SOUTHERN PACIFIC COMPANY

SHASTA DIVISION SPECIAL INSTRUCTIONS

No. 5

EFFECTIVE SUNDAY, APRIL 25, 1954
AT 12:01 A. M.,
PACIFIC STANDARD TIME

SUPERSEDING SPECIAL INSTRUCTIONS No. 4

THESE INSTRUCTIONS CONSTITUTE A PART OF THE TIMETABLE CURRENTLY IN EFFECT

R. E. HALLAWELL,
General Manager.

E. D. MOODY,
W. D. LAMPRECHT,
Assistant General Managers.

C. H. GRANT,
General Superintendent of Transportation.

D. P. BOYKIN,
Superintendent of Transportation.

J. A. McKINNON,
Superintendent.

⊙This symbol indicates change except on rating of engines pages, such changes are not so indicated.

⊙**RULE A.** The following rules have been revised. Revised pages have been printed covering these changes, and employes must have revised pages in their copy of Book of Rules.

Page Number	Rule Revised
17	7-A
19	10-G and 10-H
53	104-C
104	306
108	536
126	822
127	825
130	831
131	832 (cancelled)

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

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

RULE 7-B. Yardmen must use green flag by day and green light by night in giving proceed signals for movement of trains and engines entering or leaving yards at Gerber, Dunsmuir Yard, Dunsmuir, Klamath Falls Yard and Klamath Falls.

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

⊙**RULE 14.** The following paragraph has been added:

"Signs bearing the letter 'X', located one-fourth mile in advance of certain public crossings at grade, and signs bearing the letter 'W', located one-fourth mile in advance of certain tunnels and obscure curves, require engine whistle signal as prescribed by Rule 14(l). Absence of these signs, in advance of public crossings at grade, tunnels or obscure curves, does not relieve engineers from complying with Rule 14(l)."

RULE 15. Each torpedo placed will be duplicated on opposite rail during snow storms, or when snow on rails.

⊙**RULE 35.** First paragraph is revised to read:

"The following signals must be used by flagmen:
Day signals: A red flag, torpedoes and fusees.
Night signals: A white light, torpedoes and fusees."

⊙**RULE 99-A.** The following paragraph has been added:

"When protection is to be afforded for other than a train or engine and where conditions may interfere with the safe passage of trains or engines at normal speed, flagman must provide protection in accordance with second paragraph of Rule 99."

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

If necessary to leave detached portion on main track, rear truck of detached portion ascending grade or lead truck of detached portion descending grade must be blocked or chained in such manner as to derail car should they start.

⊙**RULE 102-A.** Is revised to read:

"When part of a train is left on main track by night, or by day where the view is obscured, two torpedoes must be placed on the rail two rail-lengths apart, one-fourth mile in advance of the rear part of the train, to warn enginemen, and by night a white light must be placed on the front of the rear part of the train. When circumstances require, a flagman must protect engine when returning."

RULE 211. Form N train order may be issued to authorize lowering of train-order signal arm twice and its return to stop position as a calling-on signal, at stations where letter type indicator for display of letter "M" is not installed, and such operation of the signal will be an indication to an approaching train that orders are to be delivered which will authorize movement to the next station at least, against and ahead of, all superior trains. Engineer must acknowledge this calling-on signal by sounding signal 14(b), and will proceed on main track to receive orders.

If train is delayed between the time of acknowledging the calling-on signal and receipt of train orders, protection by flagman against any superior train must be provided.

Operation of the signal in above manner is prohibited unless operator has received Form N train order, and provided time limit named in the order has not expired.

RULE 283. Movements governed by semaphore type diverging route signals displaying "Proceed on Diverging Route", Figs. A and B, must be made with caution.

RULES 281 and 285. Movements against the current of traffic governed by semaphore type dwarf signals displaying "Proceed", Fig. E, Rule 281; or by light type dwarf signals displaying "Proceed not Exceeding Medium Speed", Fig. G, Rule 285, must be made with caution and position of switches observed.

RULE 505. AUTOMATIC BLOCK SIGNAL SYSTEM

PUSH BUTTONS

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

Train on main track to let train on siding pass may clear signal on siding by pressing button bearing number of signal on siding until light appears. Train on siding to let train on main track pass should not pass Approach Circuit sign, but when necessary to do so, may clear signal on main track by pressing button bearing number of signal on main track. Further instructions posted inside push button box.

ELECTRIC SWITCH LOCKS

Where electric switch locks are installed, lock-box door must not be opened if movement is to be made into a track leading from main track until engine or car is standing within 150 feet of the switch; or if movement is to be made from such track, or through a crossover to a main track, until block indicator indicates block clear on opposite track. Within CTC limits train dispatcher's permission must also be obtained before lock-box door is opened.

After lock-box door is opened lock lever cannot be moved to opposite position to release switch for hand throwing until indicator in lock-box indicates "unlocked".

Lock lever must not be returned to locked position until all movements over the switch are completed, switch returned to normal position and locked, (except at both crossovers opposite train-order office and Siskiyou main track at Black Butte, where lock levers must be returned to normal position after switch is reversed). After movements are completed switch must be returned to normal position and locked. Lock-box door must then be closed and locked. Within CTC limits, train dispatcher must also be notified by telephone when completed.

When block indicators indicate "block occupied", instructions posted inside lock-box for operation of push button to start time-release must be complied with if movement is to be made to main track while approach circuit is occupied by another train, in addition to providing flag protection when necessary.

Emergency lock release to be used only in case of electrical or mechanical failure, as indicated by failure of time-release to function after several minutes. When necessary to break seal on emergency lock release, train dispatcher must be notified immediately, and movement made only after flag protection provided on both tracks.

RULE 535. SPRING SWITCHES

Maximum speed for trailing movement when the spring is to be actuated, and maximum speed for facing movement with switch points in normal position, as indicated in Speed Restrictions tables must not be exceeded.

RULE 760. CENTRALIZED TRAFFIC CONTROL

White light which may appear on side of relay housings is maintainer's call light, but when train has been stopped by an absolute signal and white light is observed burning, member of crew will communicate with train dispatcher even though another train may be seen approaching.

Instructions for operating dual control switch machines and electric locks are posted in telephone booths, or inside of electric lock boxes.

⊙**RULE 772 (a).** Is revised to read:

"Work limits and clock time limit must be obtained from the train dispatcher, and dual control switch machine must be placed in hand position and locked, whether switch is to be thrown or not, and it must not be again placed in motor position until switching or work has been completed. Signals governing movements within the limit specified by train dispatcher will then display stop indication, and signals may be passed without stopping. Protection by flagman will not be required in either direction within the work limit and time limit. All movements must be made with caution, and if work is not completed within the time limit specified, extension must be obtained from train dispatcher. If the track is cleared and selector lever restored to motor position and it is again desired to use the dual control switch or foul main track, new authorization must be obtained."

⊙**RULE 774.** Is revised to read:

"After permission is obtained from the train dispatcher, switch must be placed in hand position in the following manner:

(a) Unlock switch lock.
(b) Move selector lever from position marked 'Motor' to position marked 'Hand'.
(c) Operate hand-throw lever back and forth until switch points are seen to move with movement of lever, then line switch for route to be used and check points to see that they fit properly.
(d) After movements over switch have been completed, switch must be restored to position in which originally found, then restore selector lever to position marked 'motor' and secure with lock. The selector and switch levers must not be forced. They will move easily when properly in mesh, although some manipulation of first one and then the other may be necessary to get them in proper mesh."

⊙**RULE 776(b).** Is revised to read:

"If desired movement requires that position of switch be changed, or if light on control machine is not illuminated (which would indicate that dual control switch is not locked), train dispatcher must not authorize movement except by requiring that switch machine be placed in hand position before the movement, and that it be returned to motor position after movement over the switch is completed. Dual control switch must be hand thrown for movement if required. Member of crew must notify train dispatcher when selector lever has been returned to motor position. Movement must not exceed restricted speed to the next signal."

GENERAL REGULATIONS

RULE 821. Speed of equipment over inundated tracks must not exceed 3 MPH, and the depth of water above top of rail must not be more than the following:

Diesel engines	3 inches
Passenger cars and steam engines equipped with roller bearings	6 inches
Other passenger cars and steam engines	12 inches

RULE 824. At terminals where instructions require application of hand brakes on freight trains, outgoing crews must not release hand brakes until road engine is coupled and brake system charged.

RULE 827. When train handling logs (except in gondolas) takes siding to meet an opposing train or allow a following train to pass, such train must be thoroughly inspected to see that proper clearance exists to insure safe movement for the expected train, and no movement of train on siding attempted until expected train has passed.

⊙Between sunset and sunrise, two Dietz lanterns must be placed on rear of caboose (except when helper engine is placed behind caboose) and trainmen must observe track for fallen logs.

RULE 837. In yards cars must not be left closer than one car length from fouling point of other tracks.

⊙**RULE 872.** Second paragraph is cancelled.

AIR BRAKE RULES

⊙**RULE 3.** On diesel engines of DP-5, 6, 8, 9, 10 and 11 classes the safety valve in the discharge pipe must be set at 185 pounds.

⊙**RULE 13.** Should all power units of a diesel engine running light or while handling train become inoperative on a grade, light engine or train, after stopping, must be immediately secured with hand brakes and engine wheels secured by blocking or chains.

FREIGHT TRAINS

RULE 25. Rear-end test must be made as indicated in accordance with Air Brake Rule 25(b).

When helper engine is in train, after rear-end test has been made, the lead engineer must not attempt to start until helper engineer has sounded Signal 14(b). The helper engineer must not sound whistle until signal is received from rear.

Whenever passenger equipment is handled on freight trains and a rear-end test is made, considerable time must elapse before brake pipe pressure will build up sufficiently to release the brakes on passenger equipment. Conductor will advise engineer when they have such passenger equipment on rear of train so he may allow a sufficient length of time for brakes to release before attempting to start train.

PASSENGER TRAINS

RULE 38. Rear-end air test need not be made at Gerber, Dunsmuir and Klamath Falls if continuity of brake pipe is not disturbed. Incoming engineer will apply brakes when train is stopped. At Gerber outgoing engineer will release them.

At Dunsmuir and Klamath Falls car inspector will note that rear brakes on train apply, then signal outgoing engineer to release brakes, noting that rear brakes of train release.

Running test in accordance with Rule 39 must be made as soon as speed permits after leaving terminal.

MISCELLANEOUS

1. Helper engines coupled in middle or rear of train must be cut off from forward portion before taking water, and where lead engine cannot handle forward portion without assistance of helper, latter must not be cut off until forward portion has stopped beyond water tank.

4. Pushing trains out of yards:

(a) Engines must not be placed behind a wooden underframe caboose nor other wooden underframe equipment.
(b) Engines weighing more than 330,000 lbs. on the drivers must not be placed behind steel underframe cabooses.
(c) Air must not be coupled through the pusher engine.
(d) Knuckle must not be removed, or closed, or cutting lever temporarily fastened in release position on a pusher engine, as means of preventing coupling being made.

5. Helper service:

(a) Helper engines must not be placed behind wooden underframe cars nor wooden underframe cabooses.

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

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

⊙Not more than two engines including road engine may be placed on head end of any freight train. AC class helper must not be added to head end of any train with AC class road engine, except that AC class helper may be added to head end of freight trains whose tonnage does not exceed 6000 tons in territory Perez to Ambrose; further exceptions being steam helper engines added to eastward freight trains at Redding will be cut in.

When engines are coupled together on head end, smaller engine should be placed ahead of larger engine.

When helper engines are cut in on freight trains they will be placed back in train and cut in ahead of any cars of wooden frame construction, and when practicable will be placed behind a loaded car.

⊙When an AC and an F class engine are used as helpers in the rear of freight trains, the lead helper must be cut in ahead of five cars.

⊙Helper or double-header engines must not be placed on head end of freight trains powered by DF-1 to 12 class engines, except steam engine of F class or smaller may be coupled ahead of DF-1 to 12 class engine consisting of not more than three units.

⊙When steam engine is coupled next behind diesel engine on the head end of either a freight or passenger train, dynamic brakes must not be used.

AC class engines must not be coupled together in helper service, and not more than two F, Mt or heavier class engines, nor more than three smaller class engines, be coupled together in rear of train.

When coupled, except when placed on head end, larger engines must be placed ahead of smaller engines. If tonnage requires more power, additional helpers of not to exceed two coupled in each case, must be separated by 75% of the engine rating of the helper, or helpers coupled, next ahead of caboose.

Air will be cut in on all helper engines, and engine must not be cut off when train is in motion.

Helpers must not be operated backing except in emergency, and in such case engines should not push through a backing engine if it can be avoided.

On grades, road engine and helper must not be cut off from train at the same time without hand brakes being securely set.

14. Enginemen will operate sprinklers on engines so equipped when passing through tunnels, and on all bridges. If engine is not equipped with sprinkler and it is possible to do so, tire coolers should be operated through tunnels and on bridges.

⊙**27.** Should a passenger train, irrespective of the type of power being used, be stopped in a tunnel, air conditioned cars within the tunnel must immediately have the air conditioning systems, including ice engines and engine generators, shut off, fresh air intake shutters closed, and blower fans shut off.

