

**Northwestern District**

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**Oregon Division**

**Special  
Instructions  
No. 16**

**Effective Friday,  
September 1, 1961**

Superseding Special Instructions No. 15

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Employees whose duties are in any way affected  
thereby, must have a copy of these instructions  
with them while on duty.

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**D. F. WENGERT,  
General Manager**

**G. H. BAKER,  
Superintendent**

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*NOTE: Changes in this issue are printed in type same as this.*



## SPECIAL INSTRUCTIONS—ALL SUBDIVISIONS

*Note.—Referring to note on page 14 of Consolidated Code of Operating Rules: The term "conductor" as used in Operating Rules, special instructions and superintendent's bulletins and notices also applies to engine herders.*

### Railroad Watches

2 (R). Employees listed below and other employees as may be designated, are not subject to Operating Rule 2, but they must, while on duty, have a reliable railroad grade watch\* which must not vary more than 30 seconds from correct time:

- (\*A railroad grade watch is one equipped with a lever set.)
- Assistant Superintendents of Safety and Courtesy
- Terminal Superintendents
- Trainmasters
- Assistant Terminal Supts.
- Road Foremen of Engines
- †Station Agents
- †Operators
- Outside Hostler Helpers

(†Except when assigned in offices where standard clock is located.)

2 (S). Train dispatchers need not use watch required by Rule 2 of Consolidated Code of Operating Rules when assigned in an office where there is a standard clock. Train Dispatchers, Station Agents and Operators assigned in offices where there is a standard clock must not wear wrist watch while on duty.

2 (T). At stations where there is no standard clock, operators must compare time with the train dispatcher as soon as practicable after commencing each day's work, but before making time comparisons with other employees.

### Signals

7 (R). Employees on trains and engines which operate in territory where they are governed by the rules of another railroad, must provide themselves with necessary signal equipment to fully comply with such rules.

7 (S). When starting trains with diesel helper on rear end of train, trainmen will be stationed in a position to relay signals to start from head end to crew on helper engine.

When it is not possible to relay signals, the following method will be used:

When ready to move, engineer on head end will make a 15-pound automatic brake pipe reduction, return brake valve to running position and wait three minutes. Engineer on helper engine will start three minutes after his gauge shows brake pipe pressure being restored.

8 (R). Yellow flags by day and yellow lights by night will be used by switchtenders and herders.

Proceed signals as well as stop signals given by switchtenders must be answered.

8 (S). Electric lanterns may be used by switchtenders, herders and operators for displaying yellow lights.

### Reduce and Resume Speed Signs

10 (R). Reduced Speed sign showing by figures the maximum speed permitted, placed on engineer's side of track, indicates that the track 2500 feet distant is in condition for a speed of not more than indicated by the sign. Example: 60-40-25 will indicate maximum speed of 60 MPH for streamline trains, 40 MPH for other passenger trains, 25 MPH for freight trains.

Resume Speed sign placed on engineer's side of track, indicates that the Reduce Speed location has been passed.

The entire train must pass over the designated location at the specified speed.

Such speed restrictions will also be shown in time-table or superintendent's bulletin.

### Engine Whistle Signals

14 (R). In addition to locations listed in Operating Rule 14 (1), engine whistle must be sounded and bell rung approaching private crossings when view of crossing is obscured or when it can be seen that persons or vehicles are approaching or in the vicinity of the crossing.

### Headlights

17 (R). In territory where there is no joint operation with

another railroad, Rule 17 (C) of the Consolidated Code of Operating Rules is modified to read:

"Oscillating white headlight on engines so equipped must be displayed by night while passing through cities and towns and while approaching and passing over public crossings at grade."

### Markers and Rear End Lights

19 (R). On portions of the division where there is no joint operation of trains with another company, in complying with Operating Rule 19 (A) at night when a red light is not available, a marker lamp must be securely fastened to rear end of rear car so as to display red light to rear.

19 (S). Except between Portland and Seattle, where rear car of a passenger train is equipped with an oscillating red rear end light on which an auxiliary marker is mounted, markers need not be displayed as required by Operating Rules 19, D-19, 19 (A) and 19 (B). When such train is clear of main track at night and rear end protection is not required, the red rear end light must be extinguished and the auxiliary marker must display green light to rear. Rear trainman is responsible for proper display of the auxiliary marker as well as the rear end light.

19 (T). Red reflectorized disc with hinged cover now being applied to cabooses and car body type units is for emergency use only and must be concealed except under following conditions:

On cabooses so equipped, when electric markers fail at night, and on units so equipped when rules require display of markers and marker lamps are not available, red reflectorized disc must be displayed to rear when train is on main track. When train is clear of main track, except in CTC territory, red reflectorized disc must be concealed.

