

WORK SAFELY TODAY

EACH RULE VIOLATION IS A POTENTIAL ACCIDENT

ASSISTANT SUPERINTENDENT

W. G. HOWELL.....Elko, Nevada

TRAINMASTERS

L. E. THOMAS	Portola, Calif.
K. P. WOOD	Elko, Nevada
M. W. HAMMONDSalt	Lake City, Utah

ROAD FOREMEN OF ENGINES

W. 1	D.	EY	RE.	 	 						 			. F	Por	tol	a,	Cali	f.
C. F	F	IEL	DS	 				 							Ell	ko.	N	evad	la

CHIEF TRAIN DISPATCHER

G. W. NAYLOR.....Elko, Nevada

NIGHT CHIEF TRAIN DISPATCHERS

W. C. BONI	D									. Elko,	Nevada
W. F. SCHO	BER	 								·Elko,	Nevada



WESTERN PACIFIC RAILROAD CO.



EASTERN DIVISION TIMETABLE

64

AT 12:01 A. M.
PACIFIC STANDARD TIME

FOR THE GOVERNMENT AND INFORMATION OF EMPLOYES ONLY

M. M. CHRISTY,

Executive Vice-President and General Manager.

K. V. PLUMMER, JR.,
Superintendent of Transportation.

J. F. LYNCH, Superintendent.

Eastward FIRST SUBDIVISION Westward

SECOND	FIRST					-	F	IRST
CLASS	CLASS			Т	imetable No. 64		C	LASS
220	18	Mile Post	H		April 26, 1964			17
Local Freight	California Zephyr	Mile						aliforn <u>ia</u> Zephyr
Leave Daily	Leave Daily			A15.11	STATIONS		┝	rive Daily
Ex. Sunday	PM		-	Yard	CAPACITIES AND FACIL	BKF	┝	AM
3.45	6.25	321.4		TO-1	R PORTOLA	YPO	<u>s</u>	7.05
4.00		_327.5		l	HAWLEY	Р_	_	
4.25		339.1		127	CHILCOOT	P	Ĺ	
4.35 AM		341.8			RENO JCT.	YP		
		345.6		127	SCOTTS	Р_		
 		352.5		72	RED ROCK	P	L	
		362.6	l	127	DOYLE	P	L	_
	s 7.30	371.7		84	9.1 HERLONG, (CAL.)	P_	s	6.10
		383.5		125	11.8 FLANIGAN, (NEV.)	P		_
		384.3	$\ $ _	-	SP X'ING & CONN.	I		_
		384.4	System		S P CONNECTION	Р		
		393,7		125	9.3 SAND PASS		Γ	
		404.7	Control	125	11.0 SANO	P		
		416.3	ě	114	11.6 REYNARD	Р		
		430.8	F	125	14.5 PHIL	P		
	s 8.35	437.9		126	7,1 GERLACH	KYP	ន	5.08
	<u>s 0.35</u>	451.2	1	125	13.3 TREGO	P		
		461.3	l	125	CHOLONA	- <u>-</u> -		
	-	470.6	l	125	9.3 RONDA	- P		
		479.4		125	8.8 FLOKA	P		
 				125	8,2	P P		
 		487.6		125	9.0		H	
 		496,6	1	125	JUNGO	P	_	
		508,6	1	125	GASKELL 10.6	- <u>P</u>	-	
	s 9.57	519.2		Yard	RAGLAN 13.1	BK	\vdash	3.40
Arrive Daily		532.3	╢—	\TO-I	R WINNEMUCCA	FPY	-	AM
Ex. Sunday	Arrive Daily		L				Le	ave Daily
220	18				· · · · · · · · · · · · · · · · · · ·		<u> </u>	17

Eastward — SECOND SUBDIVISION

			<u> </u>	
FII	RST CLA	SS		Timetable No. 64
18	22	102	ost	April 26, 1964
West, Pac. California Zephyr	Southern Pacific Mail	So. Pacific City of San Francisco	Mile Post	
Leave Daily	Leave Daily	Leave Daily		STATIONS SIDING CAPACITIES AND FACILITIES
PM			532.3	Zi Yard BK TO-R WINNEMUCCA FPY
10.00	AM 9.50	AM 1.33	536.0	H 3.7 WESO (5P Conn.) IP
10.10	9.56	1.38	540.3	128 4.3 BLISS P
10.16	10.04	1.44	548.1	7.8 GOLCONDA P
			553.8	PREBLE (SP Conn.) P
10.27	10.18	1.55	562.4	115 RED HOUSE P
10.37	10.31	2.05	575.1	129 ELLISON P
	s 10.46	f 2.17	589.1	
10.50	10.48	2.19	590.7	RENNOX P
10.58	10.58	2.27	600.6	KAMPOS P
11.05	11.06	2.34	609.5	112 8,9 PEOWAWE (SR Comp.) P
11.13	f 11.17	2.42	619.5	10 BEOWANE (3F Conn.) 1
11.19	11.25	2.48	626.9	CLURO P 3.6 BARTH (SP Conn.) P
11.31	11.40	3.02	636.2	5.7 PALISADE P
11.38	11.50	3.11	643.4	PALISADE P 7.2 WEST CARLIN (SP Conn.) I
11.41	5 11.55 AM 12.05 PM	s 3.15 3.25	644.6	R-Yd.Lmts. CARLIN PB
11.44	12.08	3.28	646.0	EAST CARLIN (SP Conn.)
PM 11.54	12.18	3.38	656.3	128 10.3 P HUNTER P Vd Lmts 9 1 BK
s 12.05	s 12.30 	s 3.48 AM	665.4	Yd. Lmts. 9.1 BK TO-R ELKO (SP Conn.) FPY
Arrive Daily	Arrive Daily	Arrive Daily		<u> </u>
18	22	102		

Elko. A platform 670 feet long located south side main track 1600 feet west of depot just west of middle crossover, for unloading mail and express. No. 22 will stop at this point to load and unload mail and express. After this is done, train will proceed to depot to receive or detrain passengers.

SECOND SUBDIVISION — Westward

		1	FIRST GLASS
	Timetable No. 64	l I	111131 32233
		17	
	April 26, 1964		
		California Zephyr	
	STATIONS	<u> </u>	<u>-</u>
<u> </u>	SIDING CAPACITIES AND FACILITIES	Arrive Daily	
T.C.S.	TO-R WINNEMUCCA BK Yard 3.7 FPY	3,1	· .
F	WESO (SP Conn.) 4.3 1P	3.32 AM	
l	BLIS\$ 7.8		
i	GOLCONDA 5.7		
	PREBLE (SP Conn.)		
ļ.,	RED HOUSE		
Ē	ELLISON 14.0		,,
A B	NORTH BATTLE MT'N		Be governed by current time-
	RENNOX 9.9		table, bulletins and rules of
, E	KAMPOS		Southern Pacific Company, on
yster	B.9 DUNPHY		SP track between Elko and
Automatic Block Signal System, EASTWARD ONLY	TO BEOWAWE (SP Conn.)		Weso.
ਲ	CLURO 3.6	· · · · · · · · ·	
8	BARTH (SP Conn.)		
Паti	5.7 PALISADE	· • • • • •	
Aute	WEST CARLIN (SP Conn.)		
ŀ	R CARLIN		
	EAST CARLIN (SP Conn.)	· · · · · · · · · · · · · · · · · · ·	
	HUNTER		
	TO-R ELKO (SP Conn.)	1.30	
⊩		AM Leave Daily	
⊩			
		17	<u> </u>

Eastward — THIRD SUBDIVISION

FII	RST CLAS	ss			Timetable No. 64
22 Southern Pacific	102 8o. Pacific	18 West, Pac.	Mile Post		April 26, 1964
Mail Leave Daily	City of San Francisco Leave Daily	California Zephyr Leave Daily			STATIONS SIDING CAPACITIES AND FACILITIES
PM 12.35	AM 3.50	AM 12.10	665.4		Yd. Lmts. BK TO-R ELKO (SP Conn.) FPY
1.00	4.10	12.29	683.3	를 참	117 17.9 P
l			684.3	Eastward Only.	SP CONNECTION 114 15.7 P
1.25	4.27	12.42	700.0	41 1	114 15.7 P DEETH 1.0 P
	441		701.0	ABSS	SP CONNECTION
1.45 PM	4.41 AM	12.55	713.6	 	ALAZON (SP Conn.) IP
			717.7		WELLS 125 10.4 P
	<u> </u>		728,1		RUBY 125 10.1 P
 	ļ		738.2		VENTOSA 125 9.0 YP
			747.2	E	125 10.3 P
			757.5	System	8.4 I
			765.9	Control	NN CROSSING YP
		1.40	766.4	(CO	SHAFTER 125 6.0 P
			772.4	Traffic	SILVER ZONE 125 8.7 P
			781.1 788.9		CLIFSIDE 7.8 P PILOT
		 	798.6		125 9.7 P
		s 2.34	806.3		Yard 7.7 BK TO-R WENDOVER, (UTAH) FPY
				'	
				-	
Arrive Daily	Arrive Daily	Arrive Daily		_	`
22	102	18			

