

# **WORK SAFELY TODAY**

EACH RULE VIOLATION IS A POTENTIAL ACCIDENT

#### ASSISTANT SUPERINTENDENT

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

#### TRAINMASTERS

L. E.	THOM	AS	 	 ٠.			٠.					·Portola, Calif	
K. P.	. WOOD		 ٠.	 	٠.	 		 		٠.		Elko, Nevada	a
M. V	V. HAMI	MOND	 	 		 		 	S	al	t I	Lake City, Utal	1

#### ROAD FOREMEN OF ENGINES

W. D. EYRE.	 	 	 ·Portola,	Calif.
C. F. FIELDS	 	 	 Elko, N	evada

#### CHIEF TRAIN DISPATCHER

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

#### NIGHT CHIEF TRAIN DISPATCHERS

w. c	C. BONI	)					 						Elko,	Nevada
W. I	S. SCHO	BER											Elko,	Nevada



# WESTERN PACIFIC RAILROAD CO.



# EASTERN DIVISION TIMETABLE

**65** 

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 CLASS	FIRST		Timetable No. 65	FIRST
220 Local Freight	18 California Zephyr	Mile Post	October 25, 1964	17 California Zephyr
Leave Daily Ex. Sunday	Leave Daily		STATIONS SIDING CAPACITIES AND FACILITIES	Arrive Daily
AM 3.45	PM 6.25	321.4	Yard TO-R PORTOLA BKF	8 7.05
4.00		327.5	HAWLEY P	
4.25		339.1	127 CHILCOOT P	
4.35 AM		341.8	RENO JCT. YP	
		345.6	scotts P	
		352.5	72 RED ROCK P	
		362.6	127 10.1 P	
	s 7.30	371.7	HERLONG, (CAL.) P	s 6.10
		383.5	125 FLANIGAN, (NEV.) P	
		384.3	SP X'ING & CONN. I	
		384.4	S P CONNECTION P	
		393.7	SAND PASS P	
		404.7	125 11.0 P	
		416.3	114 REYNARD P	
		430.8	125 14.5 P	
	s 8.35	437.9	GERLACH KYP	s 5.08
		451.2	125 13.3 TREGO P	
		461.3	125 CHOLONA P	
		470.6	125 9.3 RONDA P	
		479.4	FLOKA P	
		487.6	ANTELOPE P	
		496.6	125 JUNGO P	
		508.6	125 GASKELL P	
		519.2	125 10.6 RAGLAN P	
	s 9.57	532.3	Yard 13.1 TO-R WINNEMUCCA FPY	3.40 AM
Arrive Daily Ex. Sunday	Arrive Daily			Leave Daily
220	18			17

# Eastward — SECOND SUBDIVISION

FII	RST CLA	ss		Timetable No. 65
18 West. Pac. California Zephyr	22 Southern Pacific Mail	102 So. Pacific City of San Francisco	Mile Post	October 25, 1964
Leave Daily	Leave Daily	Leave Daily	and year	STATIONS SIDING CAPACITIES AND FACILITIES
PM 10.00			532.3	Zi Yard WINNEMUCCA BK
10.05	10.40	AM 1.13	536.0	WESO (SP Conn.) IP
10.10	10.46	1.18	540.3	128 4.3 BLISS P
10.16	10.53	1.24	548.1	GOLCONDA P
			553.8	PREBLE (SP Conn.) P
10.27	11.07	1.35	562.4	RED HOUSE P
10.37	11.19	1.45	575.1	129 12.7 ELLISON P
	s 11.35	f 1.57	589.1	11.0
10.50	11.37	1.59	590.7	≥ RENNOX P
10.58	11.46	2.07	600.6	
11.05	11.54 PM	2.14	609.5	DUNPHY P
11.13	f 12.05	2.22	619.5	TO BEOWAWE (SP Conn.) P
11.19	12.12	2.28	626.9	TO BEOWAWE (SP Conn.) P
			630.5	BARTH (SP Conn.) P
11.31	12.27	2.42	636.2	BARTH (SP Conn.) P  PALISADE P  7.2  WEST CARLIN (SP Conn.) I
11.38	12.35	2.51	643.4	WEST CARLIN (SP Conn.) I
11.41	s 12.40 12.50	s 2.55 3.05	644.6	R-Yd.Lmts. CARLIN PB
11.44 PM	12.53	3.08	646.0	EAST CARLIN (SP Conn.)
11.54	1.03	3.18	656.3	HUNTER P Yd. Lmts. 9.1 BK
s 12.05 AM	s 1.15 PM	s 3.28	665.4	TO-R ELKO (SP Conn.) FP
Arrive Daily	Arrive Daily	Arrive Daily		
18	22	102	1	

