

**GETTING HURT IS A FOOLISH WAY**  
*To Prove That Rules Mean What They Say*

**RULE 10-1**

Oral authorization and acknowledgments between Foremen and Engineers for trains to pass "Red Conditional Stop" signs must be worded in the following forms:

**NWP FOREMAN..... AT MP..... CALLING NWP (Train No.).....**

(After train answers giving his identification): (i.e.) **NWP Train.....**

**Foreman's Response**

**"THIS IS NWP FOREMAN..... IN CHARGE OF THE WORK BETWEEN MP..... AND MP..... NWP TRAIN ORDER NO..... WE ARE IN THE CLEAR AND YOU MAY PROCEED PAST THE RED CONDITIONAL STOP SIGN AND THROUGH THE LIMITS OF ORDER AT.... MPH (REPEAT)..... MPH."\***

**Engineer's Response**

**"THIS IS ENGINEER NWP TRAIN... I MAY PROCEED PAST THE RED CONDITIONAL STOP SIGN AND THROUGH THE LIMITS OF ORDER NO.... BETWEEN MP .... AND MP .... AT (Speed). REPEAT (Speed) MILES PER HOUR."**

Foreman must acknowledge Engineer's response as follows:  
**"NWP TRAIN ORDER NO....., BETWEEN MP..... AND MP..... MPH\* OK."**

\*When no speed restriction account above Form "Y" Train Order, tell train engineer "At Maximum Authorized Speed."

**SPEED TABLE**

TIME PER MILE	MILES PER HOUR
1'11"	50.7
1'12"	50
1'13"	49.3
1'14"	48.6
1'15"	48
1'16"	47.4
1'17"	46.8
1'18"	46.2
1'19"	45.6
1'20"	45
1'25"	42.4
1'30"	40
1'35"	37.9
1'40"	36
1'45"	34.3
1'50"	32.7
1'55"	31.3
2'00"	30
2'15"	26.7
2'30"	24
2'45"	21.8
3'00"	20
3'30"	17.1
4'00"	15
5'00"	12
6'00"	10
7'00"	8.6
7'30"	8
8'00"	7.5
10'00"	6

**NORTHWESTERN PACIFIC RAILROAD COMPANY**

**AND**

**PETALUMA AND SANTA ROSA RAILROAD COMPANY**

**TIMETABLE AND SPECIAL INSTRUCTIONS**

**3**

**EFFECTIVE DECEMBER 9, 1973**

**AT 12:01 A. M**

**PACIFIC STANDARD TIME**

**FOR THE GOVERNMENT AND INFORMATION OF EMPLOYEES ONLY**

**W. M. JONES,**

**Vice President and General Manager.**

**H. B. FOWLER,**

**District Superintendent.**

**TRAINMASTERS**

**M. P. FORD..... Eureka**

**E. E. SHIPLEY..... Santa Rosa**

**TRAINMASTER**

**ROAD FOREMAN OF ENGINES**

**J. D. LEWIS..... Willits**

**CHIEF TRAIN DISPATCHER**

**C. L. KENNEDY..... Roseville**

**TIMETABLE NO. 3**

Mile Post Location	STATIONS SIDING CAPACITIES AND FACILITIES			Station Number	Distance from Eureka	WEST-WARD
						SECOND CLASS 75 Freight
40.4	Yd Lmts R	<b>SCHELLVILLE</b>	BY	23730	273.1	Arrive Daily PM 12.20
28.8	TO	<b>BLACK POINT</b>	IPQ	24043	261.2	
25.6	Yd Lmts R	<b>IGNACIO</b>	YP	24050	258.3	AM 11.50
25.8	6078					
31.3		<b>BURDELL</b>	P	24209	252.8	11.40
38.5	4354 Yd Lmts TO-R	<b>PETALUMA</b>	BKIPQ	24220	245.6	11.20
53.8	5574 Yd Lmts	<b>SANTA ROSA</b>	BYPQ	24410	230.3	10.55
58.5		<b>FULTON</b>	P	24426	225.6	10.45
68.0	3638 Yd Lmts TO-R	<b>HEALDSBURG</b>	BKPBQ	24441	216.1	10.33
75.8	6492 Yd Lmts	<b>GEYSERVILLE</b>	P	24454	208.3	10.18
85.2		<b>CLOVERDALE</b>	P	24463	198.9	10.04
100.1	4262					
100.1		<b>HOPLAND</b>	P	24473	184.0	9.31
114.0	Yd Lmts TO-R	<b>UKIAH</b>	BKPBQ	24479	170.1	9.03
122.1	6993 Yd Lmts	<b>REDWOOD VALLEY</b>	P	24486	162.0	8.50
131.4	320					
131.4		<b>RIDGE</b>	P	24493	152.7	8.05
139.5	Yd Lmts TO-R	<b>WILLITS</b>	BKYPQ	24500	144.6	7.30 6.32
152.5	6501					
152.5		<b>LONGVALE</b>		24533	131.6	5.58
158.1	1360					
158.1		<b>FARLEY</b>		24538	126.0	5.44
175.5	1050					
175.5		<b>NASHMEAD</b>		24557	108.6	5.01
194.5	Yd Lmts	<b>ISLAND MOUNTAIN</b>	PQ	24607	89.6	4.12
209.0		<b>ALDERPOINT</b>		24623	75.1	3.32
216.6	7060 Yd Lmts	<b>FORT SEWARD</b>	PQ	24632	67.5	3.14
237.3	2939					
237.3		<b>SOUTH FORK</b>		24705	46.8	2.32
255.6	3628 R					
255.6		<b>SCOTIA</b>	B	24729	28.5	1.54
262.7	1613 R					
262.7		<b>ALTON</b>		24740	21.4	1.40
264.5	3711					
264.5		<b>ROHNERVILLE</b>		24805	19.6	
268.7	1800					
268.7		<b>FERNBRIDGE</b>		24815	15.4	1.30
277.8	3890					
277.8		<b>SOUTH BAY</b>		24831	6.3	1.16
284.1	Yd Lmts TO-R	<b>EUREKA</b>	BKYPQ	24840	0.0	1.01 AM
						Leave Daily 75

