TRAINMASTERS

R.	D.	SHUGRUE.	 			 		 	San	Rafae
S.	J.	MACKIE				 	٠.	 	Sant	a Rose
R.	E.	HURLBUTT		 				 		Eureko

ASSISTANT TRAINMASTERS

F.	A.	SIERCK	E	ureko
R.	K.	JAMIESON.	IRV	Villits

ROAD FOREMAN OF ENGINES

H. E. JAMIESON Eureka

CHIEF TRAIN DISPATCHER

W. M. BALDOCK......San Rafael

NORTHWESTERN PACIFIC RAILROAD COMPANY



TIMETABLE

27

AT 12:01 A. M.

PACIFIC STANDARD TIME

FOR GOVERNMENT AND INFORMATION
OF EMPLOYES ONLY

G. L. MORRISON

Vice President and General Manager

HOSPITAL DEPARTMENT SURGEONS

LOCATION	NAME	TITLE
San Francisco Sausalito Tiburon Mill Valley San Anselmo San Rafael San Rafael San Rafael	Dr. W. W. Washburn Dr. C. F. Larson Dr. D. L. Wagner Dr. R. B. Hartman Dr. D. L. Wagner Dr. L. J. McMahon Dr. H. O. Hund Dr. C. A. DeLancey Dr. D. L. Wagner	Chief Surgeon District Physician and Surgeon District Physician and Surgeon District Physician and Surgeon District Physician and Surgeon Dental Surgeon District Physician and Surgeon District Physician and Surgeon District Physician and Surgeon District Physician and Surgeon
Novato	Dr. R. J. Weseman. Dr. F. E. Ems. Dr. J. J. Mohrman. Dr. H. M. Every. Dr. F. H. Phillips. Dr. L. S. Sanella. Dr. Chester Marsh.	District Physician and Surgeon District Physician and Surgeon District Physician and Surgeon Oculist and Aurist Dental Surgeon Ass't Oculist and Aurist
Guerneville Santa Rosa Santa Rosa Santa Rosa Santa Rosa Santa Rosa	Dr. W. N. Makaroff. Dr. E. T. Noall. Dr. A. M. Bowles Dr. Paul T. Quarry Dr. J. L. Spear. Dr. E. T. McMannis	District Physician and Surgeon Oculist-Aurist Dental Surgeon
Healdsburg Sonoma Cloverdale Ukiah Ukiah Willits	Dr. K. J. Dunlavy Dr. W. J. Newman Dr. F. E. Sohler, Jr Dr. H. O. Cleland Dr. E. K. Van Allen Dr. Raymond Babcock.	District Physician and Surgeon District Physician and Surgeon District Physician and Surgeon District Physician and Surgeon Ass't District Physician and Surgeon District Physician and Surgeon
WillitsScotiaFortunaEurekaEurekaEurekaEureka	Dr. G. W. Patterson Dr. E. F. Gianotti Dr. C. Schwartz. Dr. J. W. Walsh Dr. G. B. Watson Dr. W. C. Carey.	Ass't District Physician and Surgeon District Physician and Surgeon District Physician and Surgeon District Physician and Surgeon District Physician and Surgeon Ass't District Physician and Surgeon Oculist-Aurist
EurekaEurekaEurekaArcataArcata	Dr. W. W. Dolfini Dr. B. M. Marshall Dr. J. S. Woolford Dr. B. Cooper Dr. Chas. N. Earl	Oculist-Aurist Consulting Physician and Surgeon Radiologist District Physician and Surgeon Ass't District Physician and Surgeon

Note—Emergency surgeons should only be summoned for temporary treatment when prompt attention is required and when patients cannot be sent to or await arrival of Division or District Surgeon.

HOSPITALS

GENERAL HOSPITAL	SAN FRANCISCO
GENERAL HOSPITAL	EIIREKA
EMERGENCY HOSPITAL	SAN DAFARI
EMERGENCY HOSPITAL	PETALITMA
EMERGENCY HOSPITAL	SANTA POSA
EMERGENCY HOSPITAL	WILLITS

WATCH INSPECTORS

RULE 2. Designated Watch Inspectors:
C. D. Fabrin, Manager Time Service65 Market Street, San Francisco
E. J. Land 745 3rd Street San Francisco
G. D. Davidson Co., Traveling Watch Inspector.
C. R. Ellis Sausalito
Herbert-Rohrer
Lynn Richey 165 Main Street, Petaluma
L. M. Britton
Chester Kradjan
Harry D. Roberts
A. B. Guslander
J. C. Tario, Jr
W. J. ThomasEureka

LOCATION OF STANDARD CLOCKS

Eureka	Train-Order Office
Eureka	Roundhouse
Island Mountain	Train-Order Office
San Rafael	Ticket Office
San Rafael	Dispatchers Office
Santa Rosa	Train-Order Office
Scotia	Train-Order Office
South Fork	.Train-Order Office
Tiburon	Train-Order Office
Ukiah	.Train-Order Office
Willits	.Train-Order Office
Willits	Roundhouse

SOUTHERN DIVISION—SANTA ROSA SUBDIVISION

EAST	WARD				WESTWARD
	FIRST CLASS	_		8.	FIRST CLASS
Capacity of sidings	Eureka Express	Mile Post Location	Timetable No. 27 September 30, 1951	Distance from Santa Rosa	3 Eureka Express
Tiburon yard WTOPBK	PM 7.40	6.5	STATIONS TO-R TIBURON	45.7	Arrive Daily
Р	7.51	10.1	3.6 (6 Cars) REED (Spur-E)	42.1	s 9.20 9.07
21 Yard Limits		11.4 12.7	MEADOWSWEET 1.3	40.8	9.00
YP	7.58	14.3	DETOUR 0.6	39.5	9.00
nts (8.04	14.9 16.8	GREENBRAE 1.9 Double IRWIN ST. (Track	38.9 37.0	
MALBR MALBR	s 8.05 8.30	17.0		36.6	8.45 8.10
17 P	8.36	18,7	TO-R SAN RAFAEL	35.1	8.05
	<u>f</u>	21.1	2.4 (Spur-E) 0.6	32.7	f
29 P	f 8.43	21.7	MILLER 0.3	32.1	f 7.59
Yard Limits 68 WYOP	f	22.0	2.9	31.8	f 7.54
P W IOP	f 8.51	24.9 25.8	TO IGNACIO 0.9 IGNACIO WYE	28.9	
37 P	s 9.03	27.8	TO NOVATO	26.0	s 7.48
43 P	f 9,10	31.3	3.5 BURDELL	22.5	f 7.40
26 <u>76</u>	9.20	36.7	HAYSTACK	17.1	7.32
And Limits 26	s 9.33	38.5	TO PETALUMA 0.7	15.3	s 7.27
²⁴ (35		39.2	PARK SIDING	14.6	f
00 D	f	41.0	(9 Cars) CROWN (Spur-W)	12.8	f 7.13
29 P	f 9.40	42.0 43.3	1.3 (10 Cars) PENN GROVE (Spur-W)	11.8	f
106 WP	f 9.47	48.1	2.8 COTATI	10.5 7.7	f 7.06
16	f	48.7	2,6 WILFRED	5.1	f
21	f 9.59	51.3	BELLEVUE	2.5	f 6.55
Yard Limits WYOPBK	s 10.05	53.8	TO-R SANTA ROSA	0.0	6.50 AM
	Arrive Daily				Leave Daily

No. 3 turn train at Detour. No. 3 sound whistle signal 14(1) approaching private crossing at west end paint shop, Tiburon. Passengers to and from San Francisco will use Pacific Greyhound Lines between San Rafael and San Francisco. Junction switch main track and Schellville Branch is located west of station Ignacio. Haystack cannot be used for meeting or passing of trains.

	EAST- WARD	Timetable No. 27	WEST- WARD		EAST-	Timetable No. 27	WEST- WARD
Capacity of sidings	Mile Post Location	September 30, 1951 SCHELLVILLE BRANCH STATIONS	Distance from Sonoma	Capacity of sidings	Mile Post Location	September 30, 1951 SAUSALITO BRANCH STATIONS	Distance from Detour
Yard Limits 68 WYOP	24.9	TO IGNACIO	19.9	Sausalito yard WPB	6.5	TO SAUSALITO	7.8
P	28.5	(15 Cars) BLACK POINT (Spur-E)	16.3	11	9.9	3.4 ALMONTE	4.4
18	30.8	RECLAMATION	14.0		12.8	(5 Cars) CORTE MADERA (Spur-E) 0.4	1,7
	33.4	(12 Cars) SEARS POINT (Spur-W)	11.4		13.0	BALTIMORE PARK	1.3
P	35.2	(9 Cars) FAIRVILLE (Spur-E)	9.6	Yard Limits	14.3	DETOUR	
Yard Limits 91-29 YWP	40.4	TO SCHELLVILLE	4.4		17.0	DEIOOR	0.0
20 P	44.8	SONOMA	0.0				

