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 safe-guarded ...

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.

BNSF SM RAILWAY

System Special Instructions

All Subdivisions No. 12

In Effect at 0001
Central, Mountain and
Pacific Continental Time

Sunday April 2, 2006

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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.

Equipment	Main Line	Branch Line
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 ..... 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.	30 MPH.	25 MPH.
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:		
Balfour Beatty, RKCX 103, 104, 105,106, BU 3005	45 MPH.	45 MPH.
Plasser Machines, PACX 293, 2630, 2645, 3024	45 MPH.	45 MPH.
P 811, BNSF 922999	45 MPH.	45 MPH.
Herzog, HZGX 200	45 MPH.	45 MPH.
Loram, LMIX 403, 409, 410, 412, 414, 417, KMUX 750	50 MPH.	45 MPH.
Loram, LMIX 418.....No Speed or Location Restrictions 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, 76539, 76556, 76558, 76568, 76595, 76649, 76656, 76696, 76733, 76736 thru 76738, 76742 thru 76745, 76747, 76748, 76750, 76751, 78256 thru 78269, 78272, 78274, 78278, 78281, 78285, 78287 thru 78293, 78326, 78328 thru 78333, 78336 thru 78340, 78343, 78344, 78347, 78348, 78350, 78353	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	GPUX 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 WFAX 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
Sounder (Sound Transit)	79*	45
All other classes	70	45

Exception: When the controlling locomotive is a car body type or has a desktop control stand and is being operated long hood forward, 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 Segments	Maximum Car Length	Axle Count	Control Valves and/or Car Count	Trailers=T Containers=C Either=T/C
Articulated cars						
QY	Doublestack	5	308 ft.	12	3	C
QV	Doublestack	3	190 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	Superhopper	5	167 ft	12	3	
HT	Trough Car	13	279 ft	26	3/6 #	
Non-Articulated Cars *						
QW	Doublestack	3	215 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 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. Cabooses 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
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
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

AC Traction Locomotives				
Model	**Rated Powered Axles**	**Rated Dynamic Brake Axles**	**Horsepower**	**Weight**
C44AC [1] &C60/44AC[1]				
All TM operating	9 +	10 +	4,400[3]	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[1] (UP 7300-7335)				
All TM operating	9 +	12 +	4,400[3]	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		
C60AC[1]			6,000	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			4,000	415,000
All TM operating	8 +	8		
1 Truck c/o	4	5		
SD80MAC			5,000	420,000
All TM operating	9 +	10		
1 Truck c/o	5 +	5		
SD90/43MAC			4,300[3]	415,000
All TM operating	9 +	10		
1 Truck c/o	4	6		
SD90MAC			6,000	415,000
All TM operating	11 +	11		
1 Truck c/o	6	6		
ES44DC	8 +	8 +	4,500	420,000
ES44AC			4,500	415,000
All TM operating	10 +	10 +		
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		
SD70ACE	10 +	10 +	4,300	415,000
1 TM c/o	6	6		

+ Power or dynamic brake axle rating exceeds actual axles
[1] GE Locomotives (C44AC, C60AC, etc.) have one inverter per axle and can have individual traction motors cut out as with DC locomotives.

[2] Dynamic braking is operational with Inverters/Traction motors cut out on AC locomotives.
[3] Convertable 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.

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). 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(D). 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(E). 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:

A. 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.
B. 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(F). 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:

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

3(G). 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 cabooseless 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(H). 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(I). 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 Indicated weight limits are applicable to either single car or multiple car movements except for: "143X," which denotes that 143 tons are permitted for multiple car movements but weights over 143 tons and up to 157.5 tons can be accepted for single car movements. "NP," which denotes that this type of car is not permitted without special authorization.							
			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 Indicated weight limits are applicable to either single car or multiple car movements except for: "143X," which denotes that 143 tons are permitted for multiple car movements but weights over 143 tons and up to 157.5 tons can be accepted for single car movements. "NP," which denotes that this type of car is not permitted without special authorization.							
			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. You will be required to enter your employee ID number for routing to the proper Customer Support Specialist.

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 TRKLIST 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	**MOVE** - (Code, date, time, station name, zone/track/spot). Use only to reposition a placed car to correct customer inventory.
SP	**SPOT -** (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	**PULL** - (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	**INTRA-PLANT SWITCH** - (Code, date, time, zone/track/spot)
RS	**RESPOT** - (Code, date, time, zone/track spot)
PK	**PICKUP** - (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	**CARS RECEIVED IN INTERCHANGE** - (Code, date, time, station name, zone/track, and name of road)
SO	**SETOUT** - (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	**CARS TURNED ON WYE OR TURNTABLE** - (Code, date, time, station name, zone/track/spot)
OF	**CARS OFFERED OR NEEDING OFFERED TO A CONNECTING ROAD** - (Code, date, time, station name, zone/track, name of road and person's name refusing cars)
DD	**CARS DELIVERED IN INTERCHANGE** - (Code, date, time, station name, zone/track, and name of road)
CC	**CARRIERS CONVENIENCE** - (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	**NOT DONE** - (When ND code is used, enter ND explanation code or a full written explanation.)

Not Done Reasons—Not Done Reasons are separated into two main categories:

- Potential Charge to a Customer
- Not Chargeable to a Customer.

Chargeable reasons are further separated into two categories:

- Car Can't Be Pulled - Customer Reason
- Car Can't Be Spotted - Customer Reason.

In order to protect any potential revenue due to BNSF, it is vital to use the correct Not Done Reporting reason.

