

RULE 10-1

RADIO COMMUNICATION

Oral authorization and acknowledgements between Foremen and Engineers for trains to pass "Red Conditional Stop" signs must be worded in the following forms:

Foremen's Initiation

THIS IS W.P. FOREMAN IN CHARGE
OF THE WORK BETWEEN MP.....
AND MP..... W.P. TRAIN ORDER
NO. WE ARE IN THE CLEAR
AND YOU MAY PROCEED PAST THE RED
CONDITIONAL STOP SIGN AND THROUGH
THE LIMITS OF THE ORDER AT
M.P.H.*

Engineer's Response

THIS IS ENGINEER W.P./S.P. TRAIN
..... I MAY PROCEED PAST THE
RED CONDITIONAL STOP SIGN AND
THROUGH THE LIMITS OF W.P. ORDER
NO. BETWEEN M.P.
AND M.P. AT (Speed)* REPEAT
(Speed) MILES PER HOUR.*

Foreman must acknowledge Engineer's
response as follows:

W.P./S.P. TRAIN, BETWEEN
M.P. AND M.P.
(Speed)* MILES PER HOUR, OK ON ORDER
NO.

*Foreman may authorize train to proceed
"at maximum authorized speed" if no speed
restriction is required account Form W train
order.



THE WESTERN PACIFIC SACRAMENTO NORTHERN AND TIDEWATER SOUTHERN RAILROAD COMPANIES TIMETABLE

No. 7

EFFECTIVE SUNDAY, APRIL 26, 1981
AT 12:01 A.M.
PACIFIC STANDARD TIME

FOR THE GOVERNMENT AND INFORMATION OF
EMPLOYEES ONLY

R. C. MARQUIS
Senior Vice President — Operation
R. E. ARTUSY
Vice President — Transportation
R. R. GENTRY
Division Superintendent, Eastern Division, Elko
C. AADNESEN
Division Superintendent, Western Division, Sacramento

**COME TO WORK ALERT, ALWAYS KEEP ALERT
AND YOU AND OTHERS WON'T GET HURT**



DIRECTOR — RULES & SAFETY

A. KINICKI San Francisco

DISTRICT SUPERINTENDENTS

R. R. AHEARN Oakland

C. M. PITTS Stockton

R. L. MEYER Oroville

CHIEF TRAIN DISPATCHER

W. F. SCHOBBER Sacramento

OVERSPEED COUPLINGS ARE DAMAGING

EMERGENCY PHONE NUMBERS

In an emergency, the fastest way to get help is to dial the number yourself, or in any emergency, dial "0" for operator. When describing the emergency, be specific, particularly with respect to location. Do not use milepost numbers with outside parties unless those parties, such as the "Forest Service" are familiar with our numbers.

	POLICE	FIRE AND RESCUE
San Francisco	415 553-0123	415 861-8020
Oakland	415 273-3211	415 444-1616
San Leandro	415 638-2123	415 638-2121
Hayward	911	911
Union City	911	911
Fremont	911	911
Milpitas	408 263-1212	408 998-7212
San Jose	408 297-3565	408 294-4664
Pleasanton	911	911
Livermore	911	911
Tracy	209 835-2525	
Lathrop	209 944-2121	209 823-7601
Stockton	209 944-8383	209 464-4646
Thornton		209 794-2341
Elk Grove		916 685-9501
Sacramento	916 449-5151	916 449-5252
Marysville	916 743-5443	916 742-2424
Yuba City	916 673-1121	916 673-1121
Oroville	916 533-1221	916 533-2525
Quincy	916 283-0400	916 283-1221
Greenville	916 284-7222	916 284-7777
Westwood	916 256-3222	916 256-3333
Bieber	916 294-5421	
Graeagle		916 836-2110
Portola	916 832-4242	916 832-4343
U.S. Forest Service	Mohawk Ranger	916 836-2575
	Quincy	916 283-1131
	Oroville Ranger	916 534-6500
Reno	702 785-2121	702 785-2345
Herlong	916 827-2205	916 827-2591
Winnemucca	911	911
Carlin	702 754-6710	702 754-6710
Elko	702 738-4011	702 738-4011
Wells	702 752-3333	702 752-3333
Wendover	801 655-2200	801 665-2345
Grantsville	801 822-5600	801 884-6611
Salt Lake City	911	911
Emergency Helicopter Service		
	Elko	702 738-4011
	Salt Lake City (Holy Cross Hospital)	801 350-4630
	Reno (Washoe Medical Center)	702 785-4340
	Chief Dispatcher	916 442-5819
Manteca	209 823-2101	209 239-1351
Escalon	209 838-7093	209 838-2412
Ripon	209 599-2102	209 599-3211
Modesto	209 524-4721	209 523-5656
Turlock	209 632-3881	209 632-2451
Pittsburg	415 439-4990	415 432-3515
Woodland	916 662-3922	916 666-4464
Chico	916 895-4911	916 895-4911
California Highway Patrol	ZE1-2000	
Sheriff/Fire/Ambulance		
	Alameda County	415 8238-5400
	San Joaquin County	209 944-2121
	Sacramento County	916 441-3441
	Stanislaus County	209 632-2771

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Rule 10-I	Back Cover

AIR BRAKE TESTS

EVENT	TYPE TEST	ENGINEER'S ACTION							TEST DESIGN		
		SET	LAP/ CUT-OUT	TIME WAIT	LEAKAGE TEST	REDUCE 2# BELOW EQ RES	CUT-IN	FULL SERVICE	LAP/ CUT-OUT	BRAKES APPLY/ RELEASE	Air must be restored in all tests
NEW TRAIN OR CONSIST	INITIAL #1117	15#	YES	45 SEC	YES / 1 MIN	YES	YES	YES	YES	ALL CARS	
DETACHING MO- TIVE POWER	INTERMEDIATE #1118.1	20#								LAST CAR	
LOCOMOTIVE OR CABOOSE CHANGE	INTERMEDIATE #1118.2	20#								LAST CAR	
CARS CUT OFF LEAD OR REAR OF TRAIN	INTERMEDIATE #1118.2	20#								LAST CAR	
CARS ADDED TO TRAIN	INTERMEDIATE #1118.3	15#	YES	45 SEC	YES / 1 MIN	YES	YES	YES	YES	NEW & LAST CARS	
ADD SOLID BLOCK (PRETESTED) CARS	INTERMEDIATE #1118.4	20#								LAST CAR	
BETWEEN YARD MOVE LESS THAN 20 MILES	INTERMEDIATE #1118.6	15#								EACH CAR	
500 MILE INBOUND ENGR	#1118	20#									
OUTBOUND ENGR			YES		YES / 1 MIN					ALL CARS	
RUN-THRU TRAIN AT INITIAL STATION	INITIAL #1117	15#	YES	45 SEC	YES / 1 MIN	YES	YES	YES	YES	EACH CAR	
Run-Thru Train Rec'd from another RR (In-bound)	RUN-THRU #1117A	20#	YES	45 SEC	YES / 1 MIN					LAST CAR	

(C)

SPEED AND CAR HANDLING RESTRICTIONS—

GENERAL

All Subdivisions and Branches

On curves speed will be reduced below the maximums or restrictions provided where necessary, on all Subdivisions and Branches to insure safety.

Trains authorized to operate at speeds shown under column headed "Expedited Speeds" but having equipment in their train covered by speed restrictions will be governed by such restrictions.

Maximum
MPH

Within the confines of car and locomotive repair and servicing areas 5

Engines operated in a movement other than from the leading control unit in the direction of movement.

On curves and approaching highway or street crossing at grade 20

Where conditions require, speed must be further reduced to insure safety.

Trains handling WP derricks Nos. 37 and 79 and assigned outfits, straight track 35

On curves 5 MPH less than speed prescribed but not exceeding 30

Trains handling derricks (other than WP derrick Nos. 37 and 79) 30

Third and Fourth Subdivisions 25

San Jose Branch (To east switch Milpitas) 20

East switch Milpitas to end of Branch 10

Tracy Branch 10

Reno Branch 20

Loyalton Branch 10

Marblehead Branch 10

Rowley Branch 20

Ellerbeck Branch 10

Warner Branch 10

Trains handling power shovels, cranes, except cranes 89 and 90, rotary plows, or pile drivers on own wheels

Third and Fourth Subdivisions and Branches 20

All other Subdivisions 25

Trains handling cranes with booms leading, or spreaders in reverse movement 25

Jordan Spreaders Forward Movement Column 2

When the plow end of Jordan Spreaders 6, 7 and 13 are to be coupled to other cars or engines, an empty flat car must be placed next to plow end, to prevent damage to engine or equipment.

Trains handling Cranes WPMW 89 and 90

Third and Fourth Subdivisions and Branches 25

All other Subdivisions 35

Trains handling air dump cars, series WP-MW 11000, loaded or empty 25

Air dump cars, loaded or empty, are to be handled near caboose except when being handled in short trains, locals, etc., or for immediate set out.

Scale test cars on own wheels must be handled next to caboose and trains handling such cars will not exceed

Between Oakland and Roper 35

Between Keddie and Bieber 25

Branches 20

SPEED AND CAR HANDLING RESTRICTIONS—

GENERAL

Continued

All Subdivisions and Branches

	Maximum MPH
Hot Box detectors, when stop is required by continuing flashing "H" to designated stop point	15
Coiled steel in movement Geneva, Utah to Pittsburg and Livermore, Calif. and empties returning	45
Loaded cars of steel in this movement are to be entrained on or near head of train.	
Trains handling blocks of 10 or more covered hoppers, loaded or empty	45
On Third Subdivision	40
Trains handling more than 50 covered hoppers, loaded or empty	40
On Third Subdivision	35
Trains handling 76 or more loaded covered hoppers on Third Subdivision	25
Trains handling ore in open top cars	Column 2
Ribbon Rail Train, loaded	40
Trains handling empty bulkhead flats	45

All WPMW (Maintenance of Way) cars are restricted to a maximum speed of 30 MPH and are restricted to movement in local freight or work trains unless otherwise specifically authorized by Chief Train Dispatcher, EXCEPT the following:

WPMW 0196 thru 0199	(LOCO SAND)
WPMW 0211 thru 0250	(BOX)
WPMW 0400 thru 0410	(BALLAST)
WPMW 1201 thru 1299	(TANK)
WPMW 8593 thru 8599	(MATERIAL)
WPMW 8651 thru 8678	(FLAT)
WPMW 6, 7 and 13	(JORDAN SPREADERS)

System Water cars (WPMW 1063, 1070, 1132, 1298, 1299, 1556, 1575, 1577, 1579, 1581, and 1583), System Diesel Fuel cars and Journal Oil cars (WPMW 1202 thru 1260), and Supply car WPMW 0291 are restricted to rear 20 cars of train.

Additionally, WPMW 8004, if not moving with pile driver, is restricted to rear 20 cars of train.

Refer to section above for applicable speed restrictions for these cars.

The movement of freight cars and cabooses onto or over turntables is prohibited except by Mechanical Department personnel.

NOTE: Restrictions on cars and equipment listed herein must be respected when operating on any foreign railroad.

RULE 10-J. Where two speeds are shown on speed control boards, higher speed will be that authorized by column headed "Expedited Speed," and the other, Column 1.

Trains approaching interlocked crossings must reduce to speed shown before engine passes home signal.

SOUTHERN PACIFIC TRAINS

Southern Pacific Trains handling empty cars, do not exceed 55 MPH on WP track. Caboose will qualify as a load.

Southern Pacific Trains not authorized Column 1 speed on Southern Pacific by Southern Pacific Train Order or Southern Pacific Timetable Bulletin are restricted on Western Pacific to a maximum speed of 55 MPH.

Southern Pacific Trains designated as RVOGP, OAOGF, and RVNPP are permitted to operate at speeds shown in column headed "Expedited Speed" when they qualify with conditions in column heading, subject to other applicable speed restrictions.

Southern Pacific trains with UP units 3123 through 3409, do not exceed 50 MPH.

LOCOMOTIVE SPECIFICATIONS, SPEED AND HANDLING RESTRICTIONS.

Maximum speeds in miles per hour shown below is subject to further restrictions as shown for each subdivision or branch.

Engine Number	Maximum Speed	Length Between Pulling Faces	Classification	Model	Starting Tractive Effort	Weight of Engine	Horsepower
WP Engines							
601-606	30	44	ES412	SW 9	61,950	247,800	1,200
608	30	44	ES412	NW 2	62,000	248,000	1,200
701-713	65	56	EM415	GP 7	62,950	251,700	1,500
725-732	65	56	EM418	GP 9	61,900	247,600	1,750
913-921	65	51	EF415	F 7	61,175	244,710	1,500
1501-1503	65	45	ES415	SW 1500	64,700	257,870	1,500
2001-2010	70	56	EM420	GP 20	64,225	256,890	2,000
2251-2265	70	60	GF423	U 23 B	65,557	262,230	2,250
3001-3022	70	56	EF425	GP 35	64,650	258,975	2,500
3051-3069	70	60	GF430	U 30 B	71,500	289,000	3,000
3501-3559	70	59	GF430	GP 40	69,250	278,000	3,000
SN Engines							
402	35	45	ES406	SW 1	50,250	201,000	600
607	30	44	ES412	NW 2	62,000	248,000	1,200
711-712	65	56	EM415	GP 7	61,700	246,800	1,500
UP Engines							
2400-2459	70	67	GF630	U 30C	98,250	396,000	3,000
2800-2809	70	65	GF628	U 28C	93,500	373,600	2,800
2810-2959	70	67	GF630	U 30C	97,750	391,060	3,000
3000-3122	70	66	EF630	SD 40	98,250	393,300	3,000
3123-3488	70	71	EF630	SD 40-2	97,500	390,800	3,000
3489-3718	70	71	EF630	SD 40-2	97,500	393,800	3,000
8000-8074	70	71	EF630	SD 40-2	97,500	393,300	3,000
8075-8099	70	71	EF630	SD 40-2	97,500	392,000	3,000
9000-9005	70	60	EF435	GP 40-X	68,750	274,000	3,500
BN Engines							
2072-2109	70	57	EF420	GP 38	55,000	265,000	2,000
2200-2254	70	56	EF423	GP 30	51,000	260,000	2,250
2500-2545	70	56	EF425	GP 35	51,200	262,000	2,500
3000-3039	70	59	EF430	GP 40	48,000	274,000	3,000
5650-5677	70	67	GF628	U 28 C	82,000	391,000	2,800
5700-5765	70	67	GF633	U 33 C	82,000	392,200	3,300
6300-6325	70	66	EF630	SD 40	74,500	381,000	3,000
6326-6385	70	71	EF630	SD 40-2	74,500	384,000	3,000
6400-6567	70	66	EF636	SD 45	84,000	394,022	3,600
6592-6599	70	71	EF636	SDP 45	84,000	394,300	3,600
6600-6645	70	71	EF636	F 45	71,000	385,471	3,600
6700-7053	70	71	EF630	SD 40-2	84,000	412,000	3,000
7054-7160	70	71	EF630	SD 40-2	84,000	414,000	3,000
7800-7888	70	69	EF630	SD 40-2	84,000	412,000	3,000
7900-7917	70	69	EF630	SD 40-2	84,000	412,000	3,000
8000-8181	70	69	EF630	SD 40-2	84,000	412,000	3,000
9900-9925	70	70	EP624	E 9	23,500	332,060	2,400

LOCOMOTIVE SPEED AND HANDLING RESTRICTIONS Continued

Foreign railroad diesel units, when used, will be permitted maximum speeds but will not exceed maximum speed stencilled in cab of each unit.

Trains handling engines dead in train must not exceed the maximum speed for such class engine.

MISCELLANEOUS

Locomotive consist at head end of trains must not exceed six Operative units. Any units in excess of six must be isolated.

Operative dynamic brake on head end of trains must not exceed four 6-axle units, six 4-axle units, or any combination thereof which totals 24 axles.

Diesel engines may be operated through water when its depth does not exceed three inches, measured from top of rail, at a speed not exceeding five miles per hour.

During freezing weather engine water cooling system must be drained on any type engine being towed dead.

Backing a train, except work trains locals and road switchers, must be done only on an emergency basis with direct permission of Chief Dispatcher, train dispatcher or proper officer.

When necessary to back a train, including locals and road switchers, reduce the working locomotive consist to not more than three units by isolating all units above three units with working units against the train.

TRACKS ON WHICH ENGINE MOVEMENTS RESTRICTED

Location and Description of Track	Class of Engine	Prohibited
OAKLAND, Gerber Spur No. 14-783	All except 601 and 1501 class and SN607	Entire spur
RADUM	All	Beyond frog on all tracks except 1 and 2
STOCKTON Hunter Street Line	All except 601, 1501, 701 and 725 classes and SN 607, 711, 712	Entire line.
MARYSVILLE Old SN freight connections	All	Beyond frog.
CRAIG, Outfit Spur	All	Beyond restricting sign.
GRAY'S FLAT	THREE axle trucks & all over one unit.	Entire spur.
QUINCY JCT. Stock Track (Off Sdg)	THREE axle trucks	Entire spur beyond clearance point.
House Track TIP 121 and Interchange Track TIP 122 ...	THREE axle trucks	Except may operate on both tracks at speeds not to exceed 5 MPH
SLOAT, Chip Track	All	Beyond chip loader
JUNGO	All	West of loading ramp No. 1 or 2 spur.
LAKE POINT Tracy Branch, Spur MP 0.5	All over 4 units	Beyond frog.
RENO BRANCH	All 3051 & 3501 Class Three Axle Trucks	Beyond frog. Between MP 30 and MP 33.
LOYALTON BRANCH	3051, 3501 Class Three Axle Trucks & all over 4 units	Entire Branch
ELLERBECK BRANCH	All over 2 units	Between Flux & Dolomite

TRACKS ON WHICH ENGINE MOVEMENTS RESTRICTED Continued

Movement of any locomotive over live rails of track scales is prohibited. When switching cars over track scales, the switches must be lined for movement across the dead rails.

EXCEPTION: Scale installed on industry track Pozla has live rails only and can be switched across at not to exceed 5 MPH.

Engine movements are restricted on the following spurs to the number of feet shown from clearance point. The spurs listed, except those at Elko, are to be used only for MofW or bad order setouts.

Sand Pass	310
Sano	200
Reynard	200
Phil	500
Trego	200
Cholona	200
Floka	230
Antelope	300
Gaskell	250
Raglan	200
Ellison	150
Kampos	150
Duggan	150
Tonka	150
Elko (Vogeler)	300
Elburz	150
Tulasco	150
Sage	600
Silverzone	450
Clifside	216
Ola	200
Barro	280
Low	580

TIDEWATER SOUTHERN AND SACRAMENTO NORTHERN

All six axle locomotives and all locomotives weighing in excess of 289,000 lbs. are restricted from use on the Tidewater Southern and Sacramento Northern. See Page 3. All WP locomotives weigh 289,000 lbs. or less and are not restricted for use on Tidewater Southern and Sacramento Northern.

FIRST SUBDIVISION

EASTWARD ↓				↑ WESTWARD			
Miles from Oakland	Station Numbers	Mile Post	TIMETABLE NO. 7	SDGS in Feet	Miles from Stockton		
			STATIONS	RULE 6-A			
.0	5	4.7	OAKLAND (YL)	BKFYPO	87.3		
1.1	6	5.8	SP CROSSING (Magnolia)	I	86.2		
1.2	6	5.9	CHESTNUT JCT. (SP Conn.)	I	86.1		
2.5	7	7.2	OAK ST. (SP X'ing.)	P	84.8		
3.0	8	7.7	CLINTON	P	84.3		
4.9	10	9.6	FRUITVALE	IP	82.4		
5.9	11	10.6	MELROSE (SP X'ing.)	P	81.4		
6.6	12	11.3	KOHLER	AIP	80.7		
9.0	14	13.7	ELMHURST (SP X'ing.)	P	78.3		
15.4	20	20.1	HAYWARD	BKP	71.9		
25.0	30	29.7	FREMONT	IP	62.3		
25.6	31	30.3	NILES TOWER (SP X'ing.)	YP	61.7		
25.8	31	30.5	NILES JUNCTION	P	61.5		
33.4	38	38.1	HEARST	AIP	53.9		
38.0	43	42.7	RADUM (SP X'ing.)	AI	49.3		
38.27	43	42.97	RADUM (SP X'ing.)	P	49.03		
42.3	47	47.0	LIVERMORE	P	41.17		
51.5	56	56.2	ALTAMONT	P	55.60		
58.6	63	63.3	MIDWAY	YP	55.18		
68.1	73	72.8	TRACY	AI	106.92		
69.35	74	74.05	SP CROSSING (Lyoth)	P	17.95		
77.4	82	82.1	WYCHE	I	9.9		
79.75	84	84.45	SP CROSSING (Lathrop)	TO-YBKFTPO	7.55		
87.3	92	92.0	STOCKTON (Yard)		0.0		

Double Track Chestnut Jct. to Clinton.

Traffic Control System in effect Clinton to Stockton Yard inclusive. See Rule 540.

RULE T-82-A. Eastward trains do not require a clearance at Oakland.

Refer to Page 144, Rule 541, Operating Rules. Before departing Oakland Conductor (or Engineer if there is no Conductor) will contact train dispatcher for instructions for movement Clinton to Stockton. Dispatcher will then issue verbal authority to enter T.C.S. at Clinton.

Conductors will retain orders on inbound train for comparison with train dispatcher for eastbound movement.

SPURS AND COMMERCIAL TRACKS

STATIONS	MILE POST	Connected	Capacity in Feet	Station No.
SAN LEANDRO	P 14.69	Both Ends	435	15
ESTUDILLO	P 16.14	Both Ends	3850	16
CARPENTER	P 24.9	Both Ends	1688	25
UNION CITY	P 25.9	Both Ends	1888	26
PABRICO	P			28
Pacific States Steel	26.96	W	3015	
PLEASANTON	P 41.7	W	500	41
RADUM	P 43.4	Both Ends	1758	43
TREVARNO				
Interchange	49.0	W	1402	49
Drill Track	49.16	W	6434	1049
LOX	P 50.3	W	1850	50
AYALA	P 70.92	E	5700	71
LYOTH	P			
U.S.Q.M. & SP Conn.	73.8	W	—	74
(Spur leads from east end Tracy siding)				
COCHRAN	P 75.6	Both Ends	759	76
ARMY SUPPLY DEPOT (LATHROP)	P 85.76	Both Ends	6241	86
FRENCH CAMP	P 88.35	Both Ends	1557	88

Footage figures shown are for the tracks directly connecting to the main track and do not include additional auxiliary trackage.

FIRST SUBDIVISION

MAXIMUM SPEEDS IN MILES PER HOUR Between	Expedited Speed OMV, CCV, FF, BAF, OME TOP, COFC If not over 70 Cars or 80 Tons per Operative Brake	1 Trains Not Exceeding 100 Cars or 5500 Tons	2 Trains Exceeding 100 Cars or 5500 Tons
First Subdivision			
Chestnut Jct. and MP 7.7 Clinton	10	10	10
MP 7.7 Clinton and SP Crossing MP 10.6	20	20	20
SP Crossing MP 10.6 and MP 15.2 Williams St.			
San Leandro	35	35	35
MP 15.2 Williams St. San Leandro and MP 23.93	60	60	50
MP 23.93 and MP 29.25	60	50	50
MP 29.25 and MP 32.0	40	40	30
MP 32.0 and MP 33.0	25	25	25
MP 33.0 and MP 34.4	40	40	30
MP 34.4 and MP 38.8 curve at SP underpass	45	45	35
MP 38.8 and MP 52.3	45	45	45
MP 52.3 and MP 58.2	40	40	30
MP 58.2 and MP 67.0	45	45	35
MP 67.0 and MP 74.05 SP Crossing	60	50	50
Over MP 74.05 SP Crossing	50	50	50
MP 74.05 SP Crossing and MP 84.45 SP Crossing	60	50	50
Over MP 84.45 SP Crossing	30	30	30
MP 84.45 SP Crossing and MP 90.4	60	50	50
MP 90.4 and MP 90.85	45	45	35
MP 90.85 and MP 94.2	20	20	20
Other Tracks	10	10	10

Through turnouts, crossovers, on Wyes, on sidings and on all inside tracks (except as otherwise provided for)

10

On inside tracks when curvature or other conditions require, speed will be further reduced to insure safe operation.

Through turnouts with power-operated switches in reverse position, as follows:

Kohler to Wyche inclusive, except Fremont and east leg of wye switch, Niles Junction.

Westward trains leaving Stockton Yard, after receiving signal from rear to indicate rear end has passed Tidewater Southern Jct. and

Through the sidings at the stations and within the limits listed above

20

Trains must move with extreme care not exceeding 3 MPH while moving over frogs and switches and around curves on Tomato Spurs, Tracy.

*To determine "Tons per Operative Brake," subtract the number of cars with inoperative brakes from the total number of cars in train including caboose and divide the gross tonnage of train with this figure. Example:

The train has 40 loads, 20 mtys, 4500 tons. There are no brakes cut out. 40 plus 20 equals 60. 4500 divided by 60 equals 75 tons per operative brake.

SECOND SUBDIVISION

EASTWARD ↓			↑ WESTWARD		
Miles from Stockton	Station Numbers	Mile Post	TIMETABLE NO. 7	SDGS in Feet	Miles from Oroville Yard
			STATIONS RULE 6-A		
0.0	92	92.0	STOCKTON (Yard) TO-YBKFTPO		110.9
1.2	93	93.2	AT&SF CROSSING IP		109.7
1.8	94	93.8	WEBER AVE. (SP X'ing.) P		109.1
2.3	94	94.3	FLORA STREET IP		108.6
3.1	95	95.1	EL PINAL (SP X'ing.) P		107.8
5.9	98	97.9	HAMMER LANE P	5895	105.0
12.7	104	104.7	KINGDON P		98.2
21.9	114	113.9	THORNTON P	3638	89.0
29.9	122	121.9	PHILLIPS P	6250	81.0
40.4	132	132.4	POLLOCK P	4874	70.5
44.0	136	136.0	SOUTH SACRAMENTO BKFPO		66.9
46.0	138	138.0	"R" ST. (SP X'ing.) IYP	Yard	64.9
47.5	140	139.5	HAGGIN (SN & SP Conns.) P		63.4
48.7	141	140.7	GLOBE (SN Conn.) P		62.2
51.6	144	143.6	DEL PASO P	6247	59.3
60.5	153	152.5	SANKEY (SN Conns.) P		50.4
64.5	156	156.5	PLEASANT GROVE P	6242	46.4
70.0	162	162.0	TROWBRIDGE P		40.9
80.85	173	172.85	MOUNKES P	7290	30.05
83.63	176	175.63	CLEVELAND (SN Conn.) P		27.27
86.8	179	178.8	MARYSVILLE IP	5055	24.1
88.2	180	180.2	BINNEY JCT. (SP X'ing.) P		22.7
88.42	180	180.42	SP CONNECTION P		22.48
93.6	186	185.6	TAMBO P		17.3
101.0	193	193.0	CRAIG P	6183	9.9
110.9	203	202.9	OROVILLE YARD TO-TBKFFPO		0.0

At South Sacramento and Sacramento, engine whistle or horn should be used only when necessary and then kept as soft as possible consistent with the particular requirement.

Traffic Control System in effect Stockton Yard to Oroville Yard inclusive. See Rule 540.

SPURS AND COMMERCIAL TRACKS

STATIONS	MILE POST	Connected	Capacity in Feet	Station No.
KINGDON P	104.7	Both Ends	897	104
TERMINOUS JCT. P	105.3			105
Track 1		W	1200	—
Track 2		W	3360	—
VILLINGER P	107.8	W	641	108
LAGUNA CREEK P	129.76	E	1400	129
KENWOOD P	133.17	E	717	133
BOMBAY P	146.6	E	510	147
PERMANEER P	201.18	E	510	201

Footage figures shown are for the tracks directly connecting to the main track and do not include additional auxiliary trackage.

SECOND SUBDIVISION

MAXIMUM SPEEDS IN MILES PER HOUR Between	Expedited Speed OMW, CCVX, FF, BAP, OME, TOP, COFC If not over 70 Cars or 80 Tons per Operative Brake *	1 Trains Not Exceeding 100 Cars or 5500 Tons	2 Trains Exceeding 100 Cars or 5500 Tons
Second Subdivision			
MP 90.85 and MP 94.2	20	20	20
Other Tracks	10	10	10
MP 94.2 and MP 95.2 over SP Crossing	30	30	30
MP 95.2 and MP 97.3	50	50	45
MP 97.3 and MP 115.35	60	60	55
MP 115.35 and MP 116.7	60	50	40
MP 116.7 and MP 129.0	60	60	55
MP 129.0 and MP 135.2	40	40	40
MP 135.2 and "C" St. Sacramento	20	20	20
"C" St. Sacramento and MP 141.8	35	30	25
MP 141.8 and MP 166.25	60	60	55
MP 166.25 and MP 166.6 Bear River Bridge	60	50	50
MP 166.6 and MP 177.5	60	60	55
MP 177.5 and MP 180.19	40	40	30
MP 180.19 and MP 181.1	25	25	25
MP 181.1 and MP 188	60	60	55
MP 188 and MP 198	50	50	50
MP 198 and MP 201.7	60	60	55
MP 201.7 and MP 201.9 on curve	40	40	35
MP 201.9 and MP 205.47	45	45	35

NOTE: The following trains do not exceed **10 MPH** while any portion of train is passing Oroville Yard office: FF, BN137, BN139, BN171, AND ALL EASTWARD TRAINS.

Through turnouts, crossovers, on Wyes, on sidings and on all inside tracks (except as otherwise provided for)

10

On inside tracks when curvature or other conditions require, speed will be further reduced to insure safe operation.

Through turnouts with power-operated switches in reverse position as follows:

Hammer Lane, Phillips, Del Paso to Craig inclusive, except Sankey and Marysville, and through the sidings at the stations listed

20

*To determine "Tons per Operative Brake," subtract the number of cars with inoperative brakes from the total number of cars in train including caboose and divide the gross tonnage of train with this figure. Example: The train has 40 loads, 20 mty's, 4500 tons. There are no brakes cut out. 40 plus 20 equals 60. 4500 divided by 60 equals 75 tons per operative brake.

THIRD SUBDIVISION

EASTWARD ↓			↑ WESTWARD		
Miles from Oroville Yard	Station Numbers	Mile Post	TIMETABLE NO. 7	SDGS in Feet	Miles from Portola
			RULE 6-A		
			STATION		Miles from Bie-ber via K&N
0.0	203	202.9	OROVILLE YARD		114.5
2.2	205	205.1	2.2 OROVILLE (Siding)	4687	112.3
7.0	214	213.9	4.8 KRAMM	6311	107.5
13.1	220	220.0	6.1 ELSEY	6466	101.4
19.1	226	226.0	6.0 JAMES	6545	95.4
28.0	235	234.9	8.9 POE	6959	86.5
32.6	240	239.5	4.6 PULGA	6091	81.9
36.6	244	243.5	4.0 CRESTA		77.9
40.7	248	247.6	4.1 MERLIN	3683	73.8
48.7	255	255.6	8.0 CAMP RODGERS	6713	65.8
53.2	260	260.1	4.5 BELDEN	4657	61.3
57.6	265	264.5	4.4 RICH BAR		56.9
63.6	270	270.5	6.0 VIRGILIA	9825	50.9
70.4	277	277.3	6.8 PAXTON	4202	44.1
74.6	281	281.5	4.2 KEDDIE	7169	39.9
81.0	288	287.9	6.4 QUINCY JUNCTION	3791	33.5
89.5	296	296.4	8.5 SPRING GARDEN	4610	25.0
95.0	302	301.9	5.5 SLOAT	7892	19.5
103.5	310	310.4	8.5 BLAIRSDEN	4869	11.0
114.5	321	321.4	11.0 PORTOLA	10771	0.0

Traffic Control System in effect Oroville Yard to Portola inclusive. See Rule 540.
Equation MP 205.47 equals MP 209.51, which are identical points. Equation is a result of Oroville line change being 4.04 miles shorter than original route.

Rules T-82-A and 204. Train orders will be issued at Oroville Yard and Portola which affect movement on Fourth Subdivision.