SOUTHERN DIVISION-WILLITS SUBDIVISION

EAST	WARD				WESTWARD
	FIRST CLASS			g	FIRST CLASS
Capacity of sidings	4 Eureka Express Leave Daily	Mile Post Location	Timetable No. 27 September 30, 1951 STATIONS	Distance from Willita	3 Eureka Express
Yard Limits	PM				Arrive Daily AM
WYOPBK	10.18	53.8	TO-R SANTA ROSA 4.7	85.7	s 6.40 f 6.29
52 WP	f 10.26	58.5	FULTON 4,4	81.0	s 6.21
10 P	f 10.33	62.9	WINDSOR 3.5	76.6	6.21
3 (<u>f</u>	66.4	(12 Cars) GRANT 0.6	73.1	
32 WTP		67.0	BAILHACHE 1.0	72.5	
32 WTP	s 10.51	68.0	TO HEALDSBURG	71.5	s 6.12
	f 10.58	71.9	LYTTON 3.9	67.6	f 6.00
36 P	f 11.04	75.8	TO GEYSERVILLE	63.7	s 5.51
Yard Limits	f 11.11	81.3	ASTI	58.2	s 5.41
58 WOP	s 11.19	85.2	TO CLOVERDALE	54.3	s 5.35
	f	87.1	(15 Cars) PRESTON (Spur-E)	52.4	f
20 P	f 11.28	89.8	2.7 ECHO	49.7	f 5.20
60 P	f 11.41	95.3	PIETA	44.2	f 5.06
58 WP	PM f 11.55	100.1	TO HOPLAND	39.4	s 4.54
47 P	f 12.05	103.9	3.8 LARGO	35.6	f 4.41
10 P	f 12.19	109.6	5.7 EL ROBLE	29.9	f 4.27
Yard Limits 91 WOTPBK	s 12.25	114.0	TO UKIAH	25.5	s 4.20
Р	s 12.59	120.1	6.1 CALPELLA	19.4	s 3.57
Yard Limits WYP	s 1.04	122.1	REDWOOD VALLEY	17.4	s 3.51
24 P	f 1.12	124.0	1.9 LAUGHLIN	15.5	f 3.45
4 P	1.25	127.9	3.9 HILPASS	11.6	3.32
Yard Limits TWP	f 1.37	131.4	3.5 RIDGE	8,1	s 3.20
	1.58	138.4	7.0 MUIR	1.1	2.58
Yard Limits WYOPBK	s 2.01	139.5	TO-R WILLITS	0.0	2.55
	Arrive Daily				Leave Daily

RULE S-72. No. 4 is superior to No. 3 Santa Rosa to Willits, and between switch at west end of train yard and east switch of scale track at Willits. No. 3 will use scale track at Willits in meeting No. 4.

Bailhache and Calpella cannot be used for meeting or passing of trains.

SANTA ROSA SUBDIVISION

	EAST- WARD	Timetable No. 27	WEST- WARD		EAST- WARD	Timetable No. 27	WEST WARI
Capacity of sidings	++	September 30, 1951	a v	Capacity of sidings		September 30, 1951	
	Mile Post Location	MILL VALLEY BRANCH	Distance from Mill Valley	Capacity of sidings	Mile Post Location	LARKSPUR BRANCH	Distance from Larkspur
		STATIONS	Ď.			STATIONS	Dist
1	9.9	ALMONTE	1.8		13.0	BALTIMORE PARK	0.4
· P	11.7	MILL VALLEY	0.0		13.4	(4 Cars) LARKSPUR (Spur-E)	

NORTHERN DIVISION—SOUTH FORK SUBDIVISION

EAST	WARD				WESTWARD
	FIRST CLASS			g.,	FIRST CLASS
	4	Mile Post Location	Timetable No. 27	ce froi Fork	3
Capacity of sidings	Eureka Express	Müe	September 30, 1951	Distance from South Fork	Eureka Express
	Leave Daily		STATIONS		Arrive Daily
Yard Limits WYOPBK	AM 2.20	139.5	TO-R WILLITS	97.8	AM s 2.20
54 P	f 2.28	143.7	OUTLET	93.6	f 2.12
	f 2.41	148.7	5.0 ARNOLD	88.6	f 1.59
59 WP	f 2.51	152.5	3.8 Longvale	84.8	f 1.48
44 P	f 3.05	158.2	5.7 FARLEY	79.1	f 1.34
39 WP	f 3.14	161.8	TATU	75.5	f 1.24
46 WOP	s 3.28	186.5	TO DOS RIOS	70.8	s 1.11
33 P	f 3.40	171.1	WOODMAN	66.2	f 12.55
39 P	f 3.51	175.5	NASHMEAD	61.8	f 12.44
64 P	f 4.03	180.0	SPYROCK	57.3	f 12.31
54 WOP	f 4.15	184.3	BELL SPRINGS	53.0	f 12.19
22 P Yard Limits	f 4.29	189.3	RAMSEY	48.0	f 12.01
59 WOTPK	s 4.42	194.5	TO ISLAND MOUNTAIN 5.8	42.8	s 11.48 PM
31 WP	f 5.04	200.3	KEKAWAKA 5.2	37.0	f 11.32
P		205.5	(15 Cars) CAIN ROCK (Spur-E)	31.8	
54 P Yard Limits	s 5.29	209.1	TO ALDERPOINT 7.5	28.2	s 11.09
54 WOP	s 5.50	216.6	TO FORT SEWARD	20.7	s 10.45 f 10.29
42 P	f 6.02	221.5	BROCK CREEK	15.8	f 10.29
· 43 P	f 6.12	225.1	EEL ROCK	12,2	f 10.19
18 P	f 6.24	230.1	SEQUOIA 2,1	7.2	f 9.55
53 WP Yard Limits	f 6.30 s 6.42	232.2	McCANN 5.1	5.1	11
WYOPBK	AM	237.3	TO-R SOUTH FORK	0.0	9.42 PM
<u> </u>	Arrive Daily	<u> </u>			Leave Daily

RULE S-72. No. 4 is superior to No. 3 between switch at west end of train yard and east switch of scale track at Willits. No. 3 will use scale track at Willits in meeting No. 4.

Automatic Block Signals from east switch Island Mountain through tunnel 27.

NORTHERN DIVISION—EUREKA SUBDIVISION

EAST	WARD				WESTWARD
	FIRST CLASS	Mlie Post Location	Timetable No. 27	uo,	FIRST CLASS
Capacity of sidings	apacity of sidings Eureka Express		September 30, 1951	Distance from Eureka	3 Eureka Express
Yard Limits	Leave Daily		STATIONS		Arrive Daily
WYOPBK	6.49	237.3	TO-R SOUTH FORK	46.8	PM s 9.32
52 P	f 6. 5 9	241.7	LARABEE	42.4	f 9.23
56 P	f 7.08	245.6	SHIVELY	38.5	f 9.13
25 P	f 7.20	250.0	ELINOR	34.1	f 9.01
P	7.28	254.0	4.0 GLYNN	30.1	8.53
Yard Limits WPK	s 7.32	255.6	TO SCOTIA	28.5	s 8.50
P	f 7.50	259.0	3.4 (19 Cars) STONE	25.1	f 8.34
P		261.0	(31 Cars) DINSMORE	23.1	
Yard Limits WP	f 7,57	262.7	TO ALTON	21.4	f 8.26
P		264.5	(39 Cars) ROHNERVILLE	19.6	
19 P	s 8.10	266.1	TO FORTUNA	18.0	s 8.18
Yard Limits P	s 8.20	268.7	TO FERNBRIDGE	15.4	s 8.07
10 P	s 8.27	271.0	TO LOLETA	13.1	s 8.03
23 P	f 8.34	273.9	2.9 BEATRICE	10.2	f 7.54
Yard Limits WP	f 8.42	277.8	SOUTH BAY	6.3	f 7.46
		280.8	B&ERRR CROSSING	3.3	
21 P	8.54	282.0	BUCKSPORT	2,1	7.36
WTYOPBK	s 9.00 AM	284.1	TO-R EUREKA	0.0	7.30 PM
	Arrive Daily				Leave Daily

Rule 5. No. 4 will use station track 1, and No. 3 will use main track at Eureka.

At Glynn schedule time and train-order time apply at the west switch of the crossover at MP 254, leading into Pacific Lumber Co. yard. Rule 87. Extra trains must clear the time of superior trains at Eureka at the switch to train yard at MP 283.23.

Tracks at Stone, Dinsmore and Rohnerville must not be used for meeting or passing of trains.

