SAFETY FIRST

WORK SAFELY TODAY

EACH RULE VIOLATION IS A POTENTIAL ACCIDENT

ASSISTANT SUPERINTENDENT

C. E. McDONALD.....Sacramento

TRAINMASTERS

W. G. HOWELL.....Stockton Yard
J. J. McNALLY.....Oroville
P. F. PRENTISS.....Keddie

TERMINAL TRAINMASTERS

H. E. STAPP.....Oakland Yard
J. G. NOLTE.....Stockton Yard

ROAD FOREMEN OF ENGINES

HUGH ALLEN.....Stockton Yard
R. McILVEEN.....Stockton Yard
T. D. HUNTER.....Oroville Yard
N. F. ROBERTS.....Oroville Yard

ASSISTANT TRAINMASTERS

G. H. EVANS.....Stockton Yard
L. A. HENRY.....Sacramento
G. S. ALLEN.....Tobin

ASSISTANT TERMINAL TRAINMASTER

LEROY FOSTER.....Oakland Yard

CHIEF TRAIN DISPATCHER

E. J. HILLIER.....Sacramento

ASSISTANT CHIEF TRAIN DISPATCHER

L. C. JASKALA.....Sacramento

NIGHT CHIEF TRAIN DISPATCHERS

W. S. GRAHAM.....Sacramento
P. JOSSERAND.....Sacramento

SAFETY FIRST

THE WESTERN PACIFIC RAILROAD CO.

WESTERN PACIFIC — FEATHER RIVER ROUTE

WESTERN DIVISION TIMETABLE

38

EFFECTIVE SUNDAY, MARCH 20, 1949
AT 12:01 A. M.
PACIFIC STANDARD TIME

FOR THE GOVERNMENT AND INFORMATION OF EMPLOYES ONLY

H. C. MUNSON,
Vice-President and General Manager.

E. T. GALLAGHER,
Superintendent of Transportation.

G. W. CURTIS,
Superintendent.

A L Lloyd

RAILROAD SURGEONS

LOCATION	NAME	TITLE
San Francisco, Calif.	Dr. A. R. Kilgore	Chief Surgeon
San Francisco, Calif.	Dr. C. E. Smith	Asst. Chief Surgeon
San Francisco, Calif.	Dr. G. F. Cushman	Division Surgeon
San Francisco, Calif.	Dr. Ruth Fleming	Local Surgeon
San Francisco, Calif.	Dr. A. J. Brinckerhoff	Oculist
San Francisco, Calif.	Dr. Frank Hand	Aurist
San Francisco, Calif.	Dr. F. D. Fellows	Aurist
Oakland, Calif.	Dr. Robert R. Thomson	Local Surgeon
Oakland, Calif.	Dr. Ray H. Fisher	Local Surgeon
Oakland, Calif.	Dr. Fred D. Fisher	Local Surgeon
Oakland, Calif.	Dr. L. L. Coleman	Local Surgeon
Oakland, Calif.	Dr. John Paul Evans	Asst. Local Surgeon
Berkeley, Calif.	Dr. M. C. Cheney	Local Surgeon
Berkeley, Calif.	Dr. W. B. McKnight	Local Surgeon
Berkeley, Calif.	Dr. C. M. Weseman	Aurist
Berkeley, Calif.	Dr. Raymond Johanson	Oculist
Alameda, Calif.	Dr. D. D. Stafford	Local Surgeon
San Rafael, Calif.	Dr. W. M. Edwards	Local Surgeon
Hayward, Calif.	Dr. H. C. Crockett	Local Surgeon
Niles, Calif.	Dr. E. C. Grau	Local Surgeon
San Jose, Calif.	Dr. H. G. Zanger	Local Surgeon
San Jose, Calif.	Dr. James M. Geiger	Local Surgeon
Livermore, Calif.	Dr. Paul E. Dolan	Local Surgeon
Tracy, Calif.	Dr. Marion G. Weitz	Local Surgeon
Stockton, Calif.	Dr. E. G. Hermosillo	Local Surgeon
Stockton, Calif.	Dr. Henry F. Quinn	Local Surgeon
Stockton, Calif.	Dr. Dewey Powell	Oculist and Aurist
Lodi, Calif.	Dr. S. W. Leiske	Local Surgeon
Lodi, Calif.	Dr. W. G. Fessler	Local Surgeon
Sacramento, Calif.	Dr. J. V. Chambers	Local Surgeon
Sacramento, Calif.	Dr. D. O. Kilroy	Local Surgeon
Sacramento, Calif.	Dr. D. J. Engelberg	Local Surgeon
Sacramento, Calif.	Dr. John A. Berg	Oculist
Marysville, Calif.	Dr. Philip B. Hoffman	Local Surgeon
Oroville, Calif.	Dr. Chas. Benninger	Local Surgeon
Oroville, Calif.	Dr. C. L. Craviotto	Local Surgeon
Oroville, Calif.	Dr. John E. Patrick	Local Surgeon
Quincy, Calif.	Dr. Rex N. Carr	Local Surgeon
Quincy, Calif.	Dr. D. I. Bleiberg	Local Surgeon
Greenville, Calif.	Dr. Wilbur C. Batson	Local Surgeon
Westwood, Calif.	Dr. Herman G. Levin	Local Surgeon
Westwood, Calif.	Dr. T. R. Newman	Local Surgeon
Portola, Calif.	Dr. J. D. Coulter	Division Surgeon
Portola, Calif.	Dr. Joseph F. Narkevitz	Asst. Division Surgeon

WATCH INSPECTORS

LOCATION	NAME	TITLE
San Francisco, Calif.	S. A. Pope	Manager of Time Service
San Francisco, Calif.	E. J. Land	Watch Inspector
Oakland, Calif.	E. W. Becker	Watch Inspector
Oakland, Calif.	Leroy D. Wertz	Watch Inspector
Oakland, Calif.	Don J. Allphin	Watch Inspector
San Leandro, Calif.	G. C. Foster	Watch Inspector
San Jose, Calif.	Kochers	Watch Inspector
Livermore, Calif.	C. Harlie Power	Watch Inspector
Stockton, Calif.	Conrad Mantele	Watch Inspector
Sacramento, Calif.	H. T. Harger	Watch Inspector
Oroville, Calif.	Philip K. Schmidt	Watch Inspector
Quincy, Calif.	W. H. Powell	Watch Inspector
Portola, Calif.	Wm. B. and Allan H. Lindsey	Watch Inspector

SPEED TABLE

TIME PER MILE	MILES PER HOUR
36″	100
37″	97.3
38″	94.7
39″	92.3
40″	90
41″	87.8
42″	85.7
43″	83.7
44″	81.8
45″	80
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

EASTWARD

	Symbols, Rule 6 (A).	Car Capacity of Sidings	Telegraph Office Calls	SECOND CLASS 54 Fast Freight Leave Daily	SECOND CLASS 62 Fast Freight Leave Daily	FIRST CLASS 2 Royal Gorge Leave Daily	FIRST CLASS 18 Streamliner California Zephyr Leave Daily	Distance from San Francisco	Timetable No. 38 March 20, 1949 STATIONS	Distance from Oakland Yard
	WFO		Go			PM 3.30	AM 9.00	0.0	SAN FRANCISCO (Oakland Ferry)	
	RBKP					3.50 PM	9.20 AM	3.5	3.5 OAKLAND PIER (Oakland Ferry)	
	RBKP		Ow			PM 4.00	AM 9.30	3.5	TO OAKLAND PIER (SP)	
	RBKW FTPO	Yard	Md	PM 9.00	AM 5.20	Via SP	Via SP	4.7	2.4 TO OAKLAND YARD (WP)	0.0
Yard Limits	I							5.8	1.1 SP Crossing	1.1
	I					PM 4.08	AM 9.37	5.9	0.1 CHESTNUT JCT. (SP Conn.)	1.2
	R		Ak			s 4.15	s 9.44	6.6	0.7 OAKLAND	1.9
								7.2	0.6 SP Crossing	2.5
	I					4.19	9.49	7.7	0.5 CLINTON (SP X'ing.)	3.0
						4.27		9.6	1.9 FRUITVALE	4.9
	I							10.6	1.0 MELROSE (SP X'ing.)	5.9
	P	69				4.32	10.00	11.3	0.7 KOHLER	6.6
	IP							13.7	2.4 ELMHURST (SP X'ing.)	9.0
	P		Dr			4.39	10.08	14.8	1.1 SAN LEANDRO	10.1
	P	84	Hy			4.46		19.8	TO 5.0 HAYWARD	15.1
	WP	83	Cn			5.00	10.26	29.7	TO 9.9 NILES	25.0
	I							30.3	0.6 SP Crossing	25.6
	YP							30.5	0.2 NILES JUNCTION	25.8
	P	77				5.10		35.6	5.1 SUNOL	30.9
	P	76	Tn			5.18		40.8	5.2 PLEASANTON	36.1
	I							42.7	1.9 SP Crossing	38.0
	I							43.0	0.3 SP Crossing	38.3
	WP	76	Vn			5.28	10.48	47.2	4.2 LIVERMORE	42.5
	YP	95				5.42	11.01	56.2	9.0 ALTAMONT	51.5
	P	103				5.52	11.11	63.3	7.1 MIDWAY	58.6
	WYP	115	Cb			6.04	11.21	72.3	TO 9.0 CARBONA	67.6
	P	117	Ky					73.4	1.1 LYOTH	68.7
	I							74.0	0.6 SP Crossing	69.3
	P	89				6.11		76.7	2.7 FITZ	72.0
	I							84.45	7.75 SP Crossing	79.75
	P	108				6.24	11.38	85.73	1.28 LATHROP	81.03
	P					6.30		90.3	4.57 ORTEGA	85.6
Yard Limits	RBKW FTPO	Yard	Sn	1.00 AM	9.25 AM	6.35	11.45	92.0	TO 1.7 STOCKTON YARD	87.3
	I							93.2	1.2 AT&SF Crossing	88.5
	RKP		Fc			s 6.40 PM	s 11.51 AM	93.8	TO 0.6 STOCKTON	89.1
				Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily			
				54	62	2	18			

Absolute Automatic Block System — A. B. S.

Schedules shown for second-class trains do not confer any superiority whether or not A.A.B.S. is operative and trains must not be operated on these schedules. Times shown are for information only.

Special instructions on pages 2 and 3 will apply to both pages where applicable.

No. 1 will stop at Livermore, Pleasanton, Niles and Hayward to discharge revenue passengers from Oroville and east.

No. 2 will stop on advance notice at Hayward, Niles, Pleasanton and Livermore to receive revenue passengers for points where scheduled to stop on second subdivision and for points Oroville and east.

Timetable No. 38
March 20, 1949

WESTWARD

Distance from San Francisco	STATIONS	Distance from Stockton	FIRST CLASS 1 Royal Gorge Arrive Daily	FIRST CLASS 17 Streamliner California Zephyr Arrive Daily	SECOND CLASS 61 Fast Freight Arrive Daily	SECOND CLASS 53 Fast Freight Arrive Daily
0.0	SAN FRANCISCO (Oakland Ferry)	93.8	AM 8.20	PM 4.50		
3.5	3.5 OAKLAND PIER (Oakland Ferry)	90.3	8.00 AM	4.30 PM		
3.5	TO OAKLAND PIER (SP) 2.4	90.3	s AM 7.35	s PM 4.15		
4.7	TO OAKLAND YARD (WP) 1.1	89.1			AM 7.30	PM 3.00
5.8	SP Crossing 0.1	88.0	Via SP	Via SP		
5.9	CHESTNUT JCT. (SP Conn.) 0.7	87.9	AM 7.23	PM 4.03		
6.6	OAKLAND 0.6	87.2	s 7.20	s 4.00		
7.2	SP Crossing 0.5	86.6				
7.7	CLINTON (SP X'ing.) 1.9	86.1	7.10	3.48		
9.6	FRUITVALE 1.0	84.2	7.05			
10.6	MELROSE (SP X'ing.) 0.7	83.2				
11.3	KOHLER 2.4	82.5	7.00	3.36		
13.7	ELMHURST (SP X'ing.) 1.1	80.1				
14.8	SAN LEANDRO 5.0	79.0	6.52	3.27		
19.8	TO HAYWARD 9.9	74.0	6.44			
29.7	TO NILES 0.6	64.1	6.29	3.06		
30.3	SP Crossing 0.2	63.5				
30.5	NILES JUNCTION 5.1	63.3				
35.6	SUNOL 5.2	58.2	6.20			
40.8	PLEASANTON 1.9	53.0	6.11			
42.7	SP Crossing 0.3	51.1				
43.0	SP Crossing 4.2	50.8				
47.2	LIVERMORE 9.0	46.6	6.01	2.42		
56.2	ALTAMONT 7.1	37.6	5.47	2.30		
63.3	MIDWAY 9.0	30.5	5.36	2.19		
72.3	TO CARBONA 1.1	21.5	5.24	2.07		
73.4	LYOTH 0.6	20.4				
74.0	SP Crossing 2.7	19.8				
76.7	FITZ 7.75	17.1	5.17			
84.45	SP Crossing 1.28	9.35				
85.73	LATHROP 4.57	8.07	5.04	1.50		
90.3	ORTEGA 1.7	3.5				
92.0	TO STOCKTON YARD 1.2	1.8	4.55	1.42	3.30 AM	11.00 AM
93.2	AT&SF Crossing 0.6	0.6				
93.8	TO STOCKTON	0.0	4.50 AM	1.37 PM		
			Leave Daily	Leave Daily	Leave Daily	Leave Daily
			1	17	61	53

Absolute Automatic Block System (A. B. S.)

Schedules shown for second-class trains do not confer any superiority whether or not A. A. B. S. is operative and trains must not be operated on these schedules. Times shown are for information only.

Special instructions on pages 2 and 3 will apply to both pages where applicable.

Absolute Automatic Block System. See pages 22 and 23 for special instructions.

Automatic Block System. See pages 24, 25 and 26 for special instructions.

Tunnel Signals. See page 13.

Between Chestnut Jct. and Oakland Pier, trains will be governed by SP timetable and rules and regulations of the Transportation Department.

A train register for WP trains only is provided at Oakland Pier. In addition to their SP registration, WP trains will register on this register in accordance with their identity on the WP arriving or departing Chestnut Jct. using actual arrival or expected departure time at Chestnut Jct.

When crews of sections of first-class trains terminating at Chestnut Jct. tie up at Oakland Yard, registration will be made at that point and operators at Oakland Yard immediately will telephone such registration to telegraph operators at SP Oakland Pier for entry on WP train register.

Eastward WP trains originating at Oakland Pier must obtain WP clearance card at Oakland Pier and will not require clearance card at Chestnut Jct.

Chestnut Jct. is initial station for eastward first-class trains.

Oakland is register station for first-class trains only.

Nos. 17 and 18 register by ticket at Oakland when there is an operator on duty.

Trains will not require a clearance card at Oakland unless train orders are received.

RULE 83. Eastward first-class trains need not check departure of other eastward first-class trains at Chestnut Jct. When departure of sections of eastward first-class trains has been checked on WP register at Oakland Pier following sections will not require additional check at Chestnut Jct. but must have check before leaving Oakland.

When trains meet at Clinton, the north track may be used between Clinton and Chestnut Jct. by train taking siding. See instructions on page 16 under Clinton for signal arrangement at east switch to north track.

Westward first-class trains will register by ticket at Stockton Yard.

Eastward first-class trains will not register at Stockton Yard, except when crew changes on sections of eastward first-class trains are made there. Conductor going off duty will register in and make notation in extreme left hand column of train register reading "Crew Change Sn Yd." Outgoing conductor will register departure with same notation.

Operator at Stockton will transmit registration of eastward first-class trains to operator at Stockton Yard, who will enter on register with notation in extreme left hand column reading "Stockton Psgr Station" and immediately verify with dispatcher, for information of trains originating at Stockton Yard.

First-class trains register by ticket at Stockton.

See page 27 for special instructions governing yard operations Stockton.

EASTWARD

	Symbols, Rule 6 (A).	Car Capacity of Sidings	Telegraph Office Calls	SECOND CLASS		78 Fast Freight	62 Fast Freight	54 Fast Freight		FIRST CLASS 2 Royal Gorge	18 Streamliner California Zephyr	Distance from San Francisco	Timetable No. 38 March 20, 1949 STATIONS	Distance from Stockton Yard
						Leave Daily	Leave Daily	Leave Daily		Leave Daily	Leave Daily			
Yard Limits	RBKW FTPO	Yard	Sn			PM 7.00	PM 12.01	AM 3.10				92.0	TO **STOCKTON YARD**	0.0
	I											93.2	1.2 **AT&SF Crossing**	1.2
	RKIP		Fc			7.10	12.11	3.20		PM 6.45	AM 11.53	93.8	TO 0.6 **STOCKTON (SP X'ing.)**	1.8
	P	48				7.13	12.14	3.23		6.48		94.3	0.5 **FLORA STREET**	2.3
	I											95.1	0.8 **SP Crossing**	3.1
	P	87				7.19	12.20	3.29		6.54	PM 12.01	98.1	3.0 **HAMMER LANE**	6.1
	P	76	Di			7.30	12.31	3.40		7.01		104.6	6.5 **KINGDON**	12.6
	YP	34										105.5	0.9 **TERMINOUS JUNCTION**	13.5
	WP	76	Nh			7.43	12.44	3.53		s 7.15	12.15	113.9	8.4 **THORNTON**	21.9
	P	77				7.53	**1.03**	**4.08**		7.24		119.0	5.1 **GLANNVALE**	27.0
	P	76				8.03	1.15	4.25		7.30	12.26	124.4	5.4 **FRANKLIN**	32.4
	P	103				8.14	1.26	4.36		7.39	12.34	132.4	8.0 **POLLOCK**	40.4
Yard Limits	RKWF P	Yard	Jy			8.50	2.00	5.20		7.55	**12.40**	136.5	4.1 TO **SOUTH SACRAMENTO**	44.5
	I											137.5	1.0 **CCT and SN Crossing**	45.5
	RI											138.0	0.5 **SP Crossing**	46.0
	KYPO		Sr Ra Ds			9.00	2.10	5.30		s 8.10	s 12.50	138.6	TO 0.6 **SACRAMENTO**	46.6
	I											139.2	0.6 **SN Crossing**	47.2
	I											140.8	1.6 **SN Crossing**	48.8
	P	76				9.15	2.25	5.45		8.20	1.00	143.8	3.0 **DEL PASO**	51.8
	P	75				9.27	**2.37**	5.57		8.27		150.6	6.8 **COUNSMAN**	58.6
	I											152.5	1.9 **SN Crossing**	60.5
	WP	75				9.38	2.48	6.08		8.34	1.13	156.4	3.9 **PLEASANT GROVE**	64.4
	P	83				9.49	2.59	**6.19**		8.41	1.19	161.5	5.1 **TROWBRIDGE**	69.5
	P	76				**10.07**	3.17	6.37		8.55	1.30	172.5	11.0 **EAST ARBOGA**	80.5
Yard Limits	RWIP	110	Ms			10.31	3.41	7.01		s 9.10	s **1.39**	178.8	Joint Track { TO 6.3 **MARYSVILLE**	86.8
	I											180.2	1.4 **SP Crossing**	88.2
	P	76				10.47	3.57	7.17		**9.18**	1.48	186.0	5.8 **TAMBO**	94.0
	P	76				11.01	4.11	7.31		9.26	1.55	193.0	7.0 **CRAIG**	101.0
	P	97				11.14	4.24	7.44		9.34		199.3	6.3 **PALERMO**	107.3
Yard Limits	RBKWF ITYPO	Yard	Yd			11.25 PM	4.35 PM	7.55 AM		9.39	2.05	202.9	3.6 TO **OROVILLE YARD**	110.9
	RBKIP	50	Vi							s 9.45 PM	s 2.11 PM	205.1	2.2 TO **OROVILLE**	113.1
						Arrive Daily	Arrive Daily	Arrive Daily		Arrive Daily	Arrive Daily			
						78	**62**	**54**		**2**	**18**			

Automatic Block System

Interlocking

Operator at Stockton will transmit registration of eastward first-class trains to operator at Stockton Yard, who will enter on register with notation in extreme left hand column reading "Stockton Psgr Station" and immediately verify with dispatcher, for information of trains originating at Stockton Yard.