The information below lists reasons that could potentially result in charges to a customer. Sub-reasons will be indented beneath the main Not Done Reason.

Not Done Reasons - Potential Charge to Customer

Car Can't Be Pulled - Customer Reason

- Car Not Loaded/Car Not Empty
- Customer Cancelled Today's Switch
- Customer Instructions or Fax Differ From Work Order
- Customer Owned Track or Switch Out of Service
- Customer Owned Trucks or Equipment Blocking Track
- Dock Plates Attached to Car or Cars
- Gates/Switch Locked W Private Lock
- Hazardous Billing or Placards Missing
- Hoses Attached to Car or Cars
- Not Put to Outbound Trk by Customer
- Not Put to Outbound Trk by Shortline
- Not Secured Properly For Movement
- Other Reasons Didn't Pull
- Plant Closed or Inaccessible
- Plug Door Open on Car or Cars
- Track Blue Flagged/Still Working Track
- Unsafe Conditions Exist

Car Can't Be Spotted - Customer Reason

- Customer Instructions or Fax Differs From Work Order
- Customer Request to Weigh First
- Customer Requests No Switch Today
- Customer Trucks or Equipment Blocking Track
- Dock Plates Attached to Car or Cars on Track
- Gate or Switch Locked With Private Lock
- Hazardous Billing or Placards Missing
- Hoses Attached to Car or Cars on Track
- Other (Must Specify)
- Plant Closed or Inaccessible
- Track Blue Flagged
- Track Full-No Room to Spot Car
- Unsafe Conditions

Not Done Reasons - Not Chargeable to Customer

Car Missing From Track or Location
Car Substituted at Customer Request
B/O, Derailed, Inspection
Engine Restrictions or Problems

- Axle Restrictions
- Engine Problems
- Insufficient Horse Power
- No Power Available

Federal Hours of Service Expired
Instructions From Dispatcher
Instructions From Supervisor
Mutual Agreement With Customer
Not In Train, Not Switched, Unavailable
No Overtime, Short On Time
Reasons Not Customer Responsibility

- Because of Rail Traffic Conditions
- Crew Decision
- Holding For Unit Train
- Joint Facility-Moved By Another RR
- Work Order or Computer Is Not Correct
- Work Performed by Another Train

Substituted Alternate Empty Car
Substituted Alternate Loaded Car
Track Blocked or Out of Service

- By BNSF or Another Railroad
- By a Different Customer
- By Other

Unsafe Conditions Exist

- Inclement Weather
- Other

Work Was Already Completed
Done In Another Direction

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	**SPOT** - Customer request to spot car for loading/unloading.
PU	**PULL** - Customer request to move a car from an industry track to another track or scheduled destination.
IP	**INTRA-PLANT SWITCH** - 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	**RESPOT** - 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	**CARS TURNED ON WYE OR TURNTABLE** - Request to turn a car previously spotted and re-spot.
PK	**PICKUP** - Cars available to be picked up by train, local, road switcher at station.
SO	**SETOUT** - 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	**PLACED** - Car on spot. (Displays car status and not a request.)
CP	**CP** - Constructive placement. (Condition between carrier and customer.)
OF	**CARS OFFERED OR NEEDING OFFER TO A CONNECTING ROAD** - Displays to the carrier, cars normally delivered in interchange cannot be delivered due to connecting road's inability or unwillingness to accept cars.
DD	**CARS DELIVERED IN INTERCHANGE** - 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.

Table No. 1 - 8(C) Non-Alarm Message

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"	1. As soon as message "...you have a defect" is received, immediately reduce train speed to less than 30 MPH. 2. Stop the train. 3. inspect the indicated axle(s). 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. 5. Report findings to the train dispatcher. 6. When defective car(s) are set out or continue in train, notify the train dispatcher and Mechanical Help desk.	Detector alarm message may identify more than one defect. Inspect train for all reported defects before proceeding. If detector alarm message does not include axle designation, inspect both sides of entire train.
5(A) or 5(B)	"Excessive Alarms"	1. As soon as message "... you have a defect" is received, immediately reduce train speed to less than 30 MPH. 2. Stop the train. 3. inspect the indicated axle(s). 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. 5. Inspect both sides of the remainder of the train from the last reported defect. 6. Report findings to the train dispatcher. 7. When defective car(s) are set out or continue in train, notify the train dispatcher and Mechanical Help desk.	Detector alarm message may identify more than one defect. Inspect train for all reported defects before proceeding. If detector alarm message does not include axle designation, inspect both sides of entire train.

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.	1. Stop the train. 2. Make a walking inspection both sides of entire train. 3. Report findings to train dispatcher.	None
5(B) - with recall code	No message or Incomplete message is transmitted.	1. Enter recall code and be governed by message. 2. If still no message or incomplete message, proceed.	Report no message or incomplete message to train dispatcher.
5(A) - with recall code	No message or Incomplete message is transmitted.	1. Enter recall code and be governed by message. 2. If still no message or incomplete message, stop the train. 3. Make a walking inspection of both sides of entire train.	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	1. Enter recall code and be governed by message. 2. If still no message or incomplete message, stop the train. 3. Make a walking inspection of both sides of train.	Report incomplete message to train dispatcher.
5(B) - without recall code Exception Reporting	Incomplete Message is Transmitted	1. Stop the train. 2. Make a walking inspection of both sides of entire train.	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 journal or hot wheel, crew is to immediately contact train dispatcher who will relay the occurrence along with train identification and location to the NOC Mechanical Warm Bearing Desk. The NOC Mechanical Warm Bearing Desk will then contact the train and assist the crew with the process of inspection and identification of the suspect car.

