

## BLACK BUTTE SUBDIVISION (0920)

Mile Post	Rule 6.3	CP #'s	Radio Display: K. Falls Yard to Andesite -4545 Andesite to Dunsmuir -8080		Sta. #'s	Siding Feet
			SOUTH STATIONS	NORTH STATIONS		
428.7	YL ABS		KLAMATH FALLS YARD (1.3)	BTY	OZ313	
427.4	CTC	VP427	SOUTH KLAMATH FALLS (1.5)			
426.2 425.9		VP426	TEXUM (10.5)	T	OZ311	
416.2 415.4		VP416 VP415	WORDEN (7.9)	!	OZ300	4858
407.2 406.1		VP407 VP406	DORRIS (12.9)	!	OZ293	5439
394.7 393.2		VP395 VP393	MOUNT HEBRON (7.6)	!	OZ280	7286
387.2 385.6		VP387 VP386	KEGG (9.1)	!	OZ272	8343
377.5 376.5		VP378 VP376	PENYOYAR (8.2)	!	OZ263	5169
369.4 368.3		VP369 VP368	GRASS LAKE (8.3)	!	OZ255	5675
361.7 360.0		VP362 VP360	ANDESITE (8.2)	!	OZ247	8342
352.9 351.8		VP353 VP352	HOTLUM (5.4)	!	OZ238	5065
346.4		VP346	NORTH BLACK BUTTE (1.2)	!		N5400
345.2		VP345	BLACK BUTTE (1.3)	XT		
343.7		VP344	SOUTH BLACK BUTTE (4.9)	!		S6350
340.2 338.5		VP340 VP338	UPTON (1.9)	!	OZ226	8670
337.5 336.6		VP337 VP336	MOUNT SHASTA (3.0)	!	OZ223	4337
333.6		VP334	NORTH AZALEA (1.1)	!	OZ220	5880
332.5		VP332	SOUTH AZALEA-NORTH MOTT (1.5)			
331.0		VP331	SOUTH MOTT (4.6)	!	OZ218	7248
326.4		VP327	SMALL (3.8)		OZ213	
322.6		VP323	NORTH DUNSMUIR (1.2)		OZ210	
321.4	VP321	DUNSMUIR x-over	!X	OZ209	8501	

(105.4)

### SI-01 MAIN TRACK AUTHORITY

**CTC between:**

MP 427.4 and MP 321.4.

**ABS Rule 9.15 Track Permits between:**

MP 428.7 and MP 427.4

**Yard Limits between:**

MP 428.7 and MP 427.4.

### SI-02 MAXIMUM SPEED TABLE

Maximum Speed	MPH	
<b>Between Mileposts</b>		
<b>428.7 and 321.4</b>	PSGR	FRT
<b>(Except as Below)</b>	79	60
428.7 and 428.5	25	25
428.5 and 427.6	50	40
427.6 and 426.9	55	40
426.9 and 412.4	70	60
412.4 and 409.9	55	50
409.9 and 407.8	45	40
390.1 and 387.7	60	55
387.7 and 379.1	50	40
379.1 and 373.8	70	60
373.8 and 363.7	40	40
363.7 and 355.5	40	35
355.5 and 347.4	35	30
347.4 and 337.9	50	50
337.9 and 337.4	40	35
337.4 and 333.5	40	40
333.5 and 332.6	35	30
332.6 and 331.0	25	25
331.0 and 328.2	25	20
328.2 and 327.9	20	20
327.9 and 322.6	25	20
322.6 and 321.4	25	25

### SI-03 OTHER SPEED RESTRICTIONS

**Maximum Speed** **MPH**

- 1. Thru Sidings & Turnouts**  
All sidings..... 25  
Exceptions: Sidings Dorris, Mount Hebron, Andesite, Hotlum, Black Butte(south siding only), Upton, Mt. Shasta, Dunsmuir..... 10
- 2. Dual Control Switch Turnouts**  
MP 345.2: crossover..... 15
- 3. Misc. Speed Restrictions**  
Klamath Falls Yard: All trks except 001, 002, 017 and 025..... 5  
Texum lead to MP 321.4..... 25  
Dunsmuir: Drill Track..... 10

### SI-04 MAIN TRACK DESIGNATIONS - None.

### SI-05 MILEPOST EQUATIONS

MP 415.36 = MP 413.99;  
MP 344.34 = MP 344.17;  
MP 340.53 = MP 340.21.