Should a diesel-powered train be stopped with the engine in a tunnel and it is found that, in the case of a passenger train it cannot be moved within five minutes after stopping, and in case of a freight train it cannot be moved within a reasonable length of time, trainmen and enginemen must take necessary precautions to prevent movement. Independent brake and sufficient hand brakes must be immediately applied. Engine wheels must be secured by blocks and chains, and power plants and steam generators, if any, on diesel engine shut down.

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

NOMINAL CLASS	RUNNING FORWARD		RUNNING BACKWARD
	WITH TRAIN	LIGHT	WITH TRAIN OR LIGHT
AC	60	55	25
C	40	40	30
DF-1 to 12, except	55	55	*30
Units 6191 to 6193, 6203, 6207, 6208, 6210, 6214 to 6218, 6223 to 6228, 6232 to 6239, 6242, 6249, 6342, 6343, 6347, 6349, 6356, 6362, 6372 to 6380, 6394, 6396, 6398, 6399, 6402 to 6405, 6407, 6411 to 6423, 6426, 6440 to 6449, 6452 to 6455, 6458 to 6461, 8080, 8081, 8090, 8093, 8107, 8108, 8110, 8111, 8114 to 8119, 8122 to 8125, 8139, 8143, 8144, 8148, 8149, 8197, 8199, 8219, 8225, 8243, 8262 to 8264, 8267, 8274, 8276, 8278 to 8286, 8288 to 8297, 8299, 8300, 8302, 8303	65	55	*30
Units 6190, 6202, 6450, 6451, 6456, 6457, 8091, 8092, 8102, 8103, 8106, 8109, 8298, 8301	70	55	*30
DF-100, 114 to 120	65	55	55
DF-101 to 112	60	55	55
DF-200 to 204	55	55	55
DF-300 to 304	65	55	55
DF-500, 501	65	55	55
DP	79	70	*30
DS-1, 4, 5	45	45	45
DS-2, 3, 6, 7, 8	60	55	55
DS-100 to 108, 110, 111, 113 to 115, 117, 118	60	55	55
DS-109	65	55	55
DS-200, 201	35	35	35
F	50	50	30
GS	75	55	30
M	50	50	25
Mk-2, 4	40	40	30
Mk-5, 6, 7, 8, 9	50	50	30
Mk-11	35	35	30
Mt	75	55	30
P-1, 3, 4, 5 (T&NO), 6 (2453)	65	55	30
P-6 (2454, 2458), 8, 10	75	55	30
S, SE	20	20	20
SP	55	55	30
T-1, 23, 28, 31	50	50	30
T-32	60	55	30
TW	40	40	30
GNRy: GP-7	50	40	40
Any engine not listed	35	35	25

*When on head end of train or running light and engineer is in other than leading control cab in direction of movement.

Steam engines operated in backward motion, and DF and DP class engines operated with engineer in other than the lead unit in direction of movement, must not exceed 30 MPH on all curves and 20 MPH when approaching highway or street crossings at grade.

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

Maximum speed of engines under following conditions, running under own steam, or hauled in train:

When all weight has been removed from any one pair of drivers	20 MPH
When all weight has been removed from only one wheel of any pair of drivers	30 MPH
When engine truck is removed	20 MPH
When main rod only is removed	30 MPH
When side rod only is removed	30 MPH
When both main and side rods are removed	20 MPH

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

Maximum speed of trains handling dead engines of S or SE class 20 MPH; other steam engines 40 MPH; and diesel engines the speed shown for same engine running forward light.

When a diesel locomotive is derailed, attempt to rerail it must not be made unless an officer or supervisor of the Mechanical Department (or in their absence other qualified officer) is present.

⊙Dead locomotives, either steam or diesel, hauled in train and weighing 150,000 lbs. or more on the drivers should be placed with 8 to 15 cars between it and engine handling the train. If weight on drivers is less than 150,000 lbs., dead locomotive should be placed near rear of train. Dead road locomotives should be headed in direction of movement when possible.

Unless otherwise restricted, two dead road locomotives may be coupled together for movement. When necessary to separate them, or when an S or SE class and a road locomotive are moved dead in train, a steel underframe freight car must be placed between them, and S or SE class locomotive entrained with tender ahead.

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

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

MAXIMUM SPEED PERMITTED WITH CERTAIN EQUIPMENT	MPH MAIN TRACKS OTHER THAN BRANCHES	MPH MAIN TRACKS ON BRANCHES
Cars and loads with height, width or weight greater than maximum shown in Line Clearance Circular (when movement is authorized)	40	25
⊙Double or triple loads	40	25
Scale test cars	40	30
Cars with arch bar trucks	40	30
Steel pile-drivers	40*	30*
Relief outfits with steam derrick, except: (Relief outfits 7014 and 7025 must not be operated on any branch).	35*	25*
Power shovel on own wheels	35*	25*
Ditchers on own wheels, except:	35*	25*
SPMW-4044	25*	25*
Car-top ditchers, if blocking and tie-down cables are removed	35*	25*
K&J, Western, and Oliver, pedestal or center-hinged air-dump cars	35*	25*
Locomotive cranes:		
With boom disconnected, heavy end forward	35*	25*
With boom disconnected, light end forward	20*	15
With boom in place, either end forward	25*	15
Rotary snow plows	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.

OTHER MAXIMUM SPEEDS	MPH PASSENGER TRAINS	MPH FREIGHT AND MIXED TRAINS
⊙Foreign steel-wheel cars not equipped with high speed trucks	60	55
⊙Trains of deadhead equipment, with caboose	55	..
⊙Passenger trains, with caboose	55	..
⊙Engine and caboose only, except: must not exceed speed for same engine running forward light.	..	55
Engine, flanger and caboose only, except:	..	40
On curves	..	30
Logs loaded on flat or logging cars, except:	..	25
On curves	..	20
Through truss bridges, tunnels, and passing stations	..	15

All cars handled in passenger trains must be equipped with steel-tired or all-steel wheels. Cars not so equipped must move in freight trains, passengers if any, to move on passenger trains.

Passenger carrying cars, baggage, express and other head-end cars, unless equipped with steel center sills and steel platforms must not be handled in passenger trains except on authority of Superintendent.

When foreign steel-tired or all-steel wheel cars are picked up at points where no car inspectors are on duty, conductor must contact train dispatcher to determine applicable speed restriction for the movement.

Freight cars must not be handled behind occupied passenger carrying cars, except in mixed trains in military or naval movements.

Baggage, express, mail, refrigerator or other head-end cars must not be handled on rear of passenger trains unless trainmen can pass through them.

Where mail, papers, or ice are to be dispatched from passenger trains at points where train does not stop, slow down sufficiently to permit safe dispatch without hazard, and stop at such stations for this purpose if train is moving on adjoining track between passenger train and point of exchange.

When moving against current of traffic, or when movement is not protected by block signals, speed of passenger trains must not exceed 50 MPH, and speed of freight trains and light engines must not exceed 40 MPH, nor may speed exceed that applying to normal operation. 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.

⊙**RULE 10-J.** Round yellow speed signs indicate the speed restrictions applying to CASCADE and SHASTA DAYLIGHT with diesel passenger engine.

Speed signs to left of track:

Eastward	Reading	Westward	Reading
MP 257.11	20	MP 214.85	35
MP 270.25	65-60-50	MP 224.58	25
MP 273.35	60-55-50	MP 244.49	65-60-50
⊙MP 285.18	40-35-30		
MP 320.37	20		

Eastward speed signs at MP 272.06 is 0.63 mile instead of three-fourths mile from point of restriction.

RULE 14(d). As specified below, — — — — o will be indication that flagman may return from west:

Matheson Branch trains to recall flagman between Redding and Middle Creek.

RULE 14(e). As specified below, — — — — — — will be indication that flagman may return from east:

Matheson Branch trains to recall flagman between Middle Creek and Redding.

RULE 14(k). Will not apply in CTC between west switch Dunsmuir Yard and Redding.

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

West MP		East MP
211.92	Gerber	216.08
222.04	Red Bluff	224.63
256.10	Redding	258.74
	" (Matheson Branch)	259.23
317.91	Dunsmuir	326.65

Gerber: Westward freight trains and light engines must not pass east switch of yard track No. 1 unless proceed signal received from yardman.

Dunsmuir Yard: Eastward trains and engines receiving diverging route signal to enter west end of Dunsmuir Yard must not pass signal unless flashing white light is displayed on the reverse side of absolute dwarf signal located just east of the derail between main track and lead track at west end of Dunsmuir Yard. Flashing light signal is authority for trains or engines to enter Dunsmuir Yard yard tracks.

When westward train is ready to leave yard track Dunsmuir Yard, whistle signal — o — should be sounded when opposite microphone on pole just west of Little Castle Creek crossing for dispatcher to line derail and switch.

Dunsmuir: Westward trains receiving diverging route signal at east switch must not pass absolute signal at east switch unless flashing white light is displayed. This flashing white light is mounted on mast of absolute signal which governs eastward movements on track 1 located 300 feet west of east switch. Westward trains or engines on tracks 1 or 2 must not pass fouling point of these tracks east of Shanty 3 just east of Butterfly Avenue crossing unless proceed signal received from yardman.

Eastward trains or engines on inside tracks must not pass Butterfly Avenue crossing, unless proceed signal received from yardman at Shanty 3, and must not pass fouling point of 1 or 2 tracks west of Shanty 4 unless proceed signal received from yardman.

⊙Westward trains, except trains originating at Dunsmuir, must not pass east switch of the second crossover west of Butterfly Avenue crossing unless proceed signal received from yardman.

Fouling point sign has been placed between west end of sand house lead and Pit track 25 governing both tracks and between Pit track 26 and outbound engine lead governing both tracks. Outbound engines must not pass these fouling point signs until derails have been lined and signal received from yardman.

When handling passenger equipment Dunsmuir or Dunsmuir Yard, single car must not be left on track not protected by derail.

RULE 99-A. Flag protection to rear of train is not required when train is standing or delayed on main track between eastward absolute signal at west end of Dunsmuir Yard and westward absolute signal at east end of Dunsmuir, except when rear of eastward train is between Signal 3222 and next absolute signal located at east end Dunsmuir.

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

Redding.....Matheson Branch, for Silverthorn line.

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

Eastward Signal	Protection	Westward Signal
	Spring switch east end siding, Glade.....	P-2249
P-2330	Spring switch west end siding, Hooker.....	
P-A	Slide detector fence, MP 270, McColl.....	P-A
P-A	Dragging equipment detectors, Pitbridge....	P-A
P-A	Fire detector, Pitbridge.....	P-A
P-A	Slide detector fences, MP 273.7 and 274.1...	P-2749
P-A	Fire detector, bridge 278.5.....	P-2793
P-2868	Slide detector fence, MP 287.6.....	P-2883
P-2882	Fire detector, bridge 288.5, and Slide detector fence, MP 296.0.....	P-A
P-3024	Slide detector fence, MP 302.7.....	P-A
P-3050	Slide detector fence, MP 305.6.....	P-A

RULE 505. AUTOMATIC BLOCK SIGNAL SYSTEM

Trains or engines stopped by Signal 2141 at Gerber may then proceed with caution not exceeding 12 MPH provided signal is received from yardman.

Trains or engines stopped by Signal 3221 or 3222 at Dunsmuir, may proceed with caution, not exceeding 12 MPH.

⊙Signal 3223, on track 1 Dunsmuir, governs westward movements through crossover to main track only, and will remain dark until crossover switch is opened.

RULE 516. Overlap posts:

Red Bluff: 600 feet west of east switch for eastward trains.

RULE 535. SPRING SWITCHES

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

Location		Normal Position
Glade	East end siding	Main track
Hooker	West end siding	Main track

RULE 605. INTERLOCKING

Redding: Interlocking limits extend from eastward home signal 545 feet west of train-order signal, to beginning of CTC at fouling point, eastward siding.

Top unit of westward absolute signal at east switch eastward siding will govern trains entering interlocking on main track. Lower unit governs movement on diverging route to end of CTC only.

⊙Trains or engines must get permission from operator at Redding by telephone located near interlocking signals before leaving the Matheson Branch, or Sterling Lumber spur or Old Diamond Match spur, or before moving eastward through crossover at overhead bridge.

Call-on dwarf light signal on eastward siding near crossover at west interlocking limits. When flashing white light displayed authorizes train to proceed on eastward siding to beginning of CTC.

Call-on dwarf light signal near east end westward siding. When flashing white light displayed authorizes eastward train on westward siding to enter main track.

These flashing white lights do not dispense with the use or the observance of automatic, interlocking or other signals, or Rule 513.

When automatic signals within Redding interlocking limits display stop indication, operator's permission must be obtained before train proceeds as prescribed by Rules 507, 509 or 510.

RULE 705. LETTER TYPE INDICATORS

Indicators located as follows:

Illum. Letter	On Signal	Approaching	Authorizes and requires movement as follows:
⊙M	2556	Redding	Proceed to fouling point east end westward siding; and may then proceed to interlocking limits if track is clear and interlocking signal displays proceed indication.
S	2556	Redding	Enter eastward siding.
M	2585	Redding	Proceed to fouling point west end eastward siding.
S	2585	Redding	Enter westward siding.

RULE 760. CENTRALIZED TRAFFIC CONTROL

Centralized Traffic Control extends from eastward absolute signal at fouling point eastward siding Redding, to east switch Black Butte.