SPURS AND COMMERCIAL TRACKS

STATIONS	MILE POST	Connected	Capacity in Feet	Station No.
TOBIN	P 253.1	E	1982	253
GRAY'S FLAT	P 272.6	W	546	273
TWAIN	P 273.9	Both Ends	3504	274
MABIE	P 318.3	W	4158	319

Footage figures shown are for the tracks directly connecting to the main track and do not include additional auxiliary trackage.

THIRD SUBDIVISION

MAXIMUM SPEEDS IN MILES PER HOUR Between	Expedited Speed OMW, CCVX, FF, BAF, OME, TOP, COFC If not over 70 Cars or 80 Tons per Operative Brake *	1 Trains Not Exceeding 100 Cars or 5500 Tons	2 Trains Exceeding 100 Cars or 5500 Tons
Third Subdivision			
MP 201.9 and MP 205.47	45	45	35
MP 205.47 and MP 215.4	45	45	40
MP 215.4 and MP 215.6	35	35	35
MP 215.6 and MP 224.25	45	45	40
MP 224.25 and MP 227.3	35	35	35
MP 227.3 and MP 232.2	45	35	35
MP 232.2 and MP 300.0	25	25	25
Grays Flat Spur	5	5	5
West Wye Switch Keddie, diverging route	15	15	15
MP 300.0 and MP 318.4	30	25	25
MP 318.4 and MP 323.7	40	40	30

NOTE: The following trains do not exceed **10 MPH** while any portion of train is passing Oroville Yard office: FF, BN137, BN139, BN171, AND ALL EASTWARD TRAINS.

Through turnouts, crossovers, on Wyes, on sidings and on all inside tracks (except as otherwise provided for) 10
On inside tracks when curvature or other conditions require, speed will be further reduced to insure safe operation.

Through turnouts with power-operated switches in reverse position as follows:

East Switch Oroville Depot Siding, Elsey, James, East Switch Pulga and through the sidings at the stations listed 20

*To determine "Tons per Operative Brake," subtract the number of cars with inoperative brakes from the total number of cars in train including caboose and divide the gross tonnage of train with this figure. Example: The train has 40 loads, 20 mtys, 4500 tons. There are no brakes cut out. 40 plus 20 equals 60. 4500 divided by 60 equals 75 tons per operative brake.

FOURTH SUBDIVISION

EASTWARD ↓				↑ WESTWARD						
Miles from Oroville Yard	Station Numbers	Mile Post	TIMETABLE NO. 7		SDGS in Feet	Miles from Bieber	SECOND CLASS			
			STATIONS	RULE 6-A			5	7	9	11
							Daily	Daily	Daily	Daily
	281	0.0	KEDDIE	FPY		111.8				
79.8	6281	6.2	MOCCASIN	P	4208	105.6				
82.2	9281	8.6	CRESCENT MILLS	P	620	103.2				
88.3	15281	14.7	GREENVILLE	P	4236	97.1				
99.3	25281	25.7	ALMANOR	YP	7914	86.1	AM	AM	PM	PM
108.8	35281	35.2	CLEAR CREEK JCT	P		76.6	2.35	8.35	2.35	8.35
113.0	39281	39.4	WESTWOOD	P	4412	72.4	2.25	8.25	2.25	8.25
117.4	44281	43.8	ROBBERS CREEK	P	7236	68.0	2.15	8.15	2.15	8.15
136.5	63281	62.9	LODGEPOLE	YP	4219	48.9	1.50	7.50	1.50	7.50
150.1	76281	76.5	HALLS FLAT	P	6754	35.3	1.30	7.30	1.30	7.30
168.4	95281	94.8	LITTLE VALLEY	P	4192	17.0	12.40	6.40	12.40	6.40
185.4	112281	111.8	BIEBER (Yd. Limits)	TO-R-BKYP		0.0	12.01	6.00	12.01	6.00
							AM	AM	PM	PM

Rule 540. Traffic Control System in effect Keddie to MP 38.6. Westward signal located at MP 39.6 is approach signal for Absolute Signal at MP 38.6.

Rule T-72. Westward Trains are superior to Eastward Trains of the same class. TCS signals must be respected.

Rules T-82-A and 204. Train orders will be issued at Oroville Yard and Portola which affect movement on Fourth Subdivision. Train orders will be issued at Bieber which affect movement on Third Subdivision. Clearance is not required at Keddie. TCS Signals will govern movements between MP 38.6 and Oroville Yard or Portola. Eastward Trains will check with Fourth Sub Dispatcher and Westward Trains with Third Sub Dispatcher to determine they have all applicable orders before leaving Almanor.

Rules T-83A and T-83-B Almanor. Westward Trains will report arrival Almanor to Fourth Subdivision Dispatcher when engine passes east switch Almanor. Refer to Rule 40. Radio communications will be utilized when available. If not available, telephone communication will be used.

Rule T-97. Eastward Trains must not pass absolute signal at East Almanor unless train order authority to do so including train order form "G" or "H" has been received unless movement is not to go beyond MP 38.6. TCS signals must be respected.

SPURS AND COMMERCIAL TRACKS

STATIONS	MILE POST	Connected	Capacity in Feet	Station No.
INDIAN CREEK. P	3.1	W	781	3281
CHENEY	13.9	E	1045	14281
CHENEY (South)	13.9	Both Ends	438	14281
WILLOW SPRINGS P	89.8	W	448	90281
LITTLE VALLEY LUMBER CO. . . P	95.4	W	387	96281

Footage figures shown are for the tracks directly connecting to the main track and do not include additional auxiliary trackage.

FOURTH SUBDIVISION

MAXIMUM SPEEDS IN MILES PER HOUR Between	MAXIMUM SPEEDS	
	1	2
Fourth Subdivision		
MP 0.0 and MP 1.95	10	10
MP 1.95 and MP 6.19	25	25
MP 6.19 and West Switch Greenville	40	35
West Switch Greenville and MP 16.0	35	35
MP 16.0 and MP 34.55	25	25
MP 34.55 and MP 43.52	30	25
MP 43.52 and MP 78.71	45	45
MP 78.71 and MP 93.4	25	25
MP 93.4 and MP 98.1	30	25
MP 98.1 and MP 106.53	25	25
MP 106.53 and MP 111.81	30	25

Unless otherwise advised, trains on Fourth Subdivision will operate at speeds shown under Column 1.

Through turnouts, crossovers, on Wytes, on sidings and on all inside tracks

10

On inside tracks when curvature or other conditions require, speed will be further reduced to insure safe operation.

FIFTH SUBDIVISION

EASTWARD ↓				↑ WESTWARD			
Miles from Portola	Station Numbers	Mile Post	TIMETABLE NO. 7	SDGS in Feet	Miles from Winnemucca		
			STATIONS				
0.0	321	321.4	PORTOLA	TO-BKFYP	10771	210.9	
6.1	328	327.5	HAWLEY	P	5770	204.8	
17.7	339	339.1	CHILCOOT	YP	6245	193.2	
20.4	342	341.8	RENO JCT.	P	3000	190.5	
24.2	346	345.6	SCOTTS	P	6126	186.7	
30.8	353	352.2	RED ROCK	P		180.1	
41.2	363	362.6	DOYLE	P	6369	169.7	
50.3	372	371.7	HERLONG (Cal.)	P	4193	160.6	
62.1	384	383.5	FLANIGAN (Nev.)	P	6162	148.8	
63.0	384	384.4	SP CONNECTION	P		147.9	
72.3	394	393.7	SAND PASS	P	6162	138.6	
83.3	405	404.7	SANO	P	6152	127.6	
94.9	416	416.3	REYNARD	P	5647	116.0	
109.4	431	430.8	PHIL	YP	6160	101.5	
116.5	438	437.9	GERLACH	P	6289	94.4	
129.8	451	451.2	TREGO	P	6145	81.1	
139.9	461	461.3	CHOLONA	P	6150	71.0	
149.2	471	470.6	RONDA	P	6158	61.7	
158.0	479	479.4	FLOKA	P	6167	52.9	
166.2	488	487.6	ANTELOPE	P	6156	44.7	
175.2	497	496.6	JUNGO	P	6163	35.7	
187.2	509	508.6	GASKELL	P	6148	23.7	
197.8	519	519.2	RAGLAN	BKPY	6145	13.1	
210.9	532	532.3	WINNEMUCCA	Yard		0.0	

Traffic Control System in effect Portola to Winnemucca inclusive. See Rule 540. Division point between Eastern and Western Divisions is MP 384.38.

Winnemucca. RULE T-82-A. No clearance is required at WP Winnemucca for movement to Fifth or Sixth Subdivisions.

Outbound crew members will contact train dispatcher prior to arrival of their train and train dispatcher will advise the order numbers or other instructions the train received prior to arrival Winnemucca. Train dispatcher will issue any further instructions and will give verbal authority to depart Winnemucca. Crew members will check the order numbers and messages against orders and instructions on the train.

Train orders or other written instructions regarding track conditions, underfoot conditions load dimensions, train movement, work to be performed, or other instructions concerning Fifth and Sixth Subdivisions will be issued to Westward WP Trains at Elko and Carlin and to Eastward WP Trains at Portola. At Winnemucca, inbound engineer leave such information on locomotive and inbound conductor leave such information in desk drawer of caboose. Additional clearance issued at Elko to Westward Trains will list orders in effect on Fifth Subdivision and additional clearance issued at Portola to Eastward Trains will list orders in effect on Sixth Subdivision.

SP TRAINS

Rules T-82-A and 204. Wendel. SP trains will be authorized by clearance at Wendel which will be authority for movement on WP track Flanigan to Carlin. Train orders may be issued at Wendel which will affect movement Flanigan to Carlin.

Carlin. Train orders may be issued to westward SP trains at SP Carlin which will affect their movement between Weso and Flanigan.

Winnemucca. Clearance not required.

SPURS AND COMMERCIAL TRACKS

STATIONS	MILE POST	Connected	Capacity in Feet	Station No.
POZLA	349.1	Both Ends	1670	349

Footage includes tail track.

FIFTH SUBDIVISION

MAXIMUM SPEEDS IN MILES PER HOUR Between	Expedited Speed OMW, CCVX, FF, BAF, DME, TOP, COFC If not over 70 Cars or 80 Tons per Operative Brake *	1	2
		Trains Not Exceeding 100 Cars or 5500 Tons	Trains Exceeding 100 Cars or 5500 Tons
Fifth Subdivision			
MP 318.4 and MP 323.7	40	40	30
MP 323.7 and MP 340.3	60	60	50
MP 340.3 and MP 356.0	40	40	40
MP 356.0 and MP 363.0	60	60	50
MP 363.0 and MP 384.2	65	60	50
MP 384.3 WP-SP Conn. using turnout	—	20	20
MP 384.2 and MP 390.7	60	60	50
MP 390.7 and MP 397.8	40	40	35
MP 397.8 and MP 404.7	55	55	40
MP 404.7 and MP 488.3	65	60	50
MP 488.3 and MP 489.9	55	55	45
MP 489.9 and MP 494.5	40	40	30
MP 494.5 and MP 494.9	45	45	35
MP 494.9 and MP 495.6	55	55	45
MP 495.6 and MP 508.5	65	60	50
MP 508.5 and MP 527.0	60	50	50
MP 527.0 and MP 530.7 Winnemucca	65	60	50
MP 530.7 and MP 536.0	55	55	45

Through turnouts, crossovers, on Wyes, on sidings and on all inside tracks (except as otherwise provided for) 10

On inside tracks when curvature or other conditions require, speed will be further reduced to insure safe operation.

Through turnouts with power-operated switches in reverse position.

East Switch Portola to East Switch Winnemucca inclusive except Reno Jct. and through sidings at the stations listed 20

*To determine "Tons per Operative Brake," subtract the number of cars with inoperative brakes from the total number of cars in train including caboose and divide the gross tonnage of train with this figure. Example: The train has 40 loads, 20 mtys, 4500 tons. There are no brakes cut out. 40 plus 20 equals 60. 4500 divided by 60 equals 75 tons per operative brake.

SIXTH SUBDIVISION						
EASTWARD ↓			↑ WESTWARD			
First Class	Miles from Winnemucca	Station Numbers	Mile Post	TIME TABLE NO. 7	SDGS in Feet	
6				STATIONS		RULE 6-A
SP PSGR						
Daily						
	0.0	532	532.3	WINNEMUCCA BKPYP	Yard	
PM 10:30	3.7	536	536.0	WESO (SP Conn.) P		
	39.9	572	572.2	VALMY P		
11:02	43.1	575	575.4	ELLISON P	6268	
11:29	87.2	620	619.5	BEOWAWE (SP Conn.) TO-P	5999	
11:38	98.2	631	630.5	BARTH (SP Conn.) P		
	111.1	643	643.4	WEST CARLIN (SP Conn.) 12.9		
s12:09	112.3	645	644.6	CARLIN R-PB		
12:14	113.7	646	646.0	EAST CARLIN (SP Conn.) P		
s12:35 AM	133.1	665	665.4	ELKO (SP Conn.) 19.4 TO-R-BKFPY	Yd. Lmts.	
					Be governed by current time table, bulletins and rules of Southern Pacific Company, on SP track between Elko and Weso.	

Be governed by current time table, bulletins and rules of Southern Pacific Company, on SP track between Elko and Weso.

Feet Capacity	Mile Post	SP Co. Stations	Station Numbers
300W...	422.8	Tule	423536 (Spur)
1640W...	434.0	Golconda	434536 (Spur)
	439.3	Preble	554
	448.1	Iron Point	448554
245W...	461.3	Valmy	461554 (Spur)
7550E...	466.3	Mote	466554 (Spur)
6500.....P	475.8	Battle Mtn.	476554
3185W...	487.7	Argenta	488554 (Spur)
	489.15	Hilltop	489554 (Spur)
7580.....P	492.9	Mosel	493554
	508.2	Beowawe (WP Conn.)	620
245W...	517.0	Harney	517620 (Spur)
	520.3	Barth (WP Conn.)	631
2790W...P	525.7	Palisade	526631 (Spur)
Yd. Lmts.	534.5	Carlin (WP Conn.)	534645
	544.7	Moleen	545645

Traffic Control System in effect Winnemucca to Weso. See Rule 540.
Automatic Block Signal System extends from Weso to Elko, Eastward only.

SPURS AND COMMERCIAL TRACKS

STATIONS	MILE POST	Connected	Capacity in Feet	Station No.
GOLCONDA P	548.8	E	5020	548
RED HOUSE P	562.97	E	5375	562
KNIGHT P	570.1	E	316	570
VALMY P	572.2	E	7563	572
RUSSELL P	582.5	E	341	583
RENNOX P	591.3	E	5860	591
KAMPOS P	601.3	E	5143	601
DUNPHY P	610.12	E	5340	610
CLURO P	627.14	E	5335	627
DUGGAN P	631.9	E	1018	632
CARLIN P	644.6	E	1296	645
TONKA P	650.1	E	1248	650
HUNTER P	656.97	E	6065	656

Footage figures are for tracks connected directly to main track and do not include additional auxiliary trackage.

SIXTH SUBDIVISION

MAXIMUM SPEEDS IN MILES PER HOUR Between

Sixth Subdivision

	Expedited Speed OMW, CCVX, FF, BAF, OME, TOP, COFC, if not over 70 Cars or 80 Tons per Operative Brake *	1 Trains Not Exceeding 100 Cars or 5500 Tons	2 Trains Exceeding 100 Cars or 5500 Tons
MP 530.7 Winnemucca and MP 536.0	55	55	45
Using turnouts, Weso	25	25	25
MP 536.0 and MP 628.3	60	60	55
MP 628.3 and MP 637.7	45	45	40
MP 637.7 and West Carlin	60	60	50
West Carlin and East Carlin	50	50	50
Using turnouts, West and East Carlin	15	15	15
East Carlin and MP 650.4	60	60	50
MP 650.4 and MP 650.8	50	50	40
MP 650.8 and MP 664.4	60	60	55
MP 664.4 and MP 665.4 Elko Yard	—	Yard Speed —	

PASSENGER TRAINS

Passenger trains will observe speeds shown under column headed EXPEDITED SPEED, except as specified below for Sixth and Seventh Subdivisions.

Sixth Subdivision

MP 536.0 and MP 628.0	Posted speed plus 10 MPH
MP 536.0 and MP 628.3	50 MPH
MP 638.3 and West Carlin	Posted speed plus 10 MPH
West Carlin and MP 648.1	Posted speed
MP 648.1 and MP 652.5	50 MPH
MP 652.5 and MP 664.4	Posted speed plus 10 MPH
except thru turnouts Weso and Carlin	
MP 664.4 and MP 665.4 Elko Yard	Yard speed

For maximum speed Westbound on WP, see paragraph (B) under use of WP portion of paired track between Weso and Alazon, inclusive.

Thru turnouts, crossovers, on Wyes, on sidings and on all inside tracks (except as otherwise provided for) 10
On inside tracks when curvature or other conditions require, speed will be further reduced to insure safe operation.

Through turnouts with power-operated switches in reverse position at East Winnemucca and Valmy, and through North Siding Winnemucca and Drill Track at Valmy 20

Movements on Drill Track Valmy are to be made at yard speed.

*To determine "Tons per Operative Brake," subtract the number of cars with inoperative brakes from the total number of cars in train including caboose and divide the gross tonnage of train with this figure. Example: The train has 40 loads, 20 mty's, 4500 tons. There are no brakes cut out. 40 plus 20 equals 60. 4500 divided by 60 equals 75 tons per operative brake.

SIXTH SUBDIVISION

Winnemucca. Rule T-82-A. No clearance is required at WP Winnemucca for movement to Fifth or Sixth Subdivisions.

WP outbound crew members will contact train dispatcher prior to arrival of their train and train dispatcher will advise the order numbers or other instructions the train received prior to arrival Winnemucca. Train dispatcher will issue any further instructions and will give verbal authority to depart Winnemucca. Crew members will check the order numbers and messages against orders and instructions on the train.

Train orders or other written instructions regarding track conditions, underfoot conditions load dimensions, train movement, work to be performed, or other instructions concerning Fifth and Sixth Subdivisions will be issued to Westward WP Trains at Elko and Carlin and to Eastward WP Trains at Portola. At Winnemucca, inbound engineer leave such information on locomotive and inbound conductor leave such information in desk drawer of caboose. Additional clearance issued at Elko to Westward Trains will list orders in effect on Fifth Subdivision and additional clearance issued at Portola to Eastward Trains will list orders in effect on Sixth Subdivision.

Valmy. Rules T-82-A, T-86. Trains operating via SP Elko or Carlin to Valmy, thence WP, Valmy to Carlin or Elko will not require clearance at Valmy. WP clearance and applicable train orders covering eastward trip Valmy to Carlin or Elko will be received by WP trains at Elko and by SP trains at Carlin. Prior to leaving Valmy, crew member must contact train dispatcher for any further instructions. Trains finding leaving signal at Valmy displaying proceed indication may run ahead of any eastward superior trains.

Elko. Westward WP trains require a WP clearance in addition to an SP clearance.

Rule T-82-A. SP trains which are to operate east of Weso on WP must, unless otherwise instructed, receive WP clearance at Sparks, Lovelock or Wendel. Clearance at WP Winnemucca is not required.

A clearance authorizing an eastward SP first-class train at Sparks for movement over the WP at Weso will apply only to Carlin, where another clearance must be obtained authorizing train Carlin to Alazon.

Rule T-86. Eastward SP inferior trains arriving Weso may run ahead of superior trains Weso to Carlin when T.C.S. signal at Weso displays PROCEED indication. Under the same conditions, eastward inferior WP trains may run ahead of superior trains Weso to Alazon. Eastward inferior SP trains receiving proceed signal at East Carlin may run ahead of eastward superior trains Carlin to Alazon. Eastward superior trains must run expecting to find inferior trains running ahead under these conditions.

Carlin. Register station for eastward first-class trains only. Registration will be by ticket and SP operator will enter same on joint register SP station Carlin.

Elko. Eastward SP first-class trains register by ticket. Other eastward SP trains will not register.

Rule T-83-B. When an eastward schedule or section is checked on register at Sparks, or visual identification is made between Sparks and Weso, such identification or register check may be applied at Weso.

When an eastward schedule or section is checked on register at Carlin, or visual identification is made between Carlin and Elko, such identification or register check may be applied at Elko.

Rule T-83-B. Second paragraph will not apply at Carlin to work extras and westward extras. Such trains must not leave Carlin until it has been ascertained whether all regular trains due have arrived or left.

Rule T-96. Sections of regular trains may be created Weso to West Carlin or Carlin.

Rule T-97. Eastward extras between Weso and Alazon may be authorized by clearance as follows:

Eastward SP extras may be authorized by clearance issued at Sparks, Lovelock or Wendel which will confer authority to run extra Weso to Carlin.

Eastward SP extras may be authorized by clearance issued at Carlin which will confer authority to run extra Carlin to Alazon.

Eastward WP extras may be authorized by clearance issued at Portola which will confer authority to run extra Weso to Elko.

Eastward WP extras may be authorized by clearance at Elko which will confer authority to run extra Elko to Alazon.

Other eastward extra movements may be authorized verbally by train dispatcher. Such oral authorization will confer authority to run extra to Elko unless otherwise specified.

When necessary to annul the authority of an extra which has been authorized, either verbally or by clearance, a train order will be issued in the following form:

"Eng is annulled as an extra from"

Rule 204. Train orders may be issued to eastward SP trains at Sparks, Lovelock and Wendel which will affect their movement between Weso and Carlin.

Train orders may be issued to eastward SP trains on Sixth Subdivision which will affect their movement on the Seventh Subdivision between Elko and Alazon.

Train orders may be issued to westward SP and WP trains at SP Carlin and Westward WP trains at Elko which will affect their movement on WP between Weso and Flanigan and Weso and Portola.

Train orders may be issued to eastward WP trains at Portola which will affect their movement between Weso and Elko.

SEVENTH SUBDIVISION

Rule T-82-A. A clearance authorizing an eastward SP first-class train at Sparks for movement over the WP at Weso will apply only to Carlin, where another clearance must be obtained authorizing train Carlin to Alazon.

RULES T-82-A and T-83 will not apply to SP trains at Elko, but they will be governed by train-order signal.

Rule T-86. Eastward inferior trains may run ahead of eastward superior trains Elko to Alazon. Eastward superior trains must run expecting to find inferior trains running ahead.

RULES T-83-A, T-83-B. Elko. Eastward SP first-class trains register by ticket. Other eastward SP trains will not register.

Rule T-83-B. When an eastward schedule or section is checked on register at Carlin, or visual identification is made between Carlin and Elko, such identification or register check may be applied at Elko.

Rule T-97. Eastward extras between Elko and Alazon may be authorized by clearance as follows:

Eastward SP extras may be authorized by clearance issued at Carlin which will confer authority to run extra Carlin to Alazon.

Eastward WP extras may be authorized by clearance at Elko which will confer authority to run extra Elko to Alazon.

Other eastward extra movements may be authorized verbally by train dispatcher.

When necessary to annul the authority of an extra which has been authorized by clearance or verbally, a train order will be issued in the following form:

"Eng is annulled as an extra from"

Rule 204. Train orders may be issued to eastward SP trains on Sixth Subdivision which will affect their movement on the Seventh Subdivision between Elko and Alazon.

Rule 221. Applies only to eastward SP trains at Elko.

Rule 204. Train orders may be issued at North Yard and Elko which cover speed restrictions and track conditions on UP portion of joint track between Smelter and North Yard, and DRGW portion of track between Roper and 10th West.

SALT LAKE CITY — Rule T-82-A. All trains departing Roper or North Yard which may operate via UP North Yard to Smelter must, in addition to WP Clearance, receive a UP Clearance at North Yard together with any orders in effect between 10th West and Smelter. Any trains which will operate via SP Alazon to Elko in addition to WP Clearance must receive SP Clearance at North Yard together with any orders in effect between Alazon and Elko.

Elko Rule T-82-A. Eastward trains which may operate via UP Smelter to 10th West must, in addition to WP clearance, receive a UP clearance at Elko together with any orders in effect between Smelter and 10th West.

SEVENTH SUBDIVISION

EASTWARD ↓

↑ WESTWARD

First Class					TIME TABLE NO. 7					
6	Miles from Elko	Station Numbers	Mile Post			SDGS in Feet	Miles from Roper			
SP PSGR				STATIONS				RULE 6-A		
Daily										
AM 12:39	0.0	665	665.4	TO-R-BKFPY		Yd. Lmts.	264.9			
	17.7	683	683.1	ELKO (SP Conn.)		P				
				17.7						
				SP CONN.		P	247.2			
				0.2						
12:55	17.9	683	683.3	ELBURZ		P	5844	247.0		
				16.7						
1:10	34.6	700	700.0	DEETH		P	5769	230.3		
				1.0						
	35.6	701	701.0	SP CONN.		P		229.3		
				12.6						
1:24 AM	48.2	714	713.6	ALAZON (SP Conn.)		P		216.7		
				4.1						
	52.3	718	717.7	WELLS		P	6198	212.6		
				10.4						
	62.7	728	728.1	RUBY		P	6123	202.2		
				10.1						
	72.8	738	738.2	VENTOSA		P	6160	192.1		
				9.0						
	81.8	747	747.2	SPRUCE		P	6153	183.1		
				10.3						
	92.1	758	757.5	SAGE		P	6183	172.8		
				8.4						
	100.5	766	765.9	NN CROSSING		P		164.4		
				0.5						
	101.0	766	766.4	SHAFTER (NN Conn.)		P	6198	163.9		
				6.0						
	107.0	772	772.4	SILVER ZONE		P	6160	157.9		
				8.7						
	115.7	781	781.1	CLIFFSIDE		P	6143	149.2		
				7.8						
	123.5	789	788.9	PILOT		P	6152	141.4		
				9.7						
	133.2	799	798.6	OLA (Nev.)		P	6143	131.7		
				8.0						
	141.2	806	806.6	WENDOVER (Utah)		P	6215	123.7		
				8.9						
	150.1	816	815.5	SALDURO		P	6143	114.8		
				9.6						
	159.7	825	825.1	ARINOSA		P	6143	105.2		
				9.8						
	169.5	835	834.9	BARRO		P	6160	95.4		
				10.4						
	179.9	845	845.3	KNOLLS		P	6150	85.0		
				8.9						
	188.8	854	854.2	CLIVE		P	6161	76.1		
				11.9						
	200.7	866	866.1	LOW		P	6146	64.2		
				12.5						
	213.2	878	878.6	DELLE		P	8080	51.7		
				14.3						
	227.5	893	892.9	ELLERBECK		P		37.4		
				4.2						
	231.7	897	897.1	BURMESTER		P	6168	33.2		
				14.34						
	246.04	911	911.44	SMELTER (WP-UP Jct.)		P		18.9		
				1.76						
	247.8	913	913.2	GARFIELD (UP Conn.)		P	6050	17.1		
				13.4						
	261.2	927	926.6	WP-UP JUNCTION		P		3.7		
				0.1						
	261.3	927	926.7	WP-UP JUNCTION (10th West)		P		3.6		
				0.5						
	261.8	927	927.2	POLLARD JCT.		P		3.1		
				1.4						
	263.2	929	928.6	UP CROSSING		P		1.7		
				1.7						
	264.9	930	930.3	ROPER (Salt Lake City)		KFYPO	Yd. Lmts.	0.0		
				Additional Stations UP Trackage						
		768911	768.2	GARFIELD						
		778911	777.6	CENTENNIAL PARK						
		779911	778.5	BUENA VISTA						
				TO						
	263.2	2927	783.6	NORTH YARD		BKFPYO				

Be governed by current timetable, bulletins and rules of Southern Pacific Company on SP track between Alazon and Elko.

SEVENTH SUBDIVISION

MAXIMUM SPEEDS
IN MILES PER HOUR
Between

Expedited Speed OMW, CCV, P, BAF, OME, TOF, COFC If not over 70 Cars or 80 Tons per Operative Brake *	1 Trains Not Exceeding 100 Cars or 5500 Tons	2 Trains Exceeding 100 Cars or 5500 Tons
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Seventh Subdivision

MP 665.4 and MP 666.4 Elko Yard	15	15	15
MP 666.4 and MP 674.8	65	65	60
MP 674.8 and MP 681.0	55	50	45
MP 681.0 and Alazon	65	65	60
Using cross-over Alazon	25	25	25
Alazon and MP 725.0	60	60	45
MP 725.0 and MP 753.0	65	60	50
MP 753.0 and MP 755.2	45	45	35
MP 755.2 and MP 758.7	60	60	45
MP 758.7 and MP 765.78 (NN Crossing)	65	60	45
Over NN Crossing	50	50	45
MP 765.78 and MP 773.4	65	60	45
MP 773.4 and MP 775.3	60	30	25
MP 775.3 and MP 784.5	25	25	25
MP 784.5 and MP 799.5	45	45	35
MP 799.5 and MP 800.0	35	35	30
MP 800.0 and MP 810	45	45	45
MP 810 and MP 837	40	40	40
MP 837 and MP 864.3	60	60	50
MP 864.3 and MP 868.8	50	50	50
MP 868.8 and MP 880.0	60	60	50
MP 880.0 and MP 911.0	50	50	50
MP 911.0 and MP 926.5	60	60	50
MP 911.4 WP-UP Conn. using Crossover	35	35	35
MP 926.5 and Pollard Jct.	20	20	20
Pollard Jct. and Roper Yard	15	15	15

②When engine on eastward train on main track passes the limits of the 15 MPH restriction at MP 666.4, speed may be increased to 30 MPH until rear of train has passed MP 666.4.

For maximum speed westbound on WP between Alazon and Elko, see paragraph (B) under use of paired track between Weso and Alazon inclusive.

PASSENGER TRAINS

Passenger trains will observe speeds shown under column headed Expedited Speed, except as specified below.

Seventh Subdivision

MP 664.4 and MP 665.4 Elko Yard	Yard Speed
MP 665.4 and MP 666.4	Posted speed plus 20 MPH
MP 666.4 and MP 674.7	Posted speed plus 5 MPH
MP 674.7 and MP 681.0	50 MPH
MP 681.0 and Alazon	Posted speed plus 5 MPH
except thru turnouts Alazon.	

Through turnouts, crossovers, on Wyes, on sidings and on all inside tracks (except as otherwise provided for)

10

On inside tracks when curvature or other conditions require, speed will be further reduced to insure safe operation.

Through turnouts with power-operated switches in reverse position.

West switch Wells to Pollard Jct., inclusive, and through sidings at the stations and within the limits listed above

20

*To determine "Tons per Operative Brake," subtract the number of cars with inoperative brakes from the total number of cars in train including caboose and divide the gross tonnage of train with this figure. Example:

The train has 40 loads, 20 mty, 4500 tons. There are no brakes cut out. 40 plus 20 equals 60. 4500 divided by 60 equals 75 tons per operative brake.

Automatic Block Signal System extends from Elko to Alazon, Eastward only.
Traffic Control System in effect Alazon to Eastward Interlocking Home Signal, Pollard Jct., MP 927.2. See Rule 540.
For operations between SMELTER (WP-UP Jct.) and UP North Yard, Salt Lake City, be governed by current UP-WP Joint Pamphlet governing joint operation.
See special instructions under heading "Seventh Subdivision" for instructions concerning movement between Pollard Jct. and Roper Yard.

Feet Capacity	Mile Post	SP Co. Stations	Station Number
300W	564.8	Osino	565665 (Spur)
573.1	573.1	Elburz (WP Conn.)	683
7000	576.7	Halleck	577683
4650	589.6	Deeth	590683
	591.1	WPRR Connection	701

SEVENTH SUBDIVISION SPURS AND COMMERCIAL TRACKS

STATIONS	MILE POST	Connected	Capacity in Feet	Station No.
TULASCO	P 708.8	E	1026	709
TOBAR	P 733.5	W	818	734
BLAIR	P 808.7	W	4070	809
ARAGONITE	P 861.5	E	440	862
MARBLEHEAD	P 870.8	Both Ends	1737	871
TIMPIE	P 885.7	W	3500	886
SOLAR	P 893.4	W	2246	894
LAKE POINT	P 906.3	E	5030	906
GARFIELD PIT	P 911.7	Both Ends	3397	912
TERMINAL	P 922.1	W	480	922
BUENA VISTA—SLG&W TFR	P 923.94	W	1080	924

Footage figures shown are for the tracks directly connecting to the main track and do not include additional auxiliary trackage.