When red reflectorized disc is displayed, red light prescribed by Rule 19 (A) need not be displayed.

These instructions apply only on lines operated by the Union Pacific.

### Conditional Stops

28 (R). A white signal will be used to stop designated trains at conditional stops shown in time-table.

### Flag Protection

99 (R). In moving from siding or other track to a main track, except in yard limits or in CTC territory, a trainman must be at rear of train, and where conditions require, protection must be provided as prescribed by Rule 99.

99 (S). Maintenance of Way Rule 99 (F), the first paragraph of which has been revised, now reads as follows:

"99 (F). When an employe alone, finds track or bridge unsafe for trains at normal speed, he must immediately place a red flag by day or a red light by night between the rails of the track, or on the engineer's side of the track, in both directions one-eighth mile (600 feet) from the point of obstruction. After red signals are placed, he must go in one direction and place two torpedoes on rail one-half mile from red signal and an additional set of two torpedoes one and one-half miles from red signal, then place torpedoes in same manner in opposite direction. When signals have been placed, flagman must return to point of obstruction, where he must remain until relieved by another flagman, except that if a train approaches he must go toward it and flag it with hand signals.

"During foggy or stormy weather and in vicinity of obscured curves or heavy descending grades, or if other conditions make it necessary, he must increase the distance, placing two torpedoes at every one-fourth mile beyond the second set of torpedoes.

"On single track, or if more than one track is obstructed on double track, he must go first in the direction from which the first train is expected and, in addition, in case more than one track is obstructed, he must place signals in same manner on all tracks obstructed. On a heavy grade, if it is not known from which direction a train is first expected, he must place signals first against trains moving down grade.

"On double track, if only one track is obstructed, he must go first against the current of traffic unless he has information that a train will arrive first from the opposite direction.

(Continued on Page 3.)

99 (S) Continued.

"If defect in track or bridge is such that it is considered safe for train to proceed from the red signals when preceded by a flagman, section foreman may attach written information to the red signals, reading: 'Train may proceed when preceded by a flagman, but must move at restricted speed.'"

### Public Crossings

103 (R). At public crossings protected by automatic crossing signals, bells or gates, when a train, engine, or switching movement has been delayed or stopped within 1500 feet of such crossing, any further movement, either forward or reverse, toward the crossing must be made at restricted speed until it is determined that the crossing signals are operating for sufficient time to stop highway traffic. In case the crossing signals are not operating for the movement, crossing must be protected by a member of the crew, unless a crossing watchman is on duty.

When a train, engine or switching movement is to be made against the normal current of traffic over a public crossing protected by automatic crossing signals, bells or gates, a member of the crew must protect the crossing, unless a crossing watchman is on duty.

### Riding Leading End of Engines

103 (S). Unless otherwise provided, in switching, when there are no cars ahead of the engine, a trainman (and not more than one) must ride on leading platform or side steps of engine in direction the engine is moving.

EXCEPTION: Trainman need not ride on front of diesel switch engine as required by this rule under the following conditions:

When the switches to be passed over can be plainly seen to be properly lined;

Where the movement is over a public crossing protected by a crossing watchman.

### Switches

104 (R). Except where otherwise specified, No. 14 turnouts are installed at all dual control switches in CTC territory.

104 (S). For movement through a spring switch where engine does not precede the cars, switch must be operated by hand.

### Train Order Signals

200 (R). Unless otherwise provided, when train order signal indicates "Stop" (Rule 200A), trains must stop for orders unless clearance is received.

200 (S). Lights will not be kept burning at night in train order signals on branches when operators are not on duty, and trains must be governed by the day indication of such signals.

### Train Orders

208 (R). Except at initial stations, when a train's superiority is restricted for an opposing train at the point where the order is issued to it, the order must not be made complete to the train which is being advanced until the operator has placed two torpedoes on the rail not less than 1000 feet from the train order signal in the direction of the restricted train, and the train dispatcher has been notified that torpedoes have been placed. In addition, the restricted train must be brought to a stop by operator, using red flag or red fusee, before the train dispatcher OK's the clearance.

209 (R). Operators must not typewrite Union Pacific train orders.


### General Description of Signals

On the Union Pacific, the home arm of semaphore signal is red with a square end; the home block signal arm has a white stripe, the home interlocking arm has no stripe. The approach arm of a semaphore signal is yellow with forked end and for both block and interlocking has a black stripe. All color light signals are home signals.

Stop signals in CTC territory are marked by a plate bearing the letter "A."

Unless otherwise indicated, where two or more home signals are located on the same mast, the upper signal will govern main route and the lower signal or signals will govern diverging route or routes.