### SI-06 DTC BLOCK LIMITS - None.

### SI-07 ITEM 13 TRAIN DEFECT DETECTORS

(#) 424.1	(#) 372.9	% 325.3
% 418.5	% 365.0	% 324.3
(#) 411.0	(#) 357.5	& 323.3 *
(#) 404.7	% 347.7	
% 400.2	(#) 342.2	
(#) 390.9	% 335.2	
% 383.9	(#) 330.1	
% 379.0	% 329.1	
% 374.8	& 327.3 *	

\* Protects Sacramento River Bridge MP 325.0.

**SI-08 RULES ITEMS**

**Rule 8.3 :** No normal position for switch at MP 427.0 on Texum Yard Lead (Connection to Modoc Sub.).

**Rule 9.4.1:** MP 327.7: when activated by slide, slide detector light for southward trains will display rotating red light to left of track. Trains must stop and make inspection of track at MP 327.5 to assure track is safe for passage.

**Rule 30.7.1:** Passenger trains must make running air brake test before passing Grass Lake.

**Rule 31.1.1 (D):**

**SI-09 FRA EXCEPTED TRACKS**

**Dunsmuir Yard:** 513, 516, 517.

**Klamath Falls:** 401.

**SI-10 BUSINESS TRACKS**

Track Name	MP	STA. #S
Bieber Line Jct. ....	427.6	. . .
Midland .....	422.3	OZ307
Macdoel .....	396.7	OZ283

**SI-11 INDUSTRIAL LEADS - None.**

**SI-12 TONNAGE RESTRICTIONS/TPOB**

**Maximum Gross Weight:** 158 tons

**When operating on** descending grade between Grass Lake and Dunsmuir the following table must be used to determine maximum speed:

**Tons Per Operative Brake:      Tons Per Dynamic Brake Axle:      Maximum Speed:**

Tons Per Operative Brake:	Tons Per Dynamic Brake Axle:	Maximum Speed:
Below 80	0-300	No restriction
	301-500	No restriction
	501-600	40
	601-700	35
80 thru 110	0-300	No restriction
	301-500	40
	501-600	30
	601-700	25
110+ thru 115	0-300	40
	301-500	35
	501-600	30
	601-700	25
115+ thru 125	0-300	35
	301-600	30
	601-700	25
	125+ thru 135	0-500
501-700		25

**SI-12 TONNAGE RESTRICTIONS/TPOB Continued...**

**Exceptions:**

1. Between south switch Upton and MP 332.6, freight trains must operate 5 MPH below speed listed in table.
2. On descending grade between MP 332.6 and MP 322.6, freight trains must not exceed 500 tons per Dynamic brake axle.

When computing max. speed for descending grade restrictions, helper engine may be used in determining tons per axle of operative dynamic brake.

A train that exceeds the 500 ton per axle restriction between MP 332.6 and MP 322.6, a train that exceeds the table, a train that experiences dynamic brake failure, or, if the use of full dynamic brakes and an 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 is reduced or retainers on all cars are placed in operative position. When it is necessary to use retainers, the train must not proceed except as instructed by the district Manager of Operating Practices.

**SI-13 TRAIN MAKE-UP RESTRICTIONS**

The following applies when operating between

Black Butte and Klamath Falls:

Lead consist of a loaded bulk-commodity unit train must not exceed 37 axles of power; Lead consist of other than a loaded bulk-commodity unit train must not exceed 32 axles of power. These restrictions include helper engines added to headend of train.

The following applies when operating between

Dunsmuir and Black Butte:

Lead consist of all northward trains operating between Dunsmuir and Black Butte must not exceed 31 axles of power. This restriction includes helper engines added to headend of train.

The following applies when operating on descending grade between

Klamath Falls and Dunsmuir:

Lead consist of all southward trains operating between Klamath Falls and Dunsmuir must not exceed 26 axles of dynamic brake. This restriction includes helper engines added to headend of train.

## BLACK BUTTE SUBDIVISION (0920)

### SI-13 TRAIN MAKE-UP RESTRICTIONS Continued...

Train Make-up Restrictions Applicable between  
Dunsmuir and Azalea:

Note: asterisk (\*) in sections below can be a letter or a number.