	EAST- WARD	Timetable No. 27	WEST- WARD			Timetable No. 27	WEST- WARD
Capacity of sidings	Mile Post Location	September 30, 1951 KORBLEX BRANCH STATIONS		Capacity of sidings	Mile Post Location	September 30, 1951 CARLOTTA BRANCH STATIONS	Distance from Carlotta
Yard Limits WTYOPBK	284.1	TO-R EUREKA 8.4	11.1	Yard Limits WP	262.7	TO ALTON	5.0
Yard Limits B	292.5 295.2	TO-R ARCATA 2.7 (20 Cars) KORBLEX	0.0	Yard Limits P	267.7	CARLOTTA	0.0
	EAST- WARD	Timetable No. 27	WEST- WARD	RULE 5. At leading to The Pacif	Carlotta, t	rain-order time will apply at s Co. Yager creek spur near MP 2	witch 267.3.
Capacity of sidings	Mile Post Location	September 30, 1951 SAMOA BRANCH STATIONS	Distance from Samoa				
Yard Limits WYP P. S. I. P 20 WY	292.5	TO-R ARCATA	8.2				
[취급] 20 WY	300.7	SAMOA	0.0				

RULE A. All, or portions of, the following rules have been changed. Pasters have been printed covering these changes, and employes must have the pasters in their copy of Book of Rules:

Rules	10 (G)	99		297
	10 (H)		(D)	705
	10 (J) 11	$ \begin{array}{c} 210 \\ 221 \end{array} $		707 708
	15	271		763
	26	295		837

DEFINITION of FIXED SIGNAL is changed to read as follows:

"A signal of fixed location indicating a condition affecting the movement of a train, such as train-order, automatic, interlocking or absolute signal; switch, stop boards, yard limit boards or speed boards."

RULE M. Employes are warned that it is dangerous to ride on top or side of cars while passing points where impaired clearance exists, and that they must protect themselves from injury. See list of impaired clearances on main track and siding.

There are numerous other structures with impaired clearance on yard and station tracks on the division, and employes must be familiar with their location and avoid personal injury.

RULES 1 (A), 2 (A), 3 (A) and 3 (B) are cancelled, and Rules 1, 2 and 3 are amended as follows:

"RULE 1. Standard time, obtained from an authorized observatory, will be transmitted by telegraph daily except Sundays and holidays. Clocks bearing the prescribed sign 'Standard Clock' will be maintained at designated places, as shown in timetable, and employes charged with the duty of receiving time signal must set standard clock to agree with time signal and make record on prescribed form of any variation.

"At enginehouses and other locations of standard clocks where time signal is not received, employe in charge of standard clock must obtain correct time from nearest train-order operator by telephone, during, or after, transmittal of time signal, and set the clock."

"RULE 2. Each of the following employes, and such other employes as may be designated, must carry, while on duty, a reliable railroad grade watch, and must carry a watch certificate, Form CS-2821, which must be presented to an authorized watch inspector for renewal during the month of November of each year:

*Train-Order Operators
*Signal Operators
*Except when assigned in
offices where a standard
clock is located.

Conductors

Brakemen
Engineers
Firemen
Outside Hostlers
Outside Hostler Helpers

"Employes must show their watches and certificates to division officers, authorized watch inspectors and traveling watch inspectors upon request."

"RULE 3. Conductors, engineers and outside hostlers must compare their watches with a standard clock, and conductors must compare time with their engineers, when commencing each day's work; and conductors must compare time with their brakemen, and engineers with their firemen, as soon thereafter as practicable.

"The time when watch is compared with standard clock, and any variation of such watch, if not set to correct time, must be recorded on prescribed form.

"When an additional engine is added to a train en route, engineer of that engine must compare time with the conductor or an engineer of the train.

"When conductors and engineers tie up at a point where there is no standard clock, time must be compared with train-order operator on duty when commencing each day's work. If this cannot be done, time must be compared with conductor or engineer of first available train.

"At train-order offices and interlockings where there is no standard clock, train-order operators and signal operators must, during each tour of duty, compare time with time signal if possible, otherwise with a train-order operator where standard clock is maintained, or time signal is received.

"Watches must be set to correct time if they reflect a variation of more than twenty seconds from correct time when comparison is made as prescribed in this rule."

RULE 7. Agents at stations are required to maintain, as a part of the station equipment, a lantern fitted with a white globe. Such lantern need not be kept lighted at night at stations within automatic block system limits. At other stations lantern will be kept lighted when trains are closely approaching and passing station.

A red globe must be on hand as part of station equipment and readily available for use in lantern in case of emergency.

RULE 10 (J) is revised to read as follows:

"Speed boards will be located to the right of track in direction of approach where practicable, except on double track where trains keep to the left, they will be located to the left if proximity of adjoining main track prevents location to the right.

"Speed boards that prescribe reduction in speed will be located one-half mile from initial point of restriction. Speed boards that authorize an increase in speed will be located at the point where higher speed is permissible, and speed may be increased accordingly as soon as rear of train has passed the speed board.

(no change in Figures 1, 2 and 3) or number on speed board indicates the

"The higher number on speed board indicates the maximum speed of trains consisting entirely of passenger equipment, and the lower number indicates the maximum speed of all other trains. Where but one number is shown it indicates the maximum speed of all trains."

Where speed boards prescribing an increase in speed are not installed, Speed Restrictions tables will indicate permissible speeds between mile post locations named.

RULE 14. Trackman's Call: Four long followed by four short sounds of whistle (— — — o o o o) is Trackman's call. This signal may be used when necessary to summon trackmen. It must not be used unnecessarily. Upon hearing this signal by day or night, trackmen must immediately respond. Foremen must keep their men posted as to this signal.

RULE 17. Headlight will be displayed by day. When so displayed, the provisions of Rules 17, 17 (B), 17 (C) and S-17 will not apply unless other conditions require.

Headlights will not be so displayed when the engine is engaged in switching at stations or within yard limits.

RULE 19. Marker lamps are not standard equipment on engines. Extra sets of these lamps will be available at Tiburon, Santa Rosa, Willits, Island Mountain, South Fork and Eureka.

Classification lamps on rear of DF class engines will be considered as marker lamps by day or by night only when such lamps are lighted.

RULE 21 (D). Will not apply to Southern Pacific engines.

RULE S-72. Westward trains are superior to trains of the same class in the opposite direction, except as shown on pages 3 and 4.

RULE 105. Capacity of sidings column indicates the number of cars of average length of 49 feet that siding will hold between fouling points, in addition to one engine and caboose.

RULE 221. Engineer approaching a train order office will, after observing train-order signal in the stop position, sound four short blasts of the engine whistle 14(j) and, if train order signal is changed to "Proceed," will acknowledge it by two short blasts of whistle 14(g).

GENERAL REGULATIONS

RULES 811 and 843. Crews must not tie up to eat without permission of train dispatcher, who must be advised as early as possible where the crew will eat. The crew must eat as a unit, and conductor's instructions in this respect will govern.

RULE 821. Diesel engines must not run over inundated tracks if water is more than three inches above top of rail, and when operating through water must not exceed speed of 3 MPH.

RULE 825. Fifth and sixth paragraphs are revised to read as follows:

"When empty cars are stored on tracks adjacent to buildings an opening of at least forty feet must be made every five car-lengths.

"Outfit cars must not be left adjacent to oil or gasoline loading or unloading locations, lumber yards, storehouses, warehouses or other buildings. When placed on tracks without fire protection, an opening of at least forty feet must be made every five car-lengths. Diner should not be separated from kitchen car."

RULE 826. When a sign reading "Occupied Outfit Cars" is attached to switch lock, the outfit cars must not be coupled to, nor moved, until occupants have been notified, and permission given by foreman or his representative.

RULE 827. Unless otherwise provided, when conditions are favorable and in the judgment of conductor it is safe, freight trains need not stop for train inspection. Where stops are made for other reasons, inspection of trains must be made as often as practicable. When weather conditions restrict visibility, or other conditions require, conductor will designate stops for inspection which in his judgment are necessary.

On freight trains a member of the crew must observe track to rear of train for evidence of derailment or any other condition requiring immediate stopping of train.

Westward passenger trains and eastward and westward freight trains will stop at Ridge for inspection. Westward freight trains will stop at Redwood Valley for inspection.

Cars bearing placards denoting contents are explosive, inflammable, poisonous, or otherwise dangerous, must be given careful inspection at all points where train inspection is made.

When a train handling loaded open top cars is to be met or passed by a train, member of the train crew must make inspection of all such cars to insure that no hazard of personal injury or accident exists.

RULE 828 is revised to read as follows:

"Speed of freight trains must not exceed eight miles per hour for a distance sufficient to permit running inspection when starting. Trainmen must closely watch to see that brakes are released, and if necessary must signal enginemen to stop if wheels are found sliding. Conductor must promptly mail to the Vice President and General Manager a report of flat wheels discovered under cars in his train.

RULE 831 is revised to read as follows:

"Occupied wooden frame outfit cars must be placed next ahead of passenger cars if handled in mixed trains, or next ahead of caboose if handled in freight trains.

"Women and children must not be permitted to ride in outfit cars when moved by freight train. Other occupants of outfit cars must remain inside and not ride on top, sides or between these and other cars during course of road or yard movements."

Where not practical to move women and children other than in outfit cars, these cars may be moved in local freight or work train service, provided train is operated at not to exceed 15MPH, and that the women and children must remain inside the cars during movement.

RULE 832. Wooden underframe cars of any class must be placed next ahead of caboose, except that when handled in the same train with wooden frame outfit cars they must be placed next ahead of the outfit cars.

RULE 869 is cancelled.

RULE 873. Engines must not be sanded out while closely approaching or passing through tunnels.