240 (R). Slide Warning Indicator

Rule	ASPECT
240-R	<p><b>SLIDE WARNING INDICATOR</b> (To apply to trains governed by fixed signal to which connected)</p>  <p><b>ILLUMINATED</b></p>

### NAME OF INDICATION — SLIDE WARNING

When block signal indicates Stop (Rule 240-A) and illuminated "F" is displayed on slide warning indicator, train or engine may, after stopping, proceed at restricted speed to next signal without sending flagman ahead, but keeping close lookout for rocks or other obstructions, broken, bent or damaged rail.

### Use of Sand

247 (R). In moving over CTC, dual control, remote or spring switches, to avoid depositing heavy accumulation of sand on rail, automatic sanding device must be nullified passing fouling point. When tonnage and gradient requires use of sand to avoid slipping, hand sanders may be used.

### Centralized Traffic Control System

267 (R). Where movement is entirely in CTC territory, trains need not receive Clearance Form A.

A train or engine must not enter CTC territory unless authorized by Clearance Form B or Form C except for yard movements. Clearance Form C must be received to authorize track and time limits in accordance with Operating Rule 271. Clearance Form C must also be received to authorize a train or engine to proceed from a Stop indication as provided in Operating Rule 269 except when movement is leaving main track or leaving CTC territory or for movement entirely within yard limits.

269 (R). In CTC territory, when flagging from a Stop signal in accordance with Rule 269, train or engine must not pass next point of communication except on signal indication or further authority from control operator.

275 (R). After passing a signal governing movement over a dual control switch, if train or engine stops before entire movement has passed next opposing signal and it is necessary to make a reverse movement, a member of the crew must so advise dispatcher.

Dispatcher must block switch and signal levers and must not change position of the switch, clear a signal for a conflicting movement, or remove marker blocks until he has been advised verbally by a member of the crew that his train has backed clear of the insulated joints at the signal.

After having made reverse movement under these circumstances, no forward movement may be made except on signal indication or as provided by Rule 275.

275 (S). When necessary to perform switching over dual control switch as provided in Operating Rule 275 (A), first move, when possible, must be made on signal indication.

275 (T). When communication fails and it is necessary to band operate remote control or dual control switches, protection must be afforded in both directions when required, and switch must not be operated until three minutes after selector lever has been placed in HAND position.



**AUTOMATIC CAB SIGNAL SYSTEM RULES**

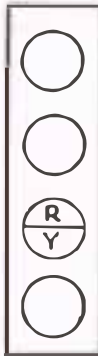
Note.—Automatic Cab Signal System Rules will be used only in ACS territory specified in the time-table or in special instructions.

**Aspects**

Note—In the following illustrations:

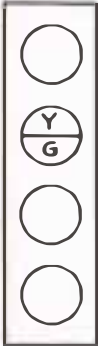
- R—Red
- Y—Yellow
- G—Green

451. Name—Restricting.



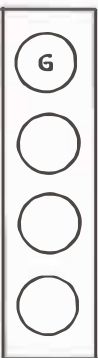
Indication—Proceed at restricted speed.

452. Name—Advance Approach.



Indication—Proceed prepared to pass next signal at not exceeding 40 miles per hour.

453. Name—Clear.



Indication—Proceed.

**Rules**

454. Automatic Cab Signal System supplements automatic block signals in governing the use of blocks, but does not supersede the superiority of trains, nor dispense with the observance of rules governing the use of automatic block or other signals and rules whenever and wherever they may be required, except as prescribed by Rule 456.

455. When cab signal indication changes to a more restrictive indication, engineer must acknowledge with acknowledging device.

456. When a train is proceeding after having been stopped by a block signal, if cab signal changes to a less restrictive indication, train may proceed in accordance with indication received after it has moved its length beyond point where cab signal changed.

Exception: Rule 456 does not apply when proceeding after having been stopped by a flashing red light on a block signal.

456 (R). Automatic Cab Signal Rule 456 does not apply when a train is proceeding after having been stopped by a block signal governing movement through a block in which slide warning detector fences are located. In such case, movement through the entire block must be made at restricted speed regardless of the fact that the cab signal changes to a less restrictive indication.

457. When cab signal indication does not correspond with block signal indication, engineer must be governed by the most restrictive indication displayed by either signal, and must report the fact to train dispatcher from first available point of communication, giving signal number and engine number.

When cab signal indication does not correspond with block signal indication for two consecutive blocks, cab signal may be considered inoperative. If previous advice has been received from train dispatcher or by bulletin of inoperative cab signal within designated limits, train must proceed within those limits in accordance with second and third paragraphs of Rule 458.

458. When a cab signal device becomes inoperative, train may proceed in accordance with block signal indications but not exceeding 40 miles per hour to the next available point of communication where report must be made to train dispatcher, who will instruct as to cutting out cab signal devices and further movement of train.

When cab signal devices have been cut out, train may proceed in accordance with block signal indications but not exceeding 79 miles per hour and as much slower as rules or conditions require.