Train may not depart inspection location until NOC Mechanical Warm Bearing Desk releases train from inspection and permission to depart is received from train dispatcher. The train crew must report the following to the NOC Mechanical Warm Bearing Desk:
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.

After released by the NOC Mechanical Warm Bearing Desk, contact the train dispatcher for permission to depart inspection location and to report train delay/detector stop information (i.e. axle readout, inspection result, car initial and number, journal number and size, set out location, crayon used, etc.).

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 fusees.

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

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 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 6.32.2 (C), Power Off Indicators, new rule added:
When the power off indicators on the side of signal housings at highway crossings are flashing or not illuminated, immediately notify the Train Dispatcher.

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-signaled 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 it's 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 dispatchers 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, 3 and the after arrival information in Item 4 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, is changed to read:
A track warrant is in effect until a crew member reports the train has cleared the limits, or the track warrant is made void. The crew member must inform the train dispatcher when the train has cleared the limits. 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.

Employees reporting clear of track warrant limits must state:
- Their name or other identification
- Track warrant number being released
- Limits being released

In non-signaled territory or double track ABS territory (outside of restricted limits or yard limits), a crew member will job brief with the train dispatcher about the position of main track switches within the limits being released, referencing completion of the Position of Switch form or stating no entries required. (The paragraph titled "Time Limit Shown" remains unchanged.)

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-signaled 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).

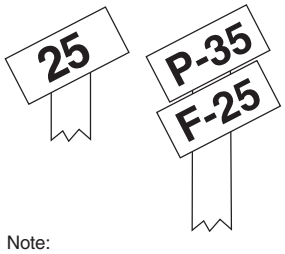
The Advance Warning sign will be placed two miles in advance of the location where the lower speed takes effect. At the point where the reduced speed applies, a speed sign will repeat the permissible speed. The lower speed will be in effect until a Resume Speed sign or another Speed sign is displayed.

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.

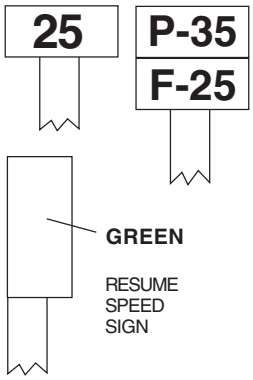
Permanent speed signs will not be placed for trains moving against the current of traffic unless otherwise indicated.

ADVANCE WARNING SIGN



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).

SPEED SIGN



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/Lookout: _____
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 6.32.2 (D) Power Off Indicators, is changed to read:
When the power off indicators on the side of signal housings at highway crossings are flashing or not illuminated, immediately notify the Train Dispatcher.

MWOR RULE 6.50.4, is changed in it's entirety (including the title):
MWOR Rule 6.50.4, Hy-Rail Vehicle Movement Over Spring Frogs, Self- Guarded Frogs, Lift Frogs, and Flange-Bearing Diamonds
Do not move hy-rails through the spring side of spring rail frogs or the low speed route(s) of lift frogs or flange-bearing diamonds, or make a facing point move through self-guarded frogs, except as outlined below:
- The hy-rail must stop before moving through the spring-rail frog, the self-guarded frog, or the low speed route(s) of the lift frog or flange-bearing diamond.
- When available, an employee must remain on the ground to guard against derailment and direct the hy-rail operator through the spring side of the frog.

Spring switches must be lined and locked for the route to be used before moving through the switches.

Hy-rail operators must look to ensure that switches are properly lined for movement before passing through the switches. When operating a hy-rail over a power operated switch, power operated derail, self-guarded frog, or low speed route(s) through a lift frog or flange-bearing diamond, do not exceed 5 MPH. Additionally, hy-rails must reduce to one half of their maximum authorized speed when operating over all other hand operated switches and frogs.

When operating a hand operated switch for hy-rail movement, return and lock it in the normal position after the hy-rail has passed the switch. When the train dispatcher or control operator is unable to line a dual-control switch for the desired route, hy-rail operators must first receive permission to operate the switch by hand as outlined in Rule 9.13.1 (Hand Operation of Dual Control Switches).

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 8.2, Position of Switches, the 5th paragraph reading:
When the position of a derail or main track switch is changed by hand operation, the employee in charge must record the location of the derail and/or main track switch used and the time the derail is secured in derailing position and/or the main track switch is returned to normal position. This record must be retained for at least 48 hours after tour of duty is completed.

Is changed to read:

When operating a main track switch, switch point lock or derail, the employee in charge must record:
- name and location of the main track switch, switch point lock or derail used
- time and initials of employee operating the main track switch, switch point lock or derail
- time and initials they are finally restored to the proper position.

This record must be retained for 5 days after tour of duty is completed.

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. This information may also be provided on train documentation (PROFILE). 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 100.11, Transfer Train Movements Test, the following note is added:
Note: When making retest, car must be charged to within 15 psi of the regulating valve setting, then make a 20 psi brake pipe reduction instead of 15 psi. Brakes shall remain applied until a release is initiated after a period of no less than three minutes.

ABTH Rule 100.18, Piston Travel Limits, Body mounted brake cylinders at the initial terminal is changed to read:
- The piston travel must be adjusted to between 6 and 9 inches.

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 101.13, Moving Locomotives, the following note is added to Item B:
Note: Instructions regarding coupling MU air hoses between locomotives in this rule and under Rule 101.17 are intended to mean only one coupling for Main Reservoir, Actuation and Application & Release hoses is required. Duplicating the coupling of any of these hoses on both sides of the locomotive is not required.

