

Let's Make SAFETY TICK

Through rules knowledge
Injury free conditions
Control unsafe practices
Keep alert

TERMINAL SUPERINTENDENTS

K. A. MOORE.....Oakland
 J. F. BAYS.....San Francisco
 J. W. HOLLOWAY.....San Jose

SR. ASST. TERMINAL SUPERINTENDENT

M. D. ONGERTH.....Oakland

ASST. TERMINAL SUPERINTENDENTS

G. E. MYERS.....Oakland
 E. L. O'DONNELL.....Oakland
 D. E. TORREY.....Oakland
 C. M. WOOD.....Oakland
 D. R. ANDERSON.....San Francisco
 C. E. PEACOCK.....San Jose
 G. A. JORDAN.....San Jose

TRAINMASTERS

M. H. HOWARD.....Martinez
 H. F. FULKERSON.....Watsonville Jct.

ASSISTANT TRAINMASTERS

A. E. SIMPSON.....Martinez
 R. L. O'NEAL.....Martinez
 H. C. BALLANCE.....Oakland
 D. J. PAYNE.....Oakland
 E. C. FRIEND.....Oakland
 C. E. ISON.....Oakland
 L. M. LAWSON.....Oakland
 E. S. JOHNSON.....Mulford
 J. A. WILLENER.....Warm Springs
 J. J. DRAKE.....Warm Springs
 J. B. HARWELL.....Warm Springs
 R. B. GUTENBERGER.....San Jose
 J. F. BURRIS.....Salinas
 R. L. STUBBS.....Salinas
 F. MAGAS.....San Francisco

ROAD FOREMEN OF ENGINES

W. D. BROADBENT.....Oakland
 F. J. BROWN.....San Francisco
 R. S. BAKER.....San Jose
 A. E. JESS.....San Luis Obispo

CHIEF TRAIN DISPATCHER

C. L. KENNEDY.....Roseville

OPERATIONS ASSISTANTS TO SUPERINTENDENT

W. B. BLEVINS.....Oakland
 E. R. LAW.....Oakland

SOUTHERN PACIFIC TRANSPORTATION COMPANY



WESTERN DIVISION TIMETABLE AND SPECIAL INSTRUCTIONS

4

EFFECTIVE SUNDAY, APRIL 27, 1975

AT 12:01 A. M.

PACIFIC STANDARD TIME

FOR THE GOVERNMENT AND INFORMATION
OF EMPLOYEES ONLY

R. L. KING,
General Manager.

W. J. LACY,
Assistant General Manager.

J. J. WILLIS,
General Superintendent of Transportation.

J. W. BREEN,
Superintendent of Transportation.

W. M. JONES,
Superintendent.

W. E. CORBETT,
O. D. GOODWILL,
E. J. SEIL,
Assistant Superintendents.

SAN FRANCISCO SUBDIVISION

EASTWARD

FIRST CLASS

130	128	126	124	122	168	120	118	166	116	114	12	112	110	108
Passenger	Passenger	Passenger	Passenger	Passenger	Passenger	Passenger	Passenger	Passenger	Passenger	Passenger	Passenger	Passenger	Passenger	Passenger
Leave Daily Ex. Sat. Sun. and Holidays	Leave Daily Ex. Sat. Sun. and Holidays	Leave Daily	Leave Daily Ex. Sat. Sun. and Holidays	Leave Daily Ex. Sat. Sun. and Holidays	Lv. Sat., Sun. and Holidays	Leave Daily Ex. Sundays and Holidays	Leave Daily	Lv. Saturday Ex. Holidays	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily Ex. Sat. Sun. and Holidays	Leave Daily
PM 5.14	PM 4.55	PM 4.50	PM 4.40	PM 4.15	PM 4.15	PM 3.00	PM 1.50	PM 12.30	AM 11.00	AM 8.25		AM 7.10	AM 6.10	AM 12.35
	s 4.59	s 4.54	s 4.44	s 4.19		s 3.04		s 12.34						
		s 4.58	s 4.48	s 4.23										
			s 4.52	s 4.27	s 4.23	s 3.09	s 1.58	s 12.38		s 8.33		s 7.18		s 12.44
			s 4.57	s 4.31										
	s 5.09		s 4.59	s 4.33	s 4.28	s 3.14	s 2.03	s 12.43	s 11.13	s 8.38		s 7.23	s 6.23	
	s 5.12	s 5.08	s 5.03	s 4.37	s 4.31	s 3.17	s 2.07	s 12.46	s 11.16	s 8.41		s 7.26	s 6.26	s 12.50
		s 5.12		s 4.41	s 4.34	s 3.20	s 2.10	s 12.49	s 11.19	s 8.44		s 7.29	s 6.29	s 12.52
	s 5.18			s 4.44	s 4.37	s 3.23	s 2.13	s 12.51	s 11.22	s 8.47		s 7.32	s 6.32	s 12.55
		s 5.17		s 4.46	s 4.40	s 3.25	s 2.16	s 12.53	s 11.25	s 8.50		s 7.34	s 6.35	s 12.57
	s 5.23		s 5.12	s 4.50	s 4.44	s 3.28	s 2.20	s 12.55	s 11.29	s 8.54		s 7.37	s 6.39	s 12.59
	s 5.26			s 4.53				s 12.57				s 7.39		
			s 5.17	s 4.56	s 4.48	s 3.32	s 2.23	s 12.59	s 11.33	s 8.58		s 7.42	s 6.43	s 1.03
	s 5.31			s 5.00	s 4.51	s 3.35	s 2.27	s 1.02	s 11.36	s 9.01		s 7.45	s 6.46	s 1.06
		s 5.27		s 5.03	s 4.54	s 3.38	s 2.30	s 1.05	s 11.39	s 9.04		s 7.48	s 6.49	s 1.09
			s 5.25	s 5.07	s 4.58	s 3.42	s 2.34	s 1.08	s 11.43	s 9.08		s 7.51	s 6.53	s 1.13
5.43	5.37	5.32	5.26	5.08	4.59	3.43	2.35	1.09	11.44	9.09		7.52	6.54	1.14
		s 5.35		s 5.12	s 5.01	s 3.45	s 2.37	s 1.11	s 11.46	s 9.11		s 7.54	s 6.56	s 1.16
	s 5.41			s 5.16	s 5.04	s 3.48	s 2.41	s 1.14	s 11.49	s 9.14		s 7.57	s 6.59	s 1.19
		s 5.41		s 5.19	s 5.07	s 3.51	s 2.44	s 1.17	s 11.52	s 9.17		s 8.00	s 7.03	s 1.21
s 5.52			s 5.35	s 5.23	s 5.10	s 3.54	s 2.48	s 1.20	AM 11.55	s 9.20		s 8.03	s 7.06	s 1.24
	s 5.49								PM 12.01	s 9.26				
s 6.00	s 5.52	s 5.49		s 5.30	s 5.16	s 4.00	s 2.54	s 1.25	s 12.05	s 9.30		s 8.09	s 7.12	s 1.30
s 6.06			s 5.44	s 5.35	s 5.20	s 4.04	s 2.57	s 1.29	s 12.12	s 9.37		s 8.13	s 7.16	s 1.34
s 6.14	6.03	s 5.59	5.50	s 5.42	s 5.27	s 4.11	s 3.05	s 1.36			AM 9.54	s 8.20	s 7.22	s 1.42
			s 5.52	s 5.29								s 8.22	s 7.24	
s 6.23 PM	s 6.10 PM	s 6.05 PM	s 5.57 PM	s 5.50 PM	s 5.35 PM	s 4.20 PM	s 3.15 PM	s 1.45 PM	s 12.20 PM	s 9.45 AM	s 10.01 10.06	s 8.30 AM	s 7.30 AM	s 1.50 AM
											10.22			
											10.25			
											10.34			
											10.39			
Arrive Daily Ex. Sat. Sun. and Holidays	Arrive Daily Ex. Sat. Sun. and Holidays	Arrive Daily	Arrive Daily Ex. Sat. Sun. and Holidays	Arrive Daily Ex. Sat. Sun. and Holidays	Ar. Sat., Sun. and Holidays	Arrive Daily Ex. Sundays and Holidays	Arrive Daily	Ar. Saturday Ex. Holidays	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily Ex. Sat. Sun. and Holidays	Arrive Daily
130	128	126	124	122	168	120	118	166	116	114	12	112	110	108

RULE 5. Time applies at the location of station sign at stations between San Francisco and San Jose.

Time applies at the end of double track at Coyote and Gilroy, except that of eastward trains at Gilroy will apply at train-order signal.

RULE S-72. Exception: No. 12 is superior to No. 13 and No. 373.

Mile Post Location
0.0
1.9
4.1
5.2
8.6
9.3
11.6
13.7
15.2
16.3
17.9
18.9
20.3
21.9
23.2
25.4
26.2
27.8
28.9
30.1
31.8
34.8
36.1
38.8
44.3
45.2
45.7
46.9
51.4
55.3
63.1
66.3
77.0
80.7
83.2
86.4
93.2
100.4

SAN FRANCISCO SUBDIVISION

Mile Post Location	STATIONS SIDING CAPACITIES AND FACILITIES	Distance from Watsonville Jct.	WESTWARD									
			FIRST CLASS									
			373 LAOAT	113 Passenger	161 Passenger	115 Passenger	163 Passenger	117 Passenger	119 Passenger	121 Passenger	123 Passenger	165 Passenger
			Arrive Daily Ex. Monday	Arrive Daily Ex. Sunday and Holidays	Arrive Sunday and Holidays	Arrive Daily Ex. Sat. Sun. and Holidays	Ar. Saturday Ex. Holidays	Arrive Daily Ex. Sat., Sun. and Holidays	Arrive Daily Ex. Sat., Sun. and Holidays	Arrive Daily Ex. Sat., Sun. and Holidays	Arrive Daily Ex. Sat., Sun. and Holidays	Arrive Sat., Sun. and Holidays
0.0	TO-R SAN FRANCISCO ^{BIKYPQ}	96.5		AM s 6.25	AM s 6.45	AM s 7.15	AM s 7.25	AM s 7.35	AM s 7.45	AM s 7.55	AM s 8.00	AM s 8.05
1.9	23rd STREET	94.6										
4.1	PAUL AVE.	92.4						s 7.21	s 7.32	s 7.39		s 7.55
5.2	BAYSHORE ^{BIKP}	91.3		s 6.13	s 6.31	s 7.00	s 7.12		s 7.28	s 7.36	s 7.47	s 7.53
8.6	BUTLER ROAD ^P	87.9				s 6.55		s 7.14	s 7.23			s 7.48
9.3	SO. SAN FRANCISCO ^{KPQ}	87.2		s 6.08	s 6.25	s 6.52	s 7.06		s 7.20		s 7.41	s 7.46
11.6	SAN BRUNO ^P	84.9		s 6.05	s 6.22	s 6.47	s 7.02	s 7.09		s 7.28	s 7.36	s 7.42
13.7	M-2150 MILLBRAE ^P	82.8		s 6.02	s 6.19	s 6.43	s 6.59	s 7.05	s 7.13			s 7.39
15.2	BROADWAY ^P	81.3		s 5.59	s 6.16	s 6.40	s 6.56	s 7.01	s 7.09			s 7.36
16.3	BURLINGAME ^P	80.2		s 5.56	s 6.14	s 6.37	s 6.53	s 6.58		s 7.22		s 7.34
17.9	SAN MATEO ^P	78.6		s 5.53	s 6.11	s 6.34	s 6.50	s 6.55	s 7.04		s 7.28	s 7.31
18.9	M-2750 HAYWARD PARK ^P	77.6		s 5.50	s 6.09	s 6.31	s 6.48			s 7.17		s 7.28
20.3	HILLSDALE ^P	76.2		s 5.48	s 6.07	s 6.28	s 6.46		s 6.59		s 7.23	s 7.26
21.9	BELMONT ^P	74.6		s 5.45	s 6.05	s 6.25	s 6.44	s 6.49			s 7.19	s 7.23
23.2	M-2105 SAN CARLOS ^P	73.3		s 5.42	s 6.03	s 6.22	s 6.42		s 6.54	s 7.10		s 7.20
25.4	REDWOOD CITY ^{KP}	71.1		s 5.38	s 6.00	s 6.18	s 6.39		s 6.50	s 7.06		s 7.16
26.2	TO REDWOOD JCT. ^{BIKYPQ}	70.3		5.36	5.58	6.16	6.37	6.43	6.47	7.03	7.13	7.14
27.8	ATHERTON	68.7		s 5.34	s 5.56	s 6.14	s 6.35	s 6.41		s 7.01		s 7.12
28.9	MENLO PARK	67.6		s 5.31	s 5.54	s 6.11	s 6.33		s 6.44			s 7.10
30.1	PALO ALTO ^P	66.4		s 5.28	s 5.52	s 6.08	s 6.31		s 6.41		s 7.08	s 7.07
31.8	M-2150 CALIFORNIA AVE. ^{PY}	64.7		s 5.25	s 5.49	s 6.05	s 6.29	s 6.35			s 7.04	s 7.04
34.8	CASTRO	61.7								s 6.52		
36.1	MOUNTAIN VIEW	60.4		s 5.20	s 5.44	s 5.58	s 6.24	s 6.28	s 6.33		s 6.57	s 6.59
38.8	TO SUNNYVALE ^P	57.7		s 5.15	s 5.40	s 5.54	s 6.20		s 6.29	s 6.45		s 6.55
44.3	TO-R SANTA CLARA ^{IKPQ}	52.2		s 5.09	s 5.34	s 5.47	s 6.14	s 6.18	6.22	s 6.39	6.47	s 6.49
45.2	SAN JOSE YARD ^{BKP}	51.3		AM 4.06								
45.7	TO-R COLLEGE PARK ^{IPQ}	50.8										
46.9	TO-R SAN JOSE ^{BIKPQY}	49.6		5.05 AM	5.30 AM	5.43 AM	6.10 AM	6.13 AM	6.18 AM	6.34 AM	6.43 AM	6.45 AM
51.4 55.3	LICK ^{IP}	45.1		3.50								
63.1	COYOTE ^P	37.3		3.43								
66.3	6125 PERRY ^P	34.1		3.40								
77.0	6125 RUCKER ^P	23.4		3.31								
80.7	TO-R GILROY ^{BKPQ}	19.7		3.26								
83.2	CARNADERO ^P	17.2										
86.4	CORPORAL ^P	14.0										
93.2	Yd. Lmts. LOGAN ^P	7.2										
100.4	Yd. Lmts. TO-R WATSONVILLE JCT. ^{BKPQY}	0.0		3.00 AM								
	(96.5)		Leave Daily Ex. Monday	Leave Daily Ex. Sunday and Holidays	Leave Sunday and Holidays	Leave Daily Ex. Sat. Sun. and Holidays	Lv. Saturday Ex. Holidays	Leave Daily Ex. Sat. Sun. and Holidays	Leave Daily Ex. Sat. Sun. and Holidays	Leave Daily Ex. Sat. Sun. and Holidays	Leave Daily Ex. Sat. Sun. and Holidays	Leave Sat. Sunday and Holidays
			373	113	161	115	163	117	119	121	123	165

RULE 5. Time applies at the location of station sign at stations between San Francisco and San Jose.

Time applies at the end of double track at Coyote and Gilroy, except that of eastward trains at Gilroy will apply at train-order signal.

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SAN FRANCISCO SUBDIVISION

EASTWARD

FIRST CLASS

148	374	146	144	142	140	170	138	136	134	132	Mile Post Location
Passenger	OALAT	Passenger	Passenger	Passenger	Passenger	Passenger	Passenger	Passenger	Passenger	Passenger	
Leave Daily Ex. Sat., Sun. and Holidays	Leave Daily Ex. Sunday	Leave Daily Ex. Saturday	Leave Daily Ex. Sunday and Holidays	Leave Daily Ex. Sat., Sun. and Holidays	Leave Daily Ex. Sat., Sun. and Holidays	Lv. Saturday Ex. Holidays	Leave Daily Ex. Sat., Sun. and Holidays	Leave Daily Ex. Sat., Sun. and Holidays	Leave Daily Ex. Sat., Sun. and Holidays	Leave Daily Ex. Sat., Sun. and Holidays	
PM 8.35		PM 7.10	PM 6.30	PM 6.00	PM 5.45	PM 5.30	PM 5.26	PM 5.23	PM 5.20	PM 5.17	0.0
					s 5.49	s 5.33					1.9
						s 5.35					4.1
s 8.43						s 5.39					5.2
											8.6
s 8.48			s 6.44	s 6.13		s 5.43	s 5.40				9.3
s 8.51		s 7.24	s 6.47	s 6.17	s 6.04	s 5.46	s 5.45				11.6
s 8.54		s 7.26	s 6.49	s 6.20	s 6.08	s 5.49	s 5.50				13.7
s 8.57		s 7.29	s 6.52	s 6.23	s 6.11	s 5.52	s 5.54				15.2
s 9.00		s 7.32	s 6.55	s 6.26	s 6.14	s 5.54		s 5.47			16.3
s 9.03		s 7.35	s 6.58	s 6.29	s 6.17	s 5.57		s 5.51			17.9
s 9.06		s 7.37	s 7.00	s 6.32	s 6.20	s 6.00	s 6.00				18.9
s 9.09		s 7.40	s 7.03	s 6.35	s 6.23	s 6.03		s 5.55			20.3
s 9.12		s 7.43	s 7.06	s 6.39	s 6.26	s 6.06			s 5.47		21.9
s 9.15		s 7.46	s 7.09	s 6.42	s 6.29	s 6.09			s 5.51		23.2
s 9.19		s 7.50	s 7.12	s 6.46	s 6.33	s 6.12	s 6.09			s 5.46	25.4
9.20		7.51	7.13	6.47	6.34	6.13	6.10	6.02	5.56	5.47	26.2
s 9.22		s 7.53	s 7.16	s 6.50	s 6.38	s 6.15	s 6.14		s 5.59		27.8
s 9.25		s 7.56	s 7.19	s 6.53	s 6.41	s 6.17		s 6.07		s 5.53	28.9
s 9.28		s 7.59	s 7.22	s 6.56	s 6.44	s 6.20		s 6.10		s 5.57	30.1
s 9.31		s 8.02	s 7.25	s 6.58	s 6.47	s 6.23	s 6.20		s 6.06	s 6.00	31.8
					s				s 6.10		34.8
s 9.37		s 8.08	s 7.31	s 7.04	s 6.54	s 6.29	s 6.27	s 6.18		s 6.07	36.1
s 9.41		s 8.12	s 7.35	s 7.08	s 6.59	s 6.32	s 6.31	s 6.22		s 6.12	38.8
s 9.48		s 8.18	s 7.41	7.14	s 7.06	s 6.39	s 6.38	6.28	s 6.22	s 6.19	44.3
	PM 9.05										45.2
											45.7
s 9.55 PM	9.12	s 8.25 PM	s 7.47 PM	s 7.21 PM	s 7.14 PM	s 6.45 PM	s 6.46 PM	s 6.36 PM	s 6.30 PM	s 6.27 PM	46.9
											51.4
											55.3
	9.30										63.1
	9.34										66.3
	9.43										77.0
	9.48										80.7
											83.2
											86.4
	10.05										93.2
	10.15 PM										100.4
Arrive Daily Ex. Sat., Sun. and Holidays	Arrive Daily Ex. Sunday	Arrive Daily Ex. Saturday	Arrive Daily Ex. Sunday and Holidays	Arrive Daily Ex. Sat., Sun. and Holidays	Arrive Daily Ex. Sat., Sun. and Holidays	Ar. Saturday Ex. Holidays	Arrive Daily Ex. Sat., Sun. and Holidays	Arrive Daily Ex. Sat., Sun. and Holidays	Arrive Daily Ex. Sat., Sun. and Holidays	Arrive Daily Ex. Sat., Sun. and Holidays	
148	374	146	144	142	140	170	138	136	134	132	

RULE 5. Time applies at the location of station sign at stations between San Francisco and San Jose.
Time applies at the end of double track at Coyote and Gilroy, except that of eastward trains at Gilroy will apply at train-order signal.

STATIONS
SIDING CAPACITIES AND FACILITIES

Yard Limits	TO-R SAN FRANCISCO	BKIPYQ	
	23rd STREET		
	PAUL AVE.		
	BAYSHORE	BIKP	
	BUTLER ROAD	P	
	SO. SAN FRANCISCO	KPQ	
	SAN BRUNO	P	
	M-2150 MILLBRAE	P	
	BROADWAY	P	
	BURLINGAME	P	
	SAN MATEO	P	
	M-2750 HAYWARD PARK	P	
	HILLSDALE	P	
	BELMONT	P	
	M-2105 SAN CARLOS	P	
Yd. Lmts.	REDWOOD CITY	KP	
	TO REDWOOD JCT.	BKIPYQ	
	ATHERTON		
	MENLO PARK		
	PALO ALTO	P	
	M-2150 CALIFORNIA AVE.	PY	
	CASTRO		
	MOUNTAIN VIEW		
	TO SUNNYVALE	P	
	TO-R SANTA CLARA	IKPQ	
	SAN JOSE YARD	BKPQ	
	TO-R COLLEGE PARK	IPQ	
	TO-R SAN JOSE	BKIPYQ	
	LICK	IP	
	COYOTE	P	
Yd. Lmts.	6125 PERRY	P	
	6125 RUCKER	P	
	TO-R GILROY	BKPQ	
	CARNADERO	P	
	CORPORAL	P	
Yd. Lmts.	LOGAN	P	
	TO-R WATSONVILLE JCT.	BKPYQ	
	(96.5)		

Automatic Block Signal System

Double Track

WESTERN DIVISION TIMETABLE No. 4, APRIL 27, 1975

SAN FRANCISCO SUBDIVISION

WESTWARD

FIRST CLASS

Distance from
Watsonville Act.

	125	127	129	131	133	135	137	167	139	141	169	143	145	171	147
	Passenger	Passenger	Passenger	Passenger	Passenger	Passenger	Passenger	Passenger	Passenger	Passenger	Passenger	Passenger	Passenger	Passenger	Passenger
	Arrive Daily Ex. Sat. Sun. and Holidays	Arrive Daily Ex. Sat. Sun. and Holidays	Arrive Daily Ex. Sat. Sun. and Holidays	Arrive Daily Ex. Sat. Sun. and Holidays	Arrive Daily Ex. Sat. Sun. and Holidays	Arrive Daily Ex. Sat. Sun. and Holidays	Arrive Daily Ex. Sat. Sun. and Holidays	Ar. Saturday Ex. Holidays	Arrive Daily Ex. Sunday and Holidays	Arrive Daily	Arrive Sunday and Holidays	Arrive Daily Ex. Sunday and Holidays	Arrive Daily Ex. Sunday and Holidays	Arrive Sunday and Holidays	Arrive Daily Ex. Sat. Sun. and Holidays
	AM	AM	AM	AM	AM	AM	AM	AM	AM	AM	AM	PM	PM	PM	PM
96.5	s 8.05	s 8.09	s 8.13	s 8.20	s 8.40	s 8.50	s 9.18	s 9.35	s 10.05	s 11.30	s 11.55	s 12.50	s 2.05	s 3.05	s 4.10
94.6															
92.4				s 8.11											
91.3										s	s 11.40		s 1.50	s 2.53	s 4.00
87.9															
87.2	s 7.49				s 8.24	s 8.35	s 9.02	s 9.15			s 11.35		s 1.45	s 2.47	s 3.55
84.9					s 8.20	s 8.30	s 8.58	s 9.11		s 11.10	s 11.30	s 12.30	s 1.42	s 2.42	s 3.50
82.8	s 7.42			s 7.58		s 8.26	s 8.55	s 9.08		s 11.07	s 11.28	s 12.27	s 1.39	s 2.39	s 3.47
81.3	s 7.38				s 8.14	s 8.23	s 8.52	s 9.06	s 9.43	s 11.04	s 11.25	s 12.24	s 1.37	s 2.36	s 3.44
80.2		s 7.45			s 8.11		s 8.50	s 9.04	s 9.40	s 11.02	s 11.23	s 12.22	s 1.35	s 2.34	s 3.42
78.6		s 7.41			s 8.07	s 8.19	s 8.47	s 9.01	s 9.37	s 10.59	s 11.20	s 12.19	s 1.32	s 2.31	s 3.39
77.8		s 7.38			s 8.05			s 8.59							
76.2			s 7.46		s 8.02	s 8.15	s 8.43	s 8.57	s 9.31	s 10.55	s 11.17	s 12.15	s 1.27	s 2.27	s 3.36
74.6			s 7.43		s 7.59	s 8.12	s 8.40	s 8.55		s 10.52	s 11.15	s 12.12	s 1.24	s 2.25	s 3.34
73.3	s 7.27			s 7.45	s 7.56	s 8.09	s 8.37	s 8.53	s 9.26	s 10.49	s 11.13	s 12.09	s 1.21	s 2.23	s 3.31
71.1		s 7.29		s 7.41	s 7.52	s 8.06	s 8.34	s 8.50	s 9.23	s 10.45	s 11.10	s 12.05	s 1.18	s 2.20	s 3.28
70.3	7.21	7.27	7.36	7.39	7.49	8.04	8.32	8.48	9.20	10.43	11.08	12.03	1.15	2.18	3.26
68.7	s 7.19		s 7.34		s 7.47	s 8.02	s 8.30	s 8.46	s 9.18	s 10.41	s 11.06	s 12.01 PM	s 1.13	s 2.16	s 3.24
67.6	s 7.16				s 7.44	s 8.00	s 8.27	s 8.44	s 9.15	s 10.38	s 11.04	s 11.58 AM	s 1.10	s 2.14	s 3.22
66.4			s 7.29		s 7.41	s 7.57	s 8.24	s 8.42	s 9.12	s 10.35	s 11.02	s 11.55	s 1.07	s 2.12	s 3.19
64.7		s 7.18		s 7.29	s 7.38		s 8.21	s 8.39	s 9.10	s 10.32	s 10.59	s 11.52	s 1.04	s 2.09	s 3.16
61.7			s 7.17												
60.4		s 7.11		s 7.23	s 7.32	s 7.48	s 8.16	s 8.34	s 9.05	s 10.26	s 10.54	s 11.46	s 12.59	s 2.04	s 3.10
57.7	s 7.02		s 7.11	s 7.17	s 7.27		s 8.11	s 8.30	s 9.01	s 10.22	s 10.50	s 11.42	s 12.55	s 2.00	s 3.06
52.2	6.54	s 7.00	7.04	s 7.10	s 7.21	7.39	s 8.05	s 8.24	8.56	s 10.15	s 10.44	s 11.35	s 12.49	s 1.55	s 3.00
51.3															
50.8															
49.6	6.50 AM	6.55 AM	7.00 AM	7.04 AM	7.17 AM	7.35 AM	8.00 AM	8.20 AM	8.52 AM	10.10 AM	10.40 AM	11.30 AM	12.45 PM	1.50 PM	2.55 PM
45.1															
37.3															
34.1															
23.4															
19.7															
17.2															
14.0															
7.2															
0.0															
	Leave Daily Ex. Sat. Sun. and Holidays	Leave Daily Ex. Sat. Sun. and Holidays	Leave Daily Ex. Sat. Sun. and Holidays	Leave Daily Ex. Sat. Sun. and Holidays	Leave Daily Ex. Sat. Sun. and Holidays	Leave Daily Ex. Sat. Sun. and Holidays	Leave Daily Ex. Sat. Sun. and Holidays	Lv. Saturday Ex. Holidays	Leave Daily Ex. Sunday and Holidays	Leave Daily	Leave Sunday and Holidays	Leave Daily Ex. Sunday and Holidays	Leave Daily Ex. Sunday and Holidays	Leave Sunday and Holidays	Leave Daily Ex. Sat. Sun. and Holidays
	125	127	129	131	133	135	137	167	139	141	169	143	145	171	147

RULE 5. Time applies at the location of station sign at stations between San Francisco and San Jose.

Time applies at the end of double track at Coyote and Gilroy, except that of eastward trains at Gilroy will apply at train-order signal.

SAN FRANCISCO SUBDIVISION

EASTWARD				WESTWARD							
FIRST CLASS	Station Number	Mile Post Location	STATIONS SIDING CAPACITIES AND FACILITIES	Distance from Watsonville Jct.	FIRST CLASS						
150 Passenger					149 Passenger	173 Passenger	13 Passenger	151 Passenger	153 Passenger	175 Passenger	155 Passenger
Leave Daily					Arrive Daily Ex. Sat. Sun. and Holidays	Ar. Saturday Ex. Holidays	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Sunday and Holidays	Arrive Daily
PM 10.00	31000	0.0	TO-R SAN FRANCISCO ^{BKIPYQ}	96.5	PM 5.10	PM 5.50		PM 6.45	PM 8.40	PM 9.45	PM 11.20
	31050	1.9	23rd STREET	94.6		s					
	31055	4.1	PAUL AVE.	92.4							
s 10.08	31060	5.2	BAYSHORE ^{BIKP}	91.3	s 4.58			s 6.35		s 9.33	s 11.07
	31070	8.6	BUTLER ROAD ^P	87.9							
s 10.13	31075	9.3	SO. SAN FRANCISCO ^{KPQ}	87.2	s 4.53	s 5.32		s 6.30	s 8.21	s 9.27	s 11.02
s 10.16	31085	11.6	SAN BRUNO ^P	84.9	s 4.48	s 5.27		s 6.25	s 8.17	s 9.21	s 10.57
s 10.19	31205	13.7	M-2150 MILLBRAE ^P	82.8	s 4.45	s 5.24		s 6.22	s 8.14	s 9.18	s 10.54
s 10.22	31209	15.2	BROADWAY ^P	81.3	s 4.42	s 5.21		s 6.19	s 8.11	s 9.15	s 10.51
s 10.25	31211	16.3	BURLINGAME ^P	80.2	s 4.39	s 5.19		s 6.17	s 8.09	s 9.13	s 10.49
s 10.28	31218	17.9	SAN MATEO ^P	78.6	s 4.36	s 5.16		s 6.13	s 8.06	s 9.10	s 10.46
s 10.31	31222	18.9	M-2750 HAYWARD PARK ^P	77.6	s 4.33			s 6.09			
s 10.34	31229	20.3	HILLSDALE ^P	76.2	s 4.30	s 5.12		s 6.07	s 8.01	s 9.07	s 10.42
s 10.37	31233	21.9	BELMONT ^P	74.6	s 4.27	s 5.10		s 6.04	s 7.58	s 9.05	s 10.39
s 10.40	31237	23.2	M-2105 SAN CARLOS ^P	73.3	s 4.24	s 5.08		s 6.01	s 7.55	s 9.03	s 10.36
s 10.44	31240	25.4	Yd. Lmts. REDWOOD CITY ^{KP}	71.1	s 4.21	s 5.05		s 5.57	s 7.51	s 9.00	s 10.33
10.45	31250	26.2	TO REDWOOD JCT. ^{BIKPYQ}	70.3	4.19	5.03		5.55	7.49	8.58	10.31
s 10.47	31305	27.8	ATHERTON	68.7	s 4.17	s 5.01		s 5.53	s 7.47	s 8.56	s 10.29
s 10.50	31310	28.9	MENLO PARK	67.6	s 4.14	s 4.59		s 5.50	s 7.45	s 8.54	s 10.27
s 10.53	31315	30.1	PALO ALTO ^P	66.4	s 4.12	s 4.57		s 5.47	s 7.42	s 8.52	s 10.24
s 10.56	31320	31.8	M-2150 CALIFORNIA AVE. ^{PY}	64.7	s 4.09	s 4.54		s 5.44	s 7.39	s 8.49	s 10.21
	31325	34.8	CASTRO	61.7							
s 11.02	31330	36.1	MOUNTAIN VIEW	60.4	s 4.03	s 4.49		s 5.38	s 7.34	s 8.44	s 10.15
s 11.06	31335	38.8	TO SUNNYVALE ^P	57.7	s 3.59	s 4.45		s 5.32	s 7.30	s 8.40	s 10.11
s 11.13	32000	44.3	TO-R SANTA CLARA ^{IKPQ}	52.2	s 3.53	s 4.39	PM 6.55	s 5.25	s 7.24	s 8.34	s 10.05
	32010	45.2	SAN JOSE YARD ^{BKPQ}	51.3							
	32015	45.7	TO-R COLLEGE PARK ^{IPQ}	50.8	s 3.50			s 5.22			
s 11.20 PM	32020	46.9	TO-R SAN JOSE ^{BIKPYQ}	49.6	3.48 PM	4.35 PM	s 6.49 6.44	5.20 PM	7.20 PM	8.30 PM	10.00 PM
	32115	51.4 55.3	LICK ^{IP}	45.1							
	32140	63.1	COYOTE ^P	37.3							
	32145	66.3	6125 PERRY ^P	34.1							
	32160	77.0	6125 RUCKER ^P	23.4							
	32170	80.7	TO-R GILROY ^{BKPQ}	19.7							
	32180	83.2	CARNADERO ^P	17.2							
	32310	86.4	CORPORAL ^P	14.0							
	32330	93.2	Yd. Lmts. LOGAN ^P	7.2							
	32350	100.4	Yd. Lmts. TO-R WATSONVILLE JCT. ^{BKPYQ}	0.0			5.46 PM				
Arrive Daily			(96.5)		Leave Daily Ex. Sat. Sun. and Holidays	Lv. Saturday Ex. Holidays	Leave Daily	Leave Daily	Leave Daily	Leave Sunday and Holidays	Leave Daily
150					149	173	13	151	153	175	155

RULE 5. Time applies at the location of station sign at stations between San Francisco and San Jose. Time applies at the end of double track at Coyote and Gilroy, except that of Eastward trains at Gilroy will apply at train-order signal.
 RULE S-72. Exception: No. 12 is superior to No. 13 and No. 373.