SAN JOSE BRANCH

EASTWARD ↓

↑ WESTWARD

Station Numbers	Mile Post	TIMETABLE NO. 7		SDGS in Feet		
		STATIONS	RULE 6-A			
31	0.0	NILES JUNCTION	YP			
3031	3.3	IRVINGTON	p	E534		
5031	4.9	INLAND STEEL	p	488		
7031	7.0	WARM SPRINGS	p	1830		
8031	8.0	CURTNER	BKYP	E830		
12031	11.5	MILPITAS	p	3440E		
14031	14.1	BERRYESSA	BKFP	4515W		
18031	17.5	SAN JOSE (Yard)		Yard		
19031	19.6	VALBRICK (SP X'ing.)	i			
20031	20.4	WILLOW GLENN (SP X'ing.)				
22031	22.3	WEST SAN JOSE (SP X'ing.)				
23031	23.0	SAN JOSE (End of branch)		Yard		

RULE 540. Traffic Control System extends from Niles Jct. to Absolute Signals at MP 10.1. Eastward signal at MP 10.1 displays aspects per Rules 288 or 292 only.

San Jose yard limits extend from MP 10.1 to MP 23.0, San Jose Branch.

Trains do not require a clearance at San Jose or Milpitas.

Trains in turnaround service from First Subdivision will retain orders, and before departing Milpitas, Conductor (or Engineer if there is no Conductor) will contact Train Dispatcher before entering T.C.S. for any additional instructions. Refer to Rule 541.

Trains originating at Milpitas will contact Train Dispatcher before entering T.C.S. for any instructions. Refer to Rule 541.

MAXIMUM SPEEDS IN MILES PER HOUR Between

San Jose Branch

MP 0.0 and MP 0.3 including East and West legs of Wye Niles Jct	10
MP 0.3 and MP 7.5	35
MP 7.5 and MP 10.1	25
MP 10.1 and City Limits	
San Jose MP 15.7	20
MP 15.7 and MP 23 within City Limits, San Jose	10

Through turnouts, crossovers, on Wyes, on sidings and on all inside tracks

10

On inside tracks when curvature or other conditions require, speed will be further reduced to insure safe operation.

TRACY BRANCH

EASTWARD ↓			↑ WESTWARD		
Station Numbers	Mile Post	TIMETABLE NO. 7	SDGS in Feet		
		STATIONS RULE 6-A			
73	0.0	TRACY YP	10688		
2073	1.7	1.7 KERLINGER P	1746		
2073	1.92	0.22 TEEKAY (End of Branch) P	1020		

RULE 201. Train order authority is not required on Tracy Branch and all movements on branch must be made at yard speed.

Stop and inspect for material covering rail before crossing at MP 0.8.

Track on Tracy Branch extending beyond MP 1.92, Teekay, has been leased to Botsford Co. for scrapping railroad cars. It is permissible to shove cars over bridge, but engine must not pass sign located at MP 1.95 reading "ENGINE MUST NOT GO BEYOND THIS POINT."

Switch point derail installed at MP 1.95 and must be left in derailing position when not switching cars to and from this leased trackage.

When leaving cars on this trackage they must be secured.

MAXIMUM SPEEDS IN MILES PER HOUR

Tracy Branch	10
Kellogg Spur	5

Through turnouts, crossovers, on Wyes, on sidings and on all inside tracks (except as otherwise provided for) 10

On inside tracks when curvature or other conditions require, speed will be further reduced to insure safe operation.

LOYALTON BRANCH

EASTWARD ↓			↑ WESTWARD		
Station Numbers	Mile Post	TIMETABLE NO. 7	SDGS in Feet		
		STATIONS RULE 6-A			
328	0.0	HAWLEY	5770		
12328	11.8	11.8 LOYALTON	1554		

RULE 201. Train order authority is not required on Loyalton Branch and all movements on branch must be made at yard speed.

Split point derail installed about 210 feet west of chip track switch, TIP 713, Loyalton. Derail must be in derailing position except when main track is being used.

MAXIMUM SPEEDS IN MILES PER HOUR

Loyalton Branch	15
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Through turnouts, crossovers, on Wyes, on sidings and on all inside tracks 10

On inside tracks when curvature or other conditions require, speed will be further reduced to insure safe operation.

RENO BRANCH				
EASTWARD ↓		↑ WESTWARD		
Station Numbers	Mile Post	TIMETABLE NO. 7		SDGS in Feet
		STATION	RULE 6-A	
342	0.0	RENO JUNCTION	YP	3000
10342	10.1	10.1 PEAVINE, (CAL.)		480
19342	18.8	8.7 ANDERSON, (NEV.)		1229
21342	21.3	2.5 MARTIN		2000
23342	23.37	2.07 PANTHER		E17424 #
25342	25.4	2.03 COUGAR		419
29342	28.53	3.13 NORTH RENO	TO-R	E 640
30342	30.3	1.77 COMSTOCK		1202
31342	30.6	0.3 SIERRA PACIFIC		632
31342	30.7	0.1 VAUGHN MILL NO. 1		W 1933
31342	31.2	0.5 VAUGHN MILL NO. 2		W 939
31342	31.42	0.22 ROCKY MOUNT NO. 1		W 903
31342	31.57	0.15 ROCKY MOUNT NO. 2		W 1033
33342	33.1	1.53 RENO	O	E 830

Reno Yard limits extend from MP 21.3 to Reno.

* Station "Leareno (yard)" Sta. No. 203342, located at end of spur from Martin.

RULE T-72. Westward trains are superior to Eastward trains of the same class.

MAXIMUM SPEEDS IN MILES PER HOUR Between

Reno Branch

Reno Jct. between main track switch and tail of Wye switch	10
Tail of Wye switch Reno Jct. and MP 30	25
Martin Spur	10
MP 30 and Reno	15
SP-WP Interchange	
Connection, Reno	5

Through turnouts, crossovers, on Wyes, on sidings and on all inside tracks (except as otherwise provided for) 10

On inside tracks when curvature or other conditions require, speed will be further reduced to insure safe operation.

ROWLEY BRANCH				
EASTWARD ↓		↑ WESTWARD		
Station Numbers	Mile Post	TIMETABLE NO. 7		SDGS in Feet
		STATIONS	RULE 6-A	
878	0.0	DELLE	YP	8080
11878	10.6	10.6 ROWLEY	P	3380
11878	11.2	0.6 END OF BRANCH		

Rowley Branch. Derails located on east end of run-around track and on both legs of wye Delle.

RULE 201. Train order authority is not required on Rowley Branch. All movements on Branch must be made at yard speed.

MARBLEHEAD BRANCH

Station Numbers	Mile Post	TIMETABLE NO. 7		SDGS in Feet
		STATIONS	RULE 6-A	
871	0.0	MARBLEHEAD	P	1738
5871	4.66	4.66 PLANT		1230
5871	4.87	0.21 END OF BRANCH		

RULE 201. Train order authority is not required on Marblehead Branch and all movements on branch must be made at yard speed.

Marblehead Branch. Normal position for the east connected spur 3491 feet east of Marblehead siding will be in a position lined and locked for the spur, and this switch must be left in this position also while switching at the plant. Trainmen must insure that all cars set out are properly secured. Derail located 108 feet west of west switch of run-around track at plant must be left in derailing position, except when train is being switched. Look out for drifted sand on rails of this branch.

MAXIMUM SPEEDS IN MILES PER HOUR

Rowley Branch	20
Marblehead Branch	20

Through turnouts, crossovers, on Wyes, on sidings and on all inside tracks 10

On inside tracks when curvature or other conditions require, speed will be further reduced to insure safe operation.

EASTWARD ↓		WARNER BRANCH		↑ WESTWARD	
Station Numbers	Mile Post	TIMETABLE NO. 7		SDGS in Feet	
		STATIONS	RULE 6-A		
			YP		
897	0.0	BURMESTER		6168	
7897	7.0	MARSHALL		942	
14897	13.5	CONN. TOOLEE ARMY DEPOT ..		1254	
16897	15.5	WARNER			

RULE 201. Train order authority is not required on Warner Branch and all movements on branch must be made at yard speed. Dispatchers phone located on east leg of wye Warner Branch at Burmester. Trains arriving from Warner Branch must be governed by Rule 340-A.

EASTWARD ↓		ELLERBECK BRANCH		↑ WESTWARD	
Station Numbers	Mile Post	TIMETABLE NO. 7		SDGS in Feet	
		STATIONS	RULE 6-A		
			P		
893	0.0	ELLERBECK			
2893	2.7	WYE			
3893	3.7	FLUX		1965	
5893	4.7	DOLOMITE		134	

RULE 201. Train order authority is not required on Ellerbeck Branch and all movements on branch must be made at yard speed.

Wye. East switch east leg of Wye must be left lined for straight track as derail.

Dolomite. Look out for poor footing both sides of track on curve just east of plant, and all tracks vicinity plant. Main track and No. 1 track are out of service 630 feet east of west switch acc't dirt on and along tracks.

Flux. Main track out of service 200 feet west of east switch, run around track.

TUNNEL LOCATIONS			
Number	West Portal	East Portal	Length
1	32.12	32.94	4320.9
2	33.39	33.47	407.3
3	57.67	57.75	414.7
4	224.66	225.12	2410.0
5	227.34	227.90	2922.5
6	228.14	228.63	2583.0
7	229.54	230.38	4406.5
8	230.42	232.11	8856.3
9	236.37	236.48	551.8
10	237.01	237.05	231.8
11	237.33	237.37	223.8
12	237.69	237.70	51.4
13	244.92	244.96	195.9
14	246.25	246.29	244.9
15	250.10	250.69	3117.81
16	257.43	257.54	600.9
17	257.85	257.91	324.5
18	258.08	258.11	150.1
19	258.16	258.19	164.0
20	258.32	258.38	291.5
21	258.85	258.93	405.0
22	259.55	259.61	306.1
23	262.87	263.11	1257.7
24	263.89	264.01	616.1
25	265.20	265.23	186.4
26	271.58	271.66	446.0
27	278.42	278.49	364.4
28	278.96	279.06	608.6
29	279.19	279.30	587.8
30	279.55	279.65	537.5
31	280.08	280.21	687.3
32	280.37	280.48	595.2
33	283.06	283.30	1270.7
34	283.71	283.77	304.6
35	297.18	298.57	7343.7
36	316.00	316.14	762.7
37	340.34	341.47	6001.7
39	635.37	635.57	1080.7
40	636.8	636.86	322.0
41	649.24	649.68	2341.8
42	650.71	650.91	1071.7
43	753.69	754.76	5675.9

FOURTH SUBDIVISION			
Number	West Portal	East Portal	Length
1	0.00	0.12	685.9
2	0.97	1.08	588.3
3	2.61	2.73	621.0
4	3.39	3.47	470.2
5	3.71	3.76	278.7
6	21.03	21.24	1103.0

MAXIMUM SPEEDS IN MILES PER HOUR

Ellerbeck Branch 20

Warner Branch 20

Through turnouts, crossovers, on Wyes, on sidings
and on all inside tracks 10

On inside tracks when curvature or other conditions require, speed will be further reduced to insure safe operation.

TIDEWATER SOUTHERN

EASTWARD ↓		↑ WEST- WARD	
Station Numbers	Mile Post	TIMETABLE NO. 7	
		STATIONS	RULE 6-A
92	0.0	STOCKTON YARD	TO-PRBKOY } Joint Track
90	1.7	ORTEGA, JCT. WPRR	p
3092	3.3	SHARPS LANE	p
5092	5.2	MANTECA JCT.	p
6092	6.2	TURNER	p
12092	12.5	ATLANTA	p
14092	14.2	SIMMS	p
15092	15.4	CARROLTON	p
17092	17.0	ALBA	p
20092	19.8	ESCALON	p
26092	25.6	McHENRY	p
29092	29.5	AURORA	p
30092	30.1	NORTH YARD JCT.	PRBK } Joint Track
32092	31.6	MODESTO	p
	32.7	S.P. CROSSING	PI
33092	33.2	MOORE	W 1635
34092	34.5	ROGERS	2010
37092	37.5	BRONCO	E 200
42092	41.6	HATCH	1240
45092	44.7	KEARNEY	
48092	47.9	TURLOCK (47.9)	Yard

MANTECA BRANCH

5092	0.0	Yard Limits	MANTECA JCT.	p	Yard
205092	5.1		MANTECA	p	Yard
207092	6.6		SOUTH MANTECA		Yard

CHEMURGIC BRANCH

42092	0.0	Yard Limits	HATCH	Y	
303092	2.9		CHEMURGIC		

RULE 201. Train Order authority is not required on Manteca and Chemurgic Branch and all movements must be made at yard speed.

RULE T-72. Westward trains are superior to eastward trains of the same class.

TIDEWATER SOUTHERN

TS SPEED RESTRICTIONS — In Miles Per Hour

Ortega, MP 1.7 to Turlock, MP 47.9	35
MP 14.2 — Simms Highway Crossing	20
MP 17.0 — Alba Winery Spur Highway Crossing	Stop and Flag
MP 19 to MP 21	20
MP 22.53 to MP 23.13 — Stanislaus River Bridge and Curve East & West of Bridge	20
McHenry, MP 25.6 to Modesto City Limit	20
MP 27.2	20
MP 27.2 to 9th & "P" Sts., Modesto	15
Modesto — No. Yard	10
Tully Road	Stop and Flag
Coldwell Ave. — Lyng Spur	Stop and Flag
Modesto — Between 9th & "P" and MP 33.3	10
MP 33.3 to MP 36.0	20
MP 41.5 — Hatch — Highway Crossing	15
Turlock City Limits	10
Broadway St. Crossing	Flag
Chemurgic Branch	20
Manteca Branch	20
Manteca City Limits	10
Spreckles Highway Crossing	Stop and Flag
Maximum speed through turnouts, crossovers, on sidings and other inside tracks	10

(On curves speeds will be reduced where necessary to insure safety.)

When handling more than fifty (50) cars or 5,000 tons or fifteen (15) or more loaded covered hoppers, do not exceed 25 MPH on Tidewater Southern.

ADDITIONAL SPEED RESTRICTIONS

When Handling —

Derricks (other than Nos. 37 and 79) 20 MPH

Power Shovels, etc. 20 MPH

Derricks Nos. 37 and 79

Limit to a maximum of 10 MPH, where following weights authorized by Chief Engineers Office:

379,000 lbs. gross on rail 19'—10" truck centers

Under no circumstances will derricks Nos. 37 and 79 be used without weight restriction clearance.

SACRAMENTO NORTHERN PITTSBURG BRANCH

EAST-
WARD ↓

↑ WEST-
WARD

Station Numbers	Mile Post	TIMETABLE NO. 7		SDGS in Feet
		STATIONS	RULE 6-A	
37093	37.21	CLYDE		Yard 680
39093	39.03	PORT CHICAGO		
41093	41.19	NICHOLS		Yard 830
42093	42.46	McAVOY		
44093	43.59	SHELL POINT	Y	Yard 510
45093	44.92	WEST PITTSBURG		
	46.24	AT&SF Crossing	B	Yard
47093	46.95	PITTSBURG		
	47.39	AT&SF Crossing		Yard
	48.06	AT&SF Crossing (10.85)		
48093	48.46	AT&SF { EAST PITTSBURG JCT. AT&SF	Joint Track	Yard
92		ABS { STOCKTON YD.		
136		WPTCS SO. SACRAMENTO		Yard

VACAVILLE BRANCH

605140	4.21	VACAVILLE		Yard 205
508140	7.60	VACAVILLE JCT.	PY	Yard
	7.87	{ CANNON, JCT. SPCO	D.T. SP Co. Rules	Yard
		ELMIRA		
		DIXON		
		DAVIS		
	94.98	19TH ST., JCT. SPCO	PB	Yard
140	95.49	HAGGIN		Yard

DOZIER BRANCH

458140	6.94	CANNON	Y	Yard
465140	64.55	DOZIER	Y	965
474140	74.12	LIBFARM		1425
480140	79.71	SAXON (22.10)		355

MONTEZUMA BRANCH

750140	49.98	MONTEZUMA		
752140	51.97	MOLENA		786
758140	57.78	RIO VISTA JCT.		W 320
465140	64.55	DOZIER		700

RULE T-82-A. Trains will be authorized at their initial stations and at intermediate stations by permission of the Train Dispatcher. A written clearance is not required.

Slow Orders pertaining to unusual conditions will be handled verbally and subsequently issued in a green "C" Notice on Monday of each week. These notices will be posted in regular Notice Book.

Conductors and/or engineers will call dispatcher before commencing trip to determine if there are any orders.

RULE 201. Train order authority is not required between Clyde and Pittsburg, between Vacaville and Cannon and on the Dozier and Montezuma Branches. All movements must be made at yard speed.

Dozier Branch. Track between MP 65 and Saxon is out of service and cannot be used.

Montezuma Branch. Track between Rio Vista Jct., MP 57.78 and Montezuma is out of service. Before movements are made between Dozier and Rio Vista Jct., Roadmaster's permission must be secured.

Movements over SPT or AT&SF trackage are governed by their respective rules and timetables.

ADDITIONAL STATIONS

STATIONS	Station Number	Mile Post	Facilities
MONTEZUMA BRANCH Creed-Atlas Powder Co.	761140	59.80	680W

SACRAMENTO NORTHERN

SPEED RESTRICTIONS — In Miles Per Hour

Clyde to Pittsburg	Yard Speed
Norman Road, MP 37.8	15
Main St., Port Chicago, MP 39.2	Stop and flag
West Pittsburg, wye tracks	5
AT&SF Crossing, MP 46.24	10
Montezuma St. MP 46.66 to Pittsburg MP 48.06 ..	10
Pittsburg All Street crossings	10
AT&SF Crossing Harbor St. MP 47.39	Stop and flag
AT&SF Crossing Columbia St. MP 48.06	Stop and flag
Vacaville Branch	
Cannon to Vacaville Jct. MP 7.60	Yard Speed
Vacaville Jct. to Vacaville MP 4.21	Yard Speed
Dozier Branch	
Cannon to Saxon	10
Northgate Road MP 6.4	Stop and flag
Montezuma Branch	
Dozier to Montezuma (MP 49.98)	10
Gum Grove Highway Crossing (MP 53.9)	Stop and flag

Maximum speed through turnouts, crossovers, on sidings and other tracks

10

On curves, speed will be reduced where necessary to insure safety.

ADDITIONAL SPEED RESTRICTIONS

When Handling—

Derricks (other than Nos. 37 and 79)

On SN trackage

20 MPH

On SN trackage rights via AT & SF or SP

30 MPH

Power Shovels, etc.

On SN trackage

20 MPH

On SN trackage rights via AT & SF or SP

25 MPH

Derricks Nos. 37 and 79

Limit to a maximum of 10 MPH, where following weights authorized by Chief Engineers Office:

379,000 lbs. gross on rail @ 19' -10" truck centers

Under no circumstance will derricks Nos. 37 and 79 be used without weight restriction clearance.

SACRAMENTO NORTHERN HOLLAND BRANCH

EASTWARD ↓

↑ WEST-
WARD

Station Numbers	Mile Post	TIMETABLE NO. 7		SDGS in Feet
		STATIONS	RULE 6-A	
92140	92.30	BRODERICK	Y	Yard
		0.74	OAI	ABS
92140	91.56	WESTGATE		Yard
		4.61		
87140	86.95	RIVERVIEW		2160
		5.89		
206140	5.89	CLARKSBURG		730
		4.62		
211140	10.51	GREENDALE		700
		2.69		
213140	13.20	SORROCA		1245
		1.06		
214140	14.26	VALDEZ		1005
		1.51		
216140	15.77	OXFORD		680

WOODLAND BRANCH

92140	92.40	WESTSIDE	BK	Yard
		0.10	Y	
92140	92.30	ABS BRODERICK	Y	Yard
		1.55	AIP	
302140	1.55	MIKON, SPRR Crossing		
		1.18		
303140	2.73	LOVDAL		660
		13.84		
317140	16.57	WOODLAND (16.67)		Yard

RIO LINDA BRANCH

153	109.649	SANKEY		1185
		0.479		
153	109.17	SANKEY (WPRR X'ing)		
		4.76		
104141	104.41	ELVERTA		W260
		1.31		
103141	103.10	RIO LINDA		1225

ADDITIONAL STATIONS

STATIONS	Station Number	Mile Post	Facilities
SACRAMENTO YARD			
Sacramento-Yolo Port	90140	90.94	Yard
West Sacramento	92140	92.24	Yard
Swanston	202141	98.06	480
HOLLAND BRANCH			
Central	209140	8.66	1585E 680E
WOODLAND BRANCH			
Conaway	312140	11.81	1030E (yard)
Hebron	315140	14.80	330W (yard)

RULE 201. Train Order authority is not required on Woodland, Rio Linda and Holland Branches, and all movements must be made at yard speed.

RULE T-82-A. Trains will be authorized at their initial stations and at intermediate stations by permission of the Train Dispatcher. A written clearance is not required.

Slow Orders pertaining to unusual conditions will be handled verbally and subsequently issued in a green "C" Notice on Monday of each week. These notices will be posted in regular Notice book.

Conductors and/or engineers will call dispatcher before commencing trip to determine if there are any orders.

Holland Branch. Old junction switch at Riverview must be left lined and locked for Holland Branch main track. Old Main track west of Riverview out of service. Main track Riverview out of service. Switches lined and spiked for siding. Main track, Holland Branch, out of service from a point 1/2 mile east of Clarksburg.

Movements over SPT trackage are governed by SPT Rules and Timetables.

SACRAMENTO NORTHERN

SPEED RESTRICTIONS In Miles Per Hour

Sacramento Yard

MP 90.66 to Haggin (SN trackage)	Yard Speed
WP Conn "C" St. to CPC 11	5
19th St. at Q St. Sacramento	Stop and Flag
Swanston Line	10
Del Paso Blvd. Crossing No. 8E-0.5	5
Sacramento-Yolo Port RR	10

Holland Branch

Jefferson Blvd. MP 10.40	Stop and Flag
Bascule Bridge (MP 90.66) to Riverview (MP 86.95) ..	Yard Speed
Over Bascule Bridge	10
Linden Road Crossing MP 89.7	Stop and Flag
Davis Road Crossing MP 88.5	Stop and Flag
Riverview (MP 86.95) to Oxford (MP 15.77)	10

Woodland Branch

Broderick (MP 92.30) to Woodland (MP 16.57)	Yard Speed
MP 0.37 to MP 0.48 (Joint Track)	10
MP 1.55 SP Crossing (Mikon)	Stop
Harbor Blvd. (MP 2.1)	Stop within 100 feet and proceed when gates are down. Flag if gates fail to lower.
Kiesel Highway Crossing (MP 8.0)	15
Fremont Trestle (MP 10.17 to MP 11.71)	10
Woodland City Limits (MP 16.24 to end of track) ..	10

Rio Linda Branch

Sankey (MP 109.649) to Rio Linda (MP 105.10)	15
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Maximum speed through turnouts, crossovers, on sidings and other tracks

On curves, speed will be reduced where necessary to insure safety.

ADDITIONAL SPEED RESTRICTIONS

When Handling —

Derricks (other than Nos. 37 and 79)

On SN trackage	20 MPH
On SN trackage rights via SP	30 MPH

Power Shovels, etc.

On SN trackage	20 MPH
On SN trackage rights via SP	25 MPH

Derricks Nos. 37 and 79

Limit to a maximum of 10 MPH, where following weights authorized by Chief Engineers Office:

379,000 lbs. gross on rail at 19'—10" truck centers

Under no circumstances will derricks Nos. 37 and 79 be used without weight restriction clearance.

SACRAMENTO NORTHERN CHICO BRANCH

EASTWARD ↓		↑ WESTWARD	
Station Numbers	Mile Post	TIMETABLE NO. 7	SDGS in Feet
		STATIONS	RULE 6-A
179	136.31	MARYSVILLE, JCT. WPRR	Yard
137179	137.27	ABS { 0.96 YUBA CITY, S.P.R.R. CROSSING	PBO
138179	138.56	1.29 PALORO	Yard
139179	139.43	0.87 HARTER	2050
140179	139.77	0.34 COLUSA JUNCTION	Yard
149179	149.31	9.54 LIVE OAK SPCO. CONN.	765
SPT		FAGAN	p
Co.		CTC GRIDLEY	p
Rules		RICHVALE	p
177179	177.29	DURHAM SPCO. CONN.	501
181179	181.54	4.25 SPEEDWAY	560
182179	182.02	0.48 STIRLING JCT., S.P.R.R. CROSSING	Y
183179	183.03	1.01 MULBERRY	Yard
184179	184.35	1.32 CHICO	1135

TARKE BRANCH

140179	0.00	COLUSA JUNCTION	Y
205179	5.24	5.24 SUTTER	Yard
210179	10.28	5.04 TARKE (10.28)	1130

PEARSON BRANCH

129176	129.70	PEARSON	260
132176	132.36	2.66 ALICIA	405
176	134.40	2.04 CLEVELAND, JCT. WPRR (4.70)	p 1160

SN ADDITIONAL STATIONS

STATIONS	Station Number	Mile Post	Facilities
PEARSON BRANCH			
Reed	127176	129.14	26E

RULE 201. Train Order authority is not required on Tarke and Pearson Branches, and all movements must be made at yard speed.

RULE 201. Train Order authority is not required between Colusa Jct. and Live Oak and between Durham and Chico and all movements must be made at yard speed.

For movements over SPT Co. Trackage, be governed by SPT Co. Rules and Time table.

Tarke Branch. No movements will be made between Sutter and Tarke without authority from Superintendent or his representative.

RULE T-82-A. Trains will be authorized at their initial stations and at intermediate stations by permission of the Train Dispatcher. A written clearance is not required.

Slow Orders pertaining to unusual conditions will be handled verbally and subsequently issued in a green "C" Notice on Monday of each week. These notices will be posted in regular Notice Book.

Conductors and/or engineers will call dispatcher before commencing trip to determine if there are any orders.

SACRAMENTO NORTHERN

SPEED RESTRICTIONS — In Miles Per Hour

Marysville to Live Oak	Yard Speed
Marysville (MP 136.31) Jct. WP RR	
(Westward Trains)	Stop
Marysville, all street crossings	Stop and Flag
MP 136.31 to Paloro (MP 138.56)	10
MP 137.08, SP Crossing (except on proceed signal from flagman)	Stop
MP 138.56 to MP 139.77	10
Live Oak City Limits (MP 148.22 to MP 149.38)	10
Durham to Chico	Yard Speed
MP 177.5 Highway Crossing (Durham)	Stop and Flag
MP 180.1 Sarona Highway Crossing	15
Stirling Jct. SP Crossing (MP 182.02)	Stop
Chico City Limits (MP 183.09 to MP 185.75)	10
Airport Line (MP 185.75 to MP 189.13)	10
Pearson Branch	
Cleveland (WP Jct.) to Pearson (MP 129.70)	10
MP 134.40 to MP 134.3	10
MP 130.9 Highway Crossing	Stop and Flag

Tarke Branch	
Colusa Jct. to Tarke (MP 10.28)	10
Township Road (MP 1.6)	Stop and Flag
Sutter Highway Crossing (MP 5.1)	Stop and Flag
Bridge 9.28 (Butte Slough)	10

Maximum speed through turnouts, crossovers, on sidings and other tracks 10

On curves, speed will be reduced where necessary to insure safety.

ADDITIONAL SPEED RESTRICTIONS

When Handling —

Derricks (other than Nos. 37 and 79)

On SN trackage	20 MPH
On SN trackage rights via SP	30 MPH

Power Shovels, etc.

On SN trackage	20 MPH
On SN trackage rights via SP	25 MPH

Derricks Nos. 37 and 79

Limit to a maximum of 10 MPH, where following weights authorized by Chief Engineers Office:

379,000 lbs. gross on rail at 19'—10" truck centers

Under no circumstances will derricks Nos. 37 and 79 be used without weight restriction clearance.

TABLE OF WEIGHT LIMITATIONS

BETWEEN	AND	GROSS WEIGHT (Car & Contents)
WESTERN PACIFIC (All tracks)		263,000
Except Following:		
Oakland	San Francisco	220,000
San Jose	San Jose	
	Freight Depot...	220,000
Loyalton Branch		220,000
Warner Branch		220,000
Rough and Ready		
Island Bridge	5 MPH	
(Port of Stockton)	Max. with	263,000
	15 MPH	
	Max. with	251,000
Stockton	Fremont.....	
UP 221000 Series covered hoppers at Col. 2 speeds		315,000
SACRAMENTO NORTHERN		263,000
Except Following:		
Sacramento.....	Oxford.....	220,000
Cannon	Montezuma.....	220,000
Cannon	Saxon.....	220,000
Cannon	Vacaville	220,000
Colusa Jct.	Sutter	220,000
Sutter.....	Tarke.....	169,000
TIDEWATER SOUTHERN		263,000

Note: Greater weights may be handled by authority of VP — Transportation.

YARD LIMITS — WP

WEST MP		EAST MP
WP Mole	Oakland	7.7
BCH-10.1	San Jose	BCH-23.0
663.6	Elko.....	666.76
926.06	Salt Lake City	Yard Limit Signs
K-111.2	Bieber	BN-86.5
		(3.1 miles east of station)
BI-21.3	Reno	End of Branch

SWITCHING LIMITS — WP

WEST MP		EAST MP
7.7	Oakland	13.78
28.5	Fremont	31.38
	Niles Junction (San Jose Branch)	BCH-0.82
BCH-15.25	San Jose.....	BCH-23.0
70.14	Tracy	73.05
89.34	Stockton	96.59
133.4	Sacramento	140.69
177.62	Marysville	180.24
201.44	Oroville	210.04
280.0	Keddie	282.47
	Keddie (4th Subdivision).....	K-0.48
319.94	Portola	323.09
437.03	Gerlach	439.45
530.02	Winnemucca	533.6
21.3	North Reno (Reno Branch)	30.5
642.96	Carlin	647.13
764.96	Shafter	767.73
805.28	Wendover	808.31
926.06	Salt Lake City.....	

INTERCHANGE TRACKS — WP

San Francisco	San Francisco Belt
.....	SPT
.....	ATSF
Oakland	SPT
.....	OT
.....	ABL (Via SP)
Fremont	SPT (Bridge traffic to and from
	San Francisco 25th St. yard and grain movements
	for San Francisco only)
Milpitas	SPT (Ford Traffic only)
San Jose	SPT
Lyoth.....	SPT
.....	US Army (Not common carrier interchange)
Lathrop	US Army (Not common carrier interchange)
Stockton Yard	SPT
.....	ATSF
.....	TS
Stockton (Flora St.)	ST&E
.....	CCT
Sacramento (Haggin)	SPT
.....	SN
.....	CCT
Marysville	SN
.....	SPT
Oroville.....	SPT
Bieber	BN
Reno	SPT (Reciprocal switching only)
Herlong	US Army (Not common carrier interchange)
Gerlach	US Gypsum (industrial carrier, not a common carrier
	interchange)
Flanigan	Joint track connection with SPT, no carload interchange.
Weso, Valmy, Beowawe, Barth, Carlin, Elko, Elburz, Deeth, Alazon	
	Paired Track connections with SPT. No carload interchange points.
Shafter	NN
Tooele Army Depot Conn. .	US Army (Not common carrier interchange)
Warner	TV
Garfield Pit	KCC
Garfield	UP
Buena Vista	SLG&W
Roper	DRGW
North Salt Lake	UP

YARD LIMITS — SN

WEST MP		EAST MP
38.6	Port Chicago	39.7
40.6	Nichols-McAvoy	43.25
44.5	Pittsburg	48.6
49.7	Montezuma Branch	64.6
4.2	Vacaville Cannon	6.7
90.4	Sacramento	96.4
1.85	Woodland Branch	0.0
11.5	Conaway-Woodland	16.7
102.5	Rio Linda-Elverta	104.7
129.7	Pearson Branch	134.4
134.7	Marysville-Yuba City	139.6
139.6	Colusa Jct.	140.2
0.0	Tarke Branch	0.5
4.9	Sutter	5.6
181.8	Chico	188.8

INTERCHANGE TRACKS — SN

Clyde-Pt. Chicago	Naval Ammunition Depot R.R.
Port Chicago	A.T. & S.F. Ry.
McAvoy	S.P.R.R.
Sacramento	W.P.R.R.
.	S.P.R.R.
.	C.C.T. Co.
Marysville	W.P.R.R.
.	S.P.R.R.
Durham	S.P.R.R.
Chico	S.P.R.R.