Second-class and extra trains originating or terminating at Stockton Yard will not require clearance card at Stockton unless train orders are received.

See page 27 for special instructions governing yard operations Stockton.

At Flora Street, Track 7, located on north side of main track, west switch at Park Street, east switch immediately west of Harding Way, will be used as siding.

Stockton, South Sacramento, "R" Street Tower, MP 138 Sacramento, and Marysville are register stations for first-class trains only. First-class trains register by ticket at Stockton, South Sacramento, "R" Street Tower Sacramento, Marysville and Oroville Yard.

No. 2 will stop daily clear of crossover in front of yard office South Sacramento, to pick up RPO car.

For movement between Oroville Yard and Oroville see pages 28 and 29 for special instructions.

Special Instructions on pages 4 and 5 will apply to both pages where applicable.

Timetable No. 38
March 20, 1949

WESTWARD

Distance from San Francisco	STATIONS	Distance from Oroville	FIRST CLASS 1 Royal Gorge Arrive Daily	FIRST CLASS 17 Streamliner California Zephyr Arrive Daily	SECOND CLASS 77 Fast Freight Arrive Daily	SECOND CLASS 53 Fast Freight Arrive Daily	SECOND CLASS 61 Fast Freight Arrive Daily
92.0	TO **STOCKTON YARD** 1.2	113.1			AM 9.05	PM 5.00	AM 1.20
93.2	**AT&SF Crossing** 0.6	111.9					
93.8	TO **STOCKTON (SP X'ing.)** 0.5	111.3	s AM 4.45	s PM 1.34	8.53	4.48	1.09
94.3	**FLORA STREET** 0.8	110.8	4.42		8.50	4.45	1.06
95.1	**SP Crossing** 3.0	110.0					
98.1	**HAMMER LANE** 6.5	107.0	4.36	1.25	8.42	4.37	12.58
104.6	**KINGDON** 0.9	100.5	4.29	1.18	8.33	4.28	12.49
105.5	**TERMINOUS JUNCTION** 8.4	99.6					
113.9	**THORNTON** 5.1	91.2	s 4.17	1.09	8.20	4.15	12.36
119.0	**GLANNVALE** 5.4	86.1	**4.08**	**1.03**	8.08	4.03	12.24
124.4	**FRANKLIN** 8.0	80.7	4.02	12.57	7.58	3.53	12.14
132.4	**POLLOCK** 4.1	72.7	3.53	12.48	7.45	3.40	12.01 AM
136.5	TO **SOUTH SACRAMENTO** 1.0	68.6	3.46	**12.40**	7.35	3.30	11.50 PM
137.5	**CCT and SN Crossing** 0.5	67.6					
138.0	**SP Crossing** 0.6	67.1					
138.6	TO **SACRAMENTO** 0.6	66.5	s 3.30	s 12.28	7.05	3.01	11.23
139.2	**SN Crossing** 1.6	65.9					
140.8	**SN Crossing** 3.0	64.3					
143.8	**DEL PASO** 6.8	61.3	3.18	12.17	6.52	2.48	11.10
150.6	**COUNSMAN** 1.9	54.5	3.10		6.41	**2.37**	10.58
152.5	**SN Crossing** 3.9	52.6					
156.4	**PLEASANT GROVE** 5.1	48.7	3.02	12.03 PM	6.30	2.21	10.40
161.5	**TROWBRIDGE** 11.0	43.6	2.55	11.58 AM	**6.19**	2.10	10.30
172.5	**EAST ARBOGA** 6.3	32.6	2.42	11.47	5.58	1.52	**10.07**
178.8	Joint Track TO **MARYSVILLE** 1.4	26.3	s 2.33	s 11.38	5.45	**1.39**	9.50
180.2	**SP Crossing** 5.8	24.9					
186.0	**TAMBO** 7.0	19.1	2.22	11.28	5.17	1.07	**9.18**
193.0	**CRAIG** 6.3	12.1	2.13	11.21	5.03	12.53	9.03
199.3	**PALERMO** 3.6	5.8	2.05		4.50	12.40	8.50
202.9	TO **OROVILLE YARD** 2.2	2.2	2.00	11.10	4.40 AM	12.30 PM	8.40 PM
205.1	TO **OROVILLE**	0.0	1.55 AM	11.05 AM			
			Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily
			1	**17**	**77**	**53**	**61**

Automatic Block System

Interlocking

SOUTH SACRAMENTO

RULES 221 and 221 (A). Color-light type, electrically-operated train order signal located at South Sacramento.

Passenger trains or freight trains not stopping will not call for or answer train order signal but must obtain clearance card if signal is in STOP position or shows green aspect when first seen.

Freight trains stopping will not call for train order signal but must obtain clearance card before leaving if signal is in STOP position or if it shows green aspect when first seen.

Train order delivery machine attached to signal mast. Two upper hoops are for delivery to enginemen, lower hoop for conductors. When flagman receives copies of orders and train has only one engine middle hoop is for enginemen, top hoop for conductor and lower hoop for flagman.

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

RULE 83 (D). Only first-class trains need obtain clearance card at Sacramento.

Joint Track, Marysville. See page 14 for special instructions.

Automatic Block System. See pages 24, 25 and 26 for special instructions.

Automatic Block Signals. See page 13.

No. 1 will stop daily clear of switch to middle lead opposite yard office, South Sacramento, to set out RPO car.

Special Instructions on pages 4 and 5 will apply to both pages where applicable.

EASTWARD

	Symbols, Rule 6 (A).	Car Capacity of Sidings	Telegraph Office Calls	SECOND CLASS 62 Fast Freight Leave Daily	54 Fast Freight Leave Daily	94 Local Freight Leave Tues., Thurs., Sat.	96 Local Freight Leave Mon., Wed., Fri.	78 Fast Freight Leave Daily	FIRST CLASS 2 Royal Gorge Leave Daily	18 Streamliner California Zephyr Leave Daily	Distance from San Francisco	Timetable No. 38 March 20, 1949 STATIONS	Distance from Oroville Yard
Yard Limits	RBKWF ITYPO	Yard	Yd	PM 6.30	AM 10.30		AM 7.30	AM 2.00			202.9	TO OROVILLE YARD	0.0
Yard Limits	RBKIP	50	Vi						PM 9.55	PM 2.14	205.1	2.2 TO OROVILLE	2.2
	P	87							10.02		209.3	4.2 QUARTZ	6.4
	P	91							10.07		212.9	3.6 BIDWELL	10.0
	P	86							10.16	2.33	217.6	4.7 BLOOMER	14.7
	WP	93							10.31		224.1	6.5 BERRY CREEK	21.2
	P	96							10.44		231.2	7.1 DAVID	28.3
	P	79							10.52	3.03	235.2	4.0 POE	32.3
	WFP	84							s 11.03		239.3	4.1 PULGA	36.4
	P	82							11.15		243.5	4.2 CRESTA	40.6
	WP	76							11.25		247.6	4.1 MERLIN	44.7
	PK	58	Aq						s 11.40	3.35	253.1	5.5 TOBIN	50.2
	P	86							11.46		255.3	2.2 CAMP RODGERS	52.4
	WP	97	Bn						PM s 11.59		260.1	4.8 BELDEN	57.2
	P	76							AM 12.10		264.6	4.5 RICH BAR	61.7
	WP	78							12.24	4.05	270.2	5.6 VIRGILIA	67.3
	P	88							12.33		273.7	3.5 TWAIN	70.8
	P	87							12.41		277.3	3.6 PAXTON	74.4
Yard Limits	RKW FTP	Yard	Kd	PM 11.30	PM 3.30	AM 8.30	12.30 PM	AM 7.00	s 1.00	4.25	281.5	4.2 TO KEDDIE	78.6
	P	87							1.09		284.5	3.0 SIERRA	81.6
	P	79	Rt						s 1.28		287.9	3.4 QUINCY JUNCTION	85.0
	P	86							1.38		292.6	4.7 MASSACK	89.7
	WP	95							s 1.48	4.48	296.4	3.8 SPRING GARDEN	93.5
	P	88	So						s 2.01		301.6	5.2 SLOAT	98.7
	P	88							2.09		305.4	3.8 TWO RIVERS	102.5
	WP	101	Ba						s 2.22		310.4	5.0 BLAIRSDEN	107.5
	P	93							2.32		313.8	3.4 CLIO	110.9
	P	85							2.45		318.7	4.9 MABIE	115.8
	P										320.04	A.B.S. 1.34 DELLEKER	117.14
Yard Limits	RBKW FTYPO	Yard	Ki	1.30 AM	5.30 PM	11.30 AM		9.00 AM	s 2.55 AM	s 5.27 PM	321.4	TO 1.36 PORTOLA	118.5
				Arrive Daily	Arrive Daily	Arrive Tues., Thurs., Sat.	Arrive Mon., Wed., Fri.	Arrive Daily	Arrive Daily	Arrive Daily			
				62	54	94	96	78	2	18			

Interlocking

Centralized Traffic Control

Schedules shown for first-class trains do not confer any superiority whether or not C.T.C. is operative but must be respected by trains operating on such schedules or sections thereof. (Also see C.T.C.S. Rule 780)

Schedules shown for second-class trains do not confer any superiority whether or not C.T.C. is operative and trains must not be operated on these schedules. Times shown are for information only.

Extra trains originating or terminating at Oroville Yard will not require clearance card at Oroville unless train orders are received.

Oroville is register station for first-class trains only.

Keddie is register station for extra trains originating and terminating at Keddie only.

Switch point derail located on NCE lead Keddie Yard between the two crossovers from NCE lead to west end of No. 1 track.

Nos. 17 and 18 register by ticket at Portola.

When first-class trains meet at Portola, pocket track in front of depot will be the siding.

No. 1 and No. 2 will stop on flag at any station to receive or discharge revenue passengers, U. S. mail or express.

Nos. 93, 94, 95 and 96 may carry WP employes and/or their families traveling on WP trip or annual passes only.

Slide Detector Fences. See special instructions, page 13, for locations.

Centralized Traffic Control. See page 30 for special instructions.

Oroville. For movement between Oroville and Oroville Yard see pages 28 and 29 for special instructions.

Portola. For movement between Delleker and Portola passenger station see page 31 for special instructions.

Special Instructions on pages 6 and 7 will apply to both pages where applicable.

WESTWARD

Timetable No. 38
March 20, 1949

Distance from San Francisco	STATIONS	Distance from Portola	FIRST CLASS 17 Streamliner California Zephyr — Arrive Daily	FIRST CLASS 1 Royal Gorge — Arrive Daily	SECOND CLASS 53 Fast Freight — Arrive Daily	SECOND CLASS 93 Local Freight — Arrive Mon., Wed., Fri.	SECOND CLASS 95 Local Freight — Arrive Tues., Thurs., Sat.	SECOND CLASS 61 Fast Freight — Arrive Daily	SECOND CLASS 77 Fast Freight — Arrive Daily
202.9	TO OROVILLE YARD 2.2 (Interlocking)	118.5			AM 11.00		PM 12.50	PM 7.00	AM 2.25
205.1	TO OROVILLE 4.2 (Interlocking)	116.3	AM s 11.02	s AM 1.45					
209.3	QUARTZ 3.6 (Centralized Traffic Control)	112.1		1.36					
212.9	BIDWELL 4.7	108.5		1.30					
217.6	BLOOMER 6.5	103.8	10.42	1.21					
224.1	BERRY CREEK 7.1	97.3		1.06					
231.2	DAVID 4.0	90.2		12.51					
235.2	POE 4.1	86.2	10.12	12.41					
239.3	PULGA 4.2	82.1		s 12.30					
243.5	CRESTA 4.1	77.9		12.17					
247.6	MERLIN 5.5	73.8		12.07 AM					
253.1	TOBIN 2.2	68.3	9.41	s 11.53 PM					
255.3	CAMP RODGERS 4.8	66.1		11.46					
260.1	BELDEN 4.5	61.3		s 11.36					
264.6	RICH BAR 5.6	56.8		11.25					
270.2	VIRGILIA 3.5	51.2	9.11	11.13					
273.7	TWAIN 3.6	47.7		11.05					
277.3	PAXTON 4.2	44.1		10.58					
281.5	TO KEDDIE 3.0	39.9	8.49	s 10.50	7.00 AM	AM 11.30	8.00 AM	3.00 PM	10.30 PM
284.5	SIERRA 3.4	36.9		10.39					
287.9	QUINCY JUNCTION 4.7	33.5		s 10.32					
292.6	MASSACK 3.8	28.8		10.23					
296.4	SPRING GARDEN 5.2	25.0	8.26	s 10.17					
301.6	SLOAT 3.8	19.8		10.07					
305.4	TWO RIVERS 5.0	16.0		10.00					
310.4	BLAIRSDEN 3.4	11.0		s 9.52					
313.8	CLIO 4.9	7.6		9.42					
318.7	MABIE 1.34	2.7		9.35					
320.04	A. B. S. DELLEKER 1.36	1.36							
321.4	A. B. S. TO PORTOLA	0.0	7.42 AM	9.30 PM	5.00 AM	7.30 AM		1.00 PM	8.25 PM
			Leave Daily	Leave Daily	Leave Daily	Leave Mon., Wed., Fri.	Leave Tues., Thurs., Sat.	Leave Daily	Leave Daily
			17	1	53	93	95	61	77

Schedules shown for first class trains do not confer any superiority whether or not C.T.C. is operative but must be respected by trains operating on such schedules or sections thereof. (Also see C.T.C.S. Rule 780)

Schedules shown for second class trains do not confer any superiority whether or not C.T.C. is operative and trains must not be operated on these schedules. Times shown are for information only.

The following will govern use of retainers on westward freight trains, Portola to Bloomer:

When the gross weight of train does not exceed 33 tons per car, turn up retainer valves on first fifteen cars back of engine. When gross weight of train exceeds 33 tons and is less than 45 tons per car, turn up retainer valves on first twenty cars back of engine. When gross weight of train exceeds 45 tons per car, turn up retainer valves on first twenty-five cars back of engine.

Retainer valves are to be used in low pressure position which is horizontal. Should wheels show tendency to heat, retainers will be alternated. If, in judgment of engineer, number of retainers unsatisfactory, engineer may instruct the brakeman to add or subtract as required to keep slack bunched and control train at safe speed while brake pipe pressure is being fully recharged.

Use of dynamic brake on freight trains being handled by Diesel freight engines does not modify requirements pertaining to use of retainers, except when Diesel freight engines, 904 to 912 inclusive are handling westward freight trains of 5000 tons or less with dynamic brake operative, retainers need not be used unless requested by engineer.

Special Instructions on pages 6 and 7 will apply to both pages where applicable.

EASTWARD

	Symbols, Rule 6 (A).	Car Capacity of Sidings	Telegraph Office Calls	SECOND CLASS		178 Western Pacific Fast Freight	154 Western Pacific Fast Freight	546 Southern Pacific Local Freight	FIRST CLASS			Distance from San Francisco (Via NCE Conn.)	Timetable No. 38 March 20, 1949	Distance from Keddie
						Leave Daily	Leave Daily	Leave Daily Ex. Sunday					STATIONS	
Yard Limits	RBKW FTP	Yard	Kd			PM 10.40	PM 3.30					280.8	TO KEDDIE	0.0
	P	89				11.05	3.55					287.0	6.2 MOCCASIN	6.2
	P	16	Cm			11.11	4.01					289.4	TO 2.4 CRESCENT MILLS	8.6
	WP	89	Gi			11.25	4.15					295.5	TO 6.1 GREENVILLE	14.7
	P	89				PM 11.35	4.25					298.3	2.8 COHALA	17.5
	WYP	89				AM 12.15	4.59					306.2	7.9 ALMANOR	25.4
	P	89				12.35	5.25					313.2	7.0 LASSEN VIEW	32.4
Yard Limits	P					12.45	5.35					316.0	2.8 CLEAR CREEK JCT. (ARR Conn.)	35.2
Yard Limits	RBK WFYP	Yard	Wd			1.20	6.10	AM 9.15				320.2	Joint Track TO 4.2 WESTWOOD	39.4
	RP		Mn			1.35	6.25	9.30 AM				324.3	Joint Track TO 4.1 MASON (SP Conn.)	43.5
	P	89				1.37	6.27					324.9	0.6 ROBBERS CREEK	44.1
	PY	89				2.07	6.57					333.3	8.4 NORVELL	52.5
	P	89				2.30	7.25					343.7	10.4 LODGEPOLE	62.9
Yard Limits	WYP	89	Hf			3.10	8.00					357.2	TO 13.5 HALLS FLAT	76.4
	P	89				3.30	8.20					365.0	7.8 JELLICO	84.2
	P	89				3.48	8.38					371.0	6.0 WILLOW SPRINGS	90.2
	W at MP 96.0 P	89				4.10	9.00					375.6	4.6 LITTLE VALLEY	94.8
	P	89				4.35	9.25					381.7	6.1 DIXIE	100.9
	P	89				5.00	9.50					390.3	8.6 PIT RIVER	109.5
Yard Limits	RBKW FYPO	Yard	B			AM 5.10	PM 10.00					392.6	TO 2.3 BIEBER	111.8
						Arrive Daily	Arrive Daily	Arrive Daily Ex. Sunday						
						178	154	546						

Western Pacific trains may carry passengers.

On passenger trains, before descending grades Almanor to Greenville and Halls Flat to Little Valley, understanding must be had between conductor and engineer as to number of retainers necessary to control train.

On eastward freight trains before leaving Halls Flat and on westward freight trains before leaving Almanor, enginemen must be notified as to number of loads, empties and tons in train and whether all air brakes are cut in and operative.

All retainer valves will be turned up on westward freight trains between Almanor and Greenville.

On westward freight trains between Dixie and Little Valley, between Norvell and Almanor and between Moccasin and Keddie and on eastward freight trains between Dixie and Pit River, an understanding must be had between conductor and engineer as to number of retainers necessary to control train and they must be used accordingly.

On eastward freight trains between Halls Flat and Little Valley, if gross weight of train does not exceed 33 tons per car, turn up retainer valves on the first 20 cars back of engine. If gross weight of train exceeds 33 tons per car and is less than 45 tons per car, turn up retainer valves on first 25 cars back of engine. If gross weight of train exceeds 45 tons per car, turn up retainer valves on first 30 cars back of engine.

When retainer valves are turned up, handle will be placed in low pressure position, which is horizontal, and should wheels show tendency to heat, retainers must be alternated. If, in the judgment of the engineer, number of retainers are unsatisfactory, engineer may instruct the brakeman to add or subtract, as required, to keep slack bunched and to control train at safe speed while brake pipe pressure is being fully recharged.

Use of dynamic brake on freight trains being handled by Diesel freight engines does not in any way modify requirements pertaining to use of retainers, except between Halls Flat and Little Valley when Diesel freight engines with dynamic brake operative are handling eastward freight trains of 3400 tons or less, retainers need not be used unless requested by engineer.