ABTH Rule 101.21, Locomotive Camera Systems, new rule added:
When instructed to assemble a locomotive consist for freight service, locomotives with forward-view camera systems, when available, that are otherwise lead qualified should be positioned as the lead, controlling locomotive (short hood facing the direction of travel) whenever this can be accomplished without turning the locomotives. Camera-equipped locomotives are identified by the camera unit positioned in the windshield of the locomotive.

ABTH Rule 102.7, Cutting Out Air Brake equipment, number 3 under Item B is moved to number 5 under Item C, Rear Car Brakes:
5. If one air brake device/control valve is cut out on a car with multiple control valves, consider the brakes on that car to be operative.

The 3rd sentence of the note is changed to read:
This is accomplished by coupling the air hoses between rear disabled car and car ahead, leaving angle closed on disabled rear car and opening the angle cock on car ahead.

ABTH Rule 102.9, Setting Out Disabled Cars, Item 4 and Item 5 are deleted in their entirety.

ABTH Rule 102.12.1, Manned Helper Entrained or Coupled at Rear of Train, under Item A, number 4 is changed to read:
4. Place the independent brake valve handle in the RELEASE position and actuate to fully release the helper locomotive consists' brakes.

Under Item B, numbers 2 and 3 are amended to read:
2. Observe the brakes apply on helper consist by visual inspection.
3. After obtaining the desired reduction, release the train brakes and observe the brakes release on helper consist by visual inspection.

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.

Item 2 is changed to read:
2. DP/Helper locomotives consists rated at 8 powered axles or less are exempt from DP/Helper train make up instructions outlined in Item 3 below.

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 changed 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).

ABTH Rule 105.5.5, Remote Mode Set Out (S/O), the following note is added to Item 3:
Note: When instructed to prepare train for an inbound inspection, comply with ABTH Rule 100.17 Inbound Train Inspection and place the automatic brake valve handle in the HANDLE OFF/CONT SVC position to reduce brake pipe to near 0 psi.

Glossary Term - Off Air, is changed to read:
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 Amendments
MW Rule S-21.1, PPE Requirements, the 1st bullet is changed to read:
- Hard hats which meet the specifications (ANSI Standard Z89.1, Type I, Class E & G) found in the BNSF Safety and Health Equipment Catalog.

MW Rule S-21.1, PPE Requirements, the 6th bullet is changed to read:
- Enhanced visibility work wear is to be worn in accordance with the below-listed specifications.
  - Enhanced visibility work wear is to be orange in color, and where worn at night, retro-reflective.
  - Acceptable items of enhanced visibility work wear: hardhat, vest, tee-shirt, jacket, sweatshirt or raincoat.
  - Roadway workers, when working on or near the track, must wear at least one item of enhanced visibility work wear.
  - Enhanced visibility work wear must be worn at derailment sites, at intermodal facilities, and when involved in work train operations.
  - Enhanced visibility vests must be worn when:
    - performing highway flagging operations
    - setting-on and setting-off hy-rail vehicles at grade crossings
    - working around mobile equipment (off-track) unless separated from the equipment by a natural or manmade barrier.

MW Rule S-21.1, PPE Requirements, the 1st bullet under the Exceptions, that part reading:
- in enclosed work equipment cabs when windows are completely closed

Is changed to read:
- in enclosed work equipment cabs (not including locomotive cabs) when windows are completely closed

TY&E Safety Rules Amendments
TY&E Rule S-21.1, PPE Requirements, the 1st bullet is changed to read:
- Hard hats which meet the specifications (ANSI Standard Z89.1, Type I, Class E & G) found in the BNSF Safety and Health Equipment Catalog.

TY&E Rule S-21.1, PPE Requirements, the 1st bullet under the Exceptions, that part reading:
- in enclosed work equipment cabs when windows are completely closed

Is changed to read:
- in enclosed work equipment cabs (not including locomotive cabs) when windows are completely closed .

19. Train Dispatcher's, Operator's and Control Operator's Manual, Changes and Additions
Rule 40.4.8, Crossing Warning/Power Off Indicators, the last paragraph, Power Off Indicators, is changed to read:
When notified that the lights are flashing or are not illuminated on the Power Off Indicators installed on the side of signal housings at highway crossings, promptly notify the signal call desk. (Protection is not required in this circumstance, however this indicates commercial power has been lost).

Rule 40.4.10, Trackside Warning Detector Stops/ Reportable Messages, is changed in it's entirety to read:
Provide timely notification to the signal call desk of all trackside warning detector (TWD) stops and reportable messages that do not require stops ("integrity failure", "maintenance required", etc.). (Note: It is not necessary to call the signal call desk in addition to inputting the information into the CAD train movement record.)

When trackside warning detector (TWD) stop is for a hot journal or hot wheel, do the following:
- Immediately contact the NOC Mechanical Warm Bearing Desk and advise them the train's identification, TWD location, and contact radio station so they may coordinate the inspection process as outlined in System Special Instructions, item 8(D). When communicating with CAD instant message, enough information must be contained in the message to positively identify what the communication is associated to (i.e. train ID, location, etc.).
- Grant permission for the train to depart the inspection location, after receiving confirmation from the NOC Mechanical Warm Bearing Desk that the required TWD inspection has been completed. Note: It is not acceptable for crew member to inform the train dispatcher that the NOC Mechanical Warm Bearing Desk has released train from the inspection).
- Input Train Delay using code "DS" filling in all required fields related to car specifications with correct information.