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

Timetable No. 65		FIRST CLASS
October 25, 1964	17	201 23 192
	California Zephyr	
STATIONS SIDING CAPACITIES AND FACILITIES	Arrive Daily	
TO-R WINNEMUCCA BK Yard 3.7 FPY	AM s 3.37	
WESO (SP Conn.) 4.3 1P BLISS	3.32 AM	EMBER STOLE BOOK
7.8 GOLCONDA		
PREBLE (SP Conn.)		
RED HOUSE		
ELLISON 14.0		
NORTH BATTLE MT'N		Be governed by current time-
RENNOX 9.9 KAMPOS		table, bulletins and rules of
8.9 DUNPHY		Southern Pacific Company, on SP track between Elko and
12.7  ELLISON 14.0  NORTH BATTLE MT'N 1.6  RENNOX 9.9  KAMPOS 8.9  DUNPHY 10.0  TO BEOWAWE (SP Conn.) 7.4  CLURO 3.6  BARTH (SP Conn.) 5.7  PALISADE 7.2  WEST CARLIN (SP Conn.)		Weso.
7.4 CLURO 3.6		
BARTH (SP Conn.) 5.7		
PALISADE 7.2 WEST CARLIN (SP Conn.)		
R CARLIN		
EAST CARLIN (SP Conn.)		
HUNTER 9.1		
TO-R ELKO (SP Conn.)	1.30 AM	THE FAIR FIG
	Leave Daily	
	17	14. 22 . 427

# Eastward — THIRD SUBDIVISION

FI	RST CLA	ss		1	Timetable No. 65	
22	102	18	Mile Post		October 25, 1964	
Southern Pacific Mail	So. Pacific City of San Francisco	West. Pac. California Zephyr	, Mil		Markeya	
Leave Daily	Leave Daily	Leave Daily			STATIONS SIDING CAPACITIES AND FACILI	TIES
PM 1.20	AM 3.30	AM 12.10	665.4		Yd. Lmts. TO-R ELKO (SP Conn.)	BE
1.45	3.50	12.29	683.3	Only.	117 17.9 ELBURZ	P
2812.7	eg subtreate		684.3	vard	SP CONNECTION	P
2.05	4.07	12.42	700.0	Eastward	114 15.7 DEETH	P
			701.0	ABSS	SP CONNECTION	P
2.20 PM	4.21 AM	12.55	713.6	V	ALAZON (SP Conn.	) IP
		12.00	717.7	1	125 4.1 WELLS	P
			728.1		125 10.4 RUBY	P
			738.2		125 10.1 VENTOSA	P
			747.2		125 9.0 SPRUCE	YP
			757.5	System	125 10.3 SAGE	P
			765.9		NN CROSSING	I
		1.40	766.4	Control	125 0.5 SHAFTER	YP
			772.4	Traffic (	125 SILVER ZONE	P
			781.1	F	125 CLIFSIDE	P
			788.9		7.8 PILOT	P
			798.6		125 OLA, (NEV.)	P
		s 2.34	806.3		Yard TO-R WENDOVER, (UTAH	BK ) FPY
Arrive Daily	Arrive Daily	Arrive Daily				
22	102	18		-		

# THIRD SUBDIVISION — Westward

	1	Т	imetable No. 65		FI	RST CLASS
Mile Post			October 25, 1964		17 California	201 / 12
•		SIDING	STATIONS CAPACITIES AND FACIL	ITIES	Zephyr  Arrive Daily	
665.4	7	TO-R	ELKO (SP Conn.)		AM s 1.25	
683.3			ELBURZ			
684.3	Eastward Only		SP CONNECTION 15.7		timetabl	rned by current e, bulletins and
700.0	stwa		DEETH 1,0		Company	Southern Pacific y, on SP track be-
701.0	S		SP CONNECTION		tween A	lazon and Elko.
713.6	ABSS	-,	ALAZON (SP Conn.)	IP	AM 12.45	
717.7		125	WELLS 10.4	P	12.13	
728.1		125	RUBY 10.1	P		
738.2		125	VENTOSA 9.0	P		
747.2		125	SPRUCE 10.3	YP		
757.5	System	125	SAGE 8.4	P		
765.9	ol Sy		NN CROSSING	I		
766.4	∥ၓ∣	125	SHAFTER 6.0	YP	11.55 PM	
772.4	41 1	125	SILVER ZONE	P		
781.1	F	125	CLIFSIDE 7.8	P		
788.9		125	PILOT 9.7	P		
798.6		125	OLA, (NEV.)	P		
806.3		TO-R Yard	WENDOVER, (UTA		11.00 PM	
	1-				LeaveDaily	