THIRD SUBDIVISION — Westward

			Simetable No. 64	_	FI	RST GL/	155
Post	l		April 26, 1964		17		
Mile Post		SIDIN	STATIONS G CAPACITIES AND FACILI	TIES	California Zephyr Arrive Daily		
665.4	-	TO-1	R ELKO (SP Conn.) 17.9		AM s 1.25		
683.3	ا بر	-	ELBURZ 1.0			erned by	current
684.3	Eastward Only.		SP CONNECTION 15.7		timetabl	le, bullet Southers	ins and
700.0	astwa		DEETH 1.0		Compan	y, on SP t	rack be-
701.0	m		SP CONNECTION 12.6			lazon an	n Elko.
713,6	ABS	_	ALAZON (SP Conn.) 4.1	IP_	AM 12.45		
717.7		125	WELLS 10.4	P			
728,1		125	RUBY 10.1	Р			
738.2		125	VENTOSA 9.0	P			
747.2	្ព	125	SPRUCE 10.3	ΥP			
757.5	System	125	SAGE 8.4	P			
765.9			NN CROSSING	I			
766.4	5	125	SHAFTER 6.0	YР	11.55 PM		
772,4	Traffic Control	125	SILVER ZÖNE 8.7	P			
781.1		125	CLIFSIDE 7.8	P			
788.9		125	PILOT 9.7	P			
798.6		125	OLA, (NEV.) 7.7	P			
806.3	_	TO-	R WENDOVER, (UTA)	I)BK FPY	11.00 PM		
					LeaveDaily		ļ
					17		

Eastward FOURTH SUBDIVISION Westward

	FIRST	Mile Post		Timetable No. 64		FIRST
	18 California	Mile				17 California Zephyr
	Zephyr		ľ	STATIONS		Arrive Daily
	Leave Daily		-	SIDING CAPACITIES AND FACILI		<u> </u>
	AM 2.35	806.3		Yard TO-R WENDOVER	BK FPY P	PM s 10.59
		815.5		SALDURO		
		825.1		125 ARINOSA 125 9.8	P	
		834.9		BARRO	- P	
		845.3		125 10.4 KNOLLS		
ļ		854.2		125 8.9 CLIVE	P 	
İ		866,1	System	125 11.9 LOW	P	
	3.35	878.4		125 12.3 DELLE	Р	9.59
		892.9	Control	ELLERBECK	P	
		897.1	Traffic	125 4.2 BURMESTER	ΥP	
	,	911.9	Tra	33 14.8 KCC TRANSFER	Р	
		912,1		KCC CROSSING	AIP	
		913.2		125 1.1 GARFIELD	P	
1		924.7		BUENA VISTA	P	
i		926.3		UP CROSSING	AIP	
		926.7_		UP CROSSING	-	
::		927.2		POLLARD JCT.	IP	
		927.4	_	D&RGW CROSSING	IP	
	s 4.25 AM	928.0	TC TC	Lmts. 0.6 R SALT LAKE CITY(U.D.		9.15 PM
		928.7	_	UP CROSSING	AI ———	
		930.4		. Lmts . 1.7 D-R ROPER (Salt Lake City)	BKF YPO	
	Arrive Daily					Leave Dally
	18					17

First Subdivision "BD"— LOYALTON BRANCH

Ŧ	 <u> </u>	120		P		Ī
- 1	0.0		HAWLEY		11.8	ı
	11.8	100	LOYALTON	Ä	0.0	l

First Subdivision "BI"— RENO BRANCH

SECOND GLASS	EAST- WARD	Timetable No. 64	WEST- WARD	THIRD GLASS
220	se from netion	April 26, 1964	Distance from Reno	219
Leave Daily Ex. Sunday	Distance from Reno Junction	STATIONS SIDING CAPACITIES AND FACILITIES	Distan	Arrive Daily Ex. Sunday
AM 4.40	0.0	56 RENO JUNCTION YP	33.1	AM 10.50
5.10	10.1	PEAVINE, (CAL.)	23.0	10.18
5.30	16.2	15 6.1 COPPERFIELD, (NEV.)	16.9	9.59
5.39	18.8	25 2.6 ANDERSON	14.3	9.51
5.47	21.3	Spur 2.5 1E15 MARTIN	11.8	9.43
5.55	23,37	Spur 2.07 1E3 PANTHER	9.73	9.35
5.56	23.5	6 .13 RANSOME	9.6	9.34
6.13	30.3	14 6.8. COMSTOCK	2.8	9.17
6.14	30.6	42 0.3 SIERRA PACIFIC	2.5	9.16
6.15	30.7	Spur 0.1 1W23 VAUGHN MILL No. 1	2.4	9.15
6.20	31.2	Spur 0.5 1W24 VAUGHN MILL No. 2	1.9	9.10
6.23	31.42	Spur 0.22 1W24 ROCKY MOUNT No. 1	1.68	9.07
6.25	31.57	Spur 0.15 1E40 ROCKY MOUNT No. 2	1.53	9.05
6.30 AM	33.1	Yd. Lmts. 1.53 TO-R RENO C	0.0	9.00 AM
Arrive Daily Ex. Sunday				Leave Daily Ex. Sunday
220				219

Fourth Subdivision "BG"— ELLERBECK BRANCH

0.0	ELLERBECK	P	4.7	
0.9	Spur 0.9 1E17 USS&R Co. Spur		3.8	
2.7	1.8 WYE	Y	2.0	
3.7	8 1.0 FLUX		1.0	
4.7	Spur 1,0 1E3 DOLOMITE		0.0	

Fourth Subdivision "BB"-WARNER BRANCH

0.0	TO BURMESTER	ΥP	15.5	
 7.0	7.0 MARSHALL		8.5	
13.5	Spur 1W25 6.5 Conn. Tocele Army Depot		2.0	
15.5	77 2.0 WARNER	_ Y	0.0	<u> </u>

Special Instructions

All times as shown for trains at Stations on schedule pages are Pacific Standard Time. Trains will continue to operate on Pacific Standard Time during period that Daylight Saving Time is in effect.

GENERAL RULE M. Add. Employees are prohibited from riding or walking on the roof of any moving car.

RULE 10-I. Add. After stopping, train may proceed when proceed signal is given with a green flag, but must not exceed restricted speed through the restricted area unless otherwise instructed by the foreman in charge.

RULE 10-J. Yellow round speed-control boards indicate the maximum permissible speed for passenger trains. The higher number on white oval speed-control boards indicates the maximum permissible speed for Special Freight Trains under column 2 and the lower number indicates the maximum permissible speed for Other Freight Trains under column 3. Where but one number is shown, it indicates the maximum permissible speed for both Special and Other Freight Trains.

RULE S-17. Figures indicating "Car Capacity of Sidings" are number of cars, based on average allowance of 48 feet per car, that tracks will hold between clearance points, plus 250 feet for engine and caboose.

Outside of T.C.S. territory care must be taken to see that flag protection is furnished ahead when taking siding to meet trains unless it is definitely known that train is clear of the main track. After train comes to rest in the siding, the head end must receive a stop signal from the rear end indicating that train is clear of the main track. Until such signal has been received by head end, headlight will be displayed and flag protection provided. This does not in any way relieve the approaching train from complying with provisions of Rule S-90.

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

RULES 82-A, 95 and 97. T.C.S. Territory. Trains will be authorized at Portola, Wendel, Winnemucca, Wendover, Roper and Salt Lake City by clearance. Trains originating at intermediate stations within T.C.S. will be authorized orally by train dispatcher except at a station where an operator is on duty.

Conductor, or engineer if there is no conductor, of a train authorized orally must ascertain from train dispatcher what instructions are outstanding as to track conditions on that part of the system over which movement is to be made.

RULE 101-A Freight trains designated by the Superintendent may operate at speeds shown under Column 2, Special Freight trains, pages 23 and 24, when they receive the following message.

