TENNESSEE PASS SUBDIVISION (705)

Mile Post	Rule 6.3	CP #'s	Radio Display: Pueblo to Dotsero -9292 WEST ▼ STATIONS ▲ EAST	Sta. #'s	Siding Feet
UP869.4 BN591.8			NA JCT.		
BN617.8 UP118.2	NO MT		PUEBLO JCT. M (1.2)	MX905	
119.4			PUEBLO B (1.1)	MX905	
120.6	CTC 2MT		DRY CREEK (2.5)		
123.0			GOODNIGHT (7.8)	MJ003	
130.8	CTC		SWALLOWS ! (8.8)	MJ011	7390
139.6			HOBSON ! (6.2)	MJ020	6850
145.8			PORTLAND (1.3)	MJ026	
147.1			ADOBE ! (4.8)	MJ028	6100
151.9			FLORENCE ! (8.9)	MJ032	6930
160.8			CANON CITY ! (10.4)	MJ041	7230
171.2			PARKDALE ! (4.5)	MJ052	9190
175.9			SPIKEBUCK ! (8.4)	MJ056	4820
184.1			TEXAS CREEK ! (7.6)	MJ065	6190
191.7			COTOPAXI ! (6.4)	MJ072	5840
198.1			VALLIE ! (9.9)	MJ078	6150
208.0			SWISSVALE ! (7.1)	MJ088	6630
215.1			SALIDA ! (7.1)	MJ096	7240
222.2			BROWN CANON ! (10.7)	MJ103	9960
232.9			NATHROP ! (11.8)	MJ113	6890
244.7			AMERICUS ! (7.4)	MJ125	9000
252.1			PRINCETON ! (11.5)	MJ132	7640
263.6			KOBE ! (7.4)	MJ144	8090
271.0			MALTA !T (9.3)	MJ151	7800
280.3			TENNESSEE PASS ! (8.2)	MJ161	7870
288.5			PANDO ! (7.7)	MJ169	8260
296.2			BELDEN ! (5.8)	MJ177	10430
302.0			MINTURN !T (6.2)	MJ182	10660
308.2			AVON ! (10.8)	MJ189	8350
319.0			WOLCOTT ! (13.0)	MJ199	7570
332.0			SAGE ! (9.9)	MJ212	7760
342.0			DOTSERO	KP791	

(223.1)

SI-01 MAIN TRACK AUTHORITY

CTC Between MP 120.6 and MP 342.0.

No Main Track Between Pueblo Jct and Dry Creek

Movements between NA Jct and Pueblo Jct will be governed by BNSF System Special Instructions and Colorado Division Timetable.

Movements between MP 160.2 (CCRGR MP 0.0) and MP 171.9 (CCRGR MP 11.75) are over the trackage of Canon City and Royal Gorge RR.

SI-02 MAXIMUM SPEED TABLE

Maximum Speed Between Mile Posts 120.6 and 342.0	MPH
(Except as Below)	**60**
120.6 and 123.0	40
123.0 (Turnout)	40
135.5 and 145.2	50
145.2 and 151.6	45
151.6 and 152.8	40+
152.8 and 158.0	50
158.0 and 161.9	45
161.9 and 170.1	20
170.1 and 194.1	35
194.1 and 194.7	30
194.7 and 205.3	35
205.3 and 206.8	30
206.8 and 212.6	35
212.6 and 215.1	45
215.1 and 222.5	50
222.5 and 225.0	35
225.0 and 227.1	25
227.1 and 229.7	35
229.7 and 230.0	35
230.0 and 239.7	50
239.7 and 240.6	40+
240.6 and 250.1	50
250.1 and 253.6	35
253.6 and 259.1	30
259.1 and 262.3	35
262.3 and 271.0	50
271.0 and 274.7	45
274.7 and 278.5	35
278.5 and 280.3	25
280.3 E	20+
280.3 and 298.0 - E	25
280.3 and 281.0 - W	20
281.0 and 283.0 - W	15+
Exception: Lite engine	20
283.0 and 298.0 - W	20
298.0 and 301.7	30
301.7 and 302.6	20
302.6 and 305.0	30
305.0 and 312.1	40
312.1 and 313.1	35
313.1 and 319.4	40
319.4 and 319.5	35
319.5 and 335.2	40
335.2 and 336.0	20
336.0 and 342.0	35