# Eastward FOURTH SUBDIVISION Westward

FIRST CLASS	ost		Timetable No. 65		FIRST
18 California Zephyr	Mile Post	_	October 25, 1964		17 California Zephyr
Leave Daily			STATIONS SIDING CAPACITIES AND FACILI	TIES	Arrive Dail
AM 2.35	806.3		Yard TO-R WENDOVER	BK FPY	PM s 10.59
	815.5		125 SALDURO	P	
	825.1		125 ARINOSA	P	
	834.9		125 9.8 BARRO	P	
	845.3		125 10.4 KNOLLS	P	
N. I	854.2	1	125 8.9 CLIVE	P	
	866.1	e e	125 11.9 LOW	P	
2.25		System	125 12.3 DELLE	P	9.59
3.35	878.4	Control	14.5 ELLERBECK	P	
	892.9	c Co	125 4.2 BURMESTER	YP	
	897.1	Traffic	33 14.8 KCC TRANSFER	P	
	911.9		KCC CROSSING	AIP	
	912.1		125 1.1	P	
	913.2		125 11.5	P	
	924.7		BUENA VISTA	AIP	
	926.3		UP CROSSING		
	926.7		UP CROSSING	IP	
	927.2		POLLARD JCT.	IP	
s 4.25	927.4		D&RGW CROSSING . Lmts. 0.6	BKF	9.15 PM
AM	928.0		0.7	AI	PM
	928.7	Yd	UP CROSSING	BKF	
	930.4	TO	-R ROPER (Salt Lake City		Leave Daily
Arrive Daily					Leave Daily
18					17

# First Subdivision "BD"- LOYALTON BRANCH

		120		P	4/4/11	
45 10	0.0	ii——	HAWLEY		11.8	
Day T	11.8	100	LOYALTON	*	0.0	

## First Subdivision "BI"- RENO BRANCH

SECOND CLASS	EAST- WARD	Timetable No. 65	WEST- WARD	THIRD CLASS
220 Local Freight	Distance from Reno Junction	October 25, 1964	no no	219 Local Freight
Leave Daily Ex. Sunday	Distan Reno Ju	STATIONS SIDING CAPACITIES AND FACILITIES	Distance f	Arrive Daily Ex. Sunday
AM 4.40	0.0	56 RENO JUNCTION YP	33.1	AM 10.50
5.10	10.1	12 10.1 PEAVINE, (CAL.)	23.0	10.18
5.30	16.2	15 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 COMSTOCK	2.8	9.17
6.14	30.6	42 SIERRA PACIFIC	2.5	9.16
6.15	30.7	Spur 1W23 VAUGHN MILL No. 1	2.4	9.15
6.20		Spur 1W24 VAUGHN MILL No. 2	1.9	9.10
6.23		Spur 1W24 ROCKY MOUNT No. 1	1.68	9.07
6.25		Spur 1E40 ROCKY MOUNT No. 2	1.53	9.05
6.30 AM	33.1	Yd. Lmts. 1.53 TO-R RENO O	0.0	9.00
Arrive Daily Ex. Sunday			5.0	Leave Daily Ex. Sunday
220				219

# Fourth Subdivision "BG"— ELLERBECK BRANCH

0.0	¥ ELLERBECK	4.7	
0.9	Spur 1E17 USS&R Co. Spur	3.8	М
2.7	NYE Y	2.0	
3.7	8 1.0 FLUX	1.0	
4.7	Spur 1.0	0.0	

# Fourth Subdivision "BB"-WARNER BRANCH

fairtí soil	0.0	TO BURMESTER Y	P 15.5
ibia nime	7.0	22 7.0 MARSHALL	8.5
1212917	13.5	Spur 1W25 6.5 Conn. Tooele Army Depot	2.0
itmouni.	15.5	77 WARNER	0.0

# 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

and	"
(Station)	(Station)

Superintendent

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.

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.
- (D) 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) in the stopped 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, derailing 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

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

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 handthrow 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 handthrow 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.

MP 927.4, D&RGW X'ing.

