Detector	Circumstance	Train Crew Action	Additional Instructions
5(A) or 5(B)	Total axle count transmitted varies by more than 16 axles from total axle count transmitted from a previous detector or Speed varies by more than 10 MPH from actual speed.	<ol style="list-style-type: none"> <li>1. Stop the train.</li> <li>2. Make a walking inspection both sides of entire train.</li> <li>3. Report findings to train dispatcher.</li> </ol>	None
5(B) - with recall code	No message or Incomplete message is transmitted.	<ol style="list-style-type: none"> <li>1. Enter recall code and be governed by message.</li> <li>2. If still no message or incomplete message, proceed.</li> </ol>	Report no message or incomplete message to train dispatcher.
5(A) - with recall code	No message or Incomplete message is transmitted.	<ol style="list-style-type: none"> <li>1. Enter recall code and be governed by message.</li> <li>2. If still no message or incomplete message, stop the train.</li> <li>3. Make a walking inspection of both sides of entire train.</li> </ol>	Report no message or incomplete message to train dispatcher.
5(B) - without recall code	No message or Incomplete message is transmitted.	Proceed	Report no message or incomplete message to train dispatcher.
5(B) - Exception Reporting	No Message	Proceed	Do Not Report "No Message" to Train Dispatcher
5(B) - with recall code Exception Reporting	Incomplete Message is Transmitted	<ol style="list-style-type: none"> <li>1. Enter recall code and be governed by message.</li> <li>2. If still no message or incomplete message, stop the train.</li> <li>3. Make a walking inspection of both sides of train.</li> </ol>	Report incomplete message to train dispatcher.
5(B) - without recall code Exception Reporting	Incomplete Message is Transmitted	<ol style="list-style-type: none"> <li>1. Stop the train.</li> <li>2. Make a walking inspection of both sides of entire train.</li> </ol>	Report incomplete message to train dispatcher.

Note: Detector message followed by the word "Out" indicates a complete message. Total axle count is not required for a complete message.

**8(D). Train Inspection**

When alarm message requires inspection, inspect the side of the train in the message. The reference to defect locations will be from HEAD END of train, and references to LEFT or RIGHT side are to engineer's left or right side in the direction of travel.

Determine the location of the indicated axle by physically counting axles from the HEAD END of the train, including locomotive axles. DO NOT depend on wheel report information for correct axle count.

When alarm message requires, inspect indicated axle(s). If inspection does not reveal a defect, inspect 12 axles forward and 12 axles to the rear of the indicated axle.

When this is necessary, inspect all 12 axles in each direction regardless of whether a defect is found before reaching the twelfth axle.

#### **Dragging Equipment/Shifted Load Inspection**

When a dragging equipment or shifted load alarm message is received, make a walking (trackside) inspection of the train until the inspection is complete or until an obstruction (bridge without a walkway) prevents further inspection. When obstruction prevents completion of inspection, move train at no more than 5 MPH to complete the inspection per Rule 6.29.2. The train may proceed only after walking inspection confirms there is no dragging equipment or shifted load(s), defective car(s) are repaired or permission is received from the train dispatcher or manager to move the defective equipment.

#### **Overheated Equipment Inspection**

When an overheated equipment alarm is received, follow this procedure to inspect equipment:

- Crew member positioned on the ground must count axles.
- Move train at no more than 10 MPH until the indicated axle is near crew member or until inspection is complete.

When a train is stopped by a trackside warning device for a hot box or hot wheel, train may not depart location until crew reports the following to the train dispatcher:

1. The axles were physically counted
2. A heat-indicating crayon or infrared device was used at the indicated axle, and
3. If inspection does not reveal a defect, that 12 axles forward and to the rear of the indicated axle have been inspected.

If a heat-indicating crayon or infrared device is not available, set out the indicated car.

#### **Freight Trains**

If no defect is found, train may continue, but crew members must closely observe indicated equipment for the next 25 miles or until inspection by hot bearing detector.

When a train actuates a wayside hot box detector before a crew change location, the relieving crew will be advised of the equipment that activated the detector so that they can inspect the car and follow the above procedure if the equipment actuates a subsequent detector enroute.

**Exception:** If indicated axle is on a loaded, placarded, non-intermodal car containing hazardous material, set out the loaded, placarded, non-intermodal car. (For Key Train instructions see US Hazardous Material Instructions for Rail, Section VII, Key Trains.)

#### **Passenger Trains**

If no defect is found after inspecting 12 axles forward and 12 axles to the rear of the indicated axle, inspect both sides of the entire train.

If no defect is found, train may continue, but crew must closely observe indicated equipment for the next 25 miles or until next inspection by hot bearing detector.

#### **8(E). Testing Bearing Temperature**

Use a heat-indicating crayon or handheld infrared device to test bearing temperature. Test bearing temperature by stroking the heat indicating crayon on the bearing cup. A liquid smear will remain on an overheated bearing. (Determine if the bearing is hot by using a Dual Temp. 163 degree - 200 degree Fahrenheit, Mark All Thermal Melt, Millennium ordering reference no. 458304011.)

When ambient temperature is 32 degrees Fahrenheit or above, use a 200-degree Fahrenheit heat-indicating crayon to test bearing temperature.

When ambient temperature is below 32 degrees Fahrenheit, use a 163-degree Fahrenheit heat-indicating crayon to test bearing temperature.

Set out equipment with overheated bearings.

If it is safe to move equipment, set out car with an overheated bearing at a location accessible to repair personnel.

#### **8(F). Consecutive Alarm Messages**

If the same equipment is indicated by two (2) successive hot bearing alarm messages, set out the indicated equipment.

When a train actuates a wayside hot box detector before a crew change location, the crew being relieved will advise the relieving crew of the equipment that activated the detector. If the same equipment is indicated by the next detector with a hot bearing alarm message after departing the crew change location, set out the indicated equipment.

#### **8(G). Alarms Indicated on Locomotive or Caboose**

When unable to locate a defect indicated on a locomotive or caboose, notify the following:

- Connecting crew members
- Mechanical personnel
- Supervisor

Do not set out a caboose with a generator belt attached to the indicated axle unless a hot bearing, hot wheel or dragging equipment is found.

#### **8(H). Special Conditions**

When a hot bearing is found within 25 miles of TWD equipment, a crew member must notify the train dispatcher. The train dispatcher must notify the signal maintainer and request the TWD equipment be inspected.

When blowing or swirling snow conditions may prevent detectors from making a proper inspection, crew members must reduce train speed to **no more than 30 MPH** to minimize this condition.

#### **8(I). High Water Detectors**

High water detectors have been placed under certain bridges and in areas where high water might occur.

A. When train is notified of high water by rotating red lights, radio message, signal indication or at a radio readout and no response is received, crew must not proceed over bridge or track until trackside examination by crew member has been made to determine the following:

- The track has not lost its normal alignment,
- The track or bridge does not have sagging surface,
- There is no shoulder ballast or ballast between the ties missing or water running through the tie cribs, and
- Water is not over the rail.

If determination cannot be made, contact train dispatcher for instructions before proceeding.

B. Trains moving against the current of traffic must approach all locations protected by high water detectors prepared to stop unless:

- The track has not lost its normal alignment,
- The track or bridge does not have sagging surface,
- There is no shoulder ballast or ballast between the ties missing or water running through the tie cribs, and
- Water is not over the rail.

If determination cannot be made, contact train dispatcher for instructions before proceeding.

Note: When moving against the current of traffic and the location is protected by rotating red light or radio response, be governed by Item A above.

**8(J). Slide Detectors**

Slide detectors have been placed in certain areas where earth/rock slides might occur.

When a rock slide is indicated by rotating red light or radio message, trains must proceed at restricted speed AND be prepared to stop short of any obstruction through the entire slide detector area.

When train is stopped or moving at restricted speed because of signal indication governing movement through a slide detector, train must ALSO be prepared to stop short of any obstruction through the slide detector area.

Train dispatcher must be promptly notified if slide conditions are observed.

At locations equipped with Radio Readout type detectors, if no response is received, trains must proceed at restricted speed until track at this location is known to be clear of any obstruction. Train dispatcher must be promptly notified if slide conditions are observed.

**8(K). Warm Journal Detectors**

When a train stop is indicated, the NOC mechanical warm bearing desk will utilize the information that is currently only provided to the NOC, evaluate the severity of the potential failure indicated and will then contact the chief dispatcher who will advise the train dispatcher to contact train crews via radio with instructions on the action required.

Train crews are to contact the NOC Mechanical Warm Bearing Desk. When a running set and release is indicated the warm bearing desk will contact the train crew directly.

Since this is only a potential failure condition that is being predicted well in advance of any actual failure, when notified to take action relative to a "warm" bearing/journal, train may be moved without any additional speed restriction to a convenient location to inspect or set out as directed by the dispatcher in order to minimize the impact on operations. In addition, walking the train is not required and train may also be moved to expedite the inspection and/or set out. These instructions for cars identified with only warm bearings do not supercede any guidelines for handling hot journals or defective cars identified by Trackside Warning Devices or from other visual inspections.

Action required may include:

1. Perform a Set and Release of the Air Brakes:  
Perform a set and release of the air brakes (minimum of 10 psi brake pipe reduction) in an attempt to release any sticking brakes at the first convenient location and

consistent with good train handling. A "running release" may be performed if engineer determines conditions will allow as per ABTH Rule 103.3, Item C.

2. Stop and Inspect a Specified Car:  
Stop to inspect specified car and be governed by specific inspection instructions given in each case.
3. Set Out a Specified Car:  
Set out specified car at location as directed by dispatcher.

**9. Amtrak Instructions**

Dispatcher must be immediately notified when train does not maintain maximum track speed. Station work must be done in an expedient manner to avoid exceeding station dwell times. If station work is anticipated to exceed scheduled dwell time, sufficient advance warning must be given to the dispatcher to eliminate or minimize train delays.

**Equipment**

Unless otherwise provided, equipment that cannot be safely operated at maximum speed must be set out at first available location unless train can arrive at final destination in less time than would be required to make the set out.

- Maximum speed for freight locomotives in Amtrak service is 70 MPH.
- Movement with locomotives between cars is prohibited. Double stretch is required after pick up or set out of cars or locomotives.
- Required hand tools and supplies must be available on locomotive.
- Required switch keys must be in possession of Engineer and Conductor.
- Amtrak may not exchange or discharge passengers between trains except at stations.
- Amtrak may not exchange supplies between trains except at stations unless authorized by train dispatcher
- Amtrak train garbage/refuse to be off loaded must be loaded into approved containers and only at stations that have assigned Amtrak employees or caretakers.
- Amtrak toilets must be discharged into appropriate containers. Dumping of toilets from Amtrak trains on BNSF right of way is prohibited.

**Head End Power (HEP) Requirements**

- Departure from originating station with HEP cables short looped is prohibited.
- In the event of HEP failure, crew members must determine if train may be handled safely and every effort made to ... advance train to the next siding or scheduled stop before repairs are made.
- All HEP cables must be secured with approved tie-downs.
- Air hoses and HEP cables must be secured no less than 4 inches above top of rail.

**BNSF Crews Operating Amtrak Trains**

When a BNSF crew relieves or helps an Amtrak crew, a freight locomotive must be used to handle Amtrak trains. When Amtrak crews are being relieved or helped by BNSF crews Amtrak personnel must handle all 480-volt AC power and set up Amtrak locomotives in the trail position. The speed in which the train will operate is the maximum speed allowed on that territory for freight train service. BNSF crews are prohibited from handling, adjusting or performing work between or under cars when Head End Power (HEP) 480 volt AC is energized.

**Amtrak-Qualified BNSF Engineers Operating Amtrak Trains**

Addition of a freight locomotive will not be necessary when one or both of the following apply:

- When the BNSF engineer who is to relieve or help an Amtrak crew is Amtrak qualified.

- When a BNSF engineer is accompanied by an Amtrak qualified engineer or qualified Amtrak supervisor. The locomotives need not be set up in the trail position. All other requirements as listed in the section "BNSF Crews Operating Amtrak Trains" will still be in effect.

#### **BNSF Mechanical Assistance**

- When mechanical problems develop or mechanical assistance is needed the BNSF NOC Mechanical Desk and Train Dispatcher must be notified immediately as described in System Special Instructions item #45. The delay for mechanical problem must be documented properly on the delay report.

#### **Delay Reports**

The delay report is an essential document to both Amtrak and BNSF and both companies rely on this document to calculate performance.

Prior to tie-up, engineer or conductor must furnish the train dispatcher's office with official, legible and accurate delay report. The BNSF Passenger Operations Desk must also receive a copy of the delay report (Fax 800-423-9551).

Such delay reports will include:

- All delays reported in order of occurrence, all time lost due to the actual train delay and station dwells.
- Explanation of delay that must be brief, specific, and worded in such a way so as not to be misconstrued or misunderstood.
- Reasons for delay over dwell times and all other time lost (i.e. passengers, baggage, slow order, hot/cold weather restriction, locomotive malfunctions, etc.). Each individual reason for delay must be separate from other types of delay. For example, do not list time lost due to a slow order and locomotive malfunction together, do not combine time to copy the bulletin with the time lost for the restriction, and separate form "A" restrictions from form "B" restrictions.
- Delays associated with field equipment detectors. These delays require that specific information be given, even if no defect is found. Information as to the location of the defect, Car/Locomotive initial and number, axle and journal if applicable, and reason for inspection and defect, if any found.
- Amtrak instructions regarding authorization to hold or delay train, including reason.
- Delays caused by operating with one engineer.
- Delays over allotted dwell times. Dispatcher must be notified as soon as possible when it is known that train may be delayed over allotted station dwell and notation must be made on delay report.
- Delays caused by late General Track Bulletins. Dispatcher must be notified as soon as possible when it is determined late General Track Bulletins will cause a delay to scheduled departure and notation must be made on delay report.

#### **Signal Awareness Forms**

Passenger train conductors and crew members are exempt from special instructions Item 43 unless they are in the controlling unit or the cab room of the controlling cab car and there is more than one crew member in the controlling unit or cab room of the controlling cab.

#### **10. Storage of Cars Within Yard Limits In Non-Signaled Territory**

Within yard limits in non-signaled territory, the main track must not be used as a storage track except in case of emergency. When it becomes necessary to leave cars on main track in such territory, they must be protected by track warrant or track bulletin. This does not modify requirements of Rule 6.13.

#### **11. Shunting the Track**

##### **Commodities Insulating Track In CTC And ABS**

Employees should be alert for insulating commodities such as clay, chips, oil, etc., on top of rails. This condition could possibly insulate the track and cause loss of train shunt. Such conditions should be promptly reported and trains protected per rules while in CTC and ABS territory.

##### **Single Unit Light Engine**

When a train sets out all cars enroute and becomes a single unit light engine within CTC, manual interlocking, or ABS territory, the train dispatcher/control operator must be notified.

##### **Movements Consisting of Less Than 12 Axles**

Train, engine and other such movements consisting of less than 12 axles must approach road crossings at grade equipped with automatic crossing warning devices prepared to stop until it is determined that the warning devices are operating properly.

#### **12. Turnouts Equipped with Two Switch Machines (Moveable Point Frogs/Swing Nose Frogs)**

Locations where turnouts are equipped with two switch machines will be identified under individual subdivision special instructions.

When dual control switches equipped with two switch machines are operated by hand, the switch machine which operates the switch points and the switch machine which operates the moveable point (swing nose) frog must both be placed in hand operation.

Rule 9.13.1 applies at all locations where turnouts are equipped with two switch machines (moveable point frogs/swing nose frog).

#### **13. In Effect on BNSF Railway**

- General Code of Operating Rules, FIFTH EDITION, in effect April 3, 2005.
- Maintenance of Way Operating Rules, in effect October 31, 2004 with revised pages.
- Air Brake and Train Handling Rules, in effect July 13, 2003, with revised pages.
- Train Dispatcher's, Operator's and Control Operator's Manual, in effect October 30, 2005.
- TY&E Safety Rules, in effect October 30, 2005.
- Maintenance of Way Safety Rules, in effect October 30, 2005.
- Employee Safety Rules, in effect October 30, 2005.
- Mechanical Safety Rules, in effect October 30, 2005.
- 2004 North American Emergency Response Guidebook.
- Manual of Instructions for Suburban Operations Employees, for Chicago Suburban Operations, in effect May 11, 2004.
- Canadian Rail Operating Rules, in effect March 1, 2002. (For use in Canada only.)
- Rules for the Protection of Track Units and Track Work, in effect April 1, 1999. (For use in Canada only.)

#### **14. General Code of Operating Rules, Changes and Additions**

The following rules apply only on BNSF Railway:

**Rule 1.10 games, Reading or Electronic Devices**, the following is added:

Crew members using cell phones/laptop computers while on duty are governed as follows:

- \* All crew members are prohibited from using cell phones/ laptop computers when their train or engine is moving. (Electronic work order reporting devices and handheld PDA devices are to be considered as laptop computers in the application of this rule).

- \* Crew members may use a cell phone when their train or engine is stopped provided its use does not interfere with required duties such as train inspections or switching activities.
- \* If necessary for conductor to report work using a cell phone, this must be done while the train or engine is stopped.

Exception: Crew members of passenger trains may use a cell phone or PDA device for business purposes while the train is moving provided they are not in the controlling unit or the cab room of the controlling cab car.

**Rule 1.47 Duties of Trainmen and Enginemen**—Item C, All Crew Members' Responsibilities, the following is added to Item 2:

Crew members must not use binoculars or similar devices to determine the position, aspect, or indication displayed by a fixed signal.

**Rule 5.2.2 Signals Used by Employees**—Items A and B, No. 3 is changed to read:

3. Flagman providing protection as outlined in Rule 6.19 (Flag Protection) must have a red flag and six red fuses.

The following sentence is added:  
Locomotive flagging kits on BNSF must be equipped with a red flag and six fuses.

**Rule 5.4.6 Display of Flags Within Current of Traffic**—this rule is canceled in its entirety.

**Rule 5.4.8 Flag Location**—the first paragraph is changed to read:

Flags will be displayed on all main tracks and sidings leading to the track affected.

**Rule 5.8.2 Sounding Whistle**, signal 7 is changed to read:  
Approaching public crossings at grade with the engine in front, start signal at least 15 seconds but not more than 20 seconds before the crossing. If movement exceeds 45 MPH, start signal at or about the crossing sign, but not more than 1/4 mile before the crossing. Prolong or repeat signal until engine occupies the crossing(s).

**Rule 5.11 Engine Identifying Number**—the following exception is added:  
Exception:

- 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 train symbol.

**Rule 5.13C Blue Signal Readily Visible to Engineer**—Item 3 is changed to read:

3. The engine must not be moved. The controls must not be changed unless directed by individuals who placed the blue signal protection.

**Rule 6.2 Initiating Movement**—the first bullet is changed to read:

Receive a track warrant or general track bulletin.

**Rule 6.3 Main Track Authorization**—the following is added:  
Overlapping Limits

When a train receives track and time, track warrant or track permit authority joint with an employee or OCS permission joint with an employee, the train must not occupy the overlapping limits until permission is received to enter the overlapping limits from the employees listed on the authority or on the OCS permission.

**Rule 6.3.1(E), Train Coordination - OCS territory**—new rule is added:

Employees may use a train's permission in OCS territory in the same manner as using a train's authority. Working limits may be established within a train's OCS limits as follows:

1. With a train having permission to move in either direction that is not joint.  
or
2. With a train having permission to move in one direction only, working limits must not be established:
  - Behind the train.
  - More than one block in advance of the train or beyond any location that a train or engine could enter the track between the employee in charge of the working limits and the train.