"This is your authority to operate at speeds shown under column 2, Special Freight Trains, current timetable between

(Station)	and

Freight trains that do not have this written authority, or when this authority is cancelled, will operate at speeds shown under column 3, Other Freight Trains.

Superintendent

RULE 101-B. When tracks are covered by water and it is known they are safe for movement, engines may be operated over them only if the water is below the traction motor frames, not exceeding 5 MPH.

RULE 104. All switches connecting sidings with other tracks, except main track, after being used, must be left lined for siding.

RULE 105. Sidings within T.C.S. limits, except north siding Winnemucca, are not included in signal circuits between clearance points.

RULE 110. Where stops are made for other reasons, inspection of train must be made as often as practicable. When weather condi-

tions restrict visibility, the conductor will designate additional stops for inspection that, in his judgment, are necessary.

RULE 509. When a train becomes disabled in a block between stations, and the conductor or engineer has given train dispatcher assurance it is unable to proceed, the train dispatcher may, after an understanding has been reached with the conductor or engineer of the disabled train, orally authorize another train in opposing direction to enter the block under flag protection to relieve the disabled train. When a train is reported disabled to the train dispatcher, it must thereafter not be moved in either direction until relief train has arrived, or unless otherwise instructed by the train dispatcher.

RULE 540. Traffic Control System extends between Portola and Eastward Interlocking Home Signal, Weso (MP 535.5) and between Westward Interlocking Home Signal, Alazon (MP 713.7) and Eastward Interlocking Home Signal, Pollard Jct. (MP 927.2).

RULE 547. When a train is standing or switching in a block at a station, train dispatcher may authorize another train to flag into the block to perform work. Crew of train so authorized must have an understanding with crew of train occupying the block before entering and must fully protect their movements against any movements by the train originally occupying the block.

RULE 550. When a train or engine is to clear the main track at an electrically-locked switch, after it has entered the block in which the switch is located, the train dispatcher must hold all signals governing movement into that block at STOP and apply red tags to the levers controlling such signals. When movement is clear of main track and switch again normal, crew member will then report to train dispatcher that train or engine is clear. Until crew member so reports train dispatcher must not remove red tags from levers controlling the signals involved.

RULE 550-A. Trains and engines must not clear the main track at hand-operated switches not equipped with electric locks in territory where maximum speed is more than 20 MPH.

RULE 825. Modified to extent that diesel engines not exceeding two units, or 3500 HP, may be used behind 400 and 600 series cabooses.

Diesel engines must not be used as helpers behind DRGW cabooses.

RULE 826. When necessary to handle a car ahead of engine between stations, it must be chained to engine unless air brakes are cut in and operative.

RULE 831. When steam shovels, cranes, pile drivers, ditchers, spreaders, or similar equipment are handled in trains, other than work trains in service, they must be placed on rear, unless otherwise directed. If picked up at a point where they cannot be placed on rear. they may be placed on head end and switched to rear at first station where possible to do so.

RULE 1011. When engine is not detached from train on the California Zephyr at Portola, Gerlach or Elko, it will not be necessary for outgoing enginemen to check supplies or equipment.

AIR BRAKE RULES

RULE 22. Retainers will not be used on freight trains unless in the judgment of the engineer their use is necessary. If retainers are necessary, a sufficient number will be used to control the speed of the train while brake pipe pressure is being restored. When used, they will be applied to cars on head end in a block of not less than fifteen cars and in a low-pressure position (horizontal). Should wheels show a tendency to heat, retainers must be alternated.

RULE 24-C. On California Zephyr trains, if motive power is changed at any intermediate station or terminal, or continuity of

brake pipe is disturbed, air brake test must be made.

At Portola, Gerlach and Elko, the incoming engineer, after making station stop, must make a 20 pound brake pipe reduction with the automatic brake. Observation will be made that rear brakes

apply. On receipt of proper signal the outgoing engineer will release brakes. Observation will be made to note that rear brakes release.

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

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

the outgoing engineer the amount of brake pipe leakage.

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

OPERATION OF TRAINS AND ENGINES BETWEEN EAST AND WEST TRAIN YARD SWITCHES PORTOLA

- (A) Signal aspect per Rule 288 displayed by automatic signals or indicators between east train yard switch MP 322.13 and west train yard switch MP 320,25, authorizes yard switching or engine movement within these limits.
- (B) The absence of signal aspect per Rule 288, or its removal, is an indication that the train dispatcher desires the main track cleared for through train movements. Howlers controlled by the train dispatcher are located throughout the yard, and when operated the main track must be cleared immediately.
- (C) In addition, train dispatchers will furnish information to operator as to times passenger trains are expected to reach Portola. Employees in charge of yard engines, light engines, and similar moves must ascertain from operator whether these trains are due before occupying main track and not delay them.
- When main track is used on authority of signal aspect per Rule 288, all movements must be made at yard speed.
- (E) When a westward train or engine is stopped at absolute signal at east train yard switch, MP 322.13, or an eastward train or engine is stopped at absolute signal at west train yard switch, MP 320.25, by a STOP indication and train or engine is instructed by the train dispatcher to proceed under flag protection per Rule 509(A)2, it must be preceded by a flagman. When next signal or indicator in advance can be seen displaying aspect per Rule 288, and intervening track to such signal can be seen to be clear, train or engine may pick up flagman and proceed at yard speed.
- (F) Eastward absolute signals at west train yard switch are under electrically-coordinated joint control of train dispatchers for the Third Subdivision, Western Division and First Subdivision, Eastern Division.

Permission to take switch or derail at west end train yard in hand-throw must be obtained from Western Division train dispatcher. Western Division train dispatcher will in turn contact Eastern Division train dispatcher for his concurrence.

When west train yard switch is in hand-operated position, de-

railing switch, if used, must also be hand-operated.

(G) Train washer located on main track between west pocket track switch and east switch west siding.

Automatic Signals 3210 and 3211 located adjacent to washer are equipped with marker lights indicating the position of washing arches.

All aspects displayed by these signals are subject to the restrictions imposed by the marker lights and the following will govern:

LUNAR: Washer clear - Movement may be made through washer not exceeding 10 MPH.

PURPLE: Washing position — Restricted clearance. All trains and engines to be washed STOP and then proceed not exceeding 2 MPH.

Lunar light must be displayed for all non-washing movements. If lunar light not displayed for non-washing movements, trains and engines must STOP, check all washing arches, see they are locked in

clear, then movement may be made through washer not exceeding 10 MPH.

Employes are prohibited from riding on sides or tops of trains, cars or engines while passing through train washer in operating position.

No. 17, California Zephyr, will make station stop so that baggage car will be spotted at west end of hard-surface platform. In event it is too cold to wash train, engineer will be notified accordingly.

(H) After being authorized by clearance, trains must not leave until given permission by train dispatcher after member of crew advises him they are ready to leave, except Nos. 17 and 18 will leave when ready being governed by signal indications.

(I) Derail at west end of west siding is hand-operated independent of switch. Derail will actuate signals on main track when not in

derailing position.

(J) Yard track indicators located opposite absolute signals governing movements of eastward or westward freight trains into yard will indicate to such trains the number of the track on which they are to yard their trains.

When indicator is dark yardmaster must be contacted at head-in

switch to obtain track assignment.

INTERLOCKING PLANTS AND SIGNALS AND RAILROAD CROSSINGS NOT INTERLOCKED

MP 384.3, SP X'ing & Conn. Interlocking. Remote-controlled. When using dual-control switch east end Flanigan siding in hand-throw position, movement must be made in accordance with Rules 545 and 663.

MP 765.9, NN Crossing. Interlocking Remote-controlled. When using dual-control switch west end Shafter siding in hand-throw position movement must be made in accordance with Rules 545 and 663.

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

MP 912.1, KCC X'ing & Tfr. Interlocking Automatic.

MP 926.3, UP Crossing. Interlocking. Automatic.

Signals are approach clearing. If movement over crossing is not completed within six minutes after train enters approach circuit, signals may revert to "stop" indication. Approach clearing circuits are provided approximately 8450 feet west of eastward interlocking home signal, and 5650 feet east of westward interlocking home signal. Push button time release and instructions for operating are located at crossing.

MP 926.7, UP Crossing. No Interlocking.

Trains moving between Pollard Jct. and Buena Vista under provisions of Rule 509 must approach crossing at yard speed, and not proceed across this crossing unless it is known to be clear.

MP 927.2, Pollard Jct.

Grant. Interlocking.

MP 927.4, D&RGW X'ing. Towerman on duty. WP Rules apply.