While so proceeding, if train encounters a block signal displaying Stop or Stop-and-Proceed indication, or light not burning on a block signal, train must stop. After stopping, train must wait for change of signal indication and if the signal does not change to a less restrictive indication within three minutes, it may be assumed that the block signal is inoperative and the train may proceed complying with the block signal indication.

459. When necessary to use a non-equipped engine on a passenger train, movement must be same as with engine with inoperative cab signal in accordance with second and third paragraphs of Rule 458.

460. When equipped engines are double-headed, all but leading engine must have cab signal devices cut out.

461. When engineer takes charge of an equipped engine in cab signal territory or enters cab signal territory, he must know that cab signal devices are cut in.

Operative tests must be made by engineer before entering cab signal territory.

462. Cab signal devices must not be cut out while in cab signal territory without authority.

On an equipped engine with three-position acknowledging device, use of cut-out position is prohibited when operating within cab signal territory, except when authorized.

When seals on cab signal devices are broken, or found broken or missing, report must be made promptly.

463. Cab signals will not indicate conditions ahead when the engine is:

- (a) Moving against the current of traffic.
- (b) Pushing cars.
- (c) Not equipped for backward running and is running backward.

464. If the cab warning whistle sounds longer than 6 seconds, the fireman, or a trainman in the cab, must go to the engineer immediately and ascertain cause, and when conditions require, must take immediate action to stop train.

465. If cab signal whistle fails to sound when cab signal changes to a more restrictive indication, Rule 458 must be complied with.

**Block Signals**

509 (R). Referring to Operating Rule 509: Where lower quadrant semaphore type signals are in service,

(Continued on page 5.)

509 (R) Continued.

when a train is stopped by a Stop indication, flagman must be sent ahead unless track ahead is seen to be clear through to the next Clear signal. Train or engine must wait ten minutes after a flagman has started and may then proceed at restricted speed following flagman to the next Clear signal.

Flagman may be picked up if a point is reached from which track ahead can be seen to be clear through to the next Clear signal.

509 (S). Where lower quadrant semaphore type signals are in service, a train or engine proceeding under the provisions of Operating Rule S-509 must proceed at restricted speed to the next Clear signal.

509 (T). When a slide warning device plug is found pulled or controller operated but no obstruction on or damage to track is found, the plug must be replaced, if practicable, or controller reset by depressing "Re-set" button, and conductor must make report to train dispatcher from first stop or first open telegraph office.

510 (R). If a block signal fails to display its most restrictive indication when a block is occupied or when a switch connected with automatic block signal system is changed from its normal position, it must be regarded as displaying a Stop indication. A member of the crew must be left at signal and he must stop all trains moving in the direction governed by that signal and inform them of false-clear indication. Flagman must remain there until relieved by an employe of Signal Department or by instructions from proper officer.

A train or engine with no brakeman must place a red flag in center of track opposite the signal; then in both directions place two torpedoes one-half mile from red signal and two torpedoes one and one-half miles from red signal.

In all cases, train dispatcher must be notified from first available point of communication.

512 (R). Trainmen must observe indication displayed by track occupancy indicators before changing derail or main track switch.

A switch must not be opened to permit a movement to a main track when Occupied indication is displayed, unless the movement is properly protected.

Indication displayed by track occupancy indicator is not authority for a train or engine movement.

514 (R). In complying with Operating Rule 514, on single track, outside of yard limits, a flagman must be sent ahead unless track is seen to be clear to next signal and that signal is displaying Clear indication.

611 (R). At interlocking stations where there is also a train order signal, train order signal must indicate Stop until after interlocking signal has been changed to permit a train to proceed.

663 (R). In complying with last paragraph of Rule 663, movement must be made as prescribed by Rule 509 on single track or as prescribed by Rule 240-B on double track.

**Actions While on Duty**

702 (R). Employes must not sleep while on duty.

**Passengers on Freight Trains**

711 (R). The following passengers only may be carried on freight trains between stations at which the trains stop:

Persons in charge of live stock or other freight when provided with proper transportation;

Employes of Union Pacific Railroad with annual pass when traveling on company business requiring use of freight trains;

Other persons with annual or trip pass only when endorsed "Good on Freight Trains";

Passengers holding revenue tickets with permit issued by superintendent.

Agents and conductors must notify passengers, stockmen, messengers and caretakers that they must ride in the place provided for them, and must not get on or off caboose, drover cars or other cars while train is in motion, and that in all cases the train will be stopped at designated points for this purpose.