Rule 44.9.2, Track Indications, the fourth bullet is changed to read:
If authorized by Chief Dispatcher, advise train crew of the track indication and continue train movement, utilizing signal system unless track indication is intermittent or signal will not clear. If track indication is intermittent or signal will not clear, advise train crew of the track indication, then authorize train movement(s) to pass signal(s) displaying Stop indication as outlined in TDOCOM Rules 40.4.4 and 44.8.1 (Note: this applies to any type of "tie" territory - concrete, wood, steel, etc.).

Rule 53.1.2, Track Conditions, is changed to read:
When report of unusual track condition is received:
- Immediately provide protection for the condition by placing a TSR, restrictive tag/label, marking or blocking device to the area where the condition exists.
- Immediately report the condition, during normal working hours, to the Roadmaster or MW employee in charge of the territory. After normal working hours or when there is a problem contacting someone, report the condition to the Maintenance of Way Trouble Call Desk (CAD IM or call 8-593-6823).
- Unless the reported condition is impassable, until other instructions are received from the Maintenance of Way Trouble Call Desk, Roadmaster or MW employee in charge of the territory, verbally instruct trains to proceed at restricted speed but not exceeding 20 MPH until entire train has passed through the location indicated.

- Maintain protection to the affected area until condition is repaired or Maintenance of Way Trouble Call Desk, Roadmaster or MW employee in charge provides other operating instructions.

Passing over a broken rail requires permission from a qualified MW employee at the location.

Rule 55.14.1, Failure of Signal, the last paragraph, Power Off Indicators, is changed to read:
When notified that the lights are flashing or are not illuminated on the Power Off Indicators installed on the side of signal housings at highway crossings, promptly notify the signal call desk. (Protection is not required in this circumstance, however this indicates commercial power has been lost).

20. Hazardous Material Instructions, Changes and Additions

Section III, Item 2(e), Inspecting Intermodal Cars, No. 3 is changed to read:
(3) Intermodal tanks must be placed so that the bottom outlet valves are pointed toward the ends of the well car.

Section IV, Item 2, Placard Requirements, Item b is changed to read:
b. For non-bulk packages (capacity less than 119 gallons or 882 pounds) placards are required when transporting quantities of 1001 lbs. (454 kg) or more of these hazard classes: Note: Placards may be displayed for quantities less than 1001 lbs. of these materials, as long as they are appropriate for the shipment.

Section IV, Item 4, Marking Requirements and Inspecting for Markings, Item h, Inspecting for Non-Odorized Marks, is deleted.

Appendix A - Exception DOT-E 9271, the first paragraph is changed to read:
The following is provided in compliance with the DOT exemption to the regulations as noted. The exemption applies only to car separation requirements for Division 1.1, 1.2, 1.3 and 1.4 explosives.

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.

The HLCS vehicle number must be recorded on the authority form.

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.

Employees may test HLCS to verify that they are setting on within the authorized limits. After receiving authority from the dispatcher, notify the dispatcher that you will be testing the HLCS for authority compliance before setting on the track. Place the hy-rail vehicle within 15 feet of the track to be occupied. Do not foul the track. Verify that the thumb wheel switch is in the proper position for the track the authority exists on. Activate the HLCS by engaging the steering wheel lock or placing the toggle switch in the on position indicating the vehicle is in the on-rail position. Note: This test can only be conducted off the track and will be used to verify that you are within the authorized limits, not that you will be setting on the correct track in multiple main track 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 absolyte 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 restrictedby 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 16×24-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 (outside of restricted limits or yard limits) a crew member must record:
- name and location of hand operated main track switches, switch point locks, and derails operated
- name and location of hand operated main track switches left in reverse position
- time and initials of employee operating the main track switch, switchpoint lock or derail
- time and initials they are finally restored to the proper position on the Signal Awareness/Position of Switch form
- entry of Box 21 when switch is left in reverse position.

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. If not practical for both the conductor and engineer to initial the form, after a job briefing, the person filling out the form can enter the other initials on the form. 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 all forms must be turned in as directed by the Division General Manager. Additionally in non-signaled and double track ABS territory, the Position of Switch form must be signed by the conductor and a copy turned in with all track warrants.

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

Subdivision(s):

Flag Location	Flag Name	MPH	Switch/Derail/ Switch Point Lock Name and Location	Time/ Initials Operated	Time/ Initials Restored	Engineer's Initials	Conductor's Initials
Examples:							
MP 21	**Y**	**30**					
			W House Track SW Bess	**1800 LGW**	**1935 LGW**	**KDW**	**DET**
			ESS Anna	**2100 LGW**	**Box 21**	**KDW**	**DET**

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

Conductor Signature:

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
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 Wides)
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
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
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
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.

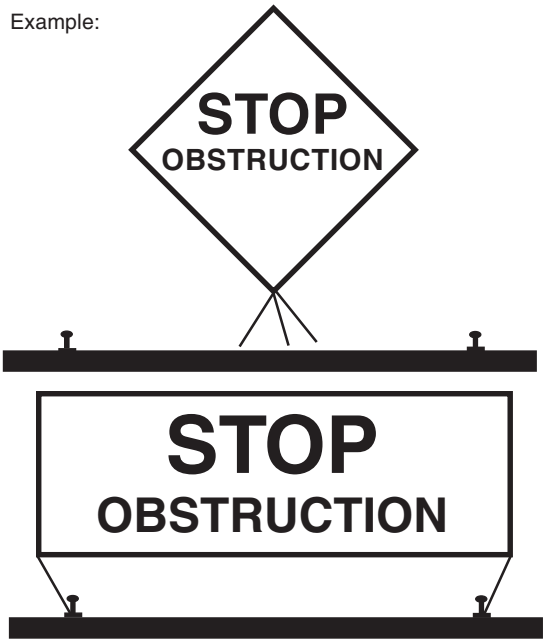
Detoured Foreign Trains
If a foreign line train operating on the BNSF for purposes of detour is in compliance with BNSF train make-up instructions, the train may be operated at maximum speed that would be permitted if train was a BNSF train. If train does not comply with BNSF train make-up instructions,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

Single Main Track

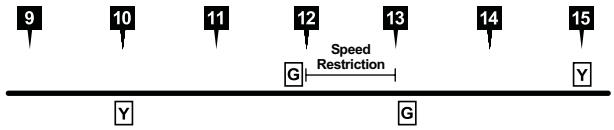


Diagram 1.