At the west end of Pit River bridge, there are two 2-indication dwarf type special indicators; one indicator governs movement of eastward trains on main track, and one indicator governs movement of eastward trains on the siding.

At the east end of Pit River bridge there are four 2-indication dwarf light type special indicators; two indicators govern movement of eastward trains, one for the main track and one for the siding, and two indicators govern movement of westward trains, one for the main track and one for the siding.

These indicators display lunar for proceed, and red for stop indication, and are identified as dragging equipment indicators.

Trains finding these indicators indicating stop, must stop and make inspection of train for dragging equipment and must obtain train dispatcher's permission before proceeding.

Three-unit absolute signal at the east end of siding at Lakehead governing westward trains is equipped with a "call-on" signal.

Top Unit.....Governs movement on main track,
Center Unit.....Governs movement to siding,
Lower Unit.....Governs movement to house track,
Call-on Signal (Flashing Yellow Light)...Proceed to couple to train on main track or siding.

Helper engine that is to move and couple to a train on main track or siding after receiving proper absolute signal indication, must stop on short track circuit, just east of 3-unit absolute signal, and wait for "call-on" signal to operate. When call-on signal displays a flashing yellow light, it confers authority to pass the 3-unit absolute signal indicating "stop", and move to the train occupying the main track or siding after such train has stopped and hand signal is received from member of train crew.

Telephone for communicating with train dispatcher located at:

Signal 2596, 2597, 2714, D-2741, 2749, D-2760, 2761, 2828, 2829, 2837, 2838, 2868, 2869, 2882, 2883,

RULE 763. Trains entering CTC limits at Redding will display same indication and signals to the end of the subdivision. Trains leaving Dunsmuir or Dunsmuir Yard will display indicators and signals in accordance with address shown on clearance. Trains originating at other intermediate points in CTC limits will display indicators as an extra unless otherwise instructed by train dispatcher.

Second paragraph of Rule 96 will not apply at Redding when there is no change in the number of sections of a schedule moving from CTC territory into train-order territory.

GENERAL REGULATIONS

RULE 824. Instructions for setting hand brakes:

Dunsmuir and Dunsmuir Yard:

Passenger trains	Two brakes on east end, Three brakes on west end.
⊙Freight trains or cuts of 25 cars or less	Ten brakes on west end.
⊙Freight trains or cuts of 26 to 50 cars	Ten brakes on west end, Five brakes on east end.
⊙Freight trains or cuts of over 50 cars	Ten brakes on west end, Ten brakes in center of train, Five brakes on east end.

Staff brakes on freight trains must be set with the assistance of a brake club after train has stopped. Any employe releasing any of these brakes, must set as many others to replace them.

Engines must not be cut off freight trains at Dunsmuir or Dunsmuir Yard until sufficient hand brakes are set to secure train and yard air must not be coupled into train until engine is cut off.

When it is necessary to double over incoming freight trains at Dunsmuir Yard, trainmen will secure that portion of train not doubled over, and yardmen will secure that portion of train doubled over, with the required number of hand brakes.

⊙**RULE 825. Girvan:** Cars must not be spotted less than two car-lengths beyond derail on Oaks spur, or west of road crossing on Redding Metal spur.

Anderson: Cars must not be spotted east of road crossing on Del Loma spur.

Portable rail skids are hung on posts at lower end of sidings at Glade, Central Valley, McColl, Lakehead, Delta, Lamoine, Gibson, Fisher, Sims, Conant, Castella and Castle Crag.

When necessary to leave cars on these sidings, permission must first be obtained from chief train dispatcher, after which rail skid must be placed on rail and leading wheel of first car in descending direction run onto the rail skid, and hand brakes set if brakes are operative, before engine is detached. Trains picking up cars from these sidings must remove rail skid and return it to proper post and lock it in place with switch lock.

RULE 827. At Gerber, forward brakeman of Nos. 10 and 12, will take a position on station side where rear of train will stop and make rolling inspection of train, then walk length of train on opposite side making standing inspection, giving careful attention to running gear and journal boxes, and entrain on station side.

Trains handling logs, (except in gondolas), must stop and crew must inspect load and chains before passing through tunnels and all crossings except 2nd, 4th, 5th, 14th and 15th over Sacramento River.

Westward freight trains using retainers will stop between switches at Delta 10 minutes for heat radiation at which time train inspection will be made, and enginemen will inspect engines.

⊙On freight trains between Dunsmuir and Redding, member of train crew will observe track from rear of caboose (except when helper engine is placed behind caboose), so train may be stopped in event of derailment. Two Dietz lanterns placed on rear of caboose will be used at night to assist in observing track.

AIR BRAKE RULES

RULE 2. When diesel switch engine is used in Dunsmuir yard limits air brakes will be cut in on cars as follows:

TONS	BRAKES
750 to 1250	5
1250 to 2000	10
2000 and over	15

⊙**RULE 17.** One retaining valve for each 125 tons in freight and mixed trains will be used from Dunsmuir Yard to Delta, except when handled by diesel engine with three or more dynamic brakes in operation.

One retaining valve for each 50 tons in train will be used on descending grades between Middle Creek and Matheson, except if tonnage exceeds 50 tons per retaining valve train may be handled if not over 60 tons per retaining valve.

FREIGHT TRAINS

RULE 22. Trainmen must not couple air hose on outgoing trains at Gerber until train is made up and engine and caboose on train.

⊙**RULE 24.** When terminal test outlined in Air Brake Rule 22 has been made at originating terminal on through freight trains, road test as outlined in Air Brake Rule 24 will not be made at intermediate terminal Gerber, except when cars are added to the consist. Instead, test will be made as outlined in Air Brake Rule 25—Rear end test. Changing crews, caboose and/or engine, will not necessitate road test outlined in Air Brake Rule 24.

⊙**RULE 25.** When terminal test outlined in Air Brake Rule 22 has been made at originating terminal, rear end test outlined in Air Brake Rule 25 will be made at intermediate terminal Gerber on freight trains moving through without cars being added to the consist or on which only crews, caboose and/or engines may be changed. Under these conditions rolling inspection by trainmen will be made on freight trains arriving and leaving the intermediate terminal.

PASSENGER TRAINS

RULE 37. Trainmen must not couple steam and air hose on outgoing trains at Gerber until train is made up.

MISCELLANEOUS

⊙**10.** Engines listed are not permitted to operate on tracks shown below:

Class of Engine	Restricted Tracks
All	Delta—Beyond restriction sign on spur.
"	Gibson—Beyond restriction sign on spur.
"	Fisher—Beyond restriction sign on spur.
"	Sims—Beyond restriction sign on spur.
Steam engines over 210,000 lbs. on drivers and diesel engines over 330,000 lbs.	Red Bluff—Pioneer Fruit spur.
"	Redding—Hoefers spur; Old Diamond Match Co. spur.
Engines over 210,000 lbs. on drivers	Lamoine—Little Slate Creek bridge.
All engines and cars	Redding—Beyond stop sign 75 feet west of end of Union Ice spur.

⊙**11.** Load limit (car and contents):

Gerber-Dunsmuir.....251,000 pounds
Redding-Coram.....240,000 pounds

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

14. Enginemen will operate tie sprinklers on engine tanks when so equipped on westward freight trains and light engines between Dunsmuir and Redding.

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

MP	Location	Description
258.5	Redding...Highway bridge	Overhead
300.0	Lamoine..Bridge on siding	Side
301.8	Lamoine..Bridge No. 6	Overhead & side
302.2	Lamoine..Bridge No. 7	Overhead & side
305.3	Gibson....Bridge No. 8	Overhead & side
305.4	Gibson....Tunnel No. 13	Overhead & side
306.7	Fisher.....Bridge No. 9	Overhead & side
307.0	Fisher.....Tunnel No. 14	Overhead & side
308.6	Sims.....Bridge No. 10	Overhead & side
308.9	Sims.....Bridge No. 11	Overhead & side
310.6	Sims.....Bridge No. 13	Overhead & side

⊙SPEED RESTRICTIONS FOR TRAINS: Maximum speed of trains in territory shown below is subject to further restrictions applicable to engines in the train as shown in SPEED RESTRICTIONS FOR ENGINES appearing on page 4 and MAXIMUM SPEED PERMITTED WITH CERTAIN EQUIPMENT, and OTHER MAXIMUM SPEEDS appearing on page 5 of Special Instructions for All Subdivisions. Speed must be further reduced as prescribed by speed signs, except as specifically authorized by Special Instructions herein, or by timetable bulletin.

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

TERRITORY	*Streamlined PASSENGER TRAINS	OTHER PASSENGER TRAINS	FREIGHT AND MIXED	LIGHT ENGINES RUNNING FORWARD	LIGHT ENGINES RUNNING BACKWARD
Column:	A	1	2	3	4
EASTWARD, GERBER TO DUNSMUIR:					
MP MP					
213.80 to 214.10	35	35	35	35	30
214.10 to 215.00	60	60	35	35	30
⊙215.00 to 223.18	79	70	55	55	30
⊙223.18 to 223.83 (Red Bluff)	25	25	25	25	20
223.83 to 226.20	65	60	50	50	30
226.20 to 226.61	60	55	50	50	30
226.61 to 230.62	65	60	50	50	30
230.62 to 230.92	60	55	50	50	30
230.92 to 233.60 (Hooker)	65	60	50	50	30
⊙233.60 to 242.46	79	70	55	55	30
242.46 to 243.74	65	60	50	50	30
⊙243.74 to 258.00	79	70	55	55	30
★258.00 to 258.80 (Redding)	20	20	20	20	20
258.80 to 259.66 (bridge)	50	45	40	40	30
259.66 to 261.17	60	55	50	50	30
261.17 to 269.05	65	60	50	50	30
269.05 to 270.25	55	50	50	50	30
270.25 to 272.69	65	60	50	50	30
272.69 to 273.35 (Pitbridge)	50	45	45	45	30
273.35 to 275.40	60	55	50	50	30
275.40 to 275.76	55	50	50	50	30
275.76 to 277.47	60	55	50	50	30
277.47 to 281.00	55	50	50	50	30
281.00 to 285.93	60	55	50	50	30
⊙285.93 to 286.55	40	35	30	30	25
⊙286.55 to 288.66 (295.60)	55	50	50	50	30
295.60 to 321.12	30	25	20	25	15
321.12 to 322.10	20	20	20	20	15
EASTWARD, REDDING TO CORAM:					
258.62 to 267.06	..	..	20	20	15
267.06 to 271.00	..	..	15	15	15

TERRITORY	*Streamlined PASSENGER TRAINS	OTHER PASSENGER TRAINS	FREIGHT AND MIXED	LIGHT ENGINES RUNNING FORWARD	LIGHT ENGINES RUNNING BACKWARD
Column:	A	1	2	3	4
WESTWARD, DUNSMUIR TO GERBER:					
MP MP					
322.10 to 321.12	20	20	20	20	15
321.12 to 295.60 (288.66)	30	25	20	25	15
⊙288.66 to 286.55	55	50	50	50	30
⊙286.55 to 285.93	40	35	30	30	25
285.93 to 281.00	60	55	50	50	30
281.00 to 277.47	55	50	50	50	30
277.47 to 275.76	60	55	50	50	30
275.76 to 275.40	55	50	50	50	30
275.40 to 230.92	60	55	50	50	30
230.92 to 230.62	60	55	50	50	30
230.62 to 226.61	65	60	50	50	30
226.61 to 226.20	60	55	50	50	30
226.20 to 223.83	65	60	50	50	30
⊙★223.83 to 223.18 (Red Bluff)	25	25	25	25	20
⊙223.18 to 215.00	79	70	55	55	30
215.00 to 214.10	60	60	35	35	30
214.10 to 213.80	35	35	35	35	30
WESTWARD, CORAM TO REDDING:					
271.00 to 267.06	..	..	15	15	15
267.06 to 258.62	..	..	20	20	15

★Regulated by City ordinance.

⊙*Streamlined passenger trains are CASCADE and SHASTA DAYLIGHT with diesel passenger engine.

⊙CASCADE and SHASTA DAYLIGHT, with P-7, 8, 10; GS, or Mt class engine, may not run to exceed 75 MPH on tangent track where 70 MPH is authorized in Column 1.

RULE 10-J. A light engine, or an engine with caboose may make speed shown in Speed Restrictions table for light engines in territory where such speed is in excess of that authorized by speed sign.