D&RGW RULE 290. Aspect.

Name.

Red over red over lunar, or red over lunar, or lunar.

Restricting.

Indication.

Proceed at restricted speed:

(1) Within ABS to next signal governing in the same direction.
(2) At interlocking outside ABS through interlocking limits.

(3) Onto non-signaling track until entire train is through turnout.

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

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

MP 928.7, UP Crossing. Interlocking. Automatic. WP Rules apply.

OPERATION OF SP CO. TRAINS BETWEEN FLANIGAN AND WESO INCLUSIVE FIRST AND SECOND SUBDIVISIONS

RULE 801. SP Co. trains and engines are authorized to operate over WPRR tracks between Flanigan and Weso, subject to WP RR Book of Rules, Timetable, Special Instructions, and Timetable Bulletins.

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

Winnemucca. SP trains will be authorized by clearance at WP Winnemucca which will be authority for movement Winnemucca to Flanigan, and after having been properly cleared will be governed by signal indication without member of crew contacting train dispatcher.

SP trains will be authorized by clearance at WP Winnemucca which will be authority for movement on WP track Weso to Carlin, and after having been properly cleared, will be governed by signal indication without member of crew contacting train dispatcher.

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

RULES 83-A and 83-B. Eastward and westward SP trains will register by ticket at WP Winnemucca. Train order form "R" will be issued to eastward SP trains at WP Winnemucca on overdue superior WP and SP trains at Weso.

TRAFFIC CONTROL AND INTERLOCKING SIGNAL INDICATIONS

FLANIGAN

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

Absolute signal governing westward movement over SP crossing at MP 384.3 also governs movement over connection. "S" light indicators mounted on signal indicate as follows:

"S" light illuminated to the right of the mast indicates route

lined to SP connection.

"S" light illuminated to the left of the mast indicates route

lined for WP into Flanigan siding.

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

double track Flanigan, (SP MP 336.51).

All signals governing movement through SP crossing MP 384.3 and SP connection MP 384.4 are absolute signals under control of WP train dispatcher. "SA" and "P" apply to SP trains only, WP Rules 509 and 663 apply.

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

WESO

SP trains diverging from SP track to WP track Weso will be governed by instructions contained pages 19 and 20, applicable to WP westward trains.

First Subdivision "BD"—LOYALTON BRANCH

All movements over Highway crossing No. 4-E-12.4 Loyalton must be protected by a crew member in order to warn Highway traffic that crossing is to be blocked.

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

First Subdivision "BI"- RENO BRANCH

RULE 82-A. Is modified to the extent that trains may be authorized at Portola to operate on the Reno Branch.

No. 220 may leave Reno Jct. without clearance.

RULE 204. Train orders may be issued to trains at Portola which affect their movement on the Reno Branch.

Rocky Mount No. 2. No derail, keep hand brakes set and do not leave cars east of first road crossing.

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

Reno. Movements over street crossings east and west of Nevada Transportation Company warehouse must be protected by flagman.

Trains or engines must approach East 6th Street carefully. This crossing is protected by flasher lights and bell signals.

Flasher light and bell signals, 4th St.—Engines or cars must stop clear of outer edge of sidewalks on either side of 4th Street, before entering or occupying crossing from either direction at either crossing, except when moving westward from SP Transfer on East Street. This to provide 20 seconds elapsed time between times engines or cars enter signal circuits and actually enter street intersections, as required by Nevada State Law.

Whenever necessary to spot engines or cars within 100 feet west of West 4th Street sidewalk on SP Interchange (East Street) track, movement must first be made eastward on track to a point not less than 25 feet beyond east sidewalk of 4th Street; thence return westward and spot at point desired anywhere within 100 foot limit mentioned above. With this exception, cars or engines must not be spotted within signal circuit limits.

FIRST SUBDIVISION

RULE 82-A. Is modified to the extent that trains may be authorized at Portola to operate on the Reno Branch.

RULES 83-A and 83-B. Nos. 17 and 18 register by ticket at Portola.

RULE 92. First and second class trains must respect schedule shown.

RULE 204. Train orders may be issued to trains at Portola which affect their movement on the Reno Branch.

Gerlach

When engine crews change at Gerlach, incoming engine crew must deliver train orders and instructions to outgoing crew.

Winnemucca.

- (a) After having been properly cleared, passenger trains will be governed by signal indication without member of crew contacting train dispatcher but WP freight trains must not depart until permission is obtained from train dispatcher.
- (b) Absolute signals and dual-control switches located at each end of north and south sidings.

- (c) North Siding: Is included in signal circuits and must not be occupied or fouled unless authorized by an absolute signal indication, by permission from the train dispatcher, or as outlined in paragraph (f) below.
- (d) Certain switches leading into north siding are not electrically-locked—(See Rule 550).
- (e) Crossover to house track: Main track and inside switch of crossover are individually electrically-locked. Both switches must be released before movement is started and one or both switches must be kept open until the movement is completed.
- (f) An engine foreman may permit road crews to use his switching authority for moves, such as engine to or from train, etc., but must insure that there is no hazard by reason of his own switching operations.

SECOND SUBDIVISION

RULE 82-A. Train orders may be issued at Winnemucca governing movements east of T.C.S. limits.

RULES 83-A and 83-B. No. 18 register by ticket at Elko.

RULE 92. First-class trains must respect schedule shown.

RULE 97. Eastward extra trains must have train order or clearance authority for movement before leaving interlocking limits, Weso.

RULES 82-A and 540. Weso. Westward trains may leave Weso without contacting the train dispatcher when westward interlocking signal indicates PROCEED and will retain their identity Weso to Winnemucca.

Winnemucca.

(a) After having been properly cleared, passenger trains will be governed by signal indication without member of crew contacting train dispatcher but WP freight trains must not depart until permission is obtained from train dispatcher.

(b) Absolute signals and dual-control switches located at each

end of north and south sidings.

(c) North Siding: Is included in signal circuits and must not be occupied or fouled unless authorized by an absolute signal indication, by permission from the train dispatcher, or as outlined in paragraph (f) below.

(d) Certain switches leading into north siding are not electri-

cally-locked—(See Rule 550).

- (e) Crossover to house track: Main track and inside switch of crossover are individually electrically-locked. Both switches must be released before movement is started and one or both switches must be kept open until the movement is completed.
- (f) An engine foreman may permit road crews to use his switching authority for moves, such as engine to or from train, etc., but must insure that there is no hazard by reason of his own switching operations.

THIRD SUBDIVISION

RULES 83-A and 83-B. No. 18 register by ticket at Elko. Nos. 17 and 18 register by ticket at Wendover.

RULE 92. First-class trains must respect schedule shown.

RULES 510-B and 548. Westward freight trains having instructions to cut off helper at MP 752.6, must stop with rear of train west of grade signal 7526. After helper engine is detached it must occupy track circuit extending 500 feet west of grade signal 7526 and crew member must contact train dispatcher for permission to move eastward. Train dispatcher will display proceed indication on signal 7526 to authorize eastward movement.

In event grade signal 7526 fails to display a proceed indication promptly, train dispatcher must be notified. If train dispatcher knows there is no opposing movement between MP 752.6, and Sage, he may instruct engineer to proceed at restricted speed to the next governing signal. If there is lack of communication, helper engine will move westward to the absolute signal at east switch Spruce and

contact train dispatcher.

Alazon. RULES 82-A and 540. Eastward trains may leave Alazon without contacting the train dispatcher when eastward interlocking signal indicates PROCEED and will retain their identity Alazon to Wendover.

Wells. Engines must not exceed 10 MPH on straight track and 5 MPH on turnouts in UP yard.

Trains having work to do, must clear road crossings east of WP depot, cutting train if necessary.

Shafter. Engines must not exceed 10 MPH on straight track and 5 MPH on turnouts in NN yard and are prohibited from using NN rip track.

Wendover. After having been properly cleared, passenger trains will be governed by signal indication without member of crew contacting train dispatcher but freight trains must not depart until permission is obtained from train dispatcher.

SECOND AND THIRD SUBDIVISIONS Use of WPRR Portion of Paired Track Between Weso and Alazon Inclusive

- (A) Between Weso and Alazon, track of WP and SP will be used jointly. All eastward trains of both companies will use WP track, and all westward trains of both companies will use SP track, unless otherwise instructed by train order, except as provided in Sections (T) and (X) hereof. Each railroad will be operated under single track rules.
- (B) Train dispatchers will use following form of train order to authorize movement of a westward train or to create a work extra.
 - Example 1: "Eng.....run extra on WP track.....to....."