RULE 880. Competent firemen may be provided with card, Form L-2209 from Road Foreman of Engines permitting them to handle engines in the presence and under the direction of the engineer, responsibility remaining with the engineer, as follows:

(1) In yard service not to exceed two hours in any eight-hour shift after fireman has had at least one year's experience.

(2) In road freight service after fireman has had two years or more actual service and at least one year in road service.

(3) Firemen, regardless of experience, shall not be permitted to operate engines handling occupied passenger and outfit equipment.

AIR BRAKE RULES

Before hoses are parted, angle cocks must be closed on both sides of hose couplings.

The following paragraph on page 64 of Air Brake Rules and Regulations, has been cancelled:

"The hose couplings must be parted by hand to prevent the possibility of injury to hose and rubber gasket in the couplings."

MISCELLANEOUS

Engines on passenger trains must stop 50 feet from occupied passenger equipment before coupling to the equipment.

When passenger trains pick up or set out cars short of a station, a regular station stop must be made before leaving.

Employes are prohibited from giving signals of any kind to highway traffic at crossings except those employes whose duties require them to protect crossings. Signals by such employes must be limited to a display indicating "Stop".

Employes (including crossing watchmen) will not, under any circumstances, signal by hand or otherwise, for highway vehicles or pedestrians to cross over railroad tracks.

HELPER SERVICE:

Helper engines must not be placed behind wooden underframe cars or wooden underframe cabooses.

Engines weighing more than 330,000 lbs. on the drivers must not be placed behind steel underframe cabooses.

Not more than one helper engine will be placed behind steel underframe cabooses.

DF class helpers weighing not to exceed 330,000 lbs. on the drivers may be used behind steel underframe cabooses on two-engine trains when the road engine is DF class.

SPECIAL INSTRUCTIONS—ALL DIVISIONS

MAXIMUM ENGINE WEIGHTS AND CAR LOADINGS PERMISSIBLE OVER DISTRICTS SHOWN BELOW

	Engine	(See Note 1) Gross Car Load in Lbs.
Sausalito to Detour	Any engine	188,000
Tiburon to Willits	Anv engine	188.000
Ignacio to Sonoma	Anv engine	188.000
Almonte to Mill Valley	Any engine	188,000
Baltimore Park to Larkspur.	Anv engine	188,000
Willits to Eureka	Anv engine	188,000
*Eureka to Korblex	Not to exceed	
*Alton to Carlotta	142,000 lbs. on drivers	188,000
	150,000 lbs. on drivers	188,000
*Carlotta to end of industry	\∫Not to exceed	
track	$\int (142,000 \text{lbs. on drivers.})$	169,000
Arcata to Samoa	Not to exceed	经数据 海边发
	142,000 lbs. on drivers.	188,000
Samoa Yard, when operated	\ Not to exceed	
on wharves	(138,000 lbs. on drivers.)	169,000

*Except: DS-4 class engines 1004 to 1009 permitted to operate.

Note 1. Cars having normal capacity of 100,000 lbs. must not exceed a total weight on rail of 169,000 lbs. Cars having a normal capacity of 140,000 lbs. must not exceed 210,000 lbs. total weight on rail. The gross car load of 188,000 lbs., may be exceeded up to but not in excess of 210,000 lbs. total weight on rail for cars having a normal capacity of 140,000 lbs. only for single cars which have loads on each side not exceeding a gross weight of 188,000 lbs., and, further, when such loads are handled at a speed not to exceed 25 MPH.

Relief Outfit No. 40, normally kept at Willits, weighs 170,000 lbs. Relief Outfit No. 41, normally kept at Eureka, weighs 166,800 lbs. These cranes must not be moved at speeds in excess of 10 MPH in districts where weight on drivers is limited to 142,000 lbs. or less.

Official cars, with 3 axles per truck, may be handled when weight does not exceed 200,000 lbs.

Loads must not exceed 13 feet above top of rail.

Cars exceeding weights shown in this table must not be handled unless authorized by Chief Train Dispatcher.

SPEED RESTRICTIONS

Speed of light engines running forward must not exceed restrictions shown for freight trains.

Trains with steam engine running backward must not exceed 20 MPH.

Light engines running backward must not exceed speed shown for freight trains, and under no circumstances exceed 15 MPH, except between Laughlin and MP 136.7 must not exceed 12 MPH.

Steam engines operated coupled tender to tender must not exceed speed permitted for light engines running backward.

Maximum speed of disabled engines hauled in train or running under own steam must not exceed 20 MPH.

Trains handling steam shovels, ditchers, cranes, spreaders, pile drivers, and derricks must not exceed 25 MPH.

Trains handling logs loaded in other than gondolas must not exceed 15 MPH, except that at the following locations speed of 10 MPH must not be exceeded:

Through tunnels,

While passing occupied outfit cars, Over Van Duzen Bridge, MP 261.84, Over Larabee Bridge, MP 241.96, Over South Fork Bridge, MP 237.74, Passing Soutie Bluff between MP 37.74,

Passing Scotia Bluff between MP 256.6, east of Yoder and MP 258.2, west of Stone.

Maximum speed for freight trains apply to log trains having no

Class C-2 to 9 (engines of the 2500, 2600, 2700 and 2800 series) must not exceed 40 MPH.

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. Such engine or equipment must not be handled in train until train-order designation. nating maximum speed is issued.

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

Speed through crossovers and turnouts must not exceed 15 MPH, except speed of 20 MPH may be made through turnout to TPLCo. yard at Yoder.

Speed boards have been installed to indicate speed restrictions within certain cities and have been placed one-half mile from the city limit, provided in Rule 10 (J), at following locations:

Sonoma.....Board 600 feet west of MP 43.66.

Petaluma.....For eastward trains, east end of the Petaluma
Drawbridge, MP 37.00. For westward trains,
240 feet west of Trestle 39-E, Santa Rosa... . For eastward trains, 3000 feet east of MP 52.00.

For westward trains, 600 feet east of MP 55.00, Healdsburg... .For eastward trains, 60 feet west of the west switch at Bailhache. For westward trains at Trestle 69.D

Cloverdale For eastward trains, at MP 84-B. For westward trains—not required account other restrictions, For eastward trains, 2510 feet west of MP 113.00. For westward trains, 881 feet east of Ukiah..... MP 115.00.

MISCELLANEOUS

Should a passenger train, irrespective of the type of power being used, be stopped in a tunnel, air conditioned cars within the tunnel must immediately have the air conditioning systems, including ice engines and engine generators, shut off, fresh air intake shutters closed, and blower fans shut off.

Should the movement of a diesel-powered train be stopped with the diesel engine in the following tunnels,

Tunnel No. 1-between Alto and Corte Madera, Reed and Meadowsweet .. " " Greenbrae and San Rafael,

" ... San Rafael and Cerro, " 66 .. Preston and Echo, ..

Echo and Pieta, " " 27 Island Mountain and Kekawaka. " Larabee and Shively,

" Shively and Elinor. Loleta and Beatrice,

and it is found that in the case of a passenger train it cannot be moved within five minutes after stopping, and in the case of a freight train it cannot be moved within a reasonable length of time, the train must be immediately secured by sufficient hand brakes, front and rear wheels of engine must be secured by blocks or chains, after which power plants and steam generator, if any, must be shut off.

LOCATION OF ADDITIONAL TELEPHONES	MP
Hamilton Field	23.43
Petaluma I)rawbridge	37.09
West end Petaluma Yard	38.02
Santa Rosa—Sebastopol Ave.	53.30
Santa Rosa—Third Street	53.70
ruton—Baggage room	58.30
Okian freight house	114.00
	117.00
Slide East end Tunnel 27	190.25
East end Tunnel 27	195.20
Silde:	201.00
water tank Hamman Gulch	204.30
Steelhead	211 60
Sequoia Gravel Plant	230.26
Perrott Creek	938 50
MP 247 pole 23 (west of Elinor)	247.60
MP 249 pole 2 (slide).	249.10
MP 249 pole 10 (slide)	249.50
1 Oder. Transcription of the second s	256.10
Nanning Creek (watchman's house)	257.00
East end Scotia Bluff	258.36
Last end Tunnel 40	272.21
Eureka Drawbridge	285.60
Elk River bulkhead	280.20
Korblex	295.20
Sausalito Branch:	200,20
Waldo	
	8.40
Schellville Branch:	
Black Point Drawbridge	28.87
Wingo Drawbridge	37.92
Vineburg	42.11

WEIGHT OF PASSENGER CARS

Class	Number	Steel
Baggage	*613	95,000
Baggage	*614	91,000
Baggage	*615	89,000
Baggage	640	103,400
Baggage	675	94,700
Baggage	676	95,500
Baggage	677	96,500
Baggage	678	96,000
Baggage	679	97,300
Baggage	680	101,800
Official (Redwood)	06	129,540
Chair	$5\overline{52}$	107.500
Chair	553	108,600
Coach	459	109,100
Coach	460	106,600
Mail and Baggage	641	103,300
Mail and Baggage	642	103,400
Mail and Baggage	5036	103,300
Coach-Lounge	2172	111.800
Coach-Lounge	2183	
All-Day Lunch		115,600
Pullman Standard Sleeper	••••	102,171
- amman Standard Steeper		178,200

*Steel Underframe.