SPEED RESTRICTIONS FOR OTHER THAN MAIN TRACKS	With Caution Not Exceeding MPH
Through sidings, yard and other tracks, wyes, balloon tracks, crossovers and turnouts, except:	15
Through slip switches	10
Through turnouts on other than sidings	10
On branches	10
Through all sidings, yard tracks and other tracks with engine running backward	10
Engines moving west over spur switch east end Lamoine siding	10

RATING OF ENGINES—In Units of 2000 Lbs. (Tons)

NOMINAL CLASS	ENGINE NUMBERS	Gerber to Delta	Delta to Dunsmuir	Dunsmuir to Gerber	Redding and Coram
DP-3	6017	2450	1650	3750	....
DP-4, 7	6000 to 6004, 6018	2500	1700	3750	....
DP-5, 6	6005 to 6016	3275	2625	6000	....
DP-8 to 10	6019 to 6033	3750	3250	5750	....
DP-11	6034 to 6045	3850	3350	5925	....
DF-1 to 12	6138 to 6461	5925	5175	8875	....
DF-100	5200 to 5202	....	....	....	775
DF-101 to 108, 110, 112	5203 to 5249, 5253 to 5278, 5500 to 5502	1950	1700	....	1175
DF-109, 111	5250 to 5252, 5503 to 5505	2925	2550	....	1475
DF-114, 116, 117, 118	5279 to 5293, 5308 to 5335	2400	2100	3700	1200
DF-115, 119	5294 to 5307, 5336 to 5339	....	....	....	1450
DF-120	5340 to 5371	....	....	....	....
DF-200 to 204	5100 to 5118	....	....	....	....
DF-300 to 304	4600 to 4623, 4700 to 4703	....	....	....	....
DF-500, 501	4800 to 4815	....	....	....	....
DS-1 to 8	1000 to 1032	605	525	950	....
DS-100 to 109, 111, 115	1300 to 1441, 1464 to 1485, 1514 to 1528	925	800	1425	....
DS-110, 114, 118	1442 to 1463, 1492 to 1513, 1539 to 1550	1200	1025	1975	....
DS-113, 117	1486 to 1491, 1529 to 1538	....	....	....	....
DS-200, 201	1900 to 1903	....	....	....	....
M-4	1629 to 1713	875	725	1375	410
M-6, 8	1721 to 1801, 1824, 1825	1050	850	1625	495
M-9	1805 to 1817, 1830	1100	900	1725	525
M-11	1833 to 1835	1150	950	1775	550
T-1	2248, 2252	750	600	1175	340
T-23	2302, 2303, 2310	1105	900	1700	515
T-28, 31	2312 to 2362	1150	925	1875	575
T-32	2365 to 2384	1225	1000	1900	570
P-1, 3	2411, 2431	975	775	1525	420
P-4	2410, 2414	1075	850	1675	470
P-5 (T&NO)	600 to 606	....	....	....	....
P-6	2453, 2454, 2458	1225	975	1900	545
P-7	2476, 2477	1300	1050	2025	590
P-8, 10	2461 to 2473, 2478 to 2483	1325	1075	2075	640
P-8, 10	2475, 2484 to 2491	1400	1125	2200	775
C-8, 9, 10	2513 to 2598, 2700 to 2860	1350	1075	2100	645
C-18	3400, 3406	1250	1000	1900	605
C-19	3420, 3423, 3426	1275	1050	1975	635
TW-8	2914	1200	925	1750	550
Mk-2, 4	3203 to 3236	1500	1200	2450	705
Mk-5, 6	3247 to 3275	1600	1300	2650	800
Mk-7, 8, 9	3303 to 3324	1875	1525	2875	900
Mk-11	3298	1400	1150	2125	640
F-1	3611 to 3652	1950	1575	2975	925
F-3, 4, 5	3653 to 3770	2375	1950	3450	1075
AC-4, 5	4104 to 4122	3500	2800	5450	1750
AC-6 to 12	3801 to 3811, 4126 to 4294	3750	3000	5800	1825
Mt-1, 3, 4, 5	4300 to 4376	1750	1425	3100	950
GS-1, 2	4400 to 4415, 4470 to 4473	1850	1500	3225	1000
GS-3, 4, 5, 6	4416 to 4469	1950	1550	3300	1025
GS-7, 8	4475 to 4487	....	....	....	....
SP-1, 2, 3	5000 to 5047	2650	2150	4050	1275

Ratings shown for nominal class DP-3 through 11 are applicable to 3-unit engines. To determine rating of engine with less than 3 units, divide published rating by 3 and multiply by number of units comprising the engine.

Ratings shown for nominal class DF-1 through 12 are applicable to 4-unit engines. To determine rating of engine with less than 4 units, divide published rating by 4 and multiply by number of units comprising the engine.

UNLESS AUTHORIZED BY SUPERINTENDENT, ENGINES WILL NOT BE PERMITTED TO OPERATE IN THOSE TERRITORIES WHERE NO RATING IS SHOWN IN ENGINE RATING TABLE.

⊙**RULE 10-J.** Round yellow speed signs indicate the speed restrictions applying to CASCADE and SHASTA DAYLIGHT with diesel passenger engine.

Speed signs to left of track:

Eastward	Reading	Westward	Reading
⊙MP 426.14	55-50-40	MP 344.87	30-25

RULE 14. Light engines arriving Dunsmuir from east, desiring to enter roundhouse lead, will sound whistle signal, o — o o.

RULE 14(d). As specified below, — — — — o will be indication that flagman may return from west:

Siskiyou line trains to recall flagman between junction switch Black Butte and Weed.

RULE 14(e). As specified below, — — — — — — will be indication that flagman may return from east:

Siskiyou line trains to recall flagman between junction switch Black Butte and Weed.

RULE 14(k). Will not apply in CTC between west switch Dunsmuir Yard and Black Butte.

⊙**RULE S-90.** Eastward freight trains, except when powered by diesel engine and without helper or helpers in rear of train, with more cars than will clear between the east portal, tunnel 13 and east switch, with train orders to meet westward train at Siskiyou, will not move train through tunnel until it has been ascertained that westward train is into clear on siding.

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

West MP		East MP
317.91	Dunsmuir	326.65
	Black Butte	346.49
	" (Siskiyou line)	346.50
425.67	Klamath Falls	432.66
552.04	" (Merrill line)	
⊙345.64	Weed	350.08
375.04	Montague	376.34
392.26	Hornbrook	394.01
426.92	Ashland	430.79

Dunsmuir: Westward trains receiving diverging route signal at east switch must not pass absolute signal at east switch unless flashing white light is displayed. This flashing white light is mounted on mast of absolute signal which governs eastward movements on track No. 1 located 300 feet west of east switch. Westward trains or engines on track No. 1 or No. 2 must not pass fouling point of these tracks east of Shanty No. 3 just east of Butterfly Ave. crossing unless proceed signal received from yardman.

Eastward trains or engines on inside tracks must not pass Butterfly Ave. crossing, unless proceed signal received from yardman at Shanty No. 3, and must not pass fouling point of No. 1 or No. 2 tracks west of Shanty No. 4 unless proceed signal received from yardman.

⊙Westward trains, except trains originating at Dunsmuir, moving on main track must not pass east switch of the second crossover west of Butterfly Ave. crossing unless proceed signal received from yardman.

Fouling point sign has been placed between west end of sand house lead and Pit track No. 25 governing both tracks and between Pit track No. 26 and outbound engine lead governing both tracks. Outbound engines must not pass these fouling point signs until derails have been lined and signal received from yardman.

When handling passenger equipment Dunsmuir or Dunsmuir Yard, single car must not be left on track not protected by derail.

Klamath Falls: Eastward trains except first-class must stop before passing Signal 4286 unless they receive proceed signal from yardman. Yardman must not line switch for eastward trains to enter yard track until train has been identified.

⊙Movements of GNRy trains and engines between end of CTC and junction switch of GNRy will be directed by yardmaster.

RULE 99-A. Flag protection to rear of train is not required when train is standing or delayed on main track between eastward absolute signal at west end of Dunsmuir Yard and westward absolute signal at east end of Dunsmuir, except when rear of eastward train is between Signal 3222 and next absolute signal located at east end Dunsmuir.

After first-class trains have stopped at Klamath Falls, incoming trainmen will set necessary hand brakes. Outgoing trainmen must relieve incoming trainmen immediately and afford necessary flag protection.

RULE 99-C will apply on Black Butte Subdivision between Black Butte and Ashland.

RULE 103-A. Crossing leading to roundhouse, opposite ice house at Ashland must be kept open for fire protection except during switching operations.

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

Mount Shasta..McCRRR main track, for interchange track,
Black Butte....Siskiyou line, for controlled siding,
Leaf.....L-B Lbr. Co. main track, for interchange track,
Klamath Falls..GNRy main track, for SP main track,
Klamath Falls..Merrill line, from track 17 for Merrill line.
Klamath Falls..OC&ERy main track, for yard track,
Montague.....YWRy main track, for house track.

Trains using McCRRR house track at Mount Shasta must leave derail lined and locked in derailing position.

Normal position of inside switches on house track Grass Lake is for the wye.

Black Butte: Operators will handle switches for Siskiyou line trains via eastward siding, Siskiyou siding or Cascade main track, as directed by train dispatcher.

When train dispatcher instructs switch to be lined for westward Siskiyou line train to enter Siskiyou siding operator will, after switch is properly set, give proceed signal with yellow flag by day and yellow light by night. This signal will apply only to westward trains on the Siskiyou line main track and will authorize their movement by absolute signal into Siskiyou siding only.

This will not relieve trainmen from handling switches when operators are engaged in other duties except that operators will return these switches to normal position after use by through trains.

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

Eastward Signal	DUNSMUIR-KLAMATH FALLS	Westward Signal
P-3290	Slide detector fence east of tunnel 16, MP 329.5	P-3301
P-3602	Collision detector, bridge 360.82	P-3611
P-3602	Spring switch west end siding Andesite	
P-3682	Spring switch west end westward siding Grass Lake	
	Spring switch east end eastward siding Grass Lake	P-3695
P-3728	Spring switch, west end siding, Erickson	
P-4098	Collision detector, bridge 410.57	P-4119
	BLACK BUTTE-ASHLAND	
P-3506	Collision detector, bridge 351.73	P-3531
⊙P-3718	Collision detector, bridge 373.54	P-3751

RULE 505. AUTOMATIC BLOCK SIGNAL SYSTEM

⊙Signal 3223, on track 1 Dunsmuir, governs westward movements through crossover to main track only, and will remain dark until crossover switch is opened.

Trains or engines stopped by Signal 3221 or 3222 at Dunsmuir; 4292, 4293 or 4295 at Klamath Falls, may proceed with caution, not exceeding 12 MPH.

Diverging route arm in proceed position on Signal 4112 west of Siskiyou, authorizes train to proceed with caution and enter siding.

⊙RULE 510. When necessary to send flagman through tunnel 13, at Siskiyou, train must wait until flagman calls on telephone from opposite end of tunnel. Telephone in building located approximately 300 feet beyond east portal of tunnel on the left.

RULE 512. Block indicators and signals located as follows:

Signal 4278 at derail GNRy Bieber line, top unit governs from Bieber line to Cascade line main track; lower unit governs from Bieber line to GNRy line crossing Lake Ewauna.

Signal 4277 at derail from line crossing Lake Ewauna governs to GNRy Bieber line.

Signal 4279 just east of GNRy Lake Ewauna line connection on Cascade line, lower unit governs to GNRy Bieber line or SP Merrill line.

Signal 4275.5 at fouling point ladder tracks between tracks 17 and 18 governs from all ladder tracks to Merrill line.

Junction of GNRy and Cascade line (Signals 4284-4283). Should these signals fail to indicate "proceed" after switches are lined wait four minutes for time element relay to function, which will be effective when approach circuit to junction switch is occupied. After operation of time element relay, if signals fail to indicate "proceed", Rules 509 and 513 apply.

RULE 516. Overlap posts:

Eastward trains:

Leaf.....Fouling point west switch,
Texum.....2000 feet east of Signal 4258.

RULE 535. SPRING SWITCHES

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

Location		Normal Position
Andesite	West end siding	Main track
Grass Lake	West end westward siding	Main track
Grass Lake	East end eastward siding	Main track
Erickson	West end siding	Main track

RULE 760. CENTRALIZED TRAFFIC CONTROL

Centralized Traffic Control extends from eastward absolute signal at fouling point eastward siding Redding, to east switch Black Butte.

Eastward absolute signals just west of station building Black Butte display indications as follows:

Main track signal: top unit for main track; center unit for crossover to Siskiyou line; lower unit for crossover to controlled siding.

Controlled siding signal: top unit for crossover to main track; center unit for Siskiyou line; lower unit to continue movement on controlled siding. Flashing white light on this signal to left of mast indicates signal is cleared for movement out of Siskiyou siding; and to right of mast indicates signal is cleared for movement from controlled siding.

RULE 763. Trains entering CTC limits at Black Butte will display same indication and signals to the end of the subdivision. Trains leaving Dunsmuir or Dunsmuir Yard will display indicators and signals in accordance with address shown on clearance. Trains originating at other intermediate points in CTC limits will display indicators as an extra unless otherwise instructed by train dispatcher.

Second paragraph of Rule 96 will not apply at Black Butte when there is no change in the number of sections of a schedule moving from CTC territory into train-order territory.

GENERAL REGULATIONS

RULE 824. Instructions for setting hand brakes:

Dunsmuir and Dunsmuir Yard:

Passenger Trains	Two brakes on east end, Three brakes on west end.
⊙Freight trains or cuts of 25 cars or less	Ten brakes on west end.
⊙Freight trains or cuts of 26 to 50 cars	Ten brakes on west end, Five brakes on east end.
⊙Freight trains or cuts of over 50 cars	Ten brakes on west end, Ten brakes in center of train, Five brakes on east end.

Ashland:

Passenger trains	Two brakes on east end.
Freight trains or cuts of cars	Five brakes on east end, Five brakes on west end.