Mile Post Location	STATIONS SIDING CAPACITIES AND FACILITIES			Station Number	Distance	WEST-WARD
	SAN RAFAEL BRANCH					
14.3	Yard Limits	<b>DETOUR</b>		24110	11.5	
17.0		<b>SAN RAFAEL</b>		Y 24105	8.8	
25.8		<b>IGNACIO</b>		YP 24050	0.0	
<b>SONOMA BRANCH</b>						
44.8	Yd. Lmts	<b>SONOMA</b>		24000	4.4	
40.4		R	<b>SCHELLVILLE</b>		BYP 23730	0.0
<b>CARLOTTA BRANCH</b>						
262.7	1613 R	<b>ALTON</b>		24740	5.0	
267.7		<b>CARLOTTA</b>		24745	0.0	
<b>KORBLEX BRANCH</b>						
284.1	Yard Limits	TO-R	<b>EUREKA</b>		BKYPQ 24840	11.1
292.5			<b>ARCATA</b>		Y 24920	2.7
295.2			<b>KORBLEX</b>		24930	0.0
<b>SAMOA BRANCH</b>						
292.5	Yd. Lmts	<b>ARCATA</b>		Y 24920	8.0	
300.5			<b>SAMOA</b>		24950	0.0
<b>ADDITIONAL STATIONS</b>						
Capacity and Direction of Entry into Spurs	Mile Post	NAME			Station No.	
900W P	27.8	Novato	(Spur)		24205	
2463	39.2	Park Siding			24241	
460W	41.0	Crown	(Spur)		24244	
780E P	46.1	Cotati	(Spur)		24251	
375E	48.7	Wilfred	(Spur)		24254	
250W	50.7	Todd	(Spur)		24257	
1126E P	62.6	Windsor	(Spur)		24432	
407W	66.4	Grant	(Spur)		24436	
1166E P	72.1	Lytton	(Spur)		24450	
221W	77.0	Omus	(Spur)		24455	
1840 P	81.1	Asti			24459	
800E P	120.0	Calpella	(Spur)		24484	
502W P	124.0	Laughlin	(Spur)		24488	
1835	166.5	Dos Rios			24547	
630	184.3	Bell Springs			24565	
2416	253.5	Glynn			24727	
942E	259.0	Stone			24737	
1148	266.1	Fortuna	(Spur)		24810	
440W	271.0	Loleta	(Spur)		24818	
<b>San Rafael Branch</b>						
385W	14.9	Greenbrae	(Spur)		24109	
<b>Schellville Branch</b>						
183E	42.3	Vineburg	(Spur)		24008	
188E	44.2	Sebastiani	(Spur)		24003	
<b>Samoa Branch</b>						
	297.5	Manila			24940	

**RULE 5. Ignacio:** Time for trains to and from Schellville via Novato, applies at the east switch of the wye, MP 25.82.  
**Eureka:** Time for trains will apply at the west switch to train yard, MP 282.1.

## TIMETABLE NO. 3

EAST- WARD	STATIONS	Station Number	WEST- WARD	
Mile Post Location			Distance from Denman	
0	Yard Limits { Petaluma ..... BKPQ " —NWPRR.....	24309	3.6	
1.4		24310		
1.0	Yard Limits { West Petaluma.....	24321	4.1	
3.6		24332	0	
			Distance from Sagu	
11.3	Yard Limits { Turner.....	24334	11.9	
15.4		Bassett.....	24343	6.2
16.7		Sebastopol.....	24345	4.9
19.0		Molino.....	24350	2.0
19.6		Barlow.....	24352	2.0
20.9		Graton.....	24355	0.7
21.5		Manzana.....	24357	0.1
21.6		Sagu.....	24358	0.0
EAST- WARD	SANTA ROSA BRANCH	Station Number	WEST- WARD	
Mile Post Location			Distance from Santa Rosa	
23.2	Yard Limits { Santa Rosa..... BYP	24365	0	
		" —NWPRR.....	24380	
20.2		Leddy.....	24375	3.5
17.7		Gravenstein.....	24370	5.5
16.7		Sebastopol.....	24345	6.5

### SPEED RESTRICTIONS

Movements must not exceed the following maximum speeds (shown in miles per hour):

Between:

Turner and Sagu.....	15
Petaluma, West Petaluma and Denman.....	10
Santa Rosa and Sebastopol.....	15

Through sidings, yard and other tracks, crossovers and turnouts..... 10

The above speeds are the maximum speeds permitted. Speed must be further reduced as prescribed by speed signs or by timetable bulletin. When fog, storms or other conditions obscure track or signals, speed of movements must be so reduced as to permit strict observance of signals and **INSURE ABSOLUTE SAFETY.**

## SPECIAL INSTRUCTIONS

3

### PETALUMA AND SANTA ROSA RAILROAD COMPANY

**RULES 10-H, 10-I and 15** are revised to read one-half (½) mile, where two (2) miles are shown.

**RULE 93.** Yard limits are established to include all tracks.

**RULE 103-A.**

**Petaluma:** Flashing light signals at Washington Street, West Petaluma, are not actuated for movement until equipment is within fifty (50) feet of crossing. Trains and engines must not proceed over crossing until flashing light signals are operating. Equipment must not be left standing on track within one hundred (100) feet of the crossing.

Switching movements over Washington Street, Petaluma, must not be made until a member of the crew has afforded protection to traffic.

Uncontrolled movement of cars over these crossings prohibited.

**Denman:** Protection at crossing No. 67-31 is not actuated until equipment is within fifty feet of crossing. Movement must not be made past stop signs until protection has been operating twenty seconds.

**Sebastopol:** Movements over Bodega-Santa Rosa Ave. must not enter the crossing until traffic signal on Main St. displays flashing yellow signal. When flashing yellow light is displayed and movement does not enter crossing within 1½ minutes, crossing must not be entered until traffic light displays green aspect for Main St. traffic.

Trains and Engines must stop before crossing Sebastopol Avenue and then proceed over crossing with **caution.**

### MISCELLANEOUS

All engines are restricted from operating on the PSRR except the following: ES408, ES409, ES415, AS407, AS409, AS410 and GS407.

**West Petaluma:** Metal plates over rail just west of H Street between Kresky's buildings 1 and 2 must be removed before spotting cars.

### MAXIMUM CAR LOADING

Load limit (car and contents) must not exceed 220,000 pounds.