YARD LIMITS — TS

WEST MP		EAST MP
0.0	Stockton	2.3
3.0	Manteca Jct.	5.8
0.0	Manteca Branch	6.6
13.5	Simms	15.2
19.0	Escalon	21.0
25.3	Modesto	36.0
0.0	Chemurgic Branch	2.9
46.0	Turlock	47.9

INTERCHANGE TRACKS — TS

Stockton	WP
.	SP
.	ATSF
.	CCT
.	ST&E
Modesto	SP
.	M&ET
Turlock	SP

ALL SUBDIVISIONS

All times shown are Pacific Time.

This is a consolidated Eastern and Western Division Timetable and also includes Sacramento Northern and Tidewater Southern. The following Sub-divisions and branches are under the supervision of the Eastern Division Superintendent at Elko:

That portion of Fifth Sub-division between MP 384.38 and Winnemucca

Sixth Sub-division
Seventh Sub-division
Warner Branch
Ellerbeck Branch
Rowley Branch
Marblehead Branch

The following Sub-divisions and Branches are under the supervision of the Western Division Superintendent at Sacramento:

First Sub-division
Second Sub-division
Third Sub-division
Fourth Sub-division
That portion of Fifth Sub-division between Portola and MP 384.38.
San Jose Branch
Tracy Branch
Loyalton Branch
Reno Branch

Sacramento Northern and Tidewater Southern are under the jurisdiction of the Western Division Superintendent.

DIMENSIONAL SHIPMENTS. Conductors determining that there are dimensional shipments or cars in their train and that such shipments are not covered by train order Form Z or by a message on orange colored paper, when such shipments will move through, or are destined to Nevada or California points, and exceed 5'5½" from centerline of car, will notify Dispatcher of such condition and will be governed by Dispatcher's instructions in the further handling of such shipment or car.

Conductor will advise Train Dispatcher when setting out a High-Wide shipment or car for any reason and will not make such set-out without Dispatcher's authority.

FIRST, SECOND AND THIRD SUBDIVISIONS YARD OPERATIONS

OAKLAND — BETWEEN CLINTON AND EAST SWITCHING LIMIT

STOCKTON — BETWEEN WEST AND EAST SWITCHING LIMITS

SACRAMENTO — BETWEEN WEST AND EAST SWITCHING LIMITS

OROVILLE — BETWEEN WEST AND EAST SWITCHING LIMITS

(A) RULE 547. Will apply within these limits, with work authority limited to not more than four blocks at any one time. Yard conductor must obtain authority from train dispatcher whenever switching is to be done in a block or blocks and, when switching is completed, yard conductor personally must release block or blocks to the train dispatcher.

When initially entering a block at a switch where there is no signal or electric lock permission must be obtained from the train dispatcher and five minutes must elapse after switch is opened before engine or cars foul main track.

A yard engine may be granted work authority including a block in which a train is standing (provided such train has not been granted block work authority) for the purpose of switching such train. When such authority is granted, signal indication is not required for entrance to the block nor must five minutes elapse after opening switch not protected by signal or electric lock to enter the block provided train to be switched can be seen stopped in the block. If it becomes necessary to switch such train from both ends or for a second engine to enter the same block on end of train opposite the end on which train is to be worked, to perform other work, both engines may be granted authority to work in the same block. Under such arrangements a portion of the train must be left at all times in the block originally occupied and after switching is completed, the work authority must be released to the dispatcher by both engines.

(B) Certain switches within above limits are not electrically locked or signalled. Yard crews using such switches within a block under work authority may leave and return to the main track without additional authority from the train dispatcher, provided they have left a car or cars on main track or main track switch open with a man in charge.

If main track has been cleared and switches restored to normal position, new authorization must be obtained from the train dispatcher before returning to the main track.

FIRST, SECOND AND THIRD SUBDIVISIONS YARD OPERATIONS—Continued

(C) Yard conductor must notify train dispatcher when leaving or intending to leave main track at an intermediate switch except when working under work authority. A block must not be released to the train dispatcher in advance when work authority has been granted but blocks must be released promptly when switching has been completed or specified time has expired in order to avoid delay to trains.

STOCKTON YARD — BETWEEN MP 90.85 AND CHARTER WAY

SOUTH SACRAMENTO — BETWEEN EAST AND WEST ABSOLUTE SIGNALS

RULE 547. Except when Signal Aspect per Rule 288 is displayed, permission may be granted by yardmaster upon authority from train dispatcher to use main track between the points named above. When such authority has been obtained, a Form U is not required and that portion of Rule 547 is modified accordingly.

FIRST SUBDIVISION

OAKLAND

(A) **Dimensional Shipments.** If train has car or cars of excessive dimensions, after determining that a high-wide message is on file authorizing movement and after notifying train dispatcher, yardmaster, yard or station forces will issue message on orange colored paper to conductor and engineer. A copy of high-wide message must be attached to waybill.

(B) Before trains are authorized to move against the current of traffic between Clinton and Chestnut Jct., train dispatcher must first contact yardmaster Oakland Yard advising him of such impending train movement. After yardmaster has informed train dispatcher yard engines have been notified and track to be used will be clear, train movement against the current of traffic will be authorized as follows:

Westward: By signal indication per Rule 292-A at absolute signal Clinton.

Eastward: Verbal authority from yardmaster after he receives concurrence from train dispatcher, has notified yard engines and track to be used is clear.

(C) Yard engines must move with the current of traffic when practicable, using crossovers to move to other track to perform work. Before fouling or using crossover or before moving against the current of traffic, conductor must receive information from yardmaster or train dispatcher that no opposing train will be encountered.

(D) Train dispatcher must be notified when yard engines intend to enter T.C.S. on main track at Clinton and thereafter signal indications will govern.

Spring switch located at end of double track Clinton normally lined for westward main track and may be trailed through eastward on eastward main track.

Westward Absolute Signal east of switch is a single unit signal with "S" unit on mast. This signal will display aspects per Rule 292, 292-A and 288. All westward movements will be authorized by flashing red aspect per Rule 288.

"S" Unit must be illuminated per Rule 292-A before spring switch is reversed. Trains or engines moving from eastward main track to westward main track or vice versa, must move beyond signal and receive proper signal indication for reverse movement. If authorized to pass this signal in STOP position, spring switch must be examined and points found to fit properly for movement desired.

(E) T.C.S. blocks within Oakland switching limits as follows:

Clinton MP 7.7 to absolute signal MP 8.8
Absolute signals MP 8.8 to MP 9.9
Absolute signal MP 9.9 to west switch Kohler
West switch Kohler to east switch Kohler
East switch Kohler to absolute signal MP 13.7

(F) Joint WP and SP drill track between Melrose and Elmhurst must not be used for meeting or passing trains.

FIRST SUBDIVISION—Continued

(G) Radio communication is now available with Magnolia Tower. In no way will such communication change the authority of the yardmaster to control movement of trains in and out of Oakland Yard. The sole purpose of communication with Magnolia Tower is to prevent blocking of El Dorado Road and Ferro Street in the case of Eastbounds, and Oak Street to Broadway inclusive, in the case of Westbounds, when towerman is unable to give WP train the route across SP.

HAYWARD.

(A) A lunar white marker light on 7-foot mast is located to the right of the siding at MP 20.15. Eastward trains moving on siding finding this lunar white marker light illuminated may proceed to east siding switch and be governed by signal indication displayed there. Eastward trains finding this marker light extinguished must stop before passing it and contact train dispatcher for instructions.

Train dispatcher's telephone is located in booth adjacent to marker light mast.

(B) Eastward absolute signal located to right of main track at "A" Street, MP 20.1. Eastward trains moving on main track finding aspect displayed per Rule 292 will be governed by Rule 509.

FREMONT. Train dispatcher must be notified when cars are left on siding Fremont.

Train dispatcher's telephone located inside east end of station building.

When making delivery to SP at Shinn siding, cars must be placed with a clearance of not less than two car lengths from dwarf signal at east end of Shinn siding. Do not enter SP Main track.

Derail located at clearance point at west end of Shinn siding.

When cars are placed on Shinn siding, towerman Niles Tower must be notified.

NILES TOWER, RULE 670. Reverse movements may be made within interlocking limits without obtaining permission from the towerman provided a portion of the train or engine is between interlocking home signals.

NILES JCT. An electrically locked switch point derail has been installed near clearance point at west end of west leg of wye.

BRIDGE 35.09 ALAMEDA CREEK. "W" Sign — Whistle board is placed approximately one-quarter mile in advance of bridge. Whistle signal as prescribed by Rule 14.16, a succession of short sounds, will be sounded approaching bridge.

PERMASCO CAR SKATES: Located at Hearst and Midway as follows:
Hearst in phone booth at West Hearst.
Midway in phone booth at East Midway.

When setting cars out on these sidings, skates must be used. If cars already on siding, arrange to couple cars to be set out with the cars already there, resetting skates under outside pair of wheels of truck of first car on the down hill side. When coupling into car or cars on siding make coupling carefully and see skates removed before cars are pulled or pushed. When all cars are removed from siding replace the skates in the phone booths at West Hearst and East Midway.

In addition to the use of Permasco car skates, a sufficient number of hand brakes must be set. Cars must be coupled if practicable. Wheels must be further blocked if necessary to prevent their movement.

FIRST SUBDIVISION—Continued

TREVARNO. Drill track. Switch is electrically-locked and is protected by hand-throw derail. Derail is not electrically-locked and must remain in derailing position until release of electrically-locked switch is obtained. Derail actuates signals on main track when not in derailing position.

TRACY (LYOTH).

(A) Main track and inside crossover switches at Lyoth on east end Tracy siding are dual-control. When either switch is placed in hand-throw position the other switch is disconnected from power operation and it is then unnecessary to place it in hand-throw position.

Signals governing movement over inside dual-control switch are controlled by train dispatcher. When signals display aspect per Rule 288, movements may be made to or from SP interchange and engines may drill over this switch without placing it in hand-throw position. If signals display STOP aspect per Rule 292 and reason is not apparent or if call light is lighted on adjacent telephone booth, train dispatcher must be contacted promptly.

(B) Siding Tracy included in signal circuits and must not be occupied or fouled unless authorized by an absolute signal indication or by permission of the Train Dispatcher.

ARMY SUPPLY DEPOT (LATHROP).

(A) At west end, normal position of all switches in switching lead lined for switching lead. Do not exceed 10 MPH on switching lead or interchange trackage with Army Supply Depot.

(B) Tracks 2 and 3 are to be used for setting out and picking up cars.

STOCKTON YARD. FIRST AND SECOND SUBDIVISION

Block limits are as follows:

East switch Wyche to MP 90
MP 90 to MP 90.85
MP 90.85 to Charter Way
Charter Way to AT&SF Crossing
AT&SF Crossing to Weber Avenue Crossing
Weber Avenue Crossing to west switch Flora Street
West switch Flora Street to east switch Flora Street
East switch Flora Street to North Channel Line
North Channel Line to west switch Hammer Lane.

(A) Eastward trains, caboose hops and light engines will be governed by signal indication entering Stockton Yard.

Eastward trains which head in at MP 90, call yardmaster on phone located near absolute signal for track instructions.

Eastward trains which head in at MP 90.85, call yardmaster on talk-back speaker for track instructions.

Westward trains, caboose hops and lite engines will be governed by signal indication entering Stockton Yard.

Trains heading in at Charter Way will call Yardmaster on phone at Charter Way for instructions unless instructions have been received by radio prior to reaching Charter Way.

Clear radio instruction from yardmaster may be acted upon in lieu of calling on phone or speaker.

(B) Unless instructed by yardmaster, No. 4 lead will not be used for train movements.

(C) Switch leading to Tidewater Southern main track off No. 3 lead, just west of Bridge 90.4, normal position lined for Tidewater Southern.

Diverging switch between No. 1 and No. 2 leads at east end of Bridge 90.4, normal position toward No. 2 lead and trains entering No. 1 lead at this point must be sure switch lined back to normal position.

(D) Main track and inside crossover switches at west end of train yard, MP 90.85, are dual-control. When either switch is placed in hand-throw position the other switch is disconnected from power operation and it is then unnecessary to place it in hand-throw position.

Dwarf signals governing movement on No. 1 lead track over inside switch of power-operated crossover MP 90.85, are absolute signals controlled by the train dispatcher. When these signals display aspect per Rule 288, movement may be made over this switch without placing it in hand-throw position.

STOCKTON YARD, FIRST AND SECOND SUBDIVISION Contd.

These signals may be set to display STOP per Rule 292 by the train dispatcher at any time. If these signals display STOP indication per Rule 292 and reason is not apparent, or if call light is lighted on signal house north of main track, contact train dispatcher promptly by telephone.

(E) Flashing red indicator lights are located at MP 91.02 and at MP 91.88. When flashing, these indicator lights authorize switching movements between absolute signals at MP 90.85 and Charter Way MP 92.7 without contacting Train Dispatcher. All movements so authorized must be made at yard speed. It will not be necessary to wait five minutes before entering main track after opening non electrically-locked switches in this block when flashing red aspect is displayed on the indicator.

When the flashing red aspect is extinguished, it will terminate the authority and main track must be cleared as promptly as possible. If unable to clear main track within five minutes, the Train Dispatcher must be contacted.

(F) Charter Way. Westward signal is a two-unit signal and diverging route may be to either "B" lead or Track 1.

Normal position for dual control switch at Charter Way from B Lead to Santa Fe connection is for movement to Santa Fe. Upper unit of two unit dwarf signal governs movement from B Lead to main track and lower unit governs movement from B Lead to Santa Fe and will display aspect per Rule 288 to permit movement to Santa Fe. Dwarf signal on Santa Fe connection near Charter Way governs movement from Santa Fe to B Lead and will display aspect per Rule 288 for such movement. Power operated switch operates in tandem with main track switch to B Lead. When either of these switches or the switch from main track to No. 1 track is in hand throw, power is disconnected from the other switches in the circuit and other switches need not be placed in hand throw unless they must be thrown. See Rule 545.

(G) ATSF Conn: Train and yard movements are prohibited with cars 61 feet or longer on track between W.P. main and ATSF main.

SECOND SUBDIVISION

THORNTON.

Sound Whistle Signal 14.11 approaching MP 114, Thornton Cannery.

An electrically-operated steel pedestrian bridge over cannery track is located about two car lengths west of Door No. 12. This bridge is controlled by electric switch pushbuttons inside a wall box, secured by switch lock, adjacent to bridge.

Before commencing switching on this track, crew must insure that bridge is in fully raised position. If bridge is in down position, press electric pushbutton marked "Raise" until bridge comes to rest in fully raised position.

LAGUNA CREEK.

Four wheel chocks are provided to block spotted cars. Each wheel chock is equipped with metal stand which clamps on the rail and displays a 10-inch circular metal disc painted yellow with black lettering: "CHOCKS."

Hayes No. 5 toad type derails installed to protect spotted cars on the right hand rail on both spurs are equipped with clamp-on rail stands displaying a 12" x 14" rectangular target painted blue with white lettering: "STOP — TANK CAR CONNECTED."

SOUTH SACRAMENTO.

(A) When setting out on or switching any tracks at South Sacramento Yard, it must be determined that a sufficient number of hand brakes, not less than three (3), have been set on the extreme east cars on the track.

Carmen, when bleeding a cut of cars, will leave air in the east five (5) cars until it is ascertained that a sufficient number of hand brakes, not less than three (3), have been set to secure these cars, and must notify yardmaster.

(B) Block limits are as follows:

East switch Pollock to west switch South Sacramento
West switch South Sacramento to east switch South Sacramento
East switch South Sacramento to absolute signal SP Crossing R Street
Absolute signal SP Crossing R Street to absolute signal west switch Haggin
Absolute signal west switch Haggin to absolute signal east switch Haggin
Absolute signal east switch Haggin to absolute signal Globe
Absolute signal Globe to absolute signal West switch Del Paso

(C) Flashing red aspect displayed by indicator on signal mast beneath Sutterville overpass, authorizes switching movements between absolute signals at east and west ends of train yard without contacting train dispatcher. All movements so authorized must be made at yard speed. It will not be necessary to wait five minutes before entering main track after opening non-locked switches in this block when flashing red aspect is displayed on the indicator.

When the flashing red aspect is extinguished it will terminate the authority

SECOND SUBDIVISION — Continued

and main track must be cleared as promptly as possible. If unable to clear the main track within five minutes, the train dispatcher must be contacted.

(D) Campbell Soup Co. track. West crossover switches both electrically-locked. After lock is released main track switch must be opened before inside switch can be opened and inside switch must be closed before main track switch can be closed.

(E) Dual control power operated switch to safety track at clear point east end siding. Switch to safety track operates in conjunction with power operated main track switch. When east switch is hand operated, power operated switch to safety track must also be hand operated. It is permissible for a yard engine to make an eastward move over it by signal indication, then, without reaching main track move westward without placing the switch to safety track in hand-throw position. However, if there are a series of such moves, the switch to safety track must be placed in hand-throw position to avoid hazard of train dispatcher changing lineup during the switching operations.

(F) At South Sacramento authority to place power switch at east end in hand-throw position will carry with it authority to switch in the block between east switch South Sacramento and eastward absolute signal at R Street and at west end authority to switch in the block between west switch South Sacramento and Pollock. This means that two yard engines may be granted authority to switch over power switches at each end of South Sacramento at the same time but, only the yard engine which has specific authority from the train dispatcher to do so may use the main track block between east and west switches. The foregoing not in conflict with instructions in paragraph (C).

It will not be necessary for train dispatcher to record switching authority in connection with permission to use these power switches except when authority includes the main track block between east and west switches.

(G) A yard conductor may permit road crews to use his switching authority for moves, such as engine to or from train, etc., or other switch crews crossing over, but must insure that there is no hazard by reason of his own switching operations. Train dispatcher may not issue switching authority (including operation of power switches in hand-throw position) to more than one person at a time (except to switch both ends of a train).

SACRAMENTO.

Normal position of switch at tail of wye "R Street Line" is lined for west leg of wye.

HAGGIN.

(A) Eastward SN trains and engines at Haggin must contact train dispatcher for instructions to move Haggin to Globe or beyond.

(B) "S" light signal located on short mast about 100 feet west of westward absolute signal, displayed in connection with aspect per Rule 287 on westward absolute signal at east switch Haggin, indicates that switches are lined for movement to Sacramento Northern yard.

When aspect per Rule 287 is displayed without display of "S" light signal it indicates switches are lined to siding.

In order to operate toward SP Transfer at East Haggin obtain permission from Dispatcher to operate derail. After derail is removed, aspect per Rule 287 can be displayed. After movement to SP transfer is completed, restore derail to derailing position and notify dispatcher.

SANKEY.

Eastward absolute signal on SN is a two-unit signal.

Upper unit governs movements to WP main track.

Lower unit governs movements to Sankey.

MARYSVILLE

(A) SN trains or engines must contact train dispatcher for permission to enter siding and for instructions to move Marysville to Cleveland or beyond.

(B) All switches for entrance to WP main track are governed by absolute signals or electric locks. Movements of SN trains or yard engines will be made by signal indication or by permission of the WP train dispatcher.

(C) **RULE 547.** Governs switching operations. Block limits are:

Absolute signal at Cleveland to west siding switch Marysville.

West siding switch Marysville to east siding switch Marysville

East siding switch Marysville to Tambo

Yard conductor must obtain authority from train dispatcher whenever switching is to be done in a block or blocks and when switching is completed, engine foreman personally must release block or blocks to the train dispatcher.

A yard engine may be granted work authority including a block in which a train is standing (provided such train has not been granted block work authority) for the purpose of switching such train.

SECOND SUBDIVISION — Continued

Work authority is not required for straight moves across WP main track through switches protected by electric locks.

(D) Instructions for operating electric locks are posted in telephone booths adjacent thereto.

Permission must be obtained from train dispatcher before electric locks can be released and he must be notified after movement is completed and electric lock has been locked.

(E) Inside crossover switch on siding and hand-throw tandem derails on east end of tracks 1 and 2 are not electrically-locked and must NOT be operated before obtaining electric lock D-26.

(F) SN connection switch on siding must be locked for siding when not in use. All movements on siding must be made at yard speed.

BINNEY JCT.

SP Connection MP 180.42.

The hand-operated switch is east connected to main track, equipped with electric lock and protected by separate hand-operated derail located on turnout approximately 110 feet west of main track switch.

Instructions for operation of electric lock located in telephone box adjacent to main track switch. Electric lock switch must be operated before derail, otherwise electric lock will not release. See Rule 550.

Eastward SP trains and engines at MP 180.42 must contact train dispatcher to obtain permission to operate electric lock and for instructions to move MP 180.42 to Oroville Yard. Westward SP trains and engines must contact train dispatcher for instructions to move Oroville Yard to MP 180.42.

OROVILLE YARD, SECOND AND THIRD SUBDIVISION

(A) Train dispatcher may grant permission to different engines in different parts of the same block to operate a dual-control switch by hand or use the main track for switching and will not be required to protect work limits by absolute signals. However, he must not grant such permission if a train or engine is moving by signal indication in the block toward point where work is to be done or is closely approaching such block.

(B) Main track and inside crossover switches at east end of train yard, MP 203.75, are dual-control. When either switch is placed in hand-throw position, the other switch is disconnected from power operation and it is then unnecessary to place it in hand-throw position.

Signals governing movement over inside dual-control switch are controlled by the train dispatcher. When these signals display aspect per Rule 288, movements may be made over this switch without placing it in hand-throw position. If signals display STOP aspect per Rule 292 and reason is not apparent, or if call light is lighted on adjacent telephone booth, train dispatcher must be contacted promptly.

(C) Refer to Operating Rule 26-C (b) 3, Page 48f of operating rules.

The 50-foot requirement when using a derail to provide blue signal protection for workmen on the short dead end track, known as the "Pit Track" within engine servicing and maintenance facility at Oroville, is **not** required subject to the following conditions:

1. When the length of the locomotive and/or the position of the locomotive over the inspection pit will permit, the end of the locomotive to be protected must be at least 50 feet from the derail.

2. When the length of the locomotive and/or the position of the locomotive over the inspection pit does not permit the end of the locomotive to be 50 feet from the derail, the maximum distance possible must be maintained.

3. The derail being utilized to provide protection must be permanently installed on the pit track on the end of the track adjoining the turntable as close as possible to the end of the turntable. Use of a portable derail is prohibited.

THIRD SUBDIVISION

Permasco Car Skates: Located at Merlin, Twain and Paxton as follows: Merlin — approximately 20 car lengths from east end and at clearance point, west end.

THIRD SUBDIVISION — Continued

Twain and Paxton — approximately 15 car lengths east of west switch and 15 car lengths west of east switch.

In addition, Permasco Car Skates are in place on tie posts at the following locations: West Oroville Depot — South Side; East Oroville Depot — North Side; West Kramm — South Side; East Kramm — North Side; West Elsey — North Side; East Elsey — South Side; West James — South Side; East James — North Side.

The posts are placed approximately 250 feet (5 car lengths) East of the West siding signals and approximately 500 feet (10 car lengths) West of the East siding signals.

When setting out cars on any of these sidings, see that skates are used. If cars already on siding, arrange to couple cars to be set out with the cars already there, resetting skates under outside pair of wheels of truck of first car on the down hill side. When coupling into car or cars on siding make coupling carefully and see skates removed before cars are pulled or pushed.

When all cars are removed from siding crews making pick up will see skates are re-hung on post or pole in place provided.

In addition to the use of Permasco skates a sufficient number of hand brakes must be set. Cars must be coupled if practicable. Wheels must be further blocked if necessary to prevent their movement.

RULE 105. Sidings on third subdivision, are included in signal circuits. None of these sidings may be occupied or fouled unless authorized by an absolute signal indication or by permission of the train dispatcher.

RULE 288. At locations listed below, aspect per Rule 288 will indicate a detector device has been actuated and train may proceed not exceeding restricted speed looking out for rocks on track or other condition which would have actuated the detector device.

Eastward Absolute Signal at Rich Bar and Westbound Signal 2675.

Eastbound Signal 2576 and Westbound Absolute Signals at West Belden.

Eastbound Signals 2362 and 2368, Westbound Signals 2371 and 2379 and Westbound Absolute Signals at West Pulga.

Grays Flat Spur, MP 272.6. Cars must not be left at top of hill or on descending grade on this spur.

Twain: Electric locked switches. Hand operated derail at west end is connected to track circuits. Derail must not be thrown until electric locked switch is unlocked, and must be placed in derailing position before locking main track switch.

Keddie.

(A) When calling in flagman from east on Fourth Subdivision enginemmen will sound six long blasts of horn.

(B) All switches leading in or out of siding (No. 1 track), must be left lined for the siding. Inside crossover switch at the west end of siding is dual-control, power-operated and, when in power position, works simultaneously with west siding main track crossover switch. When west siding main track crossover switch is in hand-operated position, inside crossover switch must also be hand-operated.

DRAGGING EQUIPMENT DETECTORS

West switch Poe. Indicator lamp 50 feet west of detector.

Signal 2238. Indicator lamp 50 feet east.

When indicator lamp is actuated, it will display a lighted "D" and trains must be stopped promptly before reaching West Branch Bridge, and inspection made.

THIRD AND FOURTH SUBDIVISIONS

RUN-THROUGH TRAINS. WP and BN are authorized to operate BN137, BN138, BN139, BN140, BN170 and BN171 as run-through trains in accordance with power brake law. In compliance with the law, the following will govern the operation of run-through trains between Oroville, California and Klamath Falls, Oregon.

Each run-through train must receive an initial terminal road train air brake test at Oroville Yard and Klamath Falls.

At Bieber, inspection and test must be made per operating rule 1117-A.

Dial phones at East and West Moccasin, East Greenville, East and West Almanor, middle of siding Almanor and at MP 38.6. To contact 4th Sub Dispatcher, dial "7" on message line. To contact 3rd sub dispatcher, dial "6" on message line.

Permasco car skates at Moccasin, Greenville, Robbers Creek, Lodge Pole, and Little Valley.

When setting cars out on any of these sidings, see that they are used. If cars already on siding, arrange to couple cars to be set out with the cars already there, resetting skates under outside pair of wheels of truck of first car on the down hill side. When coupling into car or cars on siding, make coupling carefully and see skates removed before cars are pulled or pushed.

When all cars are removed from siding, crew making pickup will see skates are re-hung on post or pole in place provided.

In addition to the use of Permasco skates, a sufficient number of hand brakes must be set. Cars must be coupled if practicable. Wheels must be further blocked if necessary to prevent their movement.

Rule 552. (T) Applies at Crescent Mills, Almanor Wye, Almanor House Track, and Clear Creek Jct. Hand throw switches not equipped with electric locks. Trains and engines must not clear the main track at these switches.

Keddie. (A) When calling in flagmen from east on Fourth Subdivision, enginemmen will sound six long blasts of horn.

(B) Upper unit of 2-unit absolute signal governs eastward movement from inside tracks Keddie to the Fourth Subdivision.

Absolute dwarf signal on Fourth Subdivision lead when displaying aspect per **RULE 288** will govern westward movement from Fourth Subdivision to siding or yard.

Almanor. Rule 105. Siding Almanor included in signal circuits and must not be occupied or fouled unless authorized by an absolute signal indication or by permission of train dispatcher.

Clear Creek Junction. The 33-car siding is the interchange track with Almanor Railroad Company and trackage between Western Pacific main track switch and yard limit board 2000 feet beyond end of the 33-car siding toward Chester is joint track for interchange purposes. Movements over this trackage are under operating rules governing operations within yard limits. Switch point derail on Almanor RR main track 400 feet from junction switch.

Normal position junction switch lined for Western Pacific main track. Rule 552 applies.

Westwood. No. 2 track and old electric siding connected with No. 2 track at west end will be used as siding.

Derail on west end old electric siding must be kept in derail position except when being used. East switch of old electric siding must be left lined for siding.

Bieber Yard Trains will be governed by Burlington Northern Inc. timetable and transportation rules. Applicable portion of Rule 93, Burlington Northern Inc. Rules reads as follows:

Yard limits will be indicated by yard limit signs. Within yard limits the main track may be used, clearing first class trains when due to leave the last station where time is shown. Protection against second and third class trains, extra trains and engines is not required.

In Non-ABS territory, in case of failure to clear the time of first class trains, protection must be provided as prescribed by Rule 99.

Second and third class trains, extra trains and engines must move within yard limits at reduced speed unless the main track is known to be clear. BN definition of reduced speed: Proceed prepared to stop short of train, engine or obstruction.

THIRD AND FIFTH SUBDIVISIONS**Portola.**

(A) No. 1 track designated as siding, to include drill tracks to main track at each end of yard.

(B) Derail at west end siding Portola is power operated and when switch is in hand operated position, derail, if used, must also be hand operated.

(C) Derail at west end of west siding is hand operated, independent of switch. Derail will actuate signals on main track when not in derailing position.

FIFTH SUBDIVISION

Tunnel 37. Slide detector device is in service in Tunnel 37. Eastward absolute signals at East Chilcoot and Westward absolute signals at Reno Jct. may display aspect per Rule 288, which will indicate a detector device has been actuated and trains may proceed not exceeding restricted speed.

Reno Jct. Permasco skates are on post at clear point between East leg of wye and Reno branch. See section entitled "Permasco skates" under heading "Third Subdivision" for instructions regarding their use.

FIFTH SUBDIVISION — Continued

Pozla. Split point derail east end. Switches are not electrically locked. Do not clear main track unless main track switch is open continuously. See Rule 552.

Gerlach. U.S. Gypsum Co. engine uses east end of siding Gerlach as a tail track when delivering or receiving cars from WP Co. When using siding Gerlach, approach east end of siding looking out for U.S. Gypsum Co. engine.

Switch at west leg of wye and Balloon Track is to be left lined and locked for Balloon Track. This does not relieve employees using this switch from knowing its position prior to use.

FIFTH AND SIXTH SUBDIVISIONS

RULE 105. North siding Winnemucca is included in signal circuits and must not be occupied or fouled unless authorized by an absolute signal indication or by permission of the train dispatcher.

First track south of main track Winnemucca will be used as a siding for the meeting and passing of trains. All switches except main track switches must be left lined for this track when switches not in use.

RULES 104-A, 26-C(c)(1). A second derail has been installed on H&H Spur, Winnemucca, to protect unloading of tank cars. The two derails are located 400 feet and 795 feet from clear point of H&H switch off North Siding.

OPERATION OF SP TRAINS BETWEEN FLANIGAN AND WESO — INCLUSIVE FIFTH AND SIXTH SUBDIVISIONS

SP trains and engines are authorized to operate over WP tracks between Flanigan and Weso, subject to WP Rules, Timetable, Special Instructions, and Timetable Bulletins.

Flanigan. Connection to SP at MP 384.4. Connection switch east connected and is equipped with a dual-control power-operated switch.

Westward absolute signal governing movement over connection is a two-unit signal. Upper unit governs movement to WP main track. Lower unit has "S" light indicators mounted on signal which indicate as follows:

"S" light illuminated to the right of the mast indicates route lined to SP connection.

"S" light illuminated to the left of the mast indicates route lined for WP into Flanigan siding.

Movement through connection to WP main track is governed by upper unit of absolute signal located at clear point west end SP double track Flanigan, (SP MP 336.51).

All signals governing movement through SP connection MP 384.4 are absolute signals under control of WP train dispatcher. "SA" and "P" apply to SP trains only. **WP Rule 509** applies.

SP train may enter or leave WP track on PROCEED signal indication, without member of crew contacting train dispatcher, but must contact WP train dispatcher promptly if they are unable to comply with authority granted by signal aspect.

Weso. SP trains diverging from SP track to WP track Weso will be governed by instructions applicable to WP westward trains.

SIXTH SUBDIVISION

RULE 540. Weso. Westward trains may leave Weso without contacting the train dispatcher when westward signal indicates PROCEED and will retain their identity.

Valmy. Power switch and associated eastward and westward absolute signals are located at Valmy, M.P. 572.2 serving Sierra Pacific Power.

Westward absolute signal at Valmy may display aspects per Rule 288 and 288A and govern movements over switch only. Westward and eastward absolute signals are designated with letter "A" and are governed by Rule 509. Westward signal D5747 at M.P. 574.7 displays aspect per Rule 285 only.

Trains and engines operate at yard speed when using drill track between WP and SP main tracks.