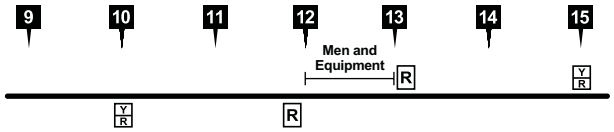


Diagram 2.

Display of Green Flags with Overlapping Yellow Flags

Track flagging for temporary speed restrictions when a series of locations requiring reduced speeds are so closely spaced that the green flags will overlap the yellow flags.

Only one green flag will be placed at the leaving end of the last location.

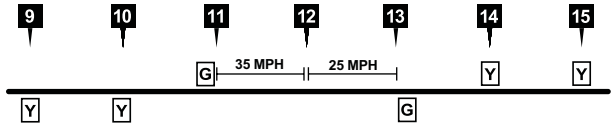


Diagram 3.

Single Main Track (Sidings at the 2-mile point)

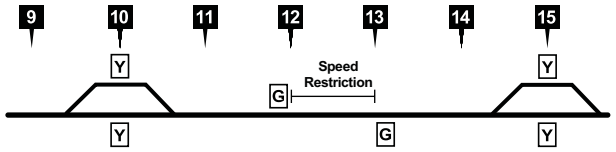


Diagram 4.

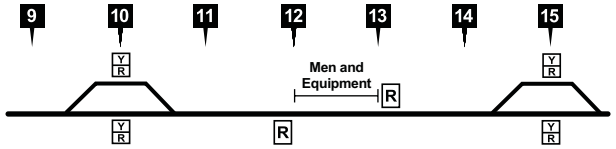


Diagram 5.

Restriction on Siding

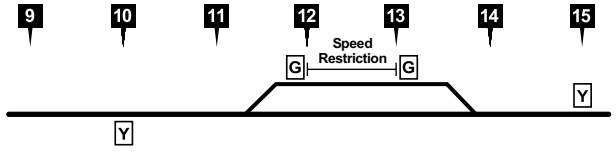


Diagram 6.

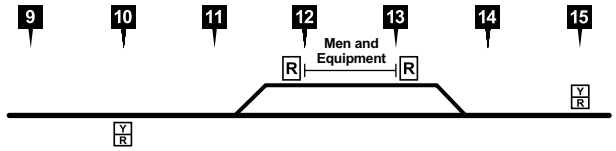


Diagram 7.

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

Speed Restriction on Main Track Where Siding is Adjacent

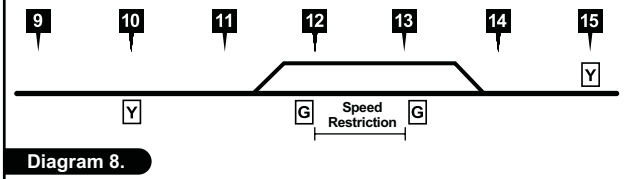


Diagram 8.

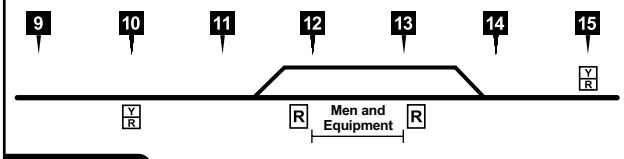


Diagram 9.

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.

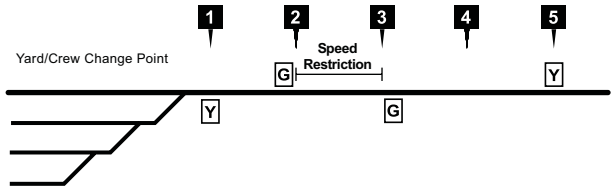


Diagram 10.

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.

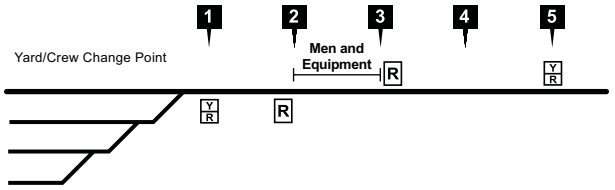


Diagram 11.

Speed Restriction at Foreign Line Junction

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

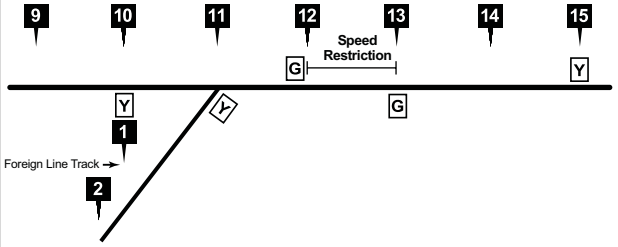


Diagram 12.