Klamath Falls and Klamath Falls Yard:

Passenger Trains	Two brakes on west end, Two brakes on east end.
Freight trains or cuts of cars	Five brakes on west end, Five brakes on east end.

Hand brakes on east end of westward passenger trains Dunsmuir must not be set until after train stops, and must not be released until blue flag has been removed.

Staff brakes on freight trains must be set with the assistance of brake club after train has stopped. Any employe releasing any of these brakes, must set an equal number to replace them.

Engines must not be cut off freight trains at Dunsmuir, Dunsmuir Yard, Klamath Falls or Ashland until sufficient hand brakes are set to secure train and yard air must not be coupled into train until engine is cut off.

When it is necessary to double over incoming freight trains at Dunsmuir Yard, trainmen will secure that portion of train not doubled over, and yardmen will secure that portion of train doubled over, with the required number of hand brakes.

Eastward trains exceeding siding clearance at Siskiyou will cut in helpers a sufficient distance ahead of caboose at Hornbrook to avoid stopping helpers in Tunnel 13.

On arrival at Siskiyou, on westward trains, sufficient hand brakes must be set to hold rear of train before cutting off helper engine, and on rear portion of train when backing down to cut out helper.

RULE 825. Portable rail skids are hung on posts at lower end of sidings at Small, Mott, Azalea, Mount Shasta, Upton, Deetz, and Black Butte.

When necessary to leave cars on these sidings, permission must first be obtained from chief train dispatcher, after which rail skid must be placed on rail and leading wheel of first car in descending direction run onto the rail skid, and hand brakes set if brakes are operative, before engine is detached. Trains picking up cars from these sidings must remove rail skid and return it to proper post and lock it in place with switch lock.

RULE 827. Freight trains using retainers on descending grade will stop between switches as indicated, at the following stations for heat radiation, at which time train inspection will be made, and enginemen will inspect engines:

Steinman	10 minutes
Gregory	10 minutes
Hilt	5 minutes
Weed or Edgewood	10 minutes
Azalea	5 minutes
Andesite	10 minutes

(If stop of not less than 5 minutes has been made at Cougar, the stop at Andesite will not be necessary, in which event 10 minute stop must be made at Bolam.)

⊙Freight trains handled by diesel engines with three or more dynamic brakes in operation need not stop at Andesite or Azalea for heat radiation if there is no indication of wheels overheating and in the judgment of conductor and engineer it is safe to proceed.

Engines running light on descending grade must stop at the above stations a sufficient length of time to permit heat radiation, at which time enginemen will inspect engines.

⊙Trains handling logs, (except in gondolas), must stop before entering yard at Klamath Falls; before passing through tunnels; over Dry Canyon viaduct between Hotlum and Bolam; and over Klamath River bridge west of Hornbrook, at which time load and chains on cars of logs must be inspected.

⊙On freight trains between Black Butte and Edgewood, Snowdon and Ashland, Mt. Hebron and Dunsmuir Yard, member of train crew will observe track from rear of caboose, (except when helper engine is placed behind caboose) so train may be stopped in event of derailment. Two Dietz lanterns placed on rear of caboose will be used at night to assist in observing track.

RULE 837. At Ashland all passenger equipment being switched must have air brakes in service on all cars.

AIR BRAKE RULES

RULE 2. When diesel switch engine is used on yard tracks at east end of Klamath Falls, handling cuts of forty empties or twenty-five loads or more, air brakes must be cut in on not less than four cars.

When diesel switch engine is used in Dunsmuir and Ashland yard limits air brakes will be cut in on cars as follows:

TONS	BRAKES
750 to 1250	5
1250 to 2000	10
2000 and over	15

RULE 17. Retainers will be used on freight and mixed trains handled by steam engines on descending grades as follows:

Azalea-Dunsmuir Yard	One valve for each 50 tons in train,
Grass Lake-Azalea	One valve for each 75 tons in train,
Black Butte-Edgewood	One valve for each 50 tons in train,
Snowdon-Hornbrook	One valve for each 75 tons in train,
Siskiyou-Ashland	One valve for each 45 tons in train,
Siskiyou-Hornbrook	One valve for each 45 tons in train.

If tonnage exceeds amount of tons specified for each retainer, trains may be handled between Azalea and Dunsmuir Yard, Black Butte and Edgewood, up to 60 tons; and between Ashland and Hornbrook up to 50 tons per operative retainer.

Retainers must be turned down if stop is made between MP 388.4 and Hornbrook. The maximum retaining pressure must be used from Siskiyou to Ashland and Siskiyou to Hornbrook on loaded cars.

Conductor will ascertain gross weight of each refrigerator, and where such car weighs 47½ tons or more, retainers must be placed in high pressure position, or if less than 47½ tons must be placed in low pressure position.

Freight trains of not more than 60 cars and not more than 32½ tons per operative brake may be handled Snowdon to Hornbrook or Grass Lake to Azalea with no retainers provided engineer can properly control speed of train and charge brake pipe to standard pressure between applications. If necessary to use retainers to control speed of train engineer will instruct train crew number of retainers required.

The tonnage of any freight train between Hornbrook and Ashland must not exceed 50 tons per operative brake when handled on descending grade by F or SP class engine. When other class engine is used, 45 tons per operative brake will govern. Westward trains must not be moved out of Ashland in excess of this tonnage per operative brake. The tonnage of any freight train descending grade between Mount Shasta and Dunsmuir, Black Butte and Edgewood, must not exceed 60 tons per operative brake.

⊙In event additional retainers are required on freight or mixed trains between Azalea and Dunsmuir and train stops at Black Butte or between Black Butte and Azalea, such retainers may be turned up at that time.

⊙Freight or mixed trains of 1000 tons or less, with four dynamic brakes in operation and no retainers in use; and diesel engines running light, may run not to exceed 20 MPH between the following points on Siskiyou line:

EASTWARD	WESTWARD
MP 411.90 to MP 413.33	MP 411.90 to MP 407.98
MP 413.48 to MP 414.72	MP 407.65 to MP 394.32
MP 415.05 to MP 417.74	
MP 418.06 to MP 426.41	

Where speed shown on oval speed signs for these territories conflict, the above speeds will govern.

⊙Retainers will be used on freight and mixed trains handled by diesel engines on descending grades as follows:

⊙Between Grass Lake and Azalea and between Snowdon and Hornbrook:

With four dynamic brakes in operation and handling over 4750 tons, one retainer for each 150 tons; with three dynamic brakes in operation and handling over 3550 tons, one retainer for each 100 tons; with less than three dynamic brakes in operation retainers as required on trains with steam engine must be used.

⊙Between Azalea and Dunsmuir and between Black Butte and Edgewood:

With four dynamic brakes in operation and handling over 4000 tons, one retainer for each 150 tons; with three dynamic brakes in operation and handling over 3000 tons, one retainer for each 100 tons; with less than three dynamic brakes in operation retainers as required on trains with steam engine must be used.

In the event additional retainers are required on freight or mixed trains between Azalea and Dunsmuir and train stops at Black Butte or between Black Butte and Azalea, such retainers may be turned up at that time.

⊙Between Ashland and Hornbrook:

With four dynamic brakes in operation and handling over 2650 tons, one retainer for each 100 tons; with less than four dynamic brakes in operation retainers as required on trains with steam engine must be used.

⊙Retainers will be used on passenger trains on descending grades as follows:

Retainers will be turned up at Mount Shasta on head-end cars on passenger trains with more than four head-end cars and all other accessible retainers must be turned up Azalea to east switch Dunsmuir, except that westward passenger trains handled by diesel engine need not use retainers Mount Shasta to Dunsmuir provided dynamic or electro-pneumatic brakes are functioning. Engineer must notify trainmen if necessary to use retainers.

All accessible retainers must be turned up on passenger trains Black Butte to Edgewood.

All retainers must be turned up on passenger trains Siskiyou to Ashland, and accessible retainers may be turned down after passing yard limit board west of Ashland.

All retainers must be turned up on passenger trains Siskiyou to MP 403.6. Retainers on head-end cars must be left turned up between MP 403.6 and MP 400. All retainers must be turned up on passenger trains MP 400 to Hornbrook.

RULE 25. Rear end test must be made on all trains at Siskiyou eastward and westward in accordance with Air Brake Rule 25(b).

Rear end test must be made on all trains powered with steam engines at Grass Lake westward; at Hornbrook eastward, and at Black Butte eastward and westward on Siskiyou line, in accordance with Air Brake Rule 25(b).

Running test must be made on all trains powered by diesel engines westward between Grass Lake and Cougar; on Siskiyou line trains between Black Butte and Upton westward, and between Black Butte and Weed eastward. Running test will be made as follows: Engineer while working power will make a light reduction, wait for slack to adjust itself, then make a second light reduction. Brakes must be released in accordance with Rule 29. Trainmen must note reduction on caboose gage, and following build-up in pressure when brakes are released, give proceed signal.

PASSENGER TRAINS

RULE 38. Rear-end test must be made immediately prior to leaving Siskiyou on all trains (including mixed trains).

RULE 39. Running test on passenger trains must be made as follows: Eastward trains at Snowdon; Siskiyou line trains at Black Butte; westward trains at Grass Lake.

TRAIN HANDLING

⊙**RULE 60.** On freight trains handled by diesel engine and using dynamic brakes, before entering or leaving siding, turnout or crossover on descending grade at Small, Mott, Weed, Edgewood, Gregory, Steinman, Mistletoe or Ashland, dynamic braking force must be reduced to one-half of maximum, and if necessary automatic brakes applied sufficiently so that speed will not exceed 15 MPH while engine is moving between points 500 feet before reaching, and 1500 feet after passing the turnout or crossover.

MISCELLANEOUS

⊙**1.** Two GS or Mt, or one GS and one Mt class engines must not be coupled together on descending grades Mt. Shasta to Dunsmuir and between Hilt and Ashland.

5. Helper service:

Helper engines on eastward freight trains between Gregory and Siskiyou will be cut in single, separated by not less than 12 cars.

10. Engines listed are not permitted to operate on tracks shown below:

Class of Engine	Restricted tracks
All	Mount Shasta—McCRRR main track from clearance with interchange at east end of yard to a point opposite station building.
All engines and cars	Ashland—Beyond restriction sign on Bagley Canning spur.
Engines over 210,000 lbs. on drivers	Weed-Long-Bell Lbr. Co. factory tracks 1 and 2.
AC	Penoyar—Spurs.

At Mount Shasta, switching movements to or from McCRRR tracks 1, 2, 3 or 4, when made through the connection from siding to McCRRR main track, may be made without flag protection after ascertaining that there are no movements being made on McCRRR west of State highway. Movements on west leg of wye McCRRR track must not be made without proper flag protection.

Tracks, except main track at Leaf, are used by engines and motor cars of the Long-Bell Lbr. Company, and all movements over these tracks including both legs of wye, and to Long-Bell Lbr. Co. siding must be made with caution.

⊙**11.** Load limit (car and contents):

Dunsmuir-Klamath Falls.....251,000 pounds
Black Butte-Ashland.....251,000 pounds

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

14. Enginemen will operate tie sprinklers on engine tanks when so equipped on westward freight trains and light engines between Azalea and Dunsmuir.

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

MP	Location	Description
325.0	Dunsmuir ... Sacramento River 16th crossing	Overhead and side
329.4	Cantara ... Tunnel 16	Overhead and side
407.8	Dorris ... Tunnel 17	Overhead and side
410.0	Dorris ... Tunnel 18	Overhead and side
390.9	Ager ... Klamath River bridge	Overhead and side
411.3	Gregory ... Tunnel 13	Overhead and side
414.6	Siskiyou ... Tunnel 14	Overhead and side
415.2	Siskiyou ... Tunnel 15	Overhead and side
419.9	Steinman ... Tunnel 16	Overhead and side

Planing mill tracks 1 and 2 of Long-Bell Lbr. Co. at Weed will not be switched except between hours of 10 AM and 4 PM. Yardmen will not ride on top of cars when using these tracks.

Account impaired clearance, trains and engines must not operate east of Fruit Growers warehouse on interchange track, Hilt.

⊙SPEED RESTRICTIONS FOR TRAINS: Maximum speed of trains in territory shown below is subject to further restrictions applicable to engines in the train as shown in SPEED RESTRICTIONS FOR ENGINES appearing on page 4 and MAXIMUM SPEED PERMITTED WITH CERTAIN EQUIPMENT, and OTHER MAXIMUM SPEEDS appearing on page 5 of Special Instructions for All Subdivisions. Speed must be further reduced as prescribed by speed signs, except as specifically authorized by Special Instructions herein, or by timetable bulletin.