**SPECIAL INSTRUCTIONS**

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

**RULE M** fourth and fifth paragraphs are cancelled.

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

**DEFINITIONS**

**HOLIDAYS**, is revised to read:

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

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

**RULE 2.** Brakemen, Firemen and Switchmen with less than ninety days service are not required to carry, while on duty, a reliable railroad grade watch and watch certificate.

**RULE 4-B.** Scotia: Bulletins will be posted and maintained in cabooses.

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

**RULES 10-H, 10-I, 15 and FORM Y** train orders are revised to read:  
One and one-half (1½) miles where two (2) miles are shown.

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

Speed signs to left of track:

Westward	Reading
MP 264.20	35
MP 113.50	30
Eastward	Reading
MP 54.45	45

**RULE 10-J** is revised to read:  
One and one-half miles where three-fourths mile is shown.

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

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

**RULE 21.** First paragraph is revised to read:

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

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

**RULE 82-A and 95.**

Willits..... No. 75 must obtain clearance OK'd by Chief Train Dispatcher which will authorize display of markers, engine number and signals, if any.

Extra trains are authorized to operate as extra trains between Alton and Carlotta without train order authority.

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

- Ignacio..... No. 75.  
(Train register located in phone booth near station sign, Ignacio.)
- Petaluma..... Trains originating and terminating.
- Healdsburg..... Trains originating and terminating.
- Ukiah..... Trains originating and terminating.
- Scotia..... No. 75, trains originating and terminating (Train register in concrete building vicinity of Yoder switch).
- Alton..... Extra trains departing Alton on Carlotta Branch.

**RULE 82-A, 83 and 83-A:** Extra trains operating on Carlotta Branch, in addition to information required by train register located at Alton, must register destination of trip (turning point) and date of departure in the column captioned "Signals." When trip has been completed, date of arrival at Alton must also be entered in column captioned "Signals." Extra trains enroute to this territory must not leave Alton until it has been ascertained from train register that the preceding extra train via the route to be used has completed the trip and registered time and date of arrival at Alton accordingly.

When engine is changed before completion of a trip, crew must indicate on train register that trip was originated with Engine No. .... and completed with Engine No. ....

**RULE S-90-A** is revised to read:

One (1) mile where two (2) miles is shown.

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

West MP	East MP
14.30	Detour (San Rafael Branch) ..... 27.05
26.80	Ignacio..... 38.25
44.95	Schellville..... 40.30
36.38	Petaluma..... 56.56
52.36	Santa Rosa..... 69.71
64.68	Healdsburg..... 78.39
74.26	Geyserville..... 116.10
110.84	Ukiah..... 122.39
120.21	Redwood Valley..... 141.40
137.90	Willits..... 195.62
193.94	Island Mountain..... 218.50
214.25	Fort Seward.....
280.56	Eureka (Korblex Branch)..... End of NWP Track
	" (Samoa Branch)..... End of NWP Track

**RULE 99.** Flag protection to the rear is not required between Alton and Carlotta.

**RULE 99-C.** Will apply between Redwood Valley and Eureka.

**RULE 101.** If any member of crew has reason to believe train has passed over defect in track or roadbed, train must be stopped immediately and inspection of train made to insure safe to proceed. Train dispatcher and opposing or following trains must be immediately notified of condition encountered from first available means of communication. If means of communication not immediately available, or if train dispatcher cannot afford protection, train involved must afford protection.

**RULE 102.** Following paragraph is added:

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

**RULE 103-A.** Trains moving under conditions that may require them to stop must, where possible, stop to clear public grade crossing. When not possible to stop clear of such crossings and train cannot proceed immediately, crews on other than passenger trains must cut these crossings within ten minutes unless no vehicles are waiting at or closely approaching crossing. Public crossings must be left open until it is known that trains are ready to depart. Crews required to pick up, set out or perform switching operations must, when track room exists, stop their trains back a sufficient distance to avoid blocking public crossings when coupling trains and while charging train lines. When recoupling at public crossings, trains shall be moved promptly consistent with safety.

Switching movements over public grade crossings should be avoided whenever possible. If not possible, such crossings must be cleared frequently to allow vehicles to pass and must not be occupied continuously for longer than ten minutes unless it can be seen that no vehicles are waiting at or closely approaching the crossing.

Cars or locomotives must not be left standing or switches left open within the controlling circuits of automatic gate protection devices unless timeout features are provided to allow the gate arms to rise.

On tracks other than main tracks where crossing is protected by automatic gates or other automatic crossing protection and "Stop Signs" are located approximately twenty-five feet (25 ft.) each side of crossing, movements must stop at "Stop Sign" and allow gates to lower or other automatic protection to operate twenty seconds before entering crossing.

Station	Location	Mile Post
*Santa Rosa	Third Street	53.7
**Ukiah	Perkins Street	114.0

\*May be operated for movements from other than main track by operating key release on side of instrument case on east side of crossing and on relay post on west side of crossing.

\*\*May be operated for movement over Lucas track by operating key release on relay post on west side of crossing.

Switch key may be removed but circuit must be occupied within one minute or gate will rise.

**San Rafael:** Pedestrian crosswalk located at Los Gallinas Avenue, MP 19.3, must not be blocked by standing trains or cars.

**Petaluma:** Switching movements on other than main tracks over the following crossing must not be made until a member of the crew has afforded protection to traffic.

East D St.

Uncontrolled movement of cars over this crossing prohibited.

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

Normal position of junction switch at Carlotta is for the Northwestern Pacific R.R.Co. track.

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

Eastward Trains will use Siding at Burdell, Mile Post 31.3.

Siding at Petaluma (MP 38.5) blocked with cars.

**AT THE FOLLOWING STATIONS, SIDINGS ARE LOCATED AS SHOWN BELOW:**

**SANTA ROSA.** On east side of main track, from East Switch MP 54.97, to MP 53.85 (10 feet east of Sixth St.)

**HEALDSBURG.** On east side of main track, from east switch MP 67.40 (10 feet west of Bailhache Ave.) to west switch.

**RULE 206.** Second paragraph will not apply to Southern Pacific engines.

**RULE 211 and FORM "N" TRAIN ORDER:**

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

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

**RULE 221.** Unit for display of flashing light installed at the following locations:

Station	Location	Direction
Petaluma	East end siding	Eastward trains
Healdsburg	West end siding	Eastward trains

Display of flashing white light indicates that train-order signal is displaying proceed indication or that train-order operator has train orders ready for delivery and such train orders do not restrict train at that station and train may pass fouling point of siding if not restricted by timetable or train orders previously received.