Grant. Interlocking.

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:

Within ABS to next signal governing in the same direction. (1) (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).

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.

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 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.

#### 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.
  - "Eng......works extra on WP track......M Example 2: 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 SP extras may be authorized by clearance issued at SP Winnemucca which will confer authority to run extra Weso to

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

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

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

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 restricted 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 of 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.
- Westward WP freight trains and others trains when so (X) 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 inter-locking 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

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

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. -0.

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 rurning 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:

WESTER	IN PACIFI		Engine				Engine	
		Unit 1	Maximum			Unit l	Maximur	m
Class		HP	Speed	Class		HP	Speed	7
D-176	(801-805)*	1500	79	S-57	(559-564 in		2,000	
D-62	(801-D)	1500	65		multiple)	1000	30	٠
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)		65	
				RS-65	(3001-3010)		70	

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

Transfer of the second of the
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
Dr-114, 117 With 62/15 gear ratio trucks
DF-114, 117 with 65/12 gear ratio trucks
DF-116, 118, 120, 121, 122, 124, 125, 500, 501, 502, 600, 601.
604, 605, 607 to 616, 800
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 61/16 gear ratio trucks 75
DF-602, 603, 606 with 60/17 gear ratio trucks 70
DF-617 to 622 75
DP 79
DS-1, 4, 5
DS-6 to 12, 100 to 108, 110 to 115, 117 to 122, 607
DS-109, 303, 400 to 402, 600 to 606
DS-200 to 205, 300 to 302
DS-500 to 50655

Light engines when operated from leading control cab in direc-

tion 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 safety.

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.

SPEED RESTRICTIONS IN MILES PER HOUR		1 enger ains	Spe	2 ecial t Trains	Other Freight Trains	
BETWEEN	Maxi-	Restric- tions	Maxi-	Restric-	Maxi-	Restri
First Subdivision—Page 2		LIVILY		10115		-
Portola and MP 321.7	20		20		20	
MP 321.7 and MP 324.1	55		50		40	
MP 323.4 and MP 323.7 on curve		40		35		30
MP 324.1 and MP 341.5	79		65		55	
MP 341.5 and MP 352.7	60		55		45	
MP 341.5 and MP 342.5 on curve						40
MP 343.7 and MP 343.9 on curve		50		45		40
MP 345.5 and MP 346.8 on curves		55		50		
MP 347.5 and MP 348.5 on curves		50		45		3
MP 352.7 and MP 363.2	70		65		55	
MP 352.7 and MP 353 on curve		65		60		48
MP 363.2 and MP 384.2	79		65		55	
AP 384.2 and MP 390.7	65		60		50	
*MP 384.3 SP Crossing		40		30		30
MP 384.4 WP- SP Conn. turnout.		20		20		20
MP 389.8 and MP 390.3 on curve						48
IP 390.7 and MP 398.5	60		50		40	
MP 390.7 and MP 392.1 on curves.		45		40		3
MP 393.5 and MP 394.2 on curves		50		45		
MP 395.3 and MP 397.8 on curves		45		40		3
MP 398.5 and MP 404.7	65		60		50	
MP 404 7 and MP 400 2						48
MP 404.7 and MP 488.3	79		60		55	
MP 433.5 and MP 434.1 on curve		60		55		50
MP 480.2 and MP 481.2 on curves		60		55		50
MP 483.6 and MP 483.9 on curves		70				50
MP 487.7 and MP 488 on curves		65				50
AP 488.3 and MP 496		70				50
MP 489.9 and MP 491.2 on curves	60		55		40	
MP 492.4 and MP 492.7 on curves		50		45		
MP 493.9 and MP 494.9 on curves	* * * * *	55 45		50 40		96
MP 495.3 and MP 495.6 on curve		55		50		35
MP 510 and MP 510.4 on curve	70		65		60	
MP 510 and MP 510.4 on curve	10	70			00	55
MP 513 and MP 513.2 on curve	SATE OF	and the		2017/04/04/04/04		55
MP 519.9 and MP 520.6 on curve MP 521 and MP 521.9 on curves						55
MP 521 and MP 521.9 on curves		65		60 1		50
MP 523.1 and MP 523.4 on curve						55
MP 524.8 and MP 525 on curve	0.00					55
MP 527.5 and MP 527.7 on curve	20 3240	Taraba Cara		22/20/20/20		55
MP 530.4 and MP 530.7 on curve						55
MP 532.1 and MP 532.5 on curve						45
econd Subdivision—Pages 3-4						
Vinnemuces and MP 628 2	70		65		60	
Vinnemucca and MP 628.3	19	30	00	25		25
MP 536.7 and MP 537.1		75		20		20
MP 625.5 and MP 625.8						
IP 628.3 and MP 638.3	50	10	45		40	
MP 628.3 and MP 629.1	00		10		10	35
MP 635.5 and MP 636.8						35
IP 638.3 and MP 648.3	79		65		60	00
West Carlin and East Carlin		35		20		20
Using turnouts, West and				20		
East Carlin		20		15		15
IP 648.3 and MP 651	65		60		50	
MP 650.4 and MP 651		50		50		40
IP 651 and MP 652.6	70		65		50	
IP 652.6 and Elko	79		65		60	
MP 664.4 and MP 665.4 (Elko Yard)		35		15		15
hird Subdivision—Pages 5-6				1		
ilko and Alazon	79	1. 17	65		60	
MP 665.4 and MP 666.4 (Elko Yard)	19	25	05	15	60	
MP 673.9 and MP 674.8		35		15		15
010.0 and MIL 0/1.0						55