**Rule 6.5 Handling Cars Ahead of Engine**—is changed in its entirety to read:

Cars or engines must not be shoved until the engineer knows who is protecting the movement and how protection will be provided. When cars or engines are shoved, crew member must be in position and provide visual protection unless relieved by:

- Local instructions for tracks equipped with shove lights/cameras.
- Special instructions specific to tracks involved.
- Rule 6.6 (Picking Up Crew Member).
- Pullout move within an activated Remote Control Zone (RCZ).

Cars or engines must not be shoved to block other tracks until it is safe to do so. 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 a higher speed is authorized by the employee in charge.

Note: When plowing snow and all employees are on the equipment, one common authority may be used by both maintenance of way employees and the train crew.

**Rule 6.6 Picking Up Crew Member**—

The following paragraph is added after Item 5:

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 end-of-train device or distributed power telemetry.

**Rule 6.7 A. Entering Remote Control Zone**—the 2nd paragraph is changed to read:

When the remote control zone is activated, track(s) within the zone must not be fouled with equipment, occupied, or switches operated until the remote control zone has been deactivated.

The 3rd paragraph is deleted in its entirety.

**Rule 6.23 Emergency Stop or Severe Slack Action**—is amended by adding:

The train must not proceed until it has been determined that it is safe to do so by visual inspection of the train or by knowledge that the brake pipe pressure has been restored by observing the caboose gauge, end-of-train device (ETD) control head, or by ascertaining that air pressure is present in the brake pipe by using the following procedure:

- A. After air brakes have had sufficient time to release following an emergency application, make a 20-psi brake pipe reduction, and;
- B. After brake pipe exhaust ceases, place the automatic brake valve cutout valve in the OUT position. If brake pipe pressure rapidly reduces to zero psi, the entire train must be inspected. If air pressure is present in the brake pipe, the train may proceed.

**Exception:** If the train exceeds 5,000 tons, it must be visually inspected, unless emergency application of the brakes occurs at a speed above 30 MPH, and it can be ascertained that the brake pipe is continuous by observing pressure being restored on the rear car after the emergency application is released, or by performing steps A and B above.

**All trains:** Trains must be visually inspected before proceeding if unusual slack action was experienced when stopping or if excessive power is required to start the train. If excessive power is not required to start the train, and physical characteristics prevent a complete walking train inspection, 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 keep the train moving.

**Rule 6.29.1, Inspecting Passings Trains,** the paragraph "Ground Inspections" is changed to read:

When a train is stopped and is met or passed by another train, crew members must inspect the passing train. The trainman's inspection must be made from the ground if there is a safe location.

- Dismount equipment on the side opposite approaching train.
- Do not cross adjacent tracks solely for the purpose of inspecting a passing train.
- During inclement weather, crew members may remain in the locomotive cab when inspecting passing trains.

**Rule 7.6 Securing Cars or Engines**—the first paragraph is amended to read:

Do not depend on air brakes to hold a train, engine or cars in place when left unattended. Engineer and conductor are jointly responsible, through job briefing, to ensure equipment left unattended is properly secured and a sufficient number of hand brakes are applied to prevent movement. If handbrakes are not adequate, block the wheels.

**Rule 7.7 Kicking or Dropping Cars**—the first paragraph is changed to read:

Kicking cars is permitted only when it will not endanger employees, equipment or content of cars. Dropping cars is permitted only on territory where specifically authorized by individual subdivision special instructions.

**Rule 8.19 Automatic Switches**—following paragraph added:

In non-signal territory, where both ends of a siding are equipped with automatic switches, facing point movements beyond signal displaying stop indication must be made prepared to stop at the next signal at that station.

**Rule 9.15.2 Clearing Track Permits,** the following 4th bullet is added:

- Position of hand operated main track switches.

**Rule 10.3 Track and Time**—the instructions inside the box are changed to read:

Track and time does not authorize trains to occupy the main track within automatic interlocking limits.

**Rule 14.3 Operating With Track Warrants**—the following is added to Item 1:

Record the location of the specific point on the track warrant form.

**Rule 14.9(A) Transmitting Track Warrants**—is changed in its entirety to read:

A. Transmitting Track Warrants

1. The train dispatcher will transmit the track warrant, followed by a summary of the total number of boxes and individual box numbers included by stating: "This warrant has (total number) boxes marked: (Individual box numbers)."
2. An employee will enter all of the information transmitted by the train dispatcher, except the summary. As the summary is transmitted, the employee will check the total number of boxes and individual box numbers copied to ensure all items are included.
3. The employee will repeat the information to the train dispatcher, followed by a summary of the total number of boxes and individual box numbers included by stating: "This warrant has (total number) boxes marked: (Individual box numbers)."
4. The train dispatcher will check the repeat and, if all information including the summary is correct, will state the following: "Warrant (number) OK (time) (dispatcher 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.

or

If the track warrant includes Box 7, "Not in Effect Until After Arrival of \_\_\_\_\_ at \_\_\_\_\_", the dispatcher will state the following:

"Warrant (Number) with after arrival of (train) at (location) OK (time) (dispatcher initials)." The employee will enter the OK time and the train dispatcher's initials on the track warrant and repeat the "After Arrival" information, OK time and dispatcher's initials to the train dispatcher.

Note: The summary information in Items 1, 2 and 3 above will be exempt from pronouncing and spelling numbers as indicated in supplement to GCOR 2.14.1, Verbally Transmitting and Repeating Mandatory Directives.

**Rule 14.10 Track Warrant in Effect**—the following is added after the 3rd bullet:

In addition, before a train reports clear of a track warrant, the track warrant is made void or a portion of track warrant limits are released, a crew member must restore hand operated main track switches to normal position unless relieved by track warrant and will job brief with the train dispatcher the position of the main track switches within the limits being released.

**Rule 15.12 Relief of Engineer or Conductor During Trip**—the first three paragraphs are changed to read:

When a conductor, engineer, or both are relieved before trip is finished, they must contact the train dispatcher and comply with instructions concerning the handling of their track warrants, track bulletins, and other instructions.

When crew members are called to relieve a train at other than the initial station, crew members must contact the train dispatcher before leaving the initial station and determine if any track warrants, track bulletins, or other instructions must be obtained.

**Rule 15.13.1 Voiding General Track Bulletins or Restrictions**—the following new rule is added:

To void a bulletin restriction or an entire general track bulletin, train dispatcher may do the following:  
 “Restriction (number) \_\_\_\_ reading \_\_\_\_ is void.”  
 An employee must repeat this information to the train dispatcher. If the information is correct, the employee must write “Void” in the margin to the left of the restriction made void.

**Rule 18.0 Occupancy Control System (OCS)**  
**Rule 18.1 OCS for Trains and Engines**

In addition to GCOR Rule 6.13 (Yard Limits), the following also applies at locations designated under the individual subdivision special instructions:

**Occupying the Main Track**

Before occupying the main track, trains or engines must receive one of the following permissions from the train dispatcher.

- Written OCS.
- Proceed indication on a controlled signal.  
or
- Verbal permission.

Individual subdivision special instructions or general order will designate locations where permission is granted by:

- Controlled Signal Indication. (Movements against the current of traffic may be authorized by controlled signal indication.)
- Verbal Permission. (Movements against the current of traffic may be authorized by verbal permission.)

Written OCS must be used when permission is joint with Maintenance of Way.

OCS does not relieve a train or engine from complying with restricted speed in non-signal territory.

The employee requesting OCS will state name, occupation, location and train or other identification. The employee will repeat the permission granted. Written OCS must be copied on the prescribed form. If the permission is repeated correctly, the train dispatcher will acknowledge. The train must not move until the engineer understands the OCS granted. Written OCS record must be retained until OCS is released.

Employees must advise the train dispatcher when they are clear of the limits. Exception: Trains or engines clearing OCS limits at a control point are not required to report clear.

Employees releasing OCS must state the following:

- Their name.
- The OCS number being released, if applicable.
- The track limits being released.
- The time OCS limits released.

**Designated Limits**

OCS limits must be designated by specifying track, where required, and exact points such as switches, mile posts, or other identifiable points.

**Direction of Movement**

When trains or engines receive permission to proceed from one point to another, they must move only in the direction specified.

When trains or engines receive permission to work between two specific points, they may move in either direction between those points.

**Same Limits with a Train or Engine**

Before a train or engine receives permission to occupy the same limits with a train or engine working between two locations, a crew member of each train or engine must be

notified. When notified, all movements must be made at restricted speed.

**Same Limits with Men or Equipment**

Before a train or engine receives permission to occupy the same limits with men or equipment, the maintenance of way employee in charge and a crew member of the train or engine must be notified. When notified, all movements must be made at restricted speed.

**Permission Expired**

When unable to contact the train dispatcher and OCS permission expires, permission is extended until the train dispatcher can be contacted.

**OCS Form**

The following is an example of the OCS form:

**“OCS” Occupancy Control System**

No. \_\_\_\_\_ 20 \_\_\_\_\_

To: \_\_\_\_\_

At: \_\_\_\_\_

A. OCS No. \_\_\_\_\_ is cancelled.

B1. Proceed from \_\_\_\_\_ to \_\_\_\_\_ on \_\_\_\_\_ track.

B2. Proceed from \_\_\_\_\_ to \_\_\_\_\_ on \_\_\_\_\_ track.

C. Work between \_\_\_\_\_ and \_\_\_\_\_ on \_\_\_\_\_ track.

D. Do not proceed until \_\_\_\_\_ arrives at \_\_\_\_\_.

E. Following \_\_\_\_\_.

F. Limits occupied by train or engine between \_\_\_\_\_ and \_\_\_\_\_.

G. Limits occupied by men or equipment between \_\_\_\_\_ and \_\_\_\_\_.

J. This permission expires at \_\_\_\_\_.

K. Do not exceed \_\_\_\_\_ MPH between \_\_\_\_\_ and \_\_\_\_\_.

L. Other specific instructions: \_\_\_\_\_.

OK \_\_\_\_\_ Issued by \_\_\_\_\_ Limits reported clear at \_\_\_\_\_.

(Mark X in box of each item instructed.)

**Glossary**—the following abbreviations are added:

- AS ..... Absolute Signal
- CNT ..... Connection
- EBCS ..... Eastbound Controlled Signal
- EE ..... East End
- EXO ..... East Crossover
- NA ..... Not Applicable
- NBCS ..... Northbound Controlled Signal
- NE ..... North End
- NXO ..... North Crossover
- RESTRN ..... Restriction
- RL ..... Restricted Limits
- RP ..... Release Point
- SBCS ..... Southbound Controlled Signal
- SE ..... South End
- SS ..... Station Sign
- SXO ..... South Crossover
- WBCS ..... Westbound Controlled Signal
- WE ..... West End
- WXO ..... West Crossover

**Glossary**—New glossary term added:

General Track Bulletin—A notice containing track bulletin restrictions and other conditions affecting train movement.

**15. General Code of Operating Rules and Maintenance of Way Operating Rules, Supplemental Instructions**

Several rules in the General Code of Operating Rules and the Maintenance of Way Operating Rules allow and/or require that supplemental instructions be carried in the timetable or special instructions. The following are supplemental instructions that apply to BNSF Railway.

**GCOR Rule 1.17 Hours of Service Law**—Apply the following when reporting Hours of Service: Time spent waiting for deadhead transportation must not be counted when determining time on duty for hours of service purposes when relieved of all duties as outlined in GCOR Rule 1.17.

**GCOR and MWOR Rule 3.3 Time Signals**—Dial 8-998-8463 (8-WWV-TIME) or 8-435-6000 to obtain coordinated universal time signal.

**GCOR Rule 4.3 Timetable Characters**

- A ..... Automatic Interlocking
- B ..... General orders, notices, and circulars
- C ..... Radio communication
- g ..... Gate, normal position against conflicting route
- G ..... Gate, normal position against this subdivision
- J ..... Junction
- M ..... Manual interlocking
- P ..... Telephone
- R ..... Restricted Limits
- S ..... Railroad crossing protected by permanent stop sign
- T ..... Turning facility
- U ..... Railroad crossing not protected by signals or gates
- X ..... Crossover
- X(2) ... Multiple crossovers
- Y ..... Yard Limits

**GCOR Rule 5.3.7 Radio Response**—In the application of 5.3.7 the following will be used for direction and distance: Direction will be described in relationship to the front of the locomotive (F stencil). To instruct the engineer move the locomotive forward use “ahead”. To instruct the engineer move the locomotive backward use “backup”. Distance will be communicated using 50 feet as a standard for car length. For continuous moves, communicate at least half the distance plus one car length until the distance is 2 car lengths, then use two cars, one car, 25 feet and the word stop to complete the move (example) 25 CARS, 14 CARS, 8 CARS, 5 CARS, 3 CARS, 2 CARS, 1 CAR, 25 FT, STOP).

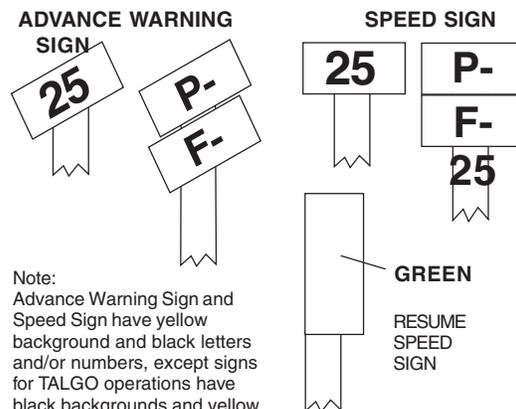
**GCOR and MWOR Rule 5.5 Permanent Speed Signs**—the following paragraphs are added:  
Reduced speed limits may be designated by Advance Warning sign (diagonally upward), Reduce Speed sign (rectangle) and Resume Speed sign (vertical).

The Advance Warning sign will be placed two miles in advance of the location where the lower speed takes effect. At the point where the reduced speed applies, a speed sign will repeat the permissible speed. The lower speed will be in effect until a Resume Speed sign or another Speed sign is displayed.

At the end of a reduced speed zone, a train or engine will be governed by a Speed sign displaying a higher speed or a Resume Speed sign which will authorize the maximum permissible speed on that subdivision. In either case, the speed must not be increased until the entire train has passed the sign displayed or has cleared the limits of the restriction.

Locations where reduced speeds are required, but which are not indicated by signs, are listed in the special instructions for each subdivision.

Permanent speed signs will not be placed for trains moving against the current of traffic unless otherwise indicated.



Note:  
Advance Warning Sign and Speed Sign have yellow background and black letters and/or numbers, except signs for TALGO operations have black backgrounds and yellow letters and numbers (not shown).

These signs, as illustrated, apply to train and engine movements as follows:

Figures preceded by letter P apply to passenger trains, except TALGO, if there is a TALGO sign.

Figures preceded by letter F apply to freight trains.

Figures preceded by letter T apply to TALGO passenger trains.

Figures not preceded by a letter apply to all trains.

**GCOR and MWOR Rule 5.11 Engine Identification Number**—the following supplemental instruction is added: Engines with the following initials stenciled on the side of the locomotive will be identified as NS engines: SOU, NW, PRR, CG, INT, GSF, AGS, CRCX and CR (ConRail).

Engines with the following stenciled on the side of the locomotive will be identified as CSXT engines: CSXT, CSX and CSX Transportation.

**GCOR Rule 6.26 Use of Multiple Main Tracks**—the following supplemental instruction is added:

Unless otherwise indicated in the individual subdivision special instructions, when using main tracks in westward or southward timetable direction, they will be numbered consecutively from right to left beginning from Main 1. When using in eastward or northward timetable direction, they will be numbered from left to right beginning with Main 1.

**GCOR Rule 6.32.2, Automatic Warning Devices**—the following supplemental instruction is added:

In the application of this rule, a crossing having a broken gate(s) is to be considered as having working devices when the balance of the automatic warning devices are seen to be working. Movement may proceed over the crossing at 15 MPH without stopping.

**GCOR and MWOR Rule 15.1 Track Bulletins**—the following supplemental instruction is added:

BNSF Railway may use a general track bulletin instead of a track warrant to deliver track bulletin restrictions. All rules that apply to track bulletins apply to general track bulletins. Additionally, conductor and engineer may receive a general track bulletin instead of a track warrant listing all restrictions affecting their train movement.

**GCOR Rule 15.2A Verbal Permission**—the following supplemental instruction is added:

Rule 15.2A, Verbal Permission, when General Track Bulletins are used, the 1st paragraph is changed to read:

When granting verbal permission, begin the communication using the following words:

“Foreman (name and/or Gang No.) \_\_\_\_\_ using Form B Restriction No. \_\_\_\_\_ between MP \_\_\_\_\_ and MP \_\_\_\_\_ (specifying subdivision when necessary).”

**Track and Time**—the following supplemental instructions are added:

The employee requesting track and time will state name, occupation, exact location and train or other identification. The employee will copy the authority granted on the form provided for that purpose, and repeat from the form the authority granted. If the authority is repeated correctly, the control operator will acknowledge with “That is correct.” The train must not move until the engineer understands the track and time granted.

The employee who requests track and time must retain the written track and time record until track and time is released.

When requesting track and time, if communication is lost or an incomplete message is received while the control operator is issuing track and time, or if after repeating the authority to the control operator, the employee does not hear the response from the control operator “That is correct,” the employee must not occupy the track. The employee requesting track and time must contact the control operator as soon as possible and confirm with the control operator that the track and time was not received.

**Track Warrants**—the following supplemental instructions are added:

Track warrants issued mechanically through printer or fax print only items checked. The item numbers checked will be listed on the bottom of the track warrant. Notify the dispatcher if:

- The track warrant does not contain all items listed on the bottom.
- Computer generated line on the bottom listing the items checked is missing.
- or
- Track warrant is missing text or is otherwise not legible.

When contacted, train dispatchers will arrange to provide crews with complete, legible copies and report incident to their supervisor.

When track warrant requires “Not in Effect Until After the Arrival of \_\_\_\_\_,” the limits must not be occupied until the train to be met has been identified by engine number and the rear end marker has passed the point of restriction.

In non-signaled territory, a train may only be granted a Box 7 “Not in Effect Until After the Arrival of \_\_\_\_\_” track warrant, after the following requirements have been completed:

1. Dispatcher advises the train that will receive the Box 7 track warrant of the identification of train(s) that will be listed in Box 7 (by initials, engine number and direction).
2. The train that will receive the Box 7 track warrant establishes the location of the train(s) that will be listed in Box 7 (by initials, engine number and direction), advising the dispatcher that direct communication has been made and the location of the train(s) contacted.
3. The train to receive the Box 7 track warrant has stopped at the meeting point and has notified the dispatcher that they are stopped.

(Note: A train stopped short of the meeting point for topographical reasons, i.e., road crossings, grade considerations, etc., may be considered as stopped at the meeting point for application of this process).

In non-signaled territory after the meet has occurred, the train with Box 7 must establish positive radio contact with the train listed in Box 7 to confirm the identity of the passing train. If radio communication cannot be established, the train dispatcher must be contacted to provide the required confirmation. The train identification, time passed, location passed, or current time and location must be written on the track warrant form by both the conductor and engineer of the train being so restricted.

In non-signaled TWC territory, when a train is approximately 2 miles in advance of a siding or junction, a crew member must transmit the following by radio:

“Train identification (initials, engine number and direction) is approaching (location name) at (speed) MPH.”

At the completion of each trip, all track warrants reported clear or made void must be turned in with the signal awareness form as directed by the Division General Manager.