 This form of order must be given to all opposing trains on WPRR track.
 - Example 2: "Eng.....works extra on WP track.....M until...M between.....and....."

 This form of order must be given to trains before entering territory covered.

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

- (C) RULE 19. When the rear car of an SP passenger train is equipped with a combination oscillating red light and auxiliary green marker light, oscillating red light must be displayed by day as well as by night when train is on main track, and when so displayed, will be considered as markers. Oscillating red light must be extinguished and green marker light displayed when train has stopped clear of main track to be met or passed by another train.
- (D) RULES 20 AND 21. Between Weso and Alazon, sections of SP schedules other than last section will display green lights, illuminated by day and night, but will not display green flags. On SP trains lead engine only will display signals and train indicators.
- (E) RULE 82-A. SP trains, unless otherwise directed, must not leave Winnemucca without clearance or train order authority for movement on WP at Weso.

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

(F) RULES 82-A AND 83 will not apply to SP trains at Elko, but they will be governed by train-order signal, and at Carlin will be governed by train register and second paragraph of Rule 83-B.

(G) RULES 83-A and 83-B.

Winnemucca. Eastward SP first-class trains register by ticket at SP Winnemucca. SP operator will transmit registration to WPRR operator Winnemucca who will enter same on register Winnemucca.

Weso. Eastward SP inferior trains arriving Weso when superior trains are overdue, may run ahead of such trains Weso to Carlin when interlocking signal at Weso displays PROCEED indication. Under same conditions, eastward WP inferior trains may run ahead of such trains Weso to Elko.

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

An eastward first-class train which does not reach East Carlin within 15 minutes from its leaving time as registered at Carlin will run expecting to find a train running ahead, East Carlin to Elburz.

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

(H) RULE 83-B. When an eastward schedule or section is checked on register at WP Winnemucca, or at Sparks, or visual identification is made between Sparks and Weso, such identification or register check may be applied at Weso.

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

(J) RULE 96. Sections of regular trains may be created Weso to West Carlin or Carlin.

(K) RULE 97. Eastward extras between Weso and Alazon may be authorized by clearance as follows:

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

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

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

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

Any other eastward extra movements must be authorized by train order.

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

"Eng..... is annulled as an extra from"

(L) RULE 204. Train orders may be issued to eastward SP trains at SP Winnemucca which will affect their movement between Weso and Carlin.

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

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

(M) RULE 221. First and second paragraphs apply only to eastward SP trains at Elko.

(N) RULE 340. Add. Before opening a main track switch, train or engine crew must know by view of entire block to be entered that no train or engine is approaching within or adjacent to the block, and, when the view is obstructed or during inclement weather, flag or other authorized protection must be provided.

Train or engine must remain clear of main track three minutes after the switch is opened.

RULE 340 does not apply at spring switches.

(O) RULES 509 and 510. When a block signal indicates "stop" (in either direction) trains will be governed by Rules 509 or 510.

Signals in paired track territory which are not equipped with number plates are "stop" signals. When these signals display "stop" indication, member of crew will contact train dispatcher in accordance with Rule 509. At Preble, Barth, Elburz and Deeth, when signals indicate "stop" and train dispatcher knows there is no opposing movement involved, he may orally authorize train to proceed at restricted speed to the next governing signal.

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

(P) At locations designated between Weso and Alazon, letter type indicators will be used. The following letters, when illuminated, will indicate:

"S" Take siding.

"M" Proceed on main track.

When the letter "S" is illuminated, train must take siding. When the letter "M" is illuminated, train is given superiority over all eastward trains as specified below:

ILLUMI NATED LETTER	LOCATED	APPROACHING	AUTHORITY IS AS FOLLOWS
"S"	On Signal 6188	West switch Beowawe	Enter siding and remain until letter "M" displayed.
"M"	On Signal 6202	East switch Beowawe	Enter main track and proceed unless re- stricted by the letter "S" at Cluro.
"S"	On Signal 6262	West switch Cluro	Enter siding and remain until letter "M" displayed.
"M"	On Signal 6274	East switch Cluro	Enter main track, SP trains proceed to Carlin, WP trains proceed to Elko.

When Signal 6262 displays aspect per Rule 291 and letter "S" is illuminated, train may pass Signal 6262 at restricted speed in order to enter Cluro siding.

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

Interlocking limits extend from home signal MP 643.4, located 100 feet west of remote-controlled switch, to dwarf home signal, located 350 feet east on main track, governing westward movements, and to dwarf home signal, located 350 feet east on detour, governing westward movements to main track.

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

SP light engines are authorized to use WP main track at Carlin providing Signal 643.4 indicates proceed on WP main track. If signal 643.4 indicates movement over west detour to SP yard, SP light engines will enter detour and proceed to SP yard at Carlin.

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

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

(S) East Carlin. Detour extends from east lead on SP to East Carlin on WP. Spring switch at junction is normally lined for WP main track. Westward trains or engines must stop and examine switch points before moving over this switch.

Number boards on Automatic Signals governing eastward movement over spring switch at East Carlin Detour have been removed and these signals now bear the letter "A". Trains finding these signals displaying aspect per Rule 292 will be governed by WP Rule 509.

"M" Indicator mounted on absolute signal governing eastward movement from east detour through spring switch to WP main track when illuminated authorizes SP eastward inferior trains to run ahead eastward superior trains from East Carlin to Elburz, being governed by signal indications displayed.

Approach clearing circuit extends 1000 feet west of absolute signal on East Carlin Detour, and is indicated by an approach circuit sign. This circuit is equipped with timing device which will normally require 80 seconds for signal to clear after train enters circuit.

Flashing white indicator light located on instrument case 20 feet west of west switch, east detour to WP track at Carlin indicates that "M" light is illuminated on Absolute Signal governing movement to WP main track.

Occupancy of approach circuit indicates to WP train dispatcher that train desires to leave Carlin via the East Detour.

Occupancy of this approach circuit during switching operations should be avoided.

Eastward superior trains must run expecting to find inferior trains moving in advance East Carlin to Elburz on authority of the "M" indication. This does not relieve inferior trains from providing flag protection if stopped or delayed. Operator Carlin must inform train dispatcher of any work to be done by an eastward SP freight train between Carlin and Alazon.

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

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

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

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

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

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

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

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

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

(X) Westward WP freight trains and others trains when so directed, also engines moving between WP and SP yards will use East Elko and/or West Elko detours.

(Y) Weso. Interlocking. Remote-controlled by WP train dispatcher. Westward home signal governs movements through interlocking limits and to enter T.C.S. on WP main track. When "stop" indication is displayed and movement via WP is desired, WP Rule 509 and SP Rule 663 will apply. When "stop" indication is displayed and movement via SP is desired, SP Rule 663 will apply.

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

Westward inferior trains must arrive Weso sufficiently in advance of superior WP trains to avoid delaying them between Weso and Winnemucca.

Switches on SP end of crossovers are dual-control. Permission of WP train dispatcher is required for hand operation, except for SP movements made as prescribed by SP Rule 663, and be governed by SP Rules 771 and 772.

Spring switches on WP end of crossovers are normally lined for

WP track. WP Rule 519 applies.

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

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

Rule 663.

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

indication WP Rule 509 will apply.

If communication has failed and the WP train dispatcher cannot be contacted movement may be made on all routes, except westward to WP track, observing SP Rule 663.

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

signal.

(Z) Alazon. Interlocking. Remote-controlled by SP operator Wells. Eastward home signal governs movements through interlocking limits and to enter T.C.S. on WP main track. When "stop" indication is displayed and movement via WP is desired, WP Rule 509 and SP Rule 663 will apply. When "stop" indication is displayed and movement via SP is desired, SP Rule 663 will apply.

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

Dual-control switches within interlocking limits are under control of SP operator at Wells. When necessary to hand-throw these switches, permission must be obtained from operator and be governed by SP Rules 771 and 772.

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

Eastward inferior WP trains must arrive Alazon sufficiently in advance of superior WP trains to avoid delaying them between Alazon and Wells.

ENGINE WHISTLE SIGNALS

Weso: Westward WP trains on SP track must sound whistle signal o—— at sign reading "WP WHISTLE" located at SP MP 425.10 approaching Tule.

Carlin: Westward: Approaching east end yard:

SP freight trains, o — o, WP trains, — o.

Alazon: Eastward WP trains must sound whistle signal o — — at sign reading "WP WHISTLE" located at MP 709, pole 2.