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.

SPEED RESTRICTIONS IN MILES PER HOUR	Pass	Passenger Trains		2 Special Freight Trains		Other Freight Trains	
BETWEEN	Maxi- mum	Restric- tions	Maxi- mum	Restric- tions	Maxi- mum	Restric	
MP 674.8 and MP 681.1		55		50		45	
Using turnouts, Alazon		30		25		25	
Alazon and MP 720.5	. 70		60		50		
MP 715.2 and MP 717.1 on curves		65				45	
MP 720.5 and MP 735	. 79		65		55		
MP 735 and MP 748	. 79		65		60		
MP 748 and MP 753.2			65		55		
MP 753.2 and MP 755.2 MP 755.2 and MP 759.8			60		30 55		
MP 755.5 and MP 755.8 on curves			00			40	
MP 758.4 and MP 758.7 on curve.		60		55		48	
MP 759.4 and MP 759.8 on curve.		2.2		00		50	
MP 759.8 and MP 768.2			65		60		
*MP 765.9 NN Crossing		75				40	
MP 768.2 and MP 773	70		65		55		
MP 771 and MP 771.5 on curve						4	
MP 772.7 and MP 773 on curve		65		60		4	
MP 773 and MP 774	. 70		60		45		
MP 774 and MP 775.3	. 79		60		60		
MP 775.3 and MP 782	. 55		50		40		
MP 776.6 and MP 778.1 on curves		40		35		30	
MP 778.7 and MP 779.2 on curve.		35		30		2	
MP 782 and MP 784.5	. 45		40		30		
MP 782 and MP 782.7 on curve				30		2	
MP 783.5 and MP 784.5		35		30		2	
MP 784.5 and Wendover	. 70		65		55	40	
MP 785.1 and MP 786.5		60		55		4	
MP 795.4 and MP 795.7		65 55		60 50		40	
MP 796 and MP 796.4		65		55		4	
MP 799.5 and MP 800		45		40		3	
MP 805.3 and MP 806 on curve						50	
Fourth Subdivision—Page 7		parlin.	-	1	00		
Wendover and MP 856.6	. 79				60		
MP 806.5 and MP 807 on curve						50	
MP 849.7 and MP 849.8 on curve. MP 856.6 and MP 880	70		60			5	
MP 856.6 and MP 856.9 on curve.	. 19	65	60		55	50	
MP 859.7 and MP 860 on curve		70				1	
MP 860.9 and MP 861.1 on curve.		70					
MP 862.7 and MP 863.3 on curve.		70					
MP 864.3 and MP 864.7 on curve.		65				40	
MP 865.2 and MP 866.1 on curve		70					
MP 866.8 and MP 867.5 on curve.		70					
MP 867.5 and MP 868.4 on curve		60		55		48	
MP 868.5 and MP 869.3 on curve		65				50	
MP 869.8 and MP 872 on curve		70					
MP 878.7 and MP 879 on curve		60		55		4	
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	. 79		60		60		
MP 901 and MP 902.1 on curve						55	
MP 907.7 and MP 908.1 on curve						58	
MP 908.1 and MP 925.7	. 79		65		60		
MP 909.9 and MP 910.4 on curve . MP 911.2 and MP 911.3 on curve .						56	
*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		00		55	
MP 920.6 and MP 920.9 on curve .						58	
MP 925.3 and MP 925.7				40		40	
MP 925.7 and Pollard Jet	. 20		20		20		
Pollard Jct. and Salt Lake City (U.D.	) 12		12		12		
Pollard Jct. and Roper Yard			15		15		

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

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

BRANCH SPEEDS in miles I	per hour — 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	MPH

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	15
Trains handling WP steam derrick No. 37—straight track 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
Trains or engines through turnouts, crossovers, sidings and other inside tracks, except as otherwise provided for	10

#### MISCELLANEOUS

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.