**Reporting Clear/Releasing Track Warrants**

Engineer and conductor are jointly responsible, through job briefing, to ascertain and agree on the exact location that their entire train has passed before reporting past a specific point or clearing their track warrant.

When reporting past a specific location:

- Engineer and conductor will job brief and agree on train's location.
- Engineer and conductor will communicate with the train dispatcher.
- Communication will use the following format:

Conductor will state: Condr (Name), locomotive initial, number, (direction), reports clear of (Milepost/location) (Provide switch briefing when required) - Over.

Dispatcher will then check information against computer system information and if correct, will restate track release information followed by the question, “Is that correct?”

Engineer will state: “Engineer (name), that is correct. - Over”.

**Mechanically Transmitted Track Bulletins**—Mechanically transmitted track bulletins from TSS provide summary information indicating the total number of lines or restrictions issued. Employees who receive these documents must cross reference the summary with the document to ensure all items are listed.

**16. Maintenance of Way Operating Rules, Changes and Additions**

Rules listed in Item 4, General Code of Operating Rules Items, of the individual subdivision timetables are in effect for employees governed by the Maintenance of Way Operating Rules when applicable.

The following revised or added pages are in effect April 3, 2005:

Title Page, i-2, i-3, i-4, 2-3, 2-4, 5-1, 5-2, 5-9, 5-10, 6-1, 6-2, 6-5, 6-5A (added), 6-5B (added), 6-6, 6-7, 6-8, 6-8A (added), 6-8B (added), 6-13, 6,14, 9-3, 9-4, 14-1, 14-2, 14-3, 14-4, 15-1, 15-2, 15-3, 15-4, GL-1, GL-2, GL-3 and GL-4.

**MWOR Rule 1.3.1, Rules, Regulations, and Instructions**, the following note is added:

Note: When amendments are made to the Maintenance of Way Operating Rules and Engineering Instruction No. 1, employees must have a copy of the general order with their rule books, make notation of the change in their rule book, or obtain a copy the revised page.

**MWOR Rule 6.3.3 Visual Detection of Trains**, the Statement of On-Track Safety Form is amended as follows:

The first sentence of the form is changed to read:

A lone worker using individual train detection or a lookout using train approach warning to establish on-track safety must complete this form prior to fouling a track.

The following requirements are added to the form:

Name of Lone Worker/Outlook: \_\_\_\_\_

Designated Place of Safety: \_\_\_\_\_

Method of Warning: \_\_\_\_\_

**MWOR rule 6.3.3 B Lookouts**, the following is added as the new 1st sentence:

Lookouts must complete the form entitled "Statement of On-Track Safety" prior to anyone fouling the track. The completed form must be in the employee's possession when used to establish on track safety.

**MWOR Rule 6.29.1 Inspecting Passing Trains**, is changed to read:

Except as provided in Engineering Instruction 1.1.4(E), employees must inspect passing trains. The inspection must be made from the ground if there is a safe location.

- Dismount equipment on the side opposite approaching train.
- Do not cross adjacent tracks solely for the purpose of inspecting a passing train.
- During inclement weather, employees may remain in equipment when inspecting passing trains.

If any of the following conditions are detected, notify crew members on the passing train by any available means:

- Overheated journals
- Sticking brakes
- Sliding wheels
- Wheels not properly positioned on the rail
- Dragging equipment
- Insecure contents
- Signs of smoke or fire
- Headlight or marker improperly displayed
- Any other dangerous condition

When trains or engines are passing, remain clear of tracks to prevent being struck by objects that may fall or protrude from the train.

Note: Take articles that fall from cars to a secure area and report them to the supervisor and/or train dispatcher.

**MWOR Rule 6.53, Getting On and Off Equipment**, is changed to read:

Employees must not get on or off work equipment while it is moving.

Exception: In an emergency, or where designated by special instructions or general order, employees may get on or off work equipment while it is moving. In addition, employees may get on and off the following equipment while it is moving in work mode: Tie Laying Machines, High Speed Undercutters, 09-3X Production Tamper, Ballast Distribution Systems 100 & 200, and Rail Heaters. Work mode means when the equipment is engaged in its normal operation, moving less than 1 MPH, and not while traveling to a work site.

**MWOR Rule 8.14, Conflicting Movements Approaching Switch**, the following exception is added:

Exception: On a dual control crossover switch that has been upgraded per Signal Instruction Manual, part TP-103C, FRA signal switch tests can be independently performed by Signal Department employees on the dual control switch of the crossover not affected by approaching movements.

**Abbreviations**—the following is added:

RP....Release Point

#### 17. **Air Brake and Train Handling Rules, Changes and Additions**

The following revised pages are in effect July 11, 2004:

Title page, 2, 3, 4, 9, 10, 13, 14, 15, 16, 19, 20, 21, 22, 25, 26, 27, 28, 29, 30, 31, 32, 35, 36, 37, 38, 43, 44, 45, 46, 51, 52, 53, 54, 55, 56, 63, 64, 75, 76, 89, 90, 93, 94.

**ABTH Rule 100.4 Operative Brakes**, is changed to read:

These requirements apply to air brake tests and inspections:

- Unless brakes fail enroute, air brakes on all cars must be operative unless being moved for repairs and properly tagged. As per GCOR Rule 1.33, Qualified Mechanical Inspectors will provide three tags on cars given to train crews to be moved to repair facilities. Cars with defective air brake equipment will be tagged on each side and the third tag will be retained on locomotive. Tags will only be required on one side of the car and on the locomotive when no crossover platform is available to crossover between cars or when adjacent tracks are involved which could present risk of injury. EXCEPTION: Scale test cars are not required to be equipped with air brakes, but if equipped must be operable.
- Cars discovered with brakes that fail enroute must be tagged on both sides of the car and noted on space provided on train documentation and left in controlling locomotive cab form holder for relieving crew. Tags will only be required on one side of the car and train documentation noted when no crossover platform is available to crossover between cars or when adjacent tracks are involved which could present risk of injury. (Reference ABTH Rules 102.7 and 102.9 on procedures for handling cars with cut out air brakes.) Tags must include the following information: (the back of locomotive defect tags provided on locomotives or in crew packs may be used if no defective air brake tags are available).
  - Reporting Mark and Number of the defective locomotive or car (example- BNSF 601234)
  - Name of the inspecting or discovering Railroad (example- BNSF Railway)
  - Name and Job Title of Inspector (example- A. Blackburn, Conductor)
  - Inspection Location and Date (example- Harlem, MT 04/25/05)
  - Type of Defect (example- Brake was cut out because it would not release)
  - Movement Restrictions (example- None)
  - Repair Destination (example- Havre, MT)  
Note: Mechanical Desk will advise on location
  - Signature (example- A Blackburn)
- Train documentation may also reflect such cars by electronic means to subsequent crews after defective brakes are initially discovered and reported.
- At least 85 percent of the cars in a train must have operative brakes under all circumstances.
- When departing terminals, engineers must allow their trains to be Inspected where required.

**ABTH Rule 100.9, Item B Air Flow Method (AFM)**, the 3rd bullet is changed to read:

- The locomotive has an air flow indicator with a direct reading of air flow in increments no greater than 10 cubic feet per minute (CFM).

Note: Some locomotives without digital displays of air flow have air flow meters with a scale that does not correspond to a specific CFM and may not be used for conducting an air flow method brake pipe leakage test. These are identified by their lack of any reference to CFM on the gauge.

**ABTH Rule 100.10 C, Engineer Notification**, the last sentence of the "Note" is changed to read:

The number of cars indicated on your Class 1 test record(s) may not correspond to the number of cars on your train due to pick ups and set outs enroute.

The following paragraph is added:

In addition to maintaining written documentation on locomotive as outlined above, conductor must utilize the Voice Train Reporting (VTR) method to report all Class 1 inspections performed by the train crew at the train's origin (where train is initially made up) and at all locations where the train crew performs an Intermediate Brake Test and Inspection (Class 1A Brake Test) en route.

**ABTH Rule 101.2 A, Inspection Requirements**, the following is added:

BNSF locomotive daily inspection reports will be filed electronically, whenever possible. Defects to locomotives, whether discovered during locomotive daily inspection or otherwise, non-complying or not, will be verbally reported to the BNSF mechanical desk, NOC unless local instructions provide otherwise.

**ABTH Rule 101.2(B), Conducting a Locomotive Daily Inspection, Control Compartment/Locomotive Cab**, new Item 12 is added:

12. A Sanitary Toilet Facility

Note: Toilet facilities are not required on locomotives used in switching or transfer service on which employees have railroad-provided sanitation facilities outside the locomotive that meet sanitation standards at frequent intervals during the course of their work shift. However, toilet facilities on any locomotives must be part of the locomotive daily inspection and defect reporting.

In addition, unoccupied locomotives in trail position on through freight trains are not required to have operative or sanitary toilets. However, any locomotive toilet found defective or unsanitary, whether required or not, are to be reported as defective.

Locomotive with defective or unsanitary toilet may not be used as lead unit, unless:

- 1) No other suitable locomotives are available for use
- 2) It is not possible to switch another locomotive into lead position
- 3) Location is not equipped to clean the sanitation compartment, if unsanitary, or repair the toilet facility if defective.

**ABTH Rule 101.2 (C) Complete Required Daily Inspection Forms**, the following 4th bullet is added:

- Signature

The paragraph reading:

Indicate "Not used" if the locomotive has not been used on a particular day, and form supplied on locomotive has calendar-type daily inspection form. The locomotive cab card must remain in the holder in the locomotive cab.

Is changed to read:

Write "NC" for Non-Complying in the "time" column if locomotive with a non-complying defect is found during the inspection of that locomotive.

**ABTH Rule 101.10.1, Cab Signal Equipment-Foreign Locomotives**—new rule is added:

Cab signal equipment on foreign locomotives operating on BNSF may inadvertently activate and cause a penalty application if no action is taken by the engineer. These false activations are often related to the additional electrical current in the rails when train is near road crossings equipped with automatic warning devices.

When operating a foreign locomotive equipped with cab signal equipment that cannot be cut out, should cab signal equipment inadvertently activate, depressing the button labeled "Cab Signal Acknowledge" during the warning period will prevent a penalty application. If a penalty application has occurred from the Cab Signal System it will be necessary to depress the "Cab Signal Acknowledge" button before moving the automatic brake valve from suppression position to recover from the penalty brake application.

**ABTH Rule 102.12.6, Distributed Power/Helper Limitations and Placement, DP/Helper Train Make Up Restrictions**, under Item 1, new Item E added:

e. Multiplatform (2 unit), solid drawbar-connected gondola cars with initials AMGX.

The note regarding the variance allowed when entraining cut in helper/DP locomotive consists reading:

"Note: When entraining DP/helpers, placement of DP/helpers may vary by 5 cars/units to comply with train make-up requirements" is amended to read:

Note: When entraining DP/helpers, actual placement of DP/helpers may vary from the formula guidelines above by 5 cars/units.

**ABTH Rule 104.10, Air Flow Meter**, 3rd bullet under Air Flow Meter Readings is changed to read:

If the air flow meter shows a reading (less than 60 CFM) that is stabilized, the brake system is charged.

**ABTH Rule 104.14, Determining Number of Hand Brakes**—the chart on page 64 is changed to read:

>1000 (greater than 1000) is changed to read <1000 (less than 1000).

**New ABTH Glossary Term added - Off Air:**

Off Air - Off air means when it is known that a brake system has not been connected to a continuous source of compressed air of at least 60 pounds per square inch (psi) for a period of 4 hours or more. The "source" of compressed air is brake pipe pressure being supplied at the locomotive(s) or yard air connection to the brake system. If brake pipe gradient is observed, no minimum brake pipe pressure at the opposite end of a brake system is required as long as 60 psi or more is being maintained at the charging end of the brake system.

**18. Safety Rules, Changes and Additions**

Maintenance of Way Safety Rules—None

TY&E Safety Rules—None

**19. Train Dispatcher's, Operator's and Control Operator's Manual, Changes and Additions—None**

**20. Hazardous Material Instructions, Changes and Additions—None**

**21. Hy-Rail Limits Compliance System (HLCS)**

Properly trained operators of on-track equipment equipped with Hy-rail Limits Compliance System (HLCS) must use the system if operational. When obtaining authority, provide the dispatcher the vehicle number:

- When initial authority is obtained each calendar day
- When moving from one dispatcher district to another
- When changing vehicles.

When problems are experienced with HLCS ( ex. tracking issues, radio problems etc.), or the system is not operational, contact telecommunications at (817) 593-5900, choose option 1, and then option 2 to open a trouble ticket. If you receive an exceed alarm (red warning light) immediately contact the dispatcher for that territory.

**22. Automatic Cab Signals**

Cab signal equipment must be cut out except on suburban equipment on the Chicago Subdivision.

**23. Remote Control Operations****23(A) Remote Control Operating Instructions**

- a. Employees assigned to a remote control crew are governed by these instructions and must have a current copy accessible while on duty. Remote Control Operators (RCO) will be issued an Operator's Manual, which governs the operation of a Remote Control System. All rules or instructions contained in other company publications will remain in effect unless specifically exempted in these instructions.
- b. Prior to operating a Remote Control Transmitter (RCT), a job safety briefing must be held among all crew members. All remote control crew members must be informed and clearly understand which crew member will be controlling the movement. Before the control of the Remote Control Transmitter is transferred from one crew member to another, the receiving Remote Control Operator must be notified and acknowledge that he/she is in a position to assume control.
- c. A crew member must not go between or work on the end of rail equipment coupled to a remote control locomotive or when a remote control locomotive is on the same track until each member of the crew has been informed of the work to be performed. The Remote Control Operator must ensure that the Remote Control Transmitter's speed control is in the STOP position and the directional control is in neutral. The primary Remote Control Operator must acknowledge that he/she understands that another employee will be going between equipment by announcing via radio "set and centered." The speed and direction controls must not be repositioned or control of the Remote Control Transmitter transferred to another operator until each crew member has advised the Remote Control Operator that they are "in the clear."
- d. Each Remote Control Operator must have in their possession an operative holstered hand-held radio equipped with a microphone.
- e. Each remote control locomotive must have a tag placed on the control stand indicating the locomotive is being used in a remote control mode. The tag must be removed and secured with the Remote Control Transmitter when the locomotive is placed in manual mode.

**23(B) Setup and Testing**

Prior to operating a Remote Control System, the Remote Control Operator must ensure the equipment is properly setup and tested in accordance with prescribed procedures. If two

Remote Control Transmitters are to be utilized in a "shared" or "pitch and catch" operation, both must be tested.

**23(C) Operating the Equipment**

- a. Only qualified operators or students who have been trained in remote control operations may operate a Remote Control Transmitter.
- b. A Remote Control Operator shall control only one locomotive consist at a time with a Remote Control Transmitter and shall not operate simultaneously any other locomotive.
- c. When using "shared" or "pitch and catch" operations, the procedure for changing operators is specified in the operators' manual.
- d. Operation of the Remote Control Transmitter must not be performed from a moving motorized vehicle.
- e. Dropping of cars is prohibited during remote control operations except at locations specifically authorized by special instructions.
- f. When using a remote control locomotive in "shared" or "pitch and catch" operations to make a coupling, the Remote Control Operator located at the coupling must be the primary operator.

**23(D) Securing Equipment**

- a. Remote control locomotives and Remote Control Transmitters must not be left unattended unless secured and/or disabled. For remote control system purposes, "unattended" means remote control locomotive is not set up (linked) to an operating Remote Control Transmitter in the possession of a crew member.

When leaving equipment for meal period, break, etc., the Remote Control Operator will secure remote control locomotive as required and turn the Remote Control Transmitter power off.

When ending tour of duty, the Remote Control Operator must place the locomotive in the MANUAL mode unless being relieved by another Remote Control Operator. If another Remote Control Operator is relieving a Remote Control Operator, a job/safety briefing must be held between the employees.

- b. Spare Remote Control Transmitters must be stored with power off and battery removed.

**23(E) Remote Control Area**

- a. Division Timetable Special Instructions will designate areas of remote control operations. Signs advising that remote control operations may be in effect will be posted at access locations to Remote Control Areas.
- b. The Remote Control Operator in control of a remote control locomotive must be notified of any track removed from service or working limits established for the protection of another craft. The Remote Control Operator must conduct a job/safety briefing with all members of the crew.

**23(F) Remote Control Zone (RCZ)**

Signs advising that Remote Control Zones may be in effect will be posted at access locations to Remote Control Zones. Remote Control Zone limits do not include tracks within CTC or interlocking limits (CTC or Interlocking rules apply).

**23(G) RCO Terms**

Remote Control Area - Area designated by special instructions for remote control operations.

"Shared" or "Pitch and Catch" - Process used for changing primary control of Remote Control Transmitters between crew members. Change of control may only be performed while remote control locomotive is stopped.

**24. Switch Tender Instructions**

The train dispatcher and switch tender are required to have a job briefing before a switch tender acts on instructions from the train dispatcher. Following a shift change, another briefing is required between the train dispatcher and switch tender, which will include discussion of pending instructions and determination if the instructions are still correct.

When communicating concerning approaching train movements, use engine initials and number and direction. Do not use only train symbols or blanket terms such as "westbound or eastbound trains."

The dispatcher will issue specific instructions to the switch tender. The switch tender must repeat the instructions to the train dispatcher and receive confirmation of being correct, before acting on the instructions.

For example: After confirming with the train dispatcher that BNSF 1234 West will be the next train to line from Main Track 1 to Main Track 2 at Robinson Spur, the switch tender is then to call the BNSF 1234 West and verify the train has authority from Main Track 1 to Main Track 2 at Robinson Spur. After verification has been received from the BNSF 1234 West, and after the switch tender has visually identified the BNSF 1234 West, the switch tender will line the route for the movement. After the movement is clear of the switch, the switch must be lined and locked in the normal position.

When necessary for the train dispatcher to change routing instructions to the switch tender after authority has been granted to a train, it is the responsibility of the dispatcher to communicate directly with the switch tender. Another authority over the switch that the tender is in charge of cannot be issued until the dispatcher has informed the switch tender of the change.

When a switch tender is at a remote location, away from a depot and/or base station radio, the switch tender must check with dispatcher when arriving at such location to confirm they can clearly communicate. If the switch tender becomes aware of any radio communication problems, the train dispatcher must be notified. The chief dispatcher will make particular arrangements when communication problems are evident.

While in charge of a switch, the switch tender must not leave the switch unattended unless it is lined and locked for normal movement.

The train dispatcher's transfer must include switch tender locations and pending instructions from the train dispatcher to the switch tender.

**25. FRA Random Drug Testing**

TY&E employees selected for FRA Random Drug Testing must show the start time of the Random Drug Test (RDT) in the remarks column of their timeslip. Start time of RDT begins when a supervisor notifies the employee that they are selected for RDT. A stop time on RDT is necessary only if different from their off-duty time.

**26. Verification of Rules Examination**

Employees required to pass rules examination must have a current rules examination card when issued, or engineer's certificate in their possession while on duty.

**27. Cars Set Out Bad Order**

When a car is set out between terminals account bad order, it should, if possible, be left where it can be driven to by truck for making repairs. If the car setout is a military shipment, immediately contact the Resource Operation Center, Ft Worth at (817) 234-7200 or (800) 832-5452, Option 3.

**28. Grade Crossing Accidents**

The following information is designed to serve as post grade crossing accident guidelines. It is designed to provide the utmost in safety for you and your crew.