WESTWARD AUTOMATIC BLOCK SIGNAL SYSTEM CIRCUITS

- (a) Signals 6511 (200 feet east of Tunnel 42) and 6497 (200 feet east of Tunnel 41); "Block System Limit" sign opposite Signal 6490, controlled from 3750 feet east of East Carlin detour switch.
- (b) Signals 6369 (100 feet east of Tunnel 40) and 6357 (624 feet east of Tunnel 39); "Block System Limit" sign opposite Signal 6352, controlled from 2400 feet east of MP 632.
- (c) Signals 6313 (3650 feet west of MP 632) and 6287. "Block System Limit" sign opposite Signal 6274, controlled from 1000 feet east of MP 623.

FOURTH SUBDIVISION

RULES 83-A and 83-B. Nos. 17 and 18 register by ticket at Wendover.

RULE 92. First-class trains must respect schedule shown.

Wendover. After having been properly cleared, passenger trains will be governed by signal indication without member of crew contacting train dispatcher but freight trains must not depart until permission is obtained from train dispatcher.

Blair Spur. All movements over Highway 40 crossing on this spur must be protected by a member of the crew in order to warn highway traffic that crossing is to be blocked. Red flags will be used during the day and fusees at night to warn highway traffic.

Marblehead Spur. All movements must be at restricted speed. Normal position for the east or north switch of the wye will be in a position lined and locked for the wye. Trainmen must insure that all cars set out are properly secured. Derail located 108 feet west of west switch of run-around track must be left in derailing position, except when track is being switched. Look out for drifted sand on rails of this spur.

Fourth Subdivision "BG"— ELLERBECK BRANCH

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

USS&R Co. Spur is on 1% grade, has derail 192 feet from switch. Engines or cars must not pass beyond PROTECTIVE SIGN. Cars left there must be properly secured.

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

FLUX. Solar Salt Co., spur track, west connected, located 175 feet west of old west switch at Flux, length 675 feet. Derail installed.

Conveyor located on tail track east of east switch of run-around track Flux has impaired side and overhead clearance, will not clear high car or locomotive, and trainmen must not ride side or top of cars east of impaired clearance sign.

DOLOMITE. Look out for poor footing both sides of track on curve just east of plant, and all tracks vicinity plant.

Fourth Subdivision "BB"— WARNER BRANCH

RULE 97. Extras may be authorized by clearance issued at Burmester to run extra Burmester to Warner and return to Burmester. When necessary to annul the authority of an extra which has been authorized by clearance, a train order will be issued in the following form:

"Eng. is annulled as an extra from "

SALT LAKE CITY AND ROPER YARD INSTRUCTIONS

Salt Lake City.

WP trains have no timetable superiority on WP passenger running track between westward home signal located between 5th and 6th West Sts. and SLCUD and RR Co. trackage.

Whistle and bell must be restricted to minimum use prescribed by rule or law, except in emergencies.

Salt Lake City Union Depot and RR Co. Rule No. 1 reads:

"Trains have no timetable superiority between 1st So. and 9th So. Sts., SLCUD and RR Co. trackage on 4th West St., Salt Lake City. Yard engines and other engines occupying these tracks must make way for passenger trains without unnecessarily delaying them. Trains, yard engines and other engines must move on Depot Co. tracks prepared to stop within one-half the range of vision."

Salt Lake City Union Depot and RR Co. Rule No. 3 reads:

"Trains, yard engines, light engines and others using SLCUD and RR Co. tracks will leave switches as found, except switches will be left lined for No. 3 track. Switch connection with WP main track and SLCUD and RR Co. track just east of 1st South St. will be lined for WP main track."

Automatic street crossing signals are in service 2nd and 4th South Sts. at 4th West St. Control circuits are marked by rail joints painted yellow.

When a train, engine or yard movement, has stopped or been delayed within circuit control limits, additional movements must proceed slowly until positive determination is made that crossing signals have operated a sufficient time to stop traffic. In event crossing signals are not operating, movement over crossing must be protected by a crew member. Unnecessary occupancy of control circuits must be avoided.

Indication signal will be placed on mast east of 2nd and 4th South Sts. and will display flashing lunar lights when crossing signals are operating.

Eastward and westward trains when ready to depart will proceed slowly into control circuit to activate crossing signal.

Unless otherwise instructed, Nos. 17 and 18 use track No. 3.

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

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

WP trains and engines departing, Ogden trains and engines departing,

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

"Yard limits will be indicated by yard limit signs. Within yard limits, the main track may be used clearing first-class trains as prescribed by the rules. Second- and inferior-class trains, extra trains and engines must move on all tracks within yard limits prepared to stop unless the track is seen or known to be clear.

SPEED RESTRICTIONS FOR ENGINES: Maximum speed in miles per hour shown below is subject to further restrictions applicable to certain territories as shown in Speed Restrictions for Trains:

WESTERN PACIFIC E Unit Ma	ngine	Timit	Engine Maximum
	Deed Class	HP	Speed
D-176 (801-805)* 1500	79 S-57	(559-564 in	
D-62 (801-D) 1500	65	multiple) 1000	30
D-225 (902-912) 1350	65 S-60	(581-585) 1000	65
D-239 (913-924) 1500	65 S-62	(601-606) 1200	30
S-50 (501-503) 600	45 RS-62	(701-713) 1500	65
S-50 (504-511) 660	35 RS-62	(725-732) 1750	65
S-57 (551-564) 1000	35 RS-64	(2001-2010)2000	65
50. (551551) 1000	RS-65	(3001-3010)2500	70

*Units 801A and 802A are equipped with freight gears. Maximum speed 65 MPH.

SOUTH	ERN	PA	CI	FIC	;
			~~	/	

SOUTHERN PACIFIC	
DF-1 to 12 with 60/17 gear ratio trucks	79
DF-1 to 14 with 62/15 gear ratio trucks	70
DF-1 to 15 with 61/16 gear ratio trucks	75
DF-100, 115, 119, 123, 126, 127	65
DF-114, 117 with 62/15 gear ratio trucks	65
DF-114, 117 with 65/12 gear ratio trucks	5 5
DF-116, 118, 120, 121, 122, 124, 125, 500, 501, 502, 600, 601,	
604, 605, 607 to 616, 800	70
DF-101, 103 to 107, 109 to 112	35
DF-602, 603, 606 with 61/16 gear ratio trucks	75
DF-602, 603, 606 with 60/17 gear ratio trucks	7 9
DF-617 to 622	75
DP	79
DS-1, 4, 5	45
DS-6 to 12, 100 to 108, 110 to 115, 117 to 122, 607	60
DS-109, 303, 400 to 402, 600 to 606	65
DS-200 to 205, 300 to 302	35
DS-500 to 506	55

Light engines when operated from leading control cab in direction of movement must not exceed column 3 speeds.

Diesel engines when operated from other than leading control cab in direction of movement must not exceed column 3 speeds, and must not exceed 30 MPH on curves, and 20 MPH when approaching highway or street crossings at grade, and where conditions require, speed must be further reduced to a rate consistent with

Foreign railroad diesel units, when used, will be permitted maximum freight train speeds but will not exceed maximum speed sten-

cilled in cab of each unit.