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 32.43 642.96	Reno End of Branch Carlin 647.13
663.6 926.06	Elko

#### SWITCHING LIMITS

West MP	East MI
319.94	Portola 323.0
437.03	Gerlach
530.02	Winnemucca 533.6
764.96	Shafter 767.77
805.28	Wendover 808.3
926.06	Salt Lake City

#### TONNAGE RATING

Engine Number	1st Sub- div.	2nd Sub- div.	Third Subdi	ivision	4th Sub- div.	Reno Branch	Loyalton Branch	Warner Branch
Eastward		191.7			-			
801-805	920	1530	770		875	470		400
902-912	1500	2840	1500		1500	925		700
913-924	1850	3400	1850		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		1150	1050	3340	535
601-606					11 12 23 23 23 23 23 23 23 23 23 23 23 23 23	Votes de la		
701-713	1825	4150	1825		1825	1500	4150	870
725-732	1020	4100	1020		1020	1900	4150	010
801-D								
2001-2010 \ 3001-3010 \	2075	4400	2075		2075	1750	4400	1120
			Wendover	Shafter				
			to	to				
Westward			Shafter	MP 754				
801-805	800	1530	620	750	810	350		1530
902-912	1500	2840	1150	1500	1500	585		2275
913-924	1850	3400	1540	1850	1850	810		2840
501-511	880	2645	880	1000	880	435	2645	1900
551-564	1150	3340	1150	1250	1150	550	3340	2350
581-585	1150	3340	1150	1250	1150	700	3340	2350
601-606								
701-713	1825	4150	1715	1825	1825	1000	4150	2835
725-732	1020	4100	1715	1020	1020	1000	4100	2000
801-D								
2001-2010	2075	4400	1965	2075	2075	1250	4400	3085
3001-3010	2010	1100	1900	2010	2010	1200	1100	0000

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 Co	all 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

STATIONS	Mile Post	How Con- nected	Car 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	IE	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
l'ERMINALP	922.1	1 W	20
GERSTNER	926.33	1 W	10
LANG P	926.34	ı w	10
FISHER P	926 70	1 E	25
GENERAL CABLE	927.15	1 E	5

#### TUNNEL LOCATIONS

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

#### RAILROAD SURGEONS

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

# WATCH INSPECTORS

LOCATION	NAME	TITLE
Winnemucca, Nevada Elko, Nevada	K. I. Dunlap R. Herz & Bros. Bosch & Son. W. N. Blohm H. B. Miller Co. Wilfred Burrell	Watch Inspector Watch Inspector

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# SPEED TABLE

	SPEED TABL	1E1
TIME PER MILE		MILES PER HOUR
36" 37" 38" 39" 40"	· · · · · · · · · · · · · · · · · · ·	100 97.3 94.7 92.3 90
41" 42" 43" 44" 45"		87.8 85.7 83.7 81.8
46" 47" 48" 49" 50"		78.3 76.6 75 73.5
51" 52" 53" 54" 55"		70.6 69.2 67.9 66.7 65.5
56" 57" 58" 59" 1'00"		64.3 63.2 62.1 61 60
1'01" 1'02" 1'03" 1'04" 1'05"		59 58.1 57.1 56.2 55.4
1'06" 1'07" 1'08" 1'09" 1'10"		54.5 53.7 52.9 52.2 51.4
1'11" 1'12" 1'13" 1'14" 1'15"		50.7 50 49.3 48.6 48
1'16" 1'17" 1'18" 1'19" 1'20"		47.4 46.8 46.2 45.6
1'25" 1'30" 1'35" 1'40" 1'45"		42.4 40 37.9 36 34.3
1′50″ 1′55″ 2′00″ 2′15″ 2′30″		32.7 31.3 30 26.7
2'45" 3'00" 3'30" 4'00" 5'00"		21.8 20 17.1 15 12
6'00" 7'00" 7'30" 8'00" 10'00"		10 8.6 8 7.5