After the accident has occurred and the train is stopped:

- A. Ensure the safety of crew members, accident victims, and the public.
- B. Meet the requirements of GCOR Rule 6.23.
- C. Contact the dispatcher or any other available radio contact and advise:
  - 1. Exact location; and
  - 2. What emergency services are needed. Be sure to include alternate routes for the emergency vehicles if your train is blocking road crossings.
- D. Assess the damage to the vehicle and train to determine if there is any danger to your crew or the public.
- E. Assign a crew member to monitor a radio to provide further information for emergency assistance.
- F. If it is safe, render assistance to accident victims. It is important not to move the victim unless a life threatening situation exists.
- G. Turn "off" the vehicle's ignition and inform the investigating officer you did so. Otherwise, do not disturb the accident scene. Do not move the train unless it presents a safety problem, such as emergency vehicles needing to get to the accident through a blocked crossing, etc.
- H. Only give information to :
  - 1. The investigating officer; or,
  - 2. Authorized company managers.

Cooperate with the investigating officer. Answer the officer's questions and provide as much information as you can recall.

Record the badge number and name of the investigating police officer at the scene. Witness with the officer that the headlight is on, and that the whistle and bell on lead unit are in proper working order. Also, note that the crossing warning devices are functioning.
- I. Assign a crew member to verify the accuracy of the train list. Save all train lists, track warrants, track condition messages, and other pertinent documents for the proper BNSF managers.
- J. Ascertain that no part of your train is derailed and that it will be safe to proceed once released by the investigating officer.
- K. Personal counseling will be available to any crew member who might experience post-accident trauma.

**29. System Work Train Policy**

The conductor is in charge of and will be responsible for all work train movements. The safety of the overall train operation is the responsibility of the entire train crew. The engineer shall receive train movement instructions only from a member of the train crew except in cases of emergency.

When Maintenance of Way, Signal, Structures, Mechanical or other work groups are involved with the activities of the work train, a coordinator from such group must be designated. The train crew will communicate with the designated coordinator concerning all train movements and work activities.

An initial job briefing will be conducted before commencing work and additional job briefings must be held at intervals not to exceed four (4) hours until the end of the tour of duty. In addition, when there is a change in assignment or a significant delay in activities has occurred, a job briefing must be conducted prior to commencing work. Employees who

subsequently work in the vicinity of a work train after such job briefings have been held, must not commence work until they have received a job briefing from the designated coordinator regardless of authority received to occupy the area. The conductor is responsible to ensure that no work activity begins until the required job briefings are complete.

Job briefings must include applicable operating rules, safety rules, special instructions and any other work-specific information. The designated coordinator is responsible for communicating impending train movements to the work groups under his control.

All employees assigned to a work train and/or its activities are responsible to be on the lookout for train or track car movements at all times. Lookouts will be utilized when necessary and all movements must be fully protected.

### 30. Track Condition Messages

Track condition messages may be issued by train dispatchers to cover restrictions on or near tracks.

Restrictions shown on a track condition message may be cancelled verbally by the Train Dispatcher.

Authority can be given by a Train Dispatcher or supervisor to enter a track shown to be out of service on a track condition message.

When a track warrant indicates a track condition or train message is to be received, conductor is responsible for securing those messages necessary for movement of their train. Track condition messages must be retained and complied with on all trips made during the tour of duty on which they were received.

### 31. Securing Track Warrants/General Track Bulletins

When reporting for duty at initial terminal, a crew member will secure track warrants, track bulletins, and track condition messages or general track bulletin, unless otherwise instructed. A relief crew member must contact the dispatcher before departing to determine if additional documents are required, and advise if all crew members are present and ready to depart.

If the identifying unit is not shown correctly on the address line, contact the train dispatcher and correct the address line before departing the initial station.

### 32. Engineer Training Assistance Hotline

For questions concerning Engineer Training, locomotive equipment or air brake systems, call BNSF Technical Training Center in Overland Park—(913) 319-3996.

### 33. Excessive Wind, Tornado, Flash Flood, Cold Weather and Earthquake Instructions

#### Excessive Wind Instructions

When weather warnings of winds in excess of 55 MPH are received, the train dispatcher will notify all trains and employees with movement authority in the area, giving the time and limits of the expected high winds.

When notified that winds are forecast to be in excess of 55 MPH, all trains and equipment, except light engines and loaded unit type trains handling coal, grain, ore, taconite, ballast, molten sulfur or potash must stop during the time and within the limits stated.

**Exception:** If employees or a crew on a train, other than those listed above, observes that local weather conditions are not as severe as the weather warning and would not impact their safety or that of the train, they may proceed, advising the train dispatcher as soon as possible.

### Tornado Watch and Warning Instructions

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 300 miles. The greatest potential for such storms usually exists from April through September.

A “tornado watch” means atmospheric conditions are such that tornadoes may develop. A tornado watch is generally issued 4-6 hours before the conditions may occur.

During a tornado watch, all train movements and yard activities will continue, keeping alert for any signs of weather change. The danger signs to look for are severe thunderstorms, hail, roaring noise, a funnel cloud, or combination of the above. When a crew knows they are in a watch area, the radio on a locomotive or a pakset should be used to monitor instructions and information to and from the train dispatcher. In the event a crew spots a funnel cloud, the train dispatcher should be immediately notified, consistent with the crew’s safety.

If a train or yard assignment has an occupied caboose, upon being notified of a tornado watch, the occupants of the caboose should immediately move to the locomotive consist. While in the process of moving to the locomotive, if the tornado watch turns into a “tornado warning,” or a funnel cloud is spotted, those affected should seek shelter in a nearby ditch, ravine, culvert or in a depression. If none of these are available, lie face down on the ground with hands over the head away from the caboose or cars in the train.

A “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 and crews appraised of limits of tornado warnings. Train crews are to follow instructions as follows: During a tornado warning, all train movements and yard activities must stop. Any train enroute will stop and employees should seek appropriate shelter consistent with the safety of all involved, avoiding the stopping of a train on a high bridge, across railroad and highway crossing at grade, or anywhere the presence of a train could be a hindrance.

After the tornado warning has expired:

- If determination is made that the path of the tornado crossed the tracks at the location or in the immediate vicinity of the train, crew members must inspect their train before moving to determine if any damage or derailment has occurred to the train or if the track structure has been damaged.
- All trains within or entering the tornado warning limits may proceed, prepared to stop when approaching bridges, culverts, or other points likely to be affected until relieved by the dispatcher. The train dispatcher must be advised immediately of damage or unexpected conditions.
- The train dispatcher must restrict trains as prescribed in the second bullet, until an inspection has been completed by division employees or all of the limits of the tornado warning have been traversed by a train and it is confirmed by the train crew(s) that no damage or unexpected conditions were observed.

### Flash Flood Warnings

Weather information received by BNSF from WeatherData, Incorporated, is categorized as a “Warning” when it describes conditions that require immediate action by the train dispatcher to notify train crews of imminent danger. These warnings are immediately distributed to the relevant train dispatchers.

When WeatherData, Incorporated, issues a "Flash Flood Warning," the dispatching center will immediately advise all involved trains of the specific conditions. When crews of these trains are so advised and are not operating through areas which have been designated by the Division Engineer as being "critical," passenger-carrying trains will be operated at a maximum of 50 MPH through the limits identified in the warning, and freight trains will be operated at a maximum of 40 MPH through those limits. These restrictions will remain in effect until the track has been inspected.

Division Engineers will identify "critical" areas by subdivision, segmented by milepost locations based upon their susceptibility to flooding or their history of being prone to washouts or side-scour wash. In identifying these locations, consideration should be given to shallow-foundation bridges, availability of operable culverts, and other conditions as necessary.

If the "Flash Flood Warning" limits include locations identified as being "critical," all trains will be further limited to restricted speed until the track structure has been inspected on a priority basis at the request of the dispatching center. These temporary speed restrictions must remain in place until the track has been inspected and local personnel have assessed the need for modifications to the speed restrictions as conditions warrant.

#### **Local Observations**

When local maintenance personnel become aware of current conditions that might produce flash flooding that could result in damage to BNSF track or structures, they will:

- Immediately place the speed restriction described above on the affected route.
- Inspect the track for washouts, side-scour wash, surface irregularities, and/or water over the rail.
- Carefully inspect bridge foundations and drainage structures, with careful attention to bridges with mud sills, for erosion behind dump planks and head walls, erosion around piers and footings, and obstructions from drift and debris.
- If water level, turbulence, or other conditions make a thorough inspection impossible at the site of such a bridge, operations of all trains will be reduced to no more than restricted speed until it is possible to make a proper inspection.
- If, during the initial track inspection, there is any doubt about the safety of train operations over bridges, a qualified Structures employee must be called at once, and any speed restrictions that have been placed on bridges will not be lifted until authorized by the Structures employee.
- Track and bridge foremen must continue to patrol past their respective territories if an adjoining territory is likely to have been damaged, and such damage might not have been discovered.

#### **COLD WEATHER RESTRICTIONS:**

The correlations that exist between rail service failures, temperature, train axle load, track and equipment conditions, and train speed are complex and involve many factors including equipment and track component design and material properties, their relative wear conditions, and the rail/wheel interaction for various traffic mixes and operating conditions. In order to maximize safety with regard to extreme temperatures and temperature changes, rail laying temperatures and weather extremities across our railroad have been considered. In that effort, the railroad has been divided into two regions as follows:

**Region 1** contains the following divisions: Northern California, Southern California, Southwest, Kansas, Springfield, Texas, Gulf, Northwest, and Chicago.

**Region 2** contains the following divisions: Twin Cities, Montana, Powder River, and Nebraska.

#### **Cold Weather Train Speeds:**

The Engineering Department has identified two factors which require Cold Weather Train Speeds, as follows:

#### **Low Temperature Threshold:**

In Region 1, this threshold is 0 degrees Fahrenheit.  
In Region 2, this threshold is -20 degrees Fahrenheit.

#### **Temperature Differential Threshold:**

In Region 1, this is any temperature of 50 degrees Fahrenheit or warmer that falls to 10 degrees Fahrenheit or colder within 24 or fewer hours.

In Region 2, this is any temperature of 40 degrees Fahrenheit or warmer that falls to 0 degrees Fahrenheit or colder within 24 or fewer hours.

#### **Low Temperature Threshold:**

Unless further restricted by individual subdivision Special Instructions, be governed by the following:

When ambient (air) temperature drops below the Low Temperature Threshold (0 degrees Fahrenheit in Region 1 and -20 degrees Fahrenheit in Region 2), trains must not exceed the following speeds:

In non-signalized territory:  
40 MPH for all trains.

In block signal system limits:

40 MPH for trains exceeding 100 tons per operative brake and key trains.

50 MPH for trains less than 100 tons per operative brake.

65 MPH for passenger trains, Z-symbol intermodal trains, or single-level loaded intermodal trains.

If in doubt as to the temperature, contact the train dispatcher. Notify the train dispatcher when your train is restricted due to this requirement.

These restrictions remain in effect until the ambient (air) temperatures rise above the Low Temperature Threshold.

#### **Temperature Differential Threshold:**

The train dispatcher will make notification to trains that temperature has exceeded the Temperature Differential Threshold. When so notified, trains must observe Cold Weather Train Speeds, by Region, as shown above. The Engineering Department will perform a track inspection, reporting results to the train dispatcher. If no further restrictions result from the track inspection, the train dispatcher will verbally notify the trains affected. Be aware that Cold Weather Train Speeds may still be required due to Low Temperature Threshold. In other words, once track inspection is completed following a Temperature Differential Threshold, the ambient (air) temperature may still be below the Low Temperature Threshold, requiring that Cold Weather Train Speeds must still be observed.

However, if the ambient (air) temperature is above the Low Temperature Threshold and no further restrictions resulted from track inspections, observance of Cold Weather Train Speeds is not required.

**Earthquake Instructions**

When an earthquake is reported, the train dispatcher will do the following:

1. If the magnitude or epicenter are unknown, instruct all trains within 150 miles of the reporting location to “proceed at restricted speed due to earthquake conditions.” An acknowledgment must be obtained from each train or engine receiving these instructions.
2. Once magnitude and epicenter are known, the following inspection criteria will apply:
  - If magnitude is less than 5.0, no inspection is required.
  - If magnitude is 5.0 or greater, response will depend on the group of states and provinces within which the epicenter is located and the following criteria will apply within the designated radius from the epicenter.

Magnitude Range	Criteria for Response	Group 1 Radius	Group 2 Radius	Group 3 Radius	Group 4 Radius
Less than 5.0	No Inspection Required	N/A	N/A	N/A	N/A
5.0 to 5.49	Trains proceed at restricted speed until signals have been inspected.	30 Miles	40 Miles	70 Miles	70 Miles
5.5 to 5.99	Trains proceed at restricted speed until signals, track and bridges have been inspected.	30 Miles	40 Miles	70 Miles	70 Miles
6.0 to 6.49	Trains proceed at restricted speed until signals, track and bridges have been inspected.	N/A	N/A	N/A	150 Miles
	Trains stop until signals, track and bridges have been inspected.	50 Miles	80 Miles	150 Miles	80 Miles
6.5 to 6.99	Trains proceed at restricted speed until signals, track and bridges have been inspected.	N/A	N/A	N/A	220 Miles
	Trains stop until signals, track and bridges have been inspected.	70 Miles	140 Miles	220 Miles	140 Miles
7.0 to 7.49	Trains proceed at restricted speed until signals, track and bridges have been inspected.	N/A	N/A	N/A	400 Miles
	Trains stop until signals, track and bridges have been inspected.	100 Miles	300 Miles	400 Miles	300 Miles
7.5 and above	Trains stop until instructed to proceed after inspection of track, signals and bridges completed.	As Directed*	As Directed*	As Directed*	As Directed*

\* Radius at discretion of command center but not less than for magnitude 7.0 to 7.49

**Group 1:** California and Baja California, Mexico  
**Group 2:** Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah and Wyoming; Alberta, Canada; and Sonora and Chihuahua, Mexico  
**Group 3:** Area east of Group 2  
**Group 4:** Oregon, Washington and British Columbia, Canada

**34. Duplicate Mile Posts**

On subdivisions where duplicate mile posts exist, an alpha suffix has been added (i.e. MP 345X, MP 420Z). This alpha character may not be on the physical mile post sign at this time. When the alpha suffix is indicated in track warrant, track bulletins and other documents, reference must be made to the individual subdivision’s timetable for station locations of the mile posts indicated.

**35. Switching Business Cars**

The following instructions will be complied with in regard to movement of these cars in other than assembled trains. Business cars must be handled as outlined in accordance with General Code of Operating Rules 7.3 and 7.9.

- a. Air Brakes—The business car air brake system must be connected to the locomotive and the automatic air brake used in controlling movement during switching.
- b. Coupling—When coupling into business cars, business car equipment or when it is coupled to other equipment, the movement must be stopped approximately 50 feet from point at which the coupling will be made. All movements to accomplish coupling must be governed by a crew member on the ground using hand signals. Business cars must not be cut off while in motion and no car moving under its own momentum should be allowed to couple to them.
- c. After Coupling—Once the coupling is made to the business car, the couplers must be fully compressed and stretched to know the couplers are locked before making air, electrical or communications connections.

**36. Instructions for Handling Continuous Rail**

(excluding articulated loads of 80 ft. length rail or less)  
 Rail trains loaded with continuous welded rail must not be kicked, nor allowed to be struck by other kicked cars; and, must be handled through all turnouts with extreme care. Before a switching move is made, an air brake inspection and test as prescribed by Rule 100.11 must be performed.

Switching movements must be made using automatic air brakes to control slack in either a bunched or stretched condition. Extreme care must be used when stopping movements to avoid injury to employees or damage to equipment. Use of locomotive brake must be avoided, when possible, to stop the movement. When exceeding 12 rated axles of power during shoving movements, use only the minimum amount of tractive effort necessary to begin movement.

Except during necessary switching moves and train makeup, or when moving as a work train under supervision of maintenance of way, suitable cars must be placed at each end of the “rail” cars to act as a buffer and idler. Rail cars equipped with barrier plates or cars labeled “Buffer/Idler” in addition to other cars taller than the height of the top rails on a loaded train meet this requirement. Tunnel cars equipped with barrier doors eliminate the need for buffer cars if doors are closed and secured. (Tunnel cars numbered BN 961964, BN 961965, and BNSF 920147 through BNSF 920173 have these barrier doors). Trains handling rail trains should not be required to make setouts or pickups enroute. Two loaded rail trains must not be moved together in same train, unless authorized by the manager of the rail facility or his representative. When a two loaded rail train movement is authorized, the maintenance representative will designate which rail train will be placed at the head end. The other rail train must then be positioned in the train immediately at the rear of the first or head end of rail train separated by a suitable buffer car.

Full-length rail strings, when loaded, will have their lengths constructed so that the ends will fall between the green stripes painted on end ramp cars. When the rail train is stretched or bunched, and during transit, rail ends must be between the red stripes painted on end ramp cars, or else the train must be held until released by the general roadmaster or his representative. A white stripe will be applied across top of all rails between tie-down stands on center car of the rail train so it can be determined at inspection points whether rail has slipped or shifted.

**Loaded Rail Trains**

1. Trains without Rail Movement Detectors (RMD):
  - must be handled in special service.
  - must not be required to make setouts and pickups en route.

- must have suitable cars placed at each end of loaded rail train to act as buffer and idlers except during necessary switching moves and train makeup, or when moving as a work train under the supervision of maintenance of way.

2. Trains with Rail Movement Detectors (RMD)

May be handled in trains other than special service under the following conditions:

- Rail train must be on head end.
- Train length limited to 64 cars.
- Should not be required to make setouts and pickups enroute.
- Suitable cars placed at each end of loaded rail train to act as buffer and idlers.
- If cars other than loaded rail train are included in movement, and RMD (i.e. strobe lights) becomes inoperative en route, a maintenance representative (a rider) must accompany each train during transit, unless rail train is then moved in special service. When the RMD is inoperative, each time the train stops, the rider must inspect the cars carrying the continuous welded rail for shifted, bowed, or broken rail, and to ensure that each base clamp (tie-down block) is tight. Defective strobe lights must be reported to the train dispatcher, who will notify the manager of rail facility so that the problems can be documented and repairs can be arranged as soon as possible.
- Strobe lights at each end ramp car must be observed frequently en route. When strobe lights are observed to be flashing, the train must be stopped and all cars carrying continuous welded rail must be inspected to determine any rail movement. If movement is found, observe and complete the following:
  - a) If adjacent track or standard clearances are not fouled, train may be moved to clear main track not exceeding speed of 10 MPH.
  - b) If adjacent track or standard clearances are fouled, protection must be provided and train must not be moved until inspected by proper personnel.

If no movement is found, cancel flashing strobe lights by depressing the reset button at the control box for three seconds. The train may proceed at authorized speed.

The RMD consists of electrically activated screens/gates, four amber-colored strobe lights, and associated controls. There are two 12-volt absolute batteries, charged by an array of solar cells mounted between the tunnel stand strobe lights, to power the system. RMDs are installed on all rail train ramp cars, which are placed at each end of a rail train. If a rail string becomes loose and makes contact with the screen, strobe lights will commence flashing. The strobe lights are mounted on the ramp cars, positioned at the uppermost corners toward each end. Two are mounted on each side of the adjustable ramp stand, and the other two are mounted on each side of the tunnel stand.

The "ramp or tunnel" strobe lights operate in a parallel mode with a common activation (redundancy); thus each set will flash independently.

To check that strobe lights are operational, use a metal rod, bare wire or other metal object to make simultaneous contact between the screen and any rail in the load or other metal ground. After observing the lights flash, depress the reset button, which is located on the control box, for three seconds to turn off and conserve batteries. The lights should flash approximately 60 times per minute;

and fully charged batteries will operate them for about sixteen hours.