A. Use following instructions to determine coupler limits and helper placement:

On ascending grades between designated limits, the amount of trailing tonnage behind a RESTRICTED car must not exceed the tonnage listed in the 'Maximum Trailing Tonnage' table. When train includes any helper engine positioned within the trailing tonnage behind a restricted car, subtract the tonnage handled by the helper using the following calculation:

Multiply the EPA of the helper by the factor '164'. Subtract this tonnage from the total trailing tonnage behind a restricted car. This final figure is the actual trailing tonnage which must comply with the 'Maximum Trailing Tonnage' table.

**Maximum Trailing Tonnage**

Type of Car	1,000 Tons	2,500 Tons	3,000 Tons
Two-Axle Front Runner Car (P12)	Weighs less than 25 tons	Weighs 25 tons or more	
Solid drawbar-connected Two-Axle Car (P4)	All conditions		
Articulated doublestack Car (P3*, P4*, P5*)			One or more empty platforms
Multi-platform Spine Car (P3*, P5*)		One or more empty platforms	All platforms loaded
Car 73 feet in length or longer; weighs less than 50 tons		Coupled to another car less than 73 feet in length	Coupled to another car 73 feet in length or longer
Car is between 65 feet and 73 feet in length; weighs less than 50 tons			Coupled to another car less than 65 feet in length
TOFC/COFC flat car			Loaded on one end only

B. When train tonnage exceeds 3,000 tons, the following cars must be no closer than the eleventh car behind the engine:

1. Empty car 73 feet or longer;
2. TOFC/COFC car loaded on one end only;
3. Articulated double stack car having one or more empty platforms.

C. When train tonnage exceeds 3,600 tons, each of the first five cars behind the lead consist must weigh at least 50 tons or more and:

1. Be 73 feet or longer; or
2. Be less than 73 feet in length.

D. When train tonnage exceeds 4,000 tons, each of the first five cars behind the lead consist must be less than 73 feet in length.

E. When train tonnage exceeds 8,000 tons, each of the first 10 cars behind the lead consist must weigh 50 tons or more and be less than 73 feet in length.

### SI-13 TRAIN MAKE-UP RESTRICTIONS Continued...

In determining train make-up restrictions in A, B, C, D and E above, be governed by the following: Articulated doublestack car or spine car (P3\*, P4\*, P5\*) having all platform/wells loaded is to be considered the equivalent of 2 1/2 cars, each weighing 50 tons and each less than 73 feet in length.

Articulated doublestack car or spine car (P3\*, P4\*, P5\*) having any empty platform/wells is to be considered the equivalent of 2 1/2 cars, each weighing less than 50 tons and each less than 73 feet in length.

Two-unit solid drawbar-connected long cars (P2):  
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 feet in length.

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 feet in length.

Three-unit solid drawbar-connected doublestack car (P3\*):

1. If the total weight of the car is 150 tons or more and all platforms are loaded, it is to be considered the equivalent of three cars, each weighing 50 tons and each less than 73 feet in length.

2. If the total weight of the car is less than 150 tons, it is to be considered the equivalent of three cars, each weighing less than 50 tons and each less than 73 feet in length.

Coupler Limits:

Use following instructions to determine coupler limits and helper placement:

On ascending grades between designated limits, the amount of trailing tonnage behind a car must not exceed the tonnage listed in the 'Coupler Limits' table. When train includes any helper engine positioned within the trailing tonnage behind a car, subtract the tonnage handled by the helper using the following calculation

Multiply the EPA (Equivalent Powered Axles) of the helper by the factor '164'.

Subtract this tonnage from the total trailing tonnage behind a car. This final figure is the actual trailing tonnage which must comply with the 'Coupler Limits' table.

**Coupler Limits**

Territory	Coupler Limits	
	Standard Car Coupler	High Strength Car Coupler
Dunsmuir to Azalea	4,100	4,100
Azalea to Grass Lake	7,000	10,000
Mount Hebron to Grass Lake	10,000	15,500

Each car is to be 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.

**SI-13 TRAIN MAKE-UP RESTRICTIONS Continued...**

Northward trains between Dunsmuir and Azalea exceeding 5,500 feet in length (excluding locomotives) must not have helper double-headed or attached to lead consist in multiple. Helper must be entrained per Rule 31.8.2 Helper Placement.