Special Instructions on pages 8 and 9 will apply to both pages where applicable.

Distance from San Francisco (Via NCE Conn.)	Timetable No. 38 March 20, 1949 STATIONS	Distance from Bieber	WESTWARD FIRST CLASS			SECOND CLASS							
						153 Western Pacific Fast Freight	545 Southern Pacific Local Freight	177 Western Pacific Fast Freight					
						Arrive Daily	Arrive Daily Ex. Sunday	Arrive Daily					
280.8	TO **KEDDIE** 6.2	111.8				AM 7.00		PM 2.30					
287.0	**MOCCASIN** 2.4	105.6				6.36		2.05					
289.4	TO **CRESCENT MILLS** 6.1	103.2				6.29		1.58					
295.5	TO **GREENVILLE** 2.8	97.1				6.18		1.45					
298.3	**COHALA** 7.9	94.3				6.00		1.25					
306.2	**ALMANOR** 7.0	86.4				5.40		1.05					
313.2	**LASSEN VIEW** 2.8	79.4				5.10		12.37					
316.0	**CLEAR CREEK JCT.** (ARR Conn.) 4.2	76.6				5.00		12.30					
320.2	Joint Track TO **WESTWOOD** 4.1	72.4				4.50	AM 8.50	12.20					
324.3	Joint Track TO **MASON** (SP Conn.) 0.6	68.3				4.30	8.35 AM	12.01 PM					
324.9	**ROBBERS CREEK** 8.4	67.7				4.28		11.58 AM					
333.3	**NORVELL** 10.4	59.3				4.05		11.35					
343.7	**LODGEPOLE** 13.5	48.9				3.40		11.10					
357.2	TO **HALLS FLAT** 7.8	35.4				**3.10**		10.40					
365.0	**JELLICO** 6.0	27.6				2.25		9.55					
371.0	**WILLOW SPRINGS** 4.6	21.6				1.58		9.28					
375.6	**LITTLE VALLEY** 6.1	17.0				1.45		9.15					
381.7	**DIXIE** 8.6	10.9				1.25		8.40					
390.3	**PIT RIVER** 2.3	2.3				12.45		8.15					
392.6	TO **BIEBER**	0.0				12.30 AM		8.00 AM					
						Leave Daily	Leave Daily Ex. Sunday	Leave Daily					
						153	**545**	**177**					

In Bieber Yard trains will be governed by Great Northern timetable and transportation rules. Rule 93, Great Northern Transportation Rules, reads as follows: "Within yard limits the main track may be used, clearing first-class trains when due to leave the last station where time is shown, but not less than five minutes. In case of failure to clear the main track, protection must be given as prescribed by Rule 99. Within yard limits the main track may be used without protecting against second and inferior class, extra trains and engines. Second and inferior class, extra trains and engines must move within yard limits at restricted speed. When running against the current of traffic or on a portion of two or more tracks used as a single track, all trains and engines must move within yard limits at restricted speed."

Southern Pacific and Fruit Growers Supply Co. trains will be governed by Western Pacific timetable and rules and regulations of the Transportation Department.

Keddie. Normal position of switch leading from east leg of wye to Fourth Subdivision, lined for east leg of wye. Single switch indicator located at this switch.

Switch point derail located on NCE lead Keddie Yard between the two crossovers from NCE lead to west end of No. 1 track.

Automatic Block Signals. See page 13.

Clear Creek Junction. Normal position junction switch lined for Western Pacific main track.

Westwood. Nos. 153, 154, 177 and 178 register by ticket.

Track 4 will be used as siding, but must not be blocked between 6:01 AM and 7:30 AM.

Mason. Dispatchers may, when necessary, issue train orders to westward trains at Mason restricting them at Robbers Creek. Westward trains finding train order signal at Mason in STOP position will not pass fouling point west switch Robbers Creek until ascertain reason for signal being in stop position. See Rule 221.

Train order signal governs all trains except westward Southern Pacific trains. Westward Southern Pacific trains must obtain clearance card.

Register station for Nos. 545 and 546 only. Nos. 545 and 546 may register by ticket when there is an operator on duty.

Westward second-class and extra trains need not check register for Southern Pacific train No. 545.

Nos. 153 and 177 need not check register for Southern Pacific train No. 546.

Western Pacific trains will approach junction switch under control, being sure switch is right and that Southern Pacific trains are clear of junction switch before using. Normal position junction switch is lined for Western Pacific main track.

Special Instructions on pages 8 and 9 will apply to both pages where applicable.

First Subdivision "A"—SAN JOSE BRANCH

	EASTWARD							Distance from Niles Junction	Timetable No. 38 March 20, 1949	Distance from Alameda St. Freight Station	WESTWARD			
	Symbols, Rule 6 (A).	Car Capacity of Sidings	Telegraph Office Calls	SECOND CLASS		FIRST CLASS					FIRST CLASS		SECOND CLASS	
					254 Freight								253 Freight	
					Leave Daily				STATIONS				Arrive Daily	
	RWP	83	Cn		AM 12.30				TO NILES				PM 10.45	
	YP				12.40			0.0	0.8 NILES JUNCTION	23.0			10.25	
	P	29			1.00			3.3	3.3 IRVINGTON	19.7			10.10	
		Spur 1W 6			1.15			6.8	3.5 WARM SPRINGS	16.2			9.55	
		Spur 1E 4			1.22			8.0	1.2 CURTNER	15.0			9.50	
	P	31			1.35			10.9	2.9 MILPITAS	12.1			9.40	
		Spur 1E 10			1.45			14.1	3.2 BERRYESSA	8.9			9.25	
Yard Limits					2.00			16.9	2.8 SAN JOSE (East Santa Clara St.)	6.1			9.10	
	RBKW FTPO	Yard	Sx		2.10 AM			17.5	TO 0.6 SAN JOSE YARD	5.5			9.00 PM	
								19.5	2.0 SP TRANSFER	3.5				
								19.6	0.1 VALBRICK (SP X'ing.)	3.4				
	I							20.2	0.6 SP Crossing	2.8				
	I							22.3	2.1 SP Crossing	0.7				
		Yard						23.0	0.7 SAN JOSE (Alameda St. Fr't. St'n.)	0.0				
					Arrive Daily								Leave Daily	
					254								253	

San Jose Branch trains have no timetable superiority between Niles Junction and Niles. Niles Junction is within station limits Niles and their movements between these points will be in accordance with A.A.B.S. signals and rules. Time shown at Niles is for information only.

Yard limit board located MP BR - 0.61 San Jose Branch. Rule 93 applies on Branch west of this point.

First Subdivision "B"—CARBONA BRANCH

EASTWARD							Timetable No. 38 March 20, 1949		WESTWARD	
Symbols, Rule 6 (A).	Car Capacity of Sidings	Telegraph Office Calls			Distance from Carbona		STATIONS	Distance from Moy		
WYP	115	Cb			0.0	TO	CARBONA	4.2		
	66				1.7		1.7 KERLINGER	2.5		
PO					3.4		1.7 RIVER ROCK	0.8		
	No Siding				4.2		0.8 MOY	0.0		

Derails located on main track 60 feet west of Tracy Rock and Gravel Company switch, MP 3.3 and 240 feet west and 885 feet east of Stock Yards Moy. Cars on main track east of River Rock not protected.

RULE 201. Train order authority is not required on Carbona Branch and all movements on Branch must be made with caution.

Second Subdivision "A"—TERMINOUS BRANCH

EASTWARD							Timetable No. 38 March 20, 1949		WESTWARD	
Symbols, Rule 6 (A).	Car Capacity of Sidings	Telegraph Office Calls			Distance from Terminous Jct.		STATIONS	Distance from Terminous		
YP	34				0.0		TERMINOUS JCT.	7.8		
	19				3.5		3.5 GARDEN	4.3		
Yard Limits	6				6.6		3.1 GRASS	1.2		
WY	Yard	Us			7.8		1.2 TERMINOUS	0.0		

Terminous Branch main track ends opposite east end of packing shed No. 2 (geographical south end) and barricade has been erected across track at that point.

GENERAL

RULE 2 (A). Modified to the extent that watches subject to inspection need be presented to an authorized inspector only once per month. Such inspection must be made between the 1st and 15th of each month except at points covered by traveling inspectors.

RULE 6 (A). Symbol TO to left of station name indicates Train Order Office.

RULE 10 (J). Speed-control boards that prescribe reduction in speed will be located to the right of track in the direction of approach 4000 feet in advance of point of restriction.

Speed-control boards that authorize an increase in speed will be located at the point where higher speed is permissible and speed may be increased accordingly as soon as rear of train has passed such speed-control board.

The higher number on white oval speed-control board indicates the maximum permissible speed of passenger trains whose consist includes conventional passenger car equipment, and the lower number indicates the maximum permissible speed for freight trains. Where but one number is shown, it indicates the maximum permissible speed for both conventional passenger and freight trains.

Round yellow speed-control boards indicate the maximum permissible speed of diesel-powered streamlined passenger trains as designated by special instructions in the timetable or by timetable bulletin. Round yellow speed-control boards will be displayed on the same post below the white oval speed-control board, or on separate posts.

Exception: Between Oroville and Portola, the speed of diesel-powered streamlined passenger trains will be five miles per hour above the maximum permissible speed indicated on white oval speed-control boards for passenger trains.

RULE 11 (A). Outside block system limits and on Third Subdivision fusees may be placed between rails of track when necessary to avoid danger of fire. If train overruns a lighted fusee, it must be removed from under train at once. On Third Subdivision, freight trains finding burning fusee between rails must stop and have fusee removed at once before proceeding under first paragraph Rule 11.

RULE 16 (f). When train order is received indicating that main track is out of service and that trains are to be detoured through a siding or other track, or over a shoofly, necessitating a reduction in normal train speed, signal 16 (f) must be sounded on passenger trains one mile before reaching point where train must reduce speed, which must be acknowledged by whistle signal 14 (g).

RULE 17. Oscillating white light on engines so equipped is to be operated in addition to headlight, when engine is moving at night, and in foggy or stormy weather by day. It must be extinguished approaching passenger stations.

Oscillating red light on engines so equipped shall be operated by day or night, only when a train has stopped, or is stopping, under circumstances that may cause an adjacent track to be fouled, and will not in any way relieve trainmen and enginemen from compliance with Rules 99 and 102. A train or engine on adjacent track must stop at once, and may proceed only after ascertaining that track is safe for passage of trains.

RULES 17, 17(C) and S-17. Except as otherwise provided in Rules 17, 17(C) and S-17, enginemen operating locomotives in passenger or freight service, or running light will display headlights during daylight hours as well as night hours.

RULES S-17 and 99. Figures indicating "Car Capacity of Sidings" are number of cars, based on an average allowance of 48 feet per car, that tracks will hold between clearance points, not including engines and cabooses. Due to increased number of 50 foot and longer cars being handled, trains may find sidings inadequate between clearance points. Care must be taken to see that flag protection is furnished when taking siding to meet trains and headlights must not be extinguished until it is known that train is clear of the main track. The conductor or brakeman at rear end must see that proper signal, day or night, is given to head end when train is clear of main track.

After train comes to rest in the siding, the head end must receive a stop signal from the rear end indicating that train is clear of the main track. Until such signal has been received by head end, headlight will be displayed and flag protection provided.

RULE 17 (D). In light engine movements between Oakland Roundhouse and Chestnut Junction in either direction in connection with moves to or from Southern Pacific Oakland Pier white light (lantern) may be displayed on rear of tender instead of red light.

RULE S-72. WESTWARD TRAINS ARE SUPERIOR TO EASTWARD TRAINS OF THE SAME CLASS.

RULES 86, S-87, S-89 and 93. On Subdivisions where signal indications do not supersede the superiority of trains, opposing inferior first-class trains must clear the time of Nos. 17 and 18 not less than ten minutes. Opposing second-class trains, extra trains and engines must clear the time of Nos. 17 and 18 not less than fifteen minutes, and second-class trains, extra trains and engines in the same direction must clear the time of Nos. 17 and 18 not less than twenty minutes before the arriving, or leaving, or train-order time at that station.

RULE 99. Outside of block signal territory, two additional torpedoes will be placed on the rail, one and one-fourth miles from rear of train when protecting against schedules of No. 17 and No. 18 (Zephyrs).

RULE 104 (A). Conductors and engine foremen must personally know that hand-operated main track switches used by them, are locked after clearing main track for diesel-powered streamlined trains. (Nos. 17 and 18.)

RULE 104 (C). Switches at various locations near road crossings are equipped with Safety Switch Locks. To use any switch so equipped unlock both standard switch stand and safety switch lock and step on treadle to release safety device. When use of switch is complete, both switch stand and safety switch lock must be locked.

RULE 104 (G). Double or triple loads must not be kicked or dropped. Open top cars on which load is likely to shift must not be kicked or dropped against other cars.

RULE 204. Train orders may be issued to Nos. 17 and 18 on first or second subdivisions which affect their movement on either or both subdivisions, provided same conductor and engineer operate the train through Stockton.

RULE 221. Telegraphers must not signal trains in connection with delivery of train orders. If there is no restriction at that station, telegrapher may hand up the orders without stopping train, but should not signal the train to come down the main track either by raising and lowering the train order signal or by hand signals.

On first and third subdivisions, seventh and eighth paragraphs are modified as follows: It will not be necessary for engineer to sound signal 14 (j) nor the acknowledgment 14 (g), approaching a train-order office. It will not be necessary for trains to obtain clearance card if train-order signal at an open train-order office is first seen in proceed position, and is not changed to indicate stop before passing it.

If no orders are held for trains from the same direction, or if orders held are for trains originating only, the operator may clear the signal before train reaches such view point. Operator must, after train passes, display signal in stop position before OS report is made to the train dispatcher.

Also, within limits specified above, train-order signal may be cleared for a first-class train for which there are no orders when orders are held for another train in the same direction, provided such orders do not restrict the train addressed at that station, and further provided that permission is first obtained from train dispatcher. Such permission must not be granted if the train to which orders are addressed has passed the last open train-order office.

RULE 509. An automatic block signal with a triangular number plate bearing the letter "P" in addition to signal number or an absolute signal equipped with triangular letter plate bearing the letter "P", is also actuated by some special protective device.

Block signals or absolute signals so equipped include in their circuits protective devices known as "Slide Detector Fences".

When these signals indicate STOP such additional inspection as necessary to insure safety of proceeding must be made of slide detector fences and tracks in their vicinity. When circumstances require train must be preceded by flagman.

RULE 834. STOP signal will be given by day or night to notify crews of passing trains of hot journals, brakes sticking, hot wheels, broken wheels, defective truck, dragging brake connection, lading shifted over side or end of car, swinging car doors, or other dangerous conditions. By day the STOP signal will be followed for:

Hot journals..... Nose held with one hand with the other hand pointing toward track.

Brakes sticking, Sliding Wheels or Hot Wheels..... Hands shoved in sliding motion out from body.

GENERAL (continued)

RULE 835. Cabooses must not be kicked or dropped against other cars, nor other cars kicked or dropped against them.

When a caboose is kicked or dropped, a member of the crew must ride it. Hand brake must be tested before movement is started.

When coupling to a caboose, or coupling a caboose to other cars, movement must be stopped about ten feet from coupling and then moved slowly to a coupling.

If practicable, occupants of caboose must be warned in advance of impending couplings.

Persons occupying cabooses must brace themselves and remain seated while coupling is being made.

Switching at terminals with a caboose between engine and cars or with cars and caboose ahead of engine is prohibited except a cut of cars may be pulled with caboose to point where caboose is to be set over.

RULE 838. The use of helper engines behind cabooses is prohibited except in emergency when it may be impossible to handle otherwise.

RULE 882. No person will be permitted to ride on an engine without a written order from the Vice-President and General Manager, except employes in the discharge of their duties and those holding transportation endorsed to that effect.

RULES 927, 1025 and 1038—TRAIN INSPECTION.

First and Second Subdivisions: Freight trains need not stop for train inspection if train is operating normally.

Third Subdivision: Eastward freight trains need not stop for train inspection if train is operating normally. Westward freight trains handled by diesel locomotives having dynamic brake operating on entire locomotive need not stop for train inspection if train is operating normally. Westward freight trains handled by steam locomotives must stop for inspection at Rich Bar, Belden or Camp Rodgers.

Fourth Subdivision: Freight trains will stop for train inspection as follows:

Eastward —Halls Flat.

Westward—Halls Flat and Almanor.

All Subdivisions: Where stops are made for other reasons inspection of train must be made as often as practicable. When weather conditions restrict visibility, the conductor will designate additional stops for inspection that are necessary in his judgment.

AIR BRAKE RULES

RULE 24-B. On passenger trains at points where terminal tests are made, when the continuity of the brake pipe is not disturbed, or motive power not changed, the incoming engineman, after making station stop as prescribed by the rules, must apply the train brakes with a 15 pound brake pipe reduction immediately after stopping and without waiting for a signal.

The brake pipe leakage must be noted, then the reduction increased to a total of 20 pounds. The incoming engineman will notify the outgoing engineman the amount of brake pipe leakage.

Release of the train brakes will be made upon receiving the proper release signal.

RULE 32. Modified to the extent that at Oakland passenger equipment being switched in the making up or breaking up of trains or in the coach yard may be handled without air brakes cut in.

Such passenger equipment must not be kicked or dropped and any cars left standing must have hand brakes set or be coupled to car or cars with sufficient hand brakes set to prevent them from moving. Switch crews are cautioned that CZ type cars in particular, which have roller bearings, have a tendency to roll and every precaution must be taken to prevent accident.

RULES 43-A and 43-B. Freight trains originating or picking up and setting out cars at South Sacramento will make air test under these rules.

RULE 43-B. On trains originating at Keddie, rear end test will be made under this rule.

RULE 44. Running brake test will be made on eastward passenger trains leaving Oakland Pier or Oakland Yard and on westward passenger trains not less than two or more than three miles before reaching SP Crossing MP 13.7.

Running brake test other than above will not be required for crossings between MP 5.8 and MP 13.7 inclusive.

TRAINS EQUIPPED WITH ELECTRO-PNEUMATIC BRAKE

Electro-pneumatic brake wire connectors and straight air hose must be connected between all cars and engine. Cutout cocks must be open except on the rear of last car and electro-pneumatic brake wire connectors securely fastened in their receptacles. Electro-pneumatic brake wire connectors must not be disconnected while train is in motion.

When a train leaves its originating terminal with automatic air brakes, or when operation of brakes is changed enroute from electro-pneumatic to automatic, the incoming engineer must inform the outgoing engineer that electro-pneumatic brake is inoperative. No attempt must be made to use the electro-pneumatic brake unless defects are corrected and a standing test is made as prescribed by Rules 24-B and 24-C.

AUTOMATIC BLOCK SIGNALS

Marysville. See special instructions page 14 under Joint Track Marysville.

Oroville Yard. See special instructions governing movements between Oroville Yard and West End C.T.C., pages 28 and 29 for location and limits.

Keddie. Fourth Subdivision:

Eastward: Two-position signal at west portal Tunnel 1.

Westward: Three-position signal 45 feet east of Tunnel 2.

Two-position signal 60 feet east of east wye switch.

Overlap for westward Signal 03, east end Tunnel 1, extends 528 feet west of Signal 02. Signal 03 is actuated by first crossover switch west of Tunnel 1, and by derail between crossover switches on NCE lead.

TUNNEL SIGNALS

Two-position, automatic block signals located 1680 feet west of west portal Tunnel 1 and 50 feet east of east portal Tunnel 2 for protection through tunnels.