The RMD system is inspected and tested at rail complexes before rail trains are released for movement. When second-hand welded rail is picked up and loaded in the field, the RMD system will be inspected and tested by the rail train supervisor before train is released for movement.

Routing of rail trains from the Rail Welding Facility, Pueblo, CO, to points west should be via Amarillo, TX, instead of the northern route through Raton, NM; unless train has stop(s) to deliver rail between La Junta, CO, and Belen, NM. When a rail train is to be routed via the northern route, loading parameters of welded rail strings will be held more restrictive to allow a greater degree of safety for movement through tight curves and mountains.

Unless under special service, the 6x12 rail train (center tie-down car number ATSF 187023, ordinarily consisting of 32 cars rail and 2 buffers) should always be routed through Amarillo, TX, because of its greater amount of slack due to the increased number of cars and limited ramp car length.

At designated intermediate inspection points, make mechanical inspection of cars in compliance with FRA requirements. Manager Rail Complex in Laurel, Pueblo, or Springfield must be advised if any mechanical repairs are needed.

**Open End Gondola Consist (Any Ownership)**

Maximum authorized speed for trains handling short lengths of continuous welded rail in open end gondola consist is 45 MPH.

Open end gondola consist loaded with continuous rail must not be kicked; nor allowed to be struck by other kicked cars.

Loaded open end gondola consist should be handled within 25 cars of the head end of trains. Loading of rail into open end gondola consist shall comply with the following instructions:

1. Continuous lengths of welded rail will not be loaded more than one layer high.
2. Width of layer will not exceed 67 percent of the inside width of the narrowest gondola.
3. Rail will be centered width wise in open end gondola consist. If practical, spikes, cleats or blocks will be driven into bearing timbers (raised fashion) to prevent walking of load near sides. Rail lengths will be spotted lengthwise from outboard ends of open end gondola consist to allow sufficient distance to exist for clearance (i.e. to exceed the amount of coupling slack). Amount will be determined by number of cars in consist.
4. Continuous lengths of rail will be supported upon timbers with a minimum size of 4" x 4" hardwood. These timbers will be spaced equally throughout load in sufficient number to prevent rail from contacting floor of cars or bottom flanges used for gondola end retention, and provide friction necessary to limit rail shifting.
5. Couplers of cars will be gagged and locked to prevent accidental opening.
6. Outboard ends of open end gondola consist will have ends installed or stacked timbers arranged into a barricade with a minimum height that exceeds the height of rail.
7. Continuous welded rail lengths will be loosely banded (to allow the required linear movement of the individual lengths of rail when consist is negotiating a curve) to keep all pieces grouped together.

**Empty Rail Train Blocks (Any Ownership)**

When handling empty 'rail train' blocks, all cars weighing 50 tons or less, by car count, must be placed behind all cars weighing more than 50 tons per car

**37. Handling of FRA Track Geometry Inspection Cars**

Federal Railroad Administration (FRA), Office of Safety manages high-speed railbound track geometry inspection cars (identified as either the FRA T-16, T-18 or the T-2000 Geometry Car) that measure track geometry for compliance with the Federal Track Safety Standards nationwide. The T-18 and the T-2000 may be operated self propelled. The T-16 must be towed. Hereafter the term FRA Geometry Car refers to both vehicles except where otherwise specified.

1. Each train dispatcher and train crew or pilot will be governed by these instructions.
2. Prior to each day's survey, the Survey Director will conduct a safety briefing to all occupants of the FRA Geometry Car on general safety, applicable operating and protection procedures.
3. Whenever the T-18 or the T-2000 FRA Geometry Cars are operated, including through a designated "yard or restricted" limits and 'other than main track' territories, the railroad will provide either a Locomotive Engineer/Pilot, Traveling Engineer or Road Foreman to pilot the vehicle. The T-18 and the T-2000 Geometry Cars will be governed by applicable operating rules when operating in either signal or non-signal system territories (except that auto routing and automatic clearing features will not be used and all dual control switches will be blocked). Absolute block protection or alternate protection methods, controls or authority (including within "yard or restricted" limit territory), will be applied to protect the T-18 and T-2000 Geometry Cars against following and opposing trains or on-track equipment. The absolute block will not be required for the T-16 when being towed and operating as a train.
4. FRA T-18 and T-2000 Geometry Cars will operate as a train. Authorization will not be issued to the FRA T-18 and T-2000 Geometry Cars within the same or overlapping limits of another train or on-track equipment, except to facilitate the FRA T-18 and T-2000 Geometry Car's disabled movement, if necessary, and in accordance with the railroad's operating rules. The FRA T-18 and T-2000 Geometry Cars will not be operated by lineup, movement of track cars or similar on-track equipment authorities.
5. The Survey Director, prior to the FRA Geometry Car operation, will communicate directly with the train dispatcher and train crew or pilot, to insure that all operating rules, in effect on the route to be traveled, are understood and confirm the FRA Geometry Car is being dispatched as a train. Reference to applicable operating documents will be made to confirm such information, prior to departure. The Survey Director will be stationed in the immediate vicinity where the FRA Geometry Car method of operation, procedures and movement can be monitored.
6. All mandatory directives will be transmitted and received in compliance with railroad rules and instructions. For purposes of this instruction, all references to assigned crew member apply only to the train crew or pilot. The FRA Geometry Car operator relies on the train crew or pilot to identify relevant railroad physical characteristics, movement authority limits and authorized speeds, a sufficient distance in advance.

7. In automatic block signal system or traffic control system territory, the FRA Geometry Car should not be stopped on sand or other similar rail surface conditions affecting the shunting of the track circuit. If such a stop cannot be avoided, the FRA Geometry Car will be moved immediately a sufficient distance to clear that affected portion of the rail.
8. Interlocking machines will be operated manually for the FRA Geometry Car movements (automatic clearing and routing features will not be used). The control machine operator will be kept informed of the progress of the FRA Geometry Car from one control point to another. An interlocking control operator will not change the position of any switch or indication of any signal, until informed that the FRA Geometry Car is clear of the interlocking or a section thereof. Where provided, electrical or mechanical blocking devices will be used on switch and signal controls. If the FRA Geometry Car is stopped within the limits of any interlocking, the control operator or dispatcher will be notified of the stop and the precise location. The FRA Geometry Car will not be stopped within the limits of automatic interlocking or a non-interlocked, at grade, railroad crossing.
9. The FRA T-18 and T-2000 Geometry Cars are equipped with operating controls at either end. When appropriate, instructions will be given to the FRA Geometry Car operator to change ends and operate from the rear of the FRA Geometry Car. Any reverse movement will be conducted, in accordance with the railroad's operating rules.
10. In the event the FRA T-18 and T-2000 Geometry Car .. operators are to be relieved for any reason, the Locomotive Engineer/Pilot may be utilized (if agreeable) to continue FRA Geometry Car operations to the day's final tie-up point. If the Locomotive Engineer/Pilot is not willing or prohibited from operating the FRA Geometry Car, the survey should be stopped at a suitable point short of the scheduled tie-up or a locomotive will be requisitioned for tow-in. This contingency is one that will be addressed at the beginning of the survey to allow for ample planning.
11. The FRA Geometry Car will approach all highway-rail grade crossings equipped with automatic warning devices prepared to stop, until it is determined that the warning devices activate and the FRA Geometry Car occupies the crossing. On ground protection against highway vehicles will be provided when automatic warning devices fail to fully activate, the FRA Geometry Car interferes with the normal function, or when prescribed by railroad rules or instructions.
12. The maximum operating speed of the T18 and T-2000 is 90 MPH when self-propelled, and 110 mph when towed by a locomotive. The vehicle is not equipped with automatic cab signal, automatic train stop, or automatic train control systems. FRA T-18 and T-2000 Geometry Cars cannot negotiate curves greater than 20-degrees. Additionally, due to truck center length, the center of car swing-out clearance is limited on curves greater than 13-degrees, therefore may restrict safe movement. The maximum authorized speed of the T-16 is 125 MPH and is not restricted by special track work.
13. Neither FRA nor contractor employees will operate a railroad switch or derail and will rely upon a railroad employee to perform that function. Protective devices (*i.e.*, blue signal, derails and locking devices, owned by FRA) will be applied by contractor employees after receiving authority

for placement from the appropriate railroad representative. A 'blue signal' will be displayed on or near the FRA Geometry Car control stand at a readily visible location and the 'key' removed when on ground instrument verification (i-v's) checks are made. Similarly, positive protection (brakes placed in emergency position and surrendering of the locomotive reverser) will be imposed by FRA when the FRA Geometry Car is towed by a locomotive.

14. Except within a locomotive servicing area or car shop area, the FRA Geometry Car may be repositioned by the FRA at anytime on a track or portion of a track that is exclusively occupied by the FRA Geometry Car and protected by FRA owned devices. Within a locomotive servicing area or car shop area, a 'railroad's blue signal rules' will be in place and complied with, to protect 'anyone' on, under or about the FRA Geometry Car. The FRA Geometry Car may be repositioned, only after the movement is authorized by the railroad employee-in-charge of the workmen and approved by the FRA.
15. When unoccupied and at the request of FRA, FRA Geometry Car protection will be provided by the railroad. Additionally, the FRA Geometry Car will not be relocated or coupled to other rolling equipment without permission by the FRA. To prevent undesirable access, a remotely controlled or manually operated switch providing entrance to the track occupied by the FRA Geometry Car will be aligned against movement to that track. Where provided, electrical or mechanical blocking devices will be used on the switch and signal controls. Additionally, the switch will be secured with an effective locking device, exclusive to FRA. The switch stand's operating mechanism will be equipped with a visible all-weather display tag warning any users, "**Out of Service-Do Not Operate.**" If a switch cannot be aligned and locked, as described, derails capable of restricting access will be used instead of an effective locking device. The placement (Protective devices, owned by FRA, will be placed not less than 150-feet from each end of the FRA Geometry Car, where appropriate of front and rear "portable train control" signs will be displayed in the center of the track, adjacent to derails, marking the presence of the FRA Geometry Car. The warning sign will consist of 16x24-inch red placard, signifying rolling equipment cannot pass. A FRA Geometry Car wheel will be securely chocked to prohibit movement on its own.

### 38. Rail Detector Cars

Sperry Rail Bound detector cars with 100 series numbers will be utilized for rail flaw detection. These units are self-contained rail cars which cannot be depended upon to continuously actuate the block signal circuits and crossing warning devices. When deadheading to a work location, they will require an engineer pilot; when working to detect rail flaws, they will be accompanied by a MW supervisor.

These units should be authorized and protected in the following manner:

#### CTC Territory

When the equipment is working to detect rail flaws, it will be authorized and protected by track and time, Rule 10.3. When being deadheaded to a work location, the equipment will operate by signal indication and must report to the control operator when it has passed each control point. The control operator will apply blocking devices on the control machine behind this equipment as soon as progress report is received.

#### TWC Territory

When the equipment is working to detect rail flaws, it may be authorized and protected by Form B track bulletin under the provisions of Rule 15.2.1. This type of protection may also be afforded when deadheading the equipment in TWC territory. (Rule 15.2.1 may only be used on divisions where authorized by timetable or general order). Where Rule 15.2.1 is not allowed, track warrant protection may be used for authority.

**Exception:** Track warrant protection must not be used inside of yard limits in ABS territory since the equipment cannot be depended upon to continuously actuate the block signal system.

#### Track Permit Territory

The equipment will be authorized and protected by track permit under the provisions of Rule 9.15. At automatic interlockings, the units will be handled accordingly to the instructions in the equipment release box and not by the train release box instructions. At manual interlockings, the control operator will follow instructions for handling track cars rather than trains. These units must approach all grade crossings equipped with automatic crossing warning devices prepared to stop until it is determined that crossing warning device is operating properly.

### 39. Rule of the Week

All employees must review the requirements of the Rule of the Week. Please direct any questions you may have to your immediate supervisor. You should be prepared to discuss the requirements of the "Rule of the Week" with your supervisor. "Rule of the Week" will be included in the field testing (Operations Testing) procedures.

### 40. Rear End Restricted Cars

Cars restricted to "rear end only" may be in train up to five cars ahead of rear car. Certain cars may require extreme rear end movement because of mechanical deficiencies.

### 41. Car Identification B-End

**Conventional Equipment:** The "B" end of the car is the end where the hand brake is located. Face the "B" end of the car. The left side of the car is to your left and the right side of the car is to your right as you face the "B" end. Count axles from the "B" end beginning with No. 1 being closest to you and No. 4 being farthest away. If the defective journal or wheel is the third axle away from the "B" end of the car on the left side as you face the equipment you will report it as "L3."

**Articulated Equipment:** The important thing is to locate the "B" end of the car. Each segment or unit of such cars is identified by a letter. This letter and the car number are shown on small badge plates located on each segment or unit of the car. The end segments are designated "A" and "B." The interior segments or units are designed (beginning at the "B" end) by the letters "C" through "E" on the five unit or segment cars. Locate the "B" end of the car as indicated by the stencil. Do not rely on the location of the hand brake. Many of these cars are equipped with a hand brake on each end.

Face the "B" end of the equipment. The left side of the car is to your left and the right side of the car is to your right as you face the "B" end of the equipment.

Count axles from the "B" end beginning with No. 1 being closest to you. The axles on this type of equipment are numbered consecutively from No. 1 through No. 9 and then by the alphabet with axle "10" identified by the letter "Z," axle "11" by the letter "Y," axle "12" by the letter "X," etc., going backwards through the alphabet.

If the defective journal or wheel is the ninth axle away from the "B" end of the car on the right side as you face the equipment, you will report it as "R9." If it is the fourteenth axle away from the "B" end of the car on the right side as you face the equipment, you would report it as "RV." Remember, on this equipment, axles "1" through "9" are identified numerically. Axles "10" through "14" are identified alphabetically beginning with the letter "Z" working backwards. Each axle is stenciled on most multi-segment or unit equipment on the truck side. Use the stencil when available to verify your identification.

**42. Gravity Switch Moves**

Unless otherwise restricted, a gravity switch move can be utilized where car(s) must be repositioned on the opposite end of the engine. Not more than five cars may be handled at one time in this manner, and only with sufficient hand brakes manned by crew member(s) to insure that the movement can be controlled. Riding the hand brake on shiftable loads must be avoided.

When making this move, the hand brake(s) to be used to control the movement must be tested to ensure proper operation. Hand brakes may then be released to allow car(s) to gravity roll into desired track. Crew member(s) must ride the car(s) and use the hand brake(s) to control speed and to stop. Such cars must not be allowed to couple to other equipment while this method of switching is being used. Other methods of handling such moves, historically referred to as "dropping of cars," are prohibited, except at specific locations where authorized.

**43. Signal Awareness/Position of Switch Form**

Subdivision-specific signal awareness/position of switch forms are available at on-duty points. In addition to observing and calling signals as required by GCOR Rule 1.47, the conductor must fill out one of these forms in ink while operating on BNSF and foreign railroads. Foreign railroads operating on BNSF are allowed to use their own signal awareness/position of switch forms when approved.

All block signal names or aspects and yellow or yellow/red flags must be recorded. With the exception of CLEAR signals, which only require the name or aspect to be recorded, information must include the location of each flag, the train speed, time the signal or flag is passed and name or aspect of the signal that was called. When speed indicator is not visible to the conductor, the engineer must call out the speed, in addition to the signal name or aspect, if other than CLEAR. Should the conductor be unable to record a signal aspect due to other activities, this fact must be noted on the form, including the reason.

When operating on an Approach or Diverging Approach signal indication, the engineer must notify the conductor when the train speed has reduced to the required speed. The conductor must note the time the train has reduced to the required speed on the signal awareness form and repeat the time to the engineer. A job safety briefing between the conductor and engineer must confirm understanding that the train may be required to stop at the next signal.

In non-signaled territory or Double Track ABS territory (except in restricted limits and yard limits) a crew member must record the name and location of all hand operated main track switches, switch point locks, and derails used, and the time they are finally restored to the proper position on the Signal Awareness/Position of Switch form. Information must be recorded on the form as soon as practical after initially changing the position of the switch, switch point lock or derail.

The time the switch, switch point lock or derail is restored and secured must be recorded on the form and initialed by the conductor and engineer before the crew departs that location. Initialing each entry serves as a cross check to indicate switch, switch point lock or derail position has been briefed between crew members.

In addition, in non-signaled territory or Double Track ABS territory (except in restricted limits and yard limits), after a crew member lines a hand operated main track switch, the crew member must communicate with the engineer by radio using the following format, while physically at the switch location:

- "(Crew member title and name) has lined (switch at MP location or name of switch and station name) to the (normal/reverse) position."

Before movement may occur, the engineer must respond using the following format:

- "Engineer (name) understands (employee title and name) has lined (switch at MP location or name of switch and station name) to the (normal/reverse) position."

If radios become inoperable, all crew members must job brief regarding use of hand operated main track switches, switch point locks, and derails before use, with notation of inoperable radio made on the Signal Awareness/Position of Switch form.

At the completion of each trip, the original form must be turned in as directed by the Division General Manager.

Standard forms:

Signal Awareness Form (Location to Location)										
Date: _____		Conductor: _____			Engineer: _____					
Train Symbol: _____										
Block System Limits										
Line No.	Signal and Location	Signal Name						*Speed	*Time	Flag Location and Name
		Clear (Mark X)	Approach Medium (Mark X)	Approach (Mark X)	Stop and Proceed (Mark X)	Stop (Mark X)	Other (Mark X)			
1										
2										
3										
4										
5										
6										

\* It is not required to indicate speed and time for CLEAR signals.  
 The following abbreviations may be used: AL - Approach Limited, AA - Advance Approach, AR - Approach Restricting, DC - Diverging Clear, DAD - Diverging Approach Diverging, DAM - Diverging Approach Medium, DA - Diverging Approach, R - Restricting, Y - Yellow Flag, YR - Yellow/Red Flag

Position of Switch/Flag Location						
Flag Location	Flag Name	MPH	Switch/Derail/ Switch Point Lock Name and Location	Time Restored	Engineer's Initials	Conductor's Initials
Examples:						
MP 21	Y	30				
			W House Track SW Bess	1935	KDW	LGW
			ESS Anna	Box 21	KDW	LGW

The following abbreviations may be used: Y - Yellow Flag, YR - Yellow/Red Flag

**44. Report of Unsafe Motorist/Trespasser**

The Report of Unsafe Motorist/Trespasser Program is designed to capture information on near collisions between trains and vehicles, trespassers or pedestrians. When an incident occurs, employees should make a report by one of the following methods:

- Pre-addressed/Postage-paid postcard (Form SAF51680)

- Fill in as much information as possible. Note: A license number is not necessary for the report to have value.
- Place in company or US mail for handling.
- Call 1-800-697-6736 - Accident Reporting Center  
Monday-Friday, 6 AM to midnight  
Saturday-Sunday, 6 AM to 2:30 PM
- Provide as much information as possible. Note: A license number is not necessary for the report to have value.
- If voice mail - Leave information for processing.
- Intranet - For convenience, a form is available on-line via the BNSF Intranet in "Safety and Rules/Grade Crossing Safety" which can be filled in and sent on-line.

Emergencies must not be reported on the Accident Reporting Center number. Emergencies must be reported as follows:

- Radio/telephone contact with train dispatcher.
- Radio/telephone/verbal contact with local BNSF resource protection personnel or to the Resource Protection Command Center at 1-800-832-5452

**45. Network Operations Center Notification Requirements**

BNSF timetable special instructions for individual subdivisions provide a table of radio call-in tones for contacting the Train Dispatcher, Mechanical Help Desk and Service Support. Tone call-in numbers may be a single digit or as many as three digits as outlined by timetable special instructions, depending on radio systems.