SPECIAL INSTRUCTIONS—SOUTHERN DIVISION

RULE 83 (A). Extra trains will register at the following

San Rafael. Schellville,

Ukiah,

Ignacio (Branch trains only).

RULE 93. Yard limits are established at the following stations:

Sausalito (including Waldo),

Tiburon.

Detour, San Rafael,

Ignacio, Schellville

Petaluma (including Haystack, McNear and Park Siding),

Healdsburg (including Bailhache, Finlayson and Oliveto),

Cloverdale,

Ukiah (including Asylum),

Redwood Valley,

Ridge.

Willits,

The switch leading from track 1 (scale house) to the turntable track, and the switch leading from track 1 to track 9 (sand house), at Tiburon, must be kept lined for straightaway movement on track 1, except when movement is being made through either of these switches.

RULE 98. Railroad crossings at grade not interlocked: Petaluma.....P&SRRR crossing of yard tracks-STOP.

Flag protection must be provided.
Santa Rosa... P&SRRR crossing of Grace Bros. spur.
Schellville.... SP crossing of NWP.

RULE 99 (C) will apply between Ignacio and Tiburon, on Sausalito Branch, Mill Valley Branch, and on Schellville Branch.

RULE 103 (A).

Tiburon: Train and engine movements on yard track over highway crossing MP 7.26, 449 feet east of water tank must be protected by flagman. Engines or cars must not be left on this yard track within 100 feet of crossing.

San Rafael: Derails located on Cheda spur, 436 feet east of switch, and on Grady spur, 530 feet east of switch, located in vicinity of west end of highway overhead structure, are connected with floodlights which illuminate track and highway. Derailers must be kept on rail and locked, except when movements are being made over Trainmen must protect movements over highway crossing and movements must be made with caution.

No train, engine or car may be operated over Francisco Boulevard, (sometimes known as Toll Road) crossing the "B" Street route, unless vehicular traffic is protected by a member of train crew or other railroad employe acting as a flagman.

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

San Rafael......Crossing Grady spur (the westerly one of the two spurs), and no movement may be made over this crossing between 10:00 A.M. and 10:00 P.M. on week days, nor at any time on Sunday or holidays.

Hamilton Field: Trains or engines, moving in either direction, must stop before crossing the road in east yard just west (by compass) of the cold storage plant.

Engines must not go beyond Door 44 on either tracks 3 or 4 in the east yard at Hamilton Field; this due to fire hazard.

Novato: By order of Public Utilities Commission, no car may be stored less than 100 feet from either side of Grant Ave. which is first street north (CD) of station.

When this crossing is cut by trains occupying siding, member of crew must protect traffic if cars are within 100 feet of either side of crossing.

Petaluma: Adams St. (also known as D St.) the first street south (CD) of passenger station, must be kept open. No. 4 may block Washington St. the first street north of passenger station in order to clear Adams St.

Other trains must not stand on main track between 1000 feet south of Adams St. and Adams St., or between 1000 feet north of Washington St. and Washington St. except while making station stop, to prevent unnecessary operation of wig-wags. Freight trains stopping to do work at Petaluma will use siding when practicable.

No train or engine may move over Adams St. or Washington St. if wig-wags are not in operation, unless member of crew first protects traffic at the crossings.

Switching movements must not be made upon or over streets named below without protection of flagman. Cars must not be kicked nor dropped over such streets:

Adams Street, also known as "D" Street (First street south of passenger station),

Copeland Street (At east end of P&SRRR Interchange), Washington Street (First street east of passenger station).

Santa Rosa: When cars stand on yard tracks within 200 feet of the center line of Barham Ave., but not blocking the crossing, no train, motor, engine or car shall be operated on main track across Barham Ave., unless highway traffic is protected by a competent employe acting as flagman.

Wigwags at crossings 6th, 7th, 8th, and 9th Streets operate only when train movements are made on the main track. Whenever train movements are made on yard tracks over these crossings and wigwags are not operating, vehicular traffic must be protected by a member of the train crew or other competent railroad employe acting as flag-

Crossings at 6th, 7th, and 8th Streets are protected by a crossing watchman between 8:00 A.M. and 12:00 Noon and 1:00 P.M. and 5:00 P.M.

No train, engine or car may be operated over 13th Street crossing, (in old SP Yard), unless vehicular traffic is protected by member of the train crew or other railroad employe acting as a flagman.

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

Santa Rosa......Crossing Beaver St. on cross town line.

Ukiah: Care must be taken at all times to see that Perkins Street crossing, which is the first crossing north of the station at Ukiah, is kept open. This crossing must not be blocked, and switching operations must be so conducted as to obstruct this crossing a mini-

Westward trains on siding do not operate highway warning signals on River Road, 400 feet east of west switch, and before moving onto this crossing a member of crew must protect traffic at the

Redwood Valley: County Road crossing must not be unnecessarily blocked.

Vineburg: All trains and light engines will make safety stop before crossing County Road north side of Vineburg Station on Schellville Branch.

RULE 104. Double track extends between Mission Street, San Rafael and Greenbrae. Normal position of the switch at Mission Street is for westward track. Normal position of switch at Greenbrae is for eastward track.

No. 4 will use the westward main track at San Rafael between the crossover at the freight house (Irwin Street) and the end of double track at Mission Street, leaving the chair cars and Pullman equipment on the westward main track in front of the station at San Rafael for loading. During the time that No. 4 is at San Rafael, both eastward and westward main tracks may be occupied by No. 4's equipment. Trains must clear the eastward and westward main tracks between Irwin Street crossover and the end of double track at Mission Street by 7:59 P.M. for No. 4.

RULE 105. At the following stations, sidings are located as shown below (Note—(CD) is compass direction):

Ignacio: On east side (CD) of main track, from crossover at oil tank to east crossover switch.

Fulton: On west side (CD) of main track.

Windsor: On east side (CD) of main track.

Healdsburg: On south side (CD) of main track; first track adjacent to main track.

Geyserville: On east side (CD) of main track, from crossover just east of station to east switch.

Ukiah: On west side (CD) of main track, from west switch to switch opposite station.

RULE 204. Trains of the Santa Rosa or Willits Subdivisions with the same conductor and engineer operating through Santa Rosa may be issued train orders on one subdivision that affect their movement on the other, or both subdivisions.

RULE 221 (A). Trains must not leave Willits, Santa Rosa, Schellville, Tiburon, or San Rafael without a clearance.

RULE 535. SPRING SWITCHES

When making trailing movement and train is stopped on switch, a reverse movement must not be made nor slack taken until the switch has been thrown by hand.

Spring switches must not be run through in a trailing position, unless the letters "SS" are displayed in normal position.

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

Location	i ja ja kantan kant Birangan kantan kan	Normal Position
Greenbrae	End of double track	Eastward track
Detour	West wye switch	Main track
Detour	East wye switch	Main track
Detour	Sausalito Branch wye switch	Tiburon line
San Rafael	End of double track	Westward track
Ignacio	East wye switch on Branch	Santa Rosa line

Light signal indicating position of switch for facing point movement at above locations is located from 25 to 70 feet in approach of switch. When movement has been completed through switch, reverse movement must not be made until points close and signal light indicates proceed.

RULE 605. DRAWBRIDGES INTERLOCKED

MP	28.8 Black	Point	• • • • • • • • •	Petaluma	
MP	37.2 McNea	ar		Petaluma	Creek

TELEPHONE SIGNALS

Semaphore type signals are located at Ridge and Redwood Valley. When these signals indicate stop, conductor (or engineer in case of light engine) must communicate with the train dispatcher by phone. The normal position of these signals is proceed.

The night indications are controlled by track circuits 1000 feet in approach to the signals.

RULE 825. Portable rail skid is hung on a post near the west end of Hilpass siding.

When necessary to leave one or more cars on the siding, rail skid must be placed on rail, and leading wheel of first car in descending direction run on to the rail skid and hand brakes set before engine is detached.

Trains picking up cars from Hilpass must remove rail skid and return it to the post provided for that purpose and lock it in place with switch lock.

AIR BRAKE RULES

RULE 3. Freight trains between Redwood Valley and Willits will carry 90-lb. brake pipe pressure.

RULE 9. It takes approximately 8 minutes to charge AB freight brake equipment to a point where the brakes are effective, and the following instructions must be observed when picking up cars at Ridge:

(a) Cars must be picked up from the east end,

(b) Where 3 or more cars are to be picked up at Ridge, no movement of these cars is to be commenced until the train line has been charging for a period of at least 8 minutes. After the train line has been charged for 8 minutes, engineer will make at least a 10-lb. brake pipe reduction and trainmen will note that the brakes apply on all of the cars to be picked up before giving a proceed signal to move from the siding.

RULE 14. Westward freight trains having helpers cut in on rear of train will be started from Willits in accordance with that portion of Air Brake Rule 14 reading:

"With one or more helper engines back in the train, helper engineers will first use steam in starting. The lead engineer must be prepared to start promptly and carefully before the helper engines stall."