**Black Point** is train order office for eastward trains only.

**RULE 535. SPRING SWITCHES**

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

Location	Normal Position	
Burdell	West Switch	Siding
Burdell	East Switch	Main Track
Geyserville	East Switch	Main Track
Redwood Valley	East Switch	Main Track

Switch point indicator, indicating position of switch for facing point movement at above locations, are located from 25 to 100 feet in approach to switch.

**RULE 705. HOT BOX DETECTORS**

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

Except for emergency situations, train and engine crews must avoid using radio transmitter when within 500 feet from or beyond Hot Box Detector scanner site.

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

Instructions follow for operations of hot box detectors when stopped by flashing white light.

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

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

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

Also upon detection of a hot journal, white light which is continuously lit on equipment house adjacent to Monitor Display Board will start to flash. Absence of white light must be promptly reported to train dispatcher.

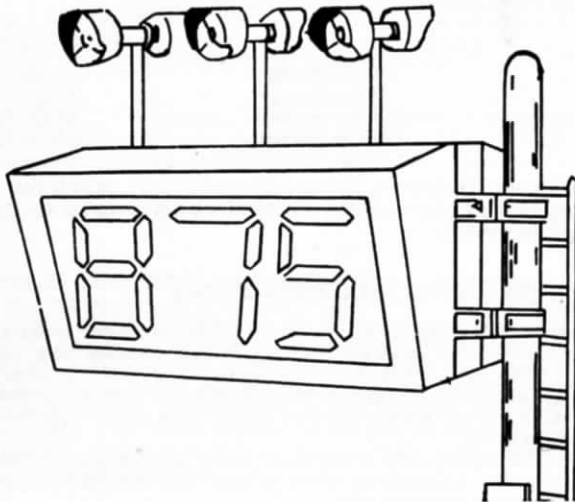
Crew members must keep a vigilant lookout for display board and flashing light(s) and, when flashing, conductor and engineer must immediately orally compare observation when means of communication is available. Absence of any numerical display after passage of a train must be promptly reported to Train Dispatcher.

## SPECIAL INSTRUCTIONS

When any indicator light displays flashing white aspect, train will be stopped and inspected. If only one flashing aspect is indicated, the axle number from rear of train shall be inspected plus all journals of car indicated by detector as well as each adjoining car. If center light displays flashing white aspect, all journals from count indicated to rear of train shall be inspected on side or sides as indicated by left or right flashing white light. Lights and illuminated numerals will automatically cancel out ninety (90) seconds after entire train passes detector.

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

### MONITOR DISPLAY BOARD-INDICATOR LIGHTS



### REPORTING OF HOT BOXES

When hot box detector is actuated, following information is to be reported at next terminal in telegraph message form addressed jointly to Superintendent, Division Engineer, Signal Supervisor, Chief Dispatcher and Mechanical Foreman.

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

### SCANNER SITE

MP	Direction	Location
*48.9	East and West	Wilfred
256.0	East and West	Scotia

### GENERAL REGULATIONS

**RULE 804.** Additional paragraph is added:

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

**RULE 811.** The crew must eat as a unit, and conductor will notify train dispatcher in advance where they intend to do so.

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

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

**RULE 824.** Any time an angle cock is closed in the train where the brake pipe pressure is lower than it is elsewhere, the resultant equalization will raise the brake pipe pressure at that point sufficient to release the AB or ABD valve. Equalizing the air in the brake pipe will cause release of brakes throughout the cars; therefore, it is imperative that when cars are set out, regardless of the air brake equipment, a sufficient number of hand brakes must be applied and brake pipe pressure completely depleted by opening angle cock and leaving the angle cock in open position.

**RULE 825.** A sufficient number of hand brakes must be set to hold cars; if two cars or more, not less than two (2) must be set.

Many new cars are equipped with truck mounted brakes, (Wabcopac, Nycopac, etc.).

The hand brake is effective on these cars on "B" end only. It will be necessary to check "B" end of these cars to determine that hand brake has been released.

At Willits train crews must not release hand brakes until engine is coupled and brake pipe is charged.

Rail skids are located at Ridge and Rounds lumber company spur.

When using rail skid it must be placed on rail and leading wheel of first car in descending direction run onto rail skid and hand brakes set if brakes are operative before engine is detached. Train crews picking up cars from these locations must remove rail skid and return to proper location and locked where locks are provided.

**RULE 827.** If means of communication is available, Engineer must inform Conductor and Helper Engineer, if any, when approaching hot box detector, or person making rolling inspection of his train. Crews on helper engine and on rear end of train must acknowledge and advise Engineer of indications displayed in addition to taking appropriate action in accordance with applicable rules and special instructions.

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

Trains will not exceed 10 MPH while crossing over Petaluma Drawbridge so as to allow visual verification of consist.

Westward trains departing Willits must not exceed 12 MPH until rear of train has passed over Commercial Street crossing.

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

**RULE 872.** Enginemen taking charge of engines at Eureka, Willits and Schellville will consider engines as having been amply supplied with fuel, sand and equipped with prescribed signals, tools, supplies and flagging equipment in serviceable condition.

**RULE 883.** First paragraph is revised to read:

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

**RULE 884:** When setting out units at Redwood Valley arrange to leave sufficient room on the west end of the siding to hold at least six (6) units.

## SPECIAL INSTRUCTIONS

**RULE 958.** First paragraph is revised to read:  
 "Employees shall identify the radio station from which they are calling by prefacing their call with the railroad name, for example: 'NWP Caboose Train Second 802 calling NWP Engine Second 802, over' and to answer a call, announce, for example: 'This is NWP Caboose, Train Second 802, over'."

**RULE 958.** Second paragraph is revised to read:  
 "Radio station must be identified at the end of each transmission which exceeds three minutes, except that, in event of continued exchange of communications, identification shall be made at the end of each 15-minute period if the exchange continues without substantial interruption."

**RULE 962.** Radio communication system may be used in lieu of hand, flag or lamp signals prescribed by Rule 12.

**RULE 963(c). Add:** "This is N.W.P. Operator (station). I have a Form 'N' train order to advance (train) on main track until (time)."