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

TERRITORY	*Streamlined PASSENGER TRAINS	OTHER PASSENGER TRAINS	FREIGHT AND MIXED	LIGHT ENGINES RUNNING FORWARD	LIGHT ENGINES RUNNING BACKWARD
Column:	A	1	2	3	4
EASTWARD, DUNSMUIR YARD TO KLAMATH FALLS:					
MP MP					
321.20 to 322.57	20	20	20	20	15
322.57 to 327.87	30	25	20	25	15
327.87 to 328.17	20	15	15	15	15
328.17 to 335.61	30	25	20	25	15
335.61 to 337.87	40	35	30	30	25
337.87 to 343.94	55	50	35	35	30
343.94 to 344.12	30	30	25	25	20
344.12 to 348.95	35	35	25	25	20
⊙348.95 to 350.79	35	30	25	25	20
350.79 to 354.97	40	35	25	25	20
354.97 to 355.50	35	30	25	25	20
355.50 to 359.01	40	40	35	35	30
359.01 to 363.71	45	40	35	35	30
363.71 to 369.45	50	40	35	35	30
369.45 to 373.76	55	50	50	50	30
373.76 to 379.12	70	60	50	50	30
379.12 to 380.25	55	50	50	50	30
380.25 to 382.16	70	60	50	50	30
382.16 to 390.10	55	50	50	50	30
390.10 to 407.35	79	70	50	50	30
407.35 to 415.27	55	50	50	50	30
415.27 to 417.41	70	65	50	50	30
417.41 to 426.89	79	70	50	50	30
⊙426.89 to 429.50	55	50	40	40	30

TERRITORY	*Streamlined PASSENGER TRAINS	OTHER PASSENGER TRAINS	FREIGHT AND MIXED	LIGHT ENGINES RUNNING FORWARD	LIGHT ENGINES RUNNING BACKWARD
Column:	A	1	2	3	4
WESTWARD, KLAMATH FALLS TO DUNSMUIR YARD:					
MP MP					
⊙429.50 to 426.89	55	50	40	40	30
426.89 to 417.41	79	70	50	50	30
417.41 to 415.27	70	65	50	50	30
415.27 to 407.35	55	50	50	50	30
407.35 to 390.10	79	70	50	50	30
390.10 to 382.16	55	50	50	50	30
382.16 to 380.25	70	60	50	50	30
380.25 to 379.12	55	50	50	50	30
379.12 to 373.76	70	60	50	50	30
373.76 to 369.45	55	50	50	50	30
369.45 to 363.71	50	40	35	35	30
363.71 to 359.01	45	40	35	35	30
359.01 to 355.50	40	40	35	35	30
355.50 to 354.97	35	30	25	25	20
354.97 to 350.79	40	35	25	25	20
⊙350.79 to 348.95	35	30	25	25	20
348.95 to 344.12	35	35	25	25	20
344.12 to 343.94	30	30	25	25	20
343.94 to 337.87	55	50	35	35	30
337.87 to 335.61	40	35	30	30	25
335.61 to 328.17	30	25	20	25	15
328.17 to 327.87	20	15	15	15	15
327.87 to 322.57	30	25	20	25	15
322.57 to 321.20	20	20	20	20	15

⊙*Streamlined passenger trains are CASCADE and SHASTA DAYLIGHT with diesel passenger engine.

⊙CASCADE and SHASTA DAYLIGHT, with P-7, 8, 10; GS, or Mt class engine, may run not to exceed 75 MPH on tangent track where 70 MPH is authorized in Column 1.

RULE 10-J. A light engine, or an engine with caboose may make speed shown in Speed Restrictions table for light engines in territory where such speed is in excess of that authorized by speed sign.

SPEED RESTRICTIONS FOR OTHER THAN MAIN TRACKS	With Caution Not Exceeding MPH
Through sidings, yard and other tracks, wyes, balloon tracks, crossovers and turnouts, except:	15
Through slip switches	10
Through turnouts on other than sidings	10
On branches	10
Through all sidings, yard tracks and other tracks with engine running backward	10

⊙SPEED RESTRICTIONS FOR TRAINS: Maximum speed of trains in territory shown below is subject to further restrictions applicable to engines in the train as shown in SPEED RESTRICTIONS FOR ENGINES appearing on page 4 and MAXIMUM SPEED PERMITTED WITH CERTAIN EQUIPMENT, and OTHER MAXIMUM SPEEDS appearing on page 5 of Special Instructions for All Subdivisions. Speed must be further reduced as prescribed by speed signs, except as specifically authorized by Special Instructions herein, or by timetable bulletin.

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

TERRITORY	PASSENGER TRAINS	FREIGHT AND MIXED	LIGHT ENGINES RUNNING FORWARD	LIGHT ENGINES RUNNING BACKWARD
Column:	1	2	3	4
EASTWARD, BLACK BUTTE TO ASHLAND:				
MP MP				
345.20 to 359.05	25	20	20	15
359.05 to 360.83	40	35	35	30
360.83 to 372.24	50	40	40	30
372.24 to 375.14	25	20	20	15
375.14 to 381.48	50	40	40	30
381.48 to 394.32	25	20	20	15
394.32 to 407.65	20	20	20	15
407.65 to 407.98	15	15	15	15
407.98 to 411.90	20	20	20	15
411.90 to 413.33	20	15	15	15
413.33 to 413.48	15	15	15	15
413.48 to 414.72	20	15	15	15
414.72 to 415.05	15	15	15	15
415.05 to 417.74	20	15	15	15
417.74 to 418.06	15	15	15	15
418.06 to 426.41	20	15	15	15
426.41 to 429.10	30	20	20	15

TERRITORY	PASSENGER TRAINS	FREIGHT AND MIXED	LIGHT ENGINES RUNNING FORWARD	LIGHT ENGINES RUNNING BACKWARD
Column:	1	2	3	4
WESTWARD, ASHLAND TO BLACK BUTTE:				
MP MP				
429.10 to 426.41	30	20	20	15
426.41 to 418.06	20	20	20	15
418.06 to 417.74	15	15	15	15
417.74 to 415.05	20	20	20	15
415.05 to 414.72	15	15	15	15
414.72 to 413.48	20	20	20	15
413.48 to 413.33	15	15	15	15
413.33 to 411.90	20	20	20	15
411.90 to 407.98	20	15	15	15
407.98 to 407.65	15	15	15	15
407.65 to 394.32	20	15	15	15
394.32 to 381.48	25	20	20	15
381.48 to 375.14	50	40	40	30
375.14 to 372.24	25	20	20	15
372.24 to 360.83	50	40	40	30
360.83 to 359.05	40	35	35	30
359.05 to 345.20	25	20	20	15

SPEED RESTRICTIONS FOR OTHER THAN MAIN TRACKS	With Caution Not Exceeding MPH
Through sidings, yard and other tracks, wyes, balloon tracks, crossovers and turnouts, except:	15
Through slip switches	10
Through turnouts on other than sidings	10
On branches	10
Through all sidings, yard tracks and other tracks with engine running backward	10
Hornbrook, engines using wye	8

RATING OF ENGINES—In Units of 2000 Lbs. (Tons)

NOMINAL CLASS	ENGINE NUMBERS	Dunsmuir and Edgewood Dunsmuir to Black Butte	Black Butte to Grass Lake	Mt. Hebron to Dunsmuir	Grass Lake to Klamath Falls Klamath Falls to Mt. Hebron	Snowdon to Edgewood Edgewood to Hornbrook	Hornbrook to Ashland Ashland to Hilt	Hilt to Snowdon
DP-3	6017	950	1475	2600	3750	....	....	....
DP-4, 7	6000 to 6004, 6018	950	1525	2600	3750	....	....	....
DP-5, 6	6005 to 6016	1425	2375	3275	6850	....	....	....
DP-8 to 10	6019 to 6033	1825	2950	4075	8425	....	....	....
DP-11	6034 to 6045	1875	3050	4200	8650	....	....	....
DF-1 to 12	6138 to 6461	3775	4725	6400	12750	6400	1950	4000
DF-100	5200 to 5202	....	....	....	....	....	....	....
DF-101 to 108, 110, 112	5203 to 5249, 5253 to 5278, 5500 to 5502	975	1550	2150	4000	2200	625	1225
DF-109, 111	5250 to 5252, 5503 to 5505	1475	....	....	....	3150	925	1800
DF-114, 116, 117, 118	5279 to 5293, 5308 to 5335	1200	1900	2600	5475	2600	775	1500
DF-115, 119	5294 to 5307, 5336 to 5339	....	....	....	....	....	....	....
DF-120	5340 to 5371	....	....	....	....	....	....	....
DF-200 to 204	5100 to 5118	....	....	....	....	....	....	....
DF-300 to 304	4600 to 4623, 4700 to 4703	....	....	....	....	....	....	....
DF-500, 501	4800 to 4815	....	....	....	....	....	....	....
DS-1 to 8	1000 to 1032	285	475	660	1375	660	165	365
DS-100 to 109, 111, 115	1300 to 1441, 1464 to 1485, 1514 to 1528	455	735	1025	2075	1025	275	565
DS-110, 114, 118	1442 to 1463, 1492 to 1513, 1539 to 1550	590	950	1300	2675	1400	365	730
DS-113, 117	1486 to 1491, 1529 to 1538	....	....	....	....	....	....	....
DS-200, 201	1900 to 1903	....	....	....	....	....	....	....
M-4	1629 to 1713	385	625	950	1925	880	230	500
M-6, 8	1721 to 1801, 1824, 1825	465	750	1125	2275	1035	285	600
M-9	1805 to 1817, 1830	500	800	1200	2400	1075	310	650
M-11	1833 to 1835	525	825	1250	2500	1125	325	675
T-1	2248, 2252	330	550	825	1650	725	195	430
T-23	2302, 2303, 2310	485	775	1175	2375	1075	295	625
T-28, 31	2312 to 2362	500	825	1150	2625	1225	350	700
T-32	2365 to 2384	550	900	1325	2675	1260	340	710
P-1, 3	2411, 2431	405	675	1050	2150	975	235	535
P-4	2410, 2414	450	750	1150	2350	1075	260	600
P-5 (T&NO)	600 to 606	....	....	....	....	....	....	....
P-6	2453, 2454, 2458	525	875	1300	2675	1225	310	680
P-7	2476, 2477	525	925	1400	2825	1300	310	750
P-8, 10	2461 to 2473, 2478 to 2483	550	950	1450	2950	1325	320	750
P-8, 10	2475, 2484 to 2491	600	1000	1525	3100	1400	350	795
C-8, 9, 10	2513 to 2598, 2700 to 2860	600	975	1350	2925	1350	400	800
C-18	3400, 3406	550	900	1325	2650	1225	355	725
C-19	3420, 3423, 3426	575	925	1375	2775	1275	365	750
TW-8	2914	525	825	1250	2500	1125	320	675
Mk-2, 4	3203 to 3236	650	1050	1500	3250	1550	465	950
Mk-5, 6	3247 to 3275	700	1150	1600	3500	1725	485	1000
Mk-7, 8, 9	3303 to 3324	850	1350	2025	4025	1850	500	1100
Mk-11	3298	625	1000	1500	2975	1375	405	830
F-1	3611 to 3652	875	1400	2075	4175	2000	550	1150
F-3, 4, 5	3653 to 3770	1075	1775	2450	5050	2450	645	1350
AC-4, 5	4104 to 4122	1550	2500	3450	7000	3600	....	①2150
AC-6 to 12	3801 to 3811, 4126 to 4294	1650	2650	3700	7500	3800	....	①2250
Mt-1, 3, 4, 5	4300 to 4376	775	1250	1750	3875	1850	500	1125
GS-1, 2	4400 to 4415, 4470 to 4473	800	1300	1850	4200	1975	....	①1075
GS-3, 4, 5, 6	4416 to 4469	825	1350	1925	4250	2075	....	①1125
GS-7, 8	4475 to 4487	....	....	....	....	....	....	....
SP-1, 2, 3	5000 to 5047	1200	1925	2850	5675	2750	750	1575

Ratings shown for nominal class DP-3 through 11 are applicable to 3-unit engines. To determine rating of engine with less than 3 units, divide published rating by 3 and multiply by number of units comprising the engine.

Ratings shown for nominal class DF-1 through 12 are applicable to 4-unit engines. To determine rating of engine with less than 4 units, divide published rating by 4 and multiply by number of units comprising the engine.

①AC and GS class engines not permitted to operate Hilt to Hornbrook.

UNLESS AUTHORIZED BY SUPERINTENDENT, ENGINES WILL NOT BE PERMITTED TO OPERATE IN THOSE TERRITORIES WHERE NO RATING IS SHOWN IN ENGINE RATING TABLE.

⊙**RULE M.** 4800 volt power line on signal pole line Kirk to Umli. If found broken or down extreme caution must be used and prompt report made from first available means of communication.

⊙**RULE 10-J.** Round yellow speed signs indicate the speed restrictions applying to CASCADE and SHASTA DAYLIGHT with diesel passenger engine.

Speed signs to left of track:

Westward	Reading
MP 434.66	55-50-40
MP 438.65	65-60-50
MP 447.31	65-60-50
MP 527.56	60-55-45

Speed signs to right of track with one track intervening:

Westward	Reading
MP 528.56	70-60-50

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

West MP		East MP
425.67	Klamath Falls	432.66
552.04	" (Merrill line)	
⊙527.00	Crescent Lake	529.17

⊙**Klamath Falls:** Movements of GNRy trains and engines between end of CTC and junction switch of GNRy will be directed by yardmaster.

Westward trains and engines, to enter yard tracks at east end of yard, must not pass absolute signal displaying proceed on diverging route indication unless proceed signal received from yardman.

⊙**Crescent Lake:** Trains moving on main track in either direction will move between end of CTC, at west switch track 1, and Signal 5291, at east switch track 1, by block signals whose indications will supersede the superiority of trains.

