MODOC SUBDIVISION (0921)

Radio Display:
MP 552.9 to MP 445.6 -1414
Texum -9696

Mile Post	Rule 6.3	CP #'s	SOUTH ▼ STATIONS ▲ NORTH	Sta. #'s	Siding Feet
553.2	YL		TEXUM TY (6.1)	OZ311	
547.1	TWC		STUKEL (9.2)	OY356	3666
537.9			MERRILL (4.7)	OY347	3660
533.2			HATFIELD (3.5)	OY342	4883
529.7			TULE LAKE (4.3)	OY339	2058
525.4			BNSF CROSSING (X)(A) (1.1)		
524.3			STRONGHOLD (18.2)	OY333	3648
506.1			PEREZ (20.7)	OY315	4905
485.4			AMBROSE (7.7)	OY294	3859
477.7			CANBY (19.4)	OY287	4936
457.4			ALTURAS T (18.7)	OY267	6197
445.6			END OF TRACK		

(215.9)

SI-01 MAIN TRACK AUTHORITY

TWC between:
MP 552.9. and MP 445.6.

Yard Limits between:
MP 553.2 switch at Texum lead and MP 552.9.

SI-02 MAXIMUM SPEED TABLE

Maximum Speed	MPH
Between Mileposts 553.2 and 445.6	
(Except as Below)	**40**
552.9 and 553.2 N	10
553.2 and 552.9	25
536.7 and 526.1	25
519.0 and 458.3	25
458.3 and 456.8	10
456.8 and 445.6	25

SI-03 OTHER SPEED RESTRICTIONS

Maximum Speed	MPH
1. Thru Sidings & Turnouts	
All sidings	10
Exception: Flanigan	20
2. Dual Control Switch Turnouts (No Exceptions.)	
3. Misc. Speed Restrictions	
Tuber Grain Elevator: trk.744	5
Wendel: all yard trks	5

SI-04 MAIN TRACK DESIGNATIONS - None.

SI-05 MILEPOST EQUATIONS

MP 458.3 = MP 457.4

SI-06 DTC BLOCK LIMITS - None.

SI-07 ITEM 13 TRAIN DEFECT DETECTORS

% 548.7	(#) 520.2	% 481.1
(#) 546.2	(#) 501.1	(#) 473.3
(#) 533.6	(#) 489.6	(#) 463.6

SI-08 RULES ITEMS - None.

SI-09 FRA EXCEPTED TRACKS - None.

SI-10 BUSINESS TRACKS

Track Name	MP	STA. #'S
Spring Lake	550.3	OY359
Hosley	543.0	OY353
Lost River	540.6	OY349
Malone	536.0	OY345
Tuber	527.7	OY337
Staley	522.0	OY331
Copic	520.3	OY329
Juniper	459.7	OY269
McArthur	446.4	OY256

SI-11 INDUSTRIAL LEADS - None.

SI-12 TONNAGE RESTRICTIONS/TPOB

Maximum Gross Weight: 158 Tons

Grade Restrictions: On descending grades between: Ambrose MP 485.0 and Canby MP 479.0; the following table must be used to determine the maximum speed:

Tons Per Operative Brake:	Tons Per Dynamic Brake Axle:	Maximum Speed:
Below 80	250 or less	No Restriction
	250 to 350	30
	350 to 500	25
80 thru 110	250 or less	30
	250 to 350	25
	350 to 500	20
110+ thru 140	250 or less	25
	250 to 350	25
	350 to 500	20

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

A train that exceeds the table, one that experiences dynamic brake failure, or when 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 reduced, or retainers on all cars are placed in operative position. 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 End of Track and Ambrose:
Lead consist of a loaded bulk-commodity unit train must not exceed 38 axles of power;
Lead consist of other than a loaded bulk-commodity unit train must not exceed 34 axles of power.
These restrictions include helper engines added to headend of train.

The following applies when operating on descending grades in above territories:
Lead consist of a loaded bulk-commodity unit train must not exceed 31 axles of Dynamic brake;
Lead consist of other than a loaded bulk-commodity unit train must not exceed 27 axles of dynamic brake.
These restrictions include helper engines added to headend of train.

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 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 Table		
Territory	**Standard**	**High Strength**
Canby to Ambrose	4700	7300
Wendel to Sage Hen	5000	8000
Perez to Ambrose	10000	13800
Likely to Sage Hen	6000	8500

Each car is to be considered equipped with a standard 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. Example identifications are E60HTE, SBE60CE, E60DE.