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SI-03 OTHER SPEED RESTRICTIONS

Maximum Speed	MPH
1. Thru Sidings & Turnouts	
West switch - Tennessee Pass	25
Pando and Belden Eastward	25
Pando and Belden Westward	20
Exception - Lite Engines with operative dynamic brake	25
Spikebuck	12
2. Dual Control Switch Turnouts	
All dual controlled switches Dry Creek.	10
Turnout MP 123.0	40
3. Misc. Speed Restrictions	
Lite engine with operative dynamic brake may operate from MP 280.3 to MP 298.0 (Westward)	25

SI-04 MAIN TRACK DESIGNATIONS - None.

SI-05 MILE POST EQUATIONS - None.

SI-06 DTC BLOCK LIMITS - None.

SI-07 ITEM 13 TRAIN DEFECT DETECTORS

% 121.5	% 200.5	% 284.8
% 125.3	% 202.8	% 285.6
% 127.5	# 203.4	% 286.7
% 133.4	% 204.9	% 290.2
% 135.5	% 206.1	% 291.1
& #141.6	% 208.7	% 292.1
% 141.7	% 210.4	% 293.0
% 143.6	% 211.6	% 293.8
% 145.4	% 212.7	% 295.5
% 150.0	% 218.5	% 297.0
% 154.9	(#)219.5	% 297.9
(#)156.6	% 223.7	(#)298.0
% 156.9	% 224.7	% 299.4
% 159.1	% 225.9	% 303.8
% 162.6	% 226.5	% 305.1
% 163.7	% 227.3	% 311.5
% 164.7	% 228.0	# 314.6
% 165.1	% 228.5	% 314.9
% 165.9	% 229.0	% 321.8
% 166.5	% 230.0	% 325.5
% 167.0	% 237.1	% 328.1
% 167.5	# 239.7	(#)328.3
% 168.0	% 240.6	% 335.7
% 168.7	% 247.1	% 339.4
% 169.0	% 249.1	
% 169.5	% 254.9	
% 170.0	# 257.2	
% 173.4	% 257.3	
# 174.8	% 260.0	
% 178.5	& 264.8	
% 180.1	% 266.3	
% 181.0	% 268.7	
% 183.1	# 272.6	
% 186.5	% 274.5	
% 189.0	% 277.3	
(#)190.3	% 282.9	
% 193.4	% 283.6	

SI-08 RULES ITEMS

Rule 5.5 Speed signs (round disk) may be located 2,500 feet in advance of certain locations where speed of train is permanently restricted.

Rule 6.32.6 Minturn: Westward trains arriving at Minturn must stop back from YMCA crossing sufficient distance to avoid activating crossing protection unless advised that train will be forwarded immediately upon its arrival at Minturn.

Rule 9.2.3 Indication of signal Rule 9.2.3 as contained in System Special Instructions is changed to read:
"Proceed prepared to pass next signal not exceeding 30 MPH and be prepared to advance on diverging route at prescribed speed through turnout unless the next signal displays Clear or Advance Approach."

Rule 9.2.9 Indication of signal Rule 9.2.9. as contained in System Special Instructions is changed to read:
"Proceed on diverging route not exceeding prescribed speed through turnout, prepared to pass next signal not exceeding 30 MPH unless the next signal displays Clear or Advance Approach."

Rule 31.5.1 Tennessee Pass: Between Tennessee Pass and Minturn westward trains exceeding 6,200 tons must have a minimum of 24 axles of operative dynamic brake. If train does not meet this requirement, obtain permission from a MOP to proceed.