Unit for display of flashing white light located west of west ladder track lead and when displayed will authorize movement from yard tracks to beginning of CTC.

Eastward trains entering yard will use track indicated in illuminated indicator located on eastward SA signal at west switch track 1.

Westward freight trains entering yard use track 2.

RULE 99-A. After first-class trains have stopped at Klamath Falls, incoming trainmen will set necessary hand brakes. Outgoing trainmen must relieve incoming trainmen immediately and afford necessary flag protection.

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

Klamath Falls..GNRy main track, for SP main track,
Gilchrist Jct....KNRy main track, for interchange track,

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

Eastward Signal	Klamath Falls-Crescent Lake	Westward Signal
⊙P-4406 / P-4424	Slide detector fence between MP 441.9 and MP 444	P-4441 / P-4423
	Spring switch east end yard track 1 Crescent Lake	P-5291

RULE 505. AUTOMATIC BLOCK SIGNAL SYSTEM

Trains or engines stopped by Signal 4293 at Klamath Falls, may proceed with caution, not exceeding 12 MPH.

⊙**Chelsea:** Signal 4320 on drill track governs eastward movements through crossover to main track only, and will remain dark until crossover switch is opened.

RULE 512. Block indicators and signals located as follows:

Signal 4278 at derail GNRy Bieber line, top unit governs from Bieber line to Cascade line main track; lower unit governs from Bieber line to GNRy line crossing Lake Ewauna.

Signal 4277 at derail from line crossing Lake Ewauna governs to GNRy Bieber line.

Signal 4279 just east of GNRy Lake Ewauna line connection on Cascade line, lower unit governs to GNRy Bieber line or SP Merrill line.

Signal 4275.5 at fouling point ladder tracks between tracks 17 and 18 governs from all ladder tracks to Merrill line.

Junction of GNRy and Cascade line (Signals 4284-4283). Should these signals fail to indicate "proceed" after switches are lined wait four minutes for time element relay to function, which will be effective when approach circuit to junction switch is occupied. After operation of time element relay, if signals fail to indicate "proceed", Rules 509 and 513 apply.

RULE 535. SPRING SWITCHES

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

Location	Normal Position
Crescent Lake.....East switch track 1	.....Main track

RULE 705. LETTER TYPE INDICATORS

Indicators located as follows:

Illum Letter	On Signal	Approaching	Authorizes and requires movement as follows:
⊙S	A	Crescent Lake	Enter passenger siding.

⊙**RULE 760. CENTRALIZED TRAFFIC CONTROL**

Centralized Traffic Control extends from eastward absolute signal at west end of crossover switch, east end of Klamath Falls MP 429.81, to westward absolute signal on signal bridge at fouling point west switch track 1 at Crescent Lake, MP 527.23.

Klamath Falls: Eastward absolute signal located on signal bridge at west end of crossover, at east end of yard.
Upper unit governs eastward movements on drill track.
Lower unit governs eastward movements to main track.

⊙Westward absolute dwarf signal located east of west crossover switch on drill track governs westward movements on drill track.

Absolute signals governing movements on drill track will display proceed indication regardless of track occupancy between these signals unless indication is changed by train dispatcher. Switching movements may be made on drill track so long as signals governing such movements display proceed indication and Rule 775 will not apply. When these signals display stop indication, track between these signals must be cleared immediately.

Chiloquin: Westward absolute signal located on signal bridge at crossover at west end of siding.
Upper unit governs westward movements to drill track.
Lower unit governs westward movements to main track.

⊙**RULE 762.** That part of the first paragraph of Rule 93 reading, "protection against second and inferior class trains, extra trains and engines is not required in yard limits," will apply to westward trains standing between MP 432.66 and end of CTC at Klamath Falls.

⊙**RULE 763.** GNRy trains will display engine numbers in train indicators instead of train numbers between Klamath Falls and Chemult.

GENERAL REGULATIONS

RULE 824. Instructions for setting hand brakes:

⊙Klamath Falls and Klamath Falls Yard:

Passenger Trains	Two brakes on west end, Two brakes on east end.
⊙Freight trains or cuts of cars	Five brakes on west end, Five brakes on east end.

Staff brakes on freight trains must be set with the assistance of brake club after train has stopped. Any employe releasing any of these brakes, must set an equal number to replace them.

Engines must not be cut off freight trains at Klamath Falls until sufficient hand brakes are set to secure train and yard air must not be coupled into train until engine is cut off.

RULE 827. Trains handling logs must stop and crew must inspect load and chains before entering yard at Klamath Falls.

⊙On freight trains between Kirk and Chiloquin, member of train crew will observe track from rear of caboose, (except when helper engine is placed behind caboose), so train may be stopped in event of derailment. Two Dietz lanterns placed on rear of caboose will be used at night to assist in observing track.

AIR BRAKE RULES

RULE 2. When diesel switch engine is used on yard tracks at east end of Klamath Falls, handling cuts of forty empties or twenty-five loads or more, air brakes must be cut in on not less than four cars.

RULE 17. Sufficient retainers must be turned up, in the judgment of engineer, to properly control train handling logs Kirk to Chiloquin.

MISCELLANEOUS

⊙**10.** Engines listed are not permitted to operate on tracks shown below:

Class of Engine	Restricted Tracks
All	Beyond engine restriction sign at following locations: Wocus—Spur. Modoc Point—Lumber Co. spur. Chiloquin—Stem of wye. Calimus—Spur. Lenz—Spur. Yamsay—Logging tracks. Chemult—Oil spur.

11. Load limit (car and contents):

Klamath Falls-Crescent Lake.....251,000 pounds

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

⊙SPEED RESTRICTIONS FOR TRAINS: Maximum speed of trains in territory shown below is subject to further restrictions applicable to engines in the train as shown in SPEED RESTRICTIONS FOR ENGINES appearing on page 4 and MAXIMUM SPEED PERMITTED WITH CERTAIN EQUIPMENT, and OTHER MAXIMUM SPEEDS appearing on page 5 of Special Instructions for All Subdivisions. Speed must be further reduced as prescribed by speed signs, except as specifically authorized by Special Instructions herein, or by timetable bulletin.

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

TERRITORY	*Streamlined PASSENGER TRAINS	OTHER PASSENGER TRAINS	FREIGHT AND MIXED	LIGHT ENGINES RUNNING FORWARD	LIGHT ENGINES RUNNING BACKWARD
Column:	A	1	2	3	4
EASTWARD, KLAMATH FALLS TO CRESCENT LAKE:					
MP MP					
⊙429.50 to 433.91	55	50	40	40	30
433.91 to 438.65	65	60	50	50	30
438.65 to 439.02	60	55	50	50	30
439.02 to 446.56	65	60	50	50	30
446.56 to 451.81	79	70	50	50	30
451.81 to 454.96	65	60	50	50	30
454.96 to 459.03	55	50	50	50	30
459.03 to 467.67	50	45	40	40	30
467.67 to 471.23	65	60	50	50	30
471.23 to 508.70	79	60	50	50	30
508.70 to 511.96	60	55	50	50	30
511.96 to 516.48	65	60	50	50	30
516.48 to 518.95	60	55	50	50	30
518.95 to 522.86	70	60	50	50	30
522.86 to 523.51	65	60	50	50	30
523.51 to 528.60	70	60	50	50	30

TERRITORY	*Streamlined PASSENGER TRAINS	OTHER PASSENGER TRAINS	FREIGHT AND MIXED	LIGHT ENGINES RUNNING FORWARD	LIGHT ENGINES RUNNING BACKWARD
Column:	A	1	2	3	4
WESTWARD, CRESCENT LAKE TO KLAMATH FALLS:					
MP MP					
528.60 to 523.51	70	60	50	50	30
523.51 to 522.86	65	60	50	50	30
522.86 to 518.95	70	60	50	50	30
518.95 to 516.48	60	55	50	50	30
516.48 to 511.96	65	60	50	50	30
511.96 to 508.70	60	55	50	50	30
508.70 to 471.23	79	60	50	50	30
471.23 to 467.67	65	60	50	50	30
467.67 to 459.03	50	45	40	40	30
459.03 to 454.96	55	50	50	50	30
454.96 to 451.81	65	60	50	50	30
451.81 to 446.56	79	70	50	50	30
446.56 to 439.02	65	60	50	50	30
439.02 to 438.65	60	55	50	50	30
438.65 to 433.91	65	60	50	50	30
⊙433.91 to 429.50	55	50	40	40	30

⊙*Streamlined passenger trains are CASCADE and SHASTA DAYLIGHT with diesel passenger engine.

⊙CASCADE and SHASTA DAYLIGHT, with P-7, 8, 10; GS, or Mt class engine, may run not to exceed 75 MPH on tangent track where 70 MPH is authorized in Column 1.

SPEED RESTRICTIONS FOR OTHER THAN MAIN TRACKS	With Caution Not Exceeding MPH
Through sidings, yard and other tracks, wyes, balloon tracks, crossovers and turnouts, except:	15
Through slip switches	10
Through turnouts on other than sidings	10
On branches	10
Through all sidings, yard tracks and other tracks with engine running backward	10
Chiloquin, stem of wye to log pond	6

RATING OF ENGINES—In Units of 2000 Lbs. (Tons)

NOMINAL CLASS	ENGINE NUMBERS	Crescent Lake to Klamath Falls	Klamath Falls to Crescent Lake
DP-3	6017	3750	2675
DP-4, 7	6000 to 6004, 6018	3750	2700
DP-5, 6	6005 to 6016	6850	4000
DP-8 to 10	6019 to 6033	8425	4700
DP-11	6034 to 6045	8650	4850
DF-1 to 12	6138 to 6461	12750	7325
DF-100	5200 to 5202	....	....
DF-101 to 108, 110, 112	5203 to 5249, 5253 to 5278, 5500 to 5502	4000	2475
DF-109, 111	5250 to 5252, 5503 to 5505	....	....
DF-114, 116, 117, 118	5279 to 5293, 5308 to 5335	5475	3050
DF-115, 119	5294 to 5307, 5336 to 5339	....	....
DF-120	5340 to 5371	....	....
DF-200 to 204	5100 to 5118	....	....
DF-300 to 304	4600 to 4623, 4700 to 4703	....	....
DF-500, 501	4800 to 4815	....	....
DS-1 to 8	1000 to 1032	1375	775
DS-100 to 109, 111, 115	1300 to 1441, 1464 to 1485, 1514 to 1528	2075	1175
DS-110, 114, 118	1442 to 1463, 1492 to 1513, 1539 to 1550	2675	1500
DS-113, 117	1486 to 1491, 1529 to 1538	....	.....
DS-200, 201	1900 to 1903	....	....
M-4	1629 to 1713	1925	1100
M-6, 8	1721 to 1801, 1824, 1825	2275	1300
M-9	1805 to 1817, 1830	2400	1400
M-11	1833 to 1835	2500	1450
T-1	2248, 2252	1650	950
T-23	2302, 2303, 2310	2375	1375
T-28, 31	2312 to 2362	2625	1525
T-32	2365 to 2384	2675	1550
P-1, 3	2411, 2431	2150	1225
P-4	2410, 2414	2350	1350
P-5 (T&NO)	600 to 606	....	....
P-6	2453, 2454, 2458	2675	1525
P-7	2476, 2477	2825	1625
P-8, 10	2461 to 2473, 2478 to 2483	2950	1675
P-8, 10	2475, 2484 to 2491	3100	1775
C-8, 9, 10	2513 to 2598, 2700 to 2860	2925	1700
C-18	3400, 3406	2650	1550
C-19	3420, 3423, 3426	2775	1600
TW-8	2914	2500	1450
Mk-2, 4	3203 to 3236	3250	1825
Mk-5, 6	3247 to 3275	3500	1875
Mk-7, 8, 9	3303 to 3324	4025	2325
Mk-11	3298	2975	1725
F-1	3611 to 3652	4175	2425
F-3, 4, 5	3653 to 3770	5050	2825
AC-4, 5	4104 to 4122	7000	4000
AC-6 to 12	3801 to 3811, 4126 to 4294	7500	4300
Mt-1, 3, 4, 5	4300 to 4376	3875	2250
GS-1, 2	4400 to 4415, 4470 to 4473	4200	2400
GS-3, 4, 5, 6	4416 to 4469	4250	2450
GS-7, 8	4475 to 4487	....	....
SP-1, 2, 3	5000 to 5047	5675	3300

Ratings shown for nominal class DP-3 through 11 are applicable to 3-unit engines. To determine rating of engine with less than 3 units, divide published rating by 3 and multiply by number of units comprising the engine.

Ratings shown for nominal class DF-1 through 12 are applicable to 4-unit engines. To determine rating of engine with less than 4 units, divide published rating by 4 and multiply by number of units comprising the engine.

UNLESS AUTHORIZED BY SUPERINTENDENT ENGINES, EXCEPT GNRY ENGINES, WILL NOT BE PERMITTED TO OPERATE IN THOSE TERRITORIES WHERE NO RATING IS SHOWN IN ENGINE RATING TABLE.

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

West MP		East MP
425.67	Klamath Falls	432.66
552.04	" (Merrill Line)	
528.60	Tule Lake	530.40
454.93	Alturas	461.23
	" (Lakeview Branch)	460.19
510.63	Lakeview	513.05

⊙**Klamath Falls:** Movements of GNRy trains and engines between end of CTC and junction switch of GNRy will be directed by yardmaster.