Train Make-up Restrictions Applicable between Wendel and Perez.
Note: asterisk (*) in sections below can be either letter or 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:

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

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**	**3,600 Tons**	**4,800 Tons**
Two-axle Front Runner (P12)	Weighs less than 25 tons	Weighs 25 tons or more		
Solid drawbar-connected Two-axle car (P4)	Under all conditions			
Articulated doublestack car (P3*, P4*, P5*)			One or more empty platforms	
Multi-platform spine car (P3*, P5*)			One or more empty platforms	
Car 73 feet in length or longer; weighs less than 50 tons			Coupled to a car less than 73 feet in length.	Coupled to another car 73 feet in length or longer.

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

C. When train tonnage exceeds 4,100 tons, the first five cars behind the lead consist must each weigh at least 50 tons and:
1. Be 73 feet or longer; or
2. Be less than 73 feet in length.

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

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.

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

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.

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.

RESTRICTED TONNAGE TABLE between Wendel and Perez

Helper EPA	Rear Helper	Cut-In Helper
8 to 16	500	250
17	800	400
18	1000	500
19	1250	625
20	1450	725
21	1700	850
22	1950	975
23	2150	1075
24	-----	1000
25	-----	1100
26	-----	1200
27	-----	1350
28	-----	1450
29	-----	1570
30	-----	1700
31	-----	1800
32	-----	1900
33	-----	2050
34	-----	2200
35	-----	2300
36	-----	2400

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

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 below tables, 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.

LOADED BULK-COMMODITY UNIT TRAIN

Helper EPA	Placement Requirement
32 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.
33 to 55	Must be cut in as outlined in Part B.

EMPTY BULK-COMMODITY UNIT TRAIN

Helper EPA	Placement Requirement
16 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.
17 to 32	Must be cut in as outlined in Part B.

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

OTHER THAN A LOADED BULK-COMMODITY UNIT TRAIN	
Helper EPA	**Placement Requirement**
Any helper	Must be placed ahead of: * Rail pick-up cars RGAX 4694-4696; * Two-axle scale test cars; * Cars designated 'Rear End Only' or 'Rear Rider'; * Occupied caboose; * Single platform two-axle car in series TTOX; * Solid drawbar-connected four platform car in series TTFX.
7 or less:	Placed on rear.
8 to 16:	Placed on rear. The following makeup restrictions apply to cars and/or the platform/wells of multi-platform cars entrained within the restricted tonnage limit immediately ahead of the helper. The conventional cars and/or platform/wells must not be: 1. Multi-platform car having either an empty end platform/well or two consecutive empty platform/wells; 2. Car less than 73 feet in length coupled to a car 73 feet in length or longer weighing less than 60 tons. When train makeup within the restricted tonnage limit immediately ahead of the helper does not meet the above requirements, helper may be cut into train at a location that does permit complying with makeup restrictions. When cut into train under this condition Part B will not apply.
17 to 23:	Placed on rear. The following makeup restrictions apply to cars and/or the platform/wells of multi-platform cars entrained within the restricted tonnage limit immediately ahead of the helper. The conventional cars and/or platform/wells must not be: 1. Multi-platform car having either an empty end platform/well or two consecutive empty platform/wells; 2. Car less than 73 feet in length coupled to a car 73 feet in length or longer, unless the car is less than 82 feet in length and weighs 60 tons or more; 3. Car weighing less than 45 tons. When train makeup within the restricted tonnage limit immediately ahead of the helper does not meet the above requirements, helper may be cut into train at a location that does permit complying with makeup restrictions. When cut into train under this condition Part B will not apply.
24 to 36:	Must be cut in as outlined in Part B. The following makeup restrictions apply to cars and/or the platform/wells of multi-platform cars entrained within the restricted tonnage limit immediately ahead of the helper. The conventional cars and/or platform/wells must not be: 1. Multi-platform car having either an empty end platform/well or two consecutive empty platform/wells; 2. Car less than 73 feet in length coupled to a car 73 feet in length or longer; 3. Car weighing less than 45 tons.

SI-14 MISC. INSTRUCTIONS

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 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.

Alturas: Yard limits extend on line serving Lakeview from point of connection with Modoc Sub. to MP 458.6. Between these points operation is joint with Great Western Railway.

Flanigan: Northward trains may enter siding at Flanigan when necessary to clear main track if unable to promptly obtain TWC block authority from Train Dispatcher.

Wendel: Yard limits extend on line serving Susanville from point of connection with Modoc Sub. on north and south legs of wye to MP 360.0. Within these limits operation is joint with Sierra Pacific Industries.