DRAWBRIDGE SIGNALS

San Joaquin River Drawbridge MP 80.28. Interlocked.

Home signals 650 feet east and 600 feet west of bridge are two-position, semi-automatic (SA) signals and indicate position of draw.

Three-position, automatic block signals 823, located 9300 feet east of east home signal, and 786, located 8100 feet west of west home signal, are approach signals for westward and eastward trains.

SLIDE DETECTOR FENCES

Location	Signals Actuated By: Eastward	Westward
East portal Tunnel 7 West " " " East " " 8	P-2258	P-2295
MP 236.2 to MP 237.33	P-2362 P-2368	P-2371 P-2379
West portal Tunnel 13	Abs. E. Cresta	P-2457
MP 265.0 MP 265.51	Abs. E. Rich Bar	Abs. E. Rich Bar P-2675

Oakland. Street Crossing at Third and Broadway must not be blocked.

A westward first-class train finding an eastward first-class train at passenger station will not pass Franklin St. until eastward train leaves station. An eastward first-class train finding a westward first-class train at passenger station will not pass Clay St. until westward train leaves station.

Joint WP and SP drill track between Melrose and Elmhurst must not be used for meeting or passing trains. Crossover between drill track and west end of Elmhurst siding must not be used by road crews. Normal position at west end of crossover lined for drill track and at east end lined for crossover.

Kohler. Seminary Avenue crossing is protected by flashing light signals, but trains and yard engines using this siding must cut crossing when blocked more than five minutes.

85th Avenue, Oakland. Any engines or cars moving over spur serving California Packing Corporation must be under control and highway traffic protected by member of crew.

Hayward. Freight trains doing switching will leave train outside of limits of bonded rails operating crossing bells at "A," "B" and "C" Streets and will use engine whistle and bell only when necessary to comply with the rules.

Dispatcher's telephone installed in baggage room.

Niles. Look out for gravel trucks using crossing over main track, siding and back track just west of station.

Tunnel 1. Markers must be burning through Tunnel 1.

Sunol. Cars must not be left on house track spur within 75 feet of either side of Crossing No. 4-36.0.

Altamont. Under no circumstances may cars be left on either leg of wye.

Carbona. Normal position of all switches leading from siding is lined for the siding. Normal position of the east house track switch and of the two inside crossover switches east of depot is for east leg of wye and storage track. When not in use these switches must be left lined for the normal route. Track on north side of main track may be used as an auxiliary siding. (See paragraph (S) page 23.)

Engines must move with extreme caution not exceeding 3 MPH while moving over frogs and switches and around curves on Tomato Spurs.

Army Supply Depot. A tail track, capacity 54 cars, is connected with switching track at west end. Normal position of all switches in switching track or tail track is lined for switching track. Do not exceed 10 miles per hour on interchange trackage with Army Supply Depot. (See paragraph (V) page 23.)

Ortega. Siding is a storage track. It must not be used by road crews as entrance or departure track to or from Stockton Yard.

Stockton Yard. Forty car siding on south side of main track between MP 92.09 and MP 92.54 is designated as "Diner Siding Stockton Yard."

SPECIAL INSTRUCTIONS—SECOND SUBDIVISION

Stockton Yard. Westward freight trains will enter Stockton Yard at lead switch immediately west of Charter Way, MP 92.7.

Stockton. Engines and cars must be brought to a stop at Country Club Highway crossing on North Channel Line and must be preceded by flagman over crossing.

Bridge over Smith Canal, North Channel Line, will not clear man on top of high car.

South Sacramento. The first street crossing west of South Sacramento, Sutterville Road, must not be blocked by freight trains taking water, oil, or doing work. Eastward freight trains will, when necessary to avoid blocking this crossing, leave train west of crossing while taking water or oil, or switching.

Sacramento. Trains or engines must not exceed eight miles per hour over street crossing at 5th and "R" Streets.

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

Westward passenger engines and trains must not leave depot until engineer knows that wigwag on "K" Street is in motion and eastward passenger engines and trains must not leave depot until engineer knows that wigwag on "J" Street is in motion. If wigwag fails to operate a member of crew must precede engine or train over crossing.

When road engines are detached from eastward passenger trains to permit yard engine to perform switching, road engine must move beyond alley between "G" and "H" Streets. This will actuate crossing signals at "H" Street on return movement westward after yard engine is into clear with switch closed.

Marysville. Spur track known as Cliff House Spur will not hold more than ten cars.

Joint Track Marysville. Sacramento Northern freight trains operate over Western Pacific main track between junction switch 355 feet west of Bridge 178.18, Yuba River and west siding switch and over WP siding between west switch and switch leading to Sacramento Northern track opposite Western Pacific passenger station, Marysville. These tracks are designated as Joint Tracks.

Junction switch west of Bridge 178.18 must be locked for Western Pacific main track and junction switch on siding must be locked for siding when not in use.

Movement of Trains over Joint Track will be governed by Rule 663 and made in accordance with indication of signals regardless of superiority. All trains of both railroads must approach and pass through limits of Joint Track with caution, not exceeding 25 miles per hour. In using Joint Track freight trains should avoid delays to other trains of either railroad.

Automatic Interlocking signals govern Joint Track operation as follows:

Eastward. Distant signal MP 177.2, 4528 feet west of home signal. Home signal 777 feet west of Bridge 178.18. Semi-automatic (SA) Home Signal located 45 feet west of SN junction switch east of Bridge 178.18.

Westward. Home signal 722 feet east of Bridge 178.18.

Double Switch Indicators.
SN junction switches east and west of Bridge 178.18.
West siding switch.
West switch interchange track.

Automatic Block Signals located as follows:

Eastward. Signal 1772, which is interlocking distant signal, is also three-position automatic block home signal for eastward trains. All trains must approach this signal prepared to stop if indication displayed per Rule 501, Fig. 5. Signal is approach lighted; length of approach circuit 4022 feet. Sign reading "ABS one mile" located one mile west of signal.

Home signal MP 178.8. Home signal MP 179.4, 255 feet west of east siding switch. This signal also indicates position of west interlocking home signal Binney Jct.

Dwarf signal between main track and siding 223 feet west of east siding switch governs movements eastward from siding to main track and also indicates position of west interlocking home signal Binney Junction when switch lined for movement. Signal aspect does not change until three minutes after switch is lined for movement. Double switch indicator located at east siding switch.

Westward. Home signals MP 179.5 and MP 178.9.

Double Switch Indicators.
East switch interchange track.
Crossover near passenger station (governs both switches).
Crossover MP 179 (governs both switches).
Switch of SP interchange track.
East siding switch.
East high line switch MP 179.7.

Markers must be burning through Tunnels 4, 5, 23, 33 and 35.

Land. Engines heavier than C-43 class must not use tracks 2, 3 and 4 except at west end of yard on tangent track.

C-43 and smaller class engines may use all tracks in entire yard at a moderate speed and may use east lead as far as a derail and a sign reading "WPRR engines must not go beyond this point" located 125 feet east of extreme east switch of interchange yard with the Feather River Railway Co.

No. 1 track, which is a crossover from siding to east end of yard, and No. 2 track used as a run around track, must be left clear. All classes of engines may use siding entire length.

Tobin. No east switch to siding. East connected crossover between siding and main track near east end. Capacity of siding between west switch and crossover 36 cars. Tail track to siding capacity 14 cars, beyond crossover switch with bumper at east end. Normal position of inside crossover switch lined for tail track.

Camp Rodgers. West connected switch to tracks serving PG&E Co. located in siding 1472 feet east of west siding switch. Hayes derail to prevent cars running out on siding is on lead track 200 feet east of connecting switch. Cars must not be left on grade on lead track between connecting switch and switch-back 550 feet from east end of lead track. Unless some portion of train is left on Camp Rodgers siding derail must be set in derailing position while engine is on PG&E tracks and thereafter siding must not be entered without permission of dispatcher (See Rule 772). See instructions in Sections (I) and (L), CTC Special Instructions, page 30, covering derail in siding.

Keddie. When calling in flagman from east on Fourth Subdivision enginemen will sound six long blasts of whistle.

Blairsden. Mallet and Mikado engines may use house track at Blairsden. Trains setting out or picking up on this track must have air cut through and operative.

Movement over Mill track between Blairsden and Graeagle must be made with air cut through and operative.

A sign reading "TRAINMEN PROHIBITED FROM RIDING CARS BEYOND THIS POINT" erected over tracks at a point approximately 60 feet in advance of log rollway at plant of California Fruit Exchange, Graeagle. Sign to be illuminated at night. Trainmen must obey this sign in interest of SAFETY.

On Graegle Spur do not exceed 8 MPH between main track switch and derail at switch leading to box factory and 4 MPH beyond this derail.

Crews spotting moulding mill at Graegle must hold onto nine cars including cars to be spotted.

SPECIAL INSTRUCTIONS—FOURTH SUBDIVISION

Markers must be burning through Tunnels 1, 2, 3, 6 and 8.

Keddie. When calling in flagmen from east on Fourth Subdivision enginemen will sound six long blasts of whistle.

Box. Engines or cars must not be moved over highway crossing on Box Spur just east of Greenville without being brought to a stop and highway traffic protected in both directions by a member of crew.

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. Operation over this trackage is under transportation rules governing operations within yard limits. Switch point derail on Almanor RR main track 400 feet from junction switch.

Westwood. Following instructions govern movements over crossings at Veneer Plant and Third Street (east and west of passenger station):

Trains meeting at Westwood must not block these crossings. Trains or engines using main track over crossings will run prepared to stop before hitting anything on or about to use the crossings. Between the hours of

7:20 a.m. and 7:30 a.m. 12:20 p.m. and 12:30 p.m.
11:30 a.m. and 11:40 a.m. 4:30 p.m. and 4:40 p.m.

trains stopping at Westwood must not block crossings any part of the periods specified, waiting back of crossings if necessary. Any movements over crossings between these times must be preceded by flagman. Gate tender at Third Street crossing on duty continuously.

Any crossing must be cut immediately upon request of plant gate watchman for impending movement of ambulance or fire apparatus and kept clear until released by him.

Movements of trains or engines on any tracks other than main track over any crossings in yard must be preceded by flagman.

Derail on west end F. G. S. Co. electric siding must be kept in derail position when cars are on siding. East switch of F. G. S. Co. electric siding must be left lined for siding. Derails adjacent to main track on both legs of F. G. S. Co. wye. Switch leading from west end of house track to gravel bin spur must be left lined for gravel bin spur to serve as derail.

Little Valley. Water at MP 96.0, Little Valley, not suitable for human consumption. Water peddlers and gang water cars must not be filled at this point.

RULE 840. When cars are set out at Cohala, Jellico, Willow Springs or Little Valley, in addition to provisions of Rule 840, lower car must be chained to rail and train dispatcher notified.

INTERLOCKING PLANTS AND SIGNALS AND RAILROAD CROSSINGS NOT INTERLOCKED

MP 5.8—SP Crossing and MP 5.9—Chestnut Junction, Magnolia Tower. Interlocked.

Eastward: Two arm home signal 700 feet west of crossing; upper arm governs movement on main track; lower arm governs movement on main track to north track. Dwarf signal 490 feet west of crossing governs movement from siding eastward to main track or north track. No distant signals.

Westward: Home signals (on bracket mast) 750 feet east of crossing. Arm to right governs movement from north track over junction switch to SP or WP Yards. Arm to left governs movement from main track over junction switch to SP. Suspended home signal governs movement main track to WP Yards. No distant signals.

Eastward whistle signals: Old Yard to main track — one long; to north track — One long, one short and one long. No. 1 track old yard to main track — One short and one long; to north track — One short, one long and one short.

MP 7.2 SP Crossing. Main Track and North Track. Not interlocked. 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 movements on WP in either direction. Trains must approach under control and not proceed over this crossing unless it is known to be clear.

MP 7.7 Clinton, SP Crossing. Interlocked. Home signals 565 feet east and 440 feet west of crossing. Dwarf signal between main track and north track 240 feet west of crossing.

Automatic Block Signal 83, 2000 feet east of east home signal and Automatic Block Signal 74, 1450 feet west of west home signal, are approach signals for westward and eastward trains on main track. No approach signal for eastward trains on north track.

Home signals west of crossing, both main track and north track are semi-automatic (SA) absolute block signals. When these signals indicate STOP trains will be governed by Rules 663 and 311.

Home signal east of crossing is a two-unit semi-automatic (SA) interlocking signal with "S" unit on mast. Upper unit governs movement over crossing to main track. Lower unit governs movement over crossing to north track after switch has been lined. When this signal indicates STOP trains will be governed by Rules 663 and 509. The "S" unit on mast is controlled by the train dispatcher and must be illuminated before switch is changed for entrance to north track on westward movement. After switch is changed lower unit on signal will display indication for move.

MP 10.6 and MP 10.7 Melrose Tower, SP Crossings. Interlocked. Home signals 450 feet west of crossing MP 10.6 and 685 feet east of crossing MP 10.7 are semi-automatic (SA) signals (not absolute block signals).

MP 13.7 Elmhurst, SP Crossing. Automatic interlocked. Home signals 523 feet east and 536 feet west of crossing are semi-automatic (SA) signals (not absolute block signals).

East switch to Elmhurst siding is within home signal limits and movement over this switch to the main track is governed by a dwarf semi-automatic (SA) home signal located at the clearance point.

For movement siding to main track stop train within 250 feet of dwarf signal. Call train dispatcher and when given permission by him in accordance with Rule 317 open door on electric lock and proceed according to instructions posted therein.

For movement from main track to siding, stop train between home signals and at least 50 feet east of switch points. Call train dispatcher and when given permission by him open door on electric lock and proceed according to instructions posted therein.

Electric lock is not equipped with an emergency release. If lock does not release west siding switch should be used.

If main track home signal indicates STOP upon the approach of a train, or if dwarf home signal indicates STOP with switch in the reverse position, send flagman to crossing to follow instructions posted in WP time release housing. If the time release is operated and the signal continues to indicate STOP, be governed by Rules 663 and 509.

Cars left on Elmhurst siding must be placed at least 300 feet west of dwarf home signal to avoid occupying approach lighting circuit.

MP 30.3 Niles Tower, SP Crossing. Interlocked.

Home signals 450 feet east and west of crossing, are three-position, semi-automatic (SA) signals.

MP 42.7 and MP 42.95 Radum Tower, SP Crossings. Interlocked.

Home signals 480 feet east of crossing MP 43.0 and 480 feet west of crossing MP 42.7, are two-position, semi-automatic (SA) signals.

Towerman on duty daily except Sundays and holidays. During hours towerman is off duty normal operation of signals on WP will be semi-automatic.

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 Lyoth Tower, SP Crossing. Interlocked.

Home signal 700 feet west of crossing is three-position signal.

Home signal 600 feet east of crossing is three-position, two-unit signal. Upper unit governs main track and lower unit governs movement over crossing and into east end Lyoth siding.

Dwarf signal located between main track and siding governs movement from siding to main track.

All three signals are semi-automatic (SA) absolute block signals. Trains stopped by these signals will be governed by interlocking rules within the interlocking limits and A.A.B.S. rules for movements beyond interlocking home signals in main track blocks.

Following are whistle signals: Westward trains desiring to enter siding — one long, one short. Eastward trains desiring to leave siding — one short, one long.

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

MP 84.45 SP Crossing. Interlocked.

Home signal 650 feet east of crossing is two-position, semi-automatic (SA) signal and home signal 650 feet west of crossing is three-position, semi-automatic (SA) signal.

Three-position, Automatic Block Signal 828, located 8250 feet west of west home signal, is approach signal for eastward trains.

When switching is done on main track at east Quigley, west Lathrop or crossover west end of Army Supply Depot track, signal operator in SP depot Lathrop 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. Telephones located near east switch Quigley, at crossing, and in A.A.B.S. booths west Lathrop and crossover west end Army Supply Depot track.

MP 90.5 Ortega Tower, SP Crossing. Interlocked with Hunter Street track.

Home signals 450 feet east and 230 feet west of crossing on Hunter Street track.

Home signal 450 feet east of crossing is semi-automatic (SA) absolute block signal governing entrance to main track block on westward moves. Connecting switch to main track MP 90.42 must be thrown by hand. If this signal is in STOP position be governed by Rule 663 within interlocking limits and Rule 311 before fouling main track. Telephones for communicating with train dispatcher located in tower and in booth adjacent to main track absolute block signals MP 90.4.

Towerman on duty 6:00 p.m. to 3:00 a.m. daily except Sunday.

MP 93.2 AT&SF Tower, AT&SF Crossing. Interlocked. Home signal 450 feet east of crossing is semi-automatic (SA) absolute block signal. Two-unit, home signal 450 feet west of crossing is semi-automatic (SA) absolute block signal. Upper unit governs movement on Western Pacific main track; lower unit governs movement over AT&SF main tracks to interchange track.

MP 93.8 Weber Avenue Tower, SP Crossing. Interlocked. Main track: Home signals 423 feet east and 315 feet west of crossing are semi-automatic (SA) absolute block signals. Siding: Home signals 124 feet east and 73 feet west of crossing.

MP 95.1 El Pinal Tower, SP Crossing. Interlocked. Home signals 650 feet east and west of crossing.

MP 137.5 "X" Street, CCT and SN Crossing. Automatic interlocked. Home signals 450 feet east and west of crossing. Home signal east of crossing is semi-automatic (SA) block signal (not absolute block signal) and gives approach indication to westward absolute block signal at east end of train yard South Sacramento. If signals are in STOP position send flagman to crossing to operate time release inside box at crossing. Instructions for operation of time release inside of box. If signals remain in STOP position be governed by Rule 663.

Hayes derail 171 feet east of west switch to interchange track is pipe-connected to main track switch stand and switch must not be closed until rear of train has passed derail.

Switch indicators at head block west switch to interchange track and at entrance switch to Sutton-Morf Tractor Company spur give warning of approach of trains on WP, CCT and SN. When these indicators show "block occupied" and no train or engine is seen or heard approaching, protection must be provided for movement over crossing per Rule 663 (c) after necessary protection has been provided on WP tracks for opening switch and movement made onto WP main track.

MP 138.0 "R" Street Tower, SP Crossing. Interlocked. Two-arm semaphore type home signal 796 feet east of crossing. Upper arm governs main track; lower arm governs leg of wye. Two-unit color-light home signal 700 feet west of crossing. Upper unit governs main track; lower unit governs leg of wye. No distant signals.

Dwarf signal on east leg of wye 165 feet from main track switch governs movement from "R" Street line to main track.

Two-arm dwarf signal on west leg of wye 800 feet from main track switch. Upper arm governs movement from "R" Street line over crossing to WP main track; lower arm governs movement over crossing to California Builders' Supply spur.

Spur serving Valley Wholesale Grocery Co. connected with west leg of wye with switch facing west. Normal position of switch is lined for spur. Indication on eastward home signal on main track is same for movements from main track to either "R" Street line or to spur. Crews desiring to enter spur must advise towerman. Switch cannot be changed while engine or cars are between home signals of plant. Two-position color-light signal on spur governs movements out of spur track.

Following are whistle signals: Main track to wye, either leg, one long, one short. Wye to main track, either leg, one short, one long.

MP 139.2 "C" Street, SN Crossing. Automatic interlocked. Home signals 480 feet east and 450 feet west of crossing. Distant signals, permanently at caution, 3190 feet east and 1584 feet west of home signals. If signals are in STOP position send flagman to crossing to operate time release in box at crossing. Instructions for operation of time release inside of box. If signals remain in STOP position be governed by Rule 663. Switch indicator at head block main track switch to Haggin transfer track gives warning of approach of trains on WP and SN. Hand operated derail on Haggin transfer track 226 feet east of west main track switch.