Impaired clearance on west side of coal unloading structure at North Valmy Power station. Automatic unloading feature is operated by a live third rail which makes physical contact with actuating shoes on each car. Members of crew must not use walkways or ride on sides or tops of cars while train is being operated over trestle.

Dunphy. Ore loading ramp 1700 feet west of east switch on spur. Trainmen must not ride north side of equipment at this point account close clearance.

SIXTH AND SEVENTH SUBDIVISIONS

Use of WP Portion of Paired Track Between Weso and Alazon Inclusive

(A) Between Weso and Alazon, track of WP and SP will be used jointly. All eastward trains of both companies will use WP track, and all westward trains of both companies will use SP track, unless otherwise instructed.

SIXTH AND SEVENTH SUBDIVISIONS, PAIRED TRACK, Contd.

(B) Current of traffic on WP track, Weso to Alazon, is eastward. Movements against the current of traffic must not be made except under flag protection or as authorized by train order.

Manual block may be established by train order to govern movements between given points, requiring trains to receive clearance reading, 'Block Clear' or 'Block Occupied', before entering the block.

Trains or engines must not be permitted to enter the block until all opposing movements have cleared the block.

Trains and engines receiving clearance showing 'Block Occupied' must move through the entire block at restricted speed, unless information is received from train dispatcher that block has been cleared.

Passenger trains must not be operated unless the block is clear.

Train dispatchers will use following form of train order to authorize movement of a westward train or to create a work extra.

Example 1: "Eng. run extra on WP track. to."

Example 2: "Eng. works extra on WP track. M until. M between. and."

When moving westward on WP track between Alazon and Weso, maximum speed of passenger trains and light engines is 59 MPH, and for freight and mixed trains 49 MPH, but all other speed restrictions must be observed. Unless proceed signal received or it is known that warning devices are operating, such trains and engines must stop approaching road crossings where automatic warning devices are installed, and may proceed after member of crew protects crossing.

(C) **RULE 19.** When the rear car of an SP passenger train is equipped with a combination oscillating red light and auxiliary green marker light, oscillating red light must be displayed by day as well as by night when train is on main track, and when so displayed, will be considered as markers. Oscillating red light must be extinguished and green marker light displayed when train has stopped clear of main track to be met or passed by another train.

(D) **RULE 20.** All sections except the last must display two green lights by day and night in place provided on the front of engine as classification signals.

RULE 21. Extra trains must display two white lights by day and night in place provided on the front of engine as classification signals.

When two or more engines are coupled only the lead unit will display classification signals.

RULE 24. Trains must be identified by engine number on lead or other unit in engine consist and the number designated for identification must be illuminated day and night. Other engine numbers must not be illuminated.

(E) **RULES 509 and 510.** When a block signal indicates STOP (in either direction) trains will be governed by Rules 509 or 510.

Signals in paired track territory which are not equipped with number plates are STOP signals. When these signals display STOP indication, member of crew will contact train dispatcher in accordance with Rule 509.

At Elburz, when signal indicates STOP and train dispatcher knows there is no opposing movement involved, he may orally authorize train to proceed at restricted speed to the next governing signal.

When member of crew is unable to contact train dispatcher within five minutes, train may proceed at restricted speed to the next governing signal without sending a flagman ahead.

(F) **West Carlin.** Main track detour switch at MP 643.4 is interlocked.

Interlocking limits extend from home signal MP 643.4, located 100 feet west of remote-controlled switch, to dwarf home signal, located 350 feet east on main track, governing westward movements, and to dwarf home signal, located 350 feet east on detour, governing westward movements to main track. Dwarf signals will display aspects per Rules 288 or 292 only and govern only to end of interlocking limits where non-block signal territory commences.

If signals indicate STOP be governed by Rule 663. If route is not properly lined, call signal operator and obtain authority to operate this dual-controlled switch by hand.

SP passenger trains and light engines, and other trains when so instructed, are authorized to use WP main track at Carlin provided Signal 643.4 indicates proceed on WP main track. If signal 643.4 indicates movement over west detour to SP yard, such trains will enter detour and proceed to SP yard at Carlin.

SIXTH AND SEVENTH SUBDIVISIONS, PAIRED TRACK, Contd.

West Carlin detour extends from remote-controlled switch on WP main track at West Carlin to connection with SP main track at west end of Carlin yard.

(G) **Carlin.** When trains on which crew changes are made at Carlin, are departing, they must move at restricted speed until reaching a point where next signal indication can be clearly seen and intervening track can be seen to be clear.

All SP switch movements on WP main track between West Carlin and East Carlin must be made with authority of WP train dispatcher and under provisions of Rule 99.

(H) **East Carlin.** Detour extends from East lead on SP to East Carlin on WP. Movements over dual-controlled power operated switch are governed by absolute signals bearing the letter "A." Trains or engines finding these signals displaying aspect per Rule 292 will be governed by WP Rule 509.

(I) Eastward SP freight trains, unless otherwise instructed, and other trains when so directed, also engines moving between WP and SP yards will use East Carlin and/or West Carlin detours.

(J) **Elko.** Crossover, Third St. WP Elko yard. Inside siding switch of crossover electrically-locked. Release of electric lock must be obtained before main track switch is lined. Instructions for operating the lock are posted in electric lock case.

Dwarf signal governing westward movements, located between main track and siding, at MP 665.5. Approach lighting circuit starts 300 feet east of Signal 6655.

(K) Spring switch, 12th Street, east end of old main track, WP Elko yard, normally lined for eastward main track and may be trailed through eastward onto main track.

Trains or engines trailing through spring switch old main track to main track East Elko must not exceed 5 MPH until engine is on 12th St. Crossing then 20 MPH through switch.

Eastward trains leaving Elko on old main track finding Signal 6660 displaying aspect per Rule 291, must stop short of signal and operate push button. Eastward trains leaving Elko on main track finding Signal 6662 displaying aspect per Rule 291 must stop and operate push button when there is an eastward train on old main track. Instructions for operating push buttons are posted in push button housings.

Telephone located on instrument case south side of tracks opposite Signal 6662 for purpose of contacting train dispatcher when Signal 6660 or 6662 does not clear promptly after push button operation. If signal continues to display aspect per Rule 291 after expiration of time release interval, train may proceed at restricted speed after obtaining permission from train dispatcher.

Westward trains and engines must stop and examine switch points before moving over spring switch, East Elko.

Dwarf signal located 250 feet west of spring switch at east end old main track Elko, governs movements against current of traffic on main track to dwarf signal 6655 located at 4th St., Elko.

(L) East detour extends from SP siding to WP freight yard, Elko.

(M) **Weso.** T.C.S. controlled by WP train dispatcher. Westward home signal governs movements to SP or to enter T.C.S. on WP main track. When STOP indication is displayed and movement via WP is desired, WP Rule 509 will apply. When STOP indication is displayed and movement via SP is desired, SP Rule 776 will apply.

("A" applies to WP only and "SA" applies to SP only.)

Switches on SP end of crossovers are dual-control. Permission of WP train dispatcher is required for hand operation, governed by WP Rule 545.

Spring switches on WP end of crossovers are normally lined for WP track. WP Rule 104-D applies.

Electric lock on west crossover spring switch releases when the power switch on this crossover has been reversed by the WP train dispatcher.

Obtain permission from the WP train dispatcher for movement from WP track to SP track over crossovers and be governed by SP Rule 776.

Westward movement from WP A.B.S.S. to WP "enter T.C.S." will be made by signal indication. If signal fails to display proceed indication WP Rule 509 will apply.

Instructions for operation of dual-control switches and electric switch locks are posted in telephone booths located at signal.

SIXTH AND SEVENTH SUBDIVISIONS, PAIRED TRACK, Contd.

(N) **Alazon.** C.T.C. controlled by SP dispatcher, Eastward home signal governs movements to SP or to enter T.C.S. on WP main track. When STOP indication is displayed and movement via WP is desired, WP Rule 509 will apply. When STOP indication is displayed and movement via SP is desired, SP Rule 776 will apply.

("A" applies to WP only and "SA" applies to SP only.)

Dual-control switches are under control of SP dispatcher. When necessary to hand-throw these switches, permission must be obtained from dispatcher and be governed by SP Rule 772.

West switch of crossover between SP and WP main track is a spring switch and normal position is for SP main track. Movements over this switch must be made in accordance with SP Rule 535.

(O) **RULE 825 (T).** Southern Pacific trains operating on WP track between Carlin and Alazon that have a helper behind a caboose consisting of not more than one (1) unit are exempt from complying with that part of Rule 825 reading — "Employees must vacate such caboose and ride in locomotive" and that part reading — "When helper is used behind a caboose the speed of the train must not exceed 20 MPH."

ENGINE WHISTLE SIGNALS

Carlin: Westward: Approaching east end yard:

SP freight trains, o — o.

WP trains, — o.

Alazon: Eastward WP trains must sound whistle signal o — — at sign reading "WP WHISTLE" located at MP 706 Pole 21.

WESTWARD AUTOMATIC BLOCK SIGNAL SYSTEM CIRCUITS

(A) Signals 6511 (200-ft. east of Tunnel 42), and 6497 (200-ft. east of Tunnel 41), and Signal 6475 at MP 647.50 are controlled from east absolute signals at East Carlin Detour; "Block System Limit" signs are opposite clearing points East Carlin Detour.

(B) Signals 6369 (100 feet east of Tunnel 40) and 6357 (624 feet east of Tunnel 39); "Block System Limit" sign opposite Signal 6352, controlled from 2400 feet east of MP 632.

(C) Signals 6313 (3650 feet west of MP 632) and 6287. "Block System Limit" sign opposite Signal 6274, controlled from 1000 feet east of MP 623.

SEVENTH SUBDIVISION

RUN-THROUGH TRAINS. WP and UP are authorized to operate USSW and USSE (unit trains of steel and returning empties) as run-through trains in accordance with power brake law. In order to insure compliance with the law the following will govern operation of these run-through trains between Geneva, Utah and Elko, Nevada.

Each run-through train must receive an initial terminal road train air brake test at Geneva, Utah and Elko, Nevada.

At Grant Tower, vicinity 2nd South — 9th West Streets, Salt Lake City, on westward trains, WP crews will make inspection and test as prescribed by operating Rule 1117-A.

Alazon. RULE 540. Eastward trains may leave Alazon without contacting the train dispatcher when eastward interlocking signal indicates PROCEED and will retain their identity.

Shafter. Engines must not exceed 10 MPH on straight track and 5 MPH on turnouts in NN yard and are prohibited from using NN rip track. Nevada Northern crossing must not be blocked while switching.

Flood detectors. Located on south side of track at twenty-five points between MP 788.46 and MP 797.50, interconnected with signal system.

Wendover: West Switch to South Siding has been permanently removed. Bumper installed 1250 feet west of West Wye Switch.

SEVENTH SUBDIVISION

Garfield Pit, KCC Interchange. Rules 550, 550-A, 551, and 551-A. Pit Tracks 1 and 2, TIP 801 and 802, north of WP main track at MP 911.7, will be used for interchange of cars with KCC. KCC trains and engines will contact WP train dispatcher for authority to use joint track between eastward absolute signal at Smelter and eastward absolute signal at West Garfield.

POLLARD JCT. AND ROPER YARD INSTRUCTIONS

Eastward and westward freight trains will enter and leave D&RGW running tracks through interlocking between Pollard Jct. and 1st So. St., Salt Lake City. Trains must keep to the right. Movement against current of traffic on these two running tracks will be made in accordance with D&RGW Operating Rule 93. Eastward trains arriving Roper, unless otherwise instructed, will stop at 21st So. St. and get track instructions from yardmaster through the two-way speaker located near 21st So. St.

Audible annunciator located 430 feet west of 13th South St. A sign reading, "Grant Tower Annunciator" has been installed at this location and the following whistle signals will be given:

WP trains and engines departing. o o o o .

Ogden trains and engines departing _____ .

WP engines moving Roper to North Yard. o o .

When operating in joint yard territory east of T.C.S. limits, Pollard Jct. (MP 927.2), WP crews will obey instructions of terminal officers, including D&RGW officers having supervision over the terminal and, in addition to WP rules, will be governed by D&RGW Rule 93, which reads as follows:

Yard limit rules will be indicated by yard limit signs and designated in the timetable.

Within yard limits main tracks may be used without protecting against other trains or locomotives.

All trains and locomotives must move within yard limits at restricted speed, prepared to stop within one half the range of Vision unless main track is known to be clear by ABSS indication.

Movement against the current of traffic on the main tracks must not be made unless authorized and protected by Yardmaster or other designated official.

Restricted speed. Speed that permits stopping short of another train or obstruction, but not to exceed 20 MPH.

SAN JOSE BRANCH

Dimensional Shipments. If train has car or cars of excessive dimensions, after determining that a high-wide message is on file authorizing movement and after notifying train dispatcher, yardmaster, yard or station forces will issue message on orange colored paper to conductor and engineer. A copy of high-wide message must be attached to waybill.

NILES JUNCTION.

(A) Westward Automatic Signal Number 08 located MP Branch 0.8 just east of Morrison Canyon Road governs approach to absolute signal at Niles Jct. and may display aspects per Rules 281, 285 or 291.

(B) Trains in excess of 40 car lengths including caboose which find this signal displaying aspect per Rule 291 or Rule 285 must stop and contact train dispatcher for instructions.

(C) Trains must not block Morrison Canyon Road or Pickering Avenue unnecessarily.

(D) When aspect per Rule 283 is displayed on westward main track absolute signal, East Niles Junction, this will authorize movement from Niles Junction to Curtner.

(E) Tail of wye switch hand operated, normally lined for east leg of wye. Trains or engines using west leg of wye must do so at yard speed and must not operate tail of wye switch or pass clearance point without permission of train dispatcher.

MILPITAS.

(A) Track adjoining south side of main track west of office is known as "West Siding" and track adjoining south side of main track east of office is known as "East Siding."

SAN JOSE BRANCH, Continued

(B) Derail on west leg of wye located at clearance point. Derail on east leg of wye located 392 feet west of main track switch.

(C) Trains setting out, picking up or doing other work will contact train dispatcher for instructions when ready to depart.

(D) At the Ford plant there are electrically-locked derrails on Tracks F-1 and F-2, located 200 feet west of the west track entrance and 227 feet east of the east track entrance to the assembly building. The doors to the track entrances at each end of the building cannot be closed until the derrails are lined in derailing position and locked. Unless requested by the Ford Motor Co. cars must not be left on either track at either end of the building between the derrails and point of entrance to the building.

In addition, at the west end, not more than two cars may be left (while switching or otherwise) on either Tracks F-1 or F-2 between the diverging switch to these tracks and the derrails. If Ford Co. orders two cars left on either Tracks F-1 or F-2 as above, the east car must be left as close to derail as safety permits to allow clearance on west end of these cars.

Hayes type derrails installed on Track F-4, 388 feet east of west switch to Track F-3 and on Track F-5, 238 feet east of entrance switch.

Gates, doors to buildings and derrails on both east and west ends of Ford plant are controlled and operated by Ford security police.

RENO BRANCH

ROCKY MOUNT NO. 2.

No derail, keep hand brakes set and do not leave cars east of first road crossing.

DERAIL located on main track at MP 31.69 which is 630 feet east of Rocky Mount No. 2, must be lined and locked for main track except when switching is being done on Vaughn Mill No. 1, Vaughn Mill No. 2, Rocky Mount No. 1, or on Rocky Mount No. 2 spurs. This derail must first be opened and locked open while switching is being done and not be relined for main track until switching is completed and cars properly coupled to engine, and have been charged to full air pressure.

TS — SPECIAL INSTRUCTIONS

GENERAL

Applicable instructions appearing in other portions of this timetable will be observed on Tidewater Southern in addition to instructions appearing in Tidewater Southern section.

Slow orders pertaining to unusual conditions, other than speed, will be handled verbally and subsequently issued in a white notice for TS only on Monday of each week. These notices will be posted in regular Notice book.

Conductors and/or Engineers will call Dispatcher before commencing trip to determine if there are any orders.

RULE 17-C. Headlight must be dimmed while moving over 9th St., Modesto. RULE 21 of the Operating Department is suspended.

RULE 103 (B). When leaving cars on main track or passing tracks at Escalon or Aurora, all private crossings must be left open.

RULE 104. Main track switches in yards must be left lined and locked for main track. Switch leading to S.P. transfer, Modesto, must be kept lined for transfer, except when using Lyng spur. Switches in joint M&ET-TS Yard, Modesto, must be kept locked and lined for lead tracks.

STOCKTON YARD:

Normal position for switch between No. 1 and No. 2 leads at west end of leads is lined for No. 2 lead.

Normal position for switch leading to Tidewater Southern main track off No. 3 lead is lined for Tidewater Southern.

ORTEGA: Arrival time at Stockton Yard will be determined by the actual time of arrival at Ortega. This time will be used for:

1. Reporting arrival to the train dispatcher.
2. Wheel reports.
3. Delay reports and final terminal delay.

AURORA. In compliance with PUC Order, observe the following instructions governing use of Aurora Siding, Tidewater Southern MP 29.5.

Aurora Siding must not be used except as follows:

Emergency operations resulting from unforeseen circumstances such as equipment failure, unsafe track structure, derailments, or other events over which railroad had no control.

Running around more than six cars between 6:00 AM and 12 Midnight for purpose of pulling rather than shoving to SP transfer.

Parking of train between 6:00 AM and 12 Midnight when Hours of Service have expired and crew was unable to leave train at another location without violation of Hours of Service. When necessary to leave train on siding, locomotive must be shut down. It should also be noted that train should not be left at Aurora Siding under these circumstances if conditions will permit leaving it elsewhere, and crews must plan in advance utilizing all information to avoid the necessity of terminating their train at Aurora Siding due to Hours of Service.

Air Brake Tests must not be conducted in the vicinity of Aurora Siding and when mechanical refrigeration cars are left on siding for any reason, the motors must be shut down.

Except for emergency operations as described above, Aurora Siding is not to be used between 12:01 AM and 6:00 AM.

MODESTO: Tracks in Modesto between E Street and Tuolumne River Bridge and Joint yard are operated jointly with the M&ET Co.

SN SPECIAL INSTRUCTIONS

GENERAL

Applicable instructions appearing in other portions of this timetable will be observed on Sacramento Northern in addition to instructions appearing in Sacramento Northern section.

RULE 10-H, first paragraph

A metal banner at right of track displaying yellow indicates that trains must reduce speed over track to 10 miles per hour until rear of train has passed temporary resume speed signal unless otherwise directed by train order or bulletin. Such signal must be placed one-fourth (¼) mile before the location is reached where speed of trains must be reduced.

RULE 17-C. Headlights must be dimmed while moving within city limits.

RULE 17-D. Reverse movements over grade crossings must be protected per the provisions of this rule by engineer operating the oscillating white (or amber) light, reversing handle located inside the locomotive cab roof as necessary so that this light is displayed in the direction of movement prior to entering the crossing.

RULE 18 — Modified. Yard engines when making a continuous movement along city streets will not display the headlight at the rear by night. A red light or fusee must be displayed to the rear, and on the rear of the last car when cars are being handled.

It shall be the responsibility of the rear brakeman to see that a red light or fusee is continuously displayed at the rear until movement is completed.

When stop is made and train or yard engine is left standing in street, trainman will place lighted fusee in the street at rear of cut and when necessary for trainman to leave rear of cut to go ahead, one or more lighted fusees will be left to provide continuous protection at the rear end.

RULE 21 of the Operating Department Rules is suspended.

MISCELLANEOUS

Air must be cut in and air brakes in operation on all yard cuts, and on trains within yard limits, when moving over and along city streets except when doing station work or yard switching.

SACRAMENTO NORTHERN

PITTSBURG BRANCH

Shell Point — Signs reading — Cars must not be switched beyond this point by S.P. Co. — S.N. Ry. — are located on track 1 at the Shell Chemical Plant, Shell Point.

During periods of heavy fog or when visibility is restricted, sound crossing whistle when approaching and before passing over private roadway northeast corner Shell Chemical plant, Shell Point.

The tracks at the Shell Chemical Company's plant at Shell Point are used jointly by the Sacramento Northern and Southern Pacific. All movements over these tracks must be made with caution. Several derails, properly signed, are installed on the various tracks.

Pittsburg — Eastward trains will make air brake test as prescribed in Rule 1117, Initial Terminal Road Train Air Brake Test, at Pittsburg, before entering Santa Fe main track.

VACAVILLE AND DOZIER BRANCHES

Eastward trains will make air brake test as prescribed in Rule 1117, Initial Terminal Road Train Air Brake Test, before entering Southern Pacific main track at Cannon.

East leg of Wye Vacaville Junction is out of service and cannot be used.

HOLLAND BRANCH

Close clearance, sugar plant eaves, Clarksburg.

SACRAMENTO NORTHERN

CHICO BRANCH

Automatic block signals between Marysville and Yuba City:

Two indication color light home signals located as follows:

Signal 190 feet east of junction switch opposite Marysville depot governs eastward movements.

Signal 1397 feet west of Yuba City depot governs westward movements.

Movement of trains and yard engines within home signal limits will be made in accordance with indication of signals subject to the following regulations:

Flashing white light located on pole about 100 feet west and across main line from Trainmen's Locker Room is to apprise trains and yard engines of condition of route between home signals. When flashing, route is unoccupied.

Before proceeding from Yuba City depot to Marysville, member of crew shall press push button mounted on outside wall of Trainmen's Locker Room which holds route for westward movements for a period of ten (10) minutes and causes flashing light to burn steadily. Train or yard engine may then proceed, being governed by indication of home signal.

COLUSA JCT.: Gates have been installed across main track East leg of wye (140179-069) and are equipped with switch locks. A member of crew must open and latch gates open when entering and must close and lock gates after train or engine has passed.

CHICO: (A) On city streets, trains and engines must use caution where movements are made against current of vehicular traffic and must stop if necessary before crossing vehicular traffic lanes.

(B) Trainmen are prohibited from riding on the side of engines and cars between MP 184.5 and MP 185.8 on the Esplanade at Chico.

(C) A lighted red fusee must be placed at the rear of all eastward movements on city streets in Chico.

(D) Engines so equipped with display oscillating or revolving lights for all movements within Chico yard limits. In addition, a lighted fusee will be displayed on leading end of engine when moving on city streets.

JOINT TRACK

(A) Sacramento Northern trains and engines use Santa Fe tracks between Stockton and Pittsburg.

Trainmen and Enginemen using Santa Fe tracks will be governed by Santa Fe Operating Department rules and must have copy of current Santa Fe Operating Department Book of Rules, copy of current Santa Fe, Valley Division, timetable, and Santa Fe switch key in their possession at all times while on duty on Santa Fe.

Bulletin books containing Santa Fe, Valley Division, TM bulletins governing train operations are maintained at the Trainmen and Enginemen's locker room at South Sacramento and at the Pittsburg depot. Trainmen and enginemen and others concerned must consult the Santa Fe bulletins before departing on trains operating over Santa Fe tracks.

(B) Sacramento Northern trains and engines use Southern Pacific tracks between Cannon and 19th Street, Sacramento.

Sacramento Northern movements between Haggin and Westgate are made on Southern Pacific between 19th Street and Sacramento-Yolo Port RR connection.

Southern Pacific also uses Sacramento-Yolo Port RR between Broderick and Southern Pacific main line.

At 19th Street and at Port RR connection stop clear of fouling point and contact SP yardmaster for permission to enter SP tracks. Before entering SP at 19th Street, it must be known by observation that there is no movement closely approaching the track to be occupied.

Southern Pacific third rail between 19th and 23rd Streets, Sacramento, and east leg of wye between its connection with SP third rail and SN main track at 20th and B Streets will be used by SN crews to turn engines and cars. Permission of SP yardmaster must be obtained before entering third rail.

SACRAMENTO NORTHERN, JOINT TRACK, Contd.

Southern Pacific uses Sacramento Northern tracks between junction switches of Sacramento-Yolo Port RR east and west of Broderick. All movements on the joint track at Broderick will be governed by block signals whose indications supersede the superiority of trains. Indicators at entrance switches indicate track occupancy. When indicator shows block clear, switch may be reversed and movement started when yellow aspect is displayed by the signal. If indicator shows block occupied, switch must not be reversed until it is known that there is no opposing or conflicting movement. If, after switch has been reversed, signal displays stop indication, train or engine must wait five (5) minutes and then be preceded by flagman through joint track area.

Southern Pacific Railroad operating on that portion of Sacramento Northern Railroad Track from Soule Street to approximately 500' west of 15th Street, maximum operating speed 10 MPH.

The switches at Riske Lane, Soule Street, and 15th Street will be lined back for the Sacramento Northern main line, and locked with Southern Pacific switch locks.

Flag protection to rear is not required on joint track at Broderick, Westside or on Sacramento-Yolo Port RR connection. All movements must be made at yard speed not exceeding ten (10) MPH.

(C) Speed of trains handling loaded air dump cars on Southern Pacific is restricted to twenty-five (25) MPH.

(D) Sacramento Northern trains and engines use Southern Pacific tracks between Live Oak and Durham.

Hand operated switches equipped with electric locks located at SP MP 152.20 and SP MP 152.21. Live Oak, provide access to SP main track for movements between Live Oak and Durham. Signals governing movements to SP main track located in advance of junction switches.

Hand operated switch equipped with electric lock located at SP MP 178.2, Durham, provides access to SP main track for movements between Durham and Live Oak. Sign reading DO NOT FOUL MAIN TRACK WITHOUT DISPATCHER'S PERMISSION located in advance of junction switch.

Contact SP Train Dispatcher for permission to operate electric locks. Instructions for operation of electric locks located in telephone boxes adjacent to junction switches.

(E) Trainmen and Enginemen using Southern Pacific tracks will be governed by SP Co. Transportation Dept. Rules and Special Instructions and must have copy of Southern Pacific book of rules, current timetables with special instructions, and switch key in their possession while on duty on Southern Pacific.

Bulletin Books containing Southern Pacific Western Division and Sacramento Division timetable bulletins are located at Westside, Sacramento Yard. Southern Pacific Sacramento Division timetable bulletins are located at Yuba City. These bulletins must be reviewed before operating over trackage of SPT Co.

(F) Sacramento River Drawbridge, MP 88.65, is a Train Order Office for westward Sacramento Northern trains to the Western Division, SPT Co.

Sacramento Northern trains originating Sacramento 19th and B Sts. or Sacramento-Yolo Port District connections to Western Division SPT Co. must obtain SP clearance at Sacramento River Drawbridge.

Sacramento Northern crews are to contact Operator by use of telephone at Drawbridge (Ext. 339) to receive orders.

(G) Sacramento Northern trains and engines use Western Pacific tracks as follows:

Between South Sacramento and Stockton yard.

R Street line, Sacramento, between Front Street and east wye switch at WP MP 138.2

Between WP MP 138.2 and Marysville

See instructions under "SECOND SUBDIVISION, (WP)."

INTERLOCKING PLANTS AND SIGNALS AND RAILROAD CROSSINGS NOT INTERLOCKED

SAN FRANCISCO

I. Interlocking in service on the SP and the AT&SF crossing at 25th and Illinois Streets, San Francisco:

Westward home signal is located 70 feet east of crossing.

Eastward home signal is located 25 feet west of Third Street.

Instructions for operation of interlocking posted in box on each home signal must read as follows:

25TH AND ILLINOIS INTERLOCKING INSTRUCTIONS FOR WESTERN PACIFIC CREWS

Each movement into the interlocking must be made as provided in these instructions, even though train or engine may have vacated track between interlocking signals only momentarily.

1. Normal aspect of home signals red (Stop).
2. To clear signal for movement through plant, train or engine must be standing within 30 feet of home signal, then operate push button until lamp is illuminated.
3. After one minute, home signal should display proceed indication.
4. If signal fails to indicate proceed, member of crew must proceed to railroad crossings, and if no conflicting movement is seen or heard approaching or using the crossing, move train or engine into interlocking, STOPPING CLEAR OF CONFLICTING TRACKS. (Eastward trains will stop at west curb of Third Street.) Wait one minute, then train or engine may proceed at yard speed upon receiving hand signal from crew member at the crossings, except that eastward trains must also have green traffic signal to proceed across Third Street or provide flag protection while moving over the street crossing.

Switching movements may be made in either direction within interlocking limits provided train or engine does not vacate the track between interlocking signals.

Western Pacific crews crossing Western Pacific Main track, when using Sugarhouse lead Track 1-025 or when entering Baruh Liquor Spur 1-611 or 612, will be governed by SP-AT&SF emergency instructions in the event signals do not display proceed indication. SP-AT&SF emergency instructions are posted in box on end of signal housing at crossing.

Eastward movements from Spur 0-592, formerly Ladies Choice spur, will be governed by home signal located 25 feet west of Third Street.

Push button and indicator lamp located in box across from San Francisco yard office now in service.

Push button will actuate westward home signal at 25th and Illinois Interlocker.

The following instructions are posted in the box:

1. When westward movement is to be made through interlocker, actuate push button. After push button is actuated, indicator lamp will display a steady yellow light.
2. If there are no conflicting movements through the interlocker after approximately 60 seconds, the indicator lamp will display a flashing yellow light. This will indicate that the Westward home signal at the interlocker is displaying a proceed indication.
3. The westward home signal at the interlocker will display a proceed indication for approximately 6 minutes. If the signal has not been accepted before the expiration of this time, the signal will return to the stop position. It will then be necessary to reactivate push button to complete movement.

The push button across from the yard office is in addition to the push button located at the crossing.

When the yard office push button is actuated and the westward home signal at the interlocker displays a proceed indication, it will not be necessary to stop and actuate the push button at the crossing.

II. The Western Pacific Railroad track crosses over Southern Pacific tracks at Ninth and Division Streets, San Francisco.

INTERLOCKING PLANTS & RAILROAD CROSSINGS SAN FRANCISCO (Continued)

All trains, locomotives, and cars shall come to a stop before proceeding across said crossing and shall not thereafter proceed until it has been ascertained that no trains, locomotives or cars are approaching from either direction upon the conflicting route within a distance and at a speed which will in any way render them liable to conflict with the movement about to be made over the crossing.

Southern Pacific Company shall have precedence in the use of the crossing.

III. Southern Pacific crossings of Western Pacific lead to U.S. Marine Corps depot (0-941) and Higgins Lumber Company (0-931) spurs on McKinnon Avenue, 200 feet southeast of east curb of Barnevold Avenue, San Francisco Yard:

In making movements in either direction on either Marine Base track (0-941) or Higgins Spur (0-931), STOP must be made at least fifty (50) feet from nearest rail of Southern Pacific track, and thereafter before proceeding, make sure no trains, engines or cars approaching from either direction on Southern Pacific track.

Southern Pacific Company shall have precedence in the use of the crossing.

IV. The following will govern operations over track crossing where Southern Pacific spur serving Eaton and Smith crosses Western Pacific work lead in Illinois Street near 25th Street, San Francisco.

In the use of the crossing, all engines, cars, or trains of the Southern Pacific Company will come to a stop before proceeding across said crossing and shall not thereafter proceed until it has been ascertained that no engines, cars, or trains are approaching from either direction upon the conflicting route within a distance and at a speed which will in any way render them liable to conflict with the movement about to be made over the crossing.

All engines, cars or trains of The Western Pacific Railroad Co. shall approach the crossing at a speed from which a stop can be made before fouling the crossing in the event that the crossing is occupied or about to be occupied by engines, cars, or trains on the conflicting route.

All engines, cars or trains of The Western Pacific Railroad Co. shall take precedence in the use of the crossing.

V. Track in Illinois Street, crossing Marin Street and joint SP-AT&SF-WP track to serve the Port of San Francisco at the Army Street Terminal.

Signs reading — STOP — FLAG — RAIL AND HIGHWAY CROSSING are located as follows:

1. Adjacent to turnout in Illinois Street for crews working across the joint SP-AT&SF-WP track in Illinois Street and across Marin Street and into the Port of San Francisco trackage between Marin Street and Islais Creek.
2. Adjacent to Port of San Francisco gate for crews leaving the Port trackage and crossing the joint SP-AT&SF-WP track in Illinois Street.

Rail movements on joint trackage in Illinois Street may be expected to be approaching this track crossing at 6 MPH and shall have precedence in the use of the crossing.

OAKLAND — SALT LAKE CITY

MP 5.8-SP Crossing and MP 5.9-Chestnut Junction, Magnolia Tower. Interlocking. Towerman on duty.