After train has started, helper engineers will reduce throttle to drifting position and let the road engine stretch the train and handle entire train out over initial switch during rolling inspection. Helper engineers will then carefully bunch the slack in a manner to avoid objectionable run-in.

RULE 17. When retainers are used on westward trains between Ridge and Redwood Valley, the following will govern:

When retainers are turned up on loaded cars, and retainer is of the three-position type, it must be in the high pressure position, which is midway, or 45 degree position.

When retainers are required on empty equipment, they must be turned to the low pressure position. The high pressure position must not be used on empty equipment.

When retainers are used on eastward trains between Ridge and Willits, retainers must not be used on any equipment in high pressure position.

Retaining valves will be turned up on all cars on westward freight trains before leaving Ridge and must be turned down when stop is made at Redwood Valley.

Freight trains descending grade Ridge to Willits must have not less than 1 retainer for each 100 tons. These retainers to be turned up solid on the head-end of the train before leaving Ridge. Engineer may request additional retainers if, in his judgment, additional retainers are required, and trainmen must so provide when request is made. Train must be stopped to clear Valley Street 350 feet west of the west switch at Willits for the purpose of turning down retainers.

When a stop is made by westward freight trains between MP 125 and Redwood Valley and engineer is unable to again start the train, engineer will sound whistle signal 14(b). Brakemen will commence at the rear of the train and turn down sufficient retainers to allow train to start. Retainers must again be turned up on each car as soon as the brake cylinder pressure is sufficiently reduced.

In case of air pump failure on the Ridge hill, engineer will sound one short blast of the steam whistle and all brakemen must immediately set sufficient hand brakes to hold the train.

Passenger trains descending grade Ridge to Redwood Valley must have retaining valves turned up before leaving Ridge and retainers must be turned down when the train leaves Redwood Valley.

Trainmen handling retainer valves at Ridge must use extreme care to see that cutting levers are not disturbed.

If road engine is equipped with dynamic brake, and engineer is qualified to operate dynamic brake, the following will apply:

Dynamic brake on westward freight trains must be tested before leaving Willits, and again before leaving Ridge. On eastward freight trains dynamic brake must be tested before leaving Ridge.

If dynamic brakes are operative, freight trains descending grade between Ridge and Willits need not turn up retainers unless requested to do so by engineer, and in that case not less than one retainer must be turned up for each 100 tons.

FREIGHT TRAINS

RULE 25. Rear-end air tests, as covered by Rule 25(b), must be made at Ridge by eastward and westward freight trains and westward passenger trains; also at Redwood Valley by eastward freight trains.

Wherever rules require rear-end tests, tests shall be made as specified in 25(b) instead of 25(a) and (c).

RULE 30. When a stop is made at Ridge with the head-end of the train over the summit of the grade or at any point on a descending grade, helper engineer must ease off on the throttle and use only sufficient steam to insure slack being bunched until train stops.

RULE 33. Freight trains descending grade Ridge to Redwood Valley must not exceed an average of 55 tons per operative brake, not including engine or caboose, except that where road engine is equipped with cross compound compressor, 60 tons per operative brake, exclusive of engine and caboose, may be operated.

If dynamic brakes are operative, trains descending grade between Ridge and Redwood Valley must not exceed 65 tons per operative

brake exclusive of engine and caboose.

If dynamic brake fails in retainer territory, stop must be made immediately and after brake pressure has been restored, train may proceed being governed by steam locomotive rule. In the event tonnage per operative brake exceeds the maximum prescribed for steam locomotive, speed will be reduced to insure safety but will not exceed 15 MPH.

PASSENGER TRAINS

RULE 39. Running air brake test must be made by passenger trains leaving Ridge.

WILLITS JOINT TRACK

NWP main track from the westerly yard switch to the crossover at MP 138.81 and the CWRR main track between a point 150 feet west of the west crossover switch at MP 138.81 to the west yard switch at Willits will be jointly used by the NWP and the CWRR.

The CWRR main track between the crossover at MP 138.81 and the crossover at MP 139.33 is designated as an interchange track on which CWRR may deliver to and from which NWP will take delivery of loaded and empty cars for interchange to the NWP. Cars must be cleared from this track by 6:00 P.M.

CWRR first-class trains must not use NWP main track between crossover at MP 138.81 and crossover at MP 139.33, except under flag protection.

MISCELLANEOUS

Account shortage of water at Ignacio, trains other than the Santa Rosa-Schellville turns will take water only in emergency, and when necessary to do so, take only enough water to reach next water station.

Engines are not permitted on the beet spur at Ignacio.

Gate has been placed across spur track at McGill MP 36.8 on Schellville Branch. For setting out or picking up cars from this track, gate must be opened. At all other times gate must be kept closed.

No engine will be used on Grace Bros. spur, Santa Rosa that has a rigid wheel base of more than 15 ft. 8 in.

Cars to be set out or picked up at Hilpass must be set out or picked up only by eastward trains.

Chief train dispatcher must be advised from Willits by wire cause of any delay to No. 4 between San Rafael and Willits.

HELPER SERVICE

When helpers are used on westward trains between Ignacio and San Rafael, helper must be cut in ahead of caboose, if consist is over 75% of combined rating of road engine and helper. If less than 75% helper may be placed ahead of road engine. In this event, when moving through Tunnel 4, helper engineer should ease off to a light throttle, and let road engine pull the train through.

HELPERS-RIDGE HILL

With two-engine trains, helper will be placed on head-end of train.

With three-engine trains, two helpers will be cut in ahead of caboose.

With four-engine trains, two helpers will be cut in ahead of the caboose and the other helper spaced approximately seven cars ahead of the other helpers.

When helpers are cut in either at Willits or Redwood Valley, the large type of power must be placed ahead of lighter power.

Wooden underframe equipment must be handled on the rear of train; and with three- or four-engine trains, helpers must be cut in ahead of this class of equipment.

When stop is made at Ridge to cut out a helper engine, a 20-lb. brake pipe reduction will be made and held for three minutes before helpers are cut out. Retainers must be turned up promptly as soon as stop is made, and before helpers are cut out. When train is again coupled, rear-end test per Rule 25(b) must be made. Seven minutes must be allowed for retainers to blow down before attempting to start train from Ridge.

Westward freight trains will make stop at Ridge so that helpers on the rear of train will be cut out at the east switch of crossover.

Eastward freight trains will make stop at Ridge so that helpers on the rear of train will be cut out at the west switch of crossover.

At Ridge, after helpers are cut out and caboose placed on train and air brakes cut in, helper engineer will sound signal 14(m) and road engineer will repeat the signal for rear end test. When ready to proceed, the proceed hand or lamp signal must be relayed by trainmen from rear end to road engineer. Road engineer must not start until such proceed signal is received. Trainmen must be so distributed as to promptly pass these signals.

When freight trains are standing at Ridge on a descending grade, air brakes must be applied and released every two minutes (as covered in second paragraph of Air Brake Rule 32), until the rear end air test is made.

When starting freight trains on Ridge Hill with one or more helpers back in train, and when whistle signals cannot be heard, lead engineer will carefully stretch slack between road engine and helper engines, then make a 25-lb. brake pipe reduction. He will then return brake valve handle to release position for 25 seconds, then return handle to running position, and after brake pipe pressure has settled, make two short releases, six seconds for the first and three seconds for the second.

Road and helper engineers will carefully note time that brake valve is placed in release position, and three minutes from time that brake pipe pressure starts rising helper engineers will open throttle to start train.

If Diesel helper power is used, throttle will be opened to half-way position and after amperes have built up sufficiently to prevent slack from rolling back, release engine brakes. Road engineer will place throttle in same manner, but should allow ten seconds additional time so that helper engines will start to move first.

Engineers on all diesel engines must observe the ampere gauge and adjust throttle to prevent engine from overloading.

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

Mile	entransferior en la compactación de la compactación de la compactación de la compactación de la compactación d	tion and the second of the sec	Side or
Post	At or Near	Description	Overhead
38.5 53.8	Petaluma Santa Rosa	.DrawbridgeOverhe .Eaves of Cement shed of	ad and side
		Mead Clark Lumber Co. Warehouse opposite Tidewa Associated Oil Co	ater
58.5	Fulton	.Water column	Side
68.0	Healdsburg	Steel bridge over Russian R	iver Side
122.1	Redwood Valley	.Water tank spout	Side
131.4	Ridge	.Water tank spout	Side
140.0	Willits	.WHCasteel Lbr. Co. near	
28.5	Black Point	roundhouse	Overhead Side
3 7. 8		.Wingo drawbridge	Side

Tracks 3 and 4 in front of roundhouse at Willits do not provide clearance one with the other for engines standing or moving on these tracks unless engines are more than 65 feet from edge of roundhouse. Engines should not be left standing on either of these tracks between the points where clearance is restricted.