**Procedures for Contacting Help Desks**

- Train Dispatcher—Train crews should continue to contact the train dispatcher as required by current instructions for all delays. When reporting mechanical defects on locomotives, cars, or other equipment such as an ETD, the dispatcher must be contacted initially in order to manage delays relative to these defects.
- Mechanical Help Desk—After initially recording and providing general information about defective locomotives, cars, or an ETD to the train dispatcher, the Mechanical Help Desk must be communicated with concerning the defect. Crew will report specific details concerning the defect and be governed by that supervisor's instructions concerning handling of the defect.

The Mechanical Help Desk may also be contacted by phone at:

Operations North—(817) 234-6258, Co. Line (8) 234-6258  
Operations South—(817) 234-2300, Co. Line (8) 234-2300

- Signal Desk—Signal Help Desk (SC) radio tone call-in references are no longer valid, and all signal defect/trouble reports should be reported directly to the train dispatcher.
- Service Support—In addition to reporting via radio to Service Support at Fort Worth, the following phone numbers and fax numbers may be used:

Train reporting  
BNSF company line—(8) 593-7610  
Toll-free line—(800) 549-4601  
BNSF fax line—(8) 593-7615  
Fax toll-free line—(800) 234-1341

Interchange reporting  
BNSF company line—(8) 593-7640  
Toll-free line—(800) 206-3846  
BNSF fax line—(8) 593-7645  
Fax toll-free line—(800) 223-6757

**46. Special Car Handling Instructions**

One or any combination of two of the following codes may be shown on train lists to designate special car handling requirements. These same codes may also appear in the Special Instruction Column of switch lists and yard inventories.

CODE	DESCRIPTION
AG .....	Armed Guard Service
AV .....	Annual Volume
BH .....	Bad Order Home Shops
BN .....	If Bad Order Notify Shipper
BT .....	Bare Table Flat
B1 .....	Bad Order
C .....	Customer Chassis Required
CA .....	Moving on Equipment Instruction
CC .....	To Be Cleaned and Conditioned
CD .....	Condemned Car (See Note 1)
CI .....	Customs Inspection
CO .....	Coload Manifest Car
CS .....	Customer Storage
CU .....	Customer Stage
CY .....	Certification That This Equipment is for Recycling
DB .....	Distributed Van Bad Ordered
DH .....	Do Not Hump
DI .....	Redistribute at Destination
DN .....	Shipper's Authority Required for Diversion
DO .....	Delivery Order Shipment
DR .....	Drop Yard
DT .....	Distributed Intermodal Equipment
DU .....	Do Not Uncouple
DV .....	Unit has been diverted
EC .....	Speed Restriction 55 MPH
EH .....	Embargo Hold
EL .....	Empty Container Mechanical Lock
EM .....	Hold for Equipment Management
ER .....	Return Empty Via Reverse Route
ES .....	Expedited Service
EW .....	Hold Early Warning
FA .....	Automobiles Headlights Facing A-End (Opp. of Brake End) of Autoveyor
FB .....	Automobiles Headlights Facing B (Brake End) of Autoveyor
FM .....	Fumigate Car Now
FP .....	Fumigation Placards Applied
HA .....	Cars Held for the Customer in Bond Pending Customs Authority
HB .....	Hold for Billing—Mini Waybill Indicating Industry to Bill
HC .....	Hold for FMC Redistribution
HD .....	Cars Held for Customer Diversion
HE .....	Head End Only
HF .....	Car Held for BNSF Rail Clearances (High Widess)
HG .....	Cars Held for BNSF Pending Customer File Information
HH .....	Cars Held for Overload Condition
HI .....	Hold for Inspection
HJ .....	Cars Held for a Foreign Railroad After Being Offered by BNSF for ICD
HK .....	Empty Non-Private Cars Held on BNSF Track and No Car Order Exists
HL .....	Excessive Dimension
HM .....	Moving in ISO Tank Container
HN .....	Cars Held for Specified Local Conditions, **Restricted Usage
HO .....	Cars Held for Consignee to Surrender Original BOL or Indemnity Bond
HR .....	Cars Held for Customer Furtherance Instructions After Arr at Dest

HS ..... Empty (Non-Private) Cars Held on BNSF Trackage Awaiting Placement  
 HT ..... Heat Car  
 HV ..... High Value Shipment  
 HX ..... Cars Held Waiting for Waybill Information from Connecting Carrier  
 IB ..... In BNSF Bond  
 IC ..... Inspection Requested at Port of Entry into Canada by Canadian Customs  
 ID ..... In Bond Beyond BNSF Destination  
 IE ..... Interchange Error  
 IH ..... Inhalation Hazard  
 IM ..... Inspection was Requested by Mexican Customs at Port of Entry into Mexico  
 IN ..... Hold for Inspection  
 IS ..... In Shipper's Bond  
 IU ..... Inspection was Requested by US Customs at Port of Entry into USA  
 L ..... Tank Surveillance Required  
 LC ..... Car Trip Leased to Consignee  
 LD ..... Local Distribution Empty  
 LG ..... Loaded to Gallonage Capacity  
 LO ..... Local Orders  
 LQ ..... Loaded to Full Cubic Capacity  
 LS ..... Handle in Local Service Only  
 LU ..... Unload in Laredo proper  
 LV ..... Loaded to Full Visible Capacity  
 LX ..... Cleared for export via Laredo  
 M ..... Person in Charge of Car  
 MB ..... Make Bill of Lading  
 MC ..... Measure Car Now  
 MD ..... Mixed Destination Intermodal Units  
 MI ..... Requires mechanical inspection, do not move on train.  
 MN 5 ..... A running reefer unit set at -5 degrees Fahrenheit  
 MR 28 ..... A running reefer unit set at 28 degrees Fahrenheit  
 NC ..... Non-credit Patron  
 ND ..... Do Not Divert  
 NH ..... No Hit—Car Distribution  
 NM ..... Non Misc. Credit Patron—Car held account charges due  
 NP ..... No Placards Required  
 NT ..... Do Not Transfer Contents  
 OI ..... Oils Marine Pollutant  
 ON ..... Oil Notation  
 PD ..... Privately Owned Equipment Subject to Demurrage  
 PH ..... Hold for Pool Destination  
 PJ ..... Mechanical Project Job  
 PR ..... Prospective Loading Empty  
 PT ..... Hold for Pre-Trip  
 QD ..... Hold for Queue Demand  
 RE ..... Rear End Only  
 RI ..... Rail Inspection Service  
 RJ ..... Hold for Rejected  
 RP ..... Rail Controlled Private  
 RS ..... Rule 7 Reject Candidate  
 SC ..... Equipment Scrapped  
 SD ..... Car Sold  
 SE ..... Hold for Seasonal Storage  
 SF ..... Feed Now  
 SO ..... Shipper's Order  
 SR ..... Greater Security Service  
 SS ..... Surplus Storage  
 ST ..... Move on special train only, requires single car train movement.  
 SW ..... Switch Only Empty Furnished by Foreign Road  
 TB ..... Car Control Distributed Bad Order

TG ..... Transp. Code G—contaminated commodity service. Cars should not be placed at industry other than so designated.  
 TS ..... Transit Shipment  
 TU ..... Turn This Car Now  
 UL ..... Unload from left side of car. Left side of car determined by facing the "B" (brake) end of car.  
 UP ..... Unloaded as Placarded  
 UR ..... Unload from right side (from brake end)  
 VA ..... Vehicle Headlights Facing A-End (Opp. of Brake-End)  
 VB ..... Vehicles Headlights Facing B-End (Brake End)  
 UP ..... Unload as Placarded  
 WA ..... Weigh After Spotted and Released  
 WB ..... Weigh This Car Both Before and After It Goes to Spot  
 WH ..... Weigh  
 WI ..... Waive Inspection  
 WL ..... Weigh Light  
 XM ..... Cleared to Cross from US to Mexico  
 Y ..... Mechanical Refrigeration  
 Z ..... Expeditor Train  
 25 ..... 25 MPH Speed Restriction (See Note 2)

**Clean and Condition Codes for Empty Cars**

CODE	DESCRIPTION
F1	Washed, Food Grade
F2	Cleaned (Swept), Food Grade
F3	Dirty, Food Grade
F4	Cond/Repairs, Food Grade
F5	"Not Observed", Food Grade
F6	Rinse, Food Grade
F7	Inspected, Food Grade
P1	Washed, Processor Grade
P2	Cleaned (Swept), Processor Grade
P3	Dirty, Processor Grade
P4	Cond/Repairs, Processor Grade
P5	"Not Observed", Processor Grade
P6	Rinse, Processor Grade
P7	Inspected, Processor Grade
S1	Washed, Standard Grade
S2	Cleaned (Swept), Standard Grade
S3	Dirty, Standard Grade
S4	Cond/Repairs, Standard Grade
S5	"Not Observed", Standard Grade
S6	Rinse, Standard Grade
S7	Inspected, Standard Grade
S0	Washed and Sanitized

**Other Codes**

There are a number of SCHI codes that begin with a number followed by alpha character which are used to identify alternate storage locations. Example:

1A ..... Hold Storage Arkcity

Codes B1 through B9 mechanical codes reference the type of repairs needed for bad order cars.

Other codes for hazardous materials can be found in the US Hazardous Material Instructions for Rail.

**Note 1.** The 'CD' Condemned Car code will be inserted by the computer when the car is so registered in UMLER (Universal Machine Language Equipment Register). This does not relieve employees of the responsibility of reporting these codes when appropriate.

**Note 2.** Report numeric MPH speed restriction only, e.g., 25 for a car restricted to 25 MPH. Certain series of cars which have a permanent speed restriction will have the speed restriction code inserted by the computer. When such speed

or speeds are shown, trains must not exceed the lowest speed so indicated. This does not relieve employees of the responsibility of reporting the proper code on work order(s) on all cars which for any reason have speed restrictions.

When cars are subject to two special handling instructions, both codes should be reported. If subject to move with more than two, report the two most restrictive and protect other special handling requirements by an administrative message to those offices and/or individuals to whom the train is addressed.

When a car on a train list has the "HL" Car Code, and no clearance wire is received, contact your local CS&S office and obtain a clearance wire for the car. If unable to obtain a clearance wire, the car must be set out.

Car kind codes M3E (Hi Tri-Levels) and M3F (articulated Hi Tri-Levels must not be operated on any Branch Line or any location listed below:

- Barstow Subdivision—Barstow to Bettendorf via Crescent Bridge
- Beatrice Subdivision
- Bellingham Subdivision—USA Canada Border to Burlington
- Carthage Subdivision
- Chicago Subdivision—BRC overpass between MP 6.70 and MP 6.73 (Handle on Mains 4 and 5 only)
- Columbia River Subdivision
- Gateway Subdivision
- Hannibal Subdivision—Burlington to West Quincy
- Helena Subdivision
- Hi Line Subdivision  
(Exception: Car kind M3F may operate on this subdivision.)
- Kettle Falls Subdivision—Danville, WA, to San Poil
- Kootenai River Subdivision  
(Exception: Car kind M3F may operate on this subdivision.)
- Laurel Subdivision
- Lester Subdivision
- New Westminster Subdivision
- Omaha Subdivision—Handle on Main 1 only at Omaha Depot
- O E Subdivision
- Oregon Trunk Subdivision—Fallbridge to Bend
- Rockford Subdivision
- Rustler Springs Subdivision
- Scenic Subdivision
- Silsbee Subdivision—Beaumont to Brooks
- Sioux City Subdivision
- Stampede Subdivision
- Stockton Subdivision—Port Chicago to Richmond  
(Exception: Car kind M3F may operate on this subdivision.)
- Mitchell Subdivision
- Wayzata Subdivision
- Wymore Subdivision—Table Rock to Wymore

Car kind M3E and M3F may operate over all other Main Line Subdivisions without clearance wire to protect movement even if car has "HL" code on the train list. (See Item 7[f])

FTTX flatcars departing GM Plant, Oklahoma City destined for Kansas City (NS) may operate over Red Rock, Arkansas City, La Junta, Douglass, and Emporia Subdivisions without clearance wire to protect movement even if car has "HL" code on the train list. Mechanical inspection is not required on these cars in Oklahoma City.

**47. Train Make-Up Instructions**

Trailing Tonnage Restrictions:

1. The following cars must not be ahead of more than 2,500 trailing tons
  - All loaded or empty 2-axle cars (series TTOX and TTFX)

2. The following cars must not be ahead of more than 3,000 trailing tons (long car/short car)
  - Any car 80 ft or longer coupled to any car 45 ft or shorter. Exception: Next to locomotive crane 45 ft. or less if coupled to boom car 80 ft. or longer. Note: Item 2 does not apply to multi-platform cars except those with individual platforms exceeding 80 feet. (Examples: Twin flat cars and Automax cars)

3. The following cars must not be ahead of more than 5,500 trailing tons
  - Multi-platform spine cars, regardless of how loaded.

Total Train Tonnage Restrictions:

4. Trains greater than 5,500 total tons - The following cars must not be within the first 10 cars/platforms:
  - Any conventional car (non-multi-platform) weighing less than 45 tons.
  - Any 80 ft. or longer flat car with a single trailer/container, regardless of car weight. Note: This includes twin flat cars (solid-drawbar connected flat cars TTEX & RTTX series) with a single trailer/container on either segment/platform.
  - Multi-platform cars with any empty platforms.

Additional subdivision restrictions (excludes solid empty bulk commodity trains):  
On Glorieta (MP 775.0 - MP 842.0) and Raton (MP 639.0 - MP 660.0) Subdivisions the following additional restrictions apply:

Trains greater than 2,500 tons and less than 3,000 tons, the cars listed above must not be within the first 10 cars/platforms. Trains 3,000 tons or greater, the cars listed above must not be within the first 15 cars/platforms.

On Cajon (Main 2, MP 56.6 - MP 62.8), Gateway (MP 178.0 - 188.0), Mojave (MP 331.3 - MP 381.3), Scenic (MP 1694.5 - MP 1731.3) and Stampede (MP 41.0 - MP 58.5), additional restrictions apply:

Trains greater than 3,500 tons and less than 4,000 tons, the cars listed above must not be within the first 10 cars/platforms. Trains 4,000 tons or greater, the cars listed above must not be within the first 15 cars/platforms.

Note: Unless otherwise authorized, all trains destined Cajon or Mojave Subdivisions will be made up in compliance with above guidelines for Cajon Subdivision (Main 2, MP 56.6 - MP 62.8) and Mojave Subdivision MP 331.3 - MP 381.3).

5. Trains greater than 7,000 tons -
  - Rear 1/4 of the train must not weigh more than 1/3 of the total weight. 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.

NOTE: If a train is determined to be out of compliance with these train make-up rules and maximum authorized speed exceeds 45 MPH, speed must immediately be reduced to 45 MPH and train dispatcher notified.

Train must not exceed a maximum speed of 45 MPH until it reaches the location specified by the train dispatcher to correct the condition.

**Detoured Foreign Trains**

If a foreign line train operating on the BNSF for purposes of detour is in compliance with BNSF train make-up instructions, the train may be operated at maximum speed that would be permitted if train was a BNSF train. If train does not comply with BNSF train make-up instructions, train is authorized to

operate on BNSF at a maximum speed of 45 MPH.

#### Train Length

When complying with Special Instructions covering speed and other train restrictions where calculations of train length and/or tons per operating brake are involved, the locomotive consist should be excluded unless specifically stated otherwise.

#### Military Train

Unit military trains containing shipments on cars with end of car cushioning as shown on the train profile (EOC) shall have no more than total of 80 cars in the train. If train exceeds 60 cars, train is restricted to 45 MPH.

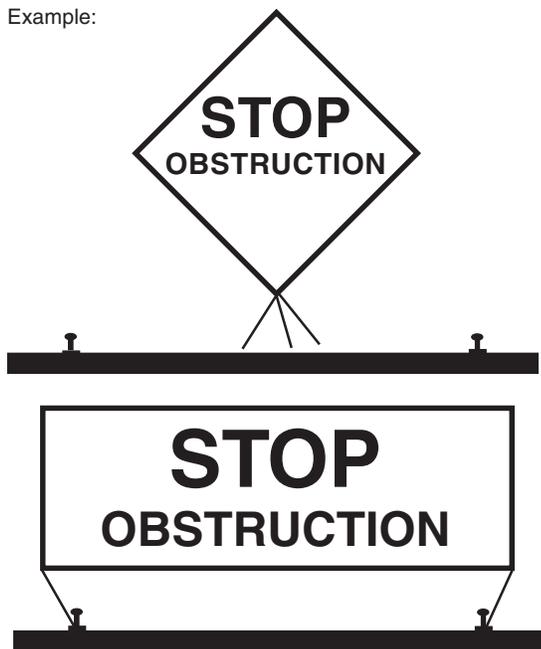
#### Exceptions

Trains which are exempt from the above train make-up instructions will be identified on Division General Order.

#### 48. Operations Testing

When operations testing is performed to test for compliance with the following rules, a banner with red reflectorized border and lettering on a white background may be stretched across the track. It will display 'STOP' or 'STOP OBSTRUCTION.' In addition, a banner displayed square on point, colored high visibility orange or white and retroreflective with the words "STOP OBSTRUCTION" may be used. It will be placed between the rails of the track and is considered a STOP signal.

Example:



These banners are considered a stop signal and a simulation of on-track equipment. Whenever required by an operating rule, stop all train, engine, and on-track equipment movements short of the 'STOP' or 'STOP OBSTRUCTION' banner.

Examples of operating rules where the 'STOP' or 'STOP OBSTRUCTION' banner may be used as a stop signal are:

- GCOR & MWOR Rule 6.27 Restricted Speed.
  - GCOR Rule 6.28 Movement On Other Than Main Track.
- or
- MWOR Rule 6.50 Movement of On-Track Equipment.

Expect to find the "STOP" or "STOP OBSTRUCTION" banner erected at any location, or at any time the rules above restrict movement.

#### 49. Engineer Responsibilities and Certification

(In the application of the following guidelines, the term engineer applies to Train Service Engineers, Student Engineers, Locomotive Servicing Engineers/Hostlers, Remote Control Operators (RCO), and Student Remote Control Operators.

##### 1. General Responsibilities

Certified train service engineers are responsible for and must maintain their locomotive engineer certification.

Engineer certification must comply with these federal and company requirements:

- a. Engineers must be certified in the appropriate class of service to operate a locomotive.
- b. Engineers must certify according to federal regulations (49 CFR Part 240) and Burlington Northern Santa Fe (BNSF) certification requirements and programs.
- c. Engineers must possess their class of service certificate and display it at the request of a company manager or FRA representative while on duty.
- d. Engineers must report convictions for:
  - Operating a motor vehicle while under the influence or impaired by alcohol or a controlled substance.
  - Refusing to undergo testing by a law enforcement officer who wants to determine whether the engineer is operating a motor vehicle while 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 under this rule.
  - An engineer must report any conviction to his or her supervisor responsible for certification no later than 48 hours following the day the engineer receives notice of the motor vehicle conviction.