MP 140.8 Globe, SN Crossing. Interlocked. Manual control two-position color-light signals, approach lighted. Home signals 605 feet east and west of crossing. Distant signals 4200 feet east and 3032 feet west of home signals.

MP 152.5 Sankey, SN Crossing. Automatic interlocked. Home signals 600 feet east and west of crossing are semi-automatic (SA) signals. Distant signals 3000 feet east and west of home signals are also three-position automatic block home signals. All signals color-light type approach lighted. All trains must approach these signals prepared to stop if indication displayed per Rule 501, Fig. 5. If signals are in STOP position, send flagman to crossing to operate time release in box at crossing. Instructions for operation of time release inside of box. If signals remain in STOP position, be governed by Rule 663. Signs reading "A.B.S. one mile" located one mile east and west of signals.

Joint Track Marysville. (See special instructions page 14, Second Subdivision.)

MP 180.2 Binney Jct. Tower, SP Crossing. Interlocked. Home signal 680 feet west of crossing SP main track. Automatic Block Home Signal 1794, located 3722 feet west of home signal, and Dwarf Signal 1796 on siding are also distant signals for Binney Jct.

Semi-Automatic (SA) home signal 644 feet east of crossing. Distant Signal 1811, 4598 feet east of home signal, is also three-position automatic block home signal for westward trains. All trains must approach this signal prepared to stop if indication displayed per Rule 501, Fig. 5. Signal is approach lighted; length of approach circuit 4039 feet. Sign reading "A.B.S. one mile", located one mile east of signal.

All signals are of color-light type.

San Jose Branch.

MP 19.6 SP Crossing. Not interlocked.

MP 20.2 Willow Glenn, SP Crossing. Interlocked. Semi-automatic (SA) home signals 225 feet east and west of crossing. No distant signals.

MP 22.3 West San Jose, SP Crossing. Interlocked. Home signals 250 feet east and west of crossing. No distant signals.

All trains must come to STOP at home signals, Willow Glenn and West San Jose crossings and a member of crew go to crossing and carefully follow instructions pasted inside of derail lock box at each crossing before proceeding over either crossing.

SPEED RESTRICTIONS

Speed restrictions in miles per hour will apply as follows:

BETWEEN	Passenger: Streamlined Diesel Powered Trains		Passenger: Other Passenger Trains		Freight: All Freight Trains	
	Maximum	Restrictions	Maximum	Restrictions	Maximum	Restrictions
First Subdivision—Pages 2-3						
Chestnut Jct. and Oak St., Oakland	15	..	15	..	15	..
Over Washington and Franklin Streets, Oakland	..	8	..	8	..	8
Oak St., Oakland and SP Crossing, MP 10.6	20	..	20	..	20	..
MP 7.2 over SP Crossing	..	10	..	10	..	10
*MP 7.7 over SP Crossing, Clinton	..	15	..	15	..	15
MP 9.5 just east 29th Ave. and MP 9.8 just east of Fruitvale Ave.	..	10	..	10	..	10
*SP Crossing MP 10.6 and East Oakland Yard Limit	35	..	35	..	25	..
*MP 13.7 over SP Crossing	..	30	..	30	..	..
Oakland Yard Limit and Niles	70	..	60	..	40	..
Bridge 14.55 just west of San Leandro depot and Williams St., 5 blocks east of depot	..	20	..	20	..	15
Over "A" and "B" Streets, Hayward	..	45	..	45	..	30
MP 23.93 and MP 24.31	..	45	..	45	..	30
MP 29.25 and MP 29.6 on curve	..	45	..	40	..	30
Niles and MP 39	55	..	50	..	30	..
*MP 30.3-SP Crossing and MP 32	..	45	..	40	..	..
Thru Tunnels 1 and 2	..	45	..	40	..	20
MP 33.6 and MP 34.4 on curves	..	50	..	45	..	..
MP 36.4 and MP 37 on curves	..	50	..	45	..	..
MP 38.2 and MP 38.7 at SP underpass on curve	..	50	..	45	..	..
MP 39 and MP 52	70	..	60	..	40	..
MP 39.9 and MP 40.3 on curve	..	60	..	55	..	..
City Limits, Pleasanton	..	15	..	15	..	15
MP 42.7 and MP 42.95 SP Crossings	..	50	..	40	..	25
City Limits, Livermore	..	50	..	50	..	40
MP 49.6 and MP 50.1 over SP	..	60	..	55	..	..
MP 51.5 and MP 51.9	..	60	..	55	..	..
MP 52 and MP 60.5	50	..	45	..	30	..
MP 53 and MP 54 on curves	..	40	..	35	..	25
MP 58 and MP 58.2 on curve	..	45	..	40	..	..
MP 60.5 and MP 67	65	..	60	..	40	..
MP 61.8 and MP 62.1 on curve	..	60	..	55	..	..
MP 63.3 and MP 67 on curve	..	50	..	45	..	30
MP 67 and Stockton Depot	70	..	60	..	40	..
*MP 74.05 SP Crossing	..	50	..	40	..	25
MP 79.8 and MP 80.2 on curve	..	50	..	40	..	25
MP 80.2 and MP 80.4, San Joaquin River Drawbridge	..	30	..	20	..	15
*MP 84.45 SP Crossing	..	40	..	30	..	25
MP 89.75 and Charter Way on curves	..	50	..	45	..	30
Charter Way and Stockton Depot, Main Track	..	20	..	20	..	20
Other Tracks	..	8	..	8	..	8
Second Subdivision—Pages 4-5						
Stockton Depot and MP 122	70	..	60	..	40	..
Stockton Depot and MP 95—Main Track	..	20	..	20	..	20
Other Tracks	..	8	..	8	..	8
*MP 95.1 over SP Crossing	..	40	..	40	..	25
MP 116.07 Mokelumne River Bridge	..	45	..	35	..	35
Bradford Spur	..	..	..	..	..	10
MP 122 and MP 133.5	60	..	50	..	35	..
MP 133.5 and MP 155	60	..	60	..	40	..
Over and between Sutterville Road and "C" St., Sacramento	..	15	..	15	..	15
"C" St. and MP 140.1	..	20	..	20	..	20
*MP 140.8 SN Crossing	..	50	..	40	..	25
*MP 152.5 SN Crossing	..	50	..	40	..	25

SPEED RESTRICTIONS—Continued

Speed restrictions in miles per hour will apply as follows:

BETWEEN	Passenger: Streamlined Diesel Powered Trains		Passenger: Other Passenger Trains		Freight: All Freight Trains	
	Maximum	Restrictions	Maximum	Restrictions	Maximum	Restrictions
Second Subdivision—Continued						
MP 155 and MP 171	60	..	50	..	35	..
MP 171 and MP 185	60	..	60	..	40	..
MP 178 and MP 179	..	20	..	20	..	20
*MP 180.2 SP Crossing	..	40	..	40	..	25
MP 185 and MP 197	60	..	50	..	35	..
MP 197 and Oroville	60	..	60	..	40	..
MP 201.7 and MP 201.9 on curve	..	45	..	40	..	25
MP 204.7 and MP 205.1 on curve	..	50	..	45	..	30
Third Subdivision—Pages 6-7						
Oroville and Bidwell	55	..	50	..	35	..
Through Tunnel 4	..	35	..	30	..	25
MP 208.5 and MP 209.3 on curves	..	45	..	40	..	30
MP 211.4 and MP 212.1 on curves	..	50	..	45	..	30
MP 212.7 and MP 212.9 on curve	..	45	..	40	..	30
Bidwell and Bloomer	50	..	45	..	30	..
MP 214 and MP 214.1 on curve	..	45	..	40	..	..
MP 214.8 and MP 215.7 on curves	..	45	..	40	..	..
MP 216.15 and MP 216.75 on curves	..	40	..	35	..	25
Bloomer and Grays Flat Spur MP 272.57	40	..	35	..	25	..
MP 218.15 and MP 218.3 on curve	..	35	..	30	..	..
MP 220.9 and MP 223.2 on curves	..	35	..	30	..	..
MP 230.2 and MP 230.45 on curves	..	35	..	30	..	..
MP 231.9 and MP 234.15 on curves	..	35	..	30	..	..
MP 235.25 and MP 239 on curves	..	35	..	30	..	..
MP 241.4 and MP 241.5 on curve	..	35	..	30	..	..
MP 244.2 and MP 245 on curves	..	35	..	30	..	..
MP 248.4 and MP 252.6 on curves	..	35	..	30	..	..
Over Bridge 252.6	..	30	..	25	..	20
MP 252.7 and MP 253.2 on curves	..	35	..	30	..	..
MP 254 and MP 256.2 on curves	..	35	..	30	..	..
MP 257.8 and MP 259.2 on curves	..	35	..	30	..	..
MP 260.9 and MP 271.5 on curves	..	35	..	30	..	..
MP 272.57 and Quincy Junction	45	..	40	..	30	..
MP 273.3 and MP 273.5 on curves	..	40	..	35	..	25
MP 275.2 and MP 283 on curves	..	35	..	30	..	25
MP 283 and MP 283.5 on curves	..	40	..	35	..	25
MP 286 and MP 287.1 on curves	..	35	..	30	..	25
Quincy Junction and Portola	50	..	45	..	30	..
MP 288.9 and MP 291.1 on curves	..	45	..	40	..	..
MP 291.9 and MP 294 on curves	..	40	..	35	..	25
MP 294 and MP 295.1 on curves	..	35	..	30	..	25
MP 295.9 and MP 296.15 on curves	..	45	..	40	..	..
Through Tunnel 35	..	..	..	..	..	20
MP 298.55 and MP 299.75 on curves	..	35	..	30	..	25
MP 300.85 and MP 301.05 on curves	..	40	..	35	..	25
MP 304.05 and MP 305.25 on curves	..	40	..	35	..	25
MP 306.15 and MP 307.45 on curves	..	45	..	40	..	..
MP 310.7 and MP 314.2 on curves	..	45	..	40	..	..
MP 314.25 and MP 314.35 on curves	..	40	..	35	..	25
MP 314.8 and MP 316 on curves	..	45	..	40	..	..
MP 316 and MP 316.45 on curves	..	35	..	30	..	25
MP 316.65 and MP 316.98 on curves	..	45	..	40	..	..
MP 318.1 and MP 318.3 on curves	..	45	..	40	..	..

Passenger trains, other than those consisting of all streamlined equipment and handled by passenger diesel power, will be governed by restrictions applying to other passenger trains.

***All trains approaching interlocked crossings must reduce to speeds shown above before engine passes home signal.**

SPEED RESTRICTIONS—Continued

Speed restrictions in miles per hour will apply as follows:

Page No.	BETWEEN	Passenger		Freight	
		Maximum	Restriction	Maximum	Restriction
8-9	Fourth Subdivision				
	Keddie and Crescent Mills	35	..	25	..
	Crescent Mills and Greenville	40	..	40	..
	Greenville and Clear Creek Jct.	35	..	25	..
	Clear Creek Jct. and Mason	35	..	30	..
	Clear Creek Jct. and Westwood, on curves	..	25	..	25
	Mason, trains using turnout	..	20	..	20
	Mason and Halls Flat	40	..	40	..
	Halls Flat and Pit River	35	..	25	..
	Halls Flat and Pit River, on curves	..	25	..	..
	On curve west mile board Willow Springs	..	25	..	15
	Pit River and Bieber	40	..	30	..
10	San Jose Branch	30	..	25	..
	Within city limits, San Jose	..	12	..	12
	Over all street and highway crossings within city limits, San Jose	..	5	..	5
11	Carbona Branch	12	..	12	..
	Terminous Branch				
	Terminous Jct. and Garden	20	..	20	..
	Garden and Terminous	15	..	15	..

MAXIMUM SPEEDS:

On curved track Third Subdivision enginemen will reduce speed below the maximums provided where necessary to insure safety.

Engines backing—20 miles per hour on straight track. On curves and where track conditions are unfavorable speed must be reduced further to a rate consistent with safety.

Engines running light on main track or branches—speeds prescribed for freight trains.

M-80 Class engines, All Subdivisions—35 miles per hour.

GS-64-77 Class Engines (Nos. 481-486) must not exceed speeds indicated below over following bridges:

Bridge 18.80	45 MPH	Bridge 39.40	45 MPH
" 20.87	45 "	" 49.88	45 "
" 22.11	45 "	" 53.40	45 "
" 35.09	35 "	" 116.28	45 "
" 37.12	45 "	" 204.82	30 "
" 37.36	45 "		

M-137-151 Class engines:

Handling passenger trains.....speeds prescribed for freight trains
Over Bridge 317.43.....25 miles per hour in trains or light
Second Subdivision.....30 " " " " " " "
Fourth Subdivision
Btw. Keddie and Greenville....25 " " " " " " "
" Greenville and Almanor...20 " " " " " " "
" Almanor and Westwood...25 " " " " " " "
" Westwood and Halls Flat...30 " " " " " " "
" Halls Flat and Bieber.....25 " " " " " " "
" Halls Flat and Bieber, on curves descending grade.20 " " " " " " "
While engine passing through crossovers or turnouts..... 5 " " " " " " "

Passenger trains with cabooses on rear or when handled by C-43, MK-60 or MK-60-71 engine—50 miles per hour.

Trains handling Southern Pacific scale test car will not exceed 40 MPH.

Trains handling steam derricks, steam shovels, cranes, rotary plows or pile drivers, 25 miles per hour First and Second Subdivisions, 20 miles per hour Third and Fourth Subdivisions.

Trains handling triple loads of poles, 20 miles per hour Third and Fourth Subdivisions and between Carbona and Oakland.

Trains handling logs, 25 miles per hour. When two trains meet, either of which are handling logs, the standing train will remain standing until other train has cleared or come to a stop unless necessary to saw by. Maximum speed of train passing, 15 miles per hour.

All trains or engines through turnouts, crossovers, sidings and other inside tracks, 10 MPH.

MISCELLANEOUS

Dead engines handled in trains must be placed approximately 10 cars behind train engine.

When steam derrick is handled with Mallet or D-225 engine, there must be at least two cars between engine and derrick.

DOUBLEHEADING. When D-225, M-80, M-137-151, GS-64-77, MK-60, MK-60-71 or MTP-44 engines are in a train with another engine of any class, either in service or dead, they must be spaced at least 10 cars apart, except on Third Subdivision and between Stockton Yard and Altamont MTP-44 engines may be doubleheaded with C-43 engines; and on Fourth Subdivision M-80, MK-60 or MK-60-71 engines may be doubleheaded with C-43 engines; also two M-80 engines, a D-225 and M-80 engine or an M-137-151 and M-80 engine may be doubleheaded between Bieber and Halls Flat.

In emergency D-176 Passenger Diesel engines may be doubleheaded with C-43, MTP-44, MK-60, MK-60-71, M-80 or D-225 engines.

C-43 engine being doubleheaded with C-43 engine, or running light coupled, will not exceed 35 miles per hour over Bridge 64.43.

MTP-44 engine being doubleheaded with C-43 engine, or running light coupled, will not exceed 35 miles per hour over Bridges 56.96, 64.43, 79.41 and 80.37.

MK-60 or MK-60-71 engine and M-80 engine being doubleheaded with C-43 engine on Fourth Subdivision will not exceed 25 miles per hour over Bridges 9.04, 9.29, 9.45 and 9.79.

TRIPLEHEADING of locomotives of any class, running light or handling train, is prohibited.

DIESEL ENGINES. Diesel freight engines dead in train must have qualified messenger. In both cabs automatic brake valves must be cut out and brake valve handles locked in running position; independent brake valve handles locked in running position (locking pins are provided for this); dead engine features cut in; all isolation switches placed in "start" position; all switches at engineer's control stand locked in "off" position and main battery switches pulled; reverses locked in neutral position in all units. Messenger should watch brake cylinder pressure in cab nearest to locomotive handling train. Distributing valve pops must be set to 25 pounds pressure. Maximum speed 60 miles per hour.

Diesel switch engines dead in train must have qualified messenger. Automatic brake valve must be cut out and handle placed in running position; distributing valve pop set to 15 pounds pressure; dead engine feature cut in; main battery switch pulled and reversers locked in neutral position. Maximum speed 45 miles per hour.

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

TRACKS ON WHICH ENGINE MOVEMENTS RESTRICTED

Location and Description of Track	Class of Engine	Prohibited
Oakland, Kaiser Ready-Mix Spur	C-43 or heavier	Beyond frog
Balloon track	MTP-44 or heavier	"
San Leandro, L. A. Young Spring and Wire Spur	MTP-44	Beyond frog
Lady's Choice Food Spur	"	"
Caterpillar Tractor	MTP-44 or heavier	"
Calif. Pack. Corpn.	"	"
Hyrup Spur	"	"
Hayward, Farm Produce Spur	"	"
Poultry Prod. Spur	"	"
Niles, Transfer Track	"	"
P.C.A. Gravel Plant	"	On trestle
" " "	All Classes	Beyond trestle
Goad Spur	All Classes	300 feet beyond switch
San Jose Branch	MTP-44 or heavier	On entire Branch from a point one-fourth mile east of Tail of Wye at Niles Jct.**
Radum	All Classes	Beyond frog on all tracks except 1 and 2
Livermore, Brick Yard Track	MTP-44 or heavier	Beyond frog
Stock Track	"	"
Altamont	MTP-44	Beyond frog either leg of wye
Carbona, Track No. 2 (Tomato Spur)	MTP-44, GS-64-77 M-137-151	Beyond frog
Bean Spur	"	"
Carbona Branch (Main Track)	MTP-44 or heavier	Beyond West Switch / Kerlinger
Spur MP 0.5	"	Beyond frog
Kerlinger	"	Beyond frogs on siding and on boarding house spur
Main Trk.	C-43 or heavier	Beyond Moy Stock Yards
Lyoth, Standard Oil Spur	All Classes	Beyond sign 225 feet from switch
Stockton, North Channel Spur	MTP-44 or heavier	Beyond frog
Harte Spur	All Classes	Beyond Br. 100.56
Terminous Branch	MTP-44 or heavier	On entire Branch
Villinger Spur	MTP-44 or heavier	On No. 1 track beyond 165 feet from No. 2 track switch
	GS-64-77 or heavier	Beyond frog
Las Vinas	MTP-44 or heavier	"
Glannvale, Stock Yard Spur	All Classes	Beyond stock chute
	GS-64-77 or heavier	Beyond frog
Bradford Winery	MTP-44 or heavier	Beyond frog
So. Sacramento, Track 68	"	Beyond clearance point

**MTP-44 engines may be used on San Jose Branch when authorized by Chief Dispatcher.

Tracks on which engine movements restricted (continued)