SAN FRANCISCO SUBDIVISION

EAST-WARD		STATION NUMBER	WEST-WARD
Mile Post Location	Vasona Branch		Distance from San Jose
	STATIONS		
	SIDING CAPACITIES AND FACILITIES		
46.9	Yd. Lmts. TO-R SAN JOSE BIKPYQ 2000	32020	0.0
50.7	CAMPBELL P	32040	3.8
48.2 52.9	585 (Spur) VASONA P	32045	6.0
45.2	830 CHAMPAGNE FOUNTAIN	32050	9.0
43.8	BLUE HILLS	32055	10.4
41.0	MONTA VISTA	32060	13.2
37.3	PERMANENTE	32070	16.9
	(16.9)		

EAST-WARD		STATION NUMBER	WEST-WARD
Mile Post Location	San Bruno Branch		Distance from So. San Francisco
	STATIONS		
	SIDING CAPACITIES AND FACILITIES		
9.3 14.1	Yd. Lmts. SO. SAN FRANCISCO KPQ	31075	0.0
8.5	COLMA	31120	5.6
7.4	DALY CITY	31125	6.7
	(6.7)		

EAST-WARD		STATION NUMBER	WEST-WARD
Mile Post Location	Lick Branch		Distance from Alamitos
	STATIONS		
	SIDING CAPACITIES AND FACILITIES		
51.4 55.3	Yd. Lmts. LICK IP	32115	3.6
58.9	585 (Spur) ALAMITOS	32120	0.0
	(3.6)		

EAST-WARD		STATION NUMBER	WEST-WARD
Mile Post Location	Santa Cruz Branch		Distance from Olympia
	STATIONS		
	SIDING CAPACITIES AND FACILITIES		
100.4 100.5	Yd. Lmts. TO-R WATSONVILLE BKPYPQ JCT.	32350	28.9
102.0	WATSONVILLE	32400	27.4
120.6	SANTA CRUZ BKPYP	32450	8.8
127.4	FELTON P	32480	2.0
129.4	340 OLYMPIA	32490	0.0
	(28.9)		

EAST-WARD		STATION NUMBER	WEST-WARD
Mile Post Location	Hollister Branch		Distance from Hollister
	STATIONS		
	SIDING CAPACITIES AND FACILITIES		
83.2	CARNADERO P	32180	11.7
94.9	580 HOLLISTER P	32220	0.0
	(11.7)		

ADDITIONAL STATIONS			
Capacity and Direction of entry into Spurs	Mile Post	NAME	Station Number
San Bruno Branch			
..	13.0	Tanforan.....	31105
..	11.4	Baden.....	31110
60E	10.0	Carroll..... (Spur)	31115
Santa Cruz Branch			
..	112.8	Aptos..... (Spur)	32415
340E	115.9	Capitola..... (Spur)	32420
..	119.4	Seabright..... (Spur)	32435
..	120.1	Casino.....	32440
735	121.8	Eblis.....	32470
Hollister Branch			
1030	86.0	Bolsa.....	32205

ADDITIONAL STATIONS			
Capacity and Direction of entry into Spurs	Mile Post	NAME	Station Number
..	6.9	Brisbane.....	31065
720W	16.8	Howest..... (Spur)	31214
60W	19.7	Romac..... (Spur)	31225
..E	27.3	Stauffer..... (On Spur)	31243
..E	28.7	Redwood Harbor... (On Spur)	31247
..E	49.3	Luther Jct..... (Spur)	32105
..	51.0	Luther (on spur 1.7 mile from Luther Jct.).....	32110
820E	59.0	Oak Grove..... (Spur)	32135
1600	70.8	Morgan Hill..... Yd. Lmts.	32150
1750	74.6	San Martin.....	32155
4395E	87.1	Sargent..... (Spur)	32320
525W	97.1	Eaton..... (Spur)	32340

EAST-WARD		STATION NUMBER	WEST-WARD
Mile Post Location	Davenport Branch		Distance from Davenport
	STATIONS		
	SIDING CAPACITIES AND FACILITIES		
120.6 79.2	Yd. Lmts. SANTA CRUZ BKYP	32450	11.5
90.7	DAVENPORT	32460	0.0
	(11.5)		

SALINAS SUBDIVISION

EASTWARD

FIRST CLASS

374 OALAT
12 Passenger

Leave Daily Ex. Sunday

PM 10.22 AM 11.05

10.42 s 11.29

10.49 11.34

10.57 11.42

11.03 11.48

11.10 AM 11.56

11.15 PM 12.01

11.32 12.18

11.41 12.26

11.51 12.36

PM 11.57 12.42

AM 12.05 12.50

12.12 12.57

12.19 1.04

12.25 1.10

12.32 1.17

12.39 1.24

12.48 1.33

238.9

243.4

246.3

248.0

250.6

1 55 s 2 10
AM PM

252.1

Arrive Daily Ex. Monday

374 12

Mile Post Location

STATIONS SIDING CAPACITIES AND FACILITIES

Yd. Lmts. TO-R	WATSONVILLE JCT.	BKPYQ	32350	151.7
6300	CASTROVILLE	P	32520	141.7
Yd. Lmts. TO-R	NO. 1-6615 NO. 2-3280 SALINAS	BKPYQ	32720	133.9
6300	SPRECKELS JCT.	PY	32730	131.8
5780	CHUALAR	P	33009	123.0
5635 Yd. Lmts.	GONZALES	PQ	33016	117.0
No. 1-7450 No. 2-2500 Yd. Lmts.	SOLEDAD	P	33030	108.5
4800	HARLEM	P	33037	103.8
6300 Yd. Lmts. TO	KING CITY	KPQ	33060	88.4
4975	SAN LUCAS	P	33111	79.7
5780	SAN ARDO	P	33123	69.2
4700	WUNPOST	P	33131	62.4
5150	BRADLEY	P	33138	56.2
No. 1-5000 No. 2-3770	McKAY	P	33147	48.3
1620	SAN MIGUEL	P	33151	45.1
4750	WELLSONA	P	33156	41.2
2650 Yd. Lmts. TO	PASO ROBLES	KPQ	33170	35.8
4700	TEMPLETON	P	33210	30.3
5585	HENRY	P	33219	24.1
W-19015 Yd. Lmts.	SANTA MARGARITA	P	33232	16.6
5830	CUESTA	P	33237	13.2
5750	SERRANO	P	33242	8.7
5100	CHORRO	P	33247	5.8
1760	GOLDTREE	PY	33253	4.1
	HATHAWAY		33260	1.5
Yd. Lmts. TO-R	SAN LUIS OBISPO	BKPYQ	34000	0.0
	(151.7)			

Automatic Block Signal System

Centralized Traffic Control

Station Number

Distance from San Luis Obispo

WESTWARD

FIRST CLASS

13 Passenger
373 LAOAT

Arrive Daily

PM 5.46 AM 2.53

s 5.26 2.29

5.16 2.24

5.08 2.16

5.02 2.11

4.55 2.03

4.51 1.58

4.34 1.42

4.25 1.32

4.16 1.21

4.09 1.13

4.02 1.05

3.54 12.58

3.47 12.50

3.41 12.41

3.34 12.32

3.27 12.24

3.18 12.15 AM

2.40 11.30

PM PM

Leave Daily

Leave Daily Ex. Sunday

13 373

Mile Post Location	STATIONS SIDING CAPACITIES AND FACILITIES	Station Number	Distance from Lake Majella
110.4	Yd. Lmts. TO-R CASTROVILLE	32520	19.6
119.2	3430 ORD	32620	10.8
123.3	SEASIDE	32635	6.7
124.9	1470 DEL MONTE	32645	5.1
125.7	MONTEREY	32650	4.3
128.3	Yd. Lmts. PACIFIC GROVE	32660	1.7
130.0	LAKE MAJELLA	32670	0.0
	(19.6)		

RULE 5. Time applies for westward trains at Monterey at west switch of storage track.

ADDITIONAL STATIONS			
Capacity and Direction of entry into Spurs	Mile Post	NAME	Station Number
5635E ..	114.8	Monterey Branch Lapis	32610 (Spur)
640E ..	117.3	Marina	32615
640W ..	122.1	Prattco	32630 (Spur)
1325E ..	124.3	Retreat	32640 (Spur)
	129.9	Asilomar	32665

RULE 5. Time at Salinas applies for first-class trains at No. 2 siding, for other westward trains at west end No. 1 siding, and for other eastward trains at east end No. 2 siding.

Time at Soledad and McKay applies at No. 1 siding.

RULE S-72. Exception: No. 12 is superior to No. 13 and No. 373.

ADDITIONAL STATIONS			
Capacity and Direction of entry into Spurs	Mile Post	NAME	Station Number
3770	107.7	Moss Landing	32513
5290	113.9	Cooper	32710
980	125.3	Spence	33005
1290E	138.8	Molus	33021 (Spur)
1910	140.6	Camphora	33024
1910	152.3	Metz	33043
4165E	161.0	Elsa	33053 (Spur)
1765	187.1	Welby	33105
2840E	226.5	Atascadero	33215 (Spurs)
500W	226.8		

Mile Post Location	STATIONS SIDING CAPACITIES AND FACILITIES	Station Number	Distance from Spreckels
120.3	SPRECKELS JCT.	32730	2.5
122.8	SPRECKELS	32740	0.0
	(2.5)		

NILES SUBDIVISION

EASTWARD			Mile Post Location	STATIONS SIDING CAPACITIES AND FACILITIES	Station Number	Distance from Oakland (16th Street)	WESTWARD					
FIRST CLASS		Automatic Block Signal System					Yard Limits	Double Track	13 Passenger	Arrive Daily	FIRST CLASS	
12 Passenger	374 OALAT										13 Passenger	
Leave Daily	Leave Daily Ex. Sunday										PM 8:05	
AM 8:50			3.9	OAKLAND (16th Street) KIPQ	30145	0.0					8:05	
8.53	PM 7:10	4.9	TO-R WEST OAKLAND BKIYPQ	30200	1.0	7.56						
		5.9	MAGNOLIA TOWER KIP		2.0							
		9.7	TO FRUITVALE KIYPQ	30245	5.8							
9.16	7.35 PM	13.4	ELMHURST P	30260	9.5	7.35						
9.21		15.5	Yd. Lmts. TO MULFORD BKPKQ	30304	11.6	7.30						
9.26		20.2	3430 RUSSELL P	30309	16.3	7.25						
9.31		25.3	3725 Yd. Lmts. ALVARADO P	30319	21.4	7.20						
9.38		30.6	5440 TO-R NEWARK IYPQ	30530	26.7	7.13						
9.42		34.1	3920 ALBRAE P	30605	30.2	7.09						
		39.1	ALVISO P	30612	35.2							
9.49		41.7	2570 Yd. Lmts. AGNEW P	30620	37.8	7.01						
9.54 AM		44.8	Yd. Lmts. TO-R SANTA CLARA KIPQ (40.9)	32000	40.9	6.55 PM						
Arrive Daily	Arrive Daily Ex. Sunday					Leave Daily						
12	374					13						

ADDITIONAL STATIONS			
Capacity and Direction of entry into Spurs	Mile Post	NAME	Station Number
.. P	8.3	Santa Clara Line	
.. P	17.8	East Oakland.....	30240
1130 P	21.5	Robert.....	30307
.. P	23.0	Mt. Eden.....	30812
.. P	36.5	Baumberg.....	30815
.. P		Drawbridge.....	30609
Tracy Line			
.. P	29.5	Henderson.....	30510
6370W ..	30.9	Ravenswood..(Spur)	30515
1000E P	40.35	Centerville....(Spur)	30535
940W ..	30.9	Dresser.....(Spur)	25105
780E ..	48.4	Trevarno.....(Spur)	25138
420E P	63.1	Midway.....(Spur)	25155
Niles Line			
.. P	16.5	Estudillo.....	30407
Milpitas Line			
.. P	32.8	Irvington.....	30706
980 P	34.3	Snoboy.....	30711
460 P	43.3	Wayne.....(Spur)	30731
.. ..	44.9	North San Jose	30735
.. ..	45.0	Maybury.....	30740

RULE 5. Newark. Time on Elmhurst-Santa Clara line applies at siding east of station building.

Santa Clara-Newark line time will apply at junction switch, Santa Clara.

RULE S-72. Exception: No. 12 is superior to No. 13.

EASTWARD		Mile Post Location	STATIONS SIDING CAPACITIES AND FACILITIES	Station Number	Distance from Tracy	WESTWARD						
FIRST CLASS						Automatic Block Signal System	Yard Limits	Distance	374 OALAT	Leave Daily Ex. Sunday		
374											374 OALAT	Leave Daily Ex. Sunday
PM 7.35												
		13.4	ELMHURST P	30260	16.2							
		14.8	SAN LEANDRO P	30403	14.8							
		17.5	SAN LORENZO	30409	12.1							
		20.1	5005 Yd. Lmts. TO HAYWARD BKPKQ	30414	9.5							
		26.5	1630 DECOTO P	30425	3.1							
		29.2	3460 Yd. Lmts. NILES Y	30555	0.4							
		29.6	NILES JCT. (18.2)	30555	0.0							
		43.0										
		29.2	NILES Y	30555	18.5							
		29.8	TO-R NILES TOWER KIYPQ	30550	17.9							
		36.3	4030 Yd. Lmts. TO WARM SPRINGS KPQ	30720	11.4							
		40.7	6820 Yd. Lmts. TO MILPITAS KPQ	30727	7.0							
		47.7	Yd. Lmts. SAN JOSE YARD BKIYPQ	32010	0.0							
		45.2										
9.05 PM	Arrive Daily Ex. Sunday											
374												
Stonehurst Branch												
		13.4	Yd. Lmts. ELMHURST P	30260	0.9							
		14.3	STONEHURST	30270	0.0							
						(0.9)						

RULE 5. Tracy. Time to and from Niles and Martinez Subdivisions, applies at Crossover MP 72 on Stockton Subdivision.

Belle Haven. Time applies at end of double track.
San Jose Yard. Time applies at Junction switch for Milpitas Line.

EASTWARD		Mile Post Location	STATIONS SIDING CAPACITIES AND FACILITIES	Station Number	Distance	WESTWARD						
FIRST CLASS						Automatic Block Signal System	Yard Limits	Distance	374 OALAT	Leave Daily Ex. Sunday		
374											374 OALAT	Leave Daily Ex. Sunday
PM 7.35												
		13.4	ELMHURST P	30260	16.2							
		14.8	SAN LEANDRO P	30403	14.8							
		17.5	SAN LORENZO	30409	12.1							
		20.1	5005 Yd. Lmts. TO HAYWARD BKPKQ	30414	9.5							
		26.5	1630 DECOTO P	30425	3.1							
		29.2	3460 Yd. Lmts. NILES Y	30555	0.4							
		29.6	NILES JCT. (18.2)	30555	0.0							
		43.0										
		29.2	NILES Y	30555	18.5							
		29.8	TO-R NILES TOWER KIYPQ	30550	17.9							
		36.3	4030 Yd. Lmts. TO WARM SPRINGS KPQ	30720	11.4							
		40.7	6820 Yd. Lmts. TO MILPITAS KPQ	30727	7.0							
		47.7	Yd. Lmts. SAN JOSE YARD BKIYPQ	32010	0.0							
		45.2										
9.05 PM	Arrive Daily Ex. Sunday											
374												
Stonehurst Branch												
		13.4	Yd. Lmts. ELMHURST P	30260	0.9							
		14.3	STONEHURST	30270	0.0							
						(0.9)						

Niles. Time for westward trains via Decoto applies at Junction switch located 550 feet west of station building.

MARTINEZ SUBDIVISION

EASTWARD				Mile Post Location	STATIONS SIDING CAPACITIES AND FACILITIES	Station Number	Distance from Sacramento	WEST- WARD FIRST CLASS 711 Passenger Arrive Daily
FIRST CLASS								
	378	14	710	6				
	OABRT	Passenger	Passenger	Passenger				
	Leave Daily	Leave Daily	Leave Daily	Leave Daily				
					4.4			
	PM 10.35				4.9			
		PM 8.30	AM 10.40	AM 10.00	5.5			
					7.0			
					9.2			
					15.0			
					23.0			
					28.9			
					29.0			
					33.1			
					34.7			
					31.7			
	11.28	s 9.12	s 11.30 AM	s 10.38				
					38.0			
	PM 11.48				48.9			
		9.35		11.00				
					59.4			
					67.5			
					75.6			
	12.15 AM	s 10.10 PM		11.25	75.6			
					89.0			
	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily				
<p>RULE 5. Suisun-Fairfield. Time applies for trains enroute to Schellville Branch at east switch of north siding.</p> <p>Davis. Time applies at station sign except time applies for No. 14 at east switch north siding.</p>	378	14	710	6				711

EAST- WARD FIRST CLASS 710 Passenger Leave Daily AM 11.30	Mile Post Location	STATIONS SIDING CAPACITIES AND FACILITIES		Station Number	Distance from Tracy	WEST- WARD FIRST CLASS 711 Passenger Arrive Daily PM 5.05
11.45 AM						
	34.7				48.2	
	36.0				46.9	
	38.1				44.8	
	41.3				41.6	
	48.9				34.0	
	50.8				32.1	
	61.7				21.2	
	66.9				16.0	
	82.9				0.0	
	71.5					
Arrive Daily						Leave Daily
710						711

ADDITIONAL STATIONS			
Capacity and Direction of entry into spurs	Mile Post	NAME	Station Number
Sacramento Line			
..	3.5	Oakland Pier.....	30147
..	6.6	Emeryville.....	30142
..	7.4	Pabco.....	30135
..	7.8	Stockyards.....	30131
..	13.1	Steger.....	30122
..	16.6	San Pablo.....	30045
1225E	18.9	Giant.....(Spur)	30043
..	23.8	Hercules.....	30031
..	25.5	Rodeo.....(Spur)	30027
1700E	26.3	Oleum.....(Spur)	30025
3655E	27.1	Tormey.....(Spur)	30021
2990W	27.5	Selby.....(Spur)	30017
3650W	33.8	Army Point..(on Spur)	23817
..	32.4	Benicia.....(on Spur)	23819
..	51.9	Tolenas.....	23509
..	55.4	Cannon.....	23505
2105E	69.6	Sucro.....(Spur)	23331
340E	71.8	Tremont.....	23328
880W	79.1	Swingle.....(Spur)	23315
..	80.4	Webster.....	23312
..	86.3	Mikon.....L.	23305
..	88.1	West Sacramento.....	23095
Tracy Line			
1935W	P	Nichols.....(Spur)	25225
..	P	McAvoy.....	25230
2350W	P	Shell Point.....	25240
657E	P	Antioch.....	25277
..	P	Janney.....(Yd. Lmts.)	25298

RULE 5. Tracy. Time to and from Niles and Martinez Subdivisions, applies at crossover MP 72 on Stockton Subdivision.
Port Chicago. Time for Nos. 710 and 711 applies at ATSF interchange conn. MP 40.8.
Mococo. Time applies at end of double track.

MARTINEZ SUBDIVISION

WESTWARD

FIRST CLASS

11	5	377						
Passenger	Passenger	BROAT						
Arrive Daily	Arrive Daily	Arrive Daily						
		PM 11.00						
AM 8.25	PM 2.20							
s 7.26	s 1.20	9.09						
7.09	1.00	8.49						
6.45 AM	12.30 PM	8.10 PM						
	12.15 PM							
Leave Daily	Leave Daily	Leave Daily						
11	5	377						

EASTWARD

Mile Post Location	STATIONS	Station Number	WESTWARD Distance
	SIDING CAPACITIES AND FACILITIES		
	Schellville Branch		
48.9	N-4855 Yd. Lmts		
48.5	TO-R SUISUN-FAIRFIELD	23513	24.8
61.8	Yd. Lmts. { 1920	NAPA JCT. YP	23540
61.0			11.5
62.0	TO-R 4950	LOMBARD KPQ	23710
64.7			
72.5	Yd. Lmts. {	BRAZOS IP	23715
72.8	R	SHELLVILLE Y	23730
			0.0

(24.8)

Mile Post Location	STATIONS	Station Number	WESTWARD Distance
	Vallejo Branch		
61.8	Yd. Lmts. { 1920	NAPA JCT. YP	23540
64.6			7.1
68.9	1030	FLOSDEN	23660
68.8			4.3
		VALLEJO BK	23680
			0.0

(7.1)

Mile Post Location	STATIONS	Station Number	WESTWARD Distance
	Napa Branch		
61.8	Yd. Lmts. { 1920	NAPA JCT. YP	23540
61.2			27.5
69.5	2535 R	NAPA	23611
			19.2
71.8		UNION	23614
			16.9
88.75	325	KRUG	23637
			0.0

(27.5)

Mile Post Location	STATIONS	Station Number	WESTWARD Distance
	San Ramon Branch		
38.1	Yard Limits TO-R	AVON YP	25010
			29.7
57.7		SAN RAMON	25054
			10.1
63.6	Yd. Lmts. {	DOUGHERTY	25061
67.8		RADUM IYP	25124
			0.0

(29.7)

Mile Post Location	STATIONS	Station Number	WESTWARD Distance
	Winters Branch		
59.4			
59.6		ELMIRA P	23345
			8.4
68.0		END OF BRANCH	0.0

(8.4)

ADDITIONAL STATIONS

Capacity and Direction of entry into Spurs	Mile Post	NAME	Station Number
		Schellville Branch	
1985	P 54.2	Cordelia.....	23522
		Napa Branch	
2105	.. 66.8	Rocktram.....	23607
..	.. 74.2	Oak Knoll.....	23617
305E	.. 78.0	Yountville..... (Spur)	23622
..	.. 81.5	Oakville.....	23627
..	.. 83.4	Rutherford.....	23629
440E	.. 86.1	Thomann..... (Spur)	23632
900	.. 87.6	St. Helena.....	23635
		Winters Branch	
315E	.. 63.7	Vacaville.....	23405
..	.. 67.5	Vaca Valley.....	23412
		San Ramon Branch	
..	.. 41.0	Galindo.....	25020
1160	P 42.5	Concord.....	25030
940	.. 45.1	Hookston.....	25034
..	.. 45.8	Las Juntas.....	25037
325	P 48.2	Walnut Creek.....	25041
..	.. 52.6	Alamo.....	25047
..	.. 54.8	Danville.....	25051
..	.. 66.4	Asco.....	25070

RULE 5. Suisun-Fairfield. Time applies for trains enroute to Schellville Branch at east switch of north siding.

Davis. Time applies at station sign except time applies for No. 14 at east switch north siding.

RULE A. Employes must know they have in their possession copy of Rules and Regulations of the Transportation Department effective January 1, 1969.

RULE M. Fourth paragraph is revised to read:

Employes are prohibited from getting on roof of cars except when necessary to make repairs.

Fifth paragraph of Rule M is cancelled in its entirety.

DEFINITIONS

Holidays are revised to read:

New Year's Day, January 1,
Washington's Birthday, third Monday in February,
Memorial Day, last Monday in May,
Independence Day, July 4,
Labor Day, first Monday in September,
Veteran's Day, November 11,
Thanksgiving Day, fourth Thursday in November,
Christmas Day, December 25.

RESTRICTED SPEED is revised to read:

Proceed prepared to stop short of train, obstruction, stop signal or switch not properly lined and look out for broken rail, not exceeding twenty miles per hour.

RULE 3. First paragraph is revised:

Conductors, yard-engine foremen, engineers and outside hostlers must compare their watches with a standard clock before commencing each day's work. Conductors and yard-engine foremen must, when practicable, compare time with their engineers before starting each trip or each day's work. At the first opportunity other members of the crew must compare time with the conductor, yard-engine foreman or engineer.

RULE 7-B. Trains or engines entering or leaving yard tracks, and engines on engine tracks, San Francisco, Bayshore, San Jose, Watsonville Jct., and Oakland must not proceed unless proceed signal is received, green flag by day, green light by night, or engineer is orally authorized by Yardmaster or his representative, except trains departing in either direction from Main Tracks 1 and 2 and Desert Unit Oakland will be governed by signal indication.

RULES 10-G, 10-H and 10-I. When unattended red flags or red lights, yellow flags, red CONDITIONAL STOP signs and yellow PROCEED PREPARED TO STOP signs are displayed between siding switches, they must be duplicated to right of siding in direction of approach. If clearance between siding and main track does not permit display of these flags or signs to right of track in direction of approach, flags or signs may be displayed to left of track in direction of approach. Display of these flags or signs to the left of track in direction of approach must be respected as though they were displayed in accordance with these rules.

RULES 10-H and 15. On all branch lines except Schellville Branch, yellow flags will be displayed one-half mile from point of restriction, and when a torpedo is exploded in the vicinity of a yellow flag displayed in accordance with Rule 10-H, train must proceed expecting to find an unattended red flag that may be displayed one-half mile beyond the torpedo and the yellow flag.

RULE 10-J. Speed signs prescribing an increase in speed will not be installed on branches. Speed restrictions tables will indicate permissible speeds between mile post locations named.

Second and fourth paragraphs are revised to read:

Speed signs that prescribe reduction in speed will be located two miles from initial point of restriction, and where used to authorize increase in speed will be located at point where higher speed commences. Speed may be increased as soon as rear of train has passed speed sign. Where such signs are not used to authorize an increase in speed, limit of restriction will be shown in timetable.

Certain speed signs have the word "SIGNAL" above the figures. Such signs in advance of signal indicate the speed that must not be exceeded while engine is passing signal two miles beyond the speed sign, unless signal can plainly be seen to be displaying green aspect.

RULE 14(1). Where there are multiple public crossings not more than one-fourth mile apart, sign bearing letter "X" located one-fourth mile in advance of first crossing will display a figure which represents the number of crossings involved.

Whistle signal under provisions of Rule 14(1) must be sounded until engine has passed over last crossing.

RULE 21. First paragraph is revised to read:

Trains must be identified by engine number on lead unit when practicable. Only the number designated for identification will be continuously illuminated when engine is so equipped.

RULE 26. On diesel fueling tracks at West Oakland diesel shop, Tracy diesel track, Third St. Station, San Francisco, San Jose passenger station and Watsonville Jct. a blue light will not be attached to reflectorized blue MEN AT WORK signs when displayed at night.

RULE S-72. Westward trains are superior to trains of the same class in the opposite direction.

RULE 84. Passenger trains making station stop where rear end of train cannot be seen from the head end due to curvature of track, foggy or stormy weather, engineer will recall flagman from the rear as prescribed by Rule 14(d) or 14(e), as the case may be. When all passengers on rear of train have been loaded, flagman will sound signal 16(k) which will be answered by the engineer with signal 14(g). Train will not proceed until signal is given by trainman on head end of train.

RULE 98. Cars must not be kicked, dropped or shoved over railroad crossings not protected by interlocking, unless movement is protected.

RULE 101. When member of crew has reason to believe train has passed over defect in track or roadbed that may interfere with safe train movement, the following precautions must be taken:

- (1) Train stopped immediately and inspection made to ensure train is safe to proceed.
- (2) Train dispatcher and opposing or following trains must be immediately notified of condition encountered. Train dispatcher must, if means available, afford protection for opposing and/or following trains until advised that reported defect has been inspected by Maintenance of Way forces.
- (3) To provide such protection, train dispatcher will arrange to stop train movements over the reported defect, except when crew that reports the defect indicates conditions allow, movement through the location may be authorized at restricted speed.
- (4) If train dispatcher cannot be contacted or if train dispatcher cannot afford appropriate protection, crew of train first encountering defect must afford protection.

RULE 102. Should a passenger train break in two or an emergency application of brakes occur while in motion on grade, head brakeman will immediately go toward rear, close angle cock at opening if train has parted, set hand brakes, and turn up retaining valves on detached portion. After train is coupled air must be applied from engine before hand brakes and retaining valves are released.

ADD:

At any time a train in motion has emergency application of air brakes for any cause, before proceeding an inspection of train must be made on both sides to determine all wheels are on rail and no damage or defects in track exist which will interfere with safe movement of train.

RULE 103-A. On tracks other than main tracks where crossing is protected by automatic gates or other automatic crossing protection and STOP signs are located approximately twenty-five feet each side of crossing, movements must stop at STOP sign and allow gates to lower or other automatic protection to operate twenty seconds before entering crossing.

RULE 103-A. ADD: Except as otherwise provided in this rule or by other Special Instructions or timetable bulletins, a public grade crossing which is blocked by a stopped train, other than a passenger train, must be opened within ten minutes, unless no vehicle or pedestrian is waiting at the crossing. Such a cleared crossing must be left open until it is known that trains are ready to depart. When recoupling at public crossings trains shall be moved promptly consistent with safety.

Switching movements over public grade crossings should be avoided whenever reasonably possible. If not reasonably possible, such crossings must be cleared frequently to allow a vehicle or pedestrian to pass and must not be occupied continuously for longer than ten minutes unless no vehicle or pedestrian is waiting at the crossing.

Cars or locomotives must not be left standing, nor switches left open, within the controlling circuits of automatic gate protection devices unless time-out features are provided to allow the gate arms to rise.

In the event of any uncontrolled blockage involving more than one grade crossing and a peace officer is on the scene, primary consideration shall be given to the clearing of that crossing which, in the peace officer's judgment, will result in minimum delay to vehicular traffic.

Train or yard crew member of a train blocking a public crossing shall immediately take all reasonable steps, consistent with the safe operation of such train, to clear the crossing upon receiving information from a peace officer, member of any fire department, or operator of an emergency vehicle, that emergency circumstances require the clearing of the crossing.

In the event of any uncontrolled blocking not otherwise provided for in this rule, crossing shall be cleared with reasonable dispatch.

RULE 105. Capacity of sidings column indicates length of train in feet that can be accommodated between fouling points.

Sidings designated "E" in capacity of sidings column are assigned for use by eastward trains; those designated "W" are assigned for use by westward trains. Those designated "N" for north and "S" for south are assigned for use by trains as shown in special instructions for the subdivision on which located.

RULE 107. Freight trains and engines must avoid passing between stations and loading tracks when passenger trains are closely approaching from opposite direction on double track, and care must be exercised by non-stopping passenger trains when approaching stations at about the same time that other passenger trains are approaching from the opposite direction. When practicable, non-stopping trains are to be given preference, but each train must be operated in a manner to avoid confusion and hazard of personal injury.

RULE 211 and Train Order Form N.

When operators advance a train at a station under Rule 211, Example (3), the following wording must be used:

"This is SP operator (*station*). I have a Form 'N' train order to advance (*train*) on main track until (*time*)."

RULE 283. ADD: When indication governs movement to track other than main track, movement must be made with caution.

RULE 285. First paragraph under Name and Aspect, is revised to read:

Trains exceeding medium speed must reduce to medium speed before engine reaches the signal if advance view of signal permits.

RULE 286. When distant signals governing movements on controlled sidings display yellow aspect, train may proceed on siding at restricted speed expecting to find siding occupied by preceding train.

First paragraph under Name and Aspect, is revised to read:

Trains exceeding medium speed must reduce to medium speed before engine reaches the signal if advance view of signal permits.

RULE 290-A. Revised to read:

Indication: PROCEED WITHOUT STOPPING NOT EXCEEDING RESTRICTED SPEED PREPARED TO STOP SHORT OF NEXT HOME SIGNAL.

RULE 505. AUTOMATIC BLOCK SIGNAL SYSTEM

PUSH BUTTONS

Where signal protection is provided for movements from an adjacent track to main track, push buttons and lights are installed in box near each of the two signals, with time-release feature, to clear signals on one track when the control circuit on the other track is occupied.