Eastward: Two-unit home signal 490 feet west of crossing. Upper unit governs movement to eastward main track; lower unit to westward main track.

Westward: Two-unit home signal on westward main track 700 feet east of crossing; upper unit governs movement to WP yard; lower unit to OT interchange. Color-light dwarf signal 490 feet east of crossing governs movement from eastward main track to WP yard.

Eastward whistle signals:

East yard to eastward main track, — .
to westward main track, — o — .

MP 7.2 SP Crossing. Both Main Tracks. No Interlocking.

Protected by manually-operated gates. When SP engines or cars are using SP track, gates will be across both WP tracks and indicate STOP to movement on WP in either direction. Trains must approach under control and not proceed over this Crossing unless it is known to be clear.

INTERLOCKING PLANTS & RAILROAD CROSSINGS OAKLAND — SALT LAKE CITY (Continued)

SP crews desiring to cross WP main tracks at this point must contact WP train dispatcher for permission prior to making the move.

Before giving permission, WP Dispatcher will protect the move as follows:

1. Place Westward Signal at Clinton at stop and place plug in appropriate jack on block time board.
2. Check on eastward trains or engines with Oakland Yardmaster.
3. Make entry in block time book.

After SP crew has reported movements over WP main tracks complete plug is to be removed, and entry in block time book closed out.

MP 10.6 and MP 10.7 Melrose, SP Crossings. Interlocking. Remote-Controlled.

That part of Rule 663, referring to waiting time, is modified to five minutes instead of ten minutes at this Crossing.

MP 13.7 Elmhurst, SP Crossing. Interlocking.

Automatic. Approach clears for movements on SP. For WP route, WP Train Dispatcher must line the route in order for signal to approach clear.

RULE 509 also applies. That part of Rule 663, referring to waiting time, is modified to five minutes instead of ten minutes at this Crossing.

MP 30.3 Niles Tower, SP Crossing. Interlocking. Towerman on duty.

MP 42.7 and MP 42.97 Radum, SP Crossing. Interlocking. Automatic.

That part of Rule 663, referring to waiting time, is modified to five minutes instead of ten minutes at this Crossing.

In order to avoid delay to trains on opposing route while doing work at Radum, train must be left outside of interlocking plant circuit governed by home signals.

MP 74.05, SP Crossing. Interlocking. Automatic.

While doing work on tracks adjoining this Crossing, train or cars must be left outside of interlocking plant circuit governed by home signals in order to avoid delay to trains on opposing route.

Signals are approach clearing. If train or engine fails to reach home signal within eleven minutes after proceed aspect is displayed, train or engine must expect to find STOP aspect displayed. Secondary clearing circuits extending 500 feet in approach to home signals, must be occupied before signal may again display proceed aspect.

MP 84.45 SP Crossing. Interlocking. Remote-Controlled. Under control SP Train dispatcher.

When interlocking signals display STOP aspect and reason not apparent, contact SP train dispatcher. When westward home interlocking displays STOP aspect, westward trains will stop to clear Lathrop highway crossing.

WP emergency release box located adjacent to crossing must be operated when instructed to do so by SP train dispatcher or when instructed by SP train dispatcher to flag through interlocking. If unable to contact SP train dispatcher and no trains can be seen or heard approaching, operate emergency release and observe rule 663.

When switching is done on main track at West Lathrop or cross-over west end of Army Supply Depot track, SP train dispatcher must be notified by telephone, length of time to be used so signal lineup may be changed if necessary and must also be notified when switching is completed.

MP 90.5 Ortega, Hunter Street Line, SP Crossing. Interlocking. Automatic.

Movements over SP Crossing will be made in accordance with signal indication.

Westward interlocking signal is also absolute signal. **RULE 663** applies.

INTERLOCKING PLANTS & RAILROAD CROSSINGS OAKLAND — SALT LAKE CITY (Continued)

Electric locks on WP main track switch to Hunter Street Line and derail located north side SP Crossing are under control of WP train dispatcher. Both switch and derail are equipped with spring device for trailing movements.

Instructions for handling movements over SP Crossing posted in telephone shelters adjacent to both switch and derail.

MP 93.2 AT&SF Tower, AT&SF Crossing. Interlocking. Towerman on duty.

RULE 509 also applies. Limits of AT&SF Stockton Tower include that portion of main track and siding on the AT&SF to Fresno Street and signal indications will supersede the superiority of trains for both opposing and following movements on the same track. The movement of trains and engines in these limits will be supervised by the Tower who will issue instructions as may be required. The Tower must be advised in advance of any known condition that will delay the train or engine or prevent it from making usual speed.

Speed limit between Stockton Tower and Fresno Street 20 MPH.

Following fixed signals and indications are effective in above specified territory:

Red — Stop and communicate with Tower for instructions.

Flashing Red — Proceed prepared to stop short of train obstruction or switch not properly lined but not exceeding 20 MPH.

Red over Yellow — Same as Flashing Red.

Absolute signal governing movement from Hazelton Avenue Lead may display aspect per Rules 288 or 292 for movement to WP main track at MP 93.2. When aspect per Rule 288 is displayed, proceed to next governing signal.

Signal governing movement from Commerce Street and Fresno Street to AT&SF main track or siding may display aspect per Rules 288 or 292. When aspect per Rule 288 is displayed, this authorizes movement to AT&SF main track and siding.

When aspect per Rule 292 is displayed, crew must contact Tower for instructions.

Last governing signal on AT&SF main track and siding will authorize movement to WP main track. If aspect per Rule 292 is displayed, authority for movement may be obtained through towerman.

Dwarf signals at Center Street govern movement from AT&SF main track and siding to Commerce Street.

Following whistle signals will be observed:

From WP to AT&SF enroute Hazelton Avenue o o o — .
From WP to AT&SF enroute Commerce Street and beyond . . — o .
From AT&SF to WP main track and WP main track either direction — .

MP 93.8 Weber Avenue, SP Crossing. Interlocking. Remote-Controlled.

RULE 509 also applies. That part of Rule 663, referring to waiting time, is modified to five minutes instead of ten minutes at this Crossing.

MP 95.1 El Pinal, SP Crossing. Interlocking. Remote-Controlled. Under control of SP train dispatcher.

When interlocking signals display STOP aspect and reason not apparent, contact SP train dispatcher.

SP dispatchers telephone and WP emergency release box located adjacent to crossing. Emergency release must be operated when instructed to do so by SP train dispatcher or when instructed by SP train dispatcher to flag through interlocking. If unable to contact SP train dispatcher and no trains can be seen or heard approaching, operate emergency release and observe Rules 663.

MP 138.0 "R" Street, SP Crossing. Interlocking. Remote-Controlled.

RULE 509 also applies. Low dwarf absolute signal bearing letter "A" located 80 feet east of "S" Street on west leg of wye governs movement from west leg of wye to main track only and does not apply to movements to California Builders Supply spur. When switch

INTERLOCKING PLANTS & RAILROAD CROSSINGS OAKLAND — SALT LAKE CITY (Continued)

is lined for movement to California Builders Supply spur, this signal will display aspect per Rule 288.

Interlocking Home signals located 75 feet west and 200 feet east of SP Crossing west leg of wye govern movements over SP Crossing only. When these signals display aspect per Rule 288, movement may be made over SP Crossing at yard speed. If aspect per Rule 288 is not displayed, Rule 663 will apply and waiting time modified to three minutes.

Switches leading to California Builders Supply spur and CAL-PAK 15 spur are manually operated. These switches will be lined and locked normally for through movements on west leg of wye. Movements into and out of these spurs can be made without contacting train dispatcher.

Rule 670 is modified at this location to permit reverse movements to be made within interlocking limits provided a portion of switch cut or engine is between interlocking home signals.

That part of Rule 663, referring to waiting time, is modified to three minutes instead of ten minutes at this Crossing.

MP 152.5 Sankey, SN Crossing and Connection.

RULES 509 and 546 apply. Westward absolute signal is a two-unit signal. Upper unit governs movements on WP main track. Lower unit governs movements to SN main track.

MP 180.2 Binney Junction, SP Crossing. Remote-controlled. Under control SP train dispatcher.

When interlocking signals display STOP aspect and reason not apparent, contact SP train dispatcher.

SP dispatchers telephone and WP emergency release box located adjacent to crossing. Emergency release must be operated when instructed to do so by SP train dispatcher or when instructed by SP train dispatcher to flag through interlocking. If unable to contact SP train dispatcher and no trains can be seen or heard approaching, operate emergency release and observe Rules 663.

WEST CARLIN MP 643.4. See Item (F) under Sixth and Seventh Subdivision — Paired Track.

MP 765.9 NN Crossing. Interlocking. Remote-controlled. Rules 509 and 663 apply.

When using dual-control switch west end Shafter siding in hand-throw position, movement must be made in accordance with Rules 545 and 663.

Derail installed in NN connection at clearance point for Shafter siding. Connection switch and derail equipped with electric locks which normally are in release position. If lock fails to release when padlock is removed, follow instructions in phone booth nearby.

MP 927.2 Pollard Jct.

Interlocking.
Grant. Towerman on duty.
WP Rules apply

D&RGW RULE 290.

Aspect	Name.
Red over red over lunar, or red over lunar, or lunar.	Restricting

Indication

Proceed at restricted speed:

- (1) Within ABS to next signal governing in the same direction.
- (2) At interlocking outside ABS through interlocking limits.
- (3) Onto non-signaling track until entire train is through turnout.

D&RGW RULE 508. The absence of a light or white light displayed where a color or lunar light should be, on an ABS, must be regarded as the most restrictive indication that can be given by that signal.

The following signals may display lunar aspect: Signal 66A governs movements entering Roper Yard from north and west; Signal 66B governs movements entering spurs lined to south or eastbound track to Roper Yard; Signal 68B governs movements departing Roper Yard to north and west; Signal 72 governs westbound movements out of Roper Yard on the eastbound running track; Signal 74 governs movements west out of Saucer No. 2.

INTERLOCKING PLANTS & RAILROAD CROSSINGS OAKLAND — SALT LAKE CITY (Continued)

MP 928.6 UP Crossing. Interlocking. Automatic.
WP Rules apply.

SAN JOSE BRANCH

MP 19.6 Valbrick, SP Crossing. No Interlocking. Stop and flag.
MP 20.4 Willow Glenn, SP Crossing, Interlocking.

Home signals 225 feet east and west of Crossing. No approach signals.

All trains must come to STOP at home signals, and a member of crew go to Crossing and carefully follow instructions posted inside of derail lock box at Crossing before proceeding over Crossing.

MP 22.3 West San Jose, SP Crossing. No Interlocking.

Protection by Stop Boards. All trains, engines and cars shall come to a STOP before proceeding across this Crossing and shall not thereafter proceed until it has been ascertained that no trains, engines or cars are approaching from either direction upon the conflicting route within a distance and at a speed which will in any way render them liable to conflict with the movement about to be made over the Crossing.

Southern Pacific Company shall have precedence in the use of the Crossing.

Joint SP-WP Operation South 7th Street, San Jose.

The following will govern operations over crossing of Western Pacific Railroad Company switching lead (19031-007) and WP-SP joint Drill Track (19031-360) at South Seventh Street, San Jose:

1. In the use of this crossing, the locomotives, motors, cars or trains operating on the WP-SP joint Drill Track shall have precedence at all times.
2. Locomotives, motors, cars and trains of the Western Pacific Railroad Company, when operated on the Western Pacific Railroad Company switching lead, shall be brought to a stop when approaching the said crossing at a distance of not less than ten (10) feet or more than fifty (50) feet therefrom before going upon or over the tracks of the WP-SP joint Drill Track.
3. The locomotives, motors, cars and trains of Southern Pacific Company and The Western Pacific Railroad Company, when operating on the WP-SP joint Drill Track, shall be brought to a stop not less than ten (10) feet or more than fifty (50) feet from the said rail crossing before going upon or over the track of The Western Pacific Railroad Company switching lead.
4. In the event that locomotives, motors, cars or trains of either Southern Pacific or The Western Pacific Railroad Company have approached the crossing and made the stop as herein required and any locomotives, motors, cars or trains are approaching on the conflicting route within a distance which will render them in any way liable to conflict with the movement about to be made over the crossing, such movement shall not be made until the locomotives, motors, cars or trains approaching upon the conflicting route have been brought to a stop.

TS — INTERLOCKING PLANTS AND SIGNALS AND RAILROAD CROSSINGS NOT INTERLOCKED

M&ET Crossing 9th and B Streets, Modesto. Trains and engines of M&ET shall be brought to a stop and crew shall ascertain that no conflicting movement is being made or about to be made before fouling this crossing. Trains of TS shall have precedence over movements of M&ET in the event of simultaneous arrival at the crossing.

MP 32.7 — SP Crossing — Remote Controlled.

Remote controlled interlocking signals are located each side of crossing and are under the control of the Southern Pacific Train Dispatcher.

Approach circuits 500 ft. in advance of interlocking signals indicate to the Southern Pacific Train Dispatcher the approach of a Tidewater Southern train.

Approach signals displaying aspect per Rule 285, located 1432 feet east and 890 feet west of home signal. Proceed from approach signals complying with Rule 285 and proceed through crossing upon proper signal indication at home signal. Diesel engine throttle must be placed in off position while locomotive is moving over crossing frog.

If signals fail to indicate proceed after a reasonable time, a member of the train crew must contact the Southern Pacific Train Dispatcher by telephone located at the crossing.

Emergency time release box is located adjacent to the crossing. The box is marked T.S. Ry. and locked with a switch padlock. Instructions for the operation of the emergency release are posted in the box.

The emergency release must only be operated when instructed to do so by the Southern Pacific dispatcher or if conditions are such that the Southern Pacific dispatcher cannot be contacted within ten minutes. The release may be operated only after it has been determined that no trains can be seen or heard approaching on the SP tracks. Rule 663 will govern after the emergency release has been operated.

Any defect in connection with this interlocker must be reported immediately to the Southern Pacific Train Dispatcher that he may notify signal maintainer. SP telephone line circuit switch is located inside the telephone booth above the door.

Operators of motor cars must stop at Southern Pacific crossing and when there is more than one man on the car the crossing will be flagged. Operator must know there are no Southern Pacific trains approaching before going over crossing.

SN — INTERLOCKING PLANTS AND SIGNALS AND RAILROAD CROSSINGS NOT INTERLOCKED

Shell Point. The tracks at the Shell Chemical Company's plant at Shell Point are used jointly by the Sacramento Northern and Southern Pacific. All movements over these tracks must be made with caution. The tracks leading from the Sacramento Northern and from the Southern Pacific cross at grade. All trains, motors, engines or cars of the Sacramento Northern shall stop at the "STOP" signs located at each approach to the crossing, and shall not proceed over the crossing until it has been ascertained that it is safe to do so. Several derails, properly signed, are installed on the various tracks. Cars should not be left blocking SP crossing or foul of SP lead without being protected.

MP 46.24 Pittsburg. A gate has been installed on the Santa Fe track which crosses the Sacramento Northern main track at MP 46.24, Pittsburg. This gate is equipped with a Santa Fe switchlock and a switch lamp is mounted at the top of the mast supporting the gate.

This gate normally shall be locked in position across the line of railroad of The Atchison, Topeka & Santa Fe Railway Co. and all trains, motors, engines and cars of The Atchison, Topeka & Santa Fe Railway Company shall stop before proceeding across said crossing and said gate shall not be unlocked and moved from its normal position until a member of the train crew or other competent employee has gone upon the crossing to ascertain that it is safe to do so. As soon as trains, motors, engines and cars of The Atchison, Topeka & Santa Fe Railway Company have proceeded across said crossing, such gate shall be returned to its normal position.

Trains, motors, engines and cars of Sacramento Northern Railway shall approach said crossing at speeds not in excess of ten (10) miles per hour, prepared to stop in the event such crossing is occupied by trains, motors, engines or cars of

SN — INTERLOCKING PLANTS AND SIGNALS AND RAILROAD CROSSINGS NOT INTERLOCKED — (Continued)

The Atchison, Topeka & Santa Fe Railway Company or in the event such gate is in other than its normal position, and one long blast of the engine whistle shall be sounded by the Sacramento Northern Railway when approaching said crossing in accordance with Rule 14.12.

Distance warning signs located 1000 feet from crossing.

Sacramento Northern industrial lead taking off of the main track approximately ¼ miles west of Pittsburg crosses industrial lead track of A.T.&S.F. Ry., at grade.

All engines, motors, cars or trains approaching the crossing shall come to a stop not less than ten (10) nor more than fifty (50) feet from nearest rail of the crossing and shall not proceed thereafter until receiving an appropriate signal from a flagman or other qualified employee. Such signal shall not be given until it has been definitely ascertained that no engines, motors, cars or trains are approaching from either direction on the conflicting route under conditions which will render it possible for an interference to occur with the movement about to be made over the crossing.

The A.T. & S.F. Ry. have precedence in the use of the crossing.

A.T. & S.F. Ry. crossing east of Harbor Street, MP 47.39, Pittsburg, is protected by stop boards. All engines, trains, motors and cars must come to a stop at the "STOP" boards located on either side of the crossing and no movement made over this crossing until a flagman has preceded over the crossing and ascertained that it is safe to proceed. A.T. & S.F. Ry. have the preference at this crossing.

A.T. & S.F. Crossing MP 48.06 Pittsburg. At a point 360 feet east from the curb line of Columbia St., MP 48.06, Pittsburg, a rail crossing at grade over the Atchison, Topeka & Santa Fe Railway lead track is installed. The following instructions will govern in operating over this crossing.

All trains, motors, engines and cars of the Sacramento Northern Railway, the Atchison, Topeka & Santa Fe Railway, and U.S. Steel Company shall come to a stop not less than ten feet (10') nor more than fifty feet (50') from the nearest rail of the crossing, and shall not proceed thereafter until a member of the train crew or other competent employee has gone upon the crossing and has ascertained that it is safe so to do and shall have given a suitable signal to proceed. In event the trains, motors, engines and cars of either railroad have approached the crossing and made the stop, as herein-before required, and any trains, motors, engines and cars are approaching upon the conflicting route within a distance which will render them in any way liable to conflict with the movement over the crossing about to be made, such movement shall not be made until the trains, motors, engines and cars approaching upon the conflicting route have been brought to a stop.

HOLLAND BRANCH, BASCULE BRIDGE, INTERLOCKING:

Basculer type drawbridge at MP 90.66 west end of Westgate, Sacramento Yard. This is a combination rail and highway bridge. Normal position of lift span is closed and locked for train movements and vehicular traffic.

Automatic interlocking governs movements on the bridge:

Two indication color light interlocking home signals displaying red and green aspects located 522 feet west of the bridge and 524 feet east of the bridge. **APPROACH LIGHTED.**

Approach signal for eastward movements displaying yellow aspect only per Rule 285, located 1551 feet west of the eastward home signal. This signal is approach lighted at a point 562 feet west of the signal. No approach signal for westward movements.

Approach circuits extend 2635 feet west and 1201 feet east of bridge.

All movements approaching and passing over the bridge will be made at yard speed, not exceeding ten (10) MPH.

If automatic interlocking home signal does not display a proceed indication, train or engine must be brought to a stop. Before passing home signal at Stop, the following regulations must be observed:

(1) Member of the crew will inform the Lockmaster or his Assistant that signal is at Stop and movement will be made under flag protection. (Applies only when Lockmaster or his Assistant is on duty).

SN — INTERLOCKING PLANTS AND SIGNALS AND RAILROAD CROSSINGS NOT INTERLOCKED — (Continued)

(2). A member of the crew will examine the rail locks at the west end of the lift span of the bridge to determine that the locks are in normal position with the bridge in proper surface and alignment for rail movement.

(3) Unless Lockmaster or his Assistant informs the crew that bridge is about to be raised, train or engine may proceed with caution on signal of member of crew acting as flagman.

Release mechanism adjacent to signal relay case at east end of the bridge and rail locks at west end of the lift span MUST NOT be operated by trainmen or enginemen.

WOODLAND BRANCH. MP 1.55 MIKON, SP CROSSING INTERLOCKING. AUTOMATIC.

Home signals located 500 feet east and west of crossing.

Inoperative fixed yellow signal arms located 2,000 feet from home signals.

Speed of trains shall not exceed fifteen (15) MPH between approach signals and home signals.

All trains, engines and cars must be brought to a stop before passing home signals at Southern Pacific crossing at Mikon and wait sixty (60) seconds before proceeding.

CLOCKWORK TIME RELEASE: When trains are stopped by signals governing the use of automatic interlocking, flagman must be sent to crossing to operate clockwork time release located in box at the crossing locked with switch lock.

Release must not be operated when trains are within interlocking limits as defined by interlocking home signals, or seen or heard approaching on intersecting tracks.

Instructions for operating time release are posted in time release box at crossing and are as follows:

1. Rotate time release handle (clockwise) as far as possible, and hold in that position for approximately three seconds; then release handle.

2. After time interval of 4'30" red light in time release box should be displayed; indicating time release has completed timing function.

3. If home signal does not indicate proceed, and red indicator light in time release box is displayed, train may proceed over crossing, complying with Rule 663.2d. Note-Red indicator light at Mikon Crossing in lieu of "yellow" indicator light referred to in Rule 663.2d.

4. If home signal does not display proceed indication and red indicator light in time release box is not displayed after time release has completed movement; train may proceed across crossing, complying with Rule 663.2e.

MP 109.17, SANKEY, WP CROSSING AND CONNECTION.

Sacramento Northern:

Eastward — Inoperative distant semaphore signal located 3385 feet west of absolute signal.

Absolute Signal is a two-unit signal. Upper unit governs movements to WP main track. Lower unit governs movements on SN to Sankey.

Westward — Absolute Signal governs movements to SN Rio Linda Branch.

Western Pacific:

Westward — Absolute Signal is a two-unit signal. Upper unit governs movements on WP main track. Lower unit governs movements to SN Rio Linda Branch.

Dual control switches provide entrance to and crossing over WP main track. Instructions for operating Dual Control switches by hand are posted in telephone booth adjacent to the crossing.

Speed on approach curves and through turnouts of Dual Control switches shall not exceed 10 miles per hour.

When train or engine is stopped by Absolute Signal displaying STOP indication, a member of the crew must contact WP Train Dispatcher. Rules 509 and 546 apply.

SN — INTERLOCKING PLANTS AND SIGNALS AND RAILROAD CROSSINGS NOT INTERLOCKED (Continued)

SP Crossing MP 137.08 Yuba City. Stop and flag crossing unless proceed signal is received from flagman at the crossing.

YUBA CITY, MP 137.5.

The "B" lead, track 99, crosses the main track at grade on the east side of Bridge and Plumas Streets. Movements on "B" lead, track 99, will have priority in use of the crossing and trains and yard engines on the main track will approach the crossing prepared to stop if the crossing is occupied or a conflicting movement is approaching the crossing on the intersecting track.

SP Crossing MP 182.02 Stirling Jct. Stop. Proceed if crossing clear and there are no movements approaching on SP.

HOT BOX DETECTORS

RULE 302. AUTOMATIC HOT BOX DETECTOR

Automatic Hot Box Detector is in service at MP 556.90.
Hot Box Indicator is located on Signal 5596.
"Wait" Indicator is located on Signal 5550.
Hot Box Locator is located at Red House.

Hot Box Indicator will normally display a flashing "H" until approaching train has been checked. If no hot journal has been found, indication will change to steady "H".

Flashing "H" indication will not change if a hot journal has been found and the train must stop at Red House.

The automatic locator at Red House will indicate the location of the hot box in the train in accordance with posted instructions.

"Wait" indicator on Signal 5550 will normally display a steady "W".

If train ahead has a hot journal, Signal 5550 will indicate aspect per Rule 291 and a flashing "W".

If flashing "W" continues after train has stopped, communicate with train dispatcher for further instructions. If unable to communicate with train dispatcher, train may, after waiting five minutes, pass flashing "W" and be governed by Rule 291.

An indicator lamp is mounted on the Hot Box Detector house. If head end of train finds the indicator lamp displaying a steady light, Hot Box Detector is in service. If indicator lamp is out, Hot Box Detector is out of service. If rear of train finds the indicator lamp displaying a flashing light, a hot box has been found.

RULE 302. HOT BOX DETECTORS ARE IN SERVICE AT THE FOLLOWING LOCATIONS:

MP 358.34 between Red Rock and Doyle
Westbound "H" indicator located MP 355.3
Eastbound "H" indicator located MP 360.2
Westbound trains stop Red Rock, s/o Pozla MP 349.1
Eastbound trains stop at East Doyle

MP 387.1 between Flanigan and Sand Pass
Westbound "H" indicator located MP 385.3
Eastbound "H" indicator located MP 390.5
Westbound WP trains stop at West Flanigan
Westbound SP trains stop at SP connection Flanigan MP 384.4

Eastbound trains stop at East Sand Pass
MP 434.25 between Phil and Gerlach
Westbound "H" indicator located MP 431.92
Eastbound "H" indicator located MP 436.93
Westbound trains stop at West Phil
Eastbound trains stop at East Gerlach

MP 475 between Ronda and Floka
Westbound "H" indicator located MP 472.5
Eastbound "H" indicator located MP 477.5
Westbound trains stop at West Ronda
Eastbound trains stop at East Floka

MP 503.8 between Jungo and Gaskell
Westbound "H" indicator located MP 501.1
Eastbound "H" indicator located MP 507
Westbound trains stop at West Jungo
Eastbound trains stop at East Gaskell

MP 585.80 between Ellison and North Battle Mountain
"H" indicator located on Signal 5880. Trains stop at East Rennox

MP 615.4 between Dunphy and Beowawe
"H" indicator located MP 617.6. Trains stop at East Beowawe

MP 693.5 between Elburz and Deeth
"H" indicator located MP 697.2. Trains stop at West Deeth

MP 733 between Ruby and Ventosa
Westbound "H" indicator located MP 730.14
Eastbound "H" indicator located MP 735.4
Westbound trains stop at West Ruby
Eastbound trains stop at East Ventosa

HOT BOX DETECTORS Continued

MP 783.3 between Clifside and Pilot
Westbound "H" indicator located MP 781.5 (East Clifside)
Eastbound "H" indicator located MP 785.5
Westbound trains stop at West Clifside
Eastbound trains stop at East Pilot

MP 830 between Arinosa and Barro
Westbound "H" indicator located MP 827.7
Eastbound "H" indicator located MP 832.2
Westbound trains stop at West Arinosa
Eastbound trains stop at East Barro

MP 860.4 between Clive and Low
Westbound "H" indicator located MP 856.4
Eastbound "H" indicator located MP 864
Westbound trains stop at West Clive
Eastbound trains stop at East Low

MP 893.7 between Delle and Burmester
Westbound "H" indicator located MP 891.3
Eastbound "H" indicator located MP 895.8
Westbound trains stop at West Switch Timpie

Phone at signal 8901 is to be used by westward trains when "H" indicator is flashing and radio communication is not available.

Eastbound trains stop at East Burmester.

Hot Box indicator will normally display a flashing "H" until approaching train has been checked. If no hot journal is found, the indicator will change to a steady "H".

If "H" indicator is still flashing when passed, a hot journal has been found. Train will reduce speed to 15 MPH and prepare to stop at inspection point shown. In addition, member of crew on engine will call train dispatcher to ascertain if hot box graph shows any extremely high deflections. If so, train should, if practicable, stop short of initial switch of siding where inspection is to take place. If train dispatcher observes any high deflections on hot box graph, he should initiate call to the head end of train involved without waiting to receive a call.

Train crew will communicate with train dispatcher for location of hot journal. He will advise the side of the train noted, the car count ahead of caboose or behind the engine and the axle number from the head end of the car. The crew must check the car shown, also the car ahead and the car behind that car. It will not be necessary to inspect the entire train with the following exception:

When multiple alarms are seen on the graph, this condition can be caused by heavy braking of the train while passing the detector account sparks generated by the brake shoes, and also by abnormal operation of the carrier system. It is easily possible for a genuine hot box to be missed under these conditions and the train must therefore be inspected.

A light out in the "H" indicator must be regarded as a flashing "H".

When a train is stopped by a hot box detector, and if member of crew is unable to contact train dispatcher, entire train must be inspected. When inspection has been completed, Hot Box indication will have been complied with and no further attempt to communicate with train dispatcher concerning hot box indication need be made.

If power is "off" in hot box detector territory, or if Hot Box Detector is temporarily out of service, train dispatcher may instruct crew members to disregard flashing "H." Keeping a close watch for hot journals.

PUBLIC GRADE CROSSINGS

General. When stopping or stopped near a highway or street crossing equipped with crossing gates, movement must not be made into such crossing until crossing gates are in down position.

San Francisco

Ninth and Division Sts. X-ing 4L-0.3. Stop and flag.

Seventeenth and De Haro Sts. X-ing 4L-0.7. Stop and flag.

Third St. at 25th St. X-ing 4L-1.7C. City traffic signals are connected with WP track circuits. Rail movements will be governed by traffic signals which will display a green "X" as proceed indication. It will not be necessary to flag crossing when traffic signals are lined.

Green "X" for movement over Third St. will be displayed in next regular sequence after initiation. This may require one minute to elapse between initiation and display of green "X."

PUBLIC GRADE CROSSINGS, SAN FRANCISCO, Continued

For movements from yard toward 9th and Brannan Sts., operation of traffic signals will be initiated by occupancy of track circuit between Santa Fe 25th St. lead and Third St.

For movements toward yard, operation of traffic signals will be initiated upon display of proceed indication on interlocking home signal located 25 feet west of Third St.

Engine or cars must not be left standing within track circuit extending 118 feet west of interlocking home signal 25 feet west of west curb line of Third St. unless interlocking home signal displays "Stop" and button has not been pushed.

Engines or cars must not be left standing within track circuit extending between Santa Fe 25th St. lead and Third St.

Third and Army Sts., X-ing 4L-2.3C. City traffic signals are connected with WP track circuits. Rail movements will be governed by traffic signals which will display a green "X" as proceed indication. It will not be necessary to flag crossing when traffic signals are lined.

Occupancy of track circuit extending 50 feet west and 50 feet east of Third St. will initiate signal for rail movements. Movement should not be made into this track circuit unless movement is to continue onto or across Third St.

Signal will be displayed for rail movement in the next regular sequence following occupancy of track circuit. This may require one minute to elapse after occupancy of track circuit before display of proceed indication.

Engines or cars must not be left standing within 50 feet of curbs of Third St.

Pennsylvania Ave. and Army St. X-ing 4L-2.6C and 4L-2.58C. Amber light on top of signal case adjacent to crossing operates in conjunction with the flashing light signals.

When the amber light displays a steady aspect it indicates that engine or cars are in the track circuit that controls the flashing light signals. When the amber light displays a flashing aspect it indicates that the crossing protection has been in operation for the required twenty seconds.

Stop clear of crossing within signal circuit. Proceed over crossing on flashing aspect in accordance with traffic conditions.

In event amber light is inoperative, stop clear of crossing for twenty seconds and then flag across the crossing.

McKinnon Ave. X-ing 4L-3.28C. Stop and flag.

Loomis and Industrial Sts., X-ing 4L-3.70C. Stop and flag.

Illinois at Marin St. Stop and flag.

Oakland

El Dorado Road X-ing 4-5.4. All trains and engines must see that flashers are operating before occupying crossing.

Key Pipe and Supply Co. spur, Fifth St., Seventh & Union Sts. Control of vehicular traffic signals at Seventh and Union Sts. is initiated by operation of push button instrument case located on the opposite side of track from Union Street. Crew members of engine desiring to move from Fifth St. to Key Pipe and Supply must operate push button when engine is ready to depart from Fifth St. Flashing light signals at Fifth and Union Sts. will start when control of vehicular traffic signals has been initiated. This may require forty-five seconds between operation of push button and starting of flashing light signals. Twenty seconds after flashing light signals start, a lunar white marker will be illuminated authorizing movement to proceed. A second lunar white marker is installed on the line-pole under the freeway underpass. If these markers are not illuminated, engine must approach the intersection of Seventh and Union Sts. prepared to stop in accordance with vehicular traffic signal indication.