ADDITIONAL SIDINGS, SPURS AND FLAG STOPS

LOCATION	MILE POST	SWITCH CONNECTION	CAR CAPACITY	FLAG STOP FOR TRAINS No. 3 AND 4
Hamilton Field	-23.8	West	110	*Flag Stop
McNear	37.1	West	54	
Mark West	59.8	East	8	Flag Stop
Finlayson	69.0		• • • • • • • • •	9
Oliveto	69.1	West	6	
Chiquita	70.0	West	3	
Simi	70.5	$\left\{egin{array}{c} ext{East and} \\ ext{West} \end{array}\right\}$	10	
Neryo	73.9	West	3	
Tosca	76.5	West	5	0.000.000.000
Omus	77.0	West	9	
Chianti	78.8	West	6	Flag Stop
Icaria	82.7	West	6	
Asylum	113.1	$\left\{ egin{array}{l} ext{East and} \\ ext{West} \end{array} \right\}$	17	
Presswood	115.8	$\left\{ egin{array}{ll} \text{East and} \\ \text{West} \end{array} \right\}$	52	
Norlake	117.0	West	7	
Pomo	118.0	West	3	
SCHELLVILLE BRANCH:				
McGill	36.7	West	21	
Vineburg	42.3	East	17	
Batto	42.4	West	7	,,,,,,
Bonilla	43.1	West	3	
Stando	43.8	East	3	
Sebastiani	44.2	West	26	
SAUSALITO BRANCH:				
Waldo	8.4	$\left\{ egin{array}{l} ext{East and} \\ ext{West} \end{array} \right\}$	18	
Manza	9.2	West	9	Make Sale
Alto	11.0	East	9	
43400	11.0	nast.	9	

^{*}Flag stop to entrain or detrain passengers to or from San Rafael or Santa Rosa or points northerly thereof.

SPEED RESTRICTIONS FOR TRAINS: Maximum speed of trains in territory shown below is subject to further restrictions as prescribed by speed boards, except as specifically authorized 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 ABSOLUTE SAFETY, REGARDLESS OF TIME.

TERRITORY	PASSENGER	FREIGHT
BETWEEN:		
MP MP		
Tiburon and 18.79 (Cerro), except	25	18
7.90 and 7.91 (highway)	10	10
Tiburon and 18.79 (Cerro), except	30	$\frac{10}{25}$
19.16 and 22.00	10	$\frac{25}{25}$
22 00 and 36 30	50	25 30
36.30 and 55.07, except. 37.19 and 37.29 (bridge). ★38.00 and 39.25 (Petaluma). 46.20 and 48.53.	40	$\frac{50}{25}$
37 10 and 37 20 (bridge)	40	
438 00 and 30.25 (Potaluma)	. 0	6
46 20 and 49 52	. 20	25
53.00 and 55.07 (Santa Rosa)	. 30	20
55.07 and 95.00 count	. 25	25
55.07 and 85.00, except	. 50	30
67.10 and 67.50 67.50 and 67.80 (bridge) 67.80 and 69.10 (Healdsburg)	. 40	30
07.00 and 07.80 (bridge)	. 20	20
67.80 and 69.10 (Healdsburg)	. 25	25
60.00 and 60.02 (Cityerdate)	. 20 1	25
85.62 and 87.64	. 35	25
87.64 and 109.00	. 25	20
109.00 and 118.00, except	. 50	30
113.50 and 114.50 (Ukiah)	1 25 1	25
118.00 and 124.00	95	18
124.00 and 130.70, except	1 20 1	15
With DF class engine	. 18	18
With DF class engine. l36.70 and 139.50 (Willits).	. 40	30
Baltimore Park and Larkspur	. 20	20
Sausalito and Detour except:	20	20
Inrough Corte Madera tunnel	1 15	6
Almonte and Mill Valley, except:	. 20	20
Passing High School MP 10.30	6	20 6
Stop before crossing Millwood St. MP 11.40		
Ignacio and Sonoma, except:	20	i. .
Over Black Point drawbridge, MP 28.80	6	
Within Sonoma City limits	10	6
William Condina City illinos	. 10	10

Trains must approach and cross Wingo drawbridge with caution, watching carefully for pedestrians and vehicles.

^{*}Regulated by City ordinance.

SPECIAL INSTRUCTIONS—SOUTHERN DIVISION

ENGINE TONNAGE RATINGS—TONS BACK OF TENDER SOUTHERN DIVISION

	EASTWARD WESTWARD					WESTWARD							
ENGINE NUMBERS	Sausalito to Detour	Tiburon to San Rafael	San Rafael to Miller	Petaluma to Healdsburg	Healdsburg to Cloverdale	Cloverdale to Redwood Valley	Redwood Valley to Ridge	Willits to Ridge	Redwood Valley to Largo	Largo to Miller	Miller to San Rafael	San Rafael to Tiburon	Detour to Sausalito
112. 140 to 143. 170. 178. 179. 180 to 184. 1617 to 1713. 1721 to 1803. 1823 to 1825. 2283 to 2299. 2301 to 2310. 2312 to 2362. 2513 to 2599. 2624 to 2860. 3100 to 3109. 3201 to 3240. 4600 to 4603. 5203 to 5239 (DF).	665 798 798 881 798 921 798 881 798 929 1020 1204 1204 881 1349 2350 1850	832 950 950 1050 950 1184 950 1050 1050 1204 1312 1549 1050 1735 2700 2160	442 509 551 580 509 613 509 580 580 589 754 754 754 580 845 1450 1150	1307 1520 1520 1679 1520 1755 1520 1679 1679 1520 1772 1945 2297 2297 2577 4225 3350	1079 1292 1292 1428 1292 1492 1292 1428 1428 1292 1507 1653 1953 1953 1428 2187 3600 2825	832 950 950 1050 950 1184 950 1050 1050 1312 1549 1050 1735 2750 2150	254 282 310 329 282 344 282 329 329 282 313 385 426 426 310 477 875 700	433 494 532 560 494 588 494 560 560 494 534 617 730 730 730 730 560 817 1375 1100	1596 1948 1995 2152 1948 2070 1948 2152 2152 2152 2302 2744 2152 3073 5050 4025	1739 2690 2738 2895 2690 2928 2690 2895 2895 2690 2840 3045 3600 3600 2895 4032 6650 5000	574 691 759 777 691 900 691 777 777 691 866 950 1138 1138 777 1274 2300 2075	832 950 950 1050 950 1184 950 1050 1050 1204 1312 1549 1050 1735 2700 2150	665 798 798 881 798 921 798 881 881 798 929 1020 1204 1204 1349 2350 1850

RULE 93. Yard limits are established at the following stations:

Willits Island Mountain, Fort Seward. South Fork, Scotia, Alton, Fernbridge, South Bay, Eureka (including Bucksport), Arcata (including Korblex), Samoa (including Samoa Yard), Carlotta.

RULE 98. Railroad crossings at grade not interlocked:

MP 280.8....B&ERRR—STOP, MP 282.2....B&ERRR—Holmes Eureka Log Dump track— STOP

MP 292.5.....Arcata—California Barrel Company west leg of wye-STOP.

RULE 99 (C) will apply on Carlotta Branch, Korblex Branch and Samoa Branch.

RULE 104. Normal position of junction switch of Carlotta Branch at Alton is for siding.

RULE 105. At the following stations, sidings are located as shown below (Note—(CD) is compass direction):

Island Mountain: On east side (CD) of main track, from switch 880 feet west of oil tank to switch east of station.

Fort Seward: On east side (CD) of main track.

Scotia: On west side (CD) of main track.

Fernbridge: On west side (CD) of main track, from second switch east of station to east switch.

South Bay: On west side (CD) of main track, from first switch east of water tank to first switch east of station stop.

RULE 204. Trains of the South Fork or Eureka Subdivisions with the same conductor and engineer operating through South Fork may be issued train orders on one subdivision that affects their movement on the other, or both subdivisions.

RULE 221 (A). Trains must not leave Arcata, Eureka, South Fork or Willits without a clearance.

Trains to and from the Carlotta Branch must obtain a clearance before leaving Alton when operator is on duty.

LIGHT TYPE INDICATORS

Light type indicators are installed on the Scotia Bluff to assist patrolmen in protecting (until full flag protection can be provided) any situation which may be discovered affecting the movement of trains at normal speed. These indicators are of the light type, having a lunar white light to indicate proceed, and a red light to indicate stop. Indicators are equipped with approach lighting, the track circuit being 1000 feet in approach to each indicator.

Control switches are located on poles—MP 256 Pole 12, 256 Pole 19, 257 Pole 0, 257 Pole 6, 257 Pole 11, 257 Pole 20, 258 Pole 6.

Boxes containing these switches are sealed with car seals. If any condition is found to require protection, patrolmen or others will break the seal and open any one of these switches, which will cause the indicator to display a red light. Such switch must not be closed until the conditions are corrected for the normal movement of trains.

The protective equipment is so designed as to cause the indicators to assume a stop position if any of the bents should be disturbed by falling rock or high water.

When indicator displays a red light, or in the absence of any light, train will stop and then proceed at not to exceed 4 MPH to opposing indicator. Under these circumstances, trainmen and enginemen should carefully observe wooden trestles to see if any of the bents have been displaced or damaged.

GENERAL REGULATIONS

RULE 827. Log trains required to double through Tunnel 40 will double from Loleta and logs must be inspected before leaving Loleta.