Train on main track to let train on siding pass may clear signal on siding by pressing button bearing number of signal on siding. Train on siding to let train on main track pass should not pass APPROACH CIRCUIT sign, but when necessary to do so, may clear signal on main track by pressing button bearing number of signal on main track.

Further instructions posted inside push-button box.

ELECTRIC OR MECHANICAL SWITCH LOCKS

Where electric or mechanical switch locks are installed, be governed by instructions posted in telephone booths, on doors or on housing of electric or mechanical switch lock.

RULE 507. ADD:

On single track within yard limits, when an automatic block signal displays stop indication, engines, after stopping, may proceed at restricted speed under the following conditions:

- (1) When preceding train is seen in the block and intervening track is seen to be clear.
- (2) When view of track is clear to end of block.
- (3) After waiting five minutes and no train or engine is seen or heard approaching.

RULE 663(b). INTERLOCKING

Operator may authorize movements under provisions of this rule after it has been ascertained indication lights on control panel are illuminated indicating dual control switches are in proper position and locked for movement without requiring dual control switches to be placed in hand position as required by Rule 772.

When indication lights on control panel are not illuminated, movements may be authorized under provisions of this rule; however, before making movement over dual control switches, such switches must be placed in hand position in accordance with Rule 772, and locked until movement over switch has been completed. When movement has been completed, switch must be returned to normal position and selector lever restored to motor position and locked.

When member of crew examines switch to see that points are in proper position for movement, examination must be made on the ground.

RULE 705. HOT BOX DETECTORS

If means of communication is available, engineer must inform conductor and helper engineer, if any, when approaching hot box detector. Crews on helper engine and on rear end of train must acknowledge and advise engineer of indications displayed in addition to taking appropriate action in accordance with applicable rules and Special Instructions.

Except for emergency situations, train and engine crews must avoid using radio transmitter when within 500 feet of hot box detector scanner site.

Hot box detector scanner sites have a white light continuously displayed on track side of instrument house, except when a hot bearing is detected, at which time light will start flashing. Crew members must keep a vigilant lookout for light and, when flashing, conductor and engineer must immediately orally compare observation when means of communication is available. Absence of white light must be promptly reported to train dispatcher.

Actuation of hot box detector requires train to be immediately stopped for inspection. To accomplish this without causing journal to seize from the brake application, dynamic brake must be used when practicable. When working power and hot box detector has been actuated, brakes should be applied with an initial reduction, reducing power and applying dynamic brake as soon as possible consistent with good train handling, adding to the reduction as may be necessary to complete the stop.

Instructions follow for operations of hot box detectors when stopped by illuminated letter, flashing white light, or rotating red beacon actuated by hot bearing.

TYPE A. LETTER "H" INDICATOR WITH DIGITAL READOUT.

When letter "H" is illuminated or it is known hot bearing has been detected by crew member observing the flashing white light at scanner site, train must be stopped promptly and inspection made to determine that it is safe to proceed. Where possible, inspection must be made before passing over switches or structures. After inspection, train must not exceed 15 MPH from point of inspection until stop is made at location of readout indicator and be governed by instructions posted inside case.

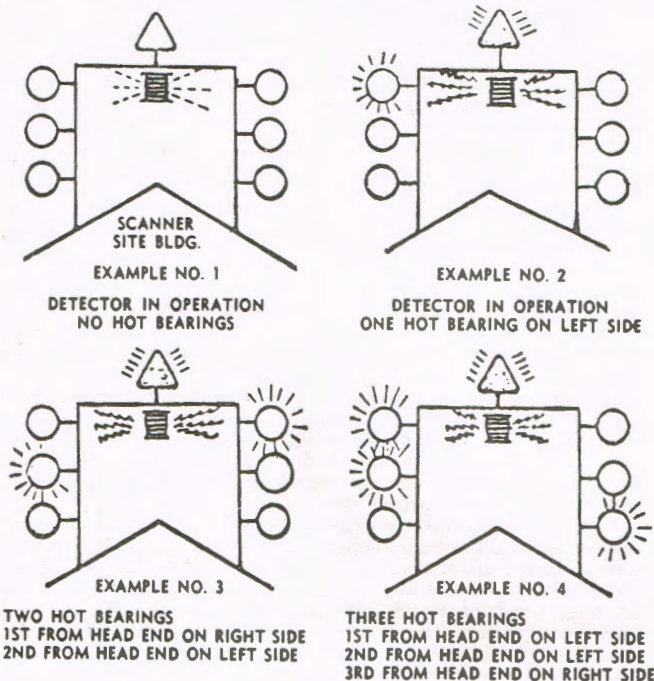
When letter "W" is illuminated, train must stop and wait until indicator is extinguished or permission is obtained from train dispatcher to proceed. Telephone located near "W" indicator.

When hot box detector is activated, member of crew must make a physical count of axles from rear of train to axle indicated by digital readout and when hot bearing is not located then all bearings of car indicated by detector as well as five cars on either side of the car involved must be inspected.

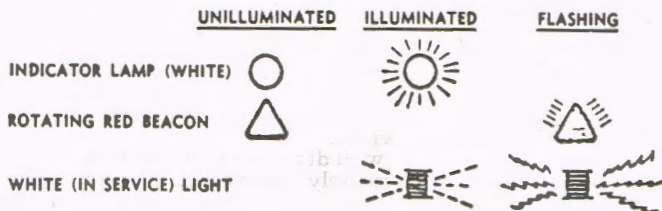
When "H" indicator indicates a hot bearing on train and there is no count shown on hot bearing detector and/or red light below readout marked "Locator Out of Service" is illuminated or when digital readout indicator displays a false indication such as a duplication of numbers or the numbers displayed exceed the number of axles in train, then all bearings of train must be inspected.

After inspection has been completed train dispatcher must be notified of condition found. When it is safe to proceed, member of crew must push button below indicator panel to cancel numbers on the indicator. Case door must be closed and secured with switch lock.

**TYPE B. LIGHT INDICATOR ARRAY.
HOT BOX DETECTOR INDICATOR ARRAY**



LEGEND



Detector instrument house is equipped with indicator array consisting of white lights and revolving red beacon as shown in diagram.

White light at top center of indicator array will be continuously displayed except when a hot bearing has been detected at which time light will start flashing. Absence of white light must be promptly reported to train dispatcher.

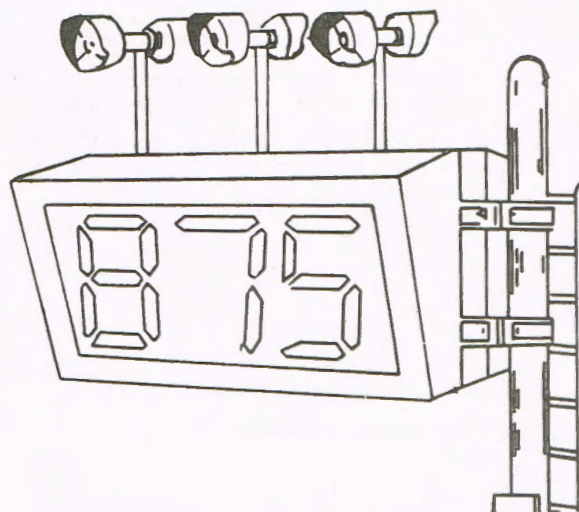
Revolving red beacon at top center of indicator array will be normally dark except when a hot bearing has been detected, beacon will be actuated.

Three vertical white lights are located on each side of indicator array. Lights on right side will be displayed for hot bearings on right side of train, and lights on left side will indicate hot bearings on left side of train, in direction of movement. Top light indicates first hot bearing, second light indicates second hot bearing, and third light indicates third hot bearing. Lights will indicate a maximum of three hot bearings on each train.

Crew members must keep vigilant look-out when passing these locations, and if hot bearing is detected, train must be stopped promptly, and inspection made to locate car with hot bearing. In addition, truck of car with hot bearing will be sprayed with fluorescent dye marker for identification. All bearings on car marked, as well as car ahead, must be inspected.

When indicator array indicates hot bearing on train, and no dye marker is observed, all bearings of train must be inspected.

TYPE C. MONITOR DISPLAY BOARD WITH INDICATOR LIGHTS.



A monitor display board and hot box indicator lights, as shown in diagram, are mounted on a signal mast at side of track. As the train passes the detector, the right or left hot box indicator light on top of the board starts to flash immediately upon detection of a hot bearing, indicating the side of the train having the overheated bearing. Two seconds after the train passes the detector, the display board will display numerals indicating the accumulated axle count from the hot bearing to the rear of the train.

A flashing indicator light in the center indicates that another hot bearing (or bearings) was detected subsequent to the hot bearing which is numerically indicated on the display board. Flashing lights, both left and right but not in the center, indicate two hot bearings, same axle, numerals displayed indicating axle count from that axle to the rear of the train. Flashing center light, together with either the left or right light only, indicates the hot bearings detected were all on the same side of the train. All three indicator lights flashing signify the indicated hot bearing may be on either side and that one of the subsequent bearings was on the opposite side.

The display board is illuminated as train passes and will display zeros in the absence of a hot bearing. Absence of any numerical display after passage of a train must be promptly reported to train dispatcher.

Also upon detection of a hot bearing, white light which is continuously illuminated on equipment house adjacent to monitor display board, will start to flash. Absence of white light must be promptly reported to train dispatcher.

When any indicator light displays flashing white aspect, train must be stopped promptly and inspected. If only one flashing aspect is indicated, the axle number from rear of train shall be inspected plus all bearings of car indicated by detector as well as each adjoining car. If center light displays flashing white aspect, all bearings from count indicated to rear of train shall be inspected on side or sides as indicated by left or right flashing white light. Lights and illuminated numerals will automatically cancel out ninety seconds after entire train passes detector.

When hot box detector is actuated, member of crew must make physical count of axles from rear of train to axle indicated by display board. When hot bearing is not located, then all bearings of car indicated by detector as well as five cars on each side of the car involved must be inspected.

TYPE D. REMOTE READOUT BY RECORDER AT TERMINAL.

Readout is by recorder located at nearby terminal as shown under Rule 705 on each subdivision of Special Instructions.

Hot box detector scanner sites have a white light continuously displayed on track side of instrument house, except when a hot bearing is detected, at which time light will start flashing. Absence of white light must be promptly reported to train dispatcher.

Crew members must keep a vigilant lookout for light and, when flashing, conductor and engineer must immediately orally compare observation when means of communication is available. Train must be stopped promptly and when means of communication is available, crew member must contact employe at location of recorder to determine location of hot bearing. If location of hot bearing cannot be determined, inspection must be made of all bearings.

REPORTING OF HOT BOXES

When hot box detectors are actuated, the following information is to be reported at next terminal in telegraph message form identified by symbol H.B. addressed jointly to Superintendent, Division Engineer, Signal Supervisor, and Chief Train Dispatcher; also General Manager—Amtrak, San Francisco, when an Amtrak passenger train is involved.

1. Date and time stopped, and MP location.
2. Train identification.
3. Car number and location in train.
4. Box location (1, 2, 3 or 4 from trailing end of car in direction of movement, right or left side).
5. Disposition of car: If set out, state where. If inspection shows that it was not necessary to set out even though bearing was warm enough to activate the detector, advise what corrective action was taken to permit movement of car. If roller bearing equipped, so state.
6. Report all cases where train passes over the detector without an indication having been displayed, but develops a hot bearing between detector and a point 20 miles beyond detector.

ABSOLUTE-PERMISSIVE BLOCK

RULE 744. Is revised to read:

When an absolute signal displays stop indication, train or engine must stop. Except as provided in Rule 745, train or engine, after stopping, must wait ten minutes and if no train or engine is seen or heard approaching, flagman must be sent ahead and train or engine may follow, keeping at least one-half mile behind flagman until flagman reaches next signal displaying proceed indication (green aspect), or reaches opposite end of A-PB.

ADD: RULE 745. When an absolute signal displays stop indication, and it is known that indication is caused by a portion of train standing on the main track, an engine, with or without cars, after stopping, may proceed at restricted speed to couple to train or cars, provided intervening track is seen to be clear to point where cars or train is standing.

CENTRALIZED TRAFFIC CONTROL

RULE 765. The first sentence is revised to read:

When necessary to perform switching moves requiring more than one reverse and one normal movement over any main track or controlled siding switch and track is unoccupied, member of crew must request, and train dispatcher will designate, work limits and clock time limit that must not be exceeded.

RULE 776(a). When member of crew examines switch to see that points are in proper position for movement, examination must be made on the ground.

RULE 781. White light which may appear on side of relay housing is maintainer's call light, but when train has been stopped by an absolute signal and white light is observed burning, member of crew will communicate with train dispatcher, except when a train is closely approaching.

GENERAL REGULATIONS

RULE 804. ADD:

Employes are, unless authorized by an officer of the Company, forbidden to have in their possession while on the property firearms, concealed or otherwise, or any other weapon considered dangerous.

RULE 810. ADD:

Continued failure by employes to protect their employment shall be sufficient cause for dismissal.

RULE 822. Trainmen shall not be inside caboose when caboose is involved in switching moves or when caboose is being coupled to or uncoupled from train.

Ninth paragraph is revised to read:

When necessary to climb through cars, employes may, when practicable, cross only through those standing cars equipped with end platforms or over the body of an empty flat car. They must not place any part of their body between coupler horn and end sill regardless of whether car is equipped with standard draft gear arrangement, sliding sill arrangement or end-of-car cushioning device. Crossing through moving equipment is prohibited.

ADD: When train is starting, stopping or moving slowly, employes on train must maintain a secure position to avoid personal injury from possible slack action.

RULE 824. SETTING OUT CARS EQUIPPED WITH AB or ABD AIR BRAKE EQUIPMENT

Any time an angle cock is closed in the train where the brake pipe pressure is lower than it is elsewhere, the resultant equalization will raise the brake pipe pressure at that point sufficient to release the AB or ABD valve. Equalizing the air in the brake pipe will cause release of brakes throughout the cars. Therefore, it is imperative that when cars are set out, regardless of the air brake equipment, a sufficient number of hand brakes must be applied and brake pipe pressure completely depleted by opening angle cock and LEAVING THE ANGLE COCK IN OPEN POSITION.

RULE 825. When necessary to set out a car of Flammable Compressed Gas (FCG), hand brake must be applied. Where track is not protected by derail, rail skate or rail skid, car must be chained to the rail.

A sufficient number of hand brakes must be set to hold cars; if two cars or more, not less than two must be set.

At terminals where instructions require application of hand brakes on freight trains, outgoing crews must not release hand brakes until road engine is coupled and brake system charged.

Rail skids are hung on posts at locations listed under subdivisions. When using rail skid it must be placed on rail and leading wheel of first car in descending direction run onto rail skid and hand brakes set if brakes are operative before engine is detached. Train crews picking up cars from these locations must remove rail skid, return to proper location and lock in place where lock is provided.

Car set out on grade with defective hand brake, must have another car with brake securely set placed below and against the bad order car.

RULES 825 and 883. Cars with short wheel base, less than 30 feet inside length as stencilled on side of car, should not be left standing on main track in automatic block signal territory, interlocking limits, CTC limits or on CTC sidings unless coupled to another car to prevent possibility of short wheel base car occupying dead section of track.

RULE 827. At crew change points, and locations specified in instructions under subdivisions, trains handling Flammable Compressed Gas (FCG) must be given a rolling inspection by outbound train crew unless otherwise instructed.

When picking up cars containing Flammable Compressed Gas (FCG) at plants, interchange points or other locations, unless otherwise provided, trainmen or switchmen will make inspection to determine cars have no obvious leaks and that hand brakes, air brakes and trucks are in safe condition for movement. Cars that are not in safe condition for movement will not be handled. Immediate report must be made to the train dispatcher or yardmaster, where applicable, from first available means of communication, when car containing Flammable Compressed Gas (FCG) has been set out or has not been picked up. Report should include car number, location, commodity, and reason car cannot be moved.

At locations specified in instructions under subdivisions, trains handling cars containing Flammable Compressed Gas (FCG) will stop and entire train must be inspected from both sides to determine that there is no obvious leakage of Flammable Compressed Gas (FCG) and that there is no other unsafe condition of equipment before proceeding.

Engines running light on descending grade without dynamic brake in operation must stop a sufficient length of time to permit wheel heat radiation if there is INDICATION OF OVERHEATING.

Dragging equipment and/or derailed car detector warning beacon mounted on post adjacent to detector will display revolving red light when detector is actuated. Crew members must keep vigilant look-out when passing and if revolving red light observed, train must be stopped promptly and inspection made of train and track, notifying train dispatcher of condition found.

If means of communication is available, engineer must inform conductor and helper engineer, if any, when approaching hot box detector, dragging equipment detector, derailed car detector, excess dimension load detector or person making rolling inspection of his train. Crews on helper engine and on rear end of train must acknowledge and advise engineer of indications displayed in addition to taking appropriate action in accordance with applicable rules and Special Instructions.

Actuation of dragging equipment detector and/or derailed car detector requires train to be immediately stopped for inspection. To accomplish this without risking immediate derailment or worsening of derailment from brake application, dynamic brake must be used when practicable. When working power and dragging equipment and/or derailed car detector has been actuated, brakes should be applied with an initial reduction; reducing power and applying dynamic brake as soon as possible consistent with good train handling, adding to the reduction as may be necessary to complete the stop.

During inspection by trainmen, if any roller bearing is found with one cap screw loose or missing and hot box detector has not been activated and check with tempilstick reveals no overheated condition, train may proceed to the next terminal where car must be set out.

Under the same circumstances, when two or more roller bearing cap screws are found loose or missing, train may proceed with caution to the first available track where car must be set out.

RULE 830. At interlocked railroad crossings at grade, cars or engines must not be cut off nor left within interlocking limits in such a way as to foul any part of the crossing frogs.

RULE 837. When making yard movements on any work lead or an adjoining track thereto, the movement will have the right to move on the track for which the switches are properly lined. If switch is lined against the movement, or for an adjacent connected track, the movement must not proceed until it is safe to do so. Position of the switches will govern the right of movement regardless of whether or not they are spring, rigid or variable.

RULE 837-A. FLAMMABLE COMPRESSED GAS (FCG)

Tank cars containing Flammable Compressed Gas (FCG) shall not be cut off when in motion. No car moving under its own momentum shall be allowed to couple to a car containing Flammable Compressed Gas (FCG). During switching operations cars must not be coupled with more force than necessary to complete the coupling.

Trains handling Flammable Compressed Gas (FCG) will be identified by alpha "K" as the last letter in train identification, except for local freight and road switcher assignments.

At crew change points, locations specified in instructions under subdivisions, trains handling Flammable Compressed Gas (FCG) must be given a rolling inspection by outbound train crew unless otherwise instructed.

When necessary to set out a car of Flammable Compressed Gas (FCG), hand brake must be applied. Where track is not protected by derail, rail skate or rail skid, car must be chained to the rail.

When handling cars containing Flammable Compressed Gas (FCG) in local or switching moves, work should be arranged to minimize handling of these cars. To the extent practicable, when gathering or distributing cars containing Flammable Compressed Gas (FCG), cars should be separated and isolated on separate track, properly secured until switching has been completed.

When picking up cars containing Flammable Compressed Gas (FCG) at plants, interchange points or other locations, unless otherwise provided, trainmen or switchmen will make inspection to determine cars have no obvious leaks and that hand brakes, air brakes and trucks are in safe condition for movement. Cars that are not in safe condition for movement will not be handled. Immediate report must be made to the train dispatcher or yardmaster, where applicable, from first available means of communication, when car containing Flammable Compressed Gas (FCG) has been set out or has not been picked up. Report should include car number, location, commodity, and reason car cannot be moved.

At locations specified in instructions under subdivisions, trains handling cars containing Flammable Compressed Gas (FCG) will stop and entire train must be inspected from both sides to determine that there is no obvious leakage of Flammable Compressed Gas (FCG) and that there is no other unsafe condition of equipment before proceeding.

Trains handling cars containing Flammable Compressed Gas (FCG) must not exceed 55 MPH. Where maximum authorized speed is less than 55 MPH and more than 25 MPH, train must be operated at 5 MPH less than maximum authorized speed. Such trains are further restricted to speeds shown at locations specified in instructions under subdivisions.

When necessary to provide helper engine for trains handling cars containing Flammable Compressed Gas (FCG), helper engine must be placed in accordance with helper service instructions and there must be a proper separation of the helper engine from cars containing Flammable Compressed Gas (FCG).

Unless specifically authorized, trains or cuts of cars containing Flammable Compressed Gas (FCG) must not exceed 100 cars or 8,000 tons.

Following are shipping names of Flammable Compressed Gas (FCG):

Standard Transportation Classification Code	Shipping Name
2813210	Acetylene Gas Acetylene
2813425	Argon-Hydrogen Gas Mixture
2813430	Argon-Methane Gas Mixture
2818960	Methane Butadiene from Alcohol
2911985	Butadiene from Petroleum Butadiene, Inhibited
2911931	Butane, Impura, for further refining
2912110	Butane Gas, Liquefied Butane
2912122	Butene (Butylene) Gas, Liquefied
2813990	Compressed Gases, NEC, OT Poison Fluorine Tetrafluoroethylene, Inhibited

Standard Transportation Classification Code	Shipping Name
2912130	Coal Gas
2813929	Carbon Dioxide—Propylene Oxide Mixture
2813932	Carbon Monoxide
2899887	Compounds of Fluids, Intombeng Starting Engine Starting Fluids
2818224	Dimethyl Ether (Methyl or Wood Ethers)
2813980	Dispersant Gases, NEC, Flammable
2813934	Dimethylamine, Anhydrous Monomethylamine, Anhydrous Trimethylamine, Anhydrous
2813944	Ethylene Oxide—Dichlorodifluoromethane Ethylene
2912120	Ethylene, Liquid (Bicarburetted Hydrogen) Ethene
2813984	Fluoroethane Gases, Flammable Difluoroethane Difluoromonochloroethane
2813460	Hydrogen Gas Hydrogen Hydrogen, Liquefied
2813946	Hydrogen, Sulfide
2813940	Helium—Butane Gas Mixture
2813942	Helium—Isobutane Gas Mixture
2813992	Hydrocarbon Gas, NEC Hydrocarbon Gas, Liquefied and Non-liquefied Liquefied Hydrocarbon Gas Methylacetylene—Propadiene, Stabilized
2814175	Isobutane for further refining processing Isobutylene
2912112	Isobutane Gas, Liquefied
2912190	Liquefied Petroleum Gas, NEC, Compressed Liquefied Petroleum Gas
2818947	Methyl Chloride Methyl Chloride—Methylene Chloride Mixture
2813950	Methyl Mercaptan Gas Methyl Mercaptan
2813954	Nitrogen—Hydrogen Gas Mixture
2912111	Propane Gas, Liquefied Propane Cyclopropane
2912131	Pintsch Gas
2813978	Refrigerants, NEC, Liquid, Flammable
2813964	Trifluorochloroethylene Gas Trifluorochloroethylene
2813966	Vinyl Chloride (Chloroethene) Vinyl Chloride Vinyl Fluoride Inhibited
2818280	Vinyl Methyl Ether (Methyl Vinyl Ether) Vinyl Methyl Ether Inhibited

RULE 872. Enginemen taking charge of road engines at West Oakland, Tracy, 7th Street Diesel Terminal, Bayshore, San Jose, Watsonville Junction and San Luis Obispo, will consider engines as having been amply supplied with water, fuel, sand and other supplies.

RULE 883. Light engines must not be left unattended on grades unless protected in descending direction by derail or spur track switch lined for diverging track. Air brakes must be applied and hand brake on each unit of consist must be applied and chain must be placed under wheels.

First sentence in first paragraph is revised to read:

When an engine is left without an employe in charge, it must when practicable, be placed on track affording protection against entry to main track; hand brakes must be fully applied, wheel secured with blocking chain or if not available other suitable blocking material, reverse lever removed from control stand, generator field switch OFF, engine isolated and cab doors locked.

RADIO OPERATING RULES

RULE 958. Is revised to read:

Employes shall identify the radio station from which they are calling by prefacing their call with the railroad name, for example: "SP Caboose Train Second 802 calling SP Engine Second 802 over" and to answer a call, announce, for example: "This is SP Caboose Train Second 802 over."

Radio station must be identified at the end of each transmission which exceeds three minutes, except that, in event of continued exchange of communications, identification shall be made at the end of each 15-minute period if the exchange continues without substantial interruption.

RULE 962. First sentence is revised to read:

Radio communication system may be used in lieu of hand, flag or lamp signals prescribed by Rule 12.

RULE 963(d). Is revised to read:

Train dispatcher communicating direct with engineer or conductor, after assured train is stopped, may authorize train to pass an absolute signal displaying stop indication within CTC limits as prescribed by Rule 776.

AIR BRAKE RULES

RULE 2. Enginemen taking charge of road engines at West Oakland, Tracy, 7th Street Diesel Terminal, Bayshore, San Jose, Watsonville Junction and San Luis Obispo, will consider that condensation has been drained from reservoirs, and from moisture and dirt collectors; that sanders are operating properly and that there are no flat spots on wheels.

Engines not equipped with control cables for multiple operation must not be picked up by light engines. If necessary to pick up such engines, they will be picked up only by freight trains or locals.

RULE 2-A. When continuous wheel slip and/or ground relay action is experienced on a unit, the unit should not be isolated and allowed to remain in the engine consist unless inspection definitely reveals that all wheels are rotating freely.

When using engine brake, it must according to conditions, be operated in such manner as to avoid overheating of brake shoes and wheels.

On departure from maintenance facility, engineers must determine by making running air brake test that the independent and automatic brakes are operating effectively.

RULE 2-B. First sentence in second paragraph is revised to read:

When going from power to dynamic braking proceed as follows:

- (1) Assure that throttle is in IDLE position.
- (2) Move selector lever to OFF position.
- (3) Pause 10 seconds.
- (4) Move selector lever to B or braking position.
- (5) Use throttle or dynamic brake handle to control strength of dynamic braking as needed.

Dynamic brake on head end of freight trains must not exceed 24 axles.

If the maximum 24-axle limit cannot be adhered to due to units in the consist not having dynamic brake cutout switches, then such units must be isolated prior to using dynamic brake.

When dynamic brake and automatic air brake are used together, the independent brake valve handle must be depressed and held in release position a sufficient time to ensure engine brakes are released.

RULE 3. A full independent brake application on road engine classes EP636, GF628, EF630, EF636, EF642, GF630, GF633, and EF623 results in a brake cylinder pressure of 72 lbs. This brake cylinder pressure must be maintained to provide required braking power at very low speeds or when stopped. Under no circumstances must self-lapping portion of independent brake valve be changed except to obtain brake cylinder pressure of 72 lbs. from a full independent brake application.

RULE 11. Cars equipped with brake cylinder release valve may have one or two operating release rods. Operating rods connected to brake cylinder release valve may be identified by stencil reading "Br. Cyl. Rel." or by a diamond shaped stencil or by noting that end of release rod form a small closed circle. Air brakes can be released on cars equipped with brake cylinder release valve by a hard momentary pull on release rod after brake pipe pressure has been depleted.

RULE 12. SETTING OUT CARS EQUIPPED WITH AB OR ABD AIR BRAKE EQUIPMENT:

Rules require that when cars are set out and a sufficient number of hand brakes are applied brake pipe pressure must be depleted by opening angle cock. This method of securing cars is applicable to cars equipped with AB air brake equipment or cars equipped with the latest type of air brake equipment, the ABD valve.

RULE 13. Second paragraph is revised to read:

In case the trouble cannot be corrected or complete air failure occurs from any cause, train must not be moved. Train dispatcher must be promptly notified.

Sixth paragraph is revised to read:

Should the compressor or main reservoir on the lead engine fail the train must be stopped, automatic brakes left applied, dead-engine feature cut in and control of the brakes transferred to the second engine. The train must not be moved beyond the next point where an engine with suitable air equipment can be placed in the lead.

Seventh paragraph is cancelled in its entirety.

RULE 14. Engine controlling train must have brake pipe cut off valve in cut in position. Engine(s) not controlling train must have brake pipe cut off valve in cut out position. 26C Automatic Brake Valve handle must be placed in HANDLE OFF position. Handle must be left in this position to be available for emergency application if necessary. Independent Brake Valve must be cut in and handle in place.

RULE 17. If at any time in engineer's judgment use of retaining valves is required, stop will be made and retaining valves turned up in accordance with his request.

RULE 22. When two or more trains or engines are working at locations where Mechanical Department forces are not on duty, employes must not couple air hoses or go on, under or between cars for the purpose of making repairs until a member of the crew has notified employes on other trains or engines in the immediate vicinity, and yardmaster, where assigned, that work is about to be performed and complete understanding had to prevent movement on the affected track.

Trainmen must not couple air hose on outgoing trains at Ozol, Tracy, Watsonville Junction, and San Luis Obispo until train is made up and caboose and road engine are on train.

Coupling caboose and road engine to train will be considered as an indication that train is made up and switchmen have completed their work. Switchmen must not perform switching on or couple other cars to a train on which the road engine and caboose have been attached without instructions from the yardmaster, who will see that members of the crew are notified in advance.

First paragraph is revised to read:

All trains, except for run-through and unit run-through trains covered in Rule 22-B, must be given inspection and test as specified in this rule at points: (1) Where a train is originally made up (Initial Terminal); (2) Where train consist is changed other than by adding or removing a solid block of cars and train brake system remains charged; and (3) Where train is received in interchange.

ADD: RULE 22-B. Air Brake Tests on Run-Through and Unit Run-Through Trains.

Each RUN-THROUGH TRAIN must be given inspection and test as prescribed by Rule 22 at points: (1) Where train is originally made up (Initial Terminal); (2) Where train consist is changed other than by adding or removing a solid block of cars and train brake system remains charged.

Each UNIT RUN-THROUGH TRAIN must be given inspection and test as prescribed by Rule 22 at points: (1) Where train is originally made up and where it is reassembled after

being broken up; (2) and once during each round-trip cycle at designated points.

At these designated points inspection and tests must be made to determine the piston travel of a body-mounted 10-inch brake cylinder does not exceed 10 inches; and piston travel on all other brakes must not exceed the nominal travel specified by more than 2 inches or exceed the maximum travel specified by the badge plate or stencil on the car.

At a point where a block of one or more cars is added to a run-through train or a unit run-through train after the train is originally made up, cars must be inspected and tested as prescribed by Rule 22. At a point other than a terminal where a block is added, inspection and tests must be made as prescribed by Rule 24-C.

Inspection and tests made under Rule 22 must be recorded at the time they are performed by completing FRA Form F-6180-48 in duplicate. This form must be signed by employe responsible for the inspection and tests. One copy of the form shall be kept in the cab of the engine until the train arrives at its final terminal. In the event of change of head-end power between terminals, engineer must insure that this form accompanies train.

At locations where the crew of one carrier takes over control and operation of a run-through train or unit run-through train from the crew of another carrier, the receiving carrier shall inspect and test the train to determine that:

- (1) The cab of the engine contains a completed FRA Form F-6180-48.
- (2) Brake pipe leakage does not exceed 5 pounds per minute.
- (3) Brakes apply and release on the rear car from a 20-pound service brake pipe pressure reduction.

If the cab of the engine does not contain a completed Form F-6180-48, the train must be inspected and tested as prescribed by Rule 22 before it proceeds.

RULE 23. The following series of cars are equipped with ABEL brake system which has automatic changeover feature to provide proper brake function when car is loaded and when empty:

SSW 75700-75799	Gondolas
SSW 78500-78599	Hoppers (Open Top)
SP 333500-334399	Gondolas
SP 337500-337599	Gondolas
SP 345000-345669	Gondolas
SP 354000-354749	Gondolas
SP 463500-464899	Hoppers (Open Top)
SP 467500-467549	Hoppers (Open Top)
SP 480000-480193	Hoppers (Open Top)
SP 491000-491059	Hoppers (Covered)
SP 492000-492039	Hoppers (Covered)
SP 500604	Flat Car
SP 590000-590099	Flat Cars

The following series of cars are equipped with ABDEL brake system, which has automatic change-over feature to provide proper brake function when car is loaded and when empty. This feature is fully automatic on these series and requires no action on part of engineer:

SP 337600-337699	Gondolas
SP 354750-355099	Gondolas
SP 595500-595624	Cradle Flats

RULE 24-B. San Luis Obispo, Watsonville Jct., San Jose, Oakland, Davis, Schellville and Tracy: Incoming engineer, after completing stop, must make a full service brake application leaving brakes applied. When outgoing crew takes charge of train on arrival or otherwise is assured, upon request, that continuity of brake pipe has not been disturbed, engineer will release brakes and proceed.