Location and Description of Track	Class of Engine	Prohibited
Sacramento, Old House Track (T&XSt)	MTP-44 or heavier	Beyond frog
"R" Street Line	MK-60 or heavier	Beyond 17th Street
Pleasant Grove, House Track	MTP-44 or heavier	Beyond depot
Trowbridge, Rice Growers Elevator Spur	"	Beyond frog
Team Track	GS-64-77 or heavier	"
East Arboga, Outfit Spur	All Classes	Beyond 300 feet from frog
	GS-64-77 or heavier	Beyond frog
Cleveland Spur	MTP-44 or heavier	"
Marysville, Old SN Frt. Conn.	All Classes	"
Old Frt. House and Sand Plant	MTP-44 or heavier	"
Cliff House Spur	All Classes	"
High Line	MTP-44 or heavier	"
Craig Spur	"	"
Vista Robles Spur	GS-64-77 or heavier	"
Adelaide Spur (Oroville Yard)	MTP-44 or heavier	"
Pond Track	All Classes	"
Oroville, High Sierra Pine Mills Spur	MTP-44 or heavier	Beyond clearance point
SN Transfer	"	"
Hokes Spur	"	"
Mt. Ida Spur	"	"
Ehman Spur	"	"
Sunkist Spur	"	"
Land—See special instructions, page 15, under "Third Subdivision"		
Bloomer, River Spur	MTP-44 or heavier	Beyond frog
Berry Creek, House Spur	MTP-44 or heavier	Beyond clearance point
	All Classes	Beyond water column
Blinzig Spur	MTP-44 or heavier	Beyond clearance point
Jarbo Spur	"	Beyond 500 ft. from frog
Grizzly Spur	"	Beyond frog
Rock Creek, Outfit Spur	"	Beyond clearance point
Highway Spur	"	"
Tobin, River Spur No. 1	M-137-151	Beyond Culvert 253.01
Belden, House Track Spur	MTP-44 or heavier	Beyond frog
	All Classes	Beyond MP 260
Rich Bar, Outfit Spur	MTP-44 or heavier	Beyond clearance point
Virgilia, River Spur	"	"
Twain, Outfit Spur	"	Beyond frog
Paxton, House Track	"	Beyond clearance point
Stoddard Spur	"	Beyond frog
Keddie, Kelly Spur	"	"
Depot Back Track Spur	"	"
West Leg of Wye	All Classes	" (Except C-43 or lighter may use in emergency)

Tracks on which engine movements restricted (continued)

Location and Description of Track	Class of Engine	Prohibited
Spring Garden, Stock Track	MTP-44 or heavier	West of Stock Chute
Back Track	"	Beyond frog
Sloat, Log Spur	"	Beyond frog
All Mill Tracks	"	"
Cromberg Siding	"	Beyond clearance point
Blairsden, Richfield Oil Spur	"	Beyond frog
Graeagle, All Tracks	"	Beyond sign 1166 feet east of house track switch Blairsden
Log Unloading Track	All Classes	Beyond west end log unloading dock
		Beyond sign at beginning of 20 degree curve between west end box factory and moulding mill
Clio Spur	MTP-44 or heavier	Beyond frog
Crescent Mills, Standard Oil Spur	M-137-151 Class	Beyond frog
Box, Setzer Lbr. Co.	"	"
MP K-21.03, Tunnel Spur	"	"
Rollo Spur	"	"
Clear Creek Jct., Almanor RR	"	"
Westwood, Fredonia Track and Standard Oil Spur***	D-225, MK-60, MK-60-71, M-80 and M-137-151 (also SP engines of similar weight and type)	Beyond frog***
Oil Spur off F.G.S. House Track	M-137-151	Beyond frog
Electric Siding	"	West of crossover
Both Legs F.G.S. Wye	M-80 or heavier	Beyond frog
All Mill Spurs leading off of Track No. 4	"	"
Roundhouse lead	"	"
Poison Lake, Spur off west leg of wye	All Classes	Beyond frog
Either Leg of Wye	M-137-151 and D-225	Beyond clearance point
Halls Flat, Logging Industry Track	M-137-151 or heavier	Beyond clearance point
West switch F. G. S. Wye at Camp Bunyon	M-80 or heavier	Beyond frog
Indian Head Lbr. Co. Spur	MTP-44, MK-60, MK-60-71 and M-137-151	Beyond frog

***Necessary have hold of at least 4 cars to switch Standard Oil Spur.

Track restrictions applying to MTP-44 or heavier engines, do not apply to 551-558 (S-57) and 581-585 (S-60) Class Diesel switch engines, except 581-585 (S-60) Class must be separated from any loaded cars by at least one empty car while handling cars over Smith Canal Drawbridge, North Channel Line, Stockton.

TONNAGE RATING

Engine Class	1st Subdivision	2nd Subdivision	3rd Subdivision	4th Subdivision		
				Keddie to Greenville	Greenville to Almanor	Almanor to Bieber
Eastward						
MTP-44....	1650	5000	1250	900	617	900
C-43....	1650	5000	1250	900	617	900
MK-60....	2500	6000	1800	1250	858	1250
MK-60-71..	2700	6000	1800	1250	858	1250
GS-64-77..	2800	6000	1900	1250	858	1250
M-80....	3000	6000	2200	1690	1170	1690
M-137-151	5000	6000	4000	2800	1900	2800
D-176**	2800	6000	1900	1250	858	1250
D-225***	5800	6000	4000	3400	2000	3400
				Bieber to Halls Flat	Halls Flat to Keddie	
Westward						
MTP-44....	1400	5000	*	756	1600	
C-43....	1400	5000	*	756	1600	
MK-60....	2350	6000	*	1051	2200	
MK-60-71..	2500	6000	*	1051	2350	
GS-64-77..	2500	6000	*	1051	2450	
M-80....	2600	6000	*	1427	3500	
M-137-151	4000	6000	*	2200	5500	
D-176**	2500	6000	*	1051	2450	
D-225***	5000	6000	*	2800	6000	

*Descending grade, no tonnage limit.
**Reduce 33⅓% of tonnage rating for each inoperative Diesel unit.
***Reduce 25% of tonnage rating for each inoperative Diesel unit.
Add five tons friction for each car over 30 cars.
Tonnage rating based on maximum grade each subdivision; between points where grades are less than maximum, greater tonnage can be handled.

ABSOLUTE AUTOMATIC BLOCK SYSTEM—SPECIAL INSTRUCTIONS

(A) Absolute Automatic Block System extends between Clinton, MP 7.7, and entering crossover MP 91 Stockton Yard.

(B) Trains will operate by timetable and train order authority over First Subdivision but within absolute automatic block system limits will be governed by signal indications which supersede the superiority of trains.

(C) Trains will maintain their authorized identity, continue to display classification signals and first-class trains will respect their timetable schedules through A.A.B.S. limits.

(D) Signals within A.A.B.S. limits are color-light type. Those at entrance to sidings are located 300 feet beyond switch. As "line switch indicator" thereon may require that trains enter siding, stop should be made back of switch when such signals display STOP indication.

(E) Telephones for communicating with train dispatcher are located adjacent to all absolute block signals.

(F) **RULE 105.** Main track only is included in signal circuits. Sidings and other tracks are not included and trains entering and using such tracks must proceed with caution.

(G) **RULES 282 and 285.** When signal indications require reduction to medium speed, trains will be governed by the following within city limits at Livermore and Pleasanton, and will be governed by the following at Oakland except where other conditions require a lesser speed:

	Between	Passenger	Freight
Livermore—	MP 46.84 and MP 48.3	30 MPH	20 MPH
Pleasanton—	MP 41.12 and MP 41.74	15 MPH	15 MPH
Oakland—	Clinton and East Yard Limit MP 13.78	20 MPH	20 MPH

(H) **RULE 302.** Work trains will be authorized by A.A.B.S. Clearance.

(I) **RULES 302 and 303.** Rule 93 applies within A.A.B.S. limits. Second-class and extra trains and yard engines must move with caution within yard limits, whether or not signals indicate PROCEED.

Authority must be obtained from train dispatcher to use main track for switching within yard limits. Yard engines using main track for switching at any point or road engines making switching moves in yard limits must provide flag protection against overdue first-class trains.

Freight trains moving within yard limits by signal indication and yard cuts moving from one part of a yard to another by signal indication need not flag against overdue first-class trains.

(J) **RULE 303.** Protection per Rule 99 is not required when a train is standing at a station between absolute signals at that station, except when A.A.B.S. has been taken out of service (see Rule 325). On a passenger train flagman must take position on ground at rear of train prepared to provide protection, if protection becomes necessary.

(K) **RULES 311 and 291.** When a train is moving through a block under an A.A.B.S. clearance and finds an automatic block signal within the block in STOP position it will not be necessary to walk a flagman ahead but, after stopping, train may proceed at once with caution, not exceeding 12 miles per hour.

(L) **RULE 312.** Is modified to the extent that switches not protected by electric locks or signals located between absolute signals at a station may be used for switching without obtaining authority from the train dispatcher provided a part of the train is on the main track within the block at all times. The train dispatcher should be advised when such switching is to be done.

When a train is standing or switching between absolute signals at a station, train dispatcher may authorize another train to flag into the block to perform work. Crew of train so authorized must have an understanding with crew of train occupying the block before entering the block and must fully protect their movements against any movements by the train originally occupying the block.

(M) **RULES 311, 313 and 315.** When a train becomes disabled in a block between stations and is unable to proceed and train dispatcher is so informed by the conductor, or engineer if there is no conductor, he may authorize another engine or train to enter the block as follows:

Following movement: By means of an A.A.B.S. Clearance on which shall be shown the location of the disabled train. The engine or train so authorized must move with caution, not exceeding 12 MPH within the block.

Opposing movement: by means of an A.A.B.S. Clearance provided that the engine or train so authorized must send a flagman ahead into the block, wait at least five minutes after he has started, and then follow, keeping at least one-fourth mile behind him until the disabled train is reached.

(N) **RULE 313.** Conductor of a train, or engineer of a light engine, granted work authority by an A.A.B.S. Clearance under Rule 313, without train orders or clearance, must ascertain from train dispatcher what instructions are outstanding as to track conditions on that portion of the system over which movement is to be made.

(O) **RULE 317.** Electrically-locked switches located as follows:
Elmhurst, east siding switch.
San Leandro, cannery track, east switch.
Niles Junction, west wye switch.
Goad.
Trevarno.
Redmond Cut, east and west switches.
Valpico, east and west switches.
French Camp, east and west switches.
Stockton Yard, Union Stockyards MP 90.3.

Telephones for communicating with train dispatcher are located in concrete telephone booths adjacent to switches. Instructions for operating electric locks posted in telephone booths adjacent thereto.

In order to release electric locks for entrance to electrically-locked switches (except at Stockton Yard, Union Stockyards) a part of engine or cars must be standing ahead of switch within the release circuit. Release circuit extends from a point approximately 50 feet ahead of switch points to a point approximately 130 feet ahead of switch points, except at Niles Junction. (See special instructions under Section (R) for release circuit at Niles Junction.)

(P) **San Leandro.** Eastward absolute block signal at west end of siding governs entrance of eastward trains to main track block or siding. Absolute block signal at east end of siding governs entrance of eastward trains to main track block. No signal located on main track at east end of siding and no signal is provided for westward trains to enter siding. Train dispatcher may, when desired, instruct westward trains verbally to do so.

Cannery Track: East switch is electrically-locked. West switch is not locked or signaled. Trains or engines must not clear main track on this track except by specific authority of the train dispatcher. Thereafter Rule 310 applies in case of return to main track block through west switch.

Rule 312: Switching authority may be granted by train dispatcher between home interlocking signal east of SP Crossing MP 13.7 Elmhurst and westward approach signal to absolute block signal at west end San Leandro.

(Q) **Hayward.** Rule 221: When train-order signal at Hayward is in stop position but absolute block signal displays indication permitting entrance into block eastward trains may pass east switch of new siding and proceed into block (or blocks) but must not leave Hayward without a clearance.

Old siding in service as an auxiliary siding or switching track. No signal is provided for eastward trains to enter this track. Train dispatcher may, when desired, instruct eastward trains verbally to do so. Absolute block signals on old siding govern entrance of eastward or westward trains to main track block and westward absolute block signal on main track governs entrance of westward trains to old siding.

Inside switch at east end of new siding is normally lined for tail track. See instructions in Section (W).

Rule 312: Train dispatcher may grant switching authority under this rule between eastward automatic block approach signal to eastward absolute signal at west switch new siding and westward automatic block approach signal to westward absolute block signal at east switch old siding.

(R) **Niles Junction.** Absolute block signals at east wye switch govern movement to and from east leg of wye.

West wye switch electrically-locked and pipe-connected to switch to outfit spur off west leg of wye, which will serve as a derail. Release circuit extends from 50 feet west of switch points to home interlocking signal 450 feet east of SP crossing MP 30.3.

ABSOLUTE AUTOMATIC BLOCK SYSTEM—SPECIAL INSTRUCTIONS (Continued)

(S) **Carbona.** The south siding is the designated track to be used for meeting or passing of trains. Permission from train dispatcher is required to enter north siding after entering main track block by signal indication at east or west Carbona. Entrance from north siding to main track governed by signal indication. Train dispatcher cannot clear entrance signals from north siding to main track when main track block is occupied and Rules 312 or 314 will apply under these circumstances.

(T) **Lyoth.** No signal is provided for eastward trains to take siding. Train dispatcher may, when desired, instruct eastward trains to do so.

Absolute block signal on west end of siding governs entrance of westward trains to main track block. Movements to and from east end of siding are governed by interlocking signals, Lyoth crossing, which are also semi-automatic (SA) absolute block signals.

Crossover between main track and siding is not electrically-locked and must not be used to enter main track block unless part of train already is on main track within the block.

(U) **Lathrop.** Trains switching between west end of Lathrop or crossover west end of Army Supply Depot track and home interlocking signal east of Lathrop crossing, in addition to obtaining authority from train dispatcher must notify signal operator SP Lathrop before switching is commenced and after it is completed. Telephones for this purpose located in A.A.B.S. telephone booths west end Lathrop siding and crossover west end of Army Supply Depot tracks.

(V) **Army Supply Depot.** No signals for movement from main track to Army Supply Depot tracks. Trains clearing main track on these tracks must notify train dispatcher when they have done so.

Entrance to main track through crossover at west end is governed by dwarf signal. At east end, signal located just west of switch points inside switch governs entrance to main track from either No. 1 track or lead. Signal is not affected by position of inside switch.

(W) **Hayward, Fitz, Army Supply Depot and Stockton Yard.** Inside switches of crossovers east end new siding Hayward, east Fitz, west end Army Supply Depot track and MP 90.4 and MP 91, Stockton Yard, normally lined for tail track or lead. Inside signals at these locations govern entrance to main track only. They are not illuminated unless one or both crossover switches are lined and do not affect movements on tail track or lead other than to main track.

The "S" unit on signal mast will be illuminated when train dispatcher authorizes switches to be lined and signal will light when switches are changed. Neither switch to crossover may be changed unless "S" unit is illuminated.

Trains leaving main track at these locations must line both switches of crossover when "S" unit is illuminated on main track signal and return both switches to normal position when movement is completed.

(X) **Stockton Yard.**

When westward trains leaving Stockton Yard do not find the "S" illuminated on inside leaving signal at crossovers MP 90.4 or MP 91 member of crew must call train dispatcher. Telephones located north side of main track opposite these signals.

Absolute block signals located at Ortega connection, MP 90.4. Eastward trains, caboose hops or light engines will be governed by signal indications entering Stockton Yard. Eastward trains which head in at MP 91 call yardmaster on telephone located near switch for track instructions. Eastward caboose hops and light engines which head in at MP 90.4 will proceed via No. 2 lead through crossover west of Bridge 90.97-C to No. 3 lead and No. 15 track to yard office and roundhouse track. Eastward trains which head in at MP 90.4 by signal indication stop at train yard lead MP 91 and call yardmaster for track instructions.

(Y) **Ortega - Hunter Street Line.** See instructions on page 17 under Ortega Tower governing westward movement to main track. For movements main track to Hunter Street line indication first must be received on eastward absolute block signal MP 90.4 permitting entrance into block. Switch points are immediately east of signal and when switch is thrown signal will change to STOP. Under these conditions the absolute signal in STOP position may be passed without further authority.

A.A.B.S.—SPECIAL INSTRUCTIONS GOVERNING YARD OPERATIONS BETWEEN CLINTON AND EAST YARD LIMIT, OAKLAND, MP 13.78

(A) **RULE 312.** First paragraph will apply within above limits, with switching authority limited to not more than two blocks at any one time. Engine foreman must obtain authority from train dispatcher in accordance with first paragraph 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.

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

A yard engine may be granted switching authority including a block in which a train is standing (provided such train has not been granted block switching 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 three 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.

The granting of switching authority does not relieve trains or engines from complying with the indications of any interlocking signals within the switching limits at all times. Any movements within interlocking limits must be made in accordance with interlocking rules. (See Rules 663 and 670.)

(B) **RULE 310.** Switches in this territory are not electrically locked or signaled except Clinton, east and west siding switches Kohler and east switch Elmhurst siding. Yard engines may clear on any track and, if still holding authority to switch in the block under Rule 312, may return to the block without additional authority from the train dispatcher.

If block has been released to the train dispatcher, permission must again be obtained from him to enter or switch in the block and three minutes must elapse after switch is opened before engine or cars foul main track. Flag protection is not required except against first-class trains when such permission has been obtained.

When practicable, switch crews using a block under switching authority should keep cars on main track or leave main track switch open with a man in charge.

(C) Engine foreman must notify train dispatcher when leaving or intending to leave main track at an intermediate switch except when working under switching authority. A block must not be released to the train dispatcher in advance when switching 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.

(D) Train dispatcher must be notified when yard engines intend to enter A.A.B.S. on main track at Clinton and thereafter signal indications will govern. When moves are made from north track to main track at Clinton train dispatcher's permission must be obtained before switch is lined.

(E) Absolute block signals at following locations west of MP 13.78:

Clinton, MP 7.7
MP 8.8, 22nd Ave. (no switches controlled)
MP 9.9, 35th Ave. (no switches controlled)
Kohler, east and west switches (designated siding)

(F) Telephones for communicating with the train dispatcher are located adjacent to absolute block signals and at following additional points:

Fruitvale, east and west siding switches
Continental Can Co. Spur, MP 10.76
81st Ave., crossover to drill track
Harvey Spur
Gerber Spur, 98th Ave.
MP 13.7, Elmhurst crossing

MODIFICATIONS OF ABSOLUTE AUTOMATIC BLOCK SYSTEM RULES APPLYING WITHIN LIMITS OF AUTOMATIC BLOCK SYSTEM—SECOND SUBDIVISION

(A) Rules governing Absolute Automatic Block System, with the changes or additions listed below, will apply within limits as designated herein or by timetable bulletin.

(B) Add to definitions: Dual-Control Switch—A power-operated switch which is also equipped for hand-throw operation.

(C) Add the following signal aspects:

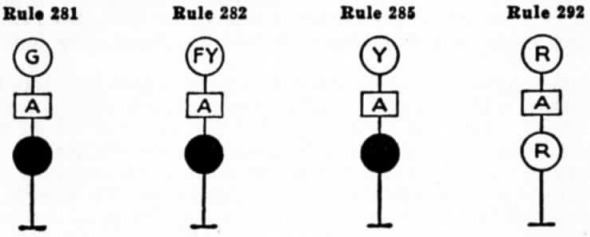
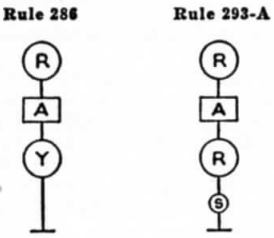


Fig. 4 Fig. 4 Fig. 4 Fig. 3

G—Green. FY—Flashing Yellow. Y—Yellow. R—Red.
Indications and names same as shown under present rules.

(D) **RULE 293.** As entering signal is in advance of switch, this indication will not apply.

(E) Add the following:



INDICATION: Proceed on diverging route with caution.
NAME: Restricting.

(Illuminated Letter "S")
INDICATION: Line switch and enter siding on signal indication as shown in Rule 286.
NAME: Line switch indicator.

(F) **RULE 302.** Work trains will be authorized by AABS Clearance.