Rule 31.7.1 Tennessee Pass: the following instructions apply between Tennessee Pass and Minturn to westward loaded unit trains requiring the use of retainers:
A. Retainers must be set between the east and west switch of Tennessee Pass siding;
B. Stop at Tennessee Pass to set retainers must be made using a 10 psi brake pipe reduction;
C. After a minimum of 20 retainers are set in operating position, the engineer may release the automatic air brake.
D. Set all of the remaining retainers in train in operating position;
E. Before departing Tennessee Pass, the air brake system must be recharged for at least 10 minutes and to at least 75 psi as indicated by a gauge at the rear of the train or an operating telemetry system;
F. Before the train reaches the descending grade at the west end of Tennessee Pass Tunnel, a minimum of two complete application and release method of braking must be performed while working power. This action will determine that the brakes on the train are working properly and will remove any possible ice build up on the brake shoes.

Retainers must be used within the following locations when tons per axle of operative dynamic brake exceeds maximum indicated limit.
Tennessee Pass to Minturn - 400 tons
Leadville Industrial Lead to Malta - 300 tons
Only the road engine may be used in determining tons per axle of operative dynamic brake.
Exceptions:
1. Axles in distributed power may be added to road engine when determining tons per axle of operative dynamic brake.
2. When tons per axle of operative dynamic brake on trains that do not have distributed power exceeds maximum limit thus requiring retainers, operative axles of helper may be added to road engine for computing tons per axle of operative dynamic brake. If revised tons per axle of operative dynamic brake does not exceed maximum limit, the setting of retainers is not required.
Retainers must be used Tennessee Pass to Minturn on any train that exceeds 115 TPOB.
Exception: This restriction does not apply to a train having distributed power.

Rule 31.8.2 Helper locomotive consisting of 19 or more axles will be governed by the following placement requirements:
19 to 27:
Must be cut in ahead of 1/2 of the tonnage rating of the helper locomotive(s). The first 10 cars ahead of the helper locomotives(s) must all weigh 50 tons or more.
28 to 36:
May only be used on a loaded unit train and must be cut in ahead of 1/2 of the tonnage rating of the helper locomotive(s).

SI-09 FRA EXCEPTED TRACKS - None.

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SI-10 BUSINESS TRACKS

Track Name	MP	STA. #'S
Eagle	329.0	MJ209
Gypsum	335.8	MJ216

SI-11 INDUSTRIAL LEADS

Leadville Industrial Lead: 3.3 miles, MP 271.0 to MP 274.3. Speed 15 MPH between MP 271.0 and MP 274.3. All other tracks 10 MPH. Switch leading from Leadville Industrial Lead to west leg of wye at Malta and west wye switch at connection to Track 4 must be kept lined for west leg of wye when not in use.

SI-12 TONNAGE RESTRICTIONS/TPOB

Maximum gross weight: 143 Tons.

Tons Per Operative Brake:	Tons Per Dynamic Brake Axle:	Maximum Speed:
Below 100		60 MPH
100 to 115		50 MPH
Over 115		45 MPH

On descending grade between MP 280.3 and MP 245.0, the following table must be used to determine the maximum speed.

Tons Per Operative Brake:	Tons Per Dynamic Brake Axle:	Maximum Speed:
115 or below	400 or less	No restriction
	400 to 650	35 MPH
Above 115	400 or less	35 MPH
	400 to 650	25 MPH

A train that exceeds the above table, one that experiences dynamic brake failure, or if the use of full dynamic brakes and a 18 pound brake pipe reduction will not control the train at the allowable speed, the train must be stopped and sufficient hand brakes set to prevent movement. The train must not proceed until additional dynamic braking is obtained, tonnage reduced, or retainers on all cars placed in the operative position. The train must not proceed except as instructed by a MOP or other proper authority.

Trains over 115 tons per operative brake must not exceed 40 MPH on Tennessee Pass Subdivision.

When tons per operative brake exceeds 80 tons and when tons per axle of operative dynamic brake exceeds 250 tons, westward trains from MP 280.3 to MP 298.0 must not exceed 15 MPH; from MP 298.0 to MP 301.7 must not exceed 25 MPH.

SI-13 TRAIN MAKE-UP RESTRICTIONS

A. To determine any applicable trailing tonnage restriction on a specific type of car, use the following table.

To use the table:

1. Determine if the train contains any car listed in column titled "Type of Car"
2. Follow horizontally across and determine if any criteria listed is met.
3. When car meets the criteria, the maximum trailing tonnage permitted with or without helper behind this car is listed at the top of the criteria column.