RULE 33. Loaded cars with empty-load (ABEL or ABDEL) brakes are to be considered the equivalent of one and one-half (1½) cars in determining tons per operative brake.

RULE 60. On descending grades train air brakes must be used in conjunction with dynamic brakes unless air brake application would cause train to either stop or retard speed excessively below that which is authorized.

MISCELLANEOUS

1. HELPER SERVICE:

The following covers engine tractive effort in pounds:

Engine Model	Classification	Starting Tractive Effort
C 415	AS415	62,750
RS 11	AS418-1 to 6	65,000
RS 32	AS420	63,750
C 630	AS600-1	102,000
RSD 15	AS624-1	92,500
C 628	AS628-2	97,750
C 630	AS630-1	101,000
GP 9	EF418-1 to 9; EF418C-1-2; EF418E-1-2-3	64,200
GP 20	EF420-1-2; EF420C-1-2	65,100
GP 30	EF423-1; EF423C-1	66,100
GP 35	EF425-1 to 4; EF425C-1-2-3	66,000
GP 40	EF430C-1	67,560
SD 9	EF618-1 to 5; EF618E-1-2	89,700
SD 39	EF623-1-2	104,150
SD 35	EF625-1	95,540
SD 40	EF630-1-2	102,750
SD 40-2	EF630-3-4	102,100
SD 45	EF636-1 to 6; EF636C-1 to 5	103,470
SD 45-2	EF636-7 to 10-12-15; EF636C-6 to 9	102,600
SD 45X	EF642-1-2	103,240
DD 35	EF850B-1	131,750
GP 40P-2	EP430-1	70,200
SDP 45	EP636-1	102,500
SW 1200	ES412	62,250
SW 1500	ES415-1 to 6	65,000
MP 15	ES415-7	65,400
SD 7	ES615-1 to 4	82,500
SD 38	ES620-1	104,000
U 25 B	GF425-1-2-3	67,800
U 28 B	GF428-1	67,890
U 28 C	GF628-1	103,120
U 30 C	GF630-1-2	104,850
U 33 C	GF633-1 to 10	104,710
U 50	GF850	139,250

NOTE: For classification of engines, see Item 3.

- (a) Rule for entraining when only one helper engine:
 - (1) On trains of less than 100 cars, helper engine consisting of not more than two six-axle operating units totaling 179,400 pounds tractive effort nor more than two four-axle operating units totaling 135,600 pounds tractive effort or a combination of one four-axle and one six-axle operating unit totaling 157,600 pounds tractive effort may be placed behind caboose.
 - (2) On trains of 100 or more cars helper engine consisting of only one unit may be placed behind caboose.
 - (3) Helper engine that does not qualify under (1) or (2) must be entrained as near as practicable to shove 1/3 and pull 2/3 of tonnage handled by helper engine.
- (b) Trains having more than one helper engine must have each engine entrained as near as practicable so that it will shove 1/3 and pull 2/3 of tonnage handled.
- (c) Trains powered with two helper engines, one of which qualifies to be placed behind caboose, must entrain the non-qualifying helper as near as practicable to shove 1/3 and pull 2/3 of tonnage handled by the non-qualifying helper.
- (d) Not more than 3500 tons may be placed behind rear helper engine.
- (e) When helper is used on train handling empty coil cars in series SP 595500 to SP 595624, helper engine must be entrained ahead of these cars.
- (f) AS415, AS420, ES412 and ES415 class units must not be cut into train in helper service. No more than two of these units may be placed behind caboose.
- (g) Helper engine must not be placed on head end of train without authority being obtained from train dispatcher.
- (h) Air must be cut in on all helper engines and engine must not be coupled nor uncoupled while train is in motion.

- (i) Road engineer and helper engineer must communicate any change affecting the operation of their train when means of communication is available. When communication is not available, and speed is being held above 8 MPH on ascending grade, helper engineer must regulate amperage during speed reductions or speed increases to maintain the amperage indicated before speed change; if speed of train drops below 8 MPH or when coming to a stop on ascending grade, helper engineer must regulate amperage during speed reduction to maintain the amperage indicated before speed change, then close throttle just before train stops.
- (j) When speed of trains powered with 12,000 or more horsepower on the head end and with helper engine entrained drops below 16 MPH, road engineer must reduce throttle to Run 6.
Loss of helper unit or units resulting in train speed dropping below 16 MPH and head end power being reduced to Run 6 may result in helper power working in short time rating. The short time rating must not be exceeded. If it appears that short time rating will be exceeded, assistance must be requested from train dispatcher. If assistance cannot be obtained, grade must be doubled.
- (k) In locating helper engine(s) in train, the following example of calculating tonnage for road engine and helper engine(s) will be used.

Example:

Train: 42 loads, 87 empties, 5756 tons
 Four unit road engine (2-U30C, 1-SD39, 1-SD35)
 Three unit helper engine (2-SD39, 1-SD40)

Total road horsepower	10800
Total helper horsepower	7600
<hr/>	
Total horsepower	18400

- (1) Divide total horsepower by tonnage = $\frac{18400}{5756} = 3.196 \text{ HP/T}$
- (2) Divide road horsepower by HP/T factor = $\frac{10800}{3.196} = 3379 \text{ tons}$
Road engine will handle 3379 tons.
- (3) Divide helper horsepower by HP/T factor = $\frac{7600}{3.196} = 2377 \text{ tons}$
- (4) To determine 1/3 of helper tonnage divide $\frac{2377}{3} = 792 \text{ tons}$
Helper engine will shove 792 tons.
- (5) To determine 2/3 of helper tonnage multiply $792 \times 2 = 1584 \text{ tons}$
Helper engine will pull 1584 tons.
- (l) Westward trains between San Luis Obispo and Santa Margarita must not exceed 24 axles of operating power on the head end of train. When powered with 24 axles of power on head end with helper engine(s) entrained, throttle must be reduced to Run 6 on road engine while any portion of the train is between MP 242 and 241. If calculation indicates road engine to pull more than 4250 tons or in the event a helper unit is not loading; for any reason, causing road engine to pull more than 4250 tons, train must stop and seek assistance or double the grade.
- (m) Trains, OALAT and LAOAT between San Luis Obispo and Santa Margarita are restricted to maximum tonnage of 4000 tons with a minimum horsepower per trailing ton of 2.75 with all power on the head end. If tonnage is exceeded or if there is less horsepower per trailing ton, helper engine, appropriately entrained, must be furnished in the above territory.

SPECIAL INSTRUCTIONS—ALL SUBDIVISIONS

2. PLACEMENT OF RESTRICTED CARS IN TRAIN WITH OR WITHOUT HELPER:

- (a) Between San Luis Obispo and Santa Margarita, Castroville and Lake Majella, Watsonville Jct. and Olympia, and Suisun-Fairfield and Lombard, empty 70-foot-long or longer equipment must be entrained ten or more cars behind road engine and ten or more cars ahead of helper engine. A flat car with one van or one container, whether loaded or empty, must be considered as an empty.
These instructions will not apply to trains LAOAT and OALAT.
- (b) When average weight of cars in train, other than locals or switchers, is more than 60 tons per car, do not handle any cars which weigh less than 50 tons within five cars of road engine. These instructions will not apply to trains operating between Roseville and Oakland via Davis or between Oakland and San Francisco/San Jose via Decoto or Alvarado.
- (c) Certain USAX and DODX flat cars in series 38016 thru 38665 and 39095 thru 39199 are restricted to movement on rear of train and behind any helper engine. Restricted cars will be indicated on Conductor's Wheel Report at terminals. When cars listed in above series are picked up at locations other than a terminal, they must be entrained on rear of train and behind any helper unless it is determined that cars are not restricted.

3. CLASSIFICATIONS ARE DESCRIPTIVE OF ENGINES AS FOLLOWS:

- 1st letter.....Builder: A-Alco; B-BLH; E-EMD; F-Fairbanks-Morse; G-GE
- 2nd letter.....Type of service: F-Freight; P-Passenger; S-Switcher
- 1st number.....Number of axles
- 2nd and 3rd numbers..Horsepower (100)
- Last letter.....Style of unit:
 - A—Car body type with control cab
 - B—No control cab
 - C—SSW
 - E—SP Equipment Co.
 - S—SP Equipment Co. owned, leased to SSW
 - NO LETTER—Indicates road switcher type

4. SPEED RESTRICTIONS FOR ENGINES: Maximum speed shown below is subject to further restriction applicable to certain territories as shown in Speed Restrictions for Trains:

MAXIMUM SPEED AND LENGTH OF ENGINES

CLASSIFICATION	ENGINE NUMBERS	MAXIMUM SPEED EXCEPT#	LENGTH (FEET)
AS600	1000-1002	70	70
ES406	1004	45	44
AS407	1025	60	44
ES408	1100-1128	65	44
ES408B	1150-1153	65	44
ES409	1190-1199	65	44
AS409	1200-1281	60	45
ES410	1300-1337	65	44
ES615	1400-1442	70	61
AS410	1778-1845	60	45
ES410	1904	60	44
ES412	2250-2316	65	44
FS412	2350-2394	60	46
AS415	2400-2409	65	54
ES415	2450-2689	65	45
ES415	2690-2701	65	48
AS418	2900-2936	70	57
AS618	2950-2970	70	58
ES620	2971-2976	70	69
EP418	3000-3010	70	56
AS624	3100-3102	25*	67
AS628	3110-3136	25*	69
AS630	3140-3153	25*	69
EP418	3186	70	56
EP430	3197-3199	70	63

CLASSIFICATION	ENGINE NUMBERS	MAXIMUM SPEED EXCEPT#	LENGTH (FEET)
EP636	3200-3209	70	71
EF418	3300-3817	70	56
EF618	3827-3964	70	61
AS420	4000-4009	70	57
EF420	4030-4140	70	56
EF618	4300-4451	70	61
EF423	5000-5017	70	56
GS407	5100-5109	55	37
EF623	5300-5325	70	66
EF425	6500-6681	70	56
GF425	6700-6767	70	60
EF625	6900-6953	70	61
GF428	7025-7028	70	60
GF628	7150-7159	70	67
EF430	7600-7607	70	59
GF630	7900-7936	70	67
EF630	8300-8306; 8350-8356	70	71
EF630	8400-8488	70	66
GF633	8585-8796	70	67
EF636	8800-9156	70	66
EF636	9157-9404	70	71
EF642	9500-9505	70	71
EF850B	9900-9902	70	88
GF850	9950-9952	70	84
Amtrak Locomotives:			
EP415A	SP Model F7, 110-123	79	51
EP415B	SP Model F7, 160-164	79	50
	BN Models F7A, F7B, 100-107, 150-154	70	..
	BN Model F3B, 155-156	70	..
	BN & UP Models E8A, E9A, 325-352, 411-433	70	70
	BN & UP Models E8B, E9B, 370-374, 453-470	70	70
EP630A	Model SDP40F, 500-649	70	72

SNRY engines will not exceed speed restrictions for engines shown in Table below and maximum speed is subject to further restrictions applicable to certain territories as shown in SPEED RESTRICTIONS FOR TRAINS.

CLASSIFICATION	ENGINE NUMBERS	MAXIMUM SPEED EXCEPT#	LENGTH (FEET)
SW-1	401-402	30	44
GP-7	711-712	65	56
NW-2	607	30	44
S-2	TS-745	35	44
RS-1	TS 746-747	50	..

Engines handled dead must not exceed speed shown in table.

#When operated in multiple unit control, on head end of train or running light and engineer is in other than the leading control cab in direction of movement, speed must not exceed 30 MPH. 'A' type units (indicated by letter 'A' following classification numerals) operating in reverse as lead unit in direction of movement must not exceed 30 MPH.

*May be handled isolated in multiple, dead in multiple, or dead in train at maximum speed of 70 MPH.

D&RGW & UP diesel units, when used, will be permitted maximum freight train speeds but will not exceed maximum speed stenciled in cab of each unit.

ANY LOCOMOTIVE NOT LISTED..... 35 MPH.

5. OTHER INSTRUCTIONS:

A. Dead diesel locomotives weighing 100,000 pounds or more will be placed first behind locomotive handling train; locomotive weighing less than 100,000 pounds must be placed near rear of train.

B. Dead or disabled engines, and equipment listed in timetable which requires movement at reduced speed must first be reported as ready to move to the Chief Train Dispatcher, who will designate the train in which the engine or equipment is to be moved. Any such engine must not be handled in train until train order designating maximum speed is issued.

C. Engines operated with engineer in other than lead unit in direction of movement, must not exceed 20 MPH when approaching highway or street crossing at grade, subject to further restrictions imposed by local conditions.

D. Movement of foreign line engines, in service or dead in train, must not be authorized until provisions of current Line Clearance Circular have been complied with.

E. When unit or units in locomotive consist emit excessive smoke through exhaust stacks other than from cold start, prompt report must be made to train dispatcher who will arrange to notify roundhouse foreman or locomotive maintenance forces on duty at first maintenance facility where train is scheduled to stop. Unit number, time and location where excessive smoking of unit was first observed must be reported.

When a yard engine is observed emitting excessive smoke, report must be made to roundhouse foreman or locomotive maintenance forces on duty.

In addition, engineer must make appropriate entry on work report, Form CS 2326.

F. AS415, AS420, ES412 and ES415* class engines must not be moved dead in train. These engines must be MU'ed in engine consist.

When only AS415, AS420, ES412 and ES415* units are used in engine consist, not more than two units may be on the line when making a reverse movement with cars or train and must be located adjacent to the train.

When operating with mixed engine consist, where dynamic brake is required, not more than two AS415, AS420 and ES415* units will be used.

- (1) If one unit is used, it will be placed as the second unit.
- (2) If two units are used, units must be placed as the second and third units in consist.
- (3) A road unit must be coupled against the train.
- (4) If necessary to make a reverse move with cars or train, lead unit must be isolated.

If necessary to operate with more than two AS415, AS420, ES412 and ES415* class units in consist (including pick up of units from outlying points), these units must be placed in the lead. Under these conditions, if reverse move is made with cars or train, all units ahead of the two rear units in these classes will be isolated.

*ES415 class engines, numbered 2690-2759 inclusive, have been equipped with modified couplers. This modification permits these units to be placed in locomotive consists or dead in train without being subject to restrictions applicable to other class ES415 locomotives.

NOTE: ES412 class units 2212-2257 will not be used in mixed consist account not equipped with #24 MU wire.

G. Extreme caution must be used during dynamic braking or when making reverse moves to prevent jackknifing and track damage.

H. Not more than ten diesel units in operation may be used on head end of any freight train.

I. When moving against current of traffic, or when movement is not protected by block signals, speed of passenger trains and light engines must not exceed 59 MPH, and speed of freight trains must not exceed 49 MPH, nor may speed exceed that applying to normal operation.

J. Unless otherwise authorized, trains handling passenger cars with flat spots on wheels in excess of 3 1/4 inches in length must not exceed 10 MPH. When flat spots are not in excess of 3 1/4 inches long such cars may be operated at maximum authorized speeds.

K. Gross weight of SPMW 6400-6439 100-ton air dump cars cannot exceed the gross weight shown in timetable special instructions or Line Clearance Circular for each branch line. Also, cars must not be dumped on curves of 25 degrees or more, or operated through curves of 35 degrees or more.

L. Forward brakeman on freight trains will ride the lead unit when a seat is available.

M. Open-top cars with lading height exceeding fifteen (15) feet six (6) inches, except cars transporting highway trucks or trailers, multi-level freight cars either loaded or unloaded, and automobile underframe cars, shall be entrained at least five (5) cars distant from engine or caboose if length of train

permits on trains operating in or through the States of California and Nevada.

Closed freight cars with an extreme height exceeding fifteen (15) feet six (6) inches shall be entrained at least five (5) cars distant from caboose if length of train permits on trains operating in or through the State of Nevada.

N. Except where specifically authorized, cabooses are not to be moved other than at rear of trains.

O. MAXIMUM SPEED PERMITTED WITH CERTAIN EQUIPMENT	MPH MAIN TRACKS OTHER THAN BRANCHES	MPH MAIN TRACKS ON BRANCHES
Double or triple loads.....		25
Scale test cars.....	40**	30
except SPMW 2024, WO-3.....	65	49
Relief outfits with steam derrick, except: Nos. 7000 and 7010 on San Ramon Branch 7007-7003-7034.....	45*	25*
Nos. 7070 and 7110 must not operate on any branch except Schellville Branch; Napa Branch between Napa Jct. and Napa River bridge 69.62 at Napa; on Vallejo Branch between Napa Jct. and MP 68.40; Vasona Branch and on Mon- terey Branch between Castroville and Monterey.	35*	10 25*
Locomotive cranes: (SPMW 4027, 4080, 4088, 4091, 4542, 4543, 5479, 5595, 5849, 6601 and 6602) With Boom disconnected and counter- weight forward.....	45	25*
except SPMW 5595.....	40	25*
With Boom disconnected and light end forward.....	20*	15
With Boom in place, either end forward.	25*	15
Steam Pile Drivers: (SPMW 3402)		
With leads removed and secured.....	45	25*
(SPMW 4052 and 4053).....	35	25*
Jordan Spreaders: Running backward.....	25	20
Moving forward (prepared for travel).....	35	35

*These speeds must not be exceeded, and on curves where authorized speed is more than 15 MPH speed must be reduced to 5 MPH less than shown in timetable and on speed signs.

**Scale Test Car NBS-1 to be handled on trains not more than 20 cars ahead of caboose and speed of train handling NBS-1 not to exceed 60 MPH.

SPMW 5479, 5499 and 5497 are restricted to 45 MPH.

P. OTHER MAXIMUM SPEEDS	MPH PASSE- NGER TRAINS	MPH FREIGHT
Trains of deadhead equipment, with ca- boose.....	65	
Passenger trains, with caboose.....	65	
Engine and caboose only, except:..... must not exceed speed for same engine running forward light.		65
Logs loaded on flat or logging cars, except: On curves.....		35 25
Through truss bridges, tunnels and pass- ing stations.....		15
Engine, flanger and caboose only, except: On curves.....		40 30
Trains handling either loaded or empty bulkhead flats (FB).....		55

Trains handling cars containing Flammable Compressed Gas (FCG) must not exceed 55 MPH. Where maximum authorized speed is less than 55 MPH and more than 25 MPH, train must be operated at 5 MPH less than maximum authorized speed. Such trains are further restricted to speeds shown at locations specified in instructions under subdivisions.

SPECIAL INSTRUCTIONS—SAN FRANCISCO SUBDIVISION

RULES 10-H and 10-J. Between San Francisco and San Jose, speed signs may be displayed on a post below a yellow signal to indicate the maximum speed permitted two miles beyond the yellow signal. The number on such speed signs applies to all trains and should indicate the same speed as that designated by train order or timetable bulletin.

When speed signs are so displayed and the maximum speed indicated by the speed sign is in excess of that permitted by train order or timetable bulletin be governed by the train order or timetable bulletin. In the absence of such speed signs be governed by the speed designated in the train order, timetable bulletin or by Rule 10-H.

A green flag at the limit of the restriction will be displayed in accordance with Rule 10-H.

RULE 10-J. Westward speed sign at MP 45.86 reading 60-55 is to right of track with two tracks intervening. Speed signs to left of track:

Westward	Reading
MP 92.97	35

RULE 14(1). Trains approaching Logan between 6:00 AM and 3:00 PM must sound whistle to warn people who may be working next to main track.

RULE 21. Train indicators will be used on commute trains operating between San Francisco and San Jose when engines are so equipped. These trains must not leave their initial station until train number is displayed. Enginemen must not put up, take down nor change indicators while engine is in motion.

Engines of passenger trains may display indicator between Seventh St. engine storage track and Third St. Station, San Francisco; and from San Jose passenger station to roundhouse but must be removed immediately on arrival at roundhouse.

RULE 26. At Third St. Station, San Francisco, and at San Jose passenger station, blue sign may be displayed on either side of engine cab.

RULE 82-A.

Freight trains turning at Redwood Jct. must obtain clearance before leaving Redwood Jct.

Trains destined San Jose Yard need not obtain clearance at San Jose.

Train orders may be issued to Nos. 12 and 374 at West Oakland to apply on San Francisco Subdivision between Santa Clara and San Jose and may assume corresponding schedules between Santa Clara and San Jose, and must obtain clearance at San Jose bearing OK, time and initials of Chief Train Dispatcher which must be endorsed GREEN or NO SIGNALS as the case may be.

Train orders may be issued to No. 13 at San Jose to apply on Niles Subdivision and may assume corresponding schedule at Santa Clara, and must obtain clearance at San Jose bearing OK, time and initials of Chief Train Dispatcher which must be endorsed GREEN or NO SIGNALS as the case may be.

RULE 83. Identification may be made at San Jose, or between Lick and Coyote; Gilroy and Corporal; Logan and Watsonville Jct.; and at Watsonville Jct.; to be applied at end of double track. Trains approaching each other between these stations must reduce speed sufficiently to permit identification, and Rule 14(k) will apply.

RULE 83-A. At the following station only the trains indicated will register:

Gilroy . . . Trains originating or terminating.

San Jose . . . All trains.

College Park . . . Trains originating San Jose Yard to Niles Subdivision via Milpitas. Trains from Niles Subdivision via Milpitas terminating San Jose Yard.

Santa Clara . . . Eastward trains terminating San Jose Yard. Westward trains to Niles Subdivision via Agnew except No. 13. Westward extra trains via Sunnyvale except trains consisting entirely of passenger equipment.

RULE 83-B. At open train order offices, trains may register by ticket as follows:

San Jose . . . Nos. 12, 374, 13, 373, and Extra trains.

College Park . . . Trains originating San Jose Yard to Niles Subdivision via Milpitas. Trains from Niles Subdivision via Milpitas terminating San Jose Yard.

Santa Clara . . . Eastward trains terminating San Jose Yard. Westward trains to Niles Subdivision via Agnew. Westward Extra trains via Sunnyvale.

Redwood Jct. . . . Trains to or from Niles Subdivision.

RULE 93. First class trains enter and leave San Francisco passenger station on yard tracks within Fourth St. interlocking limits.

First class trains enter and leave San Jose passenger station on yard tracks between MP 45.91 and MP 47.29.

Yard limits in which the provisions of Rule 93 will apply are established at the following stations:

West MP		East MP
.00	San Francisco	11.48
7.39	San Francisco (San Bruno Branch)	13.64
24.44	Redwood Jct.	27.17
	Redwood Jct. (Niles Subdivision)	28.20
43.47	San Jose	60.00
	San Jose (Lick Branch)	End of Branch
43.74	San Jose (Agnew line)	44.59
43.30	San Jose (Milpitas line)	47.39
51.47	San Jose (Vasona Branch)	47.21
70.50	Morgan Hill	72.50
76.73	Gilroy	82.41
93.20	C.T.C. Limit Logan	94.60
96.11	Watsonville Jct.	101.25
	Watsonville Jct. (Santa Cruz Branch)	103.60
119.30	Santa Cruz (Santa Cruz Branch)	End of Branch
	Santa Cruz (Davenport Branch)	End of Branch

Watsonville Jct.: Eastward freight trains, except No. 374 must not pass Signal 984 unless proceed signal received from switchman, green flag by day, green light by night.

Westward freight trains, except No. 373 must not pass Signal 1001 unless proceed signal received from switchman, green flag by day, green light by night.

RULES 93-99.

23rd Street: Eastward signal on westward main track at MP 1.68 located at east end of Tunnel No. 1 displays permanent red aspect. Eastward movement on westward main track beyond this signal is prohibited except when flagman is located at this signal and at the location where westward main track is to be cleared and assurance received that all train and engine movements are clear of this track between those points.

Brisbane: Eastward dwarf signal on westward main track at MP 7.6 displays permanent red aspect. Eastward movement on westward main track beyond this signal is prohibited except when flagman is located at this signal and at the location where westward main track is to be cleared and assurance received that all train and engine movements are clear of this track between those two points.

RULE D-97. Will apply between San Francisco and San Jose; between Lick and Coyote; between Gilroy and Corporal; and between Logan and Watsonville Jct.

RULE 98. Ninth and Division Streets—San Francisco: WPRR crossing of SP tracks is not protected by interlocking. Trains and engines must stop before crossing WPRR and not proceed over crossing until it has been ascertained there are no trains or engines closely approaching the crossing from either direction. SP trains and engines have precedence over WPRR trains and engines when using this crossing.

Fifteenth and De Haro Streets—San Francisco:

Engines moving on Southern Pacific Transportation Co. track on De Haro Street must STOP before crossing intersecting track at 15th Street and not proceed until it has been ascertained that there are no engines closely approaching the crossing from either direction.

Illinois Street—San Francisco: All train or engine movements on the joint Southern Pacific Transportation Co. and Atchison, Topeka & Santa Fe Railway Co. drill track shall approach the Western Pacific Railroad Co. intersecting track in vicinity of Marin Street not exceeding 6 MPH and must

STOP if a train or engine is seen approaching in either direction. All rail movements on the joint Southern Pacific Transportation Co. and Atchison, Topeka and Santa Fe Railway Co. track shall have precedence in the use of the crossing.

San Jose: WPRR crossing of the SP tracks on the Vasona Branch at San Jose is not protected by automatic interlocking. Trains and engines must STOP before crossing WPRR and not proceed over crossing until it has been ascertained there are no trains or engines closely approaching the crossing from either direction. SP trains and engines have precedence over WPRR trains and engines when using this crossing.

“STOP” signs installed on WPRR and SP tracks in approach to this crossing.

Sign reading “RAILROAD CROSSING 2000 FT.” is located at MP 47.4 for westward trains and sign reading: “RAILROAD CROSSING 2400 FT.” is located at MP 48.6 for eastward trains.

American Can Spur at Western Pacific 5th St. Lead

All movements must be stopped short of crossing and not proceed until member of crew has ascertained that there is no approaching movement on conflicting route. Western Pacific Railroad movement has precedence.

Western Pacific Railroad Company switching lead crossing at Western Pacific-Southern Pacific Joint Drill Track, South Seventh Street, San Jose:

All movements must be stopped within 50 feet of crossing and not proceed until member of crew has ascertained that there is no approaching movement on conflicting route. Movements on Western Pacific-Southern Pacific Joint Drill have precedence.

RULE 99. (See Rule 93-99 Page 22)

RULE 99-C. Will apply on Vasona and Hollister Branches.

RULE 103-A. Automatic crossing gates:

In Double Track territory—San Francisco to San Jose, Lick to Coyote, Gilroy to Corporal and Logan to Watsonville Jct. automatic crossing gates will operate for against current of traffic movements but such movements must not exceed 25 MPH approaching these crossings.

Sunnyvale—Sunnyvale Ave. May be operated for eastward movements from house track by operating key release on side of instrument case. Switch key may be removed but circuit must be occupied within one minute or gates will rise.

At the following stations there are crossings protected by gates which are not actuated when trains are stopping at station to receive or discharge traffic until train starts to move toward crossing, and speed of 10 MPH must not be exceeded until gates are down:

Station	Location	Direction	Mile Post
★San Francisco	King St.	Eastward	0.62
★San Francisco	King St.	Westward	0.62
★San Francisco	Berry St.	Eastward	0.69
★San Francisco	Berry St.	Westward	0.69
†★So. San Francisco	Grand Ave.	Eastward	9.3
† San Bruno	Angus Ave.	Westward	11.4
★Millbrae	Millbrae Ave.	Westward	13.7
†† Burlingame	Oak Grove Ave.	Westward	15.9
†† Burlingame	North Lane	Westward	16.2
†★Burlingame	South Lane	Eastward	16.3
†★Burlingame	Howard Ave.	Eastward	16.4
†★San Mateo	1st Ave.	Westward	17.7
†★San Mateo	2nd Ave.	Westward	17.8
†★San Mateo	3rd Ave.	Eastward	17.9
†★San Mateo	4th Ave.	Eastward	18.0
†★San Mateo	5th Ave.	Eastward	18.1
†★Belmont	Ralston Ave.	Eastward	22.0
†★San Carlos	Holly St.	Westward	23.2
†★Redwood City	Broadway	Westward	25.4
†★Redwood City	Jefferson Ave.	Eastward	25.6
★Menlo Park	Ravenswood Ave.	Eastward	29.0
★Palo Alto	Palo Alto Ave.	Westward	29.8
†★Mountain View	Castro St.	Westward	35.9
†★Sunnyvale	Sunnyvale Ave.	Eastward	38.9
†★Sunnyvale	Sunnyvale Ave.	Westward	38.9
†★San Jose	Virginia St.	Westward	47.6
† Gilroy	7th St.	Westward	80.7

★Equipped with unit for display of flashing white light. Display of flashing white light indicates gates are down. Trains or engines approaching these crossings after making station stop, entering main track from spurs or station tracks or moving at reduced speed must not enter crossing until flashing white light is displayed or it is known gates are down.

†Sound detector microphone located adjacent to track. Trains stopped at station to receive or discharge traffic, before starting in either direction, must sound whistle to lower or to keep crossing gates down.

††Sound detector microphone installed west of Virginia Street. Westward trains stopping east of Virginia Street will stop east of marker located 75 feet east of crossing. Before starting must sound whistle to lower or to keep crossing gates down.

†††Sound detector microphone located 600 feet west of North Lane. Westward trains stopped at the station to receive or discharge passengers, before starting must sound whistle to lower or to keep crossing gates down at Oak Grove Avenue.

Locations at which trains must stop to avoid unnecessary operation of crossing gates while trains are switching or receiving and discharging traffic:

Station	Location	Direction
South San Francisco	East of Signal 91	Westward
**Belmont	1400 ft. east of Harbor Blvd.	Westward
***San Carlos	400 ft. west of Holly St.	Eastward
Sunnyvale	255 ft. east of Sunnyvale Ave.	Westward

**Applies to trains switching Harbor spur when necessary to leave part of train east of Harbor Blvd.

***Applies to trains switching house track when necessary to leave part of train west of Holly St.

Bayshore: PUC Order: Entitles movement across Bayshore Highway to serve Crown Cork and Seal Company and other Industries in this area only between the hours of 9:00 A.M. to 3:00 P.M. and from 7:00 P.M. to 11:00 P.M. daily.

Gilroy: Trains or engines making movement from westward main track through spring switch for reverse movement to eastward main track must pull westward to clear Signal 804 before wigwag signals will be actuated for eastward movement.

Public Utilities Commission orders require that trains and engines must stop, and member of crew must protect traffic on the following street or highway crossings before movement is made:

Location	Crossing Number	MP
San Francisco		
Fourth St. (when flagman not on duty)	E-0.13	.13
Fourth St. (Bluxome St. Drill)	E-0.40	.40
Second St. near Harrison St.	ED-0.545-C	.545
Harrison St. near Hawthorne St.	ED-0.62-C	.62
Hawthorne St. near Harrison St.	ED-0.65-C	.65
Folsom St. at Hawthorne St.	ED-0.74-C	.74
Folsom St. at Beale St.	ED-0.97-C	.97
22nd and Harrison Sts.	E-2.72-C	2.72
Jerrold Avenue	E-3.11-C	3.11
Millbrae—Crossing Rollins Road on tracks		
Nos. 15, 23 and 77.		
David Rd. Track 15.		
Broderick Rd. Tracks 103 and 105.		
Guittard Rd. Track 105.		
Burlingame—Bayswater Ave. (Side Track)	E-16.5	16.5
San Carlos—Old County Road crossing	E-23.4-C	23.4
Luther—Martha Street	E-51.8-C	51.8
Virginia Street	E-51.9-C	51.9

Before movement is made by trains or engines over crossing, a member of train crew must protect traffic on the following street crossing:

California Avenue—Park Blvd. on east leg of wye.

SPECIAL INSTRUCTIONS—SAN FRANCISCO SUBDIVISION

RULE 104. The normal position of rigid switches at junctions is as follows:

- San Jose Vasona Branch, for Gilroy line main track
- Permanente Permanente Corp., for track No. 1
- Lick Lick Branch, for eastward main track
- Carnadero Hollister Branch, for westward main track
- Santa Cruz Davenport Branch, for Santa Cruz Branch.

DERAILS ON MAIN TRACK:

Vasona Branch, San Jose, 222 feet east of Junction Switch. Olympia at MP 129.23. Derail must be left lined in derailing position when cars are stored on main track east of derail.

Bayshore: Before entering slip switch at west end of yard, movement must be stopped unless it is known slip switch is properly lined.