**Exchanging Signals and Inspection of Trains**

713 (R). Where Operating Rule 713 or Special Instructions requires a trainman to be stationed on rear of train in position to give or receive signals, on freight trains he must be on rear plat-

form of caboose; on passenger trains, including streamline trains, he must be on rear platform or in rear door, or if rear car is a business, dining or observation car, he must be on front platform of rear car or rear platform of car next ahead, and top half of vestibule door must be open.

713 (S). When stop is made by a passenger train due to some condition affecting the equipment of that train, a thorough inspection of the train must be made before proceeding.

713 (T). Leaving designated inspection points, a trainman must be at head end of train and make careful inspection of train as it pulls by, giving particular attention to brake equipment.

In addition to a thorough inspection of freight trains at all designated inspection points, such walking and roll-by inspection as time will permit must be made at all stops. Walking inspection will continue until entire train is inspected or until movement starts.

713 (U). In complying with the third paragraph of Operating Rule 713 (C), when starting from initial station and intermediate stops, freight trains must not exceed a speed of 6 MPH for the first train length or until proceed signal is received from trainman.

713 (V). On freight car wheels, flat spots two and one-half inches or longer, or if there are two or more adjoining spots each two inches or longer, on passenger cars one inch or longer, and on turbine or diesel locomotives two inches or longer, are condemnable and when discovered in train, conductor or engineer must immediately report to train dispatcher and be governed by his instructions.

713 (W). As soon as hot box is detected, train must be stopped and no attempt made to run to next siding to set out car without making an inspection before proceeding.

When a car is set out account hot box, all fire in box must be extinguished. Dirt, gravel or snow must be placed on top of box at back end over top of dust guard retainer opening. If dry chemical fire extinguisher available, contents of one bag should be thrown into journal box and lid closed until fire extinguished, after which all packing must be removed from waste packed box and any remaining fire therein extinguished. Pad lubricator must be removed when practicable. Journal box lid must be left closed. Conductor must make thorough inspection of car body before and after attention is given to hot box to insure there is no further danger of fire.

**High and Wide Cars**

714 (X). Trains handling cars or loads of excess height or in excess of 12 feet in width must keep close lookout for close clearances and where overhead or side clearance is doubtful, movement must be stopped and adequate protection provided.

Cars of excess height, as per stencil or placard, must not be switched with except in placing them in and taking them out of trains. In switching movements such cars must not be cut off while in motion, but must be shoved to a stop. No one will be permitted to ride on top of such cars.

Loads of excess width must not be stored on nor moved over yard tracks where clearance is insufficient, unless there is an intervening track between trains or cars containing loads of excess width. No one will be permitted to ride on the side of such cars.

Unless otherwise instructed, cars of excess width or height must be handled in head end of train.

Trains handling wide loads must obtain meeting or passing order with other trains handling wide loads at stations where they will have a track between them.

When a train which is handling a wide load is notified by train order of another train handling a wide load, the train dispatcher must be notified so that meeting or passing point can be arranged.

Crews of trains receiving notice of wide load in other trains must inspect their train for open or swinging doors or anything projecting beyond normal clearance.

**Fire Prevention**

726 (R). Cars loaded with explosives or flammable commodities must not be permitted to stand over open flame switch heater. If stop is made with such cars standing over open flame heater, flame must be extinguished.

726 (S). Cabs, outfit cars or other cars which contain stoves with fire burning, must be placed in yards or at stations where the danger of fire is minimized to the greatest extent practicable. Such cars must not be left unattended on bridges for extended periods of time.



#### Handling of Explosives or Other Dangerous Articles

727 (R). Trainmen, enginemen, yardmen, agents and other employees who in any way handle or care for explosives and other dangerous articles must familiarize themselves with the regulations and instructions governing the handling of them.

#### Placards on Cars

BE 589 (b). A car requiring car certificates and "Explosives," "Dangerous," "Dangerous-Radioactive Material," "Poison Gas," "Flammable Poison Gas," "Dangerous-Empty Flammable Poison Gas," or "Caution-Residual Phosphorus" placards under the provisions of this part shall not be transported unless such freight car is at all times placarded and certificated as required. Placards and car certificates lost in transit shall be replaced at next inspection point and those not required shall be removed at the next terminal where the train is classified.

BE 589 (b). (1) At points where trains are inspected, cars placarded "Explosives" and adjacent cars shall be inspected; such cars shall continue in movement only when inspection shows them to be in condition for safe transportation.

#### Switching Cars Containing Explosives, Poison Gas, or Flammable Poison Gas or Placarded Trailers on Flat Cars

BE 589 (c). A car placarded "Explosives," "Poison Gas," or "Flammable Poison Gas," or any flat car carrying a trailer placarded "Explosives," "Poison Gas," "Dangerous," or "Dangerous-Radioactive Material" shall not be cut off while in motion. No car moving under its own momentum shall be allowed to strike any car placarded "Explosives," "Poison Gas," or "Flammable Poison Gas," or any flat car carrying a trailer placarded "Explosives," "Poison Gas," "Dangerous," or "Dangerous-Radioactive Material," nor shall any such car be coupled into with more force than is necessary to complete the coupling.