(G) **RULES 302 and 303.** Rule 93 applies within automatic block system limits. Second-class and extra trains and yard engines must move with caution within yard limits, whether or not signals indicate PROCEED.

Authority must be obtained from train dispatcher to use main track for switching within yard limits. Yard engines using main track for switching at any point or road engines making switching moves in yard limits must provide flag protection against overdue first-class trains.

Freight trains moving within yard limits by signal indication and yard cuts moving from one part of a yard to another by signal indication need not flag against overdue first-class trains.

(H) **RULE 303.** Protection per Rule 99 is not required when a train is standing at a station between absolute signals at that station, except when ABS has been taken out of service (see Rule 325). On a passenger train flagman must take position on ground at rear of train prepared to provide protection, if protection becomes necessary.

(I) **RULE 305.** When the "S" is illuminated it is an indication that train dispatcher desires the switch to be lined. After switch is lined, the lamp in the "S" unit will be extinguished and signal will display aspect for movement over the route lined.

(J) **RULE 309.** Sidings used for the meeting and passing of trains by signal indication or by signal indication and "Line Switch" indicators are those shown on schedule page of timetable.

(K) **RULE 311.** When authorized by AABS Clearance to move into the block:

1. Throw the selector lever on power switch to hand-throw position.
2. Operate hand-throw lever back and forth until switch points are seen to move with the movement of lever.
3. Operate switch by hand, the same as any other switch, with hand-throw lever.
4. After passing over switch it must be restored to motor position unless authorized by the train dispatcher to leave in hand-throw position, in which case it must be lined for main track and hand-throw lever locked.

If authorized to enter siding proceed with caution (after placing switch in hand-throw position).

(L) **RULES 311 and 291.** When a train is moving through a block under AABS Clearance and finds an automatic block signal within the block in STOP position it will not be necessary to walk a flagman ahead but, after stopping, train may proceed at once with caution, not exceeding 12 miles per hour.

(M) **RULE 312.** When switching authority is granted over a dual-control switch it must be placed in hand-throw position as outlined in Section (K) herein and kept in hand-throw position during the work. When work is completed, switch must be restored to motor position before train dispatcher is notified that work is completed.

During switching operations, if necessary for all members of crew to leave immediate vicinity of switch, selector lever must be locked.

When the selector lever is in hand-throw position, the train dispatcher has no control over the switch and all absolute signals governing movement over the switch will indicate STOP. Under these conditions the train may pass these signals without stopping, including initial movement into the block, and make movements over the switch within the limits authorized.

Trainmen must notify engineer when the selector lever is in hand-throw position and also notify him when it is returned to motor position, so he may know when to be governed by the absolute signals governing movements over the switch.

(N) **RULE 312.** When a train is standing or switching between absolute signals at a station, train dispatcher may authorize another train to flag into the block to perform work. Crew of train so authorized must have an understanding with crew of train occupying the block before entering the block and must fully protect their movements against any movements by the train originally occupying the block.

(O) **RULES 311, 313 and 315.** When a train becomes disabled in a block between stations and is unable to proceed and train dispatcher is so informed by the conductor, or engineer if there is no conductor, he may authorize another engine or train to enter the block as follows:

Following movement: by means of an A.A.B.S. Clearance on which shall be shown the location of the disabled train. The engine or train so authorized must move with caution, not exceeding 12 miles per hour, within the block.

Opposing movement: by means of an A.A.B.S. Clearance provided that the engine or train so authorized must send a flagman ahead into the block, wait at least five minutes after he has started, and then follow, keeping at least one-fourth mile behind him until the disabled train is reached.

(P) **RULE 323.** When permission has been granted to operate a dual-control switch by hand, red tags must not be removed until train dispatcher has been notified that selector lever is restored to motor position.

(Q) The selector and hand-throw levers of a dual-control switch must not be forced. They will move easily when properly in mesh, although some manipulation of first one and then the other may be necessary to get them in proper mesh. If the switch was set for siding when use of dual-control was started, it must be again set for siding before selector lever is restored to motor position.

MODIFICATIONS OF ABSOLUTE AUTOMATIC BLOCK SYSTEM RULES APPLYING WITHIN LIMITS OF AUTOMATIC BLOCK SYSTEM—SECOND SUBDIVISION (Continued)

(R) Running switches must not be made, injectors or sanders used, or booster started over dual-control switches.

(S) Conductor of a train, or engineer of a light engine, granted work authority by an AABS Clearance under Rule 313, without train orders or clearance, must ascertain from train dispatcher what instructions are outstanding as to track conditions on that portion of the system over which movement is to be made.

(T) **RULE 325.** When automatic block system mechanism over a territory of not less than 10 miles is rendered inoperative by storm or otherwise damaged to the extent that reasonably prompt restoration cannot be effected such signals and mechanisms, after proper understanding between train dispatcher and signal supervisor, may be taken out of service by a "31" train order issued to each train before entering such territory, reading:

"Effective ....., ... (date) .... automatic block system temporarily discontinued from Signal ..... at ..... to Signal ..... at ..... both inclusive. Trains will disregard Rule 320. All signals will be dark and out of service."

Before issuing orders discontinuing automatic block system, signal maintainer must cut power off each power-operated switch, throwing and locking the dual-control selector lever in the hand-throw position, operate switch once by hand, and leave it lined for main track. If the power-operated switch mechanism is not equipped with two levers, one for throwing control from "power" to "hand" and one for hand operation of switch points, then the points should be spiked for the main track movement by the signal maintainer at the time the power is cut off.

When repairs have been completed, the automatic block system may be restored to service by annulling the "31" train order by which signals were discontinued and issuance of an order to all trains using this territory for twenty-four hours, reading:

"Automatic block system between .....and .....restored to service."

AUTOMATIC BLOCK SYSTEM—SPECIAL INSTRUCTIONS

(A) Automatic Block System in operation between west end Stockton Yard (MP 91) and east end of train yard, South Sacramento (MP 136.9). A.A.B.S. rules, with modifications shown herein on pages 24 and 25 will apply within these limits.

(B) Trains will operate by timetable and train-order authority over Second Subdivision but within automatic block system limits specified above will be governed by signal indications which supersede the superiority of trains.

(C) When eastward trains leaving Stockton Yard do not find route lined for them member of crew must call the train dispatcher.

(D) Signals within automatic block system limits are color-light type and those governing movement over switches are in advance of the switches. Telephones for communicating with train dispatcher are located adjacent to absolute block signals.

(E) Sidings shown on schedule pages of timetable are equipped with dual-control switches except where otherwise indicated herein.

(F) **RULE 105.** Main track only is included in signal circuits. Sidings and other tracks are not included and trains or engines entering and using such tracks must proceed with caution.

(G) **RULES 282 and 285.** At Stockton and Sacramento, when signal indications require medium speed, trains will be governed by the following within the limits shown except where other conditions require a slower speed:

	Between	Passenger & Freight
Stockton	Charter Way and MP 95	20 MPH
Sacramento	Over and between Sutterville Rd. & X Street	15 MPH

(H) **RULE 309.** Switches at Flora Street are hand-operated. No signals at Terminous Junction; east and west siding switches at this location electrically locked.

(I) **RULE 317.** Electrically-locked switches located as follows:
Stockton Yard—crossovers from yard to main track at SP Transfer—east and west ends.
Stockton Yard—SP Transfer, east and west switches.
Stockton Yard—Diner Siding, west switches.
Stockton—Stockton Box Co. Spur, MP 95.37.
Stockton—North Channel Line.
Harte.
Kingdon—house track, east and west switches.
Terminous Jct.—east and west switches.
Villinger.
Las Vinas—east and west switches.
Thornton—house track, east and west switches.
Glannvale—stockyards spur.
Albert.
South Sacramento—Campbell Soup Co. track, east and west switches.

All electrically-locked switches except crossover switches east and west ends SP Transfer and west switch Diner Siding Stockton Yard, North Channel Line Stockton and west switch Campbell Soup Co. track South Sacramento have pipe-connected derails. Telephones for communicating with train dispatcher are located in concrete telephone booths adjacent to switches. Instructions for operating electric locks posted in telephone booths adjacent thereto.

In order to release electric locks for entrance to electrically-locked switches from main track BETWEEN STATIONS a part of engine or cars must be standing ahead of switch within the release circuit. Release circuit extends from a point approximately 50 feet ahead of switch points to a point approximately 130 feet ahead of switch points. Release of electric locks between siding switches and in Stockton Yard is in accordance with instructions posted at locks.

(J) **Stockton Yard:**

(a) **S. P. Transfer:** Main track crossover switches from yard at east and west ends pipe connected to inside crossover switches. Main track switches at east and west end of SP Transfer Track have pipe-connected derails on transfer.

(b) **Diner Siding:** West switch governed by absolute block signals with "S" unit on entering and leaving signals. When "S" unit is illuminated electric lock is released and must be unlocked before switch is changed by hand operation. After moves are completed electric lock must be locked by member of crew.

East switch is a dual-control switch. Eastward absolute signals on main track and siding also govern approach to AT&SF crossing, MP 93.2.

(c) **Charter Way:** East switch of Diner Siding and connecting switch to "B" lead are dual-control switches. Main track switch to "B" lead is connected with inside switch off "B" lead to AT&SF transfer when in power position but these switches operate separately when either is in hand-throw position. Westward absolute block signal on lead to AT&SF transfer governs movement from lead over inside dual-control switch.

Eastward leaving signal from "B" lead is a two-unit absolute block signal. Upper unit governs entrance to main track and gives approach indication for AT&SF crossing. Lower unit governs movement to AT&SF transfer.

Westward signal at Charter Way is a two-unit signal and diverging route may be to either "B" lead or Diner Siding.

When any one of the three dual-control switches in this block (two at "B" lead and one at east end of Diner Siding) is placed in hand-throw position the other two switches are disconnected from power operation and it is not necessary to place them in hand-throw position when switching over them unless they are used.

(K) **Stockton:**

(a) **Flora Street:** Switches hand operated. Eastward signal at west end is a two-unit signal with "S" unit on mast which covers west switch to Track 7. Westward signal at east end is a two-unit signal with two "S" units on bracket, one on north side covering east switch to Track 7 and one on south side covering switch to tracks on that side.

(b) **North Channel Line:** Governed by absolute signals and electric lock. Eastward signal is a two-unit signal with "S" unit. When the "S" unit is illuminated electric lock is released and must be unlocked before switch is changed by hand operation. After movement through switch is completed electric lock must be locked by member of crew.

(L) **Terminous Junction:** Two derails at each end, on siding and leg of wye, pipe connected in tandem with east and west siding switches. Switches from siding to each leg of wye, Terminous Branch, operate independently from derails.

(M) **Kingdon and Thornton:** Automatic Block Signals 1089 and 1090 located midway between these stations, with automatic block approach signals thereto in each direction.

(N) **Campbell Soup Co. track, South Sacramento:** 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. Electric lock will stay released as long as padlock is out.

(O) **South Sacramento:**

(a) Dual-control switch at west end leading to old siding (first track south of main track). Position of this switch is indicated on eastward entering signal and westward leaving signal from siding.

Two dual-control switches at east end. Easterly switch connects with No. 1 track on north side and westerly switch connects with old siding. Power-operated switch point derail in No. 1 track connected with dual-control switch but operates separately when either switch or derail is in hand-throw position. When either dual-control switch or power derail is placed in hand-throw position the other switch and derail are disconnected from power operation and it is not necessary to place other switch in hand-throw position when switching over it unless it is used.

Westward absolute block signal at east end is a two-unit signal with two marker lights on bracket which, when signal indicates "Proceed on diverging route with caution (Rule 286)," will show whether switch to north or the south side is open. Eastward leaving signals from main track, old siding and No. 1 track also govern approach to crossing at "X" Street.

(b) A.B.S. limits temporarily located at westward absolute block signal east end of train yard. Westward interlocking home signal east of CCT and SN Crossing "X" Street MP 137.5 is a semi-automatic (SA) signal and also governs approach to the westward absolute block signal.

Permission from train dispatcher is required to use either dual-control switch at east end of train yard in hand-throw position but he cannot provide signal protection east of A.B.S. limits.

A.B.S. SPECIAL INSTRUCTIONS GOVERNING YARD OPERATIONS, STOCKTON, BETWEEN MP 91 AND EAST YARD LIMIT BOARD

(A) **RULE 312:** First paragraph will apply within above limits with switching authority limited to not more than two blocks at any one time. Engine foreman must obtain authority from train dispatcher in accordance with first paragraph 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.

When initially entering a block at a switch where there is no signal or electric lock no signal indication is required but permission must be obtained from the train dispatcher and three minutes must elapse after switch is opened before engine or cars foul main track, except as specified in next paragraph.

A yard engine may be granted switching authority including a block in which a train is standing (provided such train has not been granted block switching 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 three 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, two yard engines may be granted authority to work in the same block from opposite ends of the train. Under such arrangement a portion of the train must be left at all times in the block originally occupied and after switching is completed the switching authority will be considered cancelled.

Switching authority is not required for straight moves to or from SP Transfer or through other switches protected by electric locks.

Block limits are as follows:
MP 91 to west switch Diner Siding
West switch Diner Siding to east switch Diner Siding
East switch Diner Siding 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.

The granting of switching authority does not relieve trains or engines from complying with the indications of any interlocking signals within the switching limits at all times. Any movements within interlocking limits must be made in accordance with interlocking rules. (See Rules 663 and 670.)

(B) **RULE 310:** Certain switches in this territory are not electrically-locked or signalled. Yard engines may clear on any track and, if still holding authority to switch in the block under Rule 312, may return to the block without additional authority from the train dispatcher.

If block has been released to the train dispatcher, permission must again be obtained from him to enter or switch in the block and three minutes must elapse after switch is opened before engine or cars foul main track. Flag protection is not required except against first-class trains when such permission has been obtained.

When practicable, switch crews using a block under switching authority without electric lock released or dual-control switch in hand-throw position should keep cars on main track or leave main track switch open with a man in charge.

(C) Engine foreman must notify train dispatcher when leaving or intending to leave main track at a switch not governed by signal indication or electric lock except when working under switching authority. When switching authority has been granted a block must not be released to train dispatcher by arrangement in advance but he must be notified promptly after switching is completed.

(D) Telephones for communicating with train dispatcher are located adjacent to absolute block signals, electric locks (except semi-automatic absolute block signals east of AT&SF Crossing and east and west of Weber Avenue Crossing) and at following additional points:

AT&SF Crossing—in tower
West switch house track, Church Street
Weber Avenue Crossing—in box on side of tower and in tower
East switch house track, Lindsay Street.

(E) **Hazelton Ave. Line:** When yard engines desire to move to or from Hazelton Ave. Line train dispatcher must be advised when signal lineup for the move is requested and he will arrange for towerman at AT&SF Crossing to line the route.

Home interlocking signal from Hazelton Ave. Line through interlocking plant to WP is a semi-automatic (SA) absolute block signal.

(F) **Charter Way:** Signals governing movement over inside dual-control switch on "B" lead are controlled by the train dispatcher. When these signals are lined for movement on the diverging route (Santa Fe Transfer) and indications are per Rule 286 or Rule 285, Fig. 3, movements may be made to or from Santa Fe Transfer or switch engines may drill over inside switch without further authority and without placing switch in hand-throw position. If signals are in STOP position and reason is not apparent or if call light is lit on telephone booth north of main track train dispatcher must be contacted promptly.

INSTRUCTIONS GOVERNING OPERATIONS BETWEEN OROVILLE YARD AND WEST END C. T. C.

(A) Movement of trains and engines between west end of C.T.C. (MP 205.5) and east entrance switch to Oroville Yard (MP 203.8) is governed by interlocking signals under control of operator at Oroville passenger station. Interlocking signals on main track are located at east switch Oroville siding (westward signal, joint C. T. C. and interlocking), west switch Oroville siding and east entrance switch to Oroville train yard. Interlocking rules apply.

(B) Switches are hand-operated except east siding switch, Oroville.

(C) Trains must not exceed 25 miles per hour through interlocking limits.

(D) Westward first-class trains will be authorized by clearance card or train order at Oroville. Train orders may be issued for extra trains to or from Oroville in connection with movement on Second Subdivision beyond Oroville Yard. Eastward first-class trains will be authorized at Oroville and eastward extra trains at Oroville Yard or Oroville by clearance card addressed as instructed by dispatcher, but must not leave until given permission by C. T. C. dispatcher after member of crew has advised him they are ready to leave.

(E) When crew changes are made at Oroville on eastward trains, after permission to leave is obtained from C. T. C. dispatcher movement may be made with caution to eastward C. T. C. absolute leaving signal at east end of siding.

(F) Westward absolute C. T. C. and interlocking signal at west end of C. T. C. is jointly controlled by C. T. C. dispatcher and signal operator, Oroville. C. T. C. rules apply as far as sign "End CTC" and interlocking rules beyond. Authority is required first from C. T. C. dispatcher and, second, from signal operator to pass this signal in stop position or to work with east siding switch in hand throw position.

(G) Eastward absolute C. T. C. signals on main track and siding at east end of siding, Oroville, are under exclusive control of C. T. C. dispatcher and the east switch of siding is dual-control, power-operated under his control.

(H) **RULE 105.** Oroville is not a controlled siding. Tracks at Oroville, Oroville Yard and between, other than main track, are not included in signal circuits beyond clearance points from main track switches.

(I) Eastward three-position color-light automatic block home signals, approach lighted, are located at MP 201.6 and MP 202.6 (west end of Oroville Yard). Approach circuit begins at MP 200.8, 4000 feet west of Signal 2016.

(J) All signals are of color-light type and are single unit except westward C. T. C. and interlocking signal at east end Oroville siding and as listed herein.

Two-unit signals are located as follows:

Eastward: Leaving signal south side of No. 1 track at east entrance switch to Oroville train yard (MP 203.8).
West switch to siding, Oroville.

Westward: East entrance switch to Oroville train yard (MP 203.8).

Indications on two-unit signals are as follows:

Red over red —Stop.

Red over yellow—Proceed on diverging route with caution.

Yellow over red—Proceed prepared to stop at next home signal.

Green over red —Proceed except on diverging route.

(K) The two-unit signals listed above and, in addition, the westward single-unit dwarf leaving-siding signal at west end of siding, Oroville, have on the signal mast a unit, which when illuminated displays a letter "S" on a black background. When the "S" is illuminated it is an indication that signal operator desires the switch or switches to be lined. If the train is on the main track, switches are to be lined for the diverging route. If the train is on the siding at Oroville or on yard track in Oroville Yard switches are to be lined for movement to the main track. After switches are lined, the lamp in the "S" unit will be extinguished and the signal will show indication for movement over the route lined. When it is desired to make a movement at these locations requiring switches to be changed, signal operator first must be contacted, then when "S" is illuminated switches may be changed. They must not be changed unless the "S" is illuminated except when working over switch by permission of signal operator in accordance with Section (P) of these instructions.

(L) Main track and crossover switches must be left lined for straight track after being used. It is not necessary to contact signal operator in connection with lining switches back.

(M) When trains or engines are stopped by an interlocking signal and "S" is not illuminated at signals so equipped, signal operator must be contacted for instructions.

(N) At east entrance switch to Oroville Yard train yard, the normal route for eastward trains leaving from any of the yard tracks is through crossover to main track. When switches are lined for movement eastward from yard tracks to main track, signal will indicate "Proceed prepared to stop at next home signal". When switches are lined for movement from train yard tracks eastward on drill track, signal will indicate "Proceed on diverging route with caution". See last paragraph Rule 104(C).