RULE 107. Station train indicators are provided in approach to following stations:

Eastward	Eastward	Westward
South San Francisco		Santa Clara
San Bruno	San Carlos	Sunnyvale
Millbrae	Redwood City	Mountain View
Broadway	California Ave.	Hillsdale
Burlingame	Mountain View	San Bruno
San Mateo	Sunnyvale	
Hayward Park	Santa Clara	
Hillsdale	College Park	
Belmont		

When illuminated these indicators will convey the following information:

TRAIN—Train at platform on opposite track.

CLEAR—Indicator in service.

When neither **TRAIN** or **CLEAR** is illuminated, indicator is out of service and report must be made to Chief Train Dispatcher as soon as practicable.

In the morning all eastward passenger trains will favor westward commute trains. In evening all westward passenger trains will favor eastward commute trains.

Particular care must be exercised at such stations as Bayshore, Millbrae, Hillsdale, Belmont and Santa Clara where view of station is limited in both directions, also at 23rd St., Paul Ave. and Butler Rd., where passengers may attempt to cross tracks closely behind westward trains. Under such circumstances yard drags and engines on eastward track must stop and take necessary precautions to avoid injury to patrons.

RULE D-151. San Francisco: End of double track is at King St., east limit of Fourth St. interlocking.

San Jose: End of double track is at MP 45.91, College Park at east end of crossover just west of Taylor St. subway.

Gilroy: End of double track: Westward trains leaving end of double track from eastward main track will be governed by Signal 805.

RULE D-152. Crossovers between San Francisco and San Jose are located as follows:

West end Tunnel No. 3; MP 3.16; between Tunnels Nos. 3 and 4 San Francisco; South San Francisco; San Bruno; Millbrae; Burlingame; Belmont; San Carlos; Redwood Jct.; Menlo Park; California Ave.; Mountain View; Sunnyvale; MP 41.18 and MP 42.95.

RULE 221. Train-order offices College Park and Santa Clara are located in tower.

Redwood Jct. is train order office for trains originating.

Sunnyvale is train order office for trains originating.

Santa Clara is train order office for Westward extra trains via Sunnyvale except trains consisting entirely of passenger equipment, and Westward trains to Niles Subdivision via Agnew except No. 13.

College Park is train order office for Westward trains to Niles Subdivision via Milpitas unless train has obtained clearance at San Jose.

San Jose is train order office for Eastward trains, No. 13, First Class trains via Sunnyvale, Westward trains to Niles Subdivision via Milpitas, and Westward extra trains consisting entirely of passenger equipment.

RULE D-251. Applies between Watsonville Jct. and Logan; between Corporal and Gilroy; and between Coyote and Lick.

Applies on both tracks between San Francisco and San Jose, except when inferior trains moving on main track are delayed in this territory, they must clear time of following first-class schedules in accordance with Rule 86(b).

Commute Fleet Operations will be considered to be between Trains Nos. 113 and 137 and between Trains Nos. 122 and 142.

During Commute Fleet Operations there will be no train or engine movements except commute trains on main track or on tracks adjacent to main tracks between San Francisco and San Jose while a commute train passes.

During Commute Fleet Operations where it is not practicable to comply with these instructions, movements will stop and train dispatcher will be contacted through towerman at one of the following locations:

- 4th Street Tower
- Redwood Junction Tower
- Santa Clara Tower
- College Park Tower

who will issue instructions pertaining to further movement. If instructed by train dispatcher to proceed, movement must then be stopped while commute train passes.

Where practicable to do so, adjacent tracks to main tracks are to be kept clear of cars and engines during Commute Fleet Operations.

RULE 306. The following block signals, equipped with triangular plate bearing the letter "P" have included in their control limits some special protective device. Interlocking signals are listed as "P-I" or "P-SA."

Eastward Signal	Protection	Westward Signal
P-172	Four collision detectors at Poplar, Santa Inez, Mt. Diablo and Tilton Ave., and underpasses, San Mateo	P-179
P-SA		P-I
P-514	Vehicle barricade detectors Dumbarton St. E-26.8 and Berkshire St. E-26.9, Redwood City . .	P-275
P-660	Spring switch, east end station track No. 5, San Jose	P-635
P-770	Spring switch, end double track, Lick	P-673
P-804	Spring switch, end double track, Coyote	P-783
P-924	Spring switch, west end siding, Perry	P-SA
P-SA	Spring switch, east end siding, Perry	P-A
	Spring switch, west end siding, Rucker	
	Spring switch, east end siding, Rucker	
	Spring switch, end double track, Gilroy	
	Spring switch, end double track, Corporal	
	Earthquake detector, Pajaro River bridge	
	Spring switch, end double track, Logan	

RULE 505. AUTOMATIC BLOCK SIGNAL SYSTEM

San Jose: Main track from signal 50 feet west of spring switch on wye to Signal 467 on Milpitas line not protected by block signals.

When Signals 463, 463.5, 464, 465, 466 or 467 display stop indication, trains and engines, after stopping, may proceed at restricted speed, provided proceed signal is received from switchman at The Alameda, green flag by day, green light by night, except No. 13 may pass Signal 463 displaying stop indication without stopping at restricted speed, provided proceed signal is received from switchman at The Alameda, green flag by day, green light by night, but must stop to clear crossover between station Tracks Nos. 4 and 5 just west of The Alameda.

Signal 464 on Signal Bridge 466 is a diverging route signal governing entrance into station track Nos. 1, 2, 3 and 4 from station track No. 4. Lower unit on Signal 466 governs entrance into these tracks through crossover from station track No. 5.

When Signal 464 or lower unit of Signal 466 displays yellow aspect, movement into track Nos. 1, 2, 3 and 4 must not be made until proceed signal is received from switchman at The Alameda, green flag by day, green light by night, and then movement must not exceed 10 MPH. No signal protection beyond fouling point on these tracks.

When Signal 473 displays stop indication, trains and engines may proceed at restricted speed, provided proceed signal received from switchman at Park Ave., green flag by day, green light by night.

Station track No. 5 between Signal Bridge 466 and west limit of San Jose-Lick interlocking west of San Carlos St. overpass is not within interlocking limits, but signal indication will authorize movement of trains and engines between these points on this track.

Signal 463.5 governs westward movements from station track Nos. 6 to 11 inclusive.

Starting indicators for westward trains on station track Nos. 1, 2, and 3 are controlled by switchman at The Alameda, and when displaying red aspect must not be passed unless proceed signal received from switchman, green flag by day, green light by night, and when displaying yellow aspect permit movement with caution to Signal 465.

RULE 513. San Francisco: Before making movements out of tracks between MP 1.23 and MP 7.07 onto westward main track or eastward main track, permission must be obtained from operator.

Redwood Junction: Before making movements out of east leg of wye at Redwood Junction to the eastward main track on the Newark Line, permission must be obtained from towerman.

RULE 535. SPRING SWITCHES

Spring switches not equipped with facing point locks are located as follows:

Location	Normal Position
Mountain View	Moffett Field Spur Main track
San Jose	Milpitas wye switch Milpitas line main track

Spring switches equipped with facing point locks are located as follows:

Location	Normal Position
Lick	End double track Eastward track
Coyote	End double track Westward track
Perry	West end siding Main track
Perry	East end siding Main track
Rucker	West end siding Main track
Rucker	East end siding Main track
Gilroy	End double track Eastward track
Corporal	End double track Westward track
Logan	End double track Eastward track

RULE 605. INTERLOCKING

FOURTH STREET TOWER limits—SAN FRANCISCO: Fourth Street Zone—From dwarf signals on station tracks Nos. 1 to 14 near Fifth Street, to Westward signal on Eastward main track at MP 1.33 West end Tunnel No. 1 and Westward signal on Westward main track at MP 1.68 East end of Tunnel No. 1.

ONE SOUND OF SIREN REQUIRES THAT TRAINS AND ENGINES WITHIN LIMITS OF INTERLOCKING MUST STOP.

Potrero Zone—Eastward main track MP 1.23 to MP 1.33; Westward main track MP 1.68 to MP 1.26. Dual control switches are equipped with selector-lever and hand-throw lever.

Bayshore Zone—Eastward main track MP 4.21 to MP 5.06; Westward main track MP 5.13 to MP 4.98. Dual control switches are hand operated by use of cranks and crank is located on instrument house south of track.

Brisbane Zone—Eastward main track MP 6.62 to MP 7.07; Westward main track MP 7.6 to MP 6.89. Dual control switches are hand operated by use of cranks and crank is located on instrument case at outbound lead on instrument house south of tracks.

When necessary to hand operate switches, permission must be obtained from Operator, Fourth Street, and be governed by Rule 772. Instructions for hand operating power switches are mounted on instrument housing adjacent to crank holder.

Twenty-Fifth and Illinois Streets:

WESTERN PACIFIC WORK LEAD OVER ILLINOIS STREET:

Be governed by the following:

- (1) If signal fails to display proceed indication, after two (2) minutes, crew member will proceed to crossing and, if no conflicting train or engine movement is seen or heard approaching or using crossing, train or engine will move into the interlocking, stopping clear of conflicting tracks.
- (2) Wait one (1) minute.
- (3) After waiting one (1) minute and upon receiving hand signal from crew member at crossing, train or engine may proceed through interlocking with caution, not exceeding 15 miles per hour.

Redwood Jet.: Limits extend from signal bridge 740 feet west of tower to signal 700 feet east of tower on San Francisco Subdivision, and to signal 950 feet east of tower on Niles Subdivision.

Santa Clara: Limits extend from signal 2150 feet east of tower on San Francisco Subdivision westward main track to signal 1675 feet west of tower on San Francisco Subdivision eastward main track, and on Newark line to signal 1650 feet west of tower.

College Park: Limits extend from signal 1200 feet west of tower to Signal Bridge 466, and on main track to Signal Bridge 465; and from dwarf signal located 800 feet east of Newhall St. to West Taylor St. subway on No. 1 lead; and from Signal Bridge 466 to signal just west of spring switch at the junction of Milpitas line main track and Milpitas wye.

Electric switch locks on derrails and crossover switches within these limits are under control of operator. Permission must be obtained to unlock derail or switch. Derail must be thrown first, then switch may be thrown.

Engines to move from roundhouse engine track to San Jose passenger station must not foul No. 1 lead until interlocking signal at inside crossover switch displays indication as shown in Rule 283, Fig. D, or Rule 288, Fig. C for eastward movement to station track Nos. 4 or 5.

Bell cord communicating signal between San Jose roundhouse and operator to be used in lieu of telephone when requesting authority to make movements from roundhouse to station tracks Nos. 4 or 5. Following code of signals to be used:

Roundhouse to passenger station	One pull of cord
Roundhouse to College Park	Two pulls of cord
For movement in roundhouse yard, when necessary to pass eastward interlocking signal	Three pulls of cord

On double track within San Jose Yard limits operator may arrange to move trains from one tower to another against current of traffic, after having understanding for each movement. Before moving trains against current of traffic operator must know that track to be used is clear of opposing trains and engines.

San Jose-Lick: Limits extend on main track from Signal Bridge 464, to light signal 700 feet east of end of double track at Lick on westward track, and to light signal 500 feet

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east of double track at Lick on eastward track; and on station tracks 4 and 5 from dwarf signal opposite Signal 473 to their connection with main track east of passenger station; and on Lick Branch to dwarf signal at fouling point; and on Vasona Branch from junction with main track to westward signal located 30 feet west of crossover.

Hand-throw switch to the spur track No. 105 at MP 48.5, 500 feet east of Willow Street Subway is not equipped with electric switch lock and must not be operated without permission from the San Jose operator. Engines using this switch must occupy main track continuously or leave main switch open while work is being performed. This spur track must not be used by trains or engines for the meeting or passing of trains.

RULE 680. AUTOMATIC INTERLOCKING

San Jose-Lick Line (WPRR Crossing): Limits extend from signal located 700 feet west of crossing to signal 700 feet east of crossing.

When semi-automatic signals indicate "STOP," Rule 663(c) will govern.

RULE 705. LETTER TYPE INDICATORS

Indicators located as follows:

Illum. Letter	On Signal	Approaching	Authorizes and requires movement as follows
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W...273...Redwood Jct.. Westward trains via Dumbarton must stop short of Signal 273 and wait until indicator is extinguished.

W...7 ft. mast
MP
44.20...Santa Clara... Eastward trains, except first-class, stop short of Reed St. and wait until indicator is extinguished and flashing white light is displayed. Display of flashing white light authorizes movement to interlocking limits Santa Clara.

W...821...Gilroy... Westward trains stop and not proceed until indicator is extinguished, except, after stopping, trains may proceed on verbal authority of Gilroy operator.
a. Trains making pickup or set out will cut off and leave train east of Signal 821 taking only locomotive and those cars required for the operation.
b. Through train not exceeding restricted speed to the next home signal.

RULE 705. HOT BOX DETECTORS

Illum. Letter	On Signal	Approaching	Location of Readout
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W...694...Morgan Hill
W...721...Morgan Hill
H...722...San Martin...MP 74.6 San Martin
*H...MP 68.5...Perry...West End of Perry

*Displays Flashing White Light when "H" illuminated.

Scanner Site	MP	Type	Direction	Location
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70.3...A...East and West..Perry-Morgan Hill

(Refer to Rule 705, All Subdivisions).

RULE 760. CENTRALIZED TRAFFIC CONTROL

Limits extend from MP 86.4 Corporal to MP 93.2 Logan.

GENERAL REGULATIONS

RULE 824. Watsonville Junction:

Before engine is detached, sufficient number of hand brakes must be set on east end of train to hold cars.

RULE 825. Gilroy: Cars must not be stored within 150 feet of all crossings of 9th Street except spur track No. 125 serving Filice Warehouse.

Watsonville Jct.: Cars must not be stored within 150 feet of crossings of Salinas Road.

Belmont: Portable rail skid hung on post at Joseph George Spur.

(Refer to Rule 825, All Subdivisions).

Permanente: Before engine is detached all handbrakes must be set to hold cars.

RULE 827. At following crew change points, trains handling Flammable Compressed Gas (FCG) must be given a rolling inspection by outbound train crew unless otherwise instructed:

- Watsonville Jct.
- San Jose
- San Francisco

Dragging equipment and/or derailment equipment detectors installed at following locations:

MP	Location	Direction
11.3	San Bruno	West
23.7	San Carlos	East
28.2	Atherton	West
42.0	Santa Clara	East and West
68.0	Perry	East and West
90.0	Logan	East and West

(Refer to Rule 827, All Subdivisions.)

RULE 830. Millbrae: Eastward passenger trains stop to clear Millbrae Ave.

Broadway: Eastward passenger trains stop to clear Broadway crossing.

Redwood City: Passenger trains, stopping at passenger station, should stop to clear Broadway crossing.

Belmont: Westward passenger trains stop to clear Ralston Rd. crossing.

Vasona Branch: Westward freight trains must not leave cars between Approach Circuit sign and El Camino Real while switching.

RULE 836. Cars must not be shoved ahead of engine on descending grade Permanente to Monta Vista.

RULE 853. Passengers may be allowed to take dogs in smoking cars of commute trains provided dogs are on leashes and owners control actions of the animals so that there is no complaint from other passengers.

AIR BRAKE RULES

RULE 17. On passenger trains, between Olympia and MP 127.60 and between MP 124.40 and MP 121.80, three retaining valves for six cars; four retaining valves for eight cars; five retaining valves for ten cars; and seven retaining valves for twelve cars must be turned up on head end of the train.

Retaining valves must be used on freight and mixed trains on descending grades as follows:

Felton to Santa Cruz, Permanente to Monta Vista.

WITHOUT DYNAMIC BRAKE IN OPERATION:

One retaining valve for each 80 tons in train. If gross tonnage exceeds 80 tons per operative brake, retaining valves must be used on all cars and speed must not exceed 15 MPH.

WITH DYNAMIC BRAKE IN OPERATION:

*Permissible Tons Per Unit Without Retaining Valves

Basic-Dynamic Brake	Extended Range Dynamic Brake				
	4 Axle	6 Axle	4 Axle	6 Axle	8 Axle

WITH dynamic brake in operation but WITHOUT pressure maintaining system of braking..... 425 625 500 775 1025

WITH dynamic brake in operation and WITH pressure maintaining system of braking..... 1300 1950 1600 2400 3200

If permissible tonnage is exceeded, one retaining valve must be used for each 150 tons in excess thereof.

*If any unit having basic dynamic brake is operated with units having extended range dynamic brake, all units in consist must use tonnage authorized for units having basic dynamic brake.

Locomotive classes AF628, AF630, EF425, EF623, EF625, EF630, EF633, EF636, GF425 (except units 6700-6727), GF628, GF630, EF850B and GF850 are equipped with extended range dynamic brake.

All retaining valves must be turned in high pressure position on loaded cars and in low pressure position on empty cars, Permanente to Monta Vista.

FREIGHT TRAINS

RULE 24-C. Permanente to Monta Vista: Sufficient time, but no less than 20 minutes, must be allowed to fully charge air brake system on cars picked up at Permanente before making air test. Brakes must be operative on all cars.

Before making any switching moves at Permanente it must be known that air brake system on each car being handled is fully charged.

After fully charging air brake system, engineer will make a 20 pound brake pipe reduction, and conductor will see that a member of crew observes each car to see that brakes are properly working, then release brakes and wait five minutes before commencing any moves. In addition engineer will check brake pipe leakage as prescribed by Air Brake Rule 24-C.

Hand brakes will not be released on train until trainline is recharged.

RULE 33. Should dynamic brake failure occur while handling in excess of 80 tons per operative brake, train may proceed at speed not exceeding 10 MPH if in the judgment of the conductor and engineer it is safe to do so, and provided retaining valves are used as prescribed by Air Brake Rule 17.

Permanente to Monta Vista: Maximum tonnage per operative brake—100 tons. All retaining valves will be used. Retainers will be used in high pressure position on loaded cars and low pressure position on empty cars, with dynamic brake and pressure maintaining system of braking, with not more than 20 cars for each six axles of dynamic brake, with speed not exceeding 10 MPH.

Not more than 40 cars will be handled in train.

Felton to Santa Cruz: Maximum tonnage per operative brake—80 tons, except with dynamic brake and pressure maintaining system of braking in operation; with not more than 20 cars for each six axles of dynamic brake; with speed not exceeding 15 MPH, and all retaining valves in high pressure position on loaded cars and in low pressure position on empty cars—90 tons.

The maximum tonnage per operative brake between Olympia and Santa Cruz is 90 tons.

Speed of freight trains, when tonnage per operative brake exceeds 60 tons, must not exceed 12 MPH, Olympia (MP 129.72) to Felton (MP 127.40), and MP 124.40 to MP 121.80.

Watsonville to Santa Cruz: When gross tonnage of freight train handling cars exceeds 85 tons per operative brake, speed must not exceed 20 MPH.

Descending grades where restrictions apply are designated below:

Watsonville Jct. to Olympia

MP	MP	Speed
107.5	to 108.8	20 MPH
110.1	to 110.4	20 MPH
111.1	to 111.4	20 MPH
112.3	to 112.7	20 MPH
113.7	to 114.1	25 MPH
115.7	to 116.0	20 MPH
117.4	to 117.6	20 MPH
118.8	to 119.1	20 MPH

Olympia to Watsonville Jct.

MP	MP	Speed
117.8	to 117.6	20 MPH
113.7	to 113.0	25 MPH
111.0	to 110.7	20 MPH
110.0	to 109.5	20 MPH

MISCELLANEOUS

1. Warning light has been installed on face of building of Preformed Lime Products, California Ave. No movements will be permitted into building until green aspect is displayed on this warning light, which indicates that moveable overhead crane has been retracted to lawful clearance.

2. Freight trains or engines with freight cars must not operate over station track Nos. 2, 3, 4 or 5 in San Jose Passenger station unless authorized by yardmaster or his representative.

3. All freight trains entering San Jose Yard slow to 8 MPH passing San Jose Yard Office to allow visual verification of consist.

4. AMTRAK Trains, stop at San Jose so that rear car is at platform.

5. **Davenport:** No more than two (2) units may be used to switch the PCA Plant.

6. Engines listed must not operate on tracks shown below:

Class of Engine	Location	Restricted Tracks
EF415A, EP415A	Howest	H. E. Casey spurs.
EF415B, EP415B	San Carlos	Drill spur on bay side of main track.
"	Redwood Jct.	S & W spur.
"	Redwood Jct.	On line to Redwood Harbor; All spurs off Dumbarton line.
"	Menlo Park	Peninsula Bldg. Matl. Co. spur.
"	Palo Alto	All spurs leading off drill track.
"	Mountain View	Shell Oil spur; beet spur.
"	Sunnyvale	All spurs off both drill tracks except Schuckl, National Can spur, Libby and Berry Growers spurs.
"	Morgan Hill	Dried fruit spurs.
"	Lick Branch	All tracks.
All Engines	Santa Cruz	Cowell spur beyond street crossing.
"	Logan	Granite Rock Co. bunker loading tracks; scale track; stock pile tracks and beyond engine restriction sign at west end of empty set-out track Nos. 1, 2 and 3.

7. Load limit (car and contents):

*San Francisco-Watsonville Jct.	263,000 pounds
San Bruno-Daly City	240,000 pounds
Redwood Jct.-Redwood Harbor	240,000 pounds
San Jose-Permanente	263,000 pounds
Lick-Alamitos	240,000 pounds
Carnadero-Hollister	240,000 pounds
**Watsonville Jct.-Olympia	281,000 pounds
**Santa Cruz-Davenport	281,000 pounds

*A gross weight of 315,000 pounds is allowable for uniformly loaded four axle cars with minimum axle spacing of 6 feet 0 inches and minimum distance of 37 feet 0 inches center to center of trucks, also wheels 38 inches or more in diameter.

**On cars having 23-foot or greater truck center.

Unless authorized by Superintendent, heavier loads must not be handled.

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8. LOCATION OF OVERHEAD AND SIDE STRUCTURES NOT STANDARD CLEARANCE ON MAIN TRACK AND SIDINGS

MP	Location	Description	Type
0.00	San Francisco	Station umbrella sheds	Side
0.00-1.30	"	Dwarf signals	Side
1.28	"	Mariposa St. bridge	Overhead
1.29	"	AT&SFry bridge	Overhead
1.34-1.68	"	Tunnel No. 1	Overhead and side
1.73	"	22nd Street bridge	Overhead
1.91	"	23rd Street bridge	Overhead
1.93-2.14	"	Tunnel No. 2	Overhead and side
3.15	"	Oakdale Avenue bridge	Overhead and side
3.19-3.65	"	Tunnel No. 3	Overhead and side
4.15	"	Paul Ave. bridge	Overhead and side
4.26-4.95	Bayshore	Tunnel No. 4	Overhead and side
9.07	South San Francisco	Signal bridge	Overhead
25.58	Redwood City	Signal bridge	Overhead
26.10	"	Signal bridge	Overhead
29.69	Palo Alto	San Francisquito Creek bridge	Overhead and side
45.99	San Jose	Signal bridge	Overhead
46.90	"	Station umbrella sheds	Side
119.70	Santa Cruz	San Lorenzo River bridge	Side
121.45 to 121.68	Eblis	Tunnel No. 6	Overhead and side
125.60 to 125.66	Santa Cruz Br.	Tunnel No. 5	Overhead and side
126.35	"	San Lorenzo River bridge	Side
126.43	"	Redwood tree	Side
126.70	"	Redwood tree	Side
126.72	"	Redwood tree	Side

9. SPEED RESTRICTIONS FOR OTHER THAN MAIN TRACKS

With Caution
Not Exceeding
MPH

Through sidings, yard, and other tracks, wyes, balloon tracks, crossovers, turnouts, and slip switches	10
Through turnouts on other than sidings	10
On branches	10
On Redwood Harbor spur	10
On Moffett Field spur	10
San Jose, passenger trains on station track No. 5:	
Eastward, end of double track to Signal Bridge 464	45
Eastward, Signal Bridge 464 to passenger station	15
Westward, passenger station to end double track	20
San Jose, passenger trains on station track No. 4:	
Westward, passenger station to Signal Bridge 464	15
Westward, Signal Bridge 464 to end of double track	45
Eastward, end of double track to passenger station	20
San Jose, freight trains on station track Nos. 4 and 5:	
Between end of double track and crossover at Julian St.	20
San Jose, passenger trains on station track Nos. 4 and 5:	
In either direction between passenger station and connection with main track east of station	15
Through all sidings, yard tracks and other tracks with engine running backward	10

SPECIAL INSTRUCTIONS—SAN FRANCISCO SUBDIVISION

SPEED RESTRICTIONS FOR TRAINS: Maximum speed of trains in territory shown below is subject to further restrictions applicable to engines in the train as shown in SPEED RESTRICTIONS FOR ENGINES appearing on page 20, and MAXIMUM SPEED PERMITTED WITH CERTAIN EQUIPMENT and OTHER MAXIMUM SPEEDS appearing on page 21 of Special Instructions for All Subdivisions. Speed must be further reduced as prescribed by speed signs, except as specifically authorized by Special Instructions herein, or by Time-table Bulletin.

All trains must run carefully during and after heavy storms, particularly when the track is apt to be affected. When fog, storms or other conditions obscure track or signals, speed of trains must be so reduced as to permit strict observance of signals and INSURE SAFETY, REGARDLESS OF TIME.

TERRITORY			PASSENGER TRAINS	FREIGHT AND MIXED	TERRITORY			PASSENGER TRAINS	FREIGHT AND MIXED
MP	MP	Column:	1	2	MP	MP	Column:	1	2
EASTWARD, SAN FRANCISCO TO WATSONVILLE JCT.:					WESTWARD, WATSONVILLE JCT. TO SAN FRANCISCO:				
	0.00 to	0.62	20	15	100.40 to	100.00		25	25
	0.62 to	1.80	25	25	100.00 to	98.00		45	45
	1.80 to	3.10	50	40	98.00 to	94.38		70	55
	3.10 to	11.01	60	40	94.38 to	92.99		55	55
	11.01 to	24.52	70	55	92.99 to	92.97 (spring switch)		25	25
	24.52 to	26.40 (Redwood City)	45	45	92.97 to	87.94		35	35
	26.40 to	44.00	70	55	87.94 to	86.49		50	50
	44.00 to	45.91 (End of Double Track)	60	55	86.49 to	82.00		60	55
	45.91 to	46.90	15	15	82.00 to	79.50		25	25
	46.90 to	47.29 (spring switch)	15	15	79.50 to	78.60		50	50
	47.29 to	47.53	30	30	78.60 to	73.96		70	55
	47.53 to	49.12	35	35	73.96 to	73.78		60	55
	49.12 to	51.81 (55.70)	50	50	73.78 to	62.00		70	55
	55.70 to	63.21	70	55	62.00 to	55.70 (51.81)		65	55
	63.21 to	63.23 (spring switch)	35	35	51.81 to	51.32		35	35
	63.23 to	73.78	70	55	51.32 to	51.30 (spring switch)		35	35
	73.78 to	73.96	60	55	51.30 to	49.12		50	50
	73.96 to	78.60	70	55	49.12 to	47.53		35	35
	78.60 to	79.50	50	50	47.53 to	47.29 (spring switch)		30	30
	79.50 to	82.00	35	35	47.29 to	46.90		15	15
	82.00 to	86.47	60	55	46.90 to	45.91 (end of double track)		15	15
	86.47 to	86.49 (spring switch)	25	25	45.91 to	45.86		15	15
	86.49 to	92.97	35	35	45.86 to	44.00		60	55
	92.97 to	92.99 (spring switch)	25	25	44.00 to	26.40		70	55
	92.99 to	94.38	55	55	26.40 to	24.52 (Redwood City)		45	45
	94.38 to	98.00	70	55	24.52 to	11.01		70	55
	98.00 to	100.00	45	45	11.01 to	3.10		60	50
	100.00 to	100.40	25	25	3.10 to	1.80		50	40
					1.80 to	0.62		25	25
					0.62 to	0.00		20	20

Trains handling cars containing Flammable Compressed Gas (FCG) must not exceed 55 MPH. Where maximum authorized speed is less than 55 MPH and more than 25 MPH, train must be operated at 5 MPH less than maximum authorized speed. Where maximum authorized speed is more than 35 MPH such trains are further restricted between the following locations where 30 MPH must not be exceeded:

Carnadero MP 83.2 and San Francisco MP 0.0

All freight and mixed trains are restricted to Column 2 speeds except LAOAT and OALAT may be authorized by train order to operate at Column 1 speeds not exceeding 65 MPH, provided trains contain no restricted cars and do not exceed requirements of tons per operative brake below:

Number of Cars	Tons Per Operative Brake
1 to 70	70
71 to 75	69
76 to 80	68
81 to 85	67
86 to 90	66
91 to 95	65
96 to 100	64
101 to 105	63
106 to 110	62
111 to 115	61
116 to 120	60
121 to 125	58
126 to 130	56
131 to 135	54
136 to 140	52
141 to 145	50

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SPEED RESTRICTIONS FOR TRAINS: Maximum speed of trains in territory shown below is subject to further restrictions applicable to engines in the train as shown in **SPEED RESTRICTIONS FOR ENGINES** appearing on page 20, and **MAXIMUM SPEED PERMITTED WITH CERTAIN EQUIPMENT** and **OTHER MAXIMUM SPEEDS** appearing on page 21 of Special Instructions for All Subdivisions. Speed must be further reduced as prescribed by speed signs, except as specifically authorized by Special Instructions herein, or by Timetable Bulletin.

All trains must run carefully during and after heavy storms, particularly when the track is apt to be affected. When fog, storms or other conditions obscure track or signals, speed of trains must be so reduced as to permit strict observance of signals and **INSURE SAFETY, REGARDLESS OF TIME.**

TERRITORY			1	2	TERRITORY			1	2
MP	MP	Column:			MP	MP	Column:		
EASTWARD, SAN JOSE TO PERMANENTE:					WESTWARD, PERMANENTE TO SAN JOSE:				
47.21 to 47.66	47.66		10	10	37.50 to 39.50 (Permanente)	39.50		10	10
47.66 to 53.05 (48.06)	53.05		20	20	39.50 to 47.86	47.86		25	25
48.06 to 47.86	47.86		10	10	47.86 to 48.06 (53.05)	48.06		10	10
47.86 to 39.50	39.50		25	25	53.05 to 47.66	47.66		20	20
39.50 to 37.50 (Permanente)	37.50		15	15	47.66 to 47.21	47.21		10	10
EASTWARD, SOUTH SAN FRANCISCO TO DALY CITY:					WESTWARD, DALY CITY TO SOUTH SAN FRANCISCO:				
13.55 to 7.39	7.39		10	10	7.39 to 13.55	13.55		10	10
EASTWARD, SOUTH SAN FRANCISCO TO BADEN:					WESTWARD, BADEN TO SOUTH SAN FRANCISCO:				
			10	10				10	10
EASTWARD, LICK TO ALAMITOS:					WESTWARD, ALAMITOS TO LICK:				
55.34 to 58.99	58.99			15	58.99 to 55.34	55.34			15
EASTWARD, CARNADERO TO HOLLISTER:					WESTWARD, HOLLISTER TO CARNADERO:				
82.99 to 83.01 (junction switch)	83.01		15	15	95.81 to 83.01	83.01		20	20
83.01 to 95.81	95.81		20	20	83.01 to 82.99 (junction switch)	82.99		15	15
EASTWARD, WATSONVILLE JCT. TO OLYMPIA:					WESTWARD, OLYMPIA TO WATSONVILLE JCT.:				
100.46 to 101.40	101.40		15	15	129.72 to 126.50	126.50		20	20
101.40 to 102.20	102.20		8	8	126.50 to 120.00	120.00		15	15
102.20 to 112.57	112.57		25	25	120.00 to 119.20	119.20		20	20
112.57 to 113.00	113.00		20	20	119.20 to 116.25	116.25		25	25
113.00 to 116.10	116.10		25	25	116.25 to 116.10	116.10		15	15
116.10 to 116.25	116.25		15	15	116.10 to 113.00	113.00		25	25
116.25 to 119.20	119.20		25	25	113.00 to 112.57	112.57		20	20
119.20 to 120.00	120.00		20	20	112.57 to 102.20	102.20		25	25
120.00 to 126.50	126.50		15	15	102.20 to 101.40	101.40		8	8
126.50 to 129.72	129.72		20	20	101.40 to 100.46 (junction switch)	100.46		15	15
EASTWARD, SANTA CRUZ TO DAVENPORT:					WESTWARD, DAVENPORT TO SANTA CRUZ:				
79.35 to 81.36 (120.42) (junction switch)	81.36		15	15	91.08 to 81.36	81.36		20	20
81.36 to 91.08	91.08		20	20	81.36 to 79.35 (junction switch)	79.35		15	15

SPEED RESTRICTIONS FOR OTHER THAN MAIN TRACKS.....See item 9, page 28

RULE 10-J. Speed signs to left of track:

Eastward	Reading	Westward	Reading
MP 120.75	70-60	MP 118.37	70-60
		MP 163.10	70-60

RULE 21. Identification of superior trains in CTC limits between Santa Margarita and San Luis Obispo must be made and such identification will apply at Santa Margarita or San Luis Obispo.