### MAXIMUM SPEED FOR ENGINES LENGTH OF DIESEL UNITS (Between Pulling Face of Couplers)

Classification	Engine Numbers	Maximum Speed Except #	Length (Feet)
AS600	1000-1002	70	69
ES406	1004-1016	45	44
AS407	1024-1031	60	44
ES408	1100-1128	65	44
ES408B	1150-1153	65	44
ES409	1170-1179	65	44
AS409	1200-1281	60	45
ES410E	1300-1319	65	44
AS410	1703-1845	60	45
BS410	1856-1869	60	46
ES410	1904-1953	60	44
BS412	2100-2157	60	46
ES412C	2200-2207, 2250-2261, 2289-2293	65	44
ES412	2208-2223, 2262-2288	65	44
FS412	2350-2394	60	46
AS415	2400-2409	65	54
ES415	2450-2480, 2493-2510, 2523-2578, 2591-2689	65	45
ES415C	2481-2492, 2511-2522, 2579-2590	65	45
ES615	2700-2702-2703, 2716, 2722	55	61
ES615	2701, 2704-2715, 2717-2721, 2723-2742	70	61
AS418	2900-2936	70	57
AS618	2950-2970	70	58
ES620	2971-2976	70	66
EP418	3000-3010	79	56
FP624	3020-3035	70	66
AS630	3140-3154	70	69
EP636	3200-3209	70	71
EF418E	3300-3345	70	56
EF418	4300-3640, 3653-3730	70	56
EF418C	3641-3652	70	56
EF618	3800-3966	70	61
AF420	4000-4009	70	57
EF420C	4030-4049	70	56
EF420	4050-4087	70	56
EF618E	4300-4351	70	61
EF423C	5000-5009	70	56
EF423	5010-5017	70	56
GS407	5100-5120	55	37
AF624	5160-5162	70	67
EF623	5300-5325	70	66
EF425C	6500-6519, 6680-6681	70	56
EF425	6520-6679	70	56
GF425	6700-6767	70	60
EF625	6900-6928	70	61
GF428	7025-7028	70	60
AS628	3110-3136	70	69
GF628	7150-7159	70	67

Classification	Engine Numbers	Maximum Speed Except #	Length (Feet)
EF530C	7600-7607	70	59
GF630	7900-7929	70	67
EF630	8400-8488	70	66
GF633	8600-8785	70	67
EF636	8800-8963	70	66
EF636C	8964-8981	70	66
EF636	8982-9051	70	66
EF636C	9052-9068	70	66
EF636	9069-9151, 9166-9260, 9302-9313	70	66
EF636C	9152-9165, 9261-9301	70	66
EF642	9500-9505	70	71
EF850B	9900-9902	70	88
GF850	9950-9952	70	84
AMTRAK Locomotives			
EP415A	SP Model F7	79	51
EP415B	SP Model F7	79	50
UP	Model ES, 9A	70	51
UP	Model ES, 9B	70	70
	Any Locomotive not listed	35	.....

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

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

### OTHER SPEED RESTRICTIONS

Trains handling shovels, ditchers, cranes, pile drivers and derricks on own wheels:

	MPH MAIN Tracks Other Than Branches	MPH MAIN Tracks on Branches
With boom disconnected and counterweight forward	25	25*
With boom disconnected and - light end forward	20	15
With boom in place, either end forward	25	15

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

SPMW 4088 Crane-Piledriver must be placed on rear of train when arriving Schellville for delivery to Southern Pacific Transportation Company.

Facing point movements over spring switches must not exceed 35 MPH.

Dead or disabled engines which requires movement at reduced speed must first be reported as ready to move to the chief train dispatcher, who will designate the train in which the engine is to be moved. Any such engine must not be handled in train until train order designating maximum speed is issued.

Dead engines hauled in train and weighing 100,000 pounds or more must be placed first behind the engine handling the train. If weight is less than 100,000 pounds, dead engines must be placed near rear of train.

Trains handling SPMW-2639, Scale Test Car must not exceed 40 MPH on main track other than Branches and 30 MPH on main track on Branches.

## MISCELLANEOUS

(a) Forward brakeman in freight service will ride the lead diesel unit unless otherwise instructed by conductor or engineer.

(b) Couple-in-Motion Track Scale located at Mile Post 31.3, Main Track, Burdell.

Westward trains for interchange at Schellville will weigh. Other trains will weigh when instructed.

Westward trains must not exceed 4 MPH from a point 500 feet east of scale until train is clear of scale.

Speed indicator lights will indicate the following:

Steady white light . . . . . Permissive speed for weighing.

Blinking white light . . . . . Excessive speed for weighing.

Speed must be controlled to obtain steady aspect while weighing.

(c) SP 354000-354199 series wood chip cars exceed clearances east of MP 90 and must not be moved beyond that point. Trains handling loaded cars in above series, must reduce speed of train not exceeding 10 MPH over Healdsburg bridge, MP 67.62. On all movements, cars must be separated at least five cars from engine or caboose, train length permitting.

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

(e) When a unit or units in locomotive consist emit excessive smoke through exhaust stacks other than from a cold start, prompt report must be made to train dispatcher who will arrange to notify Roseville maintenance facility. Unit number, time and location where excessive smoking of unit was first observed should be reported.

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

(f) Diesel locomotive units Classes AS415, AF420, ES412 and ES415 are not equipped with alignment control couplers. To minimize the possibility of jackknifing action, please be governed by the following:

1. When only AS415, AF420, ES412 and ES415 units are used in engine consist, not more than two units may be on the line when making a reverse movement with cars or train and must be located adjacent to the train.
2. When operating with mixed engine consist, where dynamic brake is required, not more than two AS415, AF420 and ES415 units will be used.
  - A. If one unit is used, it will be placed as the second unit.
  - B. If two units are used, units must be placed as the second and third units in consist.
  - C. A road unit must be coupled against the train.
  - D. If necessary to make a reverse move with cars or train, lead unit must be isolated.
3. ES412 class unit will not be used in mixed consist per item 2 account not equipped with #24 MU wire.
4. If necessary to operate with more than two AS415, AF410, ES412 and ES415 class units in consist (including pick-up of units from outlying points), these units must be placed in the lead. Under these conditions, if reverse move is made with cars or train, all units ahead of the two rear units in these classes will be isolated.
5. Extreme caution must be used during dynamic braking or when making reverse moves to prevent jackknifing and track damage.
6. When ES415 locomotives equipped with hinged coupler stops are used in switcher service, the coupler stops must be opened (swung back) against end of locomotive and locking pin secured in brackets provided.
7. When ES415 locomotives equipped with hinged coupler stops are used in road, MU service, or handled dead in train, the coupler stops must be closed (swung in) into coupler opening against pocket side with locking pin secured behind the coupler carrier.
8. Locking pins **must** be properly positioned at all times to insure securement of stops.