Broadway St. X-ing 4-6-6. Crossing must not be blocked. Movements governed by vehicular traffic signals. Trains and engines must approach expecting to find signals at stop. Movement may proceed on green traffic signal without stopping. Lunar white light is located on near right-hand traffic light mast. When lighted, it indicates track circuit control is effective. Eastward trains and engines, if stopped or delayed between Washington and Broadway Sts., and Westward trains and engines, if stopped or delayed between Webster and Broadway Sts., in excess of one minute and find traffic signals displaying red, must stop within ten (10) feet of curb line of Broadway St. and wait for green traffic signal. Should traffic signal fail to display green and lunar white marker is not lighted, flag protection over crossing must be provided. Occupancy of intersection by a train or engine will cause signals governing vehicular traffic to display red. When traffic signals are not lighted, flag protection over crossing must be provided. After having crossed Broadway St., trains or engines must clear the circuits as soon as possible.

PUBLIC GRADE CROSSINGS, OAKLAND, Continued

Alice St. (Spur only) X-ing 4-6.85. Stop and flag.

San Leandro Blvd., Drill 2, X-ing 4-10.90C. Engines moving on Drill 2 at San Leandro Blvd. be governed by the following: When amber light on top of instrument case is illuminated it indicates track circuit has been actuated. When it flashes, it indicates that the flashing light signals have been in operation for twenty (20) or more seconds, and movement may proceed in accordance with traffic conditions. If amber light is inoperative, stop clear of crossing for twenty seconds and flag across.

Seminary Ave., X-ing 4-11.3 and 66th Ave. X-ing 4-11.6. Must be cut if blocked more than five minutes.

77th Ave. and WP-SP Drill Track, X-ing. Drill track approach circuits to automatic gates extend 400 feet west and 350 feet east of the crossing. Occupancy of the approaches for more than one minute without entering crossing will permit gates to raise. Flashing white indicator light on mast north side of drill track indicates gates are down. Crossing must not be entered until flashing white light is displayed. If flashing light not displayed and gates not down, crossing must be flagged.

San Leandro Blvd. Mont Ward Spur and Gerber Spur. Movements must be brought to full stop. If flashing light signals are not operating, crossing must be flagged by a member of the crew.

Estudillo

139th Ave. (Spur) X-ing 4-16.18C. Stop and flag.

Hayward

"A" and "B" Sts. X-ings 4.20.2 and 4-20.3. Trains doing switching will leave train outside of track circuits operating crossing bells at "A" and "B" Sts. and will use whistle and bell only when necessary to avoid accident. Westward trains or engines departing runaround track do not exceed 3 MPH and make certain crossing gates are down before entering "B" St.

Carpenter

Whipple Rd. X-ing 4-25.6. Whipple Rd. must not be blocked while setting out, picking up or switching except while actually making a necessary move over the crossing.

Carpenter Industrial Park

Zephyr St. X-ing 4-26.54C. Stop and flag. Place minimum of two fuses on each side of crossing prior to entering.

Zephyr St., X-ing 4-26.93C. Same as above.

Huntwood Ave. X-ing 4-26.42C. Same as above.

San Luis Obispo Ave. X-ing 4-27.35C. Stop and flag.

(Michelin Tire Spur)

Whipple Rd. X-ing 4-26.03C. Stop and flag.

(Drill from Davis Wire)

Union City Industrial Park

Pacific St. X-ing 4-26.92C. (U.S. Cold Stge) Stop and flag. Place minimum of two fuses on each side of crossing prior to entering.

Atlantic St. X-ing 4-26.13C (Rylock) Stop and flag.

Ayala Spur

Private Crossing for Banta-Carbona Irrigation District located 440 feet from the main line switch. This crossing is not to be blocked at any time. Phone booth just east of this crossing and when required to get permission to re-enter the main track, trains will stop clear of this crossing until a through move to the main line can be made without blocking this crossing.

Stockton (Belt Line)

Washington St. X-ing 4-94.25C and Lincoln St. X-ing 4-94.45C Amber lights on signal cases adjacent to Washington and Lincoln Sts. When lighted, indicates track circuit controlling crossing signals is occupied. When flashing, they indicate that crossing protection has been in operation for the required twenty seconds. Stop movement before entering crossing and after amber light shows steady light.

PUBLIC GRADE CROSSINGS, Continued

When amber light flashes, movement may be made across crossing in accordance with traffic conditions. About twenty seconds occupancy of track circuit as evidenced by steady amber light is required before flashing aspect of amber light will be displayed. If amber lights inoperative, crossing must be flagged.

Sacramento

Fifth and R Sts. X-ing 4-139.15C Amber colored lights on top of signal case on north side of Fifth St. operate in conjunction with flashing light traffic signals on Fifth St. Steady aspect of amber light indicates track circuit is occupied and flashing aspect indicates that traffic signals have been operative the required twenty seconds. Movement must be stopped after entry has been made into the track circuit as evidenced by steady amber light, before entering crossing. Movement may proceed in accordance with traffic conditions when flashing amber light is displayed. If amber lights inoperative, crossing must be flagged.

Oroville Yard, Adelaide Spur

Approach circuits for the flashing light signals protecting the Louisiana Pacific Crossing No. 4-203.9c on the Adelaide Spur have been shortened to 440 feet either side of crossing. All movements approaching this crossing must not exceed 10 MPH.

San Jose Branch

Milpitas

Landess Ave. X-ing 4G-12.3 Stop and flag. Applies to switching operations only on any of the three tracks.

San Jose

Alma Ave. X-ing 4G-19.81C (SP Interchange Tracks) (Tracks Nos. 181 and 182, SP Nos. 325 and 223.) Amber lights that operate in conjunction with traffic signals are located on the west side of Alma Ave. crossing adjacent to WP-SP interchange tracks. They govern eastward movements only. Steady aspect indicates track circuit occupied and flashing aspect indicates traffic signals have been actuated about ten seconds. Stop within the circuit as indicated by steady amber light. Proceed over crossing when amber light flashes in accordance with traffic conditions. If amber lights are inoperative, stop and flag crossing. Cars must not be left within 100 feet of Alma Ave.

Fifth and Keyes X-ing 4G-20.1C Amber lights that operate in conjunction with flashing light traffic signals installed on signal case adjacent to crossing. Steady aspect indicates track circuit occupied and flashing aspect indicates traffic signals have been actuated for about 20 seconds. Stop clear of crossing within the circuit as indicated by steady amber light. When light becomes flashing, proceed over the crossing in accordance with traffic conditions. Should lights fail to operate, stop clear of crossing for twenty seconds and then flag the crossing.

Lincoln Ave. X-ing 4G-22.1C Spur 481 to Contadina. See instructions for Fifth and Keyes and be governed by those instructions.

Seventh St. X-ing 4G-20.18C Almaden Wine Spur 399. Stop and flag.

Tracy Branch

McArthur Rd. X-ing 4C-0.5 Stop and flag.

Loyalton Branch

Loyalton Hwy 49 X-ing 4-E-12.4 Stop and flag.

Reno Branch

North Reno, Bender Spur Parr Blvd. MP 28.2. It must be determined that crossing gates are down before entering crossing. Approach circuits on spur track extend about 30 feet from edge of crossing. If gates do not lower, crossing must be protected by flagman.

Reno

Sierra Pacific Spur, Valley Road, MP 30.7. Approach crossing at not to exceed 10 MPH. Approach circuits for crossing signals extend approximately 400 feet either side of crossing.

Surprise Valley Rd Crossing MP 31.5 On all tracks except main track, stop within signals circuit and do not enter until signals working unless crossing is being flagged.

PUBLIC GRADE CROSSINGS, Continued

6th St. Crossing protected by flashing lights and bell. Approach crossing carefully.

4th St. Protected by flashing lights and crossing bells. Approach crossing carefully.

Crossings east and west of Nevada Transportation Co. warehouse Stop and flag.

Tidewater Southern

City ordinances require trains and yard engines within 100 feet of an intersection to stop immediately on the approach of any police, ambulance or fire apparatus sounding siren or signal gong, except they may be at the time on, or crossing an intersection, in which event crossing must be cleared and then stop. Civil, military or funeral processions must not be obstructed.

Simms, Franzia Spur, X-ing 75-12.45C Amber light on top of signal case adjacent to crossing operates in conjunction with flashing light signals. When displaying a steady aspect, it indicates engine or cars are within the circuit controlling the flashing light signals. When displaying a flashing aspect, it indicates that crossing protection has been in operation for the required twenty seconds and movement may proceed over crossing in accordance with traffic conditions. In the event flashing light signals are inoperative, crossing must be flagged.

Alba, Winery Spur, X-ing 75-15.4C Rte 120 Stop and flag.

Modesto North Yard.

Tully Rd. X-ing 75-28.8C Stop and flag.

Coldwell Ave. X-ing 75-29.21C Stop and flag.

Modesto

9th St. All movement on 9th Street will be governed by traffic signal indication except at 9th and B Streets where traffic lights are synchronized with track circuit and when trains enter circuit lights go red on both 9th and B Streets to stop vehicular traffic and allow trains to proceed through intersection. Trains must not stand in circuit but should proceed so as to reduce delay to vehicular traffic to a minimum.

Traffic signals on Ninth St. will be set to flash amber for Ninth St. and red for cross street during off-peak periods as follows:

Ninth at G, H, I, J, K and L — 1 a.m. to 6 a.m.

Ninth and B — 11 p.m. to 6 a.m.

At Ninth and P Streets traffic signals are synchronized with track circuits. Trains and engines will not foul the intersection until signals governing movement through intersection display flashing red. Signal timing circuits are so arranged that flashing red will not be displayed until after the end of a normal green period for 9th St. traffic.

During the hours of darkness, or when visibility of motorists is impaired by weather conditions, the head brakeman on trains entering or leaving Modesto yard at 9th and E. Sts. must drop a lighted fuse to the pavement as near to the center of the intersection as possible.

"D" St. X-ing 75-30.0. Amber light on top of signal case adjacent to crossing operates in conjunction with flashing light signals. When displaying a steady aspect, it indicates engine or cars are within the circuit controlling the flashing light signals. When displaying a flashing aspect, it indicates that crossing protection has been in operation for the required twenty seconds and movement may proceed over crossing in accordance with traffic conditions. In the event flashing light signals are inoperative, crossing must be flagged.

Turlock, Broadway X-ing 75C-6.05 Stop and flag.

Manteca

Hwy 120, X-ing 75B-4.8 Stop and flag.

Moffat Blvd., X-ing 75B-5.1C (Spur) Stop and flag.

Spreckels Rd., X-ing 75B-6.3 Stop and flag.

Moffat Blvd., X-ing 75B-6.4 Stop and flag.

PUBLIC GRADE CROSSINGS, SACRAMENTO NORTHERN

Sacramento Northern

City Ordinances require all trains and yard engines within one hundred feet of an intersection to stop immediately on the approach of any police, ambulance, or fire apparatus sounding siren or signal. If occupying intersection when such emergency vehicles approach, clear crossing and then stop.

Civil, Military or Funeral processions must not be obstructed.

Pt. Chgo

Main St., X-ing 8-39.2 Stop and flag.

Pittsburg

All Street Crossings not otherwise restricted 10 MPH.

PG&E X-ing, MP46.25 Sound whistle signal 14.11. 5 MPH while engine passes over crossing.

Harbor Blvd. X-ing 8N2.6 Stop and flag.

Loveridge Rd., East Pittsburg, just east of MP 48.6. Must not be blocked between 430PM and 445PM.

Montezuma Branch

Gum Grove Hwy X-ing 8-53.9 Stop and flag.

Dozier Branch

Northgate Rd. X-ing 8F6.4 Stop and flag.

Holland Branch

Linden Rd. X-ing 8-89.7 Stop and flag.

Davis Rd. X-ing 8-88.5 Stop and flag.

Jefferson Blvd. MP 10.4, X-ing 8J-9.9 Stop and flag.

Woodland Branch

Harbor Blvd. X-ing 8B-2.1 Stop within 100 feet of crossing and proceed when gates are down. If gates fail to lower, flag crossing.

Kiesel Hwy, X-ing 8B-8.0 Slow to 15 MPH until engine enters crossing.

Westside

Rice Mill Lead and River Spur over all highway crossings. Trains and engines approaching highway crossings on the Rice Mill Lead and River Spur at MP 92.35, Westside, Sacramento yard, will allow not less than twenty (20) seconds to elapse from time flashing light crossing signals start operation before engines or cars enter the highway traffic lanes. Indicators are installed on the crossing signal masts which govern movements in the Westward direction only and operate in conjunction with the highway crossing signals.

When train or engine occupies approach circuit, indicators will, after a lapse of twenty (20) seconds, display a flashing yellow aspect indicating that the crossing signals are operating and train or engine may proceed.

If the flashing light indicators fail to operate, allow not less than twenty (20) seconds to elapse before entering the highway crossing.

If crossing signals fail to operate, flag the crossing.

Sacramento

19th & Q Sts. Stop and flag.

Swanston Line

DelPaso Blvd. X-ing 8E-0.5 Flashing red indicators in service. When indicators are flashing, traffic signals are preempted and trains or engines may proceed across street. If indicators display steady red, alarm at Fire Station has been activated, and crossing must be kept clear. If indicators do not display flashing red after a reasonable length of time and no fire engines are in the immediate vicinity, trains or engines may flag across the street.

Do not exceed five MPH while leading portion of movement is in crossing.

Marysville

All street crossings Stop and flag.

Yuba City

Bridge and Shasta Sts. X-ing 8-137.2 Traffic signal preemption equipment is in

PUBLIC GRADE CROSSINGS, SACRAMENTO NORTHERN, Continued

service at intersection of Bridge and Shasta Streets. Track circuits extend approximately 150 feet each side of crossing. When train or engine occupies the track circuit, traffic signals will be pre-empted and will, after a pre-determined time, change to flashing red indication. When traffic signals display a flashing red indication, and it is safe to do so, train or engine may proceed over the crossing.

Bridge and Plumas Sts. X-ing 8-137.3 Traffic signal pre-emption equipment is in service at intersection of Bridge and Plumas Streets. Track circuits connected to the traffic signals extend approximately 30 feet each side of the crossing on main and "B" lead tracks, except that on main track east of crossing, track circuits extend approximately 50 feet east of Bridge Street and are so arranged when a train or engine occupies the circuit, traffic signals will be pre-empted and will, after a predetermined time, change to flashing red indication. When traffic signals display flashing red indication, and it is safe to do so, train or engine may proceed over the crossing. When switching or through movements are to be made on the main track affecting vehicular traffic on Bridge Street, wait for the traffic signals to display flashing red indication before proceeding into the vehicular traffic lanes on Bridge Street.

Cooper Ave. X-ing 8-137.7 Two cantilever type flashing signals in service. Trains or engines approaching crossing on main track must observe that amber light installed on top of signal instrument case adjacent to the crossing which operates in conjunction with the automatic crossing signals is flashing before entering crossing. If the amber light is not flashing, stop and flag the crossing.

Movements over the crossing on other than the main track will be governed as follows:

(1) Stop clear of crossing. When the amber light displays a steady aspect, it indicates that engine or cars are in the track circuit that controls the flashing light signals. When the amber light displays a flashing aspect, it indicates that the crossing protection has been in operation for the required twenty seconds.

(2) Wait until steady aspect of amber light changes to a flashing aspect (after about 20 seconds).

(3) Proceed over crossing on flashing aspect in accordance with traffic conditions.

(4) In the event the amber light is inoperative, stop clear of the crossing for twenty seconds and then flag across.

Yuba City and Paloro

Clark Ave. X-ing 8-137.8, Gray Ave. X-ing 8-138.1, Gomez Rd X-ing 8-138.4, State Hwy X-ing 8-138.8 The following applies at each of the four crossings: Amber lights which operate in conjunction with the automatic crossing signals are located on top of signal instrument cases adjacent to the crossings. Trains and engines approaching these crossings must observe that amber light is flashing before entering the crossing. If the amber light is not flashing, stop and flag the crossing.

Durham to Chico

Oroville-Durham Rd. X-ing 8-177.5 Stop and flag.

County Rd SP X-ing C-178.2 SN trains entering or leaving SP main track at junction switch, stop clear of road crossing. Do not block the road crossing with standing train as it may obscure view of the wigwag signal for vehicles approaching from the south.

Sarona Hwy X-ing 8-180.1 Slow to 15 MPH until engine enters crossing.

Chico

All city streets Trains and engines must use caution where movements are made against current of vehicular traffic and must stop if necessary before crossing traffic lanes.

A lighted fusee must be placed at the rear of all eastward movements on city streets. Engines so equipped will display oscillating or revolving lights for all movements within Chico yard limits. In addition, a lighted fusee will be displayed on leading end of engine when moving on city streets.

21st and Fair Sts. X-ing 8-183.31C Flashing lights in service.

The signal for southbound vehicular traffic is a standard No. 8 flashing light

PUBLIC GRADE CROSSINGS, SACRAMENTO NORTHERN, Continued

and for northbound traffic is a cantilever type No. 8 signal. The approach circuit for eastward movements located 213 feet west of the crossing is near the frog of the house track switch, marked by a white stripe on the pavement. An indicator located on the cantilever signal mast will display a steady white aspect when crossing signals begin to operate. After the expiration of twenty five (25) seconds the aspect will change to flashing white. Eastward trains and engines are prohibited from entering the intersection until flashing white aspect is displayed.

The approach circuit for westward movements is located at Laurel Street, 440 feet east of the crossing. Speed of trains and engines must not exceed ten (10) MPH between Laurel Street and the crossing to allow crossing signals to operate twenty five (25) seconds in advance of movement entering the crossing.

Do not leave cars or engines within signal circuit limits except on leaving movement after signals have cut-off. Before making reverse movement, comply fully with above regulations.

If crossing signals fail to operate, crossing must be flagged.

Park Ave. X-ing 8-183.51-C (spur) Stop and flag.

Main St. Trains, cuts of cars, or single cars or locomotives shall not be permitted to stop or stand on any track located on Main St., except to do so for vehicular traffic, traffic signals, or in the event of emergencies such as derailments or mechanical failure.

Trains and engine movements are prohibited on Main Street, Chico, between the hours of 7:00 a.m. and 7:00 p.m.

Freight trains are limited to engine and 20 cars on Main Street, Chico.

Main St. and Park Ave. between First St. and Humboldt St. and 12th, 14th and 16th Sts. Track circuits connected to traffic signals are installed on Main Street and Park Avenue, Chico. Traffic signals are located at each of the intersections between First Street and Humboldt Street (just west of 9th St.) and at the intersections of 12th, 14th and 16th Streets.

The track circuits extend approximately 40 feet on each side of the intersections and are so arranged that when an engine or train occupies the circuit, traffic signals are preempted and signals governing movements on Main Street and Park Avenue will display a flashing yellow aspect and those governing movements on the intersecting streets will display a flashing red aspect. The flashing aspects will continue until the rear of the train clears the track circuit at the intersection.

Movements on Main Street and Park Avenue will proceed without stopping when the flashing yellow aspect is displayed.

Pearson Branch

Pearson Highway Crossing X-ing 8L-130.9 All trains, engines and cars must come to a stop and no movement made over the crossing until a member of the train crew, or other competent employee, acting as flagman, has protected the traffic on the highway. After stopping, and when traffic on the highway permits, and it is safe to proceed, the employee acting as a flagman shall display a lighted fusee, day or night until front end of engine or car passes over the crossing.

Tarke Branch

Township Rd. X-ing 8C-1.6 Stop and flag.

Acacia Rd. X-ing 8C-5.1 Stop and flag.

RAILROAD SURGEONS

Location	Name	Title
San Francisco	Dr. R. B. Green	Chief Surgeon
San Francisco	Dr. Ruth Fleming	Local Surgeon
San Francisco	Dr. R. H. Bacon	Local Surgeon
San Francisco	Dr. L. A. Simpson	Orthopedist
San Francisco	Dr. L. D. Bryson	Local Surgeon
San Francisco	Dr. W. J. Ferguson	Oculist
San Francisco	Dr. W. Casey	Oculist
Oakland	Dr. J. P. Evans (Medical Only)	Local Surgeon
Oakland	Dr. C. F. Burton (On Duty Injuries Only)	Local Surgeon
Oakland	Dr. R. F. Westerfield	Local Surgeon
Oakland	Dr. John Chokatos	Local Surgeon
Oakland	Dr. Bruce H. O'Neil	Local Surgeon
Oakland	Dr. Joseph R. Carlisle	Oculist
Hayward	Dr. H. C. Crockett	Local Surgeon
Hayward	Dr. R. C. Crockett	Local Surgeon
Hayward	Dr. B. Fisher	Local Surgeon
Hayward	Dr. C. L. Ritchey	Oculist
Fremont	Dr. C. Addario	Local Surgeon
Fremont	Dr. J. D. Furnary	Oculist
San Jose	Dr. R. A. Larocca	Local Surgeon
San Jose	Dr. W. A. Johnson	Local Surgeon
San Jose	Dr. J. Condie	Local Surgeon
San Jose	Dr. P. D. Anders	Ophthalmologist
San Jose	Dr. R. C. Rayfield	Oculist
Tracy	Eaton Avenue Medical Group	Local Surgeon
Modesto	Husband Medical Group	Local Surgeon
Modesto	Dr. J. M. Carlson	Local Surgeon
Modesto	Dr. D. R. Hansen	Local Surgeon
Modesto	Dr. J. L. Stanton	Local Surgeon
Modesto	Gould Medical Group	Local Surgeons
Turlock	Dr. E. H. Johnson	Local Surgeon
Manteca	Dr. R. P. Carter	Local Surgeon
Stockton	Dr. E. G. Hermosillo	Local Surgeon
Stockton	Dr. V. S. Solis	Local Surgeon
Stockton	Dr. O. R. Vannucci	Local Surgeon
Stockton	Dr. J. D. Wilson	Local Surgeon
Stockton	Delta Orthopedic Medical Group	Orthopedists
Stockton	Dr. L. Boettger	Local Surgeon
Stockton	Dr. J. H. Holmes	Local Surgeon
Stockton	Dr. L. P. Sanders	Local Surgeon
Stockton	Dr. W. H. Plageman	Oculist
Stockton	Dr. H. J. Zeiter	Oculist
Stockton	Dr. H. E. Hand	Oculist
Lodi	Dr. W. G. Fessler	Local Surgeon
Lodi	Dr. K. H. Mullen	Local Surgeon
Lodi	Dr. S. W. Leiske	Local Surgeon
Lodi	Dr. J. D. Fessler	Local Surgeon
Sacramento	Dr. B. A. Daley	Local Surgeon
Sacramento	Dr. R. M. Zinky	Local Surgeon
Sacramento	Dr. J. W. Swingle	Local Surgeon
Sacramento	Dr. J. A. Berg	Oculist
Sacramento	Dr. R. L. Alexander	Oculist
Sacramento	Dr. J. J. Fisher	Oculist
Sacramento	Dr. A. Calkin (Medical Only)	Local Surgeon
Sacramento	Dr. D. O. Kilroy (Medical Only)	Local Surgeon
Sacramento	Dr. M. D. Schermer	Oculist
Marysville	Dr. L. D. Bugni	Local Surgeon
Oroville	Dr. J. W. Patrick	Local Surgeon
Oroville	Dr. E. S. Fortner, Jr.	Local Surgeon
Oroville	Dr. W. H. Bunstock	Local Surgeon
Oroville	Dr. J. Floyd	Local Surgeon
Oroville	Dr. N. F. Brooks	Oculist
Oroville	Dr. K. L. Wedin	Oculist
Quincy	Dr. M. L. Whitney	Local Surgeon
Quincy	Dr. S. L. Christenson	Local Surgeon
Quincy	Dr. L. A. Price	Local Surgeon
Quincy	Dr. S. M. Gonzalez	Local Surgeon
Greenville	Dr. B. Scherr	Local Surgeon
Westwood	Dr. H. S. Budhram	Local Surgeon
Fall River Mills	Dr. N. E. Wilson	Local Surgeon
Portola	Dr. C. W. Brown	Division Surgeon
Portola	Dr. G. Hesselschwerdt	Local Surgeon
Portola	Dr. L. J. Dura	Local Surgeon
Reno	Dr. D. E. Guisto	Local Surgeon
Reno	Dr. K. F. Maclean	Local Surgeon
Reno	Dr. W. M. Tappan	Local Surgeon
Reno	Dr. R. P. Schultz	Local Surgeon
Reno	Dr. G. F. Magee	Oculist
Reno	Dr. Grant Anderson	Local Surgeon
Winnemucca	Dr. K. L. Hartoch	Local Surgeon
Winnemucca	Dr. A. T. Brown	Local Surgeon
Elko	Elko Clinic	Local Surgeons
Elko	Dr. W. Fritsche	Oculist
Wendover	Wendover Clinic	Local Surgeons
Tooele	Tooele Clinic	Local Surgeons
Salt Lake City	Dr. H. B. Harmon	Local Surgeon
Salt Lake City	Dr. S. A. Lawson	Local Surgeon
Salt Lake City	Dr. K. P. Kotrady	Local Surgeon
Salt Lake City	Dr. J. H. Quinn	Oculist
Salt Lake City	Dr. B. J. Fairbanks	Oculist

Additional specialists at most locations. Contact Chief Surgeon.

WATCH INSPECTORS

Location	Name	Title
Oakland	Alphin Jewelers	Watch Inspector
Oakland	Leslies Jewelry	Watch Inspector
San Jose	Frank Scholes	Watch Inspector
Stockton	W. K. Bank & Son	Watch Inspector
Modesto	W. P. Shoemaker's	Watch Inspector
Fremont	Easley Jewelry	Watch Inspector
Sacramento	Grebitus & Son	Watch Inspector
Roseville	Martin's Jewelers	Watch Inspector
Oroville	Warren's Jewelry	Watch Inspector
Quincy	Rollo Jewelers	Watch Inspector
Winnemucca	Dan Ramasco	Watch Inspector
Elko	Blohm Jewelers	Watch Inspector
Salt Lake City	H. B. Miller Co.	Watch Inspector
Salt Lake City	Burrell Jewelry	Watch Inspector

AUTHORIZED WATCHES

Refer to Western Pacific Operating Rule 2. The following wrist watches are authorized as "railroad grade."

Ball "Official Railroad Standard"

Ball "Automatic Trainmaster" model

Bulova "Accutron — Railroad approved" model including Quartz and Calendar models

Bulova Quartz Ladies "Railroad approved" model Style No. 92278.

Citizens Quartz model M-8-017070

Elgin "B.W. Raymond" model

Hamilton Electric "Railroad Special" which were in service prior to Oct. 9, 1969 may remain in service until they do not meet with required inspection.

Longines model "T-905" Railroad watch

Longines "Ultra-Chron" Railroad watch

Pulsar "Railroad approved" models JG038 and JG041

Seiko Quartz "Railroad approved" model including calendar

Seiko Ladies Quartz model UX015M

Wylar Incaflex Dynawind R.R. approved model

Wylar Incaflex Stemwind R.R. approved model

Wylar Dyna Quartz R.R. approved model

AVOID DAMAGE—SWITCH CUSTOMERS' CARS CAREFULLY

OVERSPEED Couplings are DAMAGING—Here's what happens:

4 miles per hour <input type="checkbox"/>	SAFE COUPLING SPEED
5 miles per hour <input type="checkbox"/>	Damage begins
6 miles per hour <input type="checkbox"/>	2 1/4 times as damaging as 4 MPH
7 miles per hour <input type="checkbox"/>	3 times as damaging as 4 MPH
8 miles per hour <input type="checkbox"/>	4 times as damaging as 4 MPH
9 miles per hour <input type="checkbox"/>	5 times as damaging as 4 MPH
10 miles per hour <input type="checkbox"/>	6 times as damaging as 4 MPH

Damage to freight or car can be avoided by always keeping coupling speed within the safe range — **NOT OVER 4 MILES PER HOUR—A BRISK WALK.**

**HANDLE FREIGHT CAREFULLY AND
KEEP OUR CUSTOMERS!**

RETAINING VALVES ALL SUBDIVISIONS

RULE 1137 (T). Use of retaining valves.

When locomotive will control speed of train and total brake pipe reduction does not exceed 18 pounds, or if dynamic brake becomes inoperative and total brake pipe reduction does not exceed 18 pounds, the use of retainers will not be required.

Between the following points, if total brake pipe reduction exceeds 18 pounds, stop must be made immediately, required number of retainers set to control train and brake system fully charged before proceeding.

WESTWARD

MABIE to Oroville Yard — One retainer for each 250 Tons in train. (Ruling Grade 1%)

MPK-52 to Westwood — One retainer for each 220 Tons in train. (Ruling Grade 1.5%)

ALMANOR to Greenville — One retainer for each 150 Tons in train. (Ruling Grade 2.2%)

EASTWARD

HALLS FLAT to Little Valley — One retainer for each 200 Tons in train. (Ruling Grade 1.8%)

SILVER ZONE to Wendover — One retainer for each 250 Tons in train. (Ruling Grade 1%)

When it is known before reaching any of the above locations that the use of retainers will be necessary, stop must be made and required number of retainers set before leaving the initially named points.

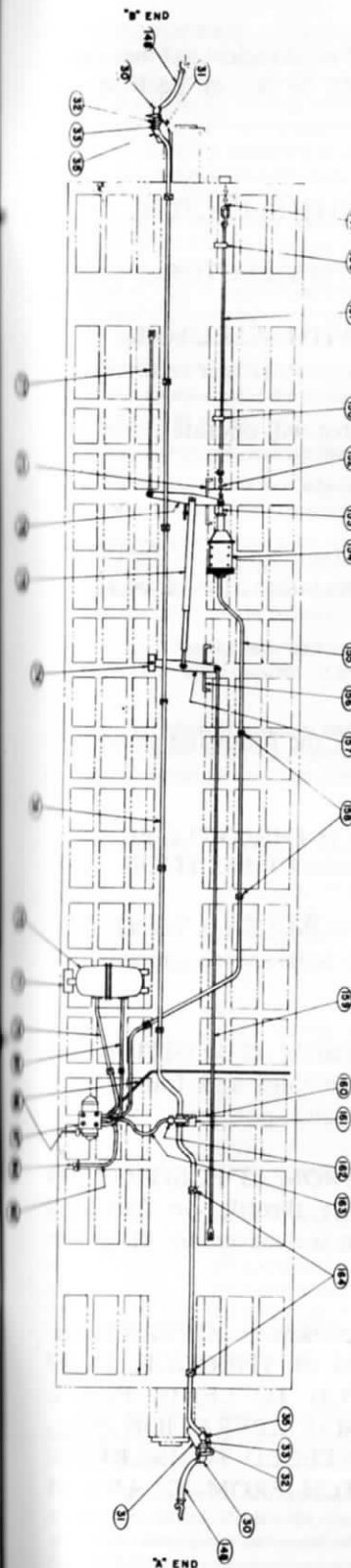
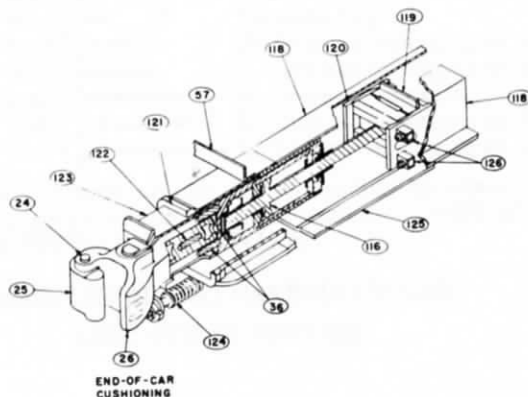
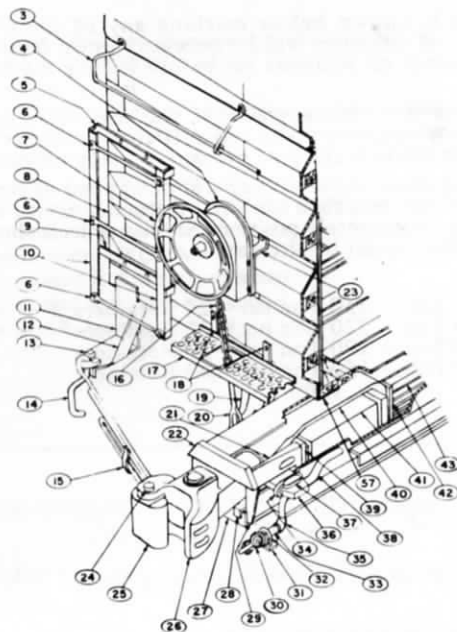
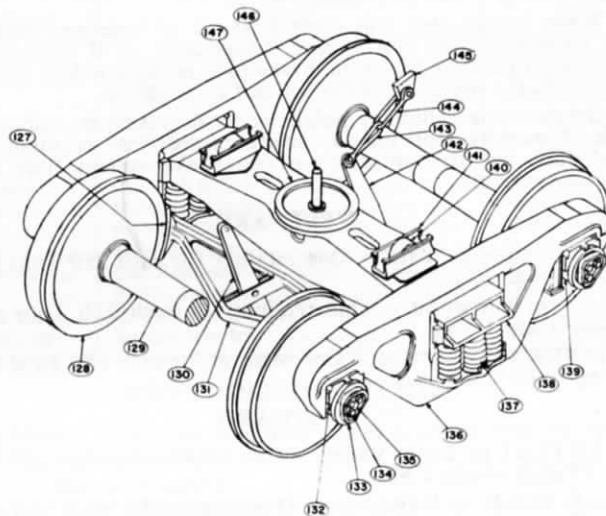
On other descending grades if the use of retainers becomes necessary, stop must be made and sufficient retainers set to control speed of train while brake pipe pressure is being restored.