Identification of superior trains in CTC limits between Watsonville Jct. and Salinas must be made and such identification will apply at Salinas.

RULE 82 A. Castroville: Trains to Monterey Branch must obtain clearance bearing Chief Train Dispatcher's OK when train order operator on duty.

RULE 83-A. At the following stations, only the trains indicated will register:

- Castroville . . . Trains to or from Monterey Branch.
- Salinas Trains originating or terminating.
- San Luis
- Obispo Registration of eastward light engines, terminating, may be telephoned on arrival at roundhouse to train order operator who must enter same on register and verify by repeating registration.

RULE 83-B. At open train-order offices, trains may register by ticket as follows:

- Watsonville Jct. . . . Nos. 12, 374, 13 and 373.
- Castroville Trains to or from Monterey Branch.

RULE 85. A section must not pass and run ahead of another section of the same schedule in CTC limits, between Watsonville Jct. and Salinas and between San Luis Obispo and Santa Margarita, without first exchanging train orders with the section to be passed, each section to display signals if necessary.

RULE 93. Yard limits in which the provisions of Rule 93 will apply are established at the following stations:

West MP		East MP
96.11	Watsonville Jct.	101.25
110.04	Castroville (Monterey Branch)	112.09
	CTC	
	Limits Salinas	126.00
	" (Spreckels Branch)	123.87
132.60	Gonzales	136.30
142.44	Soledad	144.65
160.50	King City	170.00
214.30	Paso Robles	218.00
232.50	Santa Margarita	236.75
251.80	San Luis Obispo	257.00
123.30	Monterey	127.66
127.70	Pacific Grove	129.88

Watsonville Jct.: Eastward freight trains, except No. 374 must not pass Signal 984 unless proceed signal received from switchman, green flag by day, green light by night.

Westward freight trains, except No. 373 must not pass Signal 1001 unless proceed signal received from switchman, green flag by day, green light by night.

RULE 99. Engines moving between the west yard limit sign Pacific Grove and east yard limit sign Monterey will move as provided by Rule 99 and the first sentence of Rule S-99-B.

RULE 99-C. Will apply on Monterey Branch.

RULE 103-A. Automatic crossing gates:

King City: Bitterwater Road crossing MP 163.4. Eastward trains, stopping on main track to do switching must stop 500 feet west of crossing to avoid unnecessary operation of gates. White marker post 500 feet west of crossing.

Paso Robles: Westward trains, stopped at station, blocking 10th Street and westward trains or engines on siding, or trains delayed between 10th and 13th Streets must not exceed 10 MPH between 12th and 13th Streets and must not enter 13th Street until gates are down.

Eastward trains leaving train west of Signal 2158, stop 250 feet west of signal. When train ready to depart, gates must be lowered by member of crew inserting switch key in receptacle located on Signal 2158.

Public Utilities Commission orders require that trains and engines must stop, and member of crew must protect traffic on the following street or highway crossings before movement is made:

- Castroville—Crossing on track No. 952.
- King City—Crossing on track No. 2430.

RULE 104. The normal position of rigid switches at junctions is as follows:

- Castroville Monterey Branch, for Salinas line.
- Spreckels Jct. Spreckels Branch, for Salinas line.

RULE 105. Salinas: No. 1 siding extends from SA Signal at MP 116.4 to crossover just west of Signal 1178. No. 2 siding extends from crossover just east of Signal 1178 to crossover just west of Signal 1186.

Gonzales: Siding extends from west switch to crossover at station building.

Soledad: Siding on station side of main track is designated as No. 2 siding, and siding on opposite side of main track is designated as No. 1 siding.

McKay: Siding on ocean side of main track is designated as No. 2 siding and siding on opposite side of main track is designated as No. 1 siding.

Santa Margarita: Siding extends from the end of CTC MP 236.6 to spring switch MP 232.92, capacity 19,015 feet, and will be used by westward trains only, unless otherwise directed by train dispatcher. Crossover switches between main track and siding MP 234.2 must not be used unless authorized by train dispatcher.

RULE 211. Salinas: Eastward trains receiving an eastward proceed "SA" signal at MP 116.4, are authorized to proceed on main track to train order office.

RULE 221. Castroville is train order office for trains via Monterey branch only.

Salinas is train order office for eastward trains and for westward trains originating. Westward trains originating will obtain clearance only when operator on duty.

RULE 306. The following block signals equipped with triangular plate displaying the letter "P" have included in their control limits some special protective device:

SPECIAL INSTRUCTIONS—SALINAS SUBDIVISION

Eastward Signal	Protection	Westward Signal
	Spring switch, end of double track, Watsonville Jct.	P-SA
P-A	Spring switch, west end siding, Castroville, Spring switch, west switch, Monterey branch. Spring switch, east end siding, Castroville.	P-A
P-SA	Spring switch, west end No. 1 siding, Salinas.	
P-1214	Vehicle barricade detector Harris Rd. E-121.8	P-1225
P-1878	Fire and collision detector Sargent Creek Bridge, MP 188.15	P-1889
P-1950	Spring switch, west end siding, Bradley.	
P-2278	Flood detector, east end Henry Siding, MP 228.87	P-2289
P-2328	Spring switch, west end siding, Santa Margarita.	
P-2416	Slip-out detector, West End Tunnel No. 10, MP 241.6	P-2419
P-A	Slide detector fence, Chorro	P-A
P-A	Fire detector, Steiner Creek Bridge, Goldtree	P-2493

AUTOMATIC BLOCK SIGNAL SYSTEM

RULE 516. OVERLAP POSTS:

Spreckels Jct. Westward trains.

RULE 535. SPRING SWITCHES:

Spring switches equipped with facing point locks are located as follows:

Location	Normal Position
Watsonville Jct.	End double track Westward track
Castroville	West end siding Main track
Castroville	Switch to Monterey branch Main track
Castroville	East end siding Main track
Salinas	West end No. 1 siding Main track
Bradley	West end siding Main track
Santa Margarita	West end siding Main track

RULE 705. LETTER TYPE INDICATORS:

Illum. Letter	On Signal	Approaching	Authorizes and Requires Movement as Follows:
S	Eastward "A" Signal	Castroville West end	Trains via Salinas enter siding. Trains via Ord enter Monterey Branch.
S	Westward "A" Signal	Castroville East end	Trains via Moss Landing enter siding.
S	Eastward "SA"	Salinas West end	Enter siding No. 1.
M	1191	Salinas	Proceed on main track to fouling point west end Siding No. 1, Salinas, MP 116.43.

RULE 705. HOT BOX DETECTORS:

Illum. Letter	On Signal	Approaching	Location of Readout
H	1365	Gonzales	MP 133.9 Gonzales
W	1388	Soledad	
W	1417	Gonzales	
H	1418	Soledad	MP 144.0 Soledad
H	1761	San Lucas	MP 172.5 San Lucas
W	1780	San Ardo	
H	1806	San Ardo	MP 182.8 San Ardo
W	1807	San Lucas	

Scanner Site	MP	Type	Direction	Location
	139.6	A	East and West	Gonzales-Soledad
	178.8	A	East and West	San Lucas-San Ardo
	214.0	C	East and West	Paso Robles

(Refer to Rule 705, All Subdivisions.)

RULE 760. CENTRALIZED TRAFFIC CONTROL

Limits extend from end of double track Watsonville Jct. to west switch No. 1 siding Salinas.
Limits extend from east end siding Santa Margarita to end of double track San Luis Obispo.

GENERAL REGULATIONS

RULE 824. Watsonville Junction:

Before engine is detached, sufficient number of hand brakes must be set on east end of train to hold cars.

RULE 825. San Luis Obispo: When freight trains stop on receiving track and road engine is detached, trainmen will set sufficient hand brakes on the head end of eastward trains to hold cars.

Portable rail skids are hung on posts at lower end of sidings at:

- Santa Margarita
- Cuesta
- Serrano
- Chorro
- Goldtree

When necessary to leave cars on any of these sidings permission must first be obtained from Chief Train Dispatcher. (See Rule 825 All Subdivisions.)

RULE 827. At following crew change points, trains handling Flammable Compressed Gas (FCG) must be given a rolling inspection by outbound train crew unless otherwise instructed:

- San Luis Obispo
- Watsonville Jct.

At Santa Margarita, trains handling cars containing Flammable Compressed Gas (FCG) will stop and entire train must be inspected from both sides to determine that there is no obvious leakage of Flammable Compressed Gas (FCG) and that there is no other unsafe condition of equipment before proceeding.

Dragging equipment and/or derailment equipment detectors installed at following locations:

MP	Location	Direction
128.9	Chualar	East and West
176.5	San Lucas	East and West
218.0	Paso Robles	East and West
236.6	Santa Margarita	East and West
249.0	Goldtree	East and West

(Refer to Rule 827, All Subdivisions.)

RULE 830. King City: Through freight trains picking up and/or setting out cars must not block Lonoak road crossing at MP 164.3.

AIR BRAKE RULES

RULE 17.

PASSENGER TRAINS

San Luis Obispo to Santa Margarita:
Without dynamic brake in operation turn up all accessible retaining valves.

FREIGHT TRAINS

Retaining valves must be used on descending grades as follows:

Santa Margarita to San Luis Obispo.

WITHOUT DYNAMIC BRAKE IN OPERATION:

One retaining valve for each 80 tons in train. If gross tonnage exceeds 80 tons per operative brake, retaining valves must be used on all cars and speed must not exceed 15 MPH.

WITH DYNAMIC BRAKE IN OPERATION:

*Permissible Tons Per Unit Without Retaining Valves

	Basic-Dynamic Brake		Extended Range Dynamic Brake		
	4 Axle	6 Axle	4 Axle	6 Axle	8 Axle

WITH dynamic brake in operation but WITHOUT pressure maintaining system of braking.....	525	775	625	950	1250
WITH dynamic brake in operation and WITH pressure maintaining system of braking.....	1500	2250	1800	2700	3600

If permissible tonnage is exceeded, one retaining valve must be used for each 150 tons in excess thereof.

*If any unit having basic dynamic brake is operated with units having extended range dynamic brake, all units in consist must use tonnage authorized for units having basic dynamic brake.

Locomotive classes AF628, AF630, EF425, EF623, EF625, EF630, EF636, GF425 (except units 6700-6727), GF628, GF630, GF633, EF850B and GF850 are equipped with extended range dynamic brake.

When dynamic brakes are not used on helper engine(s), tonnage of such engine(s) must be added to that of train in determining the number of retaining valves required.

RULE 17-A. Eastward freight trains, Tunnel 6 to San Luis Obispo, without dynamic brake in operation, using retaining valves will stop at Serrano at least 10 minutes to permit wheel heat radiation.

FREIGHT TRAINS

RULE 33.

San Luis Obispo and Santa Margarita:

Maximum tonnage per operative brake—80 tons. Except with dynamic brake and pressure maintaining system of braking in operation with not more than 2500 tons for each six axles of dynamic brake and speed not exceeding 25 MPH—100 tons.

Should dynamic brake failure occur while handling in excess of 80 tons per operative brake, train may proceed at speed not exceeding 15 MPH if in judgment of conductor and engineer it is safe to do so, and provided retaining valves are used as prescribed by Air Brake Rule 17.

Castroville to Monterey: When gross tonnage of freight trains exceeds 85 tons per operative brake, speed must not exceed 20 MPH.

Descending grades where restrictions apply are designated below:

Eastward—Tunnel 6 to San Luis Obispo:

MP 239.65 to MP 252.10.....Speed 20 MPH

Castroville to Monterey:

MP 116.5 to MP 117.0.....Speed 20 MPH
 MP 117.9 to MP 118.1.....Speed 20 MPH
 MP 119.9 to MP 120.4.....Speed 20 MPH
 MP 122.2 to MP 123.1.....Speed 20 MPH

Westward—Tunnel 6 to Santa Margarita:

MP 239.65 to MP 235.5.....Speed 20 MPH

Monterey to Castroville:

MP 121.3 to MP 120.9.....Speed 25 MPH
 MP 119.9 to MP 119.1.....Speed 25 MPH
 MP 117.9 to MP 117.0.....Speed 25 MPH

PASSENGER TRAINS

RULE 39. Running test must be made immediately after passing summit in Tunnel No. 6 in both directions.

MISCELLANEOUS

1. Engines listed must not operate on tracks shown below:

Class of Engine	Location	Restricted Tracks
EF415A, EP415A, EF415B, EP415B	Castroville	All industry and spur tracks
"	Salinas	Leads 1132, 1134, 1202, 1402, 1500, 1501 and industry spurs; lead 1150 east of girder rail crossing; also spurs 1144 and 1146
"	Lapis	Spur.
"	Retreat	Spur.
"	Monterey	House track; team track; and all industry tracks.

2. Load limit (car and contents):

*Watsonville Jct.-San Luis Obispo	263,000 pounds
Castroville-Lake Majella	240,000 pounds
Spreckels Jct.-Spreckels	263,000 pounds

*A gross weight of 315,000 pounds is allowable for uniformly loaded four axle cars with minimum axle spacing of 6 feet 0 inches and minimum distance of 37 feet 0 inches center to center of trucks, also wheels 38 inches or more in diameter.

Unless authorized by Superintendent, heavier loads must not be handled.

3. LOCATION OF OVERHEAD AND SIDE STRUCTURES NOT STANDARD CLEARING ON MAIN TRACK AND SIDINGS

MP	Location	Description	Type
113.46			
113.60	Cooper	Salinas River bridge	Side
155.28			
155.54	Metz	Tunnel No. 5½	Side
200.55			
200.67	McKay	Salinas River bridge	Overhead and side
222.03	Templeton	Overhead crossing	Side
223.39	Templeton	Graves Creek bridge	Side
239.29			
239.97	Cuesta	Tunnel No. 6	Overhead and side
240.11			
240.37	Cuesta	Tunnel No. 7	Overhead and side
240.61			
240.70	Cuesta	Tunnel No. 8	Overhead and side
240.86			
240.97	Cuesta	Tunnel No. 9	Overhead and side
242.26	Serrano	Signal bridge	Overhead
245.85			
245.99	Chorro	Tunnel No. 11	Overhead and side
248.26	Goldtree	Signal bridge	Overhead
251.16	Hathaway	Overgrade crossing	Overhead and side

4. **Ord:** Train crews before entering or leaving the spur track into Fort Ord must open all four wire mesh gates across track at the bicycle trail crossing, MP 119.62, to block off bicycle traffic. After train clears crossing, train crew must return these wire mesh gates to position closed across track.

SPECIAL INSTRUCTIONS—SALINAS SUBDIVISION

SPEED RESTRICTIONS FOR TRAINS: Maximum speed of trains in territory shown below is subject to further restrictions applicable to engines in the train as shown in **SPEED RESTRICTIONS FOR ENGINES** appearing on page 20, and **MAXIMUM SPEED PERMITTED WITH CERTAIN EQUIPMENT** and **OTHER MAXIMUM SPEEDS** appearing on page 21 of Special Instructions for All Subdivisions. Speed must be further reduced as prescribed by speed signs, except as specifically authorized by Special Instructions herein, or by Time-table Bulletin.

All trains must run carefully during and after heavy storms, particularly when the track is apt to be affected. When fog, storms or other conditions obscure track or signals, speed of trains must be so reduced as to permit strict observance of signals and **INSURE SAFETY, REGARDLESS OF TIME.**

TERRITORY			PASSENGER TRAINS	FREIGHT AND MIXED	TERRITORY			PASSENGER TRAINS	FREIGHT AND MIXED
MP	MP	Column:	1	2	MP	MP	Column:	1	2
EASTWARD, WATSONVILLE JCT. TO SAN LUIS OBISPO:					WESTWARD, SAN LUIS OBISPO TO WATSONVILLE JCT.:				
100.40 to 100.70 (end double track)			25	25	252.10 to 251.50			25	25
100.70 to 100.74 (spring switch)			25	25	251.50 to 248.30			40	40
100.74 to 108.21			50	50	248.30 to 236.75			25	25
108.21 to 118.37			70	55	236.75 to 235.10			35	35
118.37 to 120.75 (Salinas)			25	25	235.10 to 231.36			60	55
120.75 to 125.60			70	55	231.36 to 229.15			40	40
125.60 to 137.20			65	55	229.15 to 227.20			50	50
137.20 to 147.68			70	55	227.20 to 220.02			55	55
147.68 to 151.72			40	40	220.02 to 216.80			40	40
151.72 to 154.00			50	50	216.80 to 212.16			60	55
154.00 to 155.53			65	55	212.16 to 211.90			50	50
155.53 to 163.10			70	55	211.90 to 200.10			60	55
163.10 to 164.00			60	55	200.10 to 197.80			70	55
164.00 to 167.43			70	55	197.80 to 197.43			60	55
167.43 to 168.80			40	40	197.43 to 194.60			70	55
168.80 to 185.50			70	55	194.60 to 193.70			30	30
185.50 to 188.17			60	55	193.70 to 188.17			55	55
188.17 to 192.92			55	55	188.17 to 185.50			60	55
192.92 to 194.35			30	30	185.50 to 168.80			70	55
194.35 to 197.43			70	55	168.80 to 167.43			40	40
197.43 to 197.80			60	55	167.43 to 164.00			70	55
197.80 to 200.10			70	55	164.00 to 163.10			60	55
200.10 to 211.90			60	55	163.10 to 155.53			70	55
211.90 to 212.16			50	50	155.53 to 154.00			65	55
212.16 to 216.80			60	55	154.00 to 151.72			50	50
216.80 to 220.02			40	40	151.72 to 147.68			40	40
220.02 to 227.20			55	55	147.68 to 137.20			70	55
227.20 to 229.15			50	50	137.20 to 125.60			65	55
229.15 to 231.36			40	40	125.60 to 120.75			70	55
231.36 to 235.10			60	55	120.75 to 118.37 (Salinas)			25	25
235.10 to 236.75			35	35	118.37 to 108.21			70	55
236.75 to 249.35			25	25	108.21 to 100.74 (end-of double track)			50	50
249.35 to 251.50			40	40	100.74 to 100.40			35	35
251.50 to 252.10			25	25					

Trains handling cars containing Flammable Compressed Gas (FCG) must not exceed 55 MPH. Where maximum authorized speed is less than 55 MPH and more than 25 MPH, train must be operated at 5 MPH less than maximum authorized speed.

All freight and mixed trains are restricted to Column 2 speeds except LAOAT and OALAT may be authorized by train order to operate at Column 1 speeds not exceeding 65 MPH, provided trains contain no restricted cars and do not exceed requirements of tons per operative brake below:

Number of Cars	Tons Per Operative Brake
1 to 70	70
71 to 75	69
76 to 80	68
81 to 85	67
86 to 90	66
91 to 95	65
96 to 100	64
101 to 105	63
106 to 110	62
111 to 115	61
116 to 120	60
121 to 125	58
126 to 130	56
131 to 135	54
136 to 140	52
141 to 145	50

SPECIAL INSTRUCTIONS—SALINAS SUBDIVISION

SPEED RESTRICTIONS FOR TRAINS: Maximum speed of trains in territory shown below is subject to further restrictions applicable to engines in the train as shown in **SPEED RESTRICTIONS FOR ENGINES** appearing on page 20, and **MAXIMUM SPEED PERMITTED WITH CERTAIN EQUIPMENT** and **OTHER MAXIMUM SPEEDS** appearing on page 21 of Special Instructions for All Subdivisions. Speed must be further reduced as prescribed by speed signs, except as specifically authorized by Special Instructions herein, or by Timetable Bulletin.

All trains must run carefully during and after heavy storms, particularly when the track is apt to be affected. When fog, storms or other conditions obscure track or signals, speed of trains must be so reduced as to permit strict observance of signals and **INSURE SAFETY, REGARDLESS OF TIME.**

TERRITORY					TERRITORY				
MP	MP	Column:	1	2	MP	MP	Column:	1	2
EASTWARD, CASTROVILLE TO LAKE MAJELLA: 110.10 to 110.70..... 15 15 110.70 to 127.30..... 20 20 127.30 to 130.23..... 15 15					WESTWARD, LAKE MAJELLA TO CASTROVILLE: 130.23 to 127.30..... 15 15 127.30 to 110.70..... 20 20 110.70 to 110.10..... 15 15				
EASTWARD, SPRECKELS JCT. TO SPRECKELS.....					WESTWARD, SPRECKELS TO SPRECKELS JCT.....				
				10					10

SPEED RESTRICTIONS FOR OTHER THAN MAIN TRACKS

With Caution
Not Exceeding
MPH

Through sidings, yard and other tracks, wyes, balloon tracks, crossovers and turnouts:.....	10
Through slip switches.....	10
Through turnouts on other than sidings.....	10
On branches.....	10
Through all sidings, yard tracks and other tracks with engine running backward.....	10
East leg of wye Spreckels Jct.....	5
Fat City Spur, Gonzales.....	5

SPECIAL INSTRUCTIONS—NILES SUBDIVISION

RULE 14(l). Whistle signal must be sounded and bell kept ringing when entering or leaving the Sugar Co.'s yard at Alvarado or approaching their road crossing.

RULE 26. West Oakland (Passenger Yard): Electric switch locks on west switches Tracks 2 to 5, inclusive, Track 19 and on east switches Tracks 14 and 18, inclusive.

Power operated derrails on west end Track 6 and on east end Tracks 2 to 6, inclusive, and Track 13.

RULE 26-A.

West Oakland: Sign reading "Employes Working" (white lettering on red background) is in use on the following tracks:
Track Nos. 151, 154, 155, 156, 157
and 158.....PMT Auto Carriers

Mulford: Elevated walkway constructed across Tracks 2 and 3, opposite Door 9, of the Kaiser Aluminum and Chemical Company. When red light is displayed above entrance to tracks movements must not be made beyond Door 8. When red light is not displayed elevated walkway is clear and movements may be made the entire length of the tracks.

Sign reading "Employes Working" (white lettering on red background) is in use on the following tracks:

Track No. 118.....Haskon Corporation
Track No. 140.....Champion Packaging Co.

Hayward: Sign reading "Employes Working" (white lettering on red background) is in use on the following tracks:
Track No. 4403.....United Can Co.
Track No. 4404.....United Can Co.

Warm Springs: All tracks within General Motors Plant, protected by signs reading "STOP MEN AT WORK" (white lettering on blue background) attached to the rail immediately ahead of cars standing on leads and second sign will be attached to rail immediately ahead of cars spotted in plant. Signs are not to be removed or placed on rails by SP employes. A blue light will be attached to signs by night.

Newark: The Leslie Refinery lead track and the Leslie Processing Plant lead track protected by a blue sign reading "STOP MEN AT WORK" (white lettering on blue background).

All tracks serving Food Machinery Corp., protected by flags reading "STOP TANK CAR CONNECTED" (white lettering on blue background). These signs will be placed and removed only by employes of Food Machinery Corp.

RULE 82-A.

Train orders may be issued to Nos. 12 and 374 at West Oakland to apply on San Francisco Subdivision between Santa Clara and San Jose and may assume corresponding schedules between Santa Clara and San Jose, and must obtain clearance at San Jose bearing OK, time and initials of Chief Train Dispatcher which must be endorsed GREEN or NO SIGNALS as the case may be.

Train orders may be issued to No. 13 at San Jose to apply on Niles Subdivision and may assume corresponding schedule at Santa Clara, and must obtain clearance at San Jose bearing OK, time and initials of Chief Train Dispatcher which must be endorsed GREEN or NO SIGNALS as the case may be.

RULE 83. Identification may be made by eastward trains between Magnolia Tower and Elmhurst to be applied at end of double track. Reduce speed sufficiently to permit identification and comply with Rule 14(k).

Identification may be made by eastward trains between Redwood Jct. and Belle Haven to be applied at end of double track. Reduce speed sufficiently to permit identification.

Train register check of superior trains obtained at West Oakland may be applied at end of double track, Elmhurst.

RULE 83-A. At the following stations only trains indicated will register:

West Oakland	} Trains originating	
Newark		or terminating.
East Pleasanton	} Extra Trains.	
Niles Tower		} All trains except Nos. 12
Santa Clara		

RULE 83-B. At open train-order offices trains may register by ticket as follows:

Niles Tower	All trains.
Redwood Jct.	All trains.
Santa Clara	All trains.

RULE 93. Yard limits in which the provisions of Rule 93 will apply, are established at the following points:

West MP	East MP	
	Oakland (Martinez line)	17.35
	Oakland (Niles line)	15.82
	Oakland (Alvarado line)	14.01
14.02	Mulford	23.50
15.83	Hayward	21.69
24.44	Redwood Jct. (San Mateo-Newark line)	28.20
	Redwood Jct. (Palo Alto line)	27.17
35.20	Newark (Centerville-Redwood Jct. line)	40.50
24.00	Newark (Alvarado-Santa Clara line)	34.80
39.00	Alviso	43.00
40.51	Niles (Tracy-Redwood Jct. line)	30.67
24.00	Niles (Hayward-Milpitas line)	30.95
41.70	East Pleasanton	45.89
62.12	East Pleasanton (San Ramon line)	67.84
45.89	Livermore	51.20
54.03	Altamont	55.64
32.00	Milpitas	42.50
43.47	San Jose (Palo Alto-Coyote line)	56.00
43.30	San Jose (Milpitas line)	47.39
43.74	San Jose (Alviso line)	44.59
78.50	Tracy (Martinez-Los Banos line)	85.64
66.50	Tracy (Niles-Lathrop line)	74.37

Redwood Jct.-Belle Haven: Before making movement against the current of traffic between Redwood Jct., MP 26.2 and end of double track, Belle Haven, MP 28.41, permission must be obtained from Towerman, and move must be protected under provisions of Rule 99.

Niles: Unless otherwise instructed, eastward trains operating via Decoto enroute to Livermore line at Niles Junction, must take siding at Niles.

RULE D-97. Will apply as follows: Between West Oakland and Elmhurst; Redwood Jct. and Belle Haven.

RULE 98. Oakland: (Third and Fallon Sts., WPRR Crossing) MP 7.27.

Before any movement is made the following procedure must be followed:

1. W.P. Dispatcher must be contacted to ascertain if any W.P. trains are closely approaching from either direction. (W.P. Dispatcher's phone is located in concrete phone booth located just west of Carlson Bakery Building. Phone booth is equipped with both S.P. and W.P. switch locks.)
2. When W.P. Dispatcher advises no trains closely approaching, rectorized gates must then be swung across W.P. tracks to permit S.P. engine to cross W.P. tracks. Hayes "frog" type derrails are in operation on S.P. drill tracks on both sides of W.P. crossing and must be attended to prior to movement across. Separate switch stands control these derrails on each side of W.P. crossing. When switching movements are completed, gates and derrails must be returned to normal position and secured with locks provided.

In foggy or inclement weather, additional protection must be provided by displaying lighted fusee.

If any delay is encountered, report must be promptly given to yardmaster.

RULE 103-A. AUTOMATIC CROSSING PROTECTION.

On double track automatic crossing gates do not operate for against current of traffic movements at territory speeds and Rule 103-A will apply.

Oakland: When moving against current of traffic flagman must protect crossing before movement is made over Grove, Broadway, Franklin and Webster Streets.

Fruitvale: Automatic crossing gates at 29th Avenue, Fruitvale, MP 9.5, are inter-connected with the Western Pacific crossing gates and City traffic lights at East 12th Street.

The gates for our tracks operate separately and are equipped with a flashing yellow beacon to indicate that both gates are down.

Movements that stop approaching 29th Avenue after stopping shall not enter the crossing unless yellow beacon is flashing or it is otherwise known that both gates are down and the crossing clear of vehicles.

Eastward trains or engines on Eastward Main Track, Westward Main Track, East Electric or West Electric tracks approaching Interlocking Signal at west end of Fruitvale Interlocking displaying "STOP" indication will stop not less than 150 feet west of 29th Avenue.

Westward movements shall not stop between Signal Bridge and 29th Avenue but continue not less than 150 feet west of crossing before reversing direction.

50 feet spotting circuits, marked by "STOP" signs are provided for movement on the 29th Avenue Drill (Track 5) each side of the crossing. Movement on 29th Avenue Drill will stop at "STOP" sign to initiate crossing protection. Gate on south side of track will be activated immediately as well as the traffic lights at E. 12th Street, about 30 seconds later the gate on the north side of the tracks will be lowered and the yellow beacon activated. An additional 30 second releasing circuit, following the lowering of the gate on north side of tracks, will release the gates and they will go back up if movement has not been made on the crossing. To re-establish protection if this occurs operate key control on post 50 feet from crossing, or back off the 50 foot circuit and again stop at the "STOP" sign.

Melrose: (Joint SP-WP Drill).

Drill track approaches to crossing extend 400 feet west and 350 feet east. Occupancy of approaches for more than one (1) minute without entering crossing will permit gates to raise for vehicular traffic.

Flashing white indicator light installed on mast north side of drill track. Display of flashing white light indicates gates are down. Trains or engines approaching this crossing on the drill track must not enter crossing until flashing white light is displayed indicating gates are down or by a member of the crew protecting movement.

Mulford: Eastward trains making set-out on Cleaning Yard Tracks, will leave their train 200 feet west of Davis Street.

Russell: White indicator light is installed on case, south side of Mack Street, PUC No. L-20.03-C, on Mack Truck Spur. Trains or engines approaching this crossing must stop, and not enter the crossing until light is flashing, indicating crossing protection is in operation (20 seconds), or until a member of the crew protects movement.

Newark: Between the hours of 7:00 A.M. and 7:00 P.M., eastward trains arriving Newark on the Dumbarton Line must remain west of Willow Street (Chemical Crossing), if making pick-up or set-out.

Albrae: Track No. 2548 serving Pabco Paint Co., rectangular signs, red background with white lettering reading STOP, have been installed on both sides of Albrae Street (Crossing No. L-35.25-C). Movements must be brought to a complete stop at these signs and not enter crossing until it is known automatic crossing protection is in operation or until member of the crew protects movement.

Hayward: Crossing gate key control installed at "A" Street to operate crossing gates for movement on tracks other than main track.

Shinn: Trainmen must protect Ford Lane Underpass when switching on Blue Diamond Lead.

Belle Haven-Redwood Junction: Automatic Crossing Gates at Marsh Road MP 28.1 and flashing light signals at Fifth Ave. MP 27.3; Second Ave., MP 27.1 and Middlefield Road, MP 26.7, between Belle Haven and Redwood Jct. do not

protect against current of traffic. STOP must be made and not proceed onto crossing unless gates are known to be down and flashing light signals operating.

Public Utilities Commission orders prohibit operation of train, engine, motor or car over the following crossings unless first brought to a stop and traffic on the highway protected by a member of the crew.

- Oakland-Market St. Pacific Pool Warehouse No. 7
- Fruitvale High St. on
Jensen St. Drill D-10.64-C
- Elmhurst 77th Avenue
on spur D-12.2

RULE 105. Hayward: Siding extends from MP 18.74 to MP 19.77.

Newark: Siding on Tracy-Redwood Jct. line is west of Elmhurst-Santa Clara line crossing extending from MP 37.27 to MP 36.19.

Siding on Elmhurst-Santa Clara line is east of Tracy-Redwood Jct. line crossing extending from MP 31.00 to MP 32.22.

East Pleasanton: Siding is first track north of main track extending from MP 42.91 to MP 44.02.

RULE 221. West Oakland is a train-order office only for trains originating.

Fruitvale is a train-order office only for eastward trains. Light type train order signal installed on the west side of the Fruitvale Tower Building.

Mulford is train-order office only for trains originating when operator is on duty.

Warm Springs is train-order office for trains originating.

Hayward is a train order office for trains originating.

Santa Clara is train order office for Westward trains to Niles Subdivision via Agnew except No. 13.

RULE D-251. Will apply as follows: Between West Oakland and Elmhurst.

RULE 292-B. Oakland: When flashing white light is displayed on dwarf interlocking signals located at Adeline Street overpass, (Magnolia Interlocking controlling), eastward movements from work lead, 50 lead, 70 lead crossover and 70 lead authorizes yard engines to pass dwarf interlocking signal displaying stop indication after stopping and may continue reverse or forward movements past these signals until flashing white light is extinguished.

Operator will not extinguish white light until he has been informed by yardmaster that yard crew has been notified to clear interlocking limits.