	!	1		2	1	23 3
SPEED RESTRICTIONS	Pass	enger ains	Spe	cial Trains	Oti	her Trains
IN MILES PER HOUR BETWEEN	Maxi-	Restric-	Moxi-	Restric-	Maxi-	Restric-
First Subdivision—Page 2	\ 					
Portola and MP 321.7			20		20	
MP 321.7 and MP 324.1		40	50	35	40	30
MP 323.4 and MP 323.7 on curve MP 324.1 and MP 341.5		40	65	30	55	
MP 341.5 and MP 352.7	60		55		45	ľ <i>.</i>
MP 341.5 and MP 342.5 on curve MP 343.7 and MP 343.9 on curve		50		45		40
MP 345.5 and MP 346.8 on curves		55		50		1 10
MP 347.5 and MP 348.5 on curves	1	50		45		35
MP 352.7 and MP 363.2			65	60	55	 45
MP 363.2 and MP 384.2	79	65	65		55	
MP 363.2 and MP 384.2 MP 384.2 and MP 390.7			60		50	<u></u> .
*MP 384.3 SP Crossing		40		30 20		30 20
MP 384.4 WP— SP Conn. turnout MP 389.8 and MP 390.3 on curve		20	• • • • • • • • • • • • • • • • • • •			45
MP 390.7 and MP 398.5	60		50		40	ļ <u></u> .
MP 390.7 and MP 392.1 on curves		45		40		35
MP 393.5 and MP 394.2 on curves MP 395.3 and MP 397.8 on curves		50 45	· · · · ·	45 40		35
MP 398.5 and MP 404.7	65		60		50	
MP 398.8 and MP 399.3 on curves			ļ ;			45
MP 404.7 and MP 488.3		60	60	55	55	50
MP 433.5 and MP 434.1 on curve		60		55		50
MP 480.2 and MP 481.2 on curves.		70				50
MP 483.6 and MP 483.9 on curves MP 487.7 and MP 488 on curves		65				50 50
MP 488.3 and MP 496	60		55		40	
MP 489.9 and MP 491.2 on curves		50		45		 .
MP 492.4 and MP 492.7 on curves MP 493.9 and MP 494.9 on curves		55 45		50 40		35
MP 495.3 and MP 495.6 on curve				50		
MP 496 and Winnemucca	79		65		60	
MP 510 and MP 510.4 on curve MP 513 and MP 513.2 on curve						55 55
MP 519.9 and MP 520.6 on curve						55
MP 521 and MP 521.9 on curves	1	65	1	60		50
MP 523.1 and MP 523.4 on curve						55
MP 524.8 and MP 525 on curve MP 527.5 and MP 527.7 on curve						55 55
MP 530.4 and MP 530.7 on curve						55
MP 532.1 and MP 532.5 on curve			<u> </u>			45
Second Subdivision—Pages 3-4			i			
Winnemucca and MP 628.3 Using turnouts, Weso		30	65	25	60	25
MP 536.7 and MP 537.1		75				
MP 625.5 and MP 625.8	<u></u> .	70	1			<i>.</i> .
MP 628.3 and MP 638.3	50		45		40	35
MP 628.3 and MP 629.1 MP 635.5 and MP 636.8						35
MP 638.3 and MP 648.3	79		65		60	
West Carlin and East Carlin		35		20		20
Using turnouts, West and East Carlin	.	20		15		15
MP 648.3 and MP 651	65		60		50	
MP 650.4 and MP 651		50		50		40
MP 651 and MP 652.6	70 79		65		50 60	
MP 664.4 and MP 665.4 (Elko Yard)		35		15		15
Third Subdivision—Pages 5-6	Ī	Ī	1	Ī	I	
Elko and Alazon	79	l	65		60	ļ ₂₂ ,
MP 665.4 and MP 666.4 (Elko Yard)		35		15		15 55
MP 673.9 and MP 674.8* *Trains approaching interlocked cre		1	1	1 - 1	1	<u></u>

Trains approaching interlocked crossings above before engine passes home signal.

Passenger trains handling conventional equipment between Weso and Alazon will not exceed a speed of 5 MPH less than shown in column 1. Passenger trains handling conventional equipment between Portola and Weso will not exceed speed shown in column 2.

IN MILES PER HOUR BETWEEN MP 674.8 and MP 681.1. Using turnouts, Alazon	Moxi- mum	Restric-	Maxi-		3 Other ins Freight Trai	
		tions	waxi-	Restrir- tions	Maxi- mum	Restric- tions
Using turnouts, Alazon		55		50		45
13.475.500.5		30		25	<u></u> .	25
Alazon and MP 720.5	70	65	60		50	45
MP 720.5 and MP 735	79	00	65	l l	55	40
MP 735 and MP 748			65			
MP 748 and MP 753.2.			ت ۃ ا			
MP 753.2 and MP 755.2			45		30	
MP 755.2 and MP 759.8			60		55	
MP 755.5 and MP 755.8 on curves						40
MP 758.4 and MP 758.7 on curve		60		55		45 50
MP 759.4 and MP 759.8 on curve MP 759.8 and MP 768.2			65		60	,.,
*MP 765.9 NN Crossing						40
MP 768.2 and MP 773			65		55	
MP 771 and MP 771.5 on curve						45
MP 772.7 and MP 773 on curve		65		60		45
MP 773 and MP 774	70		60		45	
MP 773 and MP 774. MP 774 and MP 775.3 MP 775.3 and MP 782.	79		60		60	
MP 775,3 and MP 782	55	1	50		40	20
MP 776.6 and MP 778.1 on curves MP 778.7 and MP 779.2 on curve		40 35		35		30 25
MP 782 and MP 784.5		35	40	30	30	20
MP 782 and MP 782.7 on curve		35		30		25
MP 783.5 and MP 784.5		35		30		$2\tilde{5}$
MP 784.5 and Wendover	70	l	65		55	
MP 784.6 and MP 784.9		60		55		40
MP 785.1 and MP 786.5				60		48
MP 795.4 and MP 795.7		55		50		40
MP 796 and MP 796.4		65		55		45 35
MP 799.5 and MP 800		45		40		50
	1	1	<u>,</u>	,	T	,
Fourth Subdivision—Page 7 Wendover and MP 856 6	70		60	 	60	
Wendover and MP 856.6MP 806.5 and MP 807 on curve	1 "		00		00	50
MP 849.7 and MP 849.8 on curve	1	1		:::::		55
MP 856.6 and MP 880 MP 856.6 and MP 856.9 on curve	79		60		55	
MP 856.6 and MP 856.9 on curve		65				50
MP 859.7 and MP 860 on curve		70		I		
MP 860.9 and MP 861.1 on curve		70				
MP 862.7 and MP 863.3 on curve						40
MP 864.3 and MP 864.7 on curve MP 865.2 and MP 866.1 on curve						
MP 866.8 and MP 867.5 on curve				· · · · · · · · · · · · · · · · · · ·		
MP 867.5 and MP 868.4 on curve		60				45
MP 868.5 and MP 869.3 on curve		1 5				50
MP 869.8 and MP 872 on curve		70				
MP 878.7 and MP 879 on curve				55		45
MP 880 and MP 901	79		65		60	
MP 886.5 and MP 886.7 on curve		70	· · · · · ·			50
MP 901 and MP 908.1			60		60	55
MP 907.7 and MP 908.1 on curve						55
MP 908.1 and MP 925.7	79	l	65		60	
MP 909.9 and MP 910.4 on curve						50
MP 911.2 and MP 911.3 on curve						55
*MP 912.1 KCC Crossing		65		60		45
MP 912.3 and MP 912.6 on curve		65		60		45
MP 915.1 and MP 915.6 on curve		70				55
MP 920.6 and MP 920.9 on curve				10,40		55 40
MP 925.3 and MP 925.7	20	l	20	40	20	40
		l			12	l
Pollard Jct. and Salt Lake City (U.D.)			12		14	

^{*}Trains approaching interlocked crossings must reduce to speeds shown above before engine passes home signal.

BRANCH SPEEDS in miles p	er ho ur — page 8	
LOYALTON	15	
ELLERBECK	15	
WARNER	20	
RENO	25 except	
Martin Spur	10	
MP 30 to Reno	15	
SP-WP Interchange Connec	tion, Reno	5

OTHER MAXIMUM SPEEDS Maximum MP	Ή
Passenger trains with 400 series caboose may make authorized passenger train speed.	
All trains with other series cabooses	65
Scale test cars on own wheels must be handled next to caboose and trains handling such cars will not exceed —	
Main tracks other than branches	30
Main tracks on branches 1	15
Trains handling WP steam derrick No. 37—straight track 3 On curves 5 MPH less than speed prescribed in column	35
3 but not exceeding	30
Trains handling steam derricks (other than WP steam derrick No. 37), steam shovels, cranes, rotary plows or pile drivers on own wheels, logs on flat cars, loaded air dump cars	25
· · · · · · · · · · · · · · · · · · ·	
Trains or engines through a turnout or siding equipped with power operated switches in T.C.S. territory (other than Weso and Alazon)	20
Trains or engines trailing through spring switch old main track to main track East Elko	20

MISCELLANEOUS

Trains or engines through turnouts, crossovers, sidings and other inside tracks, except as otherwise provided for.....

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

Diesel freight engines dead in train must have automatic brake valves cut out in cabs and brake valve handles locked in running position; independent brake valve handles locked in running position (locking pins are provided for this); dead engine features cut in; all isolation switches placed in "start" position; all switches at engineer's control stand locked in "off" position and main battery switches pulled; reversers locked in neutral position in all units. Distributing valve pops must be set to 25 pounds pressure. Same procedure should be followed on passenger engines.

Diesel yard engines dead in train must have automatic brake valve cut out and handle placed in running position; distributing valve pop set to 15 pounds pressure; dead engine feature cut in; main battery switch pulled and reversers locked in neutral position.