	Maximum Actual Trailing Tonnage			
Type of Car	**1,000 Tons**	**2,000 Tons**	**3,000 Tons**	**4,100 Tons**
Two-Axle Front Runner car	Weighs less than 25 tons	Weighs 25 tons or more		
Solid drawbar connected two-axle car	Under all conditions			
Articulated double stack car			Has one or more empty platforms	
Multi-platform articulated car			Has one or more empty platforms	
Car 73' or longer in length weighing less than 50 tons			If coupled to a car less than 73' in length	If coupled to another car 73' or longer in length

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B. When train tonnage exceeds 3,600 tons, each of the first five cars behind the engine must weigh at least 50 tons. This restriction will not apply if train does not contain five cars that weigh 50 tons or more.

When train tonnage exceeds 4,100 actual tons, each of the first five cars behind the engine must weigh at least 50 tons and:

1. All be 73' or longer ; or
2. All be less than 73'.

In determining train makeup restrictions A and B above, be governed by the following when dealing with these non-conventional cars:

Articulated intermodal double stack car or spine car:

Car having all platforms loaded is to be considered the equivalent of 2 1/2 cars each weighing 50 tons and each less than 73' in length.

Two-unit solid drawbar-connected intermodal long cars:

1. If the total weight of the car is 120 tons or more, it is to be considered the equivalent of two cars, each weighing 50 tons and each over 73'.
2. If the total weight of the car is less than 120 tons, it is to be considered the equivalent of two cars, each weighing less than 50 tons and each over 73'.

Three-unit solid drawbar-connected double stack cars:

1. If the total weight of the car is 200 tons or more, it is to be considered the equivalent of three cars, each weighing 50 tons and each less than 73'.
2. If the total weight of the car is less than 200 tons, it is to be considered the equivalent of three cars each weighing less than 50 tons and each less than 73'.

C. The following applies when operating from:
Canon City to Parkdale
Minturn to Tennessee Pass:

1. Locomotive of a loaded unit train must not exceed 36 axles of power.
2. Locomotive of other than a loaded unit train must not exceed 24 axles of power.

When the maximum working number of axles is exceeded, isolate the excess trailing locomotive units.

Exception:

When isolating locomotive units in a consist to reduce the number of axles to the maximum limit, if the isolation of an additional locomotive unit brings the total number of axles BELOW the limit, this locomotive may be left on line in excess of the maximum number indicated above.

Coupler Limits: The trailing tonnage behind a car must not exceed the coupler limit when ascending a grade. Subtract total locomotive tonnage rating for any helper engine that is positioned within the trailing tonnage behind a car. This final figure is the trailing tonnage.

Canon City to Tennessee Pass
Standard coupler - 7375
High strength coupler - 11,400

Minturn to Tennessee Pass
Standard coupler - 3820
High strength coupler - 5890

Dotsero to Minturn
Standard coupler - 7970
High strength coupler - 12340

Each car is considered equipped with a standard type coupler unless it is known the car is equipped with high strength couplers. If it is not known that a car is equipped with high strength couplers, it can be determined by looking at the coupler casting identification located on top of the coupler. A high strength coupler will have the letter "E" as the LAST character of identification. Examples of high strength coupler identifications are E60HTE, SBE60CE, E60DE.

Salida to Tennessee Pass:

Locomotive Tonnage Ratings for cut-in Helper placement

Model	Consist With DC		Model	Consist With DC
B23-7	1210		SD38-2	1502
B30-7, B36-7	1291		SD39	1581
B39-8, B40-8	2213		SD40, SD40-2, SD40T-2	1876
C30-7	2289		SD45	1866
C36-7	2748		SD45-2, SD45T-2	1962
C39-8	2912		SD50, SD50M	2670
C40-8	2949		SD60, SD60M	2857
C41-8	3043		SD70M	3031
C44-9	3369		SD70MAC	2719
C44AC, C60/44	3520		SD90/43	3416
C60AC	4357		SD90AC	4305
GP15, GP15-1	1066			
GP30, GP35	1241		**Model**	**All AC Consist**
GP38, GP 38-2, GP39-2	1277		C44AC, C60/44	4318
GP40, GP40-2, GP40P-2	1325		C60AC	4371
GP40X	1310		SD70MAC	3629
GP50	1889		SD90/43	4266
GP60	2213		SD90AC	4318