BE 589 (c). (1) When transporting a car placarded "Explosives" in terminals, yards, side tracks, or sidings, such cars shall be separated from the engine by at least one non-placarded car.

BE 589 (c). (2) Closed cars placarded "Explosives" shall have doors closed before they are moved.

#### Switching of Cars Containing Dangerous Articles

BE 589 (d) In switching operations where use of hand brakes is necessary, a placarded loaded tank car, or a draft which includes a placarded loaded tank car shall not be cut off until the preceding car or cars clear the ladder track and the draft containing the placarded loaded tank car, or a placarded loaded tank car shall in turn clear the ladder before another car is allowed to follow.

BE 589 (d). (1) In switching operations where hand brakes are used, it shall be determined by trial that a car placarded "Dangerous" or that a car occupied by a rider in a draft containing a car placarded "Dangerous" has its hand brakes in proper working condition before it is cut off.

#### Placement of Freight Cars Containing Explosives, in Yards, on Sidings, or Sidetracks

BE 589 (e). Cars placarded "Explosives" shall be so placed that they will be safe from all probable danger of fire. Freight cars placarded "Explosives" shall not be placed under bridges or overhead highway crossings nor in or alongside of passenger sheds or stations except for loading or unloading purposes.

#### Notice to Crews of Cars Containing Explosives in Freight Trains or Mixed Trains

BE 589 (f). At all terminals or other places where trains are made up by crews other than road crew accompanying the out-bound movement of cars, the railroad shall execute a consecutively numbered notice showing the location in the freight train or mixed train of every car placarded "Explosives." A copy of such notice shall be delivered to the train and engine crew and a copy thereof showing delivery to the train and engine crew shall be kept on file by the railroad at each point where such notice is given. At points where train or engine crews are changed, the notice shall be transferred from crew to crew.

#### Position in Freight Train or Mixed Train of Cars Containing Explosives

BE 589 (g). In a freight train or a mixed train either standing or during transportation thereof, a car placarded "Explosives" shall, when length of train permits, be placed not nearer

than the sixteenth car from both the engine or occupied caboose, except:

(1) When the length of freight train or mixed train will not permit it to be so placed, it shall be placed near the middle of the train.

(2) When transported in a freight train made up in "blocks" or classifications, a car placarded "Explosives" shall be placed near the middle of the "block" or classification in which moving, but not nearer than the sixth car from both the engine or occupied caboose.

(3) When transported in a freight train or a mixed train performing pickup and/or setoff service, it shall be placed not nearer than the second car from both the engine or occupied caboose, except as provided in paragraph (1) of this section.

#### Separating Cars Placarded "Explosives" From Other Cars in Train

BE 589 (h). In a freight train or a mixed train either standing or during transportation thereof, a car placarded "Explosives" must not be handled next to:

1. Occupied passenger car; except as provided in paragraph (1) of this section.
2. Occupied combination car; except as provided in paragraph (1) of this section.
3. Any car placarded "Dangerous" or "Dangerous-Radioactive Material."
4. Engine.
5. Any car placarded "Poison Gas" or "Flammable Poison Gas."
6. Wooden under frame car (except on narrow gauge railroads).
7. Loaded flat car, except that cars carrying trailers or containers placarded "EXPLOSIVES" as authorized by the regulation in this chapter may be coupled to each other. (Note: Flat cars equipped with permanently attached ends of rigid construction shall be considered as open-top cars. See subparagraph (8) of this paragraph.)
8. Open-top car when any of the lading protrudes beyond the car ends or when any of the lading extending above the car ends is liable to shift so as to protrude beyond the car ends.
9. Car equipped with automatic refrigeration or any other apparatus utilizing an open-flame light or an internal combustion engine in its operation.
10. Car containing lighted heaters, stoves or lanterns.
11. Car loaded with live animals or fowl, occupied by an attendant.
12. Occupied caboose except as provided in paragraph (1) of this section.

#### Position in Train of Loaded Placarded Tank Car

BE 589 (i). In a freight train or a mixed train, except a train consisting entirely of placarded loaded tank cars and as provided in paragraph (j) of this section, a placarded loaded tank car shall when the length of the train permits, be not nearer than the sixth car from the engine, occupied caboose or passenger car.

BE 589 (i) (1) When the length of the freight train or mixed train will not permit it to be so placed, it shall be not nearer than the second car from the engine, occupied caboose or passenger car.

BE 589 (i). (2) When transported in a freight train engaged in "pickup" or "setoff" service, a placarded loaded tank car shall be not nearer than the second car from both engine or occupied caboose.