When retainers are used they will be applied to cars on head end in a block of not less than ten cars. Retainers are to be used in the low pressure (horizontal) position. Should wheels show a tendency to heat, retainers must be alternated.

Formulae

1 % = 6000 Ton — 250 Ton per = 24 Retainers
1.5% = 6000 Ton — 220 Ton per = 27 Retainers
1.8% = 6000 Ton — 200 Ton per = 30 Retainers
2.2% = 6000 Ton — 150 Ton per = 40 Retainers
vs. 100%

CAR CHART



3. Horizontal end handhold
4. Hand brake housing
5. End Ladder support-top
6. End ladder tread
7. Hand brake wheel
8. Steel end-bottom
9. End ladder support-bottom
11. Uncoupling lever bracket
12. Uncoupling lever bracket support
13. Uncoupling lever support
14. Telescoping uncoupling rod
15. Uncoupling lever guide
16. Hand brake chain
17. End platform (combined crossover and brake stop)
18. End platform support
19. Bell crank
20. Vertical hand brake rod
21. Front draft gear stop
22. Striker
23. Hand brake housing support
24. Coupler knuckle pin
25. Coupler knuckle
26. Type E coupler head
27. Coupler carrier
28. Coupler wear plate
29. Striker flange
30. Angle cock
31. Angle cock support
32. Angle cock "U" bolt
33. Nipple
34. Draft key washer
35. 45° elbow
36. Draft key
37. Draft key retainer
38. Brake pipe 1 1/4" (Train line)
39. Follower block
40. Coupler yoke
41. Draft gear
42. Rear draft gear stop
43. Rear draft gear stop reinforcement
116. Hydraulic piston
118. Center sill
119. Back stop plate
120. Rear lug casting
121. Striker casting
122. Coupler key
123. Cushioning unit
124. Restoring mechanism
125. Inspection plate
126. Rear cross key
127. Brake shoe
128. Wheel
129. Axle
130. Truck live lever
131. Brake beam
132. Roller bearing adapter
133. Roller bearing end cap
134. End cap retaining bolt
135. End cap locking plate
136. Truck slide frame
137. Truck spring
138. Truck bolster
139. Roller bearing assembly
140. Truck side bearing roller
141. Truck side bearing housing
142. Truck dead lever
143. Clevis at dead lever
144. Clevis at dead lever fulcrum
145. Dead lever anchor-underframe mounted
146. Center pin
147. Truck center plate cast integral with truck bolster
148. Air hose
149. Hand brake chain at bell crank
150. Hand brake rod guide
151. Hand brake rod
152. Hand brake chain at cylinder
153. Cylinder push rod
154. Air brake cylinder
155. Cylinder pipe, 3/4"
156. Floating lever guide
157. Floating lever
158. Pipe clamp, 3/4"
159. Top rod "A" end
160. Branch pipe tee
161. Branch pipe tee support
162. Combined dirt collector and cut-out cock
163. Connection hose
164. Pipe clamp, 1-1/2"
165. Retainer pipe
166. Retainer valve
167. ABD Control valve
168. Release rod
169. Auxiliary reservoir pipe, 3/4"
170. Emergency reservoir pipe, 3/4"
171. Reservoir support
172. Combined auxiliary and emergency reservoir
173. Cylinder lever guide
174. Brake lever fulcrum
175. Brake slack adjuster
176. Cylinder lever
177. Top rod "B" end

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FUEL SAVER OPERATION

STEP 1

All set up switches mounted on panel of electrical cabinet near battery charging AMP Meter should be set in position as follows:

- A — LEAD UNIT — Lead
- B — SECOND UNIT EQUIPPED WITH SELECTOR SWITCH — #2
- C — THIRD UNIT EQUIPPED WITH SELECTOR SWITCH — #3
- D — FOURTH UNIT EQUIPPED WITH SELECTOR SWITCH — #3

Units not equipped with selector switch will operate normally.

STEP 2

Control switches located on control stand consist of fuel saver switch and rotary switch. Normal operation should be set in normal, rotary switch in lead.

STEP 3

When tractive effort exceeds demand, the following should be performed:

- A — PLACE FUEL SAVER SWITCH THROTTLE #1 DYNAMIC BRK NORMAL — IN UP POSITION
- B — MOVE ROTARY SWITCH FROM LEAD TO #2. This will reduce throttle on second unit only equipped with fuel saver to #1 power position
- C — MOVE ROTARY SWITCH FROM #2 POSITION TO #3. This will reduce throttle on third and fourth units equipped with fuel saver to #1 power position
- D — MOVE ROTARY SWITCH FROM #3 POSITION TO #2 AND #3. This will reduce throttle on 2nd, 3rd and 4th units equipped with fuel saver to #1 power position

TO RETURN ALL UNITS TO NORMAL OPERATION, HAVE THROTTLE IN POSITION #1 THROUGH #4, #7 OR #8. PLACE ROTARY SWITCH TO LEAD. PLACE FUEL SAVER SWITCH IN NORMAL OPERATION POSITION. IF ONLY ONE UNIT IS NEEDED TO INCREASE POWER, MOVE ROTARY SWITCH FROM #2 AND #3 TO #3, ETC.

IF UNITS STOP, THROTTLE WAS IN #5 OR #6 POSITION AND UNITS WILL HAVE TO BE RESTARTED.

EMERGENCY ACTION GUIDE FOR HAZARDOUS MATERIALS INCIDENTS

INTRODUCTION—This guide is intended for ready reference by personnel making on-the-scene decisions as to emergency actions to be taken for incidents involving hazardous materials in transportation. Hazardous materials in transportation are classified by their individual hazard characteristics, and are identified by "Hazard Class" on shipping papers or waybills, by labels on containers, and by placards applied to rail cars or trailers. Personnel at the scene of an incident should follow the procedures in the guide if possible; however, it must be realized that on-the-scene judgement based on actual circumstances involved, at the time, is the final guide in protecting lives and environment. These procedures should be followed whenever an emergency, such as a fire, collision, derailment, rupture of containers, leaks, or spills occurs involving hazardous material. These actions are directed at handling an immediate emergency, and **do not** spell out all the potential hazards of the materials involved, nor all of the actions which can be taken; expert advice and assistance should be obtained and followed as rapidly as possible.

EMERGENCY ACTION—The following actions are to be taken as rapidly as possible by personnel at the scene of an emergency involving hazardous materials—if it is safe to do so:

1. **Rescue injured**, remove them to a safe area and administer first aid.
2. **Survey the scene and adjacent area, determine conditions and notify**, by quickest means available, appropriate authority.
3. **Protect life and property**. This phase may require evacuation of people from the area, fire fighting, removal of cars or containers and contents. **The course of action to be taken depends on conditions and the hazardous materials involved.** Steps to be taken are as follows:

a. **Identify cars/trailers** containing hazardous materials (all placarded cars) involved in the incident, or in the immediate area, and **determine their condition**.

b. **Identify contents and "Hazard Class"** of all cars or containers involved from the shipping papers or waybills. The 2-letter 'Consist Key' on the computer consist (Haz--) identifies the Hazard Class and the placard.

CONSIST KEY	HAZARD CLASS	PLACARD
OX	NON-FLAMMABLE GAS	OXYGEN
OP	ORGANIC PEROXIDE	ORGANIC PEROXIDE
PA	POISON A	POISON GAS
PB	POISON B	POISON
CH	NON-FLAMMABLE GAS	CHLORINE
CB	COMBUSTIBLE LIQUID	COMBUSTIBLE
CM	CORROSIVE MATERIAL	CORROSIVE
IM	IRRITATING MATERIAL	DANGEROUS
RA	RADIOACTIVE MATERIAL	RADIOACTIVE
ML	MIXED LOAD	DANGEROUS
BA	BLASTING AGENTS	BLASTING AGENTS
XA	EXPLOSIVES A	EXPLOSIVES A
XB	EXPLOSIVES B	EXPLOSIVES B
XC	EXPLOSIVES C	DANGEROUS
NG	NON-FLAMMABLE GAS	NON-FLAMMABLE GAS
FG	FLAMMABLE GAS	FLAMMABLE GAS
FL	FLAMMABLE LIQUID	FLAMMABLE
FS	FLAMMABLE SOLID	FLAMMABLE SOLID
FW	FLAMMABLE SOLID	FLAMMABLE SOLID
OM	DANGEROUS WHEN WET OXIDIZING MATERIAL	FLAMMABLE SOLID W OXIDIZER

c. **Notify dispatcher** or appropriate authority as soon as possible of **contents** of cars or containers involved in the incident, and their **condition**—fuming, leaking, burning, etc.

d. **Refer** to the appropriate block on the guide for the hazardous materials involved. Review the characteristics of the hazard class of the material, and **advise emergency personnel of the hazards and recommended emergency actions to follow**. If emergency personnel are not available, follow recommended action to save lives and to protect the environment. **Take actions** as directed by appropriate authority or officer in charge.

EMERGENCY ACTION GUIDE, Continued

MAJOR HAZARDS

1. If materials marked "EXP" (Explosive) on the guide are involved in a fire, all persons should be evacuated for a distance of **1 mile** from the scene.
2. If materials marked "VRP" (Violent Rupture Potential) on the guide are involved in a fire, all persons should be evacuated for a distance of **1/2 mile** from the scene.
3. If materials marked "TOX" (Toxic) on the guide are involved and leaking, fuming or venting, all persons should be kept out of the area, and contact with material, fumes or smoke avoided.
4. If any hazardous materials are burning, or their container or car is involved in a fire, all persons should be kept out of the area, and contact with fumes or smoke avoided.

PREVENTION OF FURTHER INJURY OR PROPERTY DAMAGE-This phase involves limiting the spread of materials, damming, ditching, wetting down, covering with earth, etc. When advice and assistance are available, full cooperation with state and local officials, emergency personnel from the Bureau of Explosives, shippers, etc., is essential. These persons can assist in maintaining order, evacuating the area, handling materials, administering first aid, etc. **This guide should be reviewed frequently** so that those who may be in a position to use it are familiar with its contents.



HAZXA

EXPLOSIVES "A" (EXP) are capable of exploding or detonating in mass when involved in fire or subjected to strong impacts or shocks. When involved in fires, all persons should be evacuated for a distance of **one mile**. When not on fire, they should be protected from being struck, crushed, exposed to fire, or contact with corrosive materials. Examples of Class A Explosives: High Explosives; Explosive Bombs; Initiating Explosives; Black Powder.



HAZXB

EXPLOSIVES "B" (VRP) are capable of burning rapidly, and causing sudden, violent rupture of cars or containers when involved in fires. When they are involved in fire, all persons should be evacuated for a distance of **1/2 mile**. When not on fire, they should be protected from being struck, crushed, exposed to fire or contact with corrosive materials. Examples of Class B Explosives: Railway Torpedoes; Special Fireworks.



HAZXC

EXPLOSIVES "C" are fire hazards. Placards are applied only to cars, trailers or freight containers carrying packages bearing the "EXPLOSIVES C" label. If material is involved in a fire, extinguish from a safe distance. When not on fire, the material should be protected from sparks and other sources of ignition. Examples of Class C Explosives: Common Fireworks; Small Arms Ammunition.



HAZFG

FLAMMABLE GASES (VRP) are usually ignited immediately when punctures or serious leaks occur. If not, the gas is easily ignited, and will result in rapid combustion of the entire cloud; ignitable atmospheres may extend well beyond any visible cloud. Fires from leaks in containers that cannot be shut off should be allowed to burn. Tanks containing flammable gases that are exposed to intense fire and flame impingement are likely to rupture violently, involving the immediate area in a large fire ball. When compressed gas tank cars are involved in fires or exposed to flame impingement, all persons should be evacuated for **1/2 mile** from the scene. When compressed gas cylinders are involved in fires, personnel should remain several hundred yards away. These materials may be toxic or irritating, and contact with liquefied gases will produce serious frost bite. Examples of Flammable Gases: Liquefied Petroleum Gas, Propane, Butadiene, Inhibited; Vinyl Chloride (See also "Cryogenics" below).



HAZNG

NONFLAMMABLE GASES (VRP) can cause suffocation of persons entering the gas cloud when leaks occur. Tanks containing nonflammable gases can rupture when exposed to intense fire conditions, and persons should be evacuated for **1/2 mile** from the scene. These materials may be toxic or irritating, and contact with liquefied gases will produce serious frost bite. Examples of Nonflammable Gases: Anhydrous Ammonia; Refrigerant Gases; Sulfur Dioxide, Carbon Dioxide, Liquefied (See also "Cryogenics" below).



HAZPA

POISONS "A" (**TOX**) are extremely toxic materials, and very small quantities can cause rapid illness or death. These materials, when spilled or vented, must be avoided by all persons, except protected specialists. Evacuate personnel from the immediate area, and if a gas is leaking evacuate all persons downwind as far as necessary to avoid contact with the material. If spilled material enters streams, community authorities and persons down-stream must be notified immediately. Examples of Poisons A: Hydrocyanic Acid; Phosgene; Phosphine



HAZPB

POISONS "B" are moderately toxic materials, and can cause illness or death if persons remain in contact with them or inhale or ingest them in moderate quantities. These materials, when spilled or vented, must be avoided by all persons, except protected specialists. Evacuate personnel from the immediate area to avoid contact. If possible, confine spread or flow of material to the immediate area. If spilled material enters streams, community authorities and persons downstream must be notified immediately. Examples of Poisons B: Aniline Oil; Carbolic Acid; Motor Fuel Antiknock Compound; Organic Phosphate Compound Mixtures



HAZCH

CHLORINE (**TOX**) is a nonflammable gas with highly toxic properties; material itself will not burn; however, it will support combustion. Leakage of the material should be treated the same as "POISONS A".



HAZFL

FLAMMABLE LIQUIDS (**VRP**, if polymerizeable material, see below) are materials which when spilled give off flammable vapors that will ignite on contact with an open flame, spark or hot metal surface. Their vapors are usually heavier than air and will flow into low areas, ditches or ravines. Vapors, when ignited, burn rapidly spreading flame back to the source of the spill. Contact with corrosive materials can cause ignition and should be prevented. Personnel should evacuate areas of vapor concentration and avoid contact with the material. Action should be taken to keep ignition sources out of the area of vapor concentrations; smoking, engines, and other ignition sources must be prohibited in the area of spills. Examples of Flammable Liquids: Gasoline; Acetone; Toluene; Methyl Ethyl Ketone.

Polymerizeable materials (**VRP**), indicated by "inhibited" or "uninhibited" in the commodity name, are subject to violent rupture when exposed to fire conditions. When such materials are involved in fires, persons should be evacuated for a distance of $\frac{1}{2}$ mile from the scene. Examples of polymerizeable Flammable Liquids: Methyl Methacrylate Monomer, Inhibited or Uninhibited; Vinyl Fluoride, Inhibited; Ethylene Imine, Inhibited.



HAZCB

COMBUSTIBLE LIQUIDS are materials which are less dangerous than flammable liquids due to their higher flash points; however, leaks, spills and fires should be treated in the same manner as flammable liquids. Examples of Combustible Liquids: Fuel Oil; certain Naphthas and Petroleum Distillates.



HAZBA

BLASTING AGENTS (**VRP**) are materials designed for blasting which will burn vigorously and if a rail car is on fire, it could explode. If car is not on fire, material should be protected from source of ignition such as flares, smoking or any burning material. If car is on fire evacuate to 2500 ft. ($\frac{1}{2}$ mile). Do not attempt to put out fire; let fire burn.



HAZFS

FLAMMABLE SOLIDS are materials that can cause fires by self-ignition or spontaneous combustion if exposed to proper conditions, such as becoming wet, being exposed to air, being crushed, or coming in contact with corrosive materials or outside heat sources. They are easily ignited and burn readily. They should be isolated from other hazardous materials. (NOTE—The "Flammable" placard may be used in place of the "Flammable Solid" placard.) Examples of Flammable Solids: Railway Fusees; Phosphorus, White or Yellow, Dry or In Water.



HAZFW

FLAMMABLE SOLID W are materials which are strongly reactive with water. If these materials themselves are involved in a fire, **the use of water must be avoided**. Individual packages of these materials will bear the "Dangerous When Wet" label. Examples of Flammable Solids (Dangerous When Wet): Calcium Carbide; Potassium Metal; Phosphorus Pentasulfide.



HAZOX

OXYGEN (PRESSURIZED LIQUID) (**VRP**) in contact with fuels, oils and other combustible materials can cause violent, rapid combustion or explosion. Sources of ignition, sparks, impacts, friction or sudden shocks should be prevented in areas exposed to liquid oxygen spills or leakages.

Cryogenics are extremely low temperature (about -150 degrees F. and below) gaseous materials transported in a liquid state. When leaks occur, a fog or mist is caused due to the freezing or the moisture in the air. If a container is breached, the material may warm, expand and rupture the container. If liquid leaks occur and contact is made with adjacent metal containers, they will become brittle, crack and release their contents. Persons and sources of ignition should be kept out of the gas cloud area. Cryogenics may or may not be placarded, depending on the pressure within the container or tank car. When placarded, leakage should be treated the same as a Flammable Gas or Non-flammable Gas, depending on the hazard class. Examples of Cryogenics: Nitrogen, Pressurized Liquid; Hydrogen, Liquefied; Ethylene, Liquefied.



HAZOM

OXIDIZING MATERIALS are materials which readily yield oxygen to greatly stimulate the burning of fuels. If mixed with fuels and ignited, rapid combustion will result. If spilled, they should be kept from coming in contact with flammable or combustible materials. Examples of Oxidizing Materials: Ammonium Nitrates; Hydrogen Peroxide Solutions; Chromic Acid, Solid; Nitric Acid (over 40% concentration).



HAZCM

CORROSIVE MATERIALS (Acid and Caustics) are materials, either liquid or solid, which upon contact with other materials, such as flammables, oxidizers or explosives, etc., may produce violent reactions or fires. Spills of these materials may liberate large volumes of fumes that may be toxic, and can cause eye, skin and respiratory injury. Personnel should evacuate areas of fumes and avoid contact with the materials. Most of these materials will generate heat when contacted with water, and may erupt violently endangering nearby persons. Spills should be confined, if possible, to prevent mixing with other materials of the contamination of streams and property. Persons coming in contact with corrosive materials should wash with water for at least 15 minutes, remove contaminated clothing and obtain medical attention. Examples of Corrosive Materials: Sulfuric Acid; Nitric Acid (Concentrations of 40% or less); Caustic Soda, Liquid or Dry; Hydrochloric Acid; Acetic Acid.



HAZRA

RADIOACTIVE MATERIALS are materials which emit various degrees of radiation that consists of energy such as gamma rays or x-rays. These emissions cannot be felt or detected without proper instruments. When these materials are involved in accidents severe enough that they may be spilled or leak from their containers, all personnel should evacuate the immediate area for several hundred yards until the area is surveyed by specialists. When the material, or its containers, are involved in fire, all persons should be evacuated from the smoke cloud areas and downwind a distance beyond the visible smoke cloud. Danger of exposure must be assumed until the area is surveyed by properly equipped specialists. There are three groups of radioactive materials, designated as "One", "Two" and "Three". Group "Three" materials are the most hazardous and consequently are specifically packaged to prevent spills. Examples of Radioactive Materials: Radioactive Material, Fissile; Uranyl Nitrate, Solid.



HAZOP

ORGANIC PEROXIDES (VRP) are materials which contain an excess of oxygen. In addition to the normal oxidizing material hazard, when heated or subjected to strong shocks Organic Peroxides can decompose rapidly with explosive force. If these materials are involved in fires, persons should be evacuated for a distance of $\frac{1}{2}$ mile from the scene. Examples of Organic Peroxides: Peroxy Acid Solution; Benzoyl Peroxide.



HAZML

IRRITATING MATERIALS are less dangerous materials which upon exposure to air or heat give off dangerous and intensely irritating fumes which cause temporary irritation and discomfort to persons coming in contact with them. Irritating materials should be kept away from fires and avoided by personnel. Examples of Irritating Materials: Tear Gas Grenades or Candles.

DANGEROUS placards may also be applied to motor vehicles or rail cars containing two or more classes of hazardous materials; except Class A and Class B Explosives, Poisons A, Flammable Solid W, and Radioactive Materials which require separate placards for each hazard class. A rail car utilized TOFC or COFC service containing less than 1,000 pounds (aggregate gross weight) of hazardous materials, other than those mentioned above, need not be placarded.

HAZARDOUS MATERIALS received from Canadian railroads may carry placards marked "DANGEROUS" applying to the various following commodities: Explosives B, flammable liquid, flammable solid, oxidizer, corrosive liquid, flammable gas, flammable gas, poison B, organic peroxide, combustible, chlorine and oxygen, pressurized liquid. Each "DANGEROUS" placard should have commodity written on placard.

HOW TO USE THIS CHART:

- To determine where a placarded car can be placed in a train follow these steps:
- Determine the type of placard that is applied to the car. From Line 1.
- Determine the type of car to which the placard is applied. From Line 2.
- Follow vertically down the chart and note which lines apply.
- The symbol "X" indicates wording at the side that applies. See footnotes for explanation.

**POSITION IN TRAIN OF
PLACARDED CARS
CONTAINING HAZARDOUS
MATERIALS**

* Applied vertically down the chart and note which lines apply.
 * The symbol " " indicates wording at the side that applies
 See footnotes for explanation.

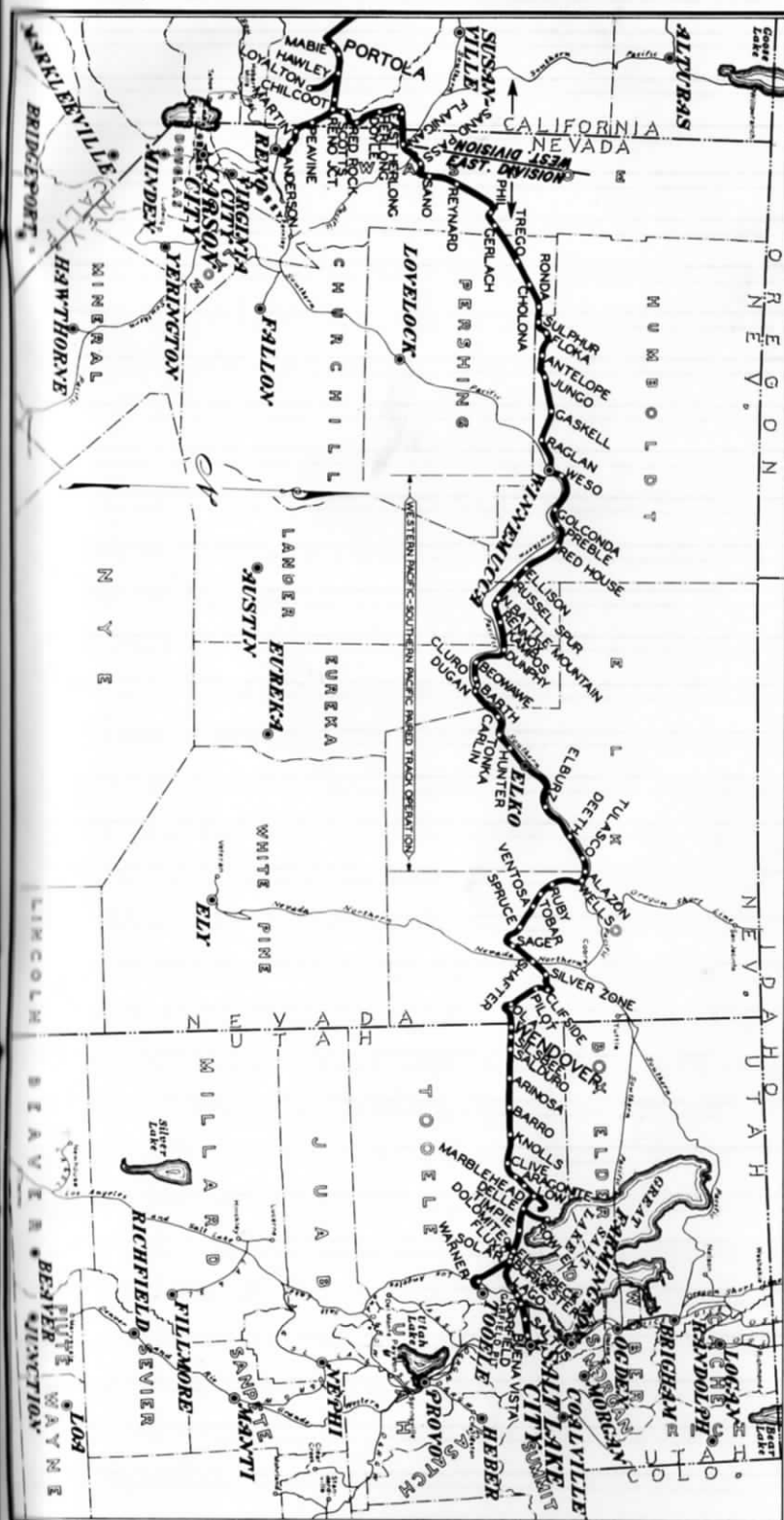
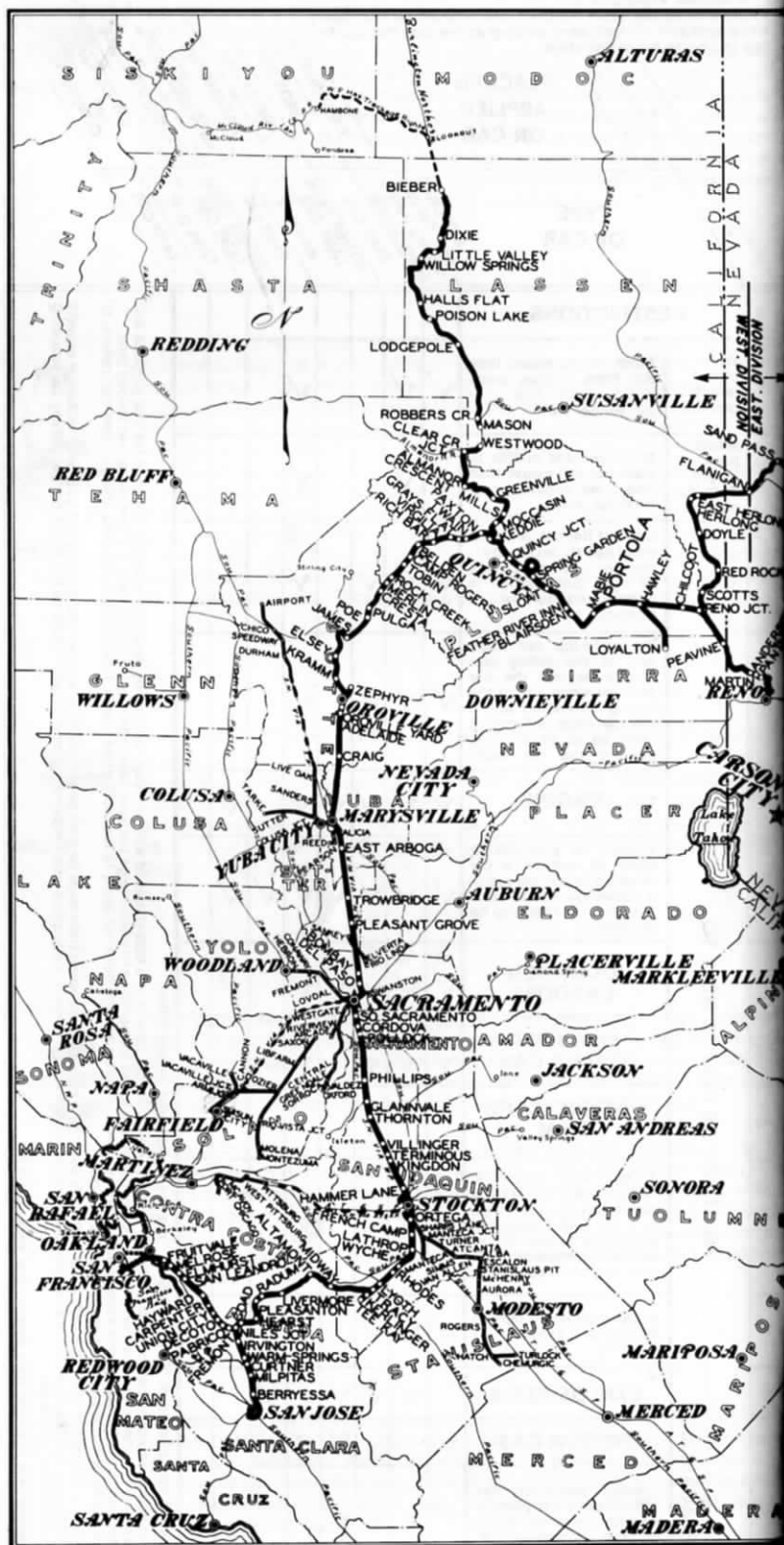
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MUST NOT BE PLACED NEXT TO

CAR PLACARDED

- Loaded cars placarded "EXPLOSIVES A" may be placed next to each other.
- A specially equipped car in trailer-on-flatcar or container-on-flatcar service or a flatcar loaded with vehicles secured by means of a device designed for that purpose and permanently installed on the flatcar, and of a type generally accepted for handling in interchange between railroads may be placed next to these placarded loaded tank cars subject to the following: this exception for cars in trailer-on-flatcar service does not apply to loaded flatbed trucks, loaded flatbed trailers, loaded open-top trailers, or loaded trucks or trailers without securely closed doors.
- A rail car placarded "EXPLOSIVES A" or "POISON GAS" in a moving or standing train must be next to and ahead of any car occupied by the guards or technical escorts accompanying this car. However, if a car occupied by guards or technical escorts is equipped with a lighted heater or stove, it must be the fourth car behind any car requiring "EXPLOSIVES A" placards.
- Applies only in mixed train service, see section 174.87.

FOOTNOTES:



This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There is no handwriting or printed text on the paper.

This image shows a single page of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There is no handwriting or other markings on the paper.

NOTES

AVOID DAMAGE—SWITCH CUSTOMERS' CARS CAREFULLY

Damage to freight or car can be avoided by always keeping coupling speed within the safe range—NOT OVER 4 MILES PER HOUR—A BRISK WALK.

Handle freight carefully and keep our customers.

SPEED TABLE

TIME PER MILE	MILES PER HOUR
46"	78.3
47"	76.6
48"	75
49"	73.5
50"	72
51"	70.6
52"	69.2
53"	67.9
54"	66.7
55"	65.5
56"	64.3
57"	63.2
58"	62.1
59"	61
1'00"	60
1'01"	59
1'02"	58.1
1'03"	57.1
1'04"	56.2
1'05"	55.4
1'06"	54.5
1'07"	53.7
1'08"	52.9
1'09"	52.2
1'10"	51.4
1'11"	50.7
1'12"	50
1'13"	49.3
1'14"	48.6
1'15"	48
1'16"	47.4
1'17"	46.8
1'18"	46.2
1'19"	45.6
1'20"	45
1'25"	42.4
1'30"	40
1'35"	37.9
1'40"	36
1'45"	34.3
1'50"	32.7
1'55"	31.3
2'00"	30
2'15"	26.7
2'30"	24
2'45"	21.8
3'00"	20
3'30"	17.1
4'00"	15
5'00"	12
6'00"	10
7'00"	8.6
7'30"	8
8'00"	7.5
10'00"	6