RULE 306. Following block signals equipped with a triangular plate displaying the letter "P," have included in their control limits some special protective device:

Eastward Signals	Protection	Westward Signals
P-SA Elmhurst	Spring switch to Stonehurst Line . . .	Elmhurst P-SA Niles Line
	Spring switch, end of double track . . .	Elmhurst P-SA Santa Clara Line
	Spring switch, Shinn	P-423
	Spring switch, East Pleasanton	P-453
	Spring switch, end double track, Redwood Jct.	P-285
P-290	Spring switch, Niles	
	Spring switch, Milpitas wye, San Jose	P-I
P-710	Spring switch, junction to Los Banos Line, Tracy	
	Spring switch to yard, Tracy	P-829

RULE 505. AUTOMATIC BLOCK SIGNAL SYSTEM

East Pleasanton: When movement by Signal 450 is desired and Signal displays Red aspect, Page 13, RULE 505, SPECIAL INSTRUCTIONS SECTION, AUTOMATIC BLOCK SIGNAL SYSTEM (Push Buttons) will apply.

Niles: Signal 291 governs movements, through junction switch, from Tracy line. Signal 293 governs movements through junction switch, from San Jose line. When westward movement by Signal 291 or 293 is desired and signal displays Red aspect, Rule 505, Page 13, SPECIAL INSTRUCTIONS SECTION, AUTOMATIC BLOCK SIGNAL SYSTEM (Push Buttons) instructions will apply.

Top unit of Signal 290 governs movements to Tracy line and lower unit governs movements to San Jose line.
(Refer to Rule 505 All Subdivisions)

Tracy: Top unit of Signal 710 governs movements toward Lathrop. Bottom unit governs movement toward Los Banos.

Signals 713, 825 and 827 are approach clearing. Signal 713 will revert to stop position when 600-ft. track circuit in front of station building is occupied for approximately four minutes. A second approach circuit is located 185 feet east of MacArthur Blvd. to clear Signal 713 for movements to continue.

Approach circuit to Signal 825 on Track No. 1 begins 185 feet east of MacArthur Blvd.

Approach circuit sign is north of main track 185 feet east of MacArthur Blvd.

Signals 716 and 723 on Track No. 1 at crossovers near MP 72 govern movements over crossovers to enter main track only. These signals will not be lighted when crossovers are lined normal. Time circuits are provided to cut out west control of Signal 716, 2 minutes and 40 seconds after crossover is lined; east control of Signal 723, 6 minutes and 10 seconds after crossover is lined; and west control of Signal 736, 5 minutes and 20 seconds after crossover is lined. If signals fail to clear at expiration of time interval, Rules 507 and 513 will apply.

Top unit of Signal 736 on Track No. 1 governs movements to the freight lead. The center unit governs movements to the main track, over the crossover. The bottom unit, when displaying a lunar light governs movements to the Freight Lead per Rule 289.

Tracy: Trains moving on main track in either direction will move between junction switch, MP 70.62, and west switch of train yard by block signals whose indications will supersede the superiority of trains.

Shinn: Signal 420 governs movements through spring switch from siding. Signal 422 governs movements through spring switch on main track.

(Refer to Rule 505 All Subdivisions)

RULE 513. Redwood Junction: Before making movements out of east leg of wye at Redwood Junction to the Eastward main track on the Newark Line, permission must be obtained from towerman.

RULE 516. Overlap posts:

Hayward (1200 feet west of Signal 199) Westward trains.
San Leandro (515 feet east of Davis Street) Eastward trains.

RULE 535. SPRING SWITCHES

Spring switches equipped with facing point locks are located as follows:

Location	Normal Position
Redwood Jct. End double track	Westward track
San Jose Milpitas main track to track leading to East leg of Milpitas Wye, San Jose Yard MP 46.80	Milpitas Line Main Track
East Pleasanton	Main Track

Spring switches not equipped with facing point locks are located as follows:

Location	Normal Position
West Oakland ... Stem of Wye	16th St. line
Elmhurst Westward track to Stonehurst Line	Stonehurst Line
Elmhurst End of Double Track	Westward track
Shinn East end siding	Main track
Niles Junction switch west of station	San Jose line

RULE 605. INTERLOCKING

On double track within Oakland yard limits operator may arrange to move trains from one tower to another against the current of traffic, after having an understanding for each movement. Before moving trains against current of traffic operator must know that track to be used is clear of opposing engines and trains.

West Oakland (First and Cedar Sts.): Limits extend from signals at Cedar Street on Niles line to signals 427 feet east of MP 5 on Martinez line; eastward signals on First Street lead 227 feet west of First Street freight lead crossing; eastward signal on washer track 144 feet west of freight lead; eastward signals on 16th Street lead at clear point 187 feet west of freight lead switch; westward signals on diesel tracks, coach lead and yard leads 40, 50 and 60.

Trains and engines departing westward limits, West Oakland Interlocker toward Bays are operating on yard tracks.

Magnolia Tower (First and Chestnut Sts.): Limits extend on eastward main track from signal 1600 feet west of WPRR crossing to dwarf signal 500 feet east of WPRR crossing, and on westward main track from signal 500 feet east of WPRR crossing to dwarf signal 480 feet west of crossing.

Fruitvale: Limits on main track extend from Signal Bridge 123 to Signal Bridge 126 at Fruitvale Avenue.

Melrose: Limits extend between interlocking signals on old electric line and on the drill track between interlocking signal on west side of San Leandro Blvd. and interlocking signal on east side of WPRR crossing and is under the control of WPRR train dispatcher.

When signals do not display proceed indication after approach circuit is occupied, a member of crew must contact WPRR train dispatcher by telephone for instructions and permission to operate push button time release.

When necessary to perform switching within the interlocking limits, a member of crew must obtain clock time limit from WPRR train dispatcher and be governed by signal indication. When Klaxon horn is sounded, SP movements must immediately clear interlocking limits.

Cars or engines must not be left on approach circuits located in advance of interlocking signals.

Telephones, push buttons and instructions for operation of push button time release and dual control switches located in boxes on interlocking signal governing eastward movements on old electric line, on side of Instrument House and on instrument case adjacent to crossing of drill track and WPRR track.

Elmhurst: Interlocking limits extend either side of Junction switches between eastward SA signals on eastward and westward tracks and westward SA signal on Stonehurst Line, westward SA signals on Niles and Santa Clara Lines. The Junction switch of Niles Line and Santa Clara Line MP 13.47, is power operated, dual control switch controlled by Operator at Fruitvale.

When necessary to hand throw dual control switch or when extensive switching is to be performed over the power switch permission must be secured from Operator at Fruitvale.

Interlocking portion of SA signals controlled by Operator at Fruitvale Tower.

Trains and engines desiring to make an eastward movement from the Westward Track over the crossover, will receive permission from the Operator to hand operate the spring switch. Member of crew, after throwing the switch, will notify Operator the switch is over and points in position before Operator will clear the Signal (4R) for such movements.

When movement is completed switch must be returned to normal position.

Niles Tower: Limits extend from dwarf interlocking signal on Niles line and interlocking signal on Tracy line, 1685 feet west of WPRR crossing to Signal 298 on Milpitas line and to Signal 425 on Centerville line.

Eastward interlocking signal 650 feet west of WPRR crossing governs movements as follows:

Top unit governs movements to Milpitas line.
Lower unit governs movements to Centerville line.

When Signal 420 or Signal 422 display stop indication, train or engine must stop and not proceed until signal displays proceed indication or permission obtained from Operator.

Junction switches are dual control switches and are under control of Operator. When necessary to hand throw these switches, permission must be obtained from Operator. Instruc-

tions for operation of dual control switch machines are posted in telephone booths.

Derailed near east end of yard Track No. 1 at Niles is electrically locked and under control of Operator at Niles Tower. Instructions for operation by hand when authorized by Operator are posted inside of lock box.

Whistle signals:

- To San Jose, o — —,
- To Centerville, — o —,
- To Niles, o — o,
- To Tracy, — o — o.

Newark: Limits extend from signal 50 feet east of wye switch on Centerville line to signal 1150 feet east of wye switch on Santa Clara line, and to signal 650 feet west of wye switch on Elmhurst line, and to dwarf signals on Redwood Jct. line near Newark station building.

West Zone: Main track limits extend from eastward SA signal at MP 30.06 to westward dwarf signal at MP 30.43.

South Zone: Main track limits extend from eastward dwarf SA signal at MP 36.99 to westward dwarf SA signal at MP 37.01.

Interlocking limits on Oakland Wye extend from eastward SA signal at MP 30.36 in West Zone to eastward SA signal at MP 36.99 in South Zone.

Crossover from Santa Clara main track to Santa Clara siding is equipped with dual control switch machines under control of Operator.

Switch at west end of Newark Yard, MP 31.01, Elmhurst-Santa Clara Line, is power operated under control of Operator. Westward interlocking signal governing movement over this switch is a one unit signal and will display indications per Rule 281, Fig. F; Rule 285, Fig. G; and Rule 290, Fig. I.

San Francisco Bay Drawbridge: Limits extend from eastward SA Signal at MP 32.5 to westward SA Signal at MP 32.8.

Tracy: Limits extend from westward SA Signal at MP 70.68 to eastward SA Signal at MP 70.64 on the Niles line and to eastward SA Signal at MP 82.18 on the Martinez line.

Position of the junction switch between Niles Subdivision MP 70.66 and Martinez Subdivision MP 82.16 controlled by switchman from control panel located at the base of the yardmaster's tower.

The junction switch between Niles Line MP 70.66 and Martinez Line MP 82.16 is equipped with a dual control switch. When necessary to hand throw this switch, permission must be secured from the yardmaster.

Interlocking portion of the SA signal will be controlled by Tracy Operator.

The operator shall determine that switch has been lined for proper route before clearing a signal.

RULE 680. AUTOMATIC INTERLOCKING

Fruitvale Ave. Bridge MP 9.8: Interlocking limits extend between interlocking signals in approach to both ends of the bridge.

WPRR Crossing (Stonehurst Branch), MP 13.80: Limits extend between interlocking signals in approach to both sides of crossing.

Elmhurst: When handling automatic interlocking WPRR crossing at Stonehurst Branch at 105th Avenue, be governed by the following:

Movements over crossing governed by interlocking signals located 150 feet from each side of crossing. Approach to interlocking signals indicated by warning signs located 1,000 feet from interlocking signals.

When trains or yard movements are stopped by interlocking signals governing the use of automatic interlocking, Flagman must be sent to crossing to operate time release located in box marked "S.P.Co." at crossing.

Release must not be operated when trains are between interlocking signals or seen approaching on intersecting track.

After release has been operated, if interlocking signal does not indicate proceed, red light should be displayed above release indicating Interlocking Signals on WPRR are in stop position. Trains may then proceed as provided by Rule 663-C.

If red light is not displayed train may proceed only as provided by Rule 663-C.

Instructions for operating time release are posted inside of door of release box.

Radum, WPRR crossing MP 67.8 (San Ramon Branch): Limits extend between eastward SA signals just west of WPRR crossing and westward interlocking signals just east of WPRR crossing on both legs of wye track.

Eastward interlocking signal on east leg of wye is provided with time circuit, which will cause signal to display stop indication after expiration of four minutes.

Clearing circuit located 100 feet in advance of signal will clear signal for train to complete movement over crossing.

If signal does not display proceed indication after clearing circuit is occupied a member of the crew must actuate time release. (Wait four minutes before actuating time release.) Instructions for operating time release are mounted in time release box. Member of crew will call WPRR Dispatcher on phone located at time release box for movement over crossing.

Signals governing movement from San Ramon Branch to main track will not display proceed indication until junction switch on main track is lined for movement.

RULE 705. LETTER TYPE INDICATORS

Indicators located as follows:

Illum. Letter	On Signal	Approaching	Authorizes and Requires Movement as Follows:
W.....79....	Oakland (5th Avenue)		Westward trains stop short of Signal 79 and wait until indicator is extinguished.
W.....273...	Redwood Jct.		Westward trains via Dumbarton must stop short of Signal 273 and wait until indicator is extinguished.
W.....7 ft. mast	MP 44.20..	Santa Clara...	Eastward trains, except first-class, stop short of Reed St. and wait until indicator is extinguished and flashing white light is displayed. Display of flashing white light authorizes movement to interlocking limits Santa Clara.

HOT BOX DETECTORS

SCANNER SITE

MP	Type	Direction	Location	Location of readout
12.4...	D	West.....	Elmhurst....	West Oakland
37.5...	CEast and West....	Sunol	

(Refer to Rule 705, All Subdivisions.)

GENERAL REGULATIONS

RULE 825:

Altamont: Portable rail skids located at both ends of siding. (Refer to Rule 825 All Subdivisions.)

Tracy: All freight trains entering Tracy Yard will tie no less than three hand brakes on the east end unless instructed otherwise by yardmaster.

Train crews must not release hand brakes on outbound trains until engine is coupled and brake pipe is charged.

RULE 827. At following crew change points, trains handling Flammable Compressed Gas (FCG) must be given a rolling inspection by outbound train crew unless otherwise instructed:

- San Jose Yard
- Santa Clara
- Oakland

Dragging and/or derailed equipment detector installed at the following locations:

MP	Location	Direction
29.5	Henderson	East and West
35.0	Dumbarton	East and West
23.6	Baumberg	East and West
32.2	Newark	East and West
28.0	Decoto	East and West
31.1	Niles	East and West

(Refer to Rule 827, All Subdivisions.)

RULE 830. Milpitas: Westward trains not exceeding 3750 feet making pick-up or set-out at Milpitas will stop their train with rear end west of Curtis Way crossing, DA 41.1.

Westward trains exceeding 75 cars making set-out or meeting eastward trains will stop their train east of Capitol Avenue and wait until eastward train is in clear before proceeding.

Eastward trains having set-out or pick-up will leave their train west of State Highway Crossing at MP 40.0.

Newark: Between the hours of 7:00 AM and 7:00 PM, eastward trains arriving Newark on the Dumbarton Line must remain West of Willow Street (Chemical Crossing), if making pickup or setout.

Agnew: Switching movements within Pittsburg—Des Moines Plant must not exceed 5 MPH under any circumstances. Engine bell must be sounded continuously and engine horn sounded frequently.

Mulford: Westward trains picking up or setting out on Storage Tracks 1, 2 and Old Siding, must leave their train east of Fairway Drive while performing work, unless train, plus pick-up, will fit between Davis Street and Williams Street, far enough to avoid crossing gates remaining in down position.

Eastward trains making setouts on Cleaning Yard Tracks, Mulford, will leave their train 200 feet west of Davis Street.

Livermore: When eastward trains too long to fit between switches have a meet at Livermore, the eastward train will stay west of Morrietta Blvd., until the westward train has moved into clear before proceeding.

AIR BRAKE RULES

RULE 17. Retaining valves must be used on freight and mixed trains on descending grades as follows:

Westward, Altamont to MP 52; Eastward, Altamont to MP 63.

WITHOUT DYNAMIC BRAKE IN OPERATION

One retaining valve for each 80 tons in train. If gross tonnage exceeds 80 tons per operative brake, retaining valves must be used on all cars and speed must not exceed 15 MPH.

WITH DYNAMIC BRAKE IN OPERATION

*Permissible Tons Per Unit Without Retaining Valves

	Basic-Dynamic Brake		Extended Range Dynamic Brake		
	4 Axle	6 Axle	4 Axle	6 Axle	8 Axle
WITH dynamic brake in operation but without pressure maintaining system of braking	1000	1475	1250	1850	2475
WITH dynamic brake in operation and with pressure maintaining system of braking	1600	2400	2000	3000	4000

If permissible tonnage is exceeded, one retaining valve must be used for each 150 tons in excess thereof.

*If any unit having basic dynamic brake is operated with units having extended range dynamic brake, all units in consist must use tonnage authorized for units having basic dynamic brake.

Locomotive classes AF628, AF630, EF425, EF623, EF625, EF630, EF636, GF425 (except units 6700-6727), GF628, GF630, GF633, EF850B and GF850 are equipped with extended range dynamic brake.

RULE 22. Warm Springs: Trainmen must not couple air hoses on pick-ups at Warm Springs until it is ascertained that all cars to be picked up are in the track, and trainmen on Warm Springs Switcher crew must not perform switching on, or couple other cars onto the pick-ups without instructions from tower employe who will see to it that members of pick-up crew are notified in advance.

RULE 24-F. Applies only on direct movements between:
 East Oakland and West Oakland
 East Oakland and Oakland (16th Street—Desert Yard)
 West Oakland and Alameda Belt Line
 Oakland (16th Street—Desert Yard) and Alameda Belt Line
 East Oakland and Alameda Belt Line

When movement commences at either West Oakland or Oakland (16th Street—Desert Yard), where carmen are on duty, carmen will be responsible to couple air hoses and make test as prescribed by this Rule.

Responsibility to know that air test has been completed in all cases rests with yard engine foreman and yard engineer.

MISCELLANEOUS

1. Unless authorized by Superintendent, cars containing Flammable Compressed Gas (FCG) will not be handled between Niles Jct. MP 29.6 and Tracy MP 66.5 (via Altamont).

2. Engines listed must not operate on tracks shown below:

Class of Engine	Restricted Tracks
All Henderson	Bay Road Salvage spur beyond a point 400 feet from point of switch.
All Alvarado	Holly Sugar beyond east switch of interchange track from high line 150 feet west of beet unloading pit.

3. Load limit (car and contents):

- *Redwood Jct.-Tracy 263,000 pounds
- *Oakland-San Jose via Niles 263,000 pounds
- *Elmhurst-Santa Clara 263,000 pounds

*A gross weight of 315,000 pounds is allowable for uniformly loaded four-axle cars with minimum axle spacing of 6 feet 0 inches and minimum distance of 37 feet 0 inches center to center of trucks, also wheels 38 inches or more in diameter.

Exception: FMLX tank cars series 19000-19023 and GATX tank cars series 94050-94054, 94056-94092 which are equipped with 34-foot 8-inch truck centers may operate from Ogden to Newark with no more than two such cars coupled together.

Unless authorized by Superintendent heavier loads must not be handled.

4.

LOCATION OF OVERHEAD AND SIDE STRUCTURES
NOT STANDARD CLEARANCE ON MAIN
TRACK AND SIDINGS

Mile Post	Location	Description	Type
6.0	Magnolia		
		Tower	Overhead
		Adeline Street overpass	Overhead
28.9	Henderson	Highway underpass	Side
32.5	Dumbarton	San Francisco Bay Drawbridge	Side
34.5	Dumbarton	Newark Slough drawbridge	Side
42.0	Shinn	Blue Diamond	Overhead
42.9	Niles Jct.	Highway underpass	Side
30.8	Dresser	Alameda Creek bridge	Side
31.5	Farwell	Alameda Creek bridge	Side
38.3	Pleasanton	WPRR overhead bridge	Overhead
55.4	Altamont	Highway overhead bridge	Overhead and side
57.9	Altamont	Tunnel	Side
18.2	San Lorenzo	San Lorenzo Creek bridge	Overhead and side
24.2	Decoto	WPRR overhead bridge	Overhead
26.1	Decoto	Columbia Steel	Overhead
29.4	Niles	Highway underpass	Side
36.2	Drawbridge	Warm Springs Slough bridge	Side
29.4	Niles Tower	Street underpass	Side
34.3	Snoboy	Fudena Shed	Side
36.3	Warm Springs	General Motors Buildings Tracks 2, 5, 6 and 7	Overhead

5. **Warm Springs:** All movements must stop and trainmen detrain before entering General Motors Buildings. Do not set out on No. 1 track without permission of train dispatcher.

6. **Tracy:** All freight trains entering Tracy Yard slow to 8 MPH passing Tracy Yard Office to allow visual verification of consist.

7. **San Jose:** All freight trains entering San Jose Yard Milpitas Line slow to 8 MPH passing San Jose Yard Office to allow visual verification of consist.

8. **Alviso:** When switching Santa Clara-San Jose Pollution Control track, three gates must be closed and locked upon leaving Industry.

SPECIAL INSTRUCTIONS—NILES SUBDIVISION

SPEED RESTRICTIONS FOR TRAINS: Maximum speed of trains in territory shown below is subject to further restrictions applicable to engines in the train as shown in **SPEED RESTRICTIONS FOR ENGINES** appearing on page 20, and **MAXIMUM SPEED PERMITTED WITH CERTAIN EQUIPMENT** and **OTHER MAXIMUM SPEEDS** appearing on page 21 of Special Instructions for All Subdivisions. Speed must be further reduced as prescribed by speed signs, except as specifically authorized by Special Instructions herein, or by Timetable Bulletin.

All trains must run carefully during and after heavy storms, particularly when the track is apt to be affected. When fog, storms or other conditions obscure track or signals, speed of trains must be so reduced as to permit strict observance of signals and **INSURE SAFETY, REGARDLESS OF TIME.**

TERRITORY			PASSENGER TRAINS	FREIGHT AND MIXED	TERRITORY			PASSENGER TRAINS	FREIGHT AND MIXED
MP	MP	Column:	1	2	MP	MP	Column:	1	2
EASTWARD, REDWOOD JUNCTION TO TRACY:					WESTWARD, TRACY TO REDWOOD JUNCTION:				
26.23 to 26.25 (junction switch)			20	20	71.16 to 70.66 (jct. Los Banos line)			35	35
26.25 to 28.35			35	35	70.66 to 66.30			50	50
28.35 to 28.41 (end double track)			25	25	66.30 to 65.80			40	40
28.41 to 31.51			45	45	65.80 to 63.00			50	50
31.51 to 33.00			20	20	63.00 to 57.60			25	25
33.00 to 37.00			45	45	57.60 to 57.50			20	20
37.00 to 37.51 (Newark)			15	15	57.50 to 52.00			25	25
37.51 to 42.23			30	30	52.00 to 47.48			50	50
42.23 to 43.00 (29.60) (Niles Jct.)			15	15	47.48 to 46.30 (Livermore)			20	20
29.60 to 37.10			25	25	46.30 to 41.43			45	45
37.10 to 40.57			35	35	41.43 to 40.57 (Pleasanton)			25	25
40.57 to 41.43 (Pleasanton)			25	25	40.57 to 37.10			35	35
41.43 to 46.30			45	45	37.10 to 29.60 (43.00) (Niles junction)			25	25
46.30 to 47.48 (Livermore)			20	20	43.00 to 42.23			15	15
47.48 to 52.00			50	50	42.23 to 37.51			30	30
52.00 to 57.50			25	25	37.51 to 37.00			15	15
57.50 to 57.60			20	20	37.00 to 33.00			45	45
57.60 to 63.00			25	25	33.00 to 31.51			20	20
63.00 to 65.80			50	50	31.51 to 28.41			45	45
65.80 to 66.30			40	40	28.41 to 26.25			35	35
66.30 to 70.66			50	50	26.25 to 26.23 (jct. switch)			20	20
70.66 to 71.16 (junction Los Banos)			35	35					
NILES TO SAN JOSE YARD:					SAN JOSE YARD TO NILES:				
29.00 to 29.81			15	15	47.39 to 43.55			15	15
29.81 to 43.55			40	40	43.55 to 29.81			40	40
43.55 to 47.39			15	15	29.81 to 29.00			15	15
WEST OAKLAND TO SANTA CLARA:					SANTA CLARA TO WEST OAKLAND:				
4.40 to 7.20			15	15	44.59 to 44.48			15	15
7.20 to 13.43			30	30	44.48 to 41.60			35	35
13.43 to 13.50 (jct. switch and crossover)			15	15	41.60 to 31.00			60	55
13.50 to 15.50			25	25	31.00 to 28.79			35	35
15.50 to 28.79			60	55	28.79 to 15.50			60	55
28.79 to 31.00 (Newark)			35	35	15.50 to 13.50			25	25
31.00 to 41.60			60	55	13.50 to 13.43 (jct. switch)			15	15
41.60 to 44.48			35	35	13.43 to 7.20			30	30
44.48 to 44.59			15	15	7.20 to 4.40			15	15

SPEED RESTRICTIONS FOR TRAINS HANDLING CARS CONTAINING FLAMMABLE COMPRESSED GAS. See Page 43.

All freight and mixed trains are restricted to Column 2 speeds except LAOAT and OALAT may be authorized by train order to operate at Column 1 speeds not exceeding 65 MPH, provided trains contain no restricted cars and do not exceed requirements of tons per operative brake below:

Number of Cars	Tons Per Operative Brake
1 to 70	70
71 to 75	69
76 to 80	68
81 to 85	67
86 to 90	66
91 to 95	65
96 to 100	64
101 to 105	63
106 to 110	62
111 to 115	61
116 to 120	60
121 to 125	58
126 to 130	56
131 to 135	54
136 to 140	52
141 to 145	50

SPEED RESTRICTIONS FOR OTHER THAN MAIN TRACKS. See Page 43

SPECIAL INSTRUCTIONS—NILES SUBDIVISION

SPEED RESTRICTIONS FOR TRAINS: Maximum speed of trains in territory shown below is subject to further restrictions applicable to engines in the train as shown in **SPEED RESTRICTIONS FOR ENGINES** appearing on page 20, and **MAXIMUM SPEED PERMITTED WITH CERTAIN EQUIPMENT** and **OTHER MAXIMUM SPEEDS** appearing on page 21 of Special Instructions for All Subdivisions. Speed must be further reduced as prescribed by speed signs, except as specifically authorized by Special Instructions herein, or by Time-table Bulletin.

All trains must run carefully during and after heavy storms, particularly when the track is apt to be affected. When fog, storms or other conditions obscure track or signals, speed of trains must be so reduced as to permit strict observance of signals and **INSURE SAFETY, REGARDLESS OF TIME.**

TERRITORY			PASSENGER TRAINS	FREIGHT AND MIXED	TERRITORY			PASSENGER TRAINS	FREIGHT AND MIXED		
MP	MP	Column:	1	2	MP	MP	Column:	1	2		
EASTWARD, AGAINST CURRENT OF TRAFFIC:					WESTWARD, AGAINST CURRENT OF TRAFFIC:						
West Oakland to Elmhurst, except:					30	30	Elmhurst to West Oakland				
(subject to lesser speeds on westward track)							(subject to lesser speeds on eastward track), except:				
9.55 to 10.13					20	20	10.13 to 9.53				
ELMHURST TO NILES JUNCTION:					NILES JUNCTION TO ELMHURST:						
13.43 to 13.50 (Jct. Switch)					15	15	29.60 to 29.00				
13.50 to 29.00					30	30	29.00 to 13.50				
29.00 to 29.60					15	15	Thru Jct. Switch MP 13.43				

Trains handling cars containing Flammable Compressed Gas (FCG) must not exceed 55 MPH. Where maximum authorized speed is less than 55 MPH and more than 25 MPH, train must be operated at 5 MPH less than maximum authorized speed. Where maximum authorized speed is more than 35 MPH such trains are further restricted between the following locations where 30 MPH must not be exceeded:

- Redwood Jct. MP 26.20 and Niles Jct. MP 42.23
- San Jose Yard MP 47.39 and Niles MP 29.00
- Santa Clara MP 44.59 and West Oakland MP 4.40
- Niles Jct. MP 29.60 and Elmhurst MP 13.50

SPEED RESTRICTIONS FOR OTHER THAN MAIN TRACKS

	With Caution Not Exceeding MPH
Through sidings, yard and other tracks, wyes, balloon tracks, crossovers and turnouts:	10
Through turnouts on other than sidings	10
On branches	10
Ravenswood, on spur	10
East Pleasanton, all yard tracks	10

SPECIAL INSTRUCTIONS—MARTINEZ SUBDIVISION

RULE 10-J. Martinez to Tracy. Speed sign to left of track with two tracks intervening.

Westward	Reading
MP 48.55	60

Speed sign to left of track:

Westward	Reading
MP 51.68	25
MP 40.70	30

RULE 14(1). Whistle must be sounded on westward trains immediately on emerging from Tunnel No. 1 at Oleum.

RULE 26. West Oakland (Passenger Yard): Electric switch locks on west switches Tracks 2 to 5, inclusive, Track 19 and on east switches Tracks 14 to 18, inclusive.

Power operated derails on west end Track 6 and on east end Tracks 2 to 6, inclusive, and Track 13.

RULE 26-A. Richmond: Signal system is installed indicating position of overhead bridge on track No. 2149, Myers Drum Company. Light signal is located at west end of dock on south side of track. Red aspect indicates bridge is over track, clearance is impaired, and track must not be entered until bridge has been retracted. Green aspect indicates bridge is retracted. If signal light is out indication is the same as red aspect and track must not be entered until bridge is known to be retracted.

RULE 82-A. Trains terminating at Bays will register at West Oakland.

Trains originating Desert Unit, West Oakland, will obtain train orders and clearance at West Oakland.

Trains to Western Division at Sacramento originating at Roseville or Elvas must obtain two clearances at Roseville, one endorsed "Sacramento Division" and the other endorsed "Western Division." Train Orders addressed to such trains at Roseville will apply the same as if addressed to them at Sacramento and may leave Sacramento without obtaining a clearance.

Sacramento Northern trains originating at Sacramento 19th & B Streets, or Sacramento-Yolo Port District connection to Western Division will obtain clearance at Sacramento.

RULE 83-A. At the following stations trains indicated will register:

West Oakland	} Trains originating or terminating.
Schellville	
Ozol	
Davis	
Avon	
Pittsburg	
Suisun-Fairfield	} Trains originating or terminating and trains to or from Schellville Branch.
Port Chicago	

Sacramento: Trains originating or terminating, except extra trains passing Sacramento to or from Western Division.

RULE 83-B. At open train-order offices trains may register by ticket as follows:

Davis	All trains to or from West Valley Sub-division, Sacramento Division. All Sacramento Northern Trains.
Lombard	All trains from Schellville to Suisun-Fairfield. All trains from Suisun-Fairfield to Schellville.
Port Chicago	Nos. 710 and 711.
Sacramento	Nos. 5 and 6.

RULE 93. Yard limits in which the provisions of Rule 93 will apply are established at the following points:

West MP	East MP
	Oakland (Martinez line) 17.35
	Oakland (Niles line) 15.82
	Oakland (Alvarado line) 14.01
22.50	Pinole 24.80
27.97	Port Costa 39.24
	Port Costa (Benicia spur) End of track
	Port Costa (Tracy line) 37.08
47.05	Suisun-Fairfield 52.45
	Suisun-Fairfield (Schellville Branch) 51.25
58.00	Elmira 61.00
66.00	Dixon 68.10
74.20	Davis 77.37
	Davis (Tehama line) 78.00
37.50	Avon-Port Chicago 42.93
	(San Ramon Branch) 40.50
46.31	Pittsburg 52.20
61.00	Brentwood 62.70
78.50	Tracy (Martinez-Los Banos line) 85.64
66.50	Tracy (Niles-Lathrop line) 74.37
59.85	Napa Jct. (Cordelia-Schellville line) 64.56
	Napa Jct. (Napa line) 71.50
	Napa Jct. (Vallejo line) End of track
71.72	Schellville (Lombard-Ignacio line) NWP 38.93
	Schellville (Sonoma line) NWP 41.70

RULE D-97. Will apply as follows: Between Oakland (16th Street) and Sacramento; Martinez and Mococo.

RULE 98. Railroad crossings at grade not interlocked: Stop not less than 10 feet nor more than 50 feet from the following crossings and send flagman ahead who must ascertain that no movement is approaching on intersecting track before giving signal to proceed:

- Oakland ATSF Ry., crossing of Surryne Drill Track, east of AT&SF Interchange.
- ATSF Ry., two crossings of S.P. Connection of OT Ry's Interchange at 34th and Wood Streets.
- Spur track serving Consolidated Freightways, Inc., at 26th and Wood Streets, crossing the AT&SF Wye Track.
- Richmond AT&SF Ry., Shipyard Lead from AT&SF 8th Street Yard, crossing to Seaver Avenue, Drill Tracks, near 14th Street.

Trains and engines must approach with caution, and may move over the following crossing without stopping, if crossing clear and no movement approaching on intersecting line.

Napa Jct.: Big Balloon Track crossing of Napa-Vallejo main track. Schellville line trains using Big Balloon Track need not stop.

Stop clear of the following crossings, then proceed if no movement approaching on intersecting line:

Napa Jct.: Napa-Vallejo main track crossing of Big Balloon Track. Napa-Vallejo line trains must stop.

RULE 103-A. Automatic Crossing Gates:

On double track automatic crossing gates do not operate for against current of traffic movements at territory speeds and Rule 103-A will apply.

Suisun-Fairfield: Eastward trains stopping at station will stop clear of crossing circuit 80 feet west of Union Avenue designated by sign reading "STOP" on instrument case.