#### Separating Loaded Tank Cars Placarded "Dangerous" From Other Cars in Train

BE 589 (j) In a freight train or mixed train either standing or during transportation thereof, a placarded loaded tank car must not be handled next to:

1. Occupied passenger car, other than cars occupied by gas handlers and authorized personnel accompanying shipment.
2. Occupied combination car, other than cars occupied by gas handlers and authorized personnel accompanying shipment.
3. Any car placarded "Explosives."
4. Engine or occupied caboose, (except when train consists only of placarded loaded tank cars).

(Continued on Page 7.)

#### 727 (R) Continued.

5. Any car placarded "Poison Gas" or "Flammable Poison Gas."
6. Wooden under-frame car (except on narrow gauge railroads).
7. Loaded flat car, other than specially equipped cars in trailer-on-flat-car service or flat cars loaded with trucks or trailer bodies which are secured by means of a device designed and permanently installed for that purpose and of a type generally accepted for handling in interchange between railroads. (Note: Flat cars equipped with permanently attached ends of rigid construction shall be considered as open-top cars. See subparagraph (8) of this paragraph.)
8. Open-top car when any of the lading protrudes beyond the car ends or when any of the lading extending above the car ends is liable to shift so as to protrude beyond the car ends.
9. Car equipped with automatic refrigeration or any other apparatus utilizing an open-flame light or an internal combustion engine in its operation.
10. Car containing lighted heaters, stoves, or lanterns, except when occupied by gas handlers or authorized personnel accompanying shipment.
11. Car loaded with live animals or fowl, occupied by an attendant.

#### Position in Freight Train or Mixed Train of Cars Placarded "Poison Gas," "Flammable Poison Gas," or Containing Poison Liquids, Class A.

BE 589 (l). In a freight train or mixed train either standing or during transportation thereof, a car placarded "Poison Gas," "Flammable Poison Gas" or containing poison liquids, class A, shall not be next to other freight cars placarded "Explosives" or cars placarded "Dangerous."

#### Position in Freight Train or Mixed Train of Cars Placarded "Explosives" or "Poison Gas" or Both, and Cars Placarded "Flammable Poison Gas" When Accompanied by Cars Carrying Guards or Gas Handling Crews

BE 589 (l). A car requiring "Explosives" or "Poison Gas" placards, or both, and a car requiring "Flammable Poison Gas" placards, shall be next to and ahead of the car occupied by the guards or gas handling crews accompanying such car; except that when the car occupied by guards or gas handling crews is equipped with a lighted heater or stove it shall be the fourth car behind a car or cars requiring "Explosives" placards.

#### Cars Containing Explosives, Poison Gas, or Flammable Poison Gas and Tank Cars Placarded "Dangerous" in Passenger or Mixed Trains

BE 589 (m). Except as provided in Operating Rule 727, cars containing explosives, class A, poison gases or liquids, class A, or flammable poison gas, and tank car requiring "Dangerous" placards shall not be transported in a passenger train. Such cars may be transported in mixed trains but only at such times and between such points that freight train service is not in operation.

BE 589 (m) (1). Cars containing explosives, class A, poison gases or liquids, class A, or flammable poison gas, and tank cars placarded "Dangerous" shall not be transported next to occupied cabooses or cars carrying passengers in mixed trains, except as provided in paragraph (1) of this section.

BE 589 (m). (2) When a car containing explosives, Class B, or dangerous articles other than explosives requiring labels (not including Class A poison gases or liquids) is moved in a mixed train and such car is not occupied by an employe of the carrier, placards must be applied to the car as required by this part.

#### Position in Train of Cars Containing Class D Poison

BE 589 (n). In a freight train or mixed train either standing or during transportation thereof, a car placarded "Dangerous-Radioactive Material" must not be handled next to cars placarded "Explosives" or next to carload shipments of undeveloped film.

#### Empty Tank Cars

Empty tank cars must not be moved from stations unless dome cover and all outlet caps have been replaced and wrenched tight, shipping tags and cards removed from car and "Dangerous" placards removed or replaced by "Dangerous-Empty" placards.

#### Power Transmission Wires

734 (R). Power transmission wires carrying 2300 volt circuit are located on top arms of signal pole lines and on top arms of joint telegraph and signal pole lines.

#### Helper Engines

741 (R). Helper engine on passenger train must be coupled ahead of road engine. Passenger trains must not be pushed from the rear except in case of emergency or other unusual circumstances and then for no greater distance than is necessary.

On freight trains when not used on head end of train, helper engine consisting of not more than three units must be cut in ahead of caboose and when train includes cars designated in Special Instructions 806 (R), helper engine must be cut in ahead of them.