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

Coupling snow plow ends of diesel engines to passenger equipment or to other engines is prohibited.

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

Passenger trains handling conventional equipment between Alazon and Salt Lake will not exceed speed shown in column 2.

Train and engine radios must be in OFF position, and must not be used between the hours of 6:30 AM and 4:00 PM between MP-626 and MP-634, inclusive, to reduce hazard incident to blasting operations of Nevada Barth Co. in this area.

YARD LIMITS

West MP	East MP
BI 32.43	Reno End of Branch
642.96	Carlin 647.13
663.6	Elko 666.76
926.06	Salt Lake City and Roper As indicated by yard limit signs

SWITCHING LIMITS

West MP	Ea	st MP
319.94	Portola	323.09
437.03	Gerlach	439.45
530.02	Winnemucca	533.6
764.96	Shafter	767.73
805.28	Wendover	808.31
926.06	Salt Lake City	

TONNAGE RATING

Engine Number	Ist Sub- div.	2nd Sub- div.	Third Subdi	vision	4th Sub- div.	Reno Branch	Loyalton Branch	Warner Branch
Eastward								
801-805	920	1530	770		875	470		400
902-912	1500	2840	1500		1500	925		700
913-924	1850	3400	18 50		1850	1150		870
501-511	880	2645	880		880	800	2645	435
551-564	1150	3340	1150		1150	900	3340	535
581-585 .	1150	3340	1150	ļ	1150	1050	3340	535
601-606								
701-713	1825	4150	1825		1825	1500	4150	870
725-732	1020	4190	1020		1020	1000	1100	010
801-D						,		
2001-2010	2075	4400	2075		2075	1750	4400	1120
3001-3010		*100		Chaftan				
			Wendover	Shafter to			ļ	
Westward			to Shafter	MP 754				
801-805	800	1530	620	750	810	350		1
902-912	1500	2840	1150	1500	1500	585	ĺ	1530
913-924	1850	3400	1540	1850	1850	810		2275
501-511	880	2645	880	1000	880	435	2645	2840 1900
551-564	1150	3340	1150	1250	1150	550	3340	2350
581-585	1150	3340	1150	1250	1150	700	3340	2350
601-606	1100	0010	1100	1200	1100		0010	2000
701-713	1005	41.50		1005	1005	1000	4150	2835
725-732	1825	4150	1715	1825	1825	1000	4150	4030
801-D		ŀ						
2001-2010	2075	4400	1965	2075	2075	1250	4400	3085
3001-3010	2013	4400	1 1909	4010	4010	1230	7700	5000

Ratings shown above are for one unit engine, and for actual tonnage, and based on maximum grade each subdivision.

Between points where grades are less than maximum, greater tonnage can be handled.

When units 801-A and 802-A are equipped with freight gears, they have the same tonnage rating as one unit of a 913-924 class engine.

RESTRICTIONS ON SPURS FROM SIDINGS AND MAIN TRACK

Other than exceptions mentioned, occupancy of track beyond 150 feet from frog is restricted to empty cars, outfit cars and equipment cars in outfits, not to be exceeded without authority.

EXCEPTIONS: Hawley, Scotts, Doyle, Herlong, Floka, Antelope, Wells house track, Tobar, Shafter, Blair, Silsbee, Aragonite, Marblehead, Timpie, New Solar, Spray, Lago, Garfield pit, Phosphate, Saltus, Terminal, Gerstner, Lang, Fisher, General Cable.

ENGINE MOVEMENTS RESTRICTED

Loyalton, Standard Oil Coall except single unit.
*Reno, scale track,live rail.
*Portola, scale track,live rail.
*Portola, scale track, dead rail, all except single unit.
Sulphur, 300 feet east of ore ramp.
Jungo, west of loading ramp No. 1 or 2 spur.
Deeth, stock track,50 feet from frog.
Wells, stock track,300 feet from frog.
Wendover, Army Base track, Beyond WP ownership.
Blair, scale track,live rail.
Spray, over four units.
Saltus, Morton Salt RR.
Terminal, beyond second gate.
Fisher Brewery,all except single unit.
Roper Yard scale, track 21, Redman Spur,all except DRG-SD-7-9 (5300 to 5314)
*live rail is weighing rail.

ENGINE MOVEMENTS RESTRICTED ON BRANCHES

Loyalton, over two units. Ellerbeck, over two units between Flux and Dolomite.

SPURS AND COMMERCIAL TRACKS

-	Mile Post	How	Car
STATIONS	Mile Post	Con- nected	Capacity
SULPHURP	474.5	1 W	30
KNIGHT	570.1	1 E	6
RUSSELLP	582.5	1 E	6
JENKINS	592.1	1 E	12
DUGGANP	631.9	1 E	20
CARLINP	644.6	1 E	25
TONKAP	650.1	ΙE	28
TULASCOP	708.8	1 E	20
TOBARP	733.5	Both Ends	50
BLAIRP	808.7	1 W	90
SILSBEE P	811.6	1 W	60
ARAGONITEP	861.5	1 E	5
MARBLEHEADP	870.8	Both Ends	36
TIMPIE	885.7	Both Ends	75
NEW SOLARP	893.4	1 W	52
SPRAYP	906.3	1 E	110
LAGO P	907.8	Both Ends	80
GARFIELD PITP	911.7	Both Ends	122
PHOSPHATE	913.2	1 E	
SALTUSP	915.0	Both Ends	5
TERMINALP	922.1	1 W	20
GERSTNER	926.33	1 W	10
LANGP	926.34	1 W	10
FISHERP	926 70	1 E	25
GENERAL CABLE	927.15	1 E	5

TUNNEL LOCATIONS

No.	MP West Portal	MP East Portal	Length
37	340.34	341.47	6001.7
39	635.37	635.57	1080.7
	636.8	636.86	322.0
		649.68	2341.8
			1071.7
43	753.69	754.76	5675.9
39 40 41 42	635.37 636.8 649.24 650.71	635.57 636.86 649.68 650.91	1080.7 322.0 2341.8 1071.7

RAILROAD SURGEONS

KAILRUAD SURGEUNS					
LOCATION	NAME	TITLE			
San Francisco, Calif Portola, Calif Portola, Calif Reno, Nevada Reno, Nevada Reno, Nevada Reno, Nevada Reno, Nevada Winnemucca, Nevada Winnemucca, Nevada Elko, Nevada Elko, Nevada Elko, Nevada Elko, Nevada Elko, Nevada Elko, Nevada	Dr. G. F. Cushman. Dr. C. W. Brown. Dr. W. S. Bross, Jr. Dr. G. O. Bradley Dr. G. G. Lenz. Dr. F. V. Rueckl, Jr. Dr. G. R. Magee Dr. G. F. Magee Dr. K. L. Hartoch Dr. C. D. Lusty Dr. T. K. Hood Dr. H. S. Collett Dr. L. A. Moren Dr. J. M. Read Dr. E. H. Bastien	Chief Surgeon Division Surgeon Asst. Division Surgeon Local Surgeon Local Surgeon Coulist Oculist Oculist Local Surgeon Cocal Surgeon Cocal Surgeon Cocal Surgeon			
Elko, Nevada Wells, Nevada Tooele, Utah Salt Lake City, Utah	Dr. J. H. Patterson Dr. T. M. Aldous Dr. E. V. Long Dr. H. B. Harmon Dr. J. H. Quinn	Local Surgeon Local Surgeon Local Surgeon Local Surgeon Local Surgeon Cocal Surgeon Oculist Oculist			

WATCH INSPECTORS

San Francisco, Calif. K. I. Dunlap Manager of Tim	_
San Francisco, Calif. K. I. Dunlap Manager of Tim Reno, Nevada R. Herz & Bros Watch Inspector Elko, Nevada Bosch & Son Watch Inspector Watch I	ne Service r r r

SPEED TABLE

TIME PER MILE	MILES PER HOUR
36"	100 97.3 94.7 92.3 90
41"	87.8 85.7 83.7 81.8 80
46"	78.3 76.6 75 73.5 72
51" 52"	70.6 69.2 67.9 66.7 65.5
56" 57"	64.3 63.2 62.1 61
1'01"	59 58.1 57.1 56.2 55.4
1'06"	54.5 53.7 52.9 52.2 51.4
1'11"	50.7 50 49.3 48.6 48
1'16"	47.4 46.8 46.2 45.6 45
1'25"	42.4 40 37.9 36 34.3
1'50"	32.7 31.3 30 26.7
2'45"	21.8 20 17.1 15
6′00″	10 8.6 8 7.5