Sound detector microphone is located at instrument case, before starting engineman must sound whistle to lower or keep crossing gates down.

Busch: Lead serving Anheuser-Busch, rectangular signs, red background with white lettering reading STOP, have been installed on both sides of Cordelia Road (Crossing No. AA-52.1-3-C). Movements must be brought to a complete stop at these signs prior to proceeding over crossing and movements over crossing must be protected by a member of the crew.

Port Chicago: Gates are not actuated when trains are stopping at station until train starts to move toward crossing, and speed of 10 MPH must not be exceeded until gates are down.

Pittsburg: Railroad Ave., MP 48.9, Sound Detector microphone located adjacent to siding just west of crossing. Eastward trains stopped in siding, before starting, must sound whistle to lower or to keep crossing gates down.

Lombard: Highway 29 MP-61.7 an illuminated advance warning sign is in service to advise northbound motorists of impending crossing gate operation. The warning sign is connected to controls of automatic crossing gates and is ILLUMINATED before crossing gates are activated.

The crossing gates on east side and west side of the crossing are equipped with flashing white lights to indicate that all gates are down.

Movements that stop approaching Highway 29 shall not enter the crossing unless white light is flashing or it is otherwise known that all gates are down and the crossing is clear of vehicles. Eastward movements shall stop west of instrument case approximately 225 feet west of crossing. Westward movements stop at "STOP" board approximately 200 feet east of the crossing. Movements so stopped shall lower crossing gates by operating key control on gate each side of the crossing.

Sound detectors are installed at clear point of west siding switch and west yard switch. Westward trains entering the main track over these switches will sound whistle into these detectors before fouling main track.

Operation of key control or sound detector will illuminate highway warning sign immediately, crossing gates will function about 10 seconds later.

Napa: When switching on or across any street crossing, city ordinance requires that member of crew must protect crossing.

Oak Knoll: Do not move across Oak Knoll Avenue, Crossing MP 74.29, until gates are down or flag protection is provided.

Public Utilities Commission orders prohibit operation of train, engine or car over the following crossings unless first brought to a stop and traffic on the highway protected by a member of the crew:

Location	Crossing Number
Oakland	
Ferry St., Port of Oakland Track connecting to Oakland Terminal Railway.....	A-4.25-C
Dolphin & Maritime Sts. Port of Oakland, Army Postal Tracks.....	A-4.63-C
14th Street Tracks leading to Merchants Express..	A-5.3-C
Seventh Street on Spur Serving Doran Co.....	A-5.58-C
18th & Cypress Streets'Drill Track.....	A-6.11-C
West Grand Ave. & Kirkham St.—Drill Track....	A-6.83-C
Shellmound	
Crossing Hollis St., on Spur to Western Asbestos Co.....	A-7.83-C
Berkeley	
Crossing Addison St. on Spur.....	A-9.1
Entering Virginia St. on Spur.....	A-9.6
Crossing 4th St., on Virginia St. Spur.....	A-9.72-C
Richmond	
Crossing 14th St., on Seaver Ave. Drill.....	A-14.91-C
Crossing 14th St., on Cannery Spur.....	A-15.07-C
Crossing 14th St., on Cannery Spur.....	A-15.11-C
Crossing 14th St. and Hall Ave., on Spur to Ford Motor Company.....	A-15.14-C
San Pablo	
Imperial Glass Co., Spur crossing Belmont Avenue.	A-16.6
Suisun-Fairfield	
Crossing Union Ave. when moving against current of traffic.....	A-49.0
Port Chicago	
Crossing County road on leads to Naval Supply Base.....	B-40.8-C, B-41.0-C
Pittsburg	
Crossings on industry spurs.....	B-47.8-C, B-48.1-C
Los Medanos	
Crossing California Avenue on Antioch Building Materials Spur.....	B-50.6-C
Brentwood	
Crossing highway on Irrigated Farms spur.....	B-62.6-C
Vacaville	
Crossing on Standard Oil spur.....	AD-63.15-C

RULE 104. The normal position of rigid switches at the end of double track and at junctions, is as follows:

Avon..... San Ramon line, for siding.
Suisun-Fairfield Napa Jct. line for east leg of wye to Sacramento.

Napa Jct..... Suisun-Fairfield line, for Schellville line, at MP 61.60.

Schellville..... Schellville Branch, for NWPRR main track.

Napa Jct.: Track known as Big Balloon is Schellville line main track.

RULE 105. Suisun-Fairfield: Westward siding is first track north of westward main track extending from MP 48.65 to MP 48.10.

Westward trains entering siding, if length of train permits, must stop with rear of train clear of Union Avenue crossing.

North siding is first track north of main track on Schellville Branch extending from MP 48.94 to MP 49.95, to be used by trains from Schellville Branch to Sacramento line. May be used by other trains only when instructed by dispatcher.

Davis: Eastward siding is first track south of eastward main track extending from MP 75.88 to MP 76.60.

Westward siding is first track north of westward main track extending from MP 77.03 to MP 75.73.

North siding is first track west of main track on Gerber line extending from MP 76.03 to MP 76.75.

RULE 107. Station train indicators are provided in approach to following stations:

EASTWARD

Martinez (at Signal 340)

When illuminated these indicators will convey the following information:

TRAIN—Train at platform on opposite track.

CLEAR—Indicator in service

When neither **TRAIN** or **CLEAR** is illuminated, indicator is out of service and report must be made to Chief Train Dispatcher as soon as practicable.

Particular care must be exercised at such stations when passengers are entraining and detraining and when view of station is limited. Under such circumstances Passenger trains and Freight trains, yard drags and engines on eastward track must stop and take necessary precautions to avoid injury to patrons.

RULE 221. West Oakland and Avon are train-order offices only for trains originating.

RULE D-251. Will apply as follows: On westward track between Sacramento and Oakland (16th Street). On eastward track between Oakland (16th Street) and Sacramento. At Oakland, Main Track 4 is designated Eastward Main Track and Main Track 3 is designated Westward Main Track.

RULE 306. The following block signals equipped with triangular plate bearing the letter "P" have included in their control limits some special protective device. Interlocking signals are listed as "P-I" or "P-SA."

Eastward Signal	Protection	Westward Signal
P-I	Collision detector, highway underpass west end of wye, Davis.....	P-I
P-510	Spring switch, end double track, Mococo.....	P-359
P-710	Collision detector, highway underpass, MP 50.97 (Los Medanos).....	P-519
P-710	Spring switch, junction to Los Banos line, Tracy	
	Spring switch to yard, Tracy.....	P-829
*P-SA	Dragging equipment detector, MP 31.81E....	
	Dragging equipment detector, MP 36.4W....	P-347

*A 2-indication, light type indicator installed just below interlocking signal P-SA located 550 feet west of draw span, and a 2-indication, light type indicator attached to the mast of signal P-347, are designated as dragging equipment indicators.

They will display red aspect with signal at "STOP" when actuated by dragging equipment detector, and lunar white aspect when not actuated by dragging equipment detector.

Crews of trains stopped by signals P-SA or P-347 with the red indicator light illuminated, will inspect their train for dragging equipment.

Signal may be cleared and indicator light changed to lunar white by pressing push button located on signals P-SA and P-347 after first complying with Rule 306.

RULE 505. AUTOMATIC BLOCK SIGNAL SYSTEM

Cannon: Electric locks installed on crossover switches and on switch for Sacramento Northern connection to the eastward track.

Tracy: Top unit of Signal P-710 governs movements toward Lathrop. Bottom unit governs movement toward Los Banos.

Signals 713, 825 and 827 are approach clearing. Signal 713 will revert to stop position when 600 ft. track circuit in front of station building is occupied for approximately four minutes. A second approach circuit is located 185 feet east of MacArthur Blvd. to clear Signal 713 for movements to continue.

Approach circuit to Signal 825 on Track No. 1 begins 185 feet east of MacArthur Blvd.

Approach circuit sign is north of main track 185 feet east of MacArthur Blvd.

Top unit of Signal P-829 governs movements on main track. Bottom unit governs movements to yard.

Signals 716 and 723 on Track No. 1 at crossovers near MP 72 govern movements over crossovers to enter main track only. These signals will not be lighted when crossovers are lined normal. Time circuits are provided to cut out west control of Signal 716, 2 minutes and 40 seconds after crossover is lined; east control of Signal 723, 6 minutes and 10 seconds after crossover is lined; and west control of Signal 736, 5 minutes and 20 seconds after crossover is lined. If signals fail to clear at expiration of time interval, Rule 507 will govern.

Top unit of Signal 736 on Track No. 1 governs movements to the freight lead. The center unit governs movements to the main track, over the crossover. The bottom unit, when displaying a lunar light governs movements to the Freight Lead per Rule 289.

Tracy: When Signal 816, approach signal to West End Tracy displays stop indication, eastward trains may proceed after receiving oral authority from operator at Tracy but must comply with Rule 507.

Tracy: Trains moving on main track in either direction will move between junction switch, MP 70.62, and west switch of train yard by block signals whose indications will supersede the superiority of trains.

RULE 512. Cannon: Block indicators adjacent to east switch of crossover and switch to Sacramento Northern connection apply to the eastward main track only.

RULE 513. Cannon: Before making crossover movement, westward trains must obtain permission from operator Davis.

On eastward trip before entering main track, Sacramento Northern trains must obtain permission from operator at Davis.

RULE 516. OVERLAP POSTS

Los Medanos (250 feet west of Signal 509).....Westward trains.

RULE 535. SPRING SWITCHES

Spring switches equipped with facing point locks are located as follows:

Location	Normal Position
Mococo.....	End double track.....Westward track
Tracy.....	Junction switch MP 71.16 to Los Banos line.....Stockton Sub-division

Spring switches not equipped with facing point locks are located as follows:

*West Oakland.....	1st and 16th St. line.....16th St. line
*Stege.....	Seaver wye.....East leg of wye
*Ozol.....	East end siding.....Main track
*Ozol.....	West end siding.....Main track
Martinez.....	Junction switch.....Bridge line
*Suisun-Fairfield.....	East end north siding.....Main track
*Lombard.....	East end siding.....Main track
*Lombard.....	West end siding.....Main track
Tracy.....	MP 82.98 Los Banos main to yard.....Yard Track

*Equipped with switch-point indicator.

RULE 605. INTERLOCKING

On double track within Oakland yard limits signal operator may arrange to move trains from one tower to another against the current of traffic, after having an understanding by telephone for each movement. Before moving trains against current of traffic operator must know that track to be used is clear of opposing engines and trains.

Trains and engines departing westward limits, West Oakland interlocker toward Bays are operated on yard tracks.

Oakland, 16th St.: Limits extend from signals 427 feet east of MP 5 on the Martinez line to signals at MP 6.55.

Hand throw crossover from Desert Lead to No. 1 Freight Lead has been installed at MP 5.9, Desert Yard.

Crews making movement from Desert Lead to No. 1 Freight Lead will secure authority from 16th Street towerman to pass signal located near west switch of the crossover into 16th Street interlocking.

West Oakland (First and Cedar Sts.): Limits extend from signals at Cedar Street on Niles line to signals 427 feet east of MP 5 on Martinez line; eastward signals on First Street lead 227 feet west of First Street freight lead crossing; eastward signal on washer track 144 feet west of freight lead; eastward signals on 16th Street lead at clear point, 187 feet west of freight lead switch; westward signals on diesel tracks, coach lead and yard leads 40, 50 and 60.

Martinez: Limits extend on eastward main track from home signal 600 feet east of station building to westward dwarf signals 938 feet east of station building on Tracy line and on Suisun Bay bridge line.

Limits extend on westward main track from signals 2350 feet east of station building on Tracy line and on Suisun Bay bridge line, to interlocking signal 50 feet west of junction switch. Operator's permission must be obtained before fouling westward main track at crossover and switches from spurs to westward main track between Martinez and Ozol.

Suisun Bay Bridge, Martinez: Bridge zone limits extend on both tracks from home signals 800 feet east of draw span to home signals 550 feet west of draw span.

Davis: Limits extend on eastward and westward main tracks from interlocking signals at MP 75.25 to interlocking signal on signal bridge at MP 75.98 on westward main track, interlocking signals 325 feet west of MP 75.98 on eastward main track and eastward siding, interlocking signal at MP 75.97 on the westward siding and to westward interlocking signal at MP 75.55 on the Gerber line.

Cranks for hand operating power switches are mounted on signal instrument case on south side of track at west end of street underpass on the west end; on instrument case on south side of track opposite P.G.&E. switch on the Sacramento end; and on instrument case between 3rd Street and 4th Street on the Woodland end.

When necessary to hand operate power switches, permission must be obtained from the operator.

Instructions for hand operating power switches are mounted on cases above crank holders.

Sacramento River Drawbridge: Eastward trains stopped by interlocking signal at MP 87.94 must contact Sacramento Yardmaster and if authorized to enter yard, must then contact operator, Sacramento River Drawbridge, and be governed by Rules 662 and 663.

Schellville Branch: Brazos Draw Bridge over Napa River. Limits extend between MP 64.58 and MP 64.80. Movement over bridge not permitted unless operator on duty.

Tracy: Limits extend from westward SA Signal at MP 70.68 to eastward SA Signal at MP 70.62 on the Niles line and to eastward SA Signal at MP 82.18 on the Martinez line.

Position of the junction switch between Niles Subdivision MP 70.66 and Martinez Subdivision MP 82.16 controlled by Switchman from control panel located at the base of the Yardmaster's tower.

The junction switch between Niles Line MP 70.66 and Martinez Line MP 82.16 is equipped with a dual control switch. When necessary to hand throw this switch, permission must be secured from the yardmaster.

Interlocking portion of the SA signal controlled by Tracy operator.

The operator shall determine that switch has been lined for proper route before clearing a signal.

RULE 680. AUTOMATIC INTERLOCKING

Mikon SNRy Crossing, MP 86.90: Limits extend between interlocking signals in approach to both sides of crossing.

RULE 705. LETTER TYPE INDICATORS

Indicators located as follows:

Illum. Letter	On Signal	Approaching	Authorizes and Requires Movement as Follows:
W.....	77.....	Oakland (16th St.)	Stop east of 67th St. Emeryville and wait until Signal 77 displays proceed indication.

RULE 705. HOT BOX DETECTORS

Illum. Letter	On Signal	Approaching	Location of Readout
W.....	672.....	Dixon.....	
H.....	702.....	Tremont.....	MP 71.6 Tremont

MP	Type	Direction	Location	Scanner Site	Location of Readout
68.5	A	East and West	Dixon-Sucro		
17.0	D	West	San Pablo		West Oakland
23.4	B	East	Pinole-Hercules		
63.2	B	West	Elmira-Dixon		
58.5	C	East and West	Antioch-Brentwood		

†Indicator array consisting of white lights and revolving red beacon is mounted on signal bridge to the right of Signal 234. Directly above the indicator array are mounted wheel count white lights displayed to the rear and to the front. Upon actuation and after rear of train passes Signal 234, wheel count lights will remain illuminated for 90 seconds.

(Refer to Rule 705, All Subdivisions.)

GENERAL REGULATIONS

RULE 825. Elmira: Not less than three hand brakes must be set on east end of cars left standing except with less than three hand brakes all brakes must be set.

Tracy: All freight trains entering Tracy Yard will tie no less than three hand brakes on the east end unless instructed otherwise by yardmaster.

Train crews must not release brakes on outbound trains until engine is coupled and brake pipe is charged.

RULE 827. At following crew change points, trains handling Flammable Compressed Gas (FCG) must be given a rolling inspection by outbound train crew unless otherwise instructed:

MP	Location	Direction
	Oakland	
	Davis	
	Tracy	
	Dragging and/or derailed equipment detector and indicator installed at the following locations:	
28.1	Selby	West
34.8	Martinez	East
45.0	Suisun-Fairfield	East
70.1	Sucro	East and West
78.7	Swingle	East
82.3	Webster	West

(Refer to Rule 827, All Subdivisions.)

RULE 830. Schellville: Trains arriving and departing and when switching movements are being made over Highway Crossing No. 12, Schellville crossing will be cleared after each move is made to allow vehicular traffic to pass.

AIR BRAKE RULES

RULE 17. Retaining valves must be used on freight and mixed trains on descending grades MP 58 to Napa Jct., and MP 58 to Cordelia as follows:

WITHOUT DYNAMIC BRAKE IN OPERATION:

One retaining valve for each 80 tons on train. If gross tonnage exceeds 80 tons per operative brake, retaining valves must be used on all cars and speed must not exceed 15 MPH.

WITH DYNAMIC BRAKE IN OPERATION:

*Permissible Tons Per Unit Without Retaining Valves

	Basic-Dynamic Brake		Extended Range Dynamic Brake		
	4 Axle	6 Axle	4 Axle	6 Axle	8 Axle
WITH dynamic brake in operation but without pressure maintaining system of braking:					
MP 58 to Napa Jct.	750	1125	950	1400	1875
MP 58 to Cordelia	525	800	650	975	1300
WITH dynamic brake in operation and with pressure maintaining system of braking:					
MP 58 to Napa Jct.	1600	2400	2000	3000	4000
MP 58 to Cordelia	1300	1950	1600	2400	3200

If permissible tonnage is exceeded, one retaining valve must be used for each 150 tons in excess thereof.

*If any unit having basic dynamic brake is operated with units having extended range dynamic brake, all units in consist must use tonnage authorized for units having basic dynamic brake.

Locomotive classes AF628, AF630, EF425, EF623, EF625, EF630, EF636, GF425 (except units 6700-6727), GF628, GF630, EF850B, EF633 and GF850 are equipped with extended range dynamic brake.

RULE 24-F. Applies only on direct movements between:

- Ozol and Benicia
- Ozol and Crockett
- Richmond and West Oakland
- Richmond and Oakland (16th Street—Desert Yard)
- Emeryville and West Oakland
- Emeryville and Oakland (16th Street—Desert Yard)

When movement commences at either West Oakland or Oakland (16th Street—Desert Yard), where Carmen are on duty, Carmen will be responsible to couple air hoses and make test as prescribed by this Rule.

Responsibility to know that air test has been completed in all cases rests with Yard Engine Foreman and Yard Engineer.

RULE 33. Descending grades where restrictions apply are designated below:

EASTWARD
Suisun Bay Bridge—(Martinez) to Bahia
Eastbound Track

MP	MP	Speed
33.8	to 36.0	20 MPH

SHELLVILLE BRANCH

WESTWARD
MP 58 to Cordelia

MP	MP	Speed
58.0	to 55.0	25 MPH

SPECIAL INSTRUCTIONS—MARTINEZ SUBDIVISION

RULE 39. Running test must be made as follows:

After departure Oakland (16th Street).
 Eastward and westward trains at MP 58 between Suisun-Fairfield and Napa Junction.

MISCELLANEOUS

1. Westward trains making station stop at Martinez will stop with units clear of Ferry Street crossing.
 Eastward trains making station stop at Martinez will make normal station stop blocking Ferry Street, but not to exceed ten minutes.

2. Engines listed must not operate on tracks shown below:

Class of Engine	Restricted Tracks
All, except EF415 and EF418	Pittsburg—all industry tracks.
All	Rocktram—Three spur tracks diverging from interchange tracks on river side of main track.
All, except EF 418	Brentwood—All Industry Tracks.

3. Load limit (car and contents):

*Oakland-Sacramento	263,000 pounds
Martinez-Tracy	263,000 pounds
Suisun-Fairfield-Napa Jct.	263,000 pounds
Napa Jct.-Schellville	240,000 pounds
Napa Jct.-Krug	240,000 pounds
Napa Jct.-Vallejo	263,000 pounds
Elmira-End of Branch	240,000 pounds
**Avon-San Ramon	210,000 pounds
San Ramon-Radum	240,000 pounds

*A gross weight of 315,000 pounds is allowable for uniformly loaded four axle cars with minimum axle spacing of 6 feet 0 inches and minimum distance of 37 feet 0 inches center to center of trucks, also wheels 38 inches or more in diameter.

Exception: FMLX tank cars series 19000-19023 and GATX tank cars series 94050-94054, 94056-94092 which are equipped with 34-foot 8-inch truck centers may operate from Ogden to Newark with no more than two such cars coupled together.

**When notified that false bents are not in place on bridge 56.99 load limit between Avon and Radum will be 169,000 pounds.

Unless authorized by Superintendent, heavier loads must not be handled.

4. LOCATION OF OVERHEAD AND SIDE STRUCTURES NOT STANDARD CLEARANCE ON MAIN TRACK AND SIDINGS

MP	Location	Description	Type
6.4	Emeryville	Key System underpass	Side
6.6	Emeryville	W.U. pole line, near Park Ave	Side
14.5	Richmond	AT&SFRy overhead bridge	Overhead
16.0	San Pablo	AT&SFRy overhead bridge	Overhead & side
34.7	Martinez	Alhambra slough bridge	Side
88.5	West Sacramento	Sacramento River drawbridge	Side
63.6	Vacaville	Ulatis Creek bridge	Side
52.5	Cordelia	Suisun Creek bridge	Side
53.0	Cordelia	Tunnel	Overhead
37.9	Avon	Pacheco slough bridge	Side
43.1	Nichols	Wagon bridge	Overhead & side
43.2	Nichols	AT&SFRy overhead bridge	Overhead & side
64.7	Brazos	Drawbridge over Napa River	Side
44.6	Hookston	Walnut Creek bridge	Overhead & side
49.2	Walnut Creek	San Ramon Creek bridge	Overhead & side
57.0	San Ramon	San Ramon Creek bridge	Overhead & side

5. Tracy: All freight trains entering Tracy Yard slow to 8 MPH passing Tracy Yard Office to allow visual verification of consist.

SPECIAL INSTRUCTIONS—MARTINEZ SUBDIVISION

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SPEED RESTRICTIONS FOR TRAINS: Maximum speed of trains in territory shown below is subject to further restrictions applicable to engines in the train as shown in SPEED RESTRICTIONS FOR ENGINES appearing on page 20, and MAXIMUM SPEED PERMITTED WITH CERTAIN EQUIPMENT and OTHER MAXIMUM SPEEDS appearing on page 21 of Special Instructions for All Subdivisions. Speed must be further reduced as prescribed by speed signs, except as specifically authorized by Special Instructions herein, or by Timetable Bulletin.

All trains must run carefully during and after heavy storms, particularly when the track is apt to be affected. When fog, storms or other conditions obscure track or signals, speed of trains must be so reduced as to permit strict observance of signals and INSURE SAFETY, REGARDLESS OF TIME.

TERRITORY			PASSENGER TRAINS	FREIGHT AND MIXED	TERRITORY			PASSENGER TRAINS	FREIGHT AND MIXED
MP	MP	Column:	1	2	MP	MP	Column:	1	2
EASTWARD, WEST OAKLAND TO SACRAMENTO:					WESTWARD, SACRAMENTO TO WEST OAKLAND:				
4.90 to 4.25			15	15	89.00 to 88.54			10	10
4.25 to 5.10			15	15	88.54 to 76.00			70	55
5.10 to 7.75			45	45	76.00 to 75.20, except:			45	45
7.75 to 16.31			60	55	75.60 to 75.36 (West leg wye and jct. switch)			20	20
16.31 to 21.50			70	55	75.20 to 49.00			70	55
21.50 to 33.00			40	40	49.00 to 48.38			55	55
33.00 to 34.78 (Martinez)			30	30	48.38 to 35.50			70	55
31.76 (34.78) to 34.58 (Suisun Bay Bridge)			30	30	35.50 to 31.76 (34.78 Martinez)			30	30
34.58 to 35.50			60	55	34.78 to 33.00 (Martinez)			30	30
35.50 to 48.38			70	55	33.00 to 21.50			40	40
48.38 to 49.00			55	55	21.50 to 16.31			70	55
49.00 to 75.20			70	55	16.31 to 7.75			60	55
75.20 to 76.00, except:			45	45	7.75 to 5.10			45	45
75.25 to 75.60 (crossover and west leg wye to Gerber line)			20	20	5.10 to 4.25 (crossing)			15	15
76.00 to 87.79			70	55	4.25 to 4.90			15	15
87.79 to 88.54 (Spring Switch)			35	35					
88.54 to 89.00			10	10					
EASTWARD, AGAINST CURRENT OF TRAFFIC:					WESTWARD, AGAINST CURRENT OF TRAFFIC:				
West Oakland to Sacramento			59	49	Sacramento to West Oakland			59	49
(Subject to lesser speeds on westward track), except:					(Subject to lesser speeds on eastward track), except:				
31.10 to 31.11 (Ozol)			35	35	34.21 to 34.20 (Ozol)			35	35
34.20 to 34.21 (Ozol)			35	35	31.11 to 31.10 (Ozol)			35	35
75.20 to 76.00			20	20	76.00 to 75.20			20	20
EASTWARD, MARTINEZ TO TRACY:					WESTWARD, TRACY TO MARTINEZ:				
34.70 to 36.10			25	25	82.58 to 82.24 (jct. Los Banos line)			35	35
36.10 to 38.70			30	30	82.24 to 81.83 (jct. Niles line)			20	20
38.70 to 48.55			60	55	81.83 to 80.70			45	45
48.55 to 49.68 (Pittsburg)			25	25	80.70 to 53.60			60	55
49.68 to 53.30			60	55	53.60 to 53.30 (Antioch)			45	45
53.30 to 53.60 (Antioch)			45	45	53.30 to 49.68			60	55
53.60 to 80.70			60	55	49.68 to 48.55 (Pittsburg)			25	25
80.70 to 81.83			45	45	48.55 to 38.70			60	55
81.83 to 82.24 (jct. Niles line)			20	20	38.70 to 34.70			30	30
82.24 to 82.58 (jct. Los Banos line)			35	35					

Trains handling cars containing Flammable Compressed Gas (FCG) must not exceed 55 MPH. Where maximum authorized speed is less than 55 MPH and more than 25 MPH, train must be operated at 5 MPH less than maximum authorized speed. Where maximum authorized speed is more than 35 MPH such trains are further restricted between the following locations where 30 MPH must not be exceeded:

- West Oakland MP 4.90 and Bahia MP 38.00
- Suisin-Fairfield between MP 48.00 and MP 49.50
- Dixon between MP 67.00 and MP 68.00
- Davis between MP 74.00 and MP 76.50
- Martinez MP 34.70 and Antioch MP 53.60

SPEED RESTRICTIONS FOR OTHER THAN MAIN TRACKS..... see page 50

SPECIAL INSTRUCTIONS—MARTINEZ SUBDIVISION

SPEED RESTRICTIONS FOR TRAINS: Maximum speed of trains in territory shown below is subject to further restrictions applicable to engines in the train as shown in SPEED RESTRICTIONS FOR ENGINES appearing on page 20, and MAXIMUM SPEED PERMITTED WITH CERTAIN EQUIPMENT and OTHER MAXIMUM SPEEDS appearing on page 21 of Special Instructions for All Subdivisions. Speed must be further reduced as prescribed by speed signs, except as specifically authorized by Special Instructions herein, or by Time-table Bulletin.

All trains must run carefully during and after heavy storms, particularly when the track is apt to be affected. When fog, storms or other conditions obscure track or signals, speed of trains must be so reduced as to permit strict observance of signals and INSURE SAFETY, REGARDLESS OF TIME.

TERRITORY			FREIGHT AND MIXED	TERRITORY			FREIGHT AND MIXED
MP	MP	Column:	2	MP	MP	Column:	2
EASTWARD, AVON TO RADUM:				WESTWARD, RADUM TO AVON:			
38.10 to 44.64			25	67.80 to 62.00			25
44.64 to 44.67 (bridge)			15	62.00 to 58.30			8
44.67 to 49.22			25	58.30 to 57.02			25
49.22 to 49.25 (bridge)			15	57.02 to 56.99 (bridge)			15
49.25 to 56.99			25	56.99 to 49.25			25
56.99 to 57.02 (bridge)			15	49.25 to 49.22			15
57.02 to 58.30			25	49.22 to 44.67			25
58.30 to 62.00			8	44.67 to 44.64 (bridge)			15
62.00 to 67.80			25	44.64 to 38.10			25
EASTWARD, ELMIRA TO END OF BRANCH:				WESTWARD, END OF BRANCH TO ELMIRA:			
59.60 to 68.00 (end of branch)			25	68.00 (end of branch) to 59.60			25
EASTWARD, SUISUN-FAIRFIELD TO SCHELLVILLE:				WESTWARD, SCHELLVILLE TO SUISUN-FAIRFIELD:			
48.93 to 49.30			15	NWPRR. on wye to 72.60			10
49.30 to 61.47			35	72.60 to 65.25			35
61.47 to 61.77 (Napa Jct.)			15	65.25 to 64.15 (drawbridge)			15
61.77 to 64.15			35	64.15 to 61.77			35
64.15 to 65.25 (drawbridge)			15	61.77 to 61.47			15
65.25 to 72.60			35	61.47 to 49.30			35
72.60 to NWPRR. (on wye)			10	49.30 to 48.93			15
EASTWARD, NAPA JUNCTION TO VALLEJO:				WESTWARD, VALLEJO TO NAPA JUNCTION:			
61.60 to 61.75			15	69.00 to 66.65			15
61.75 to 66.65			25	66.65 to 61.75			25
66.65 to 69.00			15	61.75 to 61.60			15
EASTWARD, NAPA JUNCTION TO KRUG:				WESTWARD, KRUG TO NAPA JUNCTION:			
61.25 to 61.30			15	88.75 to 78.92			10
61.30 to 66.10, except:			20	78.92 to 71.78 (highway crossing)			20
Thru turnout at MP 65.86			15	71.78 to 66.80			20
66.10 to 66.80			5	66.80 to 66.10			5
66.80 to 71.60			20	66.10 to 61.30, except:			20
71.60 to 71.78 (highway crossing)			15	Thru turnout at MP 65.86			15
71.78 to 78.56			20	61.30 to 61.25			15
78.56 to 88.75			10				

SPEED RESTRICTIONS FOR TRAINS HANDLING CARS CONTAINING FLAMMABLE COMPRESSED GAS. See Page 49.

SPEED RESTRICTIONS FOR OTHER THAN MAIN TRACKS

With Caution
Not Exceeding
MPH

Through sidings, yard and other tracks, wyes, balloon tracks, crossovers and turnouts:	10
Through turnouts on other than sidings:	10
On branches:	10

ROCKTRAM: "STOP" signs located at MP66.10 govern eastward and westward trains on main track. After stopping, trains may proceed when it is known that no off-track equipment is foul of Main Track at this location.

RULE 10-I

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

"SP FOREMAN AT MP CALLING SP (Train No.)"

(After train answers giving his identification):
(i. e.) SP Train

Foreman's Response

"THIS IS SP FOREMAN . . . IN CHARGE OF THE WORK BETWEEN MP . . . AND MP SP TRAIN ORDER NO. . . . WE ARE IN THE CLEAR AND YOU MAY PROCEED PAST THE RED CONDITIONAL STOP SIGN AND THROUGH THE LIMITS OF ORDER AT MPH, REPEAT MPH"*

Engineer's Response

"THIS IS ENGINEER SP TRAIN I MAY PROCEED PAST THE RED CONDITIONAL STOP SIGN AND THROUGH THE LIMITS OF ORDER NO. . . . BETWEEN MP . . . AND MP . . . AT (Speed). REPEAT (Speed) MILES PER HOUR."

Foreman must acknowledge Engineer's response as follows:

"SP TRAIN ORDER NO. . . . , BETWEEN MP . . . AND MP MPH* OK."

*When no speed restriction account above Form "Y" Train Order, tell train engineer "At Maximum Authorized Speed."

Oral authorization and acknowledgments between Foremen and Engineers for trains to pass "Red Conditional Stop" signs in multiple main track territory must be worded in following forms:

Foreman's Response

"THIS IS SP FOREMAN IN CHARGE OF THE WORK BETWEEN MP . . . AND MP SP TRAIN ORDER NO. . . . WE ARE IN THE CLEAR OF TRACK . . . AND YOU MAY PROCEED PAST THE RED CONDITIONAL STOP SIGN ON TRACK . . . AND THROUGH THE LIMITS OF ORDER AT MPH, REPEAT MPH."

Engineer's Response

"THIS IS ENGINEER SP TRAIN I MAY PROCEED PAST THE RED CONDITIONAL STOP SIGN AND THROUGH THE LIMITS OF ORDER NO. . . . ON TRACK BETWEEN MP . . . AND MP AT (Speed). REPEAT (Speed) MILES PER HOUR."

Foreman must acknowledge Engineer's response as follows:

"SP TRAIN ORDER NO. . . . ON TRACK , BETWEEN MP . . . AND MP MPH OK."

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"	28.7
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