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Dotsero to Minturn:

Locomotive Tonnage Ratings for cut-in Helper placement				
Model	**Consist With DC**		**Model**	**Consist With DC**
B23-7	1317		SD38-2	1637
B30-7, B36-7	1406		SD39	1725
B39-8, B40-8	2402		SD40, SD40-2, SD40T-2	2042
C30-7	2489		SD45	2032
C36-7	2986		SD45-2, SD45T-2	2136
C39-8	3162		SD50, SD50M	2901
C40-8	3203		SD60, SD60M	3103
C41-8	3305		SD70M	3292
C44-9	3657		SD70MAC	2954
C44AC, C60/44	3820		SD90/43	3707
C60AC	4725		SD90AC	4669
GP15, GP15-1	1162			
GP30, GP35	1352		**Model**	**All AC Consist**
GP38, GP 38-2, GP39-2	1390		C44AC, C60/44	4684
GP40, GP40-2, GP40P-2	1442		C60AC	4741
GP40X	1427		SD70MAC	3938
GP50	2052		SD90/43	4628
GP60	2402		SD90AC	4684

Minturn to Tennessee Pass:

Locomotive Tonnage Ratings for cut-in Helper placement				
Model	**Consist With DC**		**Model**	**Consist With DC**
B23-7	565		SD38-2	689
B30-7, B36-7	603		SD39	718
B39-8, B40-8	1081		SD40, SD40-2, SD40T-2	876
C30-7	1090		SD45	872
C36-7	1328		SD45-2, SD45T-2	917
C39-8	1412		SD50, SD50M	1288
C40-8	1431		SD60, SD60M	1383
C41-8	1475		SD70M	1470
C44-9	1644		SD70MAC	1309
C44AC, C60/44	1722		SD90/43	1670
C60AC	2155		SD90AC	2129
GP15, GP15-1	490			
GP30, GP35	580		**Model**	**All AC Consist**
GP38, GP 38-2, GP39-2	597		C44AC, C60/44	2132
GP40, GP40-2, GP40P-2	619		C60AC	2158
GP40X	612		SD70MAC	1777
GP50	915		SD90/43	2107
GP60	1081		SD90AC	2132

SI-14 MISC. INSTRUCTIONS

Six axle locomotives must not be operated on the following tracks:
Portland Yard
Adobe Spur
Canon City Power Plant
Leadville Industrial Lead.

Repeater Signals: Repeater signals designated by the letter "R" are located at Belden MP 296.3. Repeater signal indicates the aspect of the next absolute signal located beyond the repeater signal. When repeater signal is dark or displays a flashing-red aspect it is an indication that the next absolute signal will be displaying a Stop indication. Repeater signal aspects are for information only.

Operation Pueblo Terminal: Unless otherwise instructed, all train, yard and other locomotive movements within Pueblo Yard must be authorized by Yardmaster Pueblo.

Operation Eagle Gypsum: Unless otherwise instructed, inbound cars will be left on Track 2, outbound cars will be picked up off of Track 1. Empty hoppers for bulk Gypsum loading will be set to Track 3. Hand brakes must be applied to all loads and empties left at Eagle Gypsum.

At the west end of the yard, the switch off of the lead to the Runaway Track must be left lined and locked for the runaway track and away from the main track to provide derail protection. When necessary to re-enter main track after electric switch locks have been closed and after permission from train dispatcher has been granted, electric locks must be opened before runaway track switch is lined for movement.

Grade securement restrictions: Do not tie up and leave train unattended between Canon City and Avon unless:

1. The track the train is tied up on has derail protection; or
2. One of the rails on the descending direction in advance of the train is separated by M of W which will create a temporary derail.