(g) At Sonoma (MP 44.8), main track out of service from First Street West, westward to end of track.

(h) ENGINES LISTED MUST NOT OPERATE ON TRACKS SHOWN BELOW:

Class of Engine	Restricted Tracks
All engines . . . . . San Rafael . . . . .	Beyond tipple on Shamrock spur.
All engines . . . . . Petaluma . . . . .	Beyond second road crossing (city yard) on spur serving Gerwicks.
All engines . . . . . Healdsburg . . . . .	Beyond tipple on Basalt spur.
All engines . . . . . Firco . . . . .	Beyond engine restriction sign placed 100 feet east of derail.
All engines except ES408 South or ES409 series . . . . . Bay . . . . .	Beyond engine restriction sign placed 547 feet from point of switch on PG&E Spur.
All engines except ES408 or ES409 series . . . . . Samoa . . . . .	Beyond engine restriction sign placed 100 feet from end of long track serving warehouse No. 14, Georgia-Pacific Co.

## MAXIMUM CAR LOADINGS

Load limit (car and contents) must not exceed 240,000 pounds except load limit on wharf Samoa Yard must not exceed 169,000 pounds.

Unless authorized by chief train dispatcher, heavier loads must not be handled.

When handling 20,000 gallon loaded wine tank cars which have a gross weight of over 230,000 pounds, an empty car, or a load which does not exceed 199,000 pounds, must be handled immediately ahead of and immediately to the rear of each of these cars.

## LIGHT TYPE INDICATORS

Light type indicators are installed on Scotia Bluff at MP 256.85 and MP 257.49. Protective equipment is installed on trestle to detect disturbance from falling rocks or high water. On approach, lunar aspect indicates proceed; yellow aspect indicates proceed at reduced speed not to exceed 4 MPH over trestle and trainmen and engineers must closely observe the trestle to determine if trestle has been displaced or damaged.

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

Mile Post	At or Near	Description	Side or Overhead
37.8 . . . . .	Schellville . . . . .	Bridge . . . . .	Side
28.5 . . . . .	Black Point . . . . .	Drawbridge . . . . .	Side
37.2 . . . . .	Petaluma . . . . .	Drawbridge . . . . .	Overhead and side
68.0 . . . . .	Healdsburg . . . . .	Steel bridge over Russian River . . . . .	Side and overhead
284.1 . . . . .	Eureka . . . . .	Simpson Plywood, track into building . . . . .	Overhead and side
284.1 . . . . .	Eureka . . . . .	Halvorsen Lbr. Co. No. 2 . . . . .	Side
300.5 . . . . .	Samoa . . . . .	Georgia-Pacific Co., warehouse No. 14 . . . . .	Overhead

## FREIGHT TRAINS

## PLACEMENT OF RESTRICTED CARS IN TRAIN WITH OR WITHOUT HELPER

(a) When average weight of cars in train, other than locals, or switchers, is more than 60 tons per car do not handle any cars which weigh less than 50 tons within 5 cars of road engine.

(b) Flat cars USAX and DODX series 38016-38665 and USAX and DODX series 39095-39199 have been placed in TOPS Pool #0642 and are restricted to movement on rear of train and behind any helper.

(c) Between Eureka and Redwood Valley empty 70-foot-long or longer equipment must be entrained ten or more cars behind road engine and ten or more cars ahead of helper engine. A flat with one van or one container, whether loaded or empty, must be considered as an empty.



HELPER SERVICE

The following covers engine tractive effort in pounds:

Engine Model	Class Designation	Tractive Effort Pounds
SW1200	ES412	62,250
C415	AS415	62,750
RS32	AF420	63,750
GP9	EF418-1 to 9; EF418C-1-2; EF418E-1-2-3	64,200
SW1500	ES415-1-2-3-4-5-6	65,000
RS11	AS418-1-2-3-4-5-6	65,000
GP20	EF420-1-2; EF420C-1-2	65,100
GP35	EF425-1-2-3-4; EF425C-1-2-3	66,000
GP30	EF423-1; EF423C-1	66,100
GP40	EF430C-1	67,560
U25B	GF425-1-2-3	67,800
U28B	GF428-1	67,890
SD7	ES615-1-2-3-4	82,500
SD9	EF618-1 to 5; EF618E-1-2	89,700
RSD15	AS624-1	92,500
SD35	EF625-1	95,540
C628	AS628-2	97,750
C630	AS630-1	101,000
	AS600-1	102,000
SDP45	EP636-1	102,500
SD45-2	EF636-7-8-9; EF636C-6-7-8	102,600
SD40	EF630-1-2	102,750
U28C	GF628-1	103,120
SD45X	EF642-1-2	103,240
SD45	EF636-1 to 6; EF636C-1 to 5	103,470
SD38	ES620-1	104,000
SD39	EF623-1-2	104,150
U33C	GF633-1 to 5	104,710
U30C	GF630-1-2	104,850
DD35	EF850-B1	131,750
U50	GF850	139,250

Nominal classifications are descriptive of the engines as follows:  
 1st letter..... Builder: E = EMD, G = GE, A = ALCO  
 2nd letter..... Type of Service: F = freight, S = switcher, P = passenger  
 1st number..... Number of axles  
 2nd & 3rd numbers... Horsepower (100)

- (a) Rule for entraining when only one helper engine:
  - (1) On trains of less than 100 cars, helper engine consisting of not more than two six-axle operating units totaling 179,400 pounds tractive effort nor more than two four-axle operating units totaling 135,600 pounds tractive effort or a combination of one four-axle and one six-axle operating unit totaling 157,600 pounds tractive effort may be placed behind caboose.
  - (2) Helper engine consisting of only one unit on trains of 100 or more cars may be placed behind caboose.
  - (3) Helper engine that does not qualify under (1) or (2) must be entrained as near as practicable to shove 1/3 and pull 2/3 of tonnage handled by helper engine.
- (b) Trains having more than one helper engine must have each engine entrained as near as practicable so that it will shove 1/3 and pull 2/3 of tonnage handled.
- (c) Trains powered with two helper engines, one of which qualifies to be placed behind caboose, must entrain the non-qualifying helper as near as practicable to shove 1/3 and pull 2/3 of tonnage handled by the non-qualifying helper.
- (d) Not more than 3500 tons may be placed behind rear helper engine, except on eastward trains, between Redwood Valley and Willits, not more than 2000 tons may be placed behind rear helper engine.
- (e) When helper is used on train handling empty coil cars in series SP595500 to SP595624 helper engine must be entrained ahead of these cars.