Foreign Line junction Near Men and Equipment

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

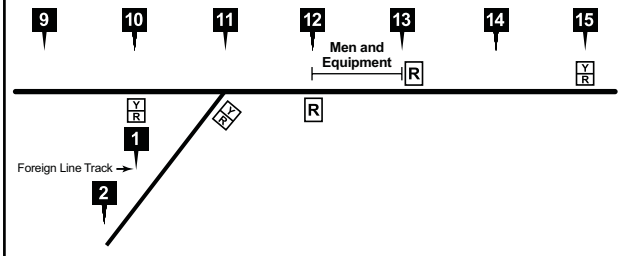


Diagram 13.

Speed Restriction at BNSF Junction

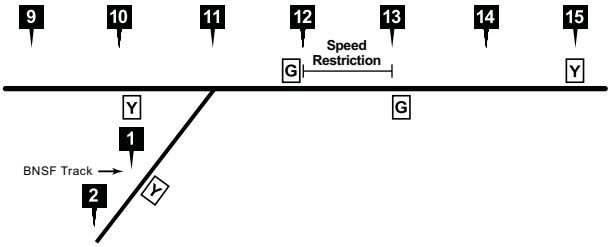


Diagram 14.

BNSF Junction Near Men and Equipment

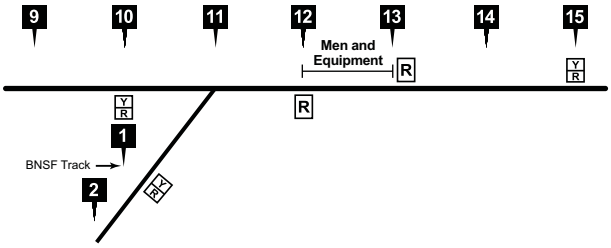


Diagram 15.

Speed Restriction Just Beyond Turnout to Third Main Track

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

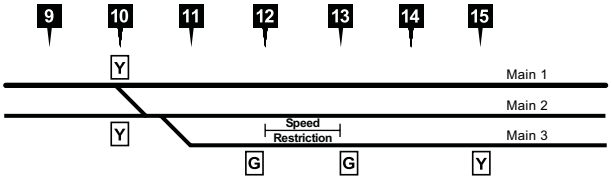


Diagram 16.

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.

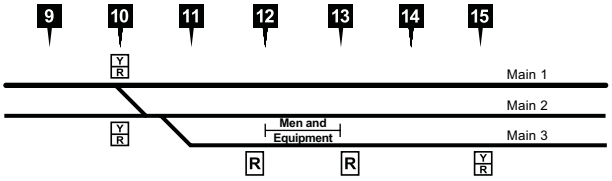


Diagram 17.

Speed Restriction Just Beyond Turnout to Main 1

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

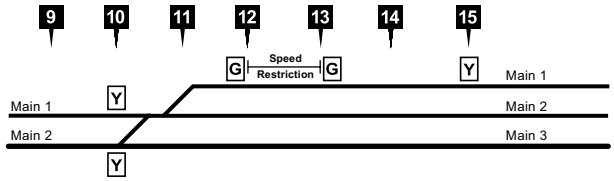


Diagram 18.

Men and Equipment Just Beyond Turnout to Main 1

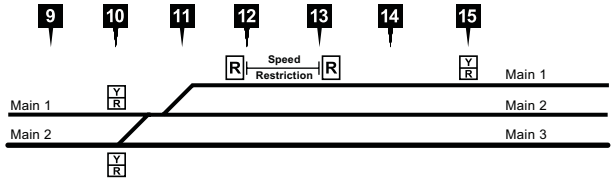


Diagram 19.

Speed Restriction on Multiple Main Track

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

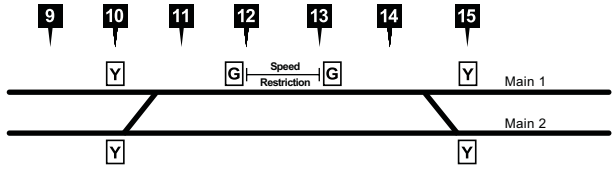


Diagram 20.

Men and Equipment on Multiple Main Track

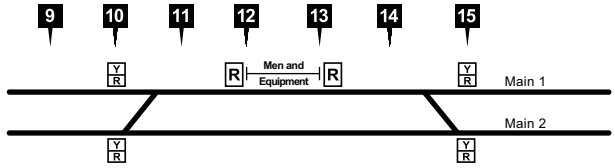


Diagram 21.

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.

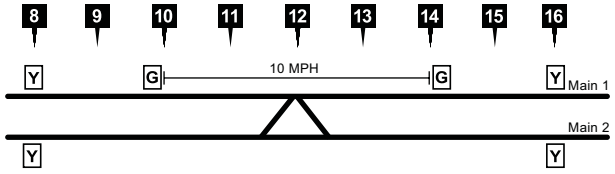


Diagram 22.

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.

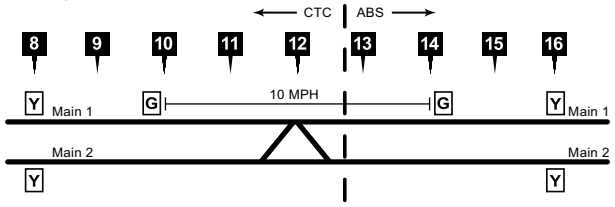


Diagram 23.

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.

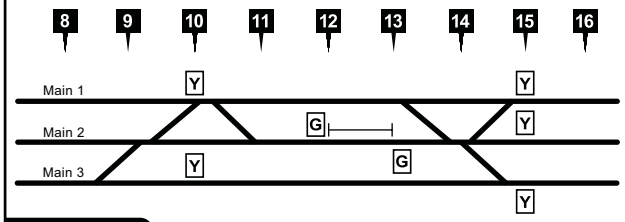


Diagram 24.