(O) At east entrance switch to Oroville Yard train yard, westward main track signal is semi-automatic (SA). Interlocking limits extend to the eastward interlocking signal on cantilever and to eastward leaving signal from yard. The automatic portion of the block beyond the interlocking limits extends to "Block System Limit" sign at MP 202.7.

When this signal displays green over red or yellow over red aspect, trains are thereby given superiority over all trains to the "Block System Limit" sign at MP 202.7, and will hold main track at Oroville Yard, but when the yellow over red aspect is displayed all trains or engines must move with caution west of the interlocking limits.

(P) When switching is to be done over any switch within interlocking limits, FIRST obtain permission from the signal operator, after which movements may be made without regard to signal indications within the limits of the block or blocks. All movements must be made with caution when working under such permission. Signal operator must be notified when work is completed.

If signal operator specifies clock time during which block or blocks may be used, new authorization must be obtained if the work is not finished within the time specified. (Also see instructions in Section (S).

When signal operator gives such permission at east entrance switch to Oroville Yard train yard he can provide signal protection against eastward moves only within interlocking limits; therefore Rule 509 applies to all movements on main track west of the eastward interlocking signal on cantilever under this permission.

(Q) **RULE 670.** It will not be necessary to secure permission from signal operator for each individual reverse movement provided permission has first been obtained for moves planned. When a reverse movement is made, trains or engines must move with caution until next signal in direction of movement is reached.

(R) Main track switches at following locations are included in the circuits and entrance to main track is governed by indications of single-unit dwarf interlocking signals:

Dant & Russell Lumber Co. spur, MP 204.2.
East switch to drill track, east end Oroville Yard, MP 204.3.
SN transfer, MP 204.35.
Mt. Ida spur, MP 204.45.
Ehman spur, MP 204.5.
House track, Oroville.

(S) When engines have entered tracks listed in Section (R), closed switch and left main track unoccupied, permission must be obtained from signal operator before again lining switch for movement to main track. This applies regardless of whether permission has been obtained from signal operator in accordance with Section (P).

INSTRUCTIONS GOVERNING OPERATIONS BETWEEN OROVILLE YARD AND WEST END C. T. C.—(Continued)

(T) **RULE 671.** When necessary, running switches may be made over the switches listed in Section (R).

(U) Howler, controlled by signal operator, is installed near Sacramento Northern transfer switch. When this howler is operated, main track must be cleared without delay.

(V) Double switch indicators located at following main track switches:

Crossover switch, MP 202.65 (First switch east of Signal 2026, west end Oroville Yard).
Crossover switch to west train yard.
Adelaide spur.
West switch gravel pit track.
East switch gravel pit track.

(W) Telephones for purpose of communicating with signal operator or C. T. C. dispatcher are in telephone booths adjacent to following locations:

West switch gravel pit track.
*East entrance switch to train yard, MP 203.8.
East drill track switch.
SN transfer switch.
West siding switch, Oroville.
*East end station platform, Oroville.
*House track switch.
*East siding switch, Oroville (Telephone in instrument house).

*Connected with either C. T. C. dispatcher or signal operator. Locations not so marked are connected only with signal operator.

CENTRALIZED TRAFFIC CONTROL—SPECIAL INSTRUCTIONS

(A) Centralized Traffic Control extends from MP 320.035 (Delleker) to MP 205.5 (eastward absolute signals 252 feet west of east siding switch, Oroville, on main track and 183 feet west of east siding switch, Oroville, on siding).

(B) Train movements between Portola passenger station and Delleker will be by signal indication and in accordance with special instructions; between Delleker and west end of C. T. C. by signal indication under C. T. C. rules; between west end of C. T. C. and Oroville Yard by signal indication under interlocking rules and in accordance with special instructions.

(C) Signals within C. T. C. limits, at Portola and between Oroville and Oroville Yard are color-light type signals.

(D) **RULES 95 and 97.** Oroville is the terminal for first-class trains and Oroville Yard the terminal for extra trains, Third Subdivision. First-class trains or sections thereof will be authorized at Portola or Oroville by clearance card, addressed as instructed by C. T. C. dispatcher. If sections are authorized clearance card will designate whether or not signals are to be displayed. Extra trains, including work extras, will be authorized at their initial station by clearance card, addressed as instructed by C. T. C. dispatcher, and will not require running orders for movement to Oroville Yard or Portola. All trains will register; also display signals in the usual manner.

(E) **RULE 83.** Registers need not be checked in connection with movement of Third Subdivision trains, including movements between Oroville and Oroville Yard.

(F) **RULE 85.** Within C. T. C. limits a section may pass and run ahead of another section of the same schedule without exchanging train orders, signals or numbers.

(G) **RULE 105.** Owing to the fact that certain switches leading into controlled sidings are not electrically locked, particular attention is directed to fact that this rule applies on controlled sidings as well as on other tracks. See Rule 772(d).

(H) **Tobin.** Dual-control, power-operated switch at west end only. Absolute signals located at MP 253.6 do not control any switch but will be considered absolute signals for east Tobin under Rule 762.

Hand-throw switch point derail in siding just east of westward dwarf absolute leaving signal, not connected to power switch. Westward dwarf leaving signal from siding does not indicate position of derail. Eastward absolute entering signal cannot be cleared for movement to siding unless derail is closed. Trains desiring to enter siding obtain permission from train dispatcher.

Both crossover switches east end 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. Electric lock will stay released as long as door to electric lock is open.

(I) **Camp Rodgers.** Hand-operated switch point derail at west end of siding. Normal position closed. Train or cars may be left on siding while switching is being performed on PG&E tracks provided that, in addition to observing provisions of Transportation Rule 840, derail is opened to derailing position and locked. Derail must be closed and locked after switching is completed and before train departs. See instructions on page 15 about switching on PG&E tracks.

(J) **Paxton.** West connected crossover from main track to house track located 942 feet west of east end of 47-car house track spur. Both switches 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. Electric lock will stay released as long as door to electric lock is open.

(K) **Keddie Yard.** All switches leading in or out of siding (No. 1 track), except inside switch to Upper Crossover, must be left lined for the siding. Derailing switch at west end of siding is dual-control, power-operated and when in power position works simultaneously with west siding switch. When west siding switch is in hand-operated position, derailing switch must also be hand operated.

Eastward dwarf absolute signal just west of inside crossover switch, Upper Crossover, will govern movement of eastward trains or engines from siding to main track, and from siding to tail track.

Both switches of west crossover between No. 1 track and N.C.E. lead are included in circuits of eastward absolute entering signal west end Keddie siding. These switches must be left lined for No. 1 track and N.C.E. lead respectively when not in use.

Engines cannot take oil or water from east end of siding (No. 1 track) without fouling detector circuit which protects main track. Engines on siding requiring oil and water must not go beyond eastward dwarf absolute signal unless it shows indication per Rule 752, Fig. 6, or Rule 755, Fig. 6, with both switches of Upper Crossover lined for main track. If movement on main track prevents display of proceed signal to main track, engines may take oil and water by heading toward tail track. Trains or engines may be headed to tail track by making arrangements with C. T. C. dispatcher to release electric lock on switch to tail track (first inside switch east of Upper Crossover) and lining switch by hand. After reversing tail track switch and inside switch to Upper Crossover, signal will display indication per Rule 754, Fig. 2, for movement to tail track.

(L) Sidings shown on pages 6 and 7 are controlled sidings except Oroville Yard, Oroville, Tobin, and Portola.

East and west siding switches at these points are dual-control, power-operated. East siding switch at Oroville and west siding switch at Tobin, are dual-control, power-operated.

Telephones for communicating with C. T. C. dispatcher are located just inside doors of instrument houses adjacent to switches. At west end of Belden there is an additional telephone for communicating with C. T. C. dispatcher in telephone booth opposite eastward absolute signal just west of Tunnel 22.

Cars must not be left on controlled sidings except in case of emergency and then only after notifying C. T. C. dispatcher except at Camp Rodgers as provided in Section (I) of these instructions.

(M) All hand-operated switches in main track within C. T. C. limits are electrically locked. Instructions covering their operation and telephones for communicating with C. T. C. dispatcher are in small telephone booths adjacent to electric locks except at Delleker and Tobin, where they are in instrument houses.

(N) Each hand-operated electrically-locked main track switch is protected by derail except Middle and Lower Crossover switches, Keddie. These derails are pipe connected to the main track switch stand and before lining switch care must be used to insure that all wheels have passed beyond derail.

East house track switch, Quincy Junction, operates derails on both east end house track and east end interchange track simultaneously.

(O) At Keddie, switch from tail track to roundhouse lead (first inside switch east of Upper Crossover) is electrically locked. Instructions and telephone are in instrument house across main track from lock. This switch is not protected by derail.

Hayes derail installed on tail track 75 feet east of inside switch to upper crossover and pipe connected to that switch.

When lining rip track lead switch for tail track first have electric lock 126-A released and line switch for tail track, then line inside switch to upper crossover and pipe-connected derail for tail track. Movement must not be made west of rip track lead switch or on tail track east of eastward dwarf absolute signal at inside switch to upper crossover until this is done.

After this lineup is made, rip track lead switch must not be lined back until engine or cars are clear of section of tail track between dwarf signal and derail. Main track absolute signals at west Sierra and east Keddie are thrown to STOP if rip lead switch is changed while this section of track is occupied.

(P) Where train-order signals are in service they must be respected in accordance with Rules 221 and 221(A) except that 9th, 10th, 12th and 13th paragraphs of Rule 221 do not apply within C. T. C. limits when C. T. C. system is operative. (See modifications 7th and 8th paragraphs, Rule 221, page 12.)

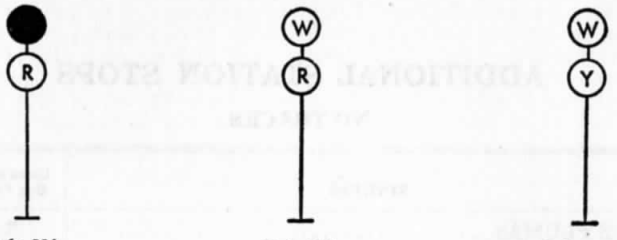
(Q) Rules 14 (k), 72, S-72 (except as provided by Rule S-88), 73 and 92 (except as provided by C. T. C. S. Rule 780 and special instructions on pages 6 and 7) do not apply within C. T. C. limits.

(R) Rules 14(n), 16(1), S-17, 19(A), S-71, 86, S-87, S-88, S-89, S-90, S-90(A), S-90(B), S-90(C), 91, 93, 93(A), 94 and 97 do not apply within C. T. C. limits when C. T. C. system is operative.

OPERATION OF TRAINS BETWEEN END OF CENTRALIZED TRAFFIC CONTROL AND PORTOLA PASSENGER STATION

(A) Train and engine movements between East End of Centralized Traffic Control, MP 320.035 (Delleker) and MP 321.386 (Portola passenger station), will be made by block signal indication, and under block signal rules, except as otherwise provided by following rules and special instructions:

(B) Signal Indications are as follows:



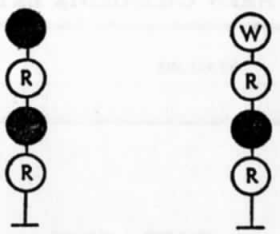
Rule 601
Indication: Stop. Observe Rule 663.

Rule 501
Indication: Stop. Observe Rule 509 (D) or (E)

Rule 503
Indication: Proceed prepared to stop at next home signal.

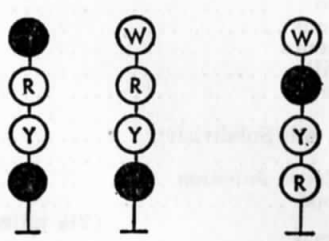
Aspects displayed by westward **MAIN TRACK** leaving signal located near M. P. 320.9 (Snake Lead).

R—Red Y—Yellow W—Lunar White



Rule 601
Indication: Stop. Observe Rule 663.

Rule 501
Indication: Stop. Observe Rule 509 (D) or (E)



Rule 602A **Rule 502A**
Indication: Proceed on diverging route with caution.

Rule 503
Indication: Proceed prepared to stop at next home signal.

Aspects displayed by westward **YARD** leaving signal located between tracks No. 1 and 3 near M. P. 320.9 (Snake Lead).

R—Red Y—Yellow W—Lunar White

(C) **RULES S-71, 72, S-72, 73 and 83.** Superiority of trains is abolished. Schedules shown in timetable are for the purpose of permitting compliance with Rule 780 (C. T. C. S.) and certain special instructions included herein.

(D) All movements in this territory must be made with caution, as prescribed by Rule 93, and will be governed by indication of block signals and switch indicators as follows:

1. Westward signals located at the Snake Lead are equipped with white markers in lieu of number plates. Aspects and indications peculiar to these signals are shown above.
   Trains desiring to enter main track at this point are authorized to operate the crossover switches, provided the east indicator shows clear and the westward (yard) leaving signal displays aspect per Rule 502(A). After the switches have been properly set, the move may be made under the aspect then displayed.
2. The eastward C. T. C. signal at Delleker governs train movements in the block extending eastward from the sign "END CTC" to Signal 3208. For the purpose of identification, a plate bearing the letters "SA" will be displayed on Eastward C. T. C. signal at Delleker, in addition to the letter "A".
   C. T. C. rules will govern west of the sign "END CTC".
3. Westward signal located at clearance point of Lower No. 1 track is equipped with white marker light in lieu of number plate. Aspects and indications are as shown in left column, Section (B).
   When trains or engines desire to enter main track at this point, member of crew will, if east and west indicators are clear, open box on indicator post and operate push button therein. After a time delay the white lights in the box and on the signal will be displayed provided C. T. C. signal at Delleker has not been cleared for an eastward train. **After** these white lights are displayed switch may be operated and move then made in accordance with signal aspect displayed.
4. All other signals in this area (except those listed in 1, 2 and 3 above) are automatic block signals bearing a number plate for identification.

(E) Rule 512(A) is modified to the extent that rear end protection is not required within these limits. This does not modify Rule 99-A. Trains carrying passengers must be fully protected.

(F) At Portola, yard engines, light engines, switch cuts and others moving within yard must clear main track when required to avoid delay to through trains entering or leaving C. T. C. limits. Howlers, controlled by dispatcher, are provided at following locations:

West roundhouse lead switch.
West train yard lead switch (snake lead).
West switch to No. 10 track.

When these howlers are operated, main track must cleared without delay.

(G) In addition, dispatcher will furnish information to telegrapher, Portola, as to times eastward regular passenger trains or sections thereof are expected to reach Portola. Employees in charge of switch engines, light engines and similar moves must ascertain from telegrapher whether these trains are due before occupying main track and not delay them.

(H) Westward trains will be authorized by clearance at Portola but must not leave until given permission by C. T. C. Dispatcher after member of crew advises him they are ready to leave. Telephones for purpose of communicating with C. T. C. Dispatcher only are located as follows:

Booth on south side of No. 10 track opposite west wye switch.
West train yard lead switch (snake lead).
East roundhouse lead switch (Booth just west of middle car inspectors' shanty).

(I) Push button is located on signal mast, Signal 3208, for the purpose of clearing signal for eastward movements after a westward movement out of train yard. When eastward Signal 3208 indicates "Stop", after being passed on westward move, operate push button and if no train in block, signal will change in sixty seconds to indicate "proceed, prepared to stop at next home signal".

(J) Telephones for communication within Portola Terminal are located as follows:

West train yard lead switch (snake lead).
West car inspectors' shanty (snake lead).
West roundhouse lead switch.
Middle car inspectors' shanty (at east roundhouse lead switch).
East lead switch shanty.

(K) Yard engines, light engines, switch cuts and other similar movements stopped by block signal or switch indicator indication which does not clear within three minutes, and for which reason is not known, will communicate with yardmaster who will arrange to have track cleared or appropriate arrangements made for the desired movement. If unable to contact yardmaster, will be governed by and proceed under Automatic Block Signal Rules.

(L) **Delleker.** Entrance to spur is through electrically-locked, hand-operated switch. Obtain permission from C. T. C. dispatcher (by telephone in instrument house near switch) for movement in and out.

(M) Derails on Delleker spur, West lead lower yard Portola and West end of west siding Portola Yard are pipe connected to main track switches. Switches must not be lined for main track until engines or cars have passed over derail.

SPURS AND COMMERCIAL TRACKS

MAIN LINE

STATIONS	Distance from San Francisco	How Connected	Car Capacity
HUDSON	15.9	1 E	20
ESTUDILLO	16.5	1 E	13
ALVARADO JUNCTION (P)	24.9	Siding	39
DECOTO	26.6	Siding	18
PABRICO	27.8	1 E	16
EBERLY	28.9	Siding	20
GOAD (P)	32.1	1 E	25
RADUM (P)	43.4	Siding	33
TREVARNO (P)	49.0	1 W	24
REDMOND CUT (P)	59.3	Siding	33
VALPICO (P)	68.3	Siding	30
RHODES	75.6	Siding	26
QUIGLEY (P)	83.8	1 W	95
ARMY SUPPLY DEPOT (P)	85.76	Siding	130
FRENCH CAMP	88.35	Siding	29
HARTE	100.5	1 W	24
VILLINGER	107.8	1 W	13
LAS VINAS	109.5	Siding	50
BRADFORD	119.0	1 W	....
ALBERT	127.2	1 W	9
BOMBAY	146.4	Siding	13
CLEVELAND	176.2	1 W	16
VISTA ROBLES	198.8	1 E	33
ADELAIDE	202.7	1 E	....
LAND (P)	212.2	Siding	28
BRUSH (P)	227.4	1 W	3
BLINZIG (P) (W)	228.6	1 W	11
JARBO (P)	236.1	1 E	17
GRIZZLY (P)	246.1	1 E	11
ROCK CREEK (P)	249.1	Siding	18
DALITE (P)	256.8	1 W	12
GRAY'S FLAT (P)	272.6	1 W	74
" " (PSGR STOP)	273.0	.....	..
STODDARD (P)	279.3	1 W	15
CROMBERG (P)	303.2	Siding	31
FEATHER RIVER INN (P)	309.3	1 E	2

NORTHERN CALIFORNIA EXTENSION

STATIONS	Distance from Keddie	How Connected	Car Capacity
INDIAN CREEK (P)	3.1	1 W	14
MACKEY	3.7	1 E	6
CHENEY LUMBER CO.	13.9	1 E	16
BOX (P)	15.5	1 W	34
ROLLO	21.6	1 W	11
POISON LAKE (P)	70.3	Wye	....
INDIAN HEAD LBR. CO. (P)	95.4	1 W	10

ADDITIONAL STATION STOPS

NO TRACKS

STATIONS	Distance from San Francisco
LAS PLUMAS	221.4
CHINO CREEK	229.5
ISAIAH	230.5
INTAKE	232.1
MAYARO	240.9
STORRIE	250.6
BURRO BAR	251.8
SPANISH CREEK	285.4

NORTHERN CALIFORNIA EXTENSION

STATIONS	Distance from Keddie
WOLF CREEK	21.5

YARD LIMITS

West MP		East MP
WP Mole	Oakland	13.78
BR-14.4	San Jose	BR-23.0
89.34	Stockton	96.49
MJ-6.0	Terminous	End of Branch
133.4	Sacramento	140.69
177.62	Marysville	180.24
201.44	Oroville	206.0
280.51	Keddie	282.47
	Keddie, 4th Subdivision	K-0.48
319.94	Portola	323.09
K-34.89	Clear Creek Junction	K-35.61
K-38.25	Westwood	SP-409.45
	(2¼ miles west of Mason)	
K-75.17	Halls Flat	K-78.70
K-111.2	Bieber	GN-86.5
	(3.1 miles east of passenger station)	