- (f) AS415, AF420, ES412 and ES415 class units must not be cut into train in helper service. No more than two of these units may be placed behind caboose.
- (g) Helper engine must not be placed on head end of train without authority being obtained from train dispatcher.
- (h) Air must be cut in on all helper engines and engine must not be coupled nor uncoupled while train is in motion.
- (i) Road engineer and helper engineer must communicate any change affecting the operation of their train when means of communication are available. When communication is not available, and speed is being held above 8 MPH on ascending grade, helper engineer must regulate amperage during speed reductions or speed increases to maintain the amperage indicated before speed change; if speed of train drops below 8 MPH or when coming to a stop on ascending grade, helper engineer must regulate amperage during speed reduction to maintain the amperage indicated before speed change, then close throttle just before train stops.
- (j) When speed of trains powered with 12000 or more horsepower on the head end and with helper engine entrained drops below 16 MPH, road engineer must reduce throttle to Run 6. Loss of helper unit or units resulting in train speed dropping below 16 MPH and head end power being reduced to Run 6 may result in helper power working in short time rating. The short time rating must not be exceeded. If it appears that short time rating will be exceeded, assistance must be requested from Train Dispatcher. If assistance cannot be obtained, grade must be doubled.
- (k) In locating helper engine in train, the following example of calculating tonnage for road engine and helper engine will be used.

Example:

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

Total road horsepower	10800
Total helper horsepower	7600
Total horsepower	18400

- (1) Divide total horsepower by tonnage =  $\frac{18400}{5756} = 3.196 \text{ HP/T}$
- (2) Divide road horsepower by HP/T factor =  $\frac{10800}{3.196} = 3379 \text{ tons}$   
Road engine will handle 3379 tons
- (3) Divide helper horsepower by HP/T factor =  $\frac{7600}{3.196} = 2377 \text{ tons}$
- (4) To determine 1/3 of helper tonnage divide  $\frac{2377}{3} = 792 \text{ tons}$   
Helper engine will shove 792 tons.
- (5) To determine 2/3 of helper tonnage multiply  $792 \times 2 = 1584 \text{ tons}$   
Helper engine will pull 1584 tons
- (l) When helper engines are not used in train ascending grade at Willits and Redwood Valley tonnage will be reduced for Eastward trains 200 tons per unit, not to exceed 3000 tons and/or 90 cars, for Westward trains 300 tons per unit, not to exceed 4800 tons and/or 65 cars.
- (m) After starting freight trains at Willits and Redwood Valley, helper engineer at rear of train will reduce throttle sufficiently to allow road engineer to stretch entire train. Helper engineer will then bunch the slack in a manner to avoid objectionable run in.

## AIR BRAKE RULE

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

When going from power to dynamic braking proceed as follows:

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

Dynamic brake on head end of freight trains must not exceed three 8-axle units, four 6-axle units, six 4-axle units, or any combination thereof which totals 24 axles, except dynamic brake on EP415A, and EP415B classes is limited to five units.

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

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

**RULE 3.** Engineer will reduce feed valve to not over 80 lbs. when handling rear of train during switching movements, when cutting helpers in or out and to assist in the charging of train line. Feed valve will be returned to 90 lbs. when work is completed and/or brake valve is cut out.

A full independent brake application on road locomotives, classes EP636, GE628, GF630, GF633, EF623, EF630, EF636, EF8508 results in a brake cylinder pressure of 72 PSI. This brake cylinder pressure must be maintained to provide required braking power at very low speeds or when stopped. Under no circumstances must self-lapping portion of independent brake valve be changed except to obtain brake cylinder pressure of 72 PSI from a full independent brake application.

**RULE 11.** Cars equipped with brake cylinder release valve may have one or two operating release rods. Operating rods connected to brake cylinder release valve may be identified by stencil reading "Br.Cyl.Rel.", or by a diamond shaped stencil or by noting that ends of release rod form a small closed circle.

Air brakes can be released on cars equipped with brake cylinder release valve by a hard momentary pull on release rod after brake pipe pressure has been depleted.

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

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

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

**RULE 13.** Second paragraph revised to read:

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

Sixth paragraph revised to read:

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

Seventh paragraph cancelled.

**RULE 14.** Dynamic brake will be used on descending grade by helper engines placed at or near rear of freight train unless relieved of the requirement by road engineer.

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

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

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

Redwood Valley to Willits  
Willits to Redwood Valley

#### Without dynamic brake in operation:

One retaining valve for each 80 tons in train. If gross tonnage exceeds 80 tons per operative brake, retaining valves must be used on all cars and speed must not exceed 10 MPH.

#### With dynamic brake in operation:

Permissible Tons Per Unit  
Without Retaining Valves\*

	Basic Dynamic Brake	
	4-Axle	6-Axle
With dynamic brake in operation but <b>without</b> pressure maintaining system of braking:		
Redwood Valley to Willits .....	525	800
Willits to Redwood Valley .....	375	550

#### Extended Range Dynamic Brake

	4-Axle	6-Axle	8-Axle
With dynamic brake in operation but <b>without</b> pressure maintaining system of braking:			
Redwood Valley to Willits .....	675	1000	1325
Willits to Redwood Valley .....	450	675	900

#### Basic Dynamic Brake

	4-Axle	6-Axle
With dynamic brake in operation and <b>with</b> pressure maintaining system of braking:		
Redwood Valley to Willits .....	1600	2400
Willits to Redwood Valley .....	800	1200

#### Extended Range Dynamic Brake

	4-Axle	6-Axle	8-Axle
With dynamic brake in operation and <b>with</b> pressure maintaining system of braking:			
Redwood Valley to Willits .....	2000	3000	4000
Willits to Redwood Valley .....	1000	1500	2000

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

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

Locomotive classes AF628, AF630, EF425, EF623, EF625, EF630, EF636, EF642, GF425 (except series 6700-6727), GF628, GF630, GF633, EF850B and GF850 are equipped with extended range dynamic brake.