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

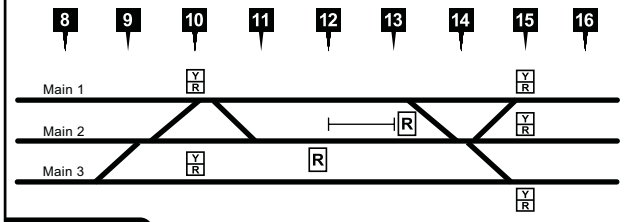
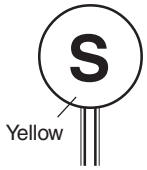


Diagram 25.

Appendix B - Roadway Signs

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



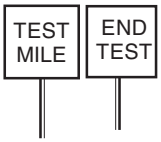
Spring Switch Rule 8.9

One-Mile Switch

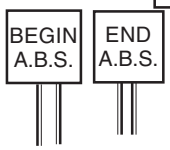
Crossing Signal Start Rule 6.32.2

No Clearance

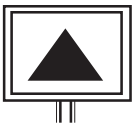
Derail Rule 8.20



Begin Test Mile and End Test Mile



Begin and End A.B.S.

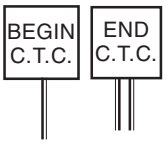


Crest of Grade
Black on yellow reflective background

Whistle Board/ Crossing Sign

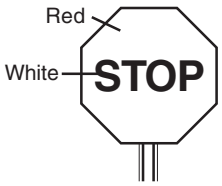
When numeral attached, denotes the number of crossings less than 1,320 ft. apart

Westward Siding or Eastward Siding Rule 6.28.1



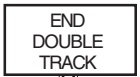
Begin and End C.T.C.

No Engine Beyond This Point



Stop Rules 6.16 and 6.18

STOP
White letters on reflective red background, or black letters on white background Rule 6.32.2



End Double Track

Defines Limits of Track & Time

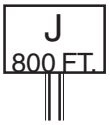
Railroad Crossing Rules 6.16 and 6.18

End of Overlap Rule 9.21

Signal Overlap Rule 9.21

Flanger

Restricted Limits Rule 6.14

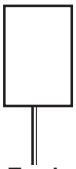


Junction Rule 6.18

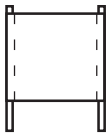
Fouling Point

Yard Limits Rule 6.13

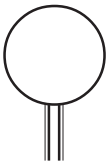
One-Mile Draw Span Rule 6.16



Track Flag

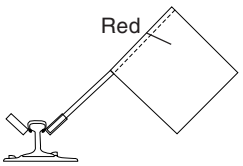


Track Flag



Track Flag

Yellow—Rule 5.4.2
Yellow/Red—Rule 5.4.3
Red—Rule 5.4.7
Green—Rule 5.4.5



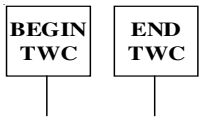
Track Flag

Protect Open Switch
Check track warrant. Switch may be open 1 mile ahead.

Protect Open Switch
Check track warrant. Switch may be open 2 miles ahead.

Protect Open Switch
This switch left open when visible.

Inert ATS Inductors



Begin TWC and End TWC

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
	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

Subdivision Index

Lewistown ..... Montana
Longview ..... Gulf
Lucerne Valley ..... California
Madill ..... Texas
Madison ..... Twin Cities
Marceline ..... Chicago
Marshall ..... Twin Cities
Mayville ..... Twin Cities
Mendota ..... Chicago
Midway ..... Twin Cities
Milk River ..... Montana
Mitchell ..... Twin Cities
Mobridge ..... Twin Cities
Mojave ..... California
Monticello ..... Twin Cities
Moorhead ..... Twin Cities
Morris ..... Twin Cities
Mykawa ..... Gulf
Napier ..... Nebraska
Neb City ..... Nebraska
Needles ..... California
Newport ..... Northwest
New Westminster ..... Northwest
Niobe ..... Montana
Noyes ..... Twin Cities
Omaha ..... Nebraska
Oregon Trunk ..... Northwest
Orin ..... Powder River
Ottumwa ..... Nebraska
P Line ..... Twin Cities
Panhandle ..... Kansas
Peoria ..... Chicago
Phoenix ..... Southwest
Pikes Peak ..... Powder River
Plainview ..... Kansas
Prosper ..... Twin Cities
Pueblo ..... Powder River
Raton ..... Southwest
Ravenna ..... Nebraska
Red River ..... Texas
Red Rock ..... Texas
Reno ..... Powder River
River ..... Springfield
Riverbank ..... California
Rolla ..... Twin Cities
San Bernardino ..... California/Los Angeles
San Diego ..... California
San Poil ..... Northwest
Sand Hills ..... Powder River
Sarles ..... Twin Cities
Sarpy Line ..... Montana
Scenic ..... Northwest
Seattle ..... Northwest
Seligman ..... Southwest
Silsbee ..... Gulf
Sioux City ..... Nebraska
Slaton ..... Kansas
Sooner ..... Texas
South Plains ..... Kansas
Spanish Peaks ..... Powder River
Spokane ..... Northwest
Springerville ..... Southwest
St. Croix ..... Chicago
St. Joseph ..... Nebraska
St. Paul ..... Twin Cities
Stampede ..... Northwest
Staples ..... Minnesota
Stockton ..... California
Strong City ..... Kansas
Sumas ..... Northwest
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