##### 2. Engineer Certification Requirements for Operating Locomotives

Certified engineers may operate locomotives under the following conditions:

- a. A certified locomotive servicing engineer may not operate locomotives coupled to cars.
- b. A certified locomotive servicing engineer may operate locomotives within a yard or terminal area for hosting purposes.
- c. Only certified Train Service Engineers, Student Train Service Engineers, Remote Control Operators, and Student Remote Control Operators may operate locomotives coupled to cars.
- d. Certified student Engineers and Student Remote Control Operators utilizing a Remote Control Transmitter may operate locomotives within the limits of their class of service under the direct supervision of an Engineer Instructor or Remote Control Operator Instructor. Prior to operating a locomotive in a yard or over a road territory for the first time, a certified Engineer or Remote Control Operator must have made at least one trip observing the territory. Engineer Instructors must have a minimum of six months of experience on the road territory over which they are supervising Certified Student Engineers.
- e. Certified Student Remote Control Operators may operate a locomotive using a Remote Control Transmitter under the direct supervision of a Remote Control Operator Instructor.
 

Note: An RCO Instructor must have a minimum of 3 weeks experience as a Certified Remote Control Operator before training a student.
- f. Certified Train Service Engineers and Locomotive Servicing Engineers, including Train Service Engineers/

Locomotive Servicing Engineers that have been cutback to train service, and Remote Control Operators who have not had their evaluation and certificate signed prior to October 1 of each year, must advise their respective Road Foreman of Engines or Designated Supervisor of Remote Control Operators (DSRCO) of this fact. Should a new Road Foreman or DSRCO be assigned or a Engineer or Remote Control Operator change work locations after October 1; the Train Service Engineer/ Locomotive Servicing Engineer or Remote Control Operator must again report to the new Road Foreman of Engines or DSRCO that certification evaluation is due.

### 3. Maintaining Locomotive Engineer Proficiency for Skills, Route Familiarization and Special Equipment

Certified employees must maintain proficiency as an engineer as it pertains to:

- Skills Proficiency
- Route familiarization and
- Special or unique equipment.

#### a. Skills Proficiency

An Engineer who has not operated a locomotive in the last 6 months, including under the provisions of Rule 1.47, Item B, Engineer Responsibilities, of the General Code of Operating Rules, must inform crew management of this fact when called to perform service as an engineer and that he/she may only be used as an Engineer/RCO if another qualified Engineer/RCO acts as a mentor (this includes a member of the crew who is qualified as an engineer/RCO or a supervisory engineer/RCO). If seniority limitations or any situation results in a qualified locomotive Engineer not performing the skills of an Engineer for a period of 6 months, that individual must immediately contact his/her Road Foreman of Engines or Supervisory Remote Control Operator (DSRCO) or other supervisor to determine the number of trips required, if any, and routes, for the purpose of maintaining the Engineer's skills proficiency.

Exception:

The period is extended to 12 months for RCO if they are also certified as a train service engineer.

#### b. Route Familiarization

Route familiarization is required in order to perform service as a certified train service engineer without the assistance of a pilot. Once initially qualified on a specific route by making the required number of familiarization trips as specified by the Road Foreman of Engines, route familiarization is maintained by observing the route when performing service in any capacity (engineer or trainman) every 12 months. Other methods of maintaining route familiarization may also be available as specified by the Road Foreman of Engines.

**Exception:** Route familiarization as outlined above on the heavy and/or mountain grades of the subdivisions listed below, in any capacity, is required every six (6) months: Cajon, Mojave, Gateway, Scenic, Stampede, Glorieta, Raton, Pikes Peak and Hi Line subdivisions. Train service engineers assigned to new routes or who become unqualified on current assigned routes due to lack of route familiarization are required to contact their Road Foreman of Engines (or other supervisor) who will advise the number of trips, if any, required to qualify or re-qualify on that route. If and when an engineer is qualified at the completion of these trips, the Road Foreman of Engines or other supervisor will then authorize the train

service engineer to perform service on that route without a pilot.

Route familiarization (and the use of a pilot) is not required when the movement to be made does NOT include a section of track with an average grade of greater than 1% over 3 continuous miles and;

1. The train is on other than main track; or
2. The maximum distance the locomotive or train will be operated will not exceed one mile; or
3. The maximum authorized speed for any operation on the track does not exceed 20 MPH; or
4. Operations are conducted under operating rules that require all movements to proceed at a speed that permits stopping within one half the range of vision of the locomotive engineer.

**Note:** Remote Control Operators must check local yard instructions for yard familiarization requirements.

### 4. Special Equipment Proficiency

Distributed power and electronically controlled pneumatic brake systems require the engineer to have continued experience in order to maintain an adequate level of proficiency. If after the engineer is initially qualified on this equipment and a period of 12 months occurs without any experience operating this equipment (whether or not as assigned engineer), the Road Foreman of Engines or other supervisor must be contacted and the engineer must be governed by his/her instructions concerning requirements to become re-qualified on this equipment.

There are several systems of RC equipment; a certified RCO must receive initial training on unfamiliar equipment before operating it. Once initial training is received the operator only needs to maintain qualification as an RCO on any system.

### 5. Route Familiarization Pilots

A person acting as a route familiarization pilot may not be an assigned member of the crew. In addition,

#### a. Train Service Engineers

1. When a pilot is required account engineer has NO previous experience on the route, the pilot must be a certified train service engineer.
2. When a pilot is required account engineer requires re-familiarization on a route where previously qualified, any person with route familiarization may be used as a pilot.

#### b. Remote Control Operators

1. When a pilot is required account the Remote Control Operator has NO previous experience on the Main Track, the pilot must be a Remote Control Operator.
2. When a pilot is required account the Remote Control Operator requires re-familiarization on a Main Track where previously qualified, a Remote Control Operator member of the same crew with route familiarization may be used as a pilot. In addition this crew member must be positioned at the same location as the individual requiring re-familiarization.

**Exception:** A pilot is not required if the Remote Control Operator has operated over the territory in another certified class of service.

**Note:** The requirements for the sections 'Skills Proficiency, Route Familiarization, and Special Equipment Proficiency' do not apply to any individual restricted to yard service as a train service locomotive engineer or locomotive servicing engineer unless otherwise instructed.

**Appendix A - Track Flagging Examples**

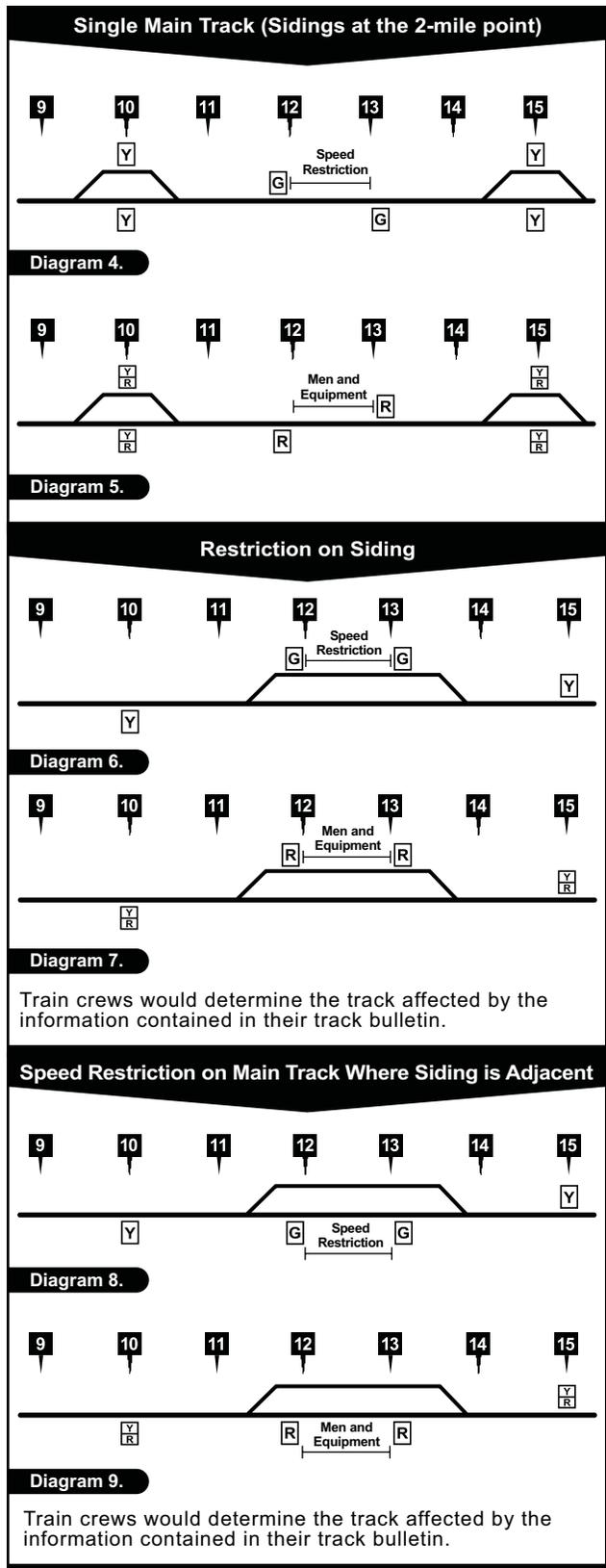
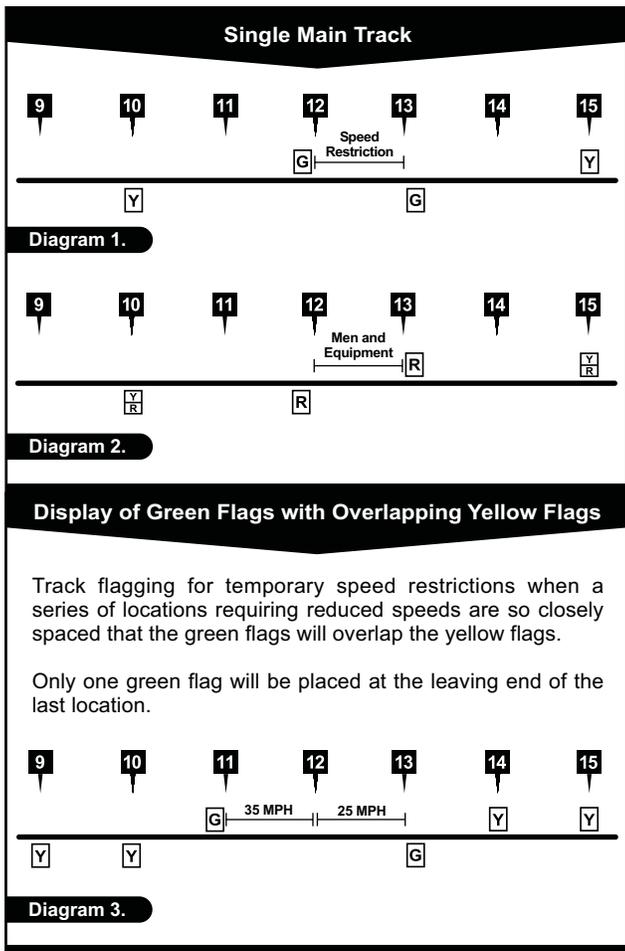
The figures in the appendix provide examples for protecting temporary speed restrictions and people or equipment working on or near the track. When reviewing these examples, keep in mind the following:

- The examples provided do not cover every situation.
- The distances shown are those specified by the rule.

In multiple main track territory, when a restriction is placed on a crossover, no track flags will be displayed after the restriction is specified by track bulletin or track warrant. This information must be included on the track bulletin or track warrant.

Yellow and yellow-red flags will be placed 2 miles before each restriction with the exception of at foreign line junctions, areas where flags cannot be placed 2 miles in advance and in certain situations at crew change points.

In situations in multiple main track or at sidings, when a train passes a yellow or yellow-red flag and a restriction is specified 2 miles in advance on track bulletin or track warrant, if the train takes a different route from the restricted track, this will not be considered as an unspecified restriction. Crew members must determine the track affected by comparing the flag location with the information contained in the track bulletin.



Train crews would determine the track affected by the information contained in their track bulletin.

Train crews would determine the track affected by the information contained in their track bulletin.

**Speed Restriction When Flag Cannot Be Placed 2 Miles in Advance**

Location of short flag must be indicated in track bulletin or track warrant.

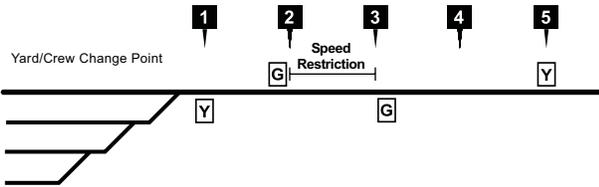


Diagram 10.

**When Flag Cannot Be Placed 2 Miles in Advance of Men and Equipment**

Location of short flag must be indicated in track bulletin or track warrant.

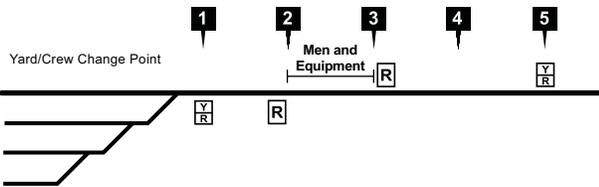


Diagram 11.

**Speed Restriction at Foreign Line Junction**

Location of short flag must be indicated in track bulletin or track warrant.

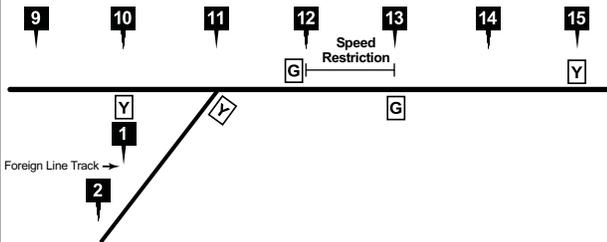


Diagram 12.

**Foreign Line junction Near Men and Equipment**

Location of short flag must be indicated in track bulletin or track warrant.

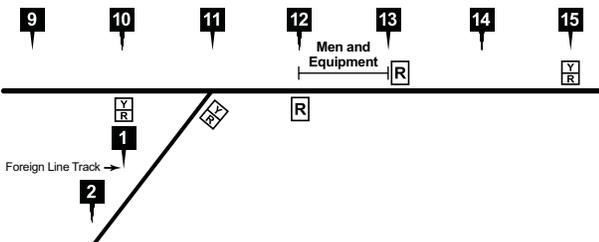


Diagram 13.

**Speed Restriction at BNSF Junction**

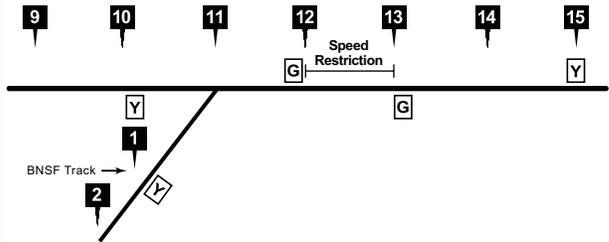


Diagram 14.

**BNSF Junction Near Men and Equipment**

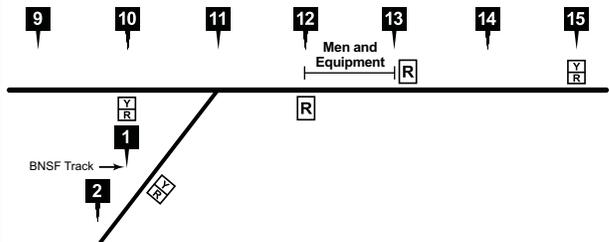


Diagram 15.

**Speed Restriction Just Beyond Turnout to Third Main Track**

Train crews would determine the track affected by the information contained in their track bulletin.

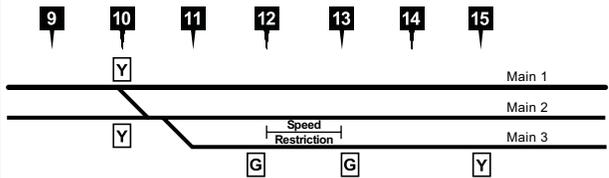


Diagram 16.

**Men and Equipment just Beyond Turnout to Third Main Track**

Train crews would determine the track affected by the information contained in their track bulletin.

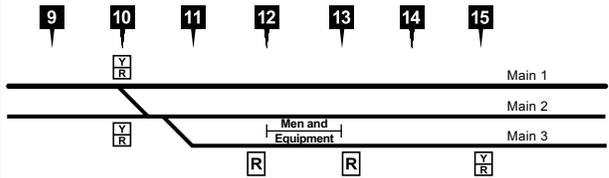
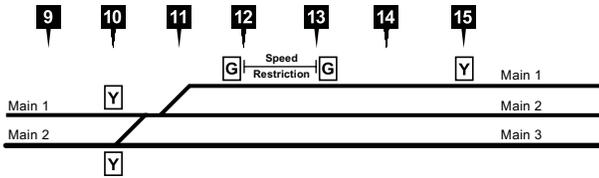


Diagram 17.

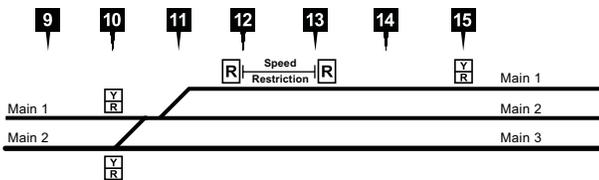
**Speed Restriction Just Beyond Turnout to Main 1**

Train crews would determine the track affected by the information contained in their track bulletin.



**Diagram 18.**

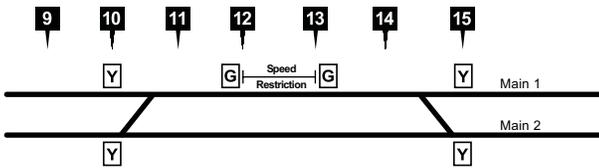
**Men and Equipment Just Beyond Turnout to Main 1**



**Diagram 19.**

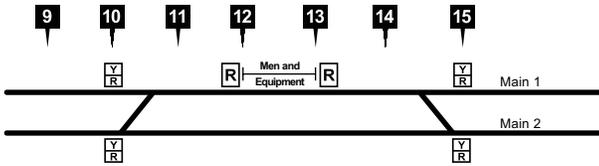
**Speed Restriction on Multiple Main Track**

Train crews would determine the track affected by the information contained in their track bulletin.



**Diagram 20.**

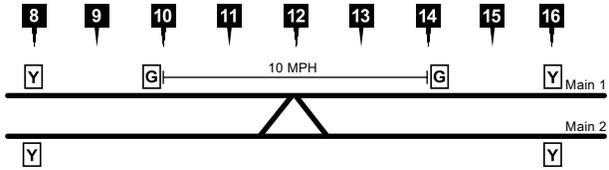
**Men and Equipment on Multiple Main Track**



**Diagram 21.**

**Speed Restriction on Main 1 (CTC Territory)**

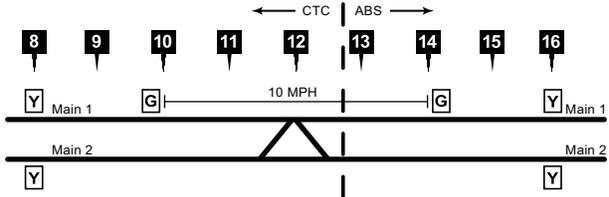
Yellow flags are placed 2 miles from the point of the restriction on both tracks because crews determine the track affected by comparing yellow flag with information on their track bulletin.



**Diagram 22.**

**Speed Restriction on Main 1 (CTC and ABS Territory)**

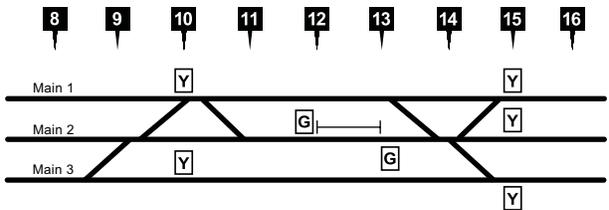
Yellow flags are placed 2 miles from the point of the restriction on both tracks. When a restriction, or flags placed for a restriction, includes both CTC and DT ABS, flags will be placed in accordance with rules for flag placement in multiple main track CTC.