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

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

SSW 75700-75799	Gondolas
SSW 78500-78599	Hoppers (Open Top)
SP 333500-334399	Gondolas
SP 337500-337599	Gondolas
SP 345000-345669	Gondolas
SP 354000-354749	Gondolas
SP 463500-463999	Hoppers (Open Top)
SP 464000-464899	Hoppers (Open Top)
SP 467500-467549	Hoppers (Open Top)
SP 480000-480193	Hoppers (Open Top)
SP 491000-491059	Hoppers (Covered)
SP 492000-492039	Hoppers (Covered)
SP 500604	Flat Cars
SP 590000-590099	Flat Cars

Before leaving a station or point where such cars have been added to the consist, engineer must actuate the automatic change-over feature by reducing brake pipe pressure to below 20 pounds whether cars are loaded or empty.

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

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

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

**RULE 25.** When radio communication is available, employee at rear of train will notify road engineer the amount of air pressure as indicated on the caboose gauge approximately one mile before reaching Ridge.

When helpers are employed and radio communication is available, they will also notify road engineer the brake pipe pressure as shown on the helper unit.

**RULE 33. Redwood Valley-Willits:**

\*Maximum tonnage per operative brake—80 tons except with dynamic brake and pressure maintaining system of braking in operation with not more than 15 cars for each six axles of dynamic brake with speed not exceeding 15 MPH and with all retaining valves on loaded cars in high pressure position . . . . . 110 ton

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

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

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

## SPECIAL INSTRUCTIONS

**SPEED RESTRICTIONS FOR TRAINS:** Maximum speed of trains in territory shown below is subject to further restrictions applicable to engines in the train as shown in **SPEED RESTRICTIONS FOR ENGINES** and **OTHER SPEED RESTRICTIONS** appearing on page 7 of Special Instructions for All Divisions. Speed must be further reduced as prescribed by speed signs, except as specifically authorized by Special Instructions herein, or by timetable bulletin.

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

TERRITORY		TERRITORY	
MP	MP	MP	MP
<b>EASTWARD, SCHELLVILLE TO EUREKA:</b>		<b>WESTWARD, EUREKA TO SCHELLVILLE:</b>	
40.39 to 29.01	30	284.10 to 283.14 (Eureka)	10
29.01 to 28.74 (bridge)	10	283.14 to 281.80	20
28.74 to 25.57 (25.82)	25	281.80 to 271.94	40
25.82 to 30.46	45	271.94 to 270.60	35
30.46 to 31.68 (Burdell)	15	270.60 to 262.70	40
31.68 to 36.85	45	262.70 to 258.08	35
36.85 to 39.25 (Petaluma)	20	258.08 to 257.00 (Scotia Bluff)	20
39.25 to 44.10	35	257.00 to 247.20	30
44.10 to 53.00	45	247.20 to 246.85	25
		246.85 to 228.13	30
*53.00 to 54.45 (Santa Rosa)	25	228.13 to 141.40	25
54.45 to 67.60	45	141.40 to 122.15	20
67.60 to 68.58 (Healdsburg)	25	122.15 to 114.54	30
68.58 to 85.53	40	114.54 to 113.50	25
85.53 to 88.50	30	113.50 to 98.80	30
88.50 to 98.80	25		
98.80 to 113.50	30		
113.50 to 114.54	25	98.80 to 88.50	25
114.54 to 122.15	30	88.50 to 85.53	30
122.15 to 141.40	20	85.53 to 77.10	40
141.40 to 228.13	25	77.10 to 77.09 (Spring Switch)	35
228.13 to 246.85	30	77.09 to 68.58	40
		68.58 to 67.60 (Healdsburg)	25
		67.60 to 54.45	45
		54.45 to 53.00 (Santa Rosa)	25
246.85 to 247.20	25	53.00 to 44.10	45
247.20 to 257.00	30	44.10 to 39.25	35
257.00 to 258.08 (Scotia Bluff)	20	39.25 to 36.85 (Petaluma)	20
258.08 to 262.70	35	36.85 to 31.68	45
262.70 to 270.60	40	31.68 to 30.46 (Burdell)	15
270.60 to 271.94	35	30.46 to 25.82 (25.57)	45
271.94 to 281.80	40	25.57 to 28.74	25
281.80 to 283.14	20	28.74 to 29.01 (bridge)	10
283.14 to 284.10 (Eureka)	10	29.01 to 40.39	30
<b>EASTWARD, DETOUR TO IGNACIO:</b>		<b>WESTWARD, IGNACIO TO DETOUR:</b>	
14.33 to 25.75	20	25.82 to 25.75	10
25.75 to 25.82	10	25.75 to 14.33	20
<b>EASTWARD, SONOMA TO SCHELLVILLE:</b>		<b>WESTWARD, SCHELLVILLE TO SONOMA:</b>	
44.95 to 40.39 (Sonoma)	15	40.39 to 44.95 (Sonoma)	15
<b>EASTWARD, EUREKA TO KORBLEX</b>		<b>WESTWARD, KORBLEX TO EUREKA</b>	
284.10 to 285.80 (Eureka)	10	295.57 to 292.23	20
285.80 to 292.10	25	292.23 to 292.10	10
292.10 to 292.23	10	292.10 to 285.80	25
292.23 to 295.57	20	285.80 to 284.10 (Eureka)	10
<b>EASTWARD, ARCATA TO SAMOA</b>	25	<b>WESTWARD, SAMOA TO ARCATA</b>	25
<b>EASTWARD, ALTON TO CARLOTTA</b>	25	<b>WESTWARD, CARLOTTA TO ALTON</b>	25

Trains must approach and cross bridge at MP 36.76 between Schellville and Black Point with caution, watching carefully for pedestrians and vehicles.

\*—Speed may be resumed after engine of eastward train has passed College Avenue Crossing, MP 54.40.

SPEED RESTRICTIONS  
FOR OTHER THAN MAIN TRACKS

With caution  
Not Exceeding  
MPH

Through Sidings, yards and other tracks, balloon tracks, crossovers and turnouts, except	15
Through Siding at Burdell	35
Through turnouts on other than Sidings	10