Trains and engines approaching Klamath Falls Yard must not pass Signal 5528 unless flashing white light is displayed on mast of this signal. Indication displayed by Signal 5528 must be respected. Flashing white light will authorize movement to east end of track 17 where signal must be received from yardman before moving to receiving track.

RULE 99-A. After passenger trains have stopped at Klamath Falls, incoming trainmen will set necessary hand brakes. Outgoing trainmen must relieve incoming trainmen immediately and afford necessary flag protection.

RULE 99-C will apply on Lakeview Branch.

⊙**RULE 103-A.** Public Utilities Commission orders prohibit operation of train, engine, motor or car over the following crossings unless first brought to a stop and traffic on the highway protected by a member of the crew.

Lakeview.....Western Avenue Crossing, MP 512.5

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

Klamath Falls....GNRy main track, for SP main track,
Klamath Falls....Merrill line, for yard track 17,
Klamath Falls....OC&ERy main track, for yard track,
Alturas.....Merrill line, for Lakeview Branch.

RULE 505. AUTOMATIC BLOCK SIGNAL SYSTEM

Trains or engines stopped by Signal 4293 at Klamath Falls, may proceed with caution, not exceeding 12 MPH.

RULE 512. Block indicators and signals located as follows:

Signal 4278 at derail GNRy Bieber line, top unit governs from Bieber line to Cascade line main track; lower unit governs from Bieber line to GNRy line crossing Lake Ewauna.

Signal 4277 at derail from line crossing Lake Ewauna governs to GNRy Bieber line.

Signal 4279 just east of GNRy Lake Ewauna line connection on Cascade line, lower unit governs GNRy Bieber line or SP Merrill line.

Signal 4275.5 at fouling point ladder tracks between Tracks 17 and 18 governs from all ladder tracks to Merrill line.

Junction of GNRy and Cascade line (Signals 4284-4283). Should these signals fail to indicate "proceed" after switches are lined wait four minutes for time element relay to function, which will be effective when approach circuit to junction switch is occupied. After operation of time element relay, if signals fail to indicate "proceed", Rules 509 and 513 apply.

RULE 680. AUTOMATIC INTERLOCKING

Stronghold: Crossing GNRy one-half mile east of Stronghold.

When trains are stopped by signals governing the use of automatic interlocking, flagman must be sent to crossing to operate clock-work time-release. Release must not be operated when trains are between home signals or seen approaching on intersecting line.

After release has been operated, a red indicator light should be displayed over release and home signal should indicate "proceed" or red indicator on home signal mast be displayed. Trains may then proceed.

If red indicator lights are not displayed, trains may proceed over crossing as provided by Rule 663.

Instructions for operating clock-work time-release are posted on door of box.

GENERAL REGULATIONS

RULE 824. Instructions for setting hand brakes:

⊙Klamath Falls and Klamath Falls Yard:

Passenger trains.....{Two brakes on west end, Two brakes on east end.
⊙Freight trains or cuts of cars...{Five brakes on west end, Five brakes on east end.

Staff brakes on freight trains must be set with the assistance of brake club after train has stopped. Any employe releasing any of these brakes, must set an equal number to replace them.

Engines must not be cut off freight trains at Klamath Falls until sufficient hand brakes are set to secure train and yard air must not be coupled into train until engine is cut off.

RULE 827. Freight trains using retainers on descending grade will stop between switches at Canby and Hackamore 10 minutes for heat radiation at which time train inspection will be made, and enginemen will inspect engines.

AC class engines running light on descending grade will stop sufficient length of time, and other engines running light on descending grade will stop 10 minutes at those stations for heat radiation, at which time enginemen will inspect engines.

Trains handling logs must stop and crew must inspect load and chains before entering yard at Klamath Falls.

⊙On freight trains between Ambrose and Canby, member of train crew will observe track from rear of caboose, (except when helper engine is placed behind caboose) so train may be stopped in event of derailment. Two Dietz lanterns placed on rear of caboose will be used at night to assist in observing track.

AIR BRAKE RULES

⊙**RULE 17.** Retainers will be used on freight and mixed trains handled by steam engines on descending grades as follows:

Ambrose to Canby...One valve for each 50 tons in train.

If tonnage exceeds amount of tons specified for each retainer, trains may be handled Ambrose to Canby, up to 65 tons per operative brake.

Sufficient retainers must be turned up, in the judgment of engineer, to properly control train handling logs Ambrose to Perez.

⊙Retainers will be used on freight and mixed trains handled by diesel engines on descending grade between Ambrose and Canby as follows:

With 4 dynamic brakes in operation and handling over 4250 tons—one retainer for each 100 tons.
With 3 dynamic brakes in operation and handling over 3500 tons—one retainer for each 100 tons.
With less than 3 dynamic brakes in operation—retainers as required on trains powered by steam engine must be used.

All accessible retainers must be turned up on passenger trains Ambrose to Canby.

FREIGHT TRAINS

RULE 25(a). Rear-end test must be made immediately prior to leaving Ambrose on westward trains.

MISCELLANEOUS

5. Helper service:

Helper engine must not be placed on head end of freight trains, except on trains consisting entirely of logs, between Canby and Ambrose.

10. Engines listed are not permitted to operate on tracks shown below:

Class of Engine	Restricted Tracks
Engines over 210,000 lbs. on drivers	Lakeview Branch—Between MP 457.50 and Lakeview.
All	Alturas—Farmers Exchange spur beyond Fourth St.
AC, F	Staley—Wye.

Cars or engines must not be moved beyond a point 500 feet from switch on R. L. Smith Lbr. Co. track at west end house track, Canby.

11. Load limit (car and contents):

Alturas-Klamath Falls.....251,000 pounds
Alturas-Lakeview.....169,000 pounds

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

⊙SPEED RESTRICTIONS FOR TRAINS: Maximum speed of trains in territory shown below is subject to further restrictions applicable to engines in the train as shown in SPEED RESTRICTIONS FOR ENGINES appearing on page 4 and MAXIMUM SPEED PERMITTED WITH CERTAIN EQUIPMENT, and OTHER MAXIMUM SPEEDS appearing on page 5 of Special Instructions for All Subdivisions. Speed must be further reduced as prescribed by speed signs, except as specifically authorized by Special Instructions herein, or by timetable bulletin.

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

TERRITORY	PASSENGER TRAINS	FREIGHT AND MIXED	LIGHT ENGINES RUNNING FORWARD	LIGHT ENGINES RUNNING BACKWARD
Column:	1	2	3	4
EASTWARD, ALTURAS TO KLAMATH FALLS:				
MP MP				
458.30 to 460.03	30	30	30	25
⊙460.03 to 465.26	35	35	35	30
⊙465.26 to 467.28	30	30	30	25
⊙467.28 to 474.00	35	35	35	30
474.00 to 478.63	25	25	25	20
478.63 to 485.05	20	20	20	15
485.05 to 510.50	25	25	25	20
510.50 to 552.89	35	35	35	30
552.89 to 553.30 (427.00)	15	15	15	10
427.00 to 429.50	15	15	15	10
EASTWARD, ALTURAS TO LAKEVIEW:				
456.80 to 462.04	..	20	20	15
462.04 to 462.12	..	10	10	10
462.12 to 512.30	..	20	20	15

TERRITORY	PASSENGER TRAINS	FREIGHT AND MIXED	LIGHT ENGINES RUNNING FORWARD	LIGHT ENGINES RUNNING BACKWARD
Column:	1	2	3	4
WESTWARD, KLAMATH FALLS TO ALTURAS:				
MP MP				
429.50 to 427.00 (553.30)	15	15	15	10
553.30 to 552.89	15	15	15	10
552.89 to 510.50	35	35	35	30
510.50 to 485.05	25	25	25	20
485.05 to 478.63	20	20	20	15
478.63 to 474.00	25	25	25	20
⊙474.00 to 467.28	35	35	35	30
⊙467.28 to 465.26	30	30	30	25
⊙465.26 to 460.03	35	35	35	30
460.03 to 458.30	30	30	30	25
WESTWARD, LAKEVIEW TO ALTURAS:				
512.30 to 462.12	..	20	20	15
462.12 to 462.04	..	10	10	10
462.04 to 456.80 (458.30)	..	20	20	15

SPEED RESTRICTIONS FOR OTHER THAN MAIN TRACKS	With Caution Not Exceeding MPH
Through sidings, yard and other tracks, wyes, balloon tracks, crossovers and turnouts, except:	15
Through slip switches	10
Through turnouts on other than sidings	10
On branches	10
Through all sidings, yard tracks and other tracks with engine running backward	10
Canby, Lumber Company's spur	8

RATING OF ENGINES—In Units of 2000 Lbs. (Tons)

NOMINAL CLASS	ENGINE NUMBERS	Klamath Falls and Perez Canby and Alturas	Perez to Canby	Canby to Perez	Alturas and Lakeview
DP-3	6017	....	....	....	....
DP-4, 7	6000 to 6004, 6018	....	....	....	....
DP-5, 6	6005 to 6016	....	....	....	....
DP-8 to 10	6019 to 6033	....	....	....	....
DP-11	6034 to 6045	....	....	....	....
DF-1 to 12	6138 to 6461	8850	6400	3775	....
DF-100	5200 to 5202	....	....	....	....
DF-101 to 108, 110, 112	5203 to 5249, 5253 to 5278, 5500 to 5502	3025	2150	975	....
DF-109, 111	5250 to 5252, 5503 to 5505	....	....	....	....
DF-114, 116, 117, 118	5279 to 5293, 5308 to 5335	3700	2600	1200	....
DF-115, 119	5294 to 5307, 5336 to 5339	....	....	....	....
DF-120	5340 to 5371	....	....	....	....
DF-200 to 204	5100 to 5118	....	....	....	....
DF-300 to 304	4600 to 4623, 4700 to 4703	....	....	....	....
DF-500, 501	4800 to 4815	....	....	....	....
DS-1 to 8	1000 to 1032	925	660	285	....
DS-100 to 109, 111, 115	1300 to 1441, 1464 to 1485, 1514 to 1528	1425	1025	455	....
DS-110, 114, 118	1442 to 1463, 1492 to 1513, 1539 to 1550	1825	1300	590	1050
DS-113, 117	1486 to 1491, 1529 to 1538	....	....	....	....
DS-200, 201	1900 to 1903	....	....	....	....
M-4	1629 to 1713	1325	900	385	750
M-6, 8	1721 to 1801, 1824, 1825	1550	1050	465	875
M-9	1805 to 1817, 1830	1650	1125	500	950
M-11	1833 to 1835	1725	1175	525	975
T-1	2248, 2252	1125	775	330	625
T-23	2302, 2303, 2310	1625	1125	485	925
T-28, 31	2312 to 2362	1775	1225	525	1025
T-32	2365 to 2384	1825	1250	550	0050
P-1, 3	2411, 2431	1450	975	405	800
P-4	2410, 2414	1600	1075	450	900
P-5 (T&NO)	600 to 606	....	....	....	....
P-6	2453, 2454, 2458	1825	1225	525	1025
P-7	2476, 2477	0925	1325	525	1100
P-8, 10	2461 to 2473, 2478 to 2483	2000	1350	550	....
P-8, 10	2475, 2484 to 2491	2100	1425	600	....
C-8, 9, 10	2513 to 2598, 2700 to 2860	1975	1375	600	1125
C-18	3400, 3406	1825	1250	550	1050
C-19	3420, 3423, 3426	1900	1300	575	1100
TW-8	2914	1700	1150	500	950
Mk-2, 4	3203 to 3236	2275	1550	675	①1250
Mk-5, 6	3247 to 3275	2525	1725	700	①1425
Mk-7, 8, 9	3303 to 3324	2775	1900	850	....
Mk-11	3298	2050	1425	625	1175
F-1	3611 to 3652	2850	1975	875	....
F-3, 4, 5	3653 to 3770	3450	2450	1075	....
AC-4, 5	4104 to 4122	5225	3600	1600	....
AC-6 to 12	3801 to 3811, 4126 to 4294	5500	3800	1675	....
Mt-1, 3, 4, 5	4300 to 4376	2675	1800	775	....
GS-1, 2	4400 to 4415, 4470 to 4473	2850	1925	775	....
GS-3, 4, 5, 6	4416 to 4469	3025	2025	825	....
GS-7, 8	4475 to 4487	....	....	....	....
SP-1, 2, 3	5000 to 5047	3900	2675	1200	....

Ratings shown for nominal class DP-3 through 11 are applicable to 3-unit engines. To determine rating of engine with less than 3 units, divide published rating by 3 and multiply by number of units comprising the engine.

Ratings shown for nominal class DF-1 through 12 are applicable to 4-unit engines. To determine rating of engine with less than 4 units, divide published rating by 4 and multiply by number of units comprising the engine.

①Applies to engines 3203, 3224, 3227, 3236, 3247 and 3251 only.

UNLESS AUTHORIZED BY SUPERINTENDENT, ENGINES WILL NOT BE PERMITTED TO OPERATE IN THOSE TERRITORIES WHERE NO RATING IS SHOWN IN ENGINE RATING TABLE.