Rule 31.8.2. REVISE following portion of Rule 31.8.2 System Helper Placement Table to read:  
**A. Rear or Cut-in Requirement for Helper:**  
 Use the following applicable table to determine whether a helper is placed on rear of train or at cut-in position on train.  
 If rear helper or cut-in helper exceeds EPA requirements in tables below, sufficient locomotives must be isolated or, on AC locomotives only, traction motors or trucks may be cut out to meet requirements to prevent exceeding EPA limits in tables.

<b>LOADED BULK-COMMODITY UNIT TRAIN</b>	
<b>Helper EPA</b>	<b>Placement Required</b>
23 or less:	May be placed on rear or cut in as outlined in Part B. When placed on rear, it must be placed ahead of any caboose.
24 to 36:	Must be cut in as outlined in Part B.

<b>EMPTY BULK-COMMODITY UNIT TRAIN</b>	
<b>Helper EPA</b>	<b>Placement Requirement</b>
11 or less:	May be placed on rear or at cut-in position as outlined in Part B. When placed on rear, it must be placed ahead of any caboose.
12 to 28:	Must be cut in as outlined in Part B.

**SI-13 TRAIN MAKE-UP RESTRICTIONS Continued...**

When helper exceeds 7 EPA, the cars that make up the tonnage ahead of the helper as indicated in the following table must comply with the train makeup restrictions contained in Rule 31.8.2 Helper Placement.

<b>RESTRICTED TONNAGE TABLE - Azalea to Black Butte</b>		
<b>Helper EPA</b>	<b>Rear Helper</b>	<b>Cut-in Helper</b>
8 to 12	800	400
13 to 16	1050	525
17	1250	625
18	1500	750
19	1750	850
20	1950	950
21	2200	1100
22	-----	1200
23	-----	1325
24	-----	1450
25	-----	1550
26	-----	1675
27	-----	1800
28	-----	1900
29	-----	2025
30	-----	2150
31	-----	2250
32	-----	2375
33	-----	2475
34	-----	2600
35	-----	2725
36	-----	2825

**BLACK BUTTE SUBDIVISION (0920)****SI-14 MISC. INSTRUCTIONS**

**Klamath Falls Yard and Texum:** Freight trains must receive permission from Train Dispatcher or their representative to make any of the following movements:

- \* Entering main track between MP 427.3 and MP 429.8;
- \* Occupying trks 001, 002, 017 and 025;
- \* Occupying track at Texum;
- \* Departing Texum, Klamath Falls or Klamath Falls Yard.

**Mott:** Flashing white light on mast MP 331.5 will be illuminated for southward trains on main track when southward Absolute signal at south end Mott displays Clear or Approach.

**Dunsmuir:** Southward freight trains must not pass CP VP323 North Dunsmuir without obtaining yarding or crew change instructions. Southward trains at Dunsmuir are to use main track or siding only, and must not use yard tracks.

**Trilevel Cars** TTQX (type M3X), BNSF 306000 - 306153, GVSR 89000 - 89058, must not be operated on the Black Butte Subdivision.

**Snow Conditions:**

- A. When spreader is connected in multiple with engine, Rule 30.3.3 Procedure for Inspection and Test of Locomotive Brakes must be performed by engineer when taking charge.
- B. To prevent build-up of ice on brake shoes and to ensure that air brakes are effective, engineer operating engine with flanger must make an automatic brake pipe reduction of sufficient amount to allow both engine and flanger brakes to apply. This procedure must be done at approximately 10 minute intervals.
- C. Flangers operating in snow territory must raise flanger blades and stop while train or engine is passing on adjacent track.
- D. Rotary snowplows must be stopped with wings in the closed position when a train or engine is passing on adjacent track.
- E. Flangers (operating snow equipment) may operate at 5 MPH above the posted maximum speed limit not to exceed 35 MPH.

**Train Make-up Restriction Qualification:**

Prior to marking up on a board that protects service on the Black Butte Subdivision, any employee who has not taken the five question train mak-eup restriction quiz must contact a local manager and arrange to take the quiz.

Any employee who has taken the Black Butte Subdivision quiz, but has not operated over the subdivision within the last six months, must not operate over the subdivision until they have retaken the quiz.

If an employee called by CMS to operate over the Black Butte subdivision has not taken the quiz or has not operated over the subdivision within the last six months, they must notify CMS of this fact when called and do not accept the call unless arrangements can be made to take the quiz upon assuming duty.

Failure to comply with the above requirements may subject an employee to discipline under Rule 1.33. In addition, the California PUC may impose individual civil penalties.

**NOTES:**