**Diagram 23.**

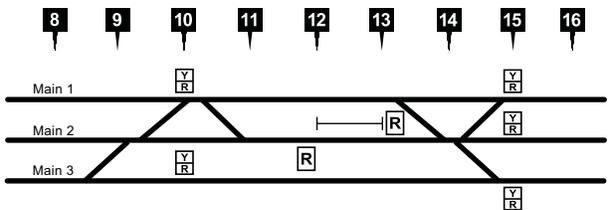
**Speed Restriction on Multiple Main Tracks (3 or More Main Tracks)**

Train crews would determine the track affected by the instruction contained in their track bulletin.



**Diagram 24.**

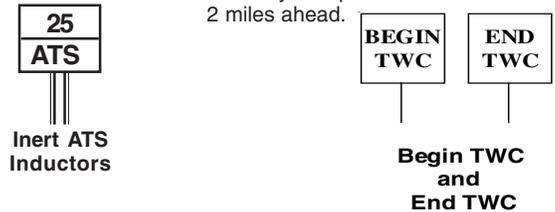
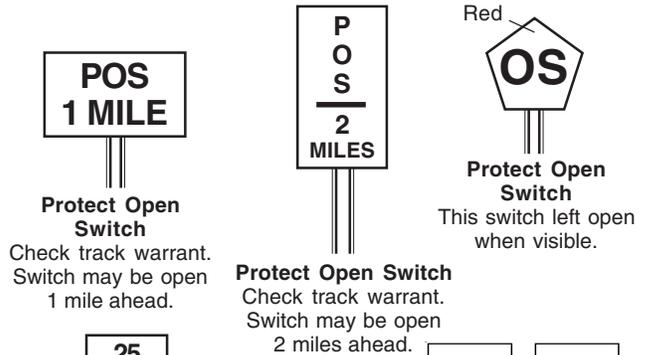
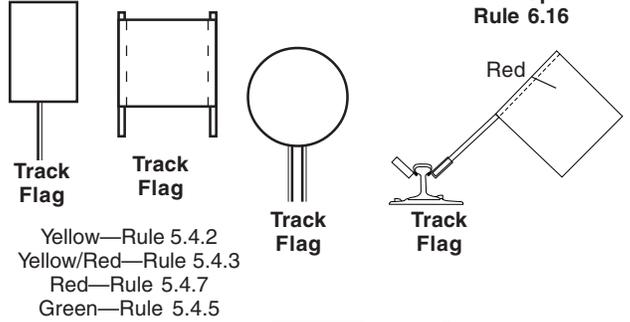
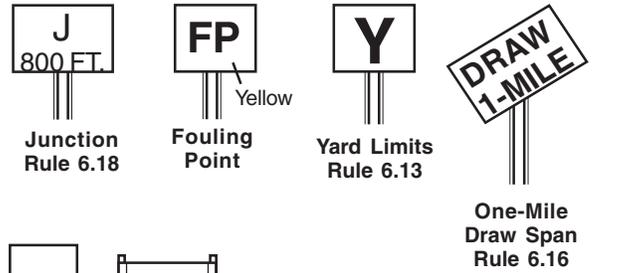
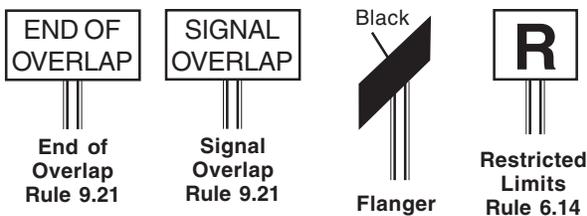
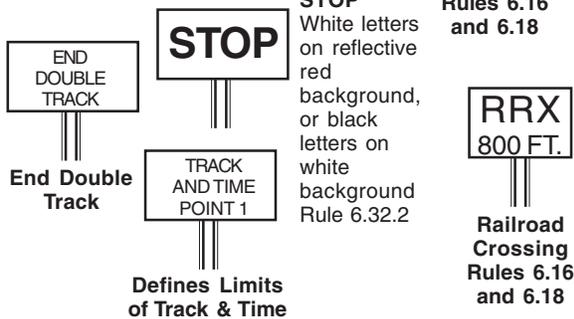
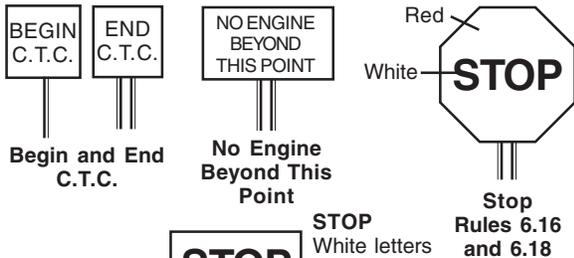
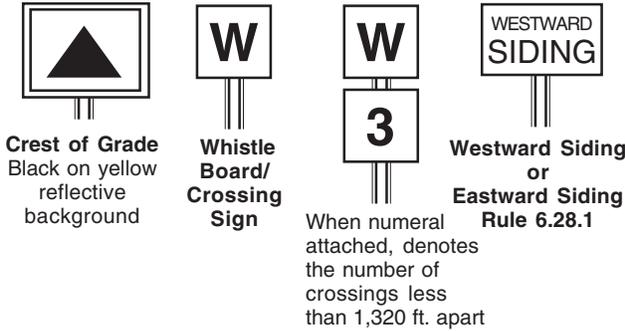
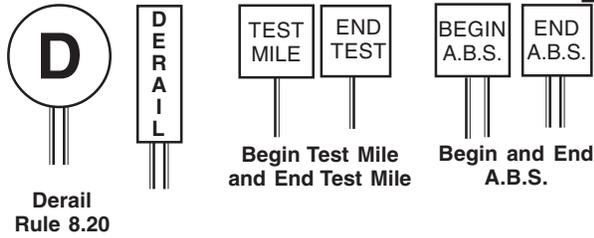
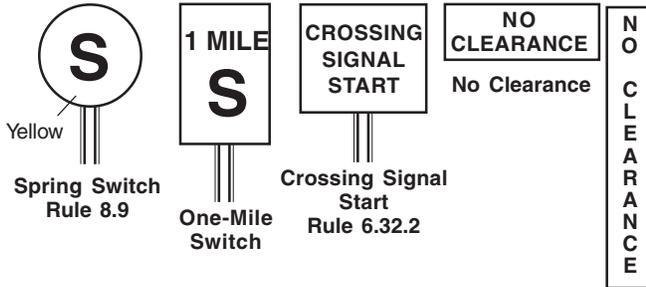
**Men and Equipment on Multiple Main Tracks (3 or More Main Tracks)**



**Diagram 25.**

**Appendix B - Roadway Signs**

Except as shown, the following roadway signs have white backgrounds and black letters and/or numbers.



**Appendix C - Division/Subdivision Index**

**Division Subdivisions**

California ..... Bakersfield  
 Cajon  
 Lucerne Valley  
 Mojave  
 Needles  
 Riverbank  
 San Bernardino  
 San Diego  
 Stockton

Chicago ..... Aurora  
 Barstow  
 Brookfield  
 Chicago  
 Chillicothe  
 Marceline  
 Mendota  
 Peoria  
 St. Croix  
 Thomas Hill

Gulf ..... Bay City  
 Conroe  
 Galveston  
 Houston  
 Lafayette  
 Lampasas  
 Longview  
 Mykawa  
 Silsbee

Kansas ..... Arkansas City  
 Douglass  
 Emporia  
 Hereford  
 La Junta  
 Panhandle  
 Plainview  
 Slaton  
 South Plains  
 Strong City  
 Topeka

Los Angeles ..... Alameda Corridor  
 Harbor  
 San Bernardino

Montana ..... Big Horn  
 Big Sandy  
 Casper  
 Choteau  
 Circle  
 Cody  
 Colstrip  
 Crosby  
 Dickinson  
 Dutch  
 Fairfield  
 Forsyth  
 Ft. Benton  
 Glasgow  
 Grenora  
 Helena  
 Hettinger  
 Hi Line  
 Laurel  
 Lewistown

Montana ..... Milk River  
 Niobe  
 Sarpy Line  
 Scobey  
 Sidney Line  
 Sweet Grass  
 Valier

Nebraska ..... Bayard  
 Beatrice  
 Bellwood  
 Council Bluffs  
 Creston  
 Des Moines  
 Giltner  
 Hastings  
 Imperial  
 Lester  
 Napier  
 Neb City  
 Omaha  
 Ottumwa  
 Ravenna  
 Sioux City  
 St. Joseph  
 Wymore

Northwest ..... Bellingham  
 Burbank  
 Cherry Point  
 Coeur d'Alene  
 Columbia River  
 Fallbridge  
 Gateway  
 Kettle Falls  
 Kootenai River  
 Lakeside  
 Newport  
 New Westminster  
 Oregon Trunk  
 San Poil  
 Scenic  
 Seattle  
 Spokane  
 Stampede  
 Sumas  
 Woodinville  
 Yakima Valley

Powder River ..... Akron  
 Angora  
 Black Hills  
 Boise City  
 Brush  
 Butte  
 Campbell  
 Canyon  
 Dalhart  
 Front Range  
 Golden  
 Orin  
 Pikes Peak  
 Pueblo  
 Reno  
 Sand Hills  
 Spanish Peaks  
 Twin Peaks  
 Valley

Southwest .....	Clovis Coronado Defiance El Paso Ennis Gallup Glorieta Lee Ranch Phoenix Raton Seligman Springerville
Springfield .....	Afton Amory Avard Beardstown Birmingham Cherokee Cuba Fort Scott Hannibal Lead Line River Thayer North Thayer South Yates City
Texas .....	BBRX Chickasha Creek DFW Ft. Worth Madill Red River Red Rock Sooner Venus Wichita Falls
Twin Cities .....	Aberdeen Allouez Appleton Brainerd Browns Valley Canton Casco Corson Devils Lake Drayton Glasston Grand Forks Hanley Falls Hannah Hib Tac Hillsboro Hinckley Hunter, Clifford Line & Warwick Jamestown KO Lakes Madison Marshall Mayville Midway Mitchell Mobridge Monticello Moorhead

Twin Cities .....	Morris Noyes P Line Prosper Rolla & Westhope Sarles Staples St. Paul Walhalla Watertown Wayzata Zap Line
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**Subdivision Index**

<b>Subdivision</b>	<b>Division</b>
Aberdeen .....	Twin Cities
Afton .....	Springfield
Akron .....	Powder River
Alameda Corridor .....	Los Angeles
Allouez .....	Twin Cities
Amory .....	Springfield
Angora .....	Powder River
Appleton .....	Twin Cities
Arkansas City .....	Kansas
Aurora .....	Chicago
Avard .....	Springfield
Bakersfield .....	California
Barstow .....	Chicago
Bay City .....	Gulf
Bayard .....	Nebraska
BBRX .....	Texas
Beardstown .....	Springfield
Beatrice .....	Nebraska
Bellingham .....	Northwest
Bellwood .....	Nebraska
Big Horn .....	Montana
Big Sandy .....	Montana
Birmingham .....	Springfield
Black Hills .....	Powder River
Boise City .....	Powder River
Brainerd .....	Twin Cities
Brookfield .....	Chicago
Browns Valley .....	Twin Cities
Brush .....	Powder River
Burbank .....	Northwest
Butte .....	Powder River
Cajon .....	California
Campbell .....	Powder River
Canton .....	Twin Cities
Canyon .....	Powder River
Casco .....	Twin Cities
Casper .....	Montana
Cherokee .....	Springfield
Cherry Point .....	Northwest
Chicago .....	Chicago
Chickasha .....	Texas
Chillicothe .....	Chicago
Choteau .....	Montana
Circle .....	Montana
Clifford Line .....	Twin Cities
Clovis .....	Southwest
Cody .....	Montana
Coeur d'Alene .....	Northwest
Colstrip .....	Montana
Columbia River .....	Northwest
Conroe .....	Gulf
Coronado .....	Southwest

Corson .....	Twin Cities	Marceline .....	Chicago
Council Bluffs .....	Nebraska	Marshall .....	Twin Cities
Creek .....	Texas	Mayville .....	Twin Cities
Creston .....	Nebraska	Mendota .....	Chicago
Crosby .....	Montana	Midway .....	Twin Cities
Cuba .....	Springfield	Milk River .....	Montana
Dalhart .....	Powder River	Mitchell .....	Twin Cities
Defiance .....	Southwest	Mobridge .....	Twin Cities
Des Moines .....	Nebraska	Mojave .....	California
Devils Lake .....	Twin Cities	Monticello .....	Twin Cities
DFW .....	Texas	Moorhead .....	Twin Cities
Dickinson .....	Montana	Morris .....	Twin Cities
Douglass .....	Kansas	Mykawa .....	Gulf
Drayton .....	Twin Cities	Napier .....	Nebraska
Dutch .....	Montana	Neb City .....	Nebraska
El Paso .....	Southwest	Needles .....	California
Emporia .....	Kansas	Newport .....	Northwest
Ennis .....	Southwest	New Westminster .....	Northwest
Fallbridge .....	Northwest	Niobe .....	Montana
Fairfield .....	Montana	Noyes .....	Twin Cities
Forsyth .....	Montana	Omaha .....	Nebraska
Fort Scott .....	Springfield	Oregon Trunk .....	Northwest
Front Range .....	Powder River	Orin .....	Powder River
Ft. Benton .....	Montana	Ottumwa .....	Nebraska
Ft. Worth .....	Texas	P Line .....	Twin Cities
Gallup .....	Southwest	Panhandle .....	Kansas
Galveston .....	Gulf	Peoria .....	Chicago
Gateway .....	Northwest	Phoenix .....	Southwest
Giltner .....	Nebraska	Pikes Peak .....	Powder River
Glasgow .....	Montana	Plainview .....	Kansas
Glasston .....	Twin Cities	Prosper .....	Twin Cities
Glorieta .....	Southwest	Pueblo .....	Powder River
Golden .....	Powder River	Raton .....	Southwest
Grand Forks .....	Twin Cities	Ravenna .....	Nebraska
Grenora .....	Montana	Red River .....	Texas
Hanley Falls .....	Twin Cities	Red Rock .....	Texas
Hannah .....	Twin Cities	Reno .....	Powder River
Hannibal .....	Springfield	River .....	Springfield
Harbor .....	Los Angeles	Riverbank .....	California
Hastings .....	Nebraska	Rolla .....	Twin Cities
Helena .....	Montana	San Bernardino .....	California/Los Angeles
Hereford .....	Kansas	San Diego .....	California
Hettinger .....	Montana	San Poil .....	Northwest
Hi Line .....	Montana	Sand Hills .....	Powder River
Hib Tac .....	Twin Cities	Sarles .....	Twin Cities
Hillsboro .....	Twin Cities	Sarpy Line .....	Montana
Hinckley .....	Twin Cities	Scenic .....	Northwest
Houston .....	Gulf	Scobey .....	Montana
Hunter .....	Twin Cities	Seattle .....	Northwest
Imperial .....	Nebraska	Seligman .....	Southwest
Jamestown .....	Twin Cities	Sidney Line .....	Montana
Kettle Falls .....	Northwest	Silsbee .....	Gulf
KO .....	Twin Cities	Sioux City .....	Nebraska
Kootenai River .....	Northwest	Slaton .....	Kansas
La Junta .....	Kansas	Sooner .....	Texas
Lafayette .....	Gulf	South Plains .....	Kansas
Lakes .....	Twin Cities	Spanish Peaks .....	Powder River
Lakeside .....	Northwest	Spokane .....	Northwest
Lampasas .....	Gulf	Springerville .....	Southwest
Laurel .....	Montana	St. Croix .....	Chicago
Lead Line .....	Springfield	St. Joseph .....	Nebraska
Lee Ranch .....	Southwest	St. Paul .....	Twin Cities
Lester .....	Nebraska	Stampede .....	Northwest
Lewistown .....	Montana	Staples .....	Minnesota
Longview .....	Gulf	Stockton .....	California
Lucerne Valley .....	California	Strong City .....	Kansas
Madill .....	Texas	Sumas .....	Northwest
Madison .....	Twin Cities	Sweet Grass .....	Montana

Thayer North ..... Springfield  
 Thayer South ..... Springfield  
 Thomas Hill ..... Chicago  
 Topeka ..... Kansas  
 Twin Peaks ..... Powder River  
 Valier ..... Montana  
 Valley ..... Powder River  
 Venus ..... Texas  
 Walhalla ..... Twin Cities  
 Warwick ..... Twin Cities  
 Watertown ..... Twin Cities  
 Wayzata ..... Twin Cities  
 Westhope ..... Twin Cities  
 Wichita Falls ..... Texas  
 Woodinville ..... Northwest  
 Wymore ..... Nebraska  
 Yakima Valley ..... Northwest  
 Yates City ..... Springfield  
 Zap Line ..... Twin Cities

## **TERMSDXO**

- T - Trains
- E - Engines
- R - Railroad cars
- M - Men & equipment fouling track
- S - Stop signal
- D - Derail & switches properly lined
- X - Crossings at grade
- O - Other crew movements

**Remember "TERMSDXO" when shoving cars**

### Speed Tables

SPEED TABLE								
Time Per Mile		Miles Per Hour	Time Per Mile		Miles Per Hour	Time Per Mile		Miles Per Hour
Min.	Sec.		Min.	Sec.		Min.	Sec.	
-	36	100	-	58	62.1	1	40	36.0
-	37	97.3	-	59	61.0	1	42	35.3
-	38	94.7	1	-	60.0	1	44	34.6
-	39	92.3	1	02	58.0	1	46	34.0
-	40	90.0	1	04	56.2	1	48	33.3
-	41	87.8	1	06	54.5	1	50	32.7
-	42	85.7	1	08	52.9	1	52	32.1
-	43	83.7	1	10	51.4	1	54	31.6
-	44	81.8	1	12	50.0	1	56	31.0
-	45	80.0	1	14	48.6	1	58	30.5
-	46	78.3	1	16	47.4	2	-	30.0
-	47	76.6	1	18	46.1	2	05	28.8
-	48	75.0	1	20	45.0	2	10	27.7
-	49	73.5	1	22	43.9	2	15	26.7
-	50	72.0	1	24	42.9	2	30	24.0
-	51	70.6	1	26	41.9	2	45	21.8
-	52	69.2	1	28	40.9	3	-	20.0
-	53	67.9	1	30	40.0	3	30	17.1
-	54	66.6	1	32	39.1	4	-	15.0
-	55	65.5	1	34	38.3	5	-	12.0
-	56	64.2	1	36	37.5	6	-	10.0
-	57	63.2	1	38	36.8	12	-	5.0

FEET	TENTHS OF A MILE
528	.1
1,056	.2
1,584	.3
2,112	.4
2,640	.5
3,168	.6
3,696	.7
4,224	.8
4,752	.9

To assist in determining where to start sounding the whistle as described in Whistle Signal 7, use the following:

At the speed indicated in the left column, wait the time indicated in the right column before sounding the whistle.

Train Speed	Delay to Sound Whistle
40 MPH	3 seconds
35 MPH	6 seconds
30 MPH	10 seconds
25 MPH	16 seconds
20 MPH	25 seconds
15 MPH	40 seconds
10 MPH	1 minute 10 seconds