In order to avoid hazard of accident, trains handling logs not loaded in gondolas should not be in motion on tracks adjacent to main track when passenger trains are passing. If necessary to saw-by, passenger train must remain standing until caboose is clear of main track and train with logs has stopped.

Eastward trains handling cars loaded with logs from Carlotta Branch must be inspected at Carlotta, Alton and Fernbridge. When cars are to be moved beyond Eureka, must be inspected at Eureka.

Special attention must be given to the inspection of chocks and height of loads. Loads must not exceed 12 feet in height above top of rail with a tolerance not to exceed 6 inches. If there is any doubt as to whether load can be moved safely or if car is improperly loaded, it must not be moved and, if in the train, must be set out.

AIR BRAKE RULES

FREIGHT TRAINS

RULE 25. Wherever rules require rear-end tests, tests shall be made as specified in 25(b) instead of 25(a) and (c).

ADDITIONAL SIDINGS, SPURS AND FLAG STOPS

LOCATION	MILE POST	SWITCH CONNECTION	CAR CAPACITY	FLAG STOP FOR TRAINS No. 3 AND 4
Indian Springs	168.0		Р	Flag Stop
Deer Lodge	169.0		P	Flag Stop
Camp Rest	174.4		P	Flag Stop
River Garden	177.2			Flag Stop
Quarry Spur	195.7	East	11	
MP 201	201.0	West	8	Flag Stop
Steelhead	211.6	1, 050	P	Flag Stop
Smith	227.7	West	3	Flag Stop
Tanoak	228.3	West	4	Flog Stop
Camp Grant	234.8	West	$2\overline{5}$	Flag Stop
Perrott Creek	238.4	East	$ ext{TPL}$	Flag Stop
Larabee Ranch	242.4		P	Floor Ctor
Bryan	243.2		P	Flag Stop
Yoder	256.1	East	50 50	Flag Stop
Line Change Spur	256.7	East		
Nanning Creek	257.0	West	8 2	Tai Ci
Worswick	268.2		2	Flag Stop
Zowia	275.0	East	27	
Zerus Eureka Tallow Co		West	3	
Eureka Tallow Co	280.7	East	3	
B&ERRR Connection EUREKA TO KORBLEX:	280.9	East	4	
Brainard	287.5	West	23	l
Bracut	289.2	West	10	:::::::::
ARCATA TO SAMOA:		1	**	
Manila	297.5	East	28	

ADDITIONAL WATER STATIONS

Stony Creek	MP 169.6
Hamman Gulch	MP 204.3
Steelhead	MP 211.6
West of Eel Rock	MP 224.5
Camp 8	MP 248.2

Eastward passenger trains must not stop at Steelhead to take water, and other eastward trains take water at Steelhead only in emergency.

Westward through freight trains will take water at Stony Creek (if available) instead of Dos Rios.

SPECIAL INSTRUCTIONS—NORTHERN DIVISION

MISCELLANEOUS

Water supply for engine use at Island Mountain is limited Work trains or engines tying up at Island Mountain, or when necessary to fill water cars should take a minimum of water from the Island Mountain supply. Preference should be given to water supply at Kekawaka and Bell Springs.

Engines must not go beyond clearance point of spur track at Bell Springs.

Engines heavier than the 180 series must not be turned on the turntable at Island Mountain.

Engines heavier than the 180 series must not operate over trestle to the log dump at Hammond Plant No. 2, Eureka.

No engine heavier than the 140 series may be used inside the Hammond Plant at Samoa.

Engines or cars must not move beyond the north end of warehouse on track 1 at Samoa.

In addition to interchange tracks at Glynn, the house track at Scotia is designated as an interchange track for cars other than cars of logs, between NWP and TPLCo. House track not to be used for the interchange of logs.

Chief Train Dispatcher must be advised by wire from Eureka cause of any delay to No. 4 between Willits and Eureka; and from Willits cause of any delay to No. 3 between Eureka and Willits.

SPEED RESTRICTIONS FOR TRAINS: Maximum speed of trains in territory shown below is subject to further restrictions as prescribed by speed boards, except as specifically authorized 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 ABSOLUTE SAFETY, REGARDLESS OF TIME.

TERRITORY	PASSENGER	FREIGHT
Between:		
MP MP		
Willits and 143.00	35	20
143.00 and 232.00, except:	25	18
162.70 and 163.90	$\overline{18}$	18
165.70 and 165.80	1 1 $\tilde{5}$	$\widetilde{15}$
166.90 and 167.30	15	15
183.80 and 184.10.	15	15
187.30 and 187.50.		$\tilde{15}$
188.30 and 188.40	1.5	$\tilde{15}$
190.20 and 190.30 (slide area)	10	10
196.00 and 196.10	l ĩŏ l	îŏ
201.20 and 201.40.		$\tilde{15}$
211.50 and 211.70.		18
213.25 and 221.5		25
222.10 and 222.20	$\tilde{15}$	$\tilde{15}$
232.00 and 256.60, except:		20
239.70 and 240.30		18
243.50 and 243.90 (tunnel)	15	10
246.90 and 247.30 (tunnel)	20	10
248.30 and 249.50.		$\tilde{18}$
251.60 and 251.90	15	15
256.60 and 258.20 (Scotia Bluff)	15	$\tilde{15}$
258.20 and 284.10 (Eureka), except:	35	20
279.30 and 280.20	15	10
282.00 and 282.10 (Gregg St.)	30	20
*Between Eureka and Korblex, except:	15	$\tilde{15}$
★A and L Streets, Eureka	10	10
286.00 and 292.00	l ĩŏ l	10
*Between Arcata and Samoa	15	15
*Between Alton and Carlotta		15
*With relief outfit		10

*Regulated by City ordinance.

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

Mile Post	At or Near	Description	Side or Overhead
284.1	EurekaI	Eureka Boiler Works—posts	
		at entrance of building	Side
2 84.1	Eureka	Acme Foundry—building O	verhead and Side
284.1	Eureka	The Pacific Lumber Compar	ıy
		platform	Side
284.1	Eurekal	Hammond Log spur—gate p	ost and
		fence	

ENGINE TONNAGE RATINGS—TONS BACK OF TENDER NORTHERN DIVISION

	E	EASTWARD			WESTWARD		
ENGINE NUMBERS		Loleta to Beatrice	Beatrice to Eureka	Eureka to Beatrice	Beatrice to Loleta	Loleta to Willits	
112	1734	1045	1734	1734	832	1178	
140 to 143	2043	1235	2043	2043	1093	1378	
170	2176	1330	2176	2176	1183	1482	
178		1663	2280	2280	1250	1544	
179	. 2043	1235	2043	2043	1093	1378	
180 to 184	2268	1463	2394	2394	1305	1575	
1617 to 1713	. 2043	1235	2043	2043	1093	1378	
1721 to 1803	. 2280	1663	2280	2280	1250	1544	
1823 to 1825	. 2280	1663	2280	2280	1250	1544	
2283 to 2299		1235	2043	2043	1093	1378	
2301 to 2310		1478	2291	2291	1318	1592	
2312 to 2362		1621	2514	2514	1447	1746	
2513 to 2599	2969	1915	2969	2969	1782	2062	
2624 to 2860	2969	1915	2969	2969	1782	2062	
3100 to 3109	. 2280	1544	2280	2280	1064	1544	
1600 to 4603		4400	6650	6650	2900	2900	
5203 to 5239 (DF)	5000	3475	5000	5000	2500	2650	

NORTHWESTERN PACIFIC RAILROAD MILEAGE

SOUTHERN DIVISION	First Track Miles	Second Track Miles	Total Miles
Tiburon to DetourNWPRR Detour to WillitsNWPRR		2.28	
Total Total Main Lines	131.35	2.28	133.63
Branches:			
LarkspurNWPRR (Baltimore Park to Larkspur)	.63		
Mill ValleyNWPRR (Almonte to Mill Valley)	1.73		
SausalitoNWPRR (Sausalito to Detour)			
SchellvilleNWPRR			
(Ignacio to Sonoma) NWPRR-SPRR	2.76		
Total Branches	30.54		30.54
Total Southern Division			164.17
NORTHERN DIVISION			
Willits to EurekaNWPRR	144.64		,
Total Main Lines	-		144.64
Branches:			
CarlottaNWPRR (Alton to Carlotta)	5.05		
KorblexNWPRR (Eureka to Korblex)	1		
SamoaNWPRR (Arcata to Samoa)	7.69		
Total Branches	24.14		24.14
Total Northern Division			168.78
NWPRR Total Main Lines.			278.27
NWPRR Total Branches			54.68
NWPRR Total			332.95

SPEED TABLE

TIME PER MILE	MILES PER HOUR
1'12"	50 49.3 48.6 48 47.4
1'17". 1'18". 1'19". 1'20". 1'25".	46.8 46.2 45.6 45
1'30". 1'35". 1'40". 1'45".	40 37.9 36 34.3 32.7
1'55"	31.3 30 26.7 25 24
2'45"	21.8 20 18 17.1 15
5′00″. 6′00″. 7′00″. 7′30″. 8′00″.	12 10 8.6 8 7.5 6