Helper engine consisting of more than three units must be cut in ahead of the tonnage for all units in excess of three units. When necessary to use second helper engine, helper engine consisting of the larger number of units must be cut in ahead of the tonnage of the rear helper.

#### Handling Derricks

805 (R). When handling derrick 900309 there must be at least five cars between derrick and locomotive, or between derrick and any car weighing more than 240,000 pounds gross.

#### Position of Cars in Trains

806 (R). Cars designated below must be handled in rear of train and next to caboose in the order named:

- Drover cars, occupied or unoccupied;
- Wooden underframe cars;
- Scale test cars;
- Any car unsafe to be handled in head end of train;
- Cars with emergency couplers;
- Cars tagged "Handle Only at Rear End of Train."

806 (S). Does not apply on Fifth Subdivision. See Special Instructions 1039 (R) page 18.

Except on Train No. 126, flat cars 65 feet or more in length used in rail trailer service, loaded or empty, must be entrained in rear of train but ahead of cars listed in Special Instruction 806 (R). When helper engine is used at rear of train, helper must be cut in ahead of such flat cars.

806 (T). Snow plows handled in freight trains must be placed behind caboose and must have air brakes operative and must be securely chained to caboose, except when equipped with drawbar at both ends, they may be handled ahead of caboose.

806 (U). Open top cars containing pumice, earth, chips, sand, slack coal or other commodities that will blow off cars, should be entrained not less than ten cars, number of cars permitting, ahead of caboose, to avoid this material flying and obstructing view of train or causing injuries. In addition, cars containing any of the above commodities should be separated by three cars, number of cars permitting, to avoid the various commodities contaminating each other; and not less than three cars, number of cars permitting, ahead of open top cars containing machinery.

806 (V). Where movement is entirely over the lines of the Union Pacific Railroad, outfit cars may be handled in head end of train.

Car must be exercised to insure that outfit cars which are stencilled or tagged for handling only on rear of train, or which under other provisions of Special Instructions 806 (R) must be handled at rear of train, are so handled.

806 (W) Restrictions contained in Operating Rule 806 (A) prohibiting handling of open top cars loaded with certain types of lading next to engine or caboose do not apply to trailers on flat cars.

#### Diesel Units Dead in Train

806 (X). Foreign line, government, export or commercial diesel units, Union Pacific yard-switcher units of any type or Union Pacific road-switcher units of Alco, Baldwin or Fairbanks-Morse type, to be moved dead in train must be separated from each other and from the engine by not less than five cars and must be entrained not more than 30 cars behind the control unit. Waybill instructions must be carefully checked and unless modified in writing must be complied with. In the absence of instructions relative to speed, a speed of 35 MPH must not be exceeded with yard-switcher, or 45 MPH with road-switcher type units dead in train.



### Cars Partly Loaded or Unloaded

810 (R). All persons are prohibited from riding in cars while being switched, which are in the process of being loaded or unloaded. Part loads will not be switched unless properly broken down or properly braced to prevent contents falling and being damaged. Before switching with or moving cars which are in the process of loading or unloading, persons working in or about the cars must be notified and trainmen and yardmen must see that cars are not switched with until cars are vacated. When such cars are moved, they must be returned to their former location unless otherwise directed.

### Movements on Leads and Yard Tracks

810 (S). In terminal yards, road engines, trains and yard movements approaching leads, must stop before fouling lead unless it is known that switches are properly lined and lead is clear.

Before a train starts out of yard track, brakeman will precede the movement to a point where it is known route is clear.

### Switching Cars

810 (T). Extreme care must be used in coupling to flat cars containing rail trailers or open top cars loaded with motor vehicles. They must not be switched with unnecessarily. In switching operations such cars must not be cut off while in motion and allowed to strike other cars, nor may other cars be cut off while in motion and allowed to strike such cars.

Running switches must not be made with flat cars containing rail trailers or open top cars loaded with motor vehicles.

### Securing Cars

813 (R). Each passenger unit with control cab is provided with two chain wheel blocks for emergency use.

When necessary to set out a car or a unit from a passenger train between terminals, in addition to applying hand brakes as required by the rules, wheels must be blocked using these chain wheel blocks.

### Track Scales

821 (R.) Engines must not be moved over live rails of track scales and when moved over dead rails of track scales, a speed of 6 MPH must not be exceeded.

Sanders must not be used over track scales and engines or cars must not stand on dead rail over scale deck or platform of track scales.

Cars to be weighed must be stopped on scales and uncoupled at both ends while being weighed, except on scales equipped with automatic weighing device.

Cars must not be violently stopped by impact, sudden application of brakes or by blocking wheels. After cars are weighed, they must not be moved over live rails if possible to avoid it. When making impact with cars on scales, speed must not exceed 2 MPH and 4 MPH must not be exceeded over scales in any case.

Cars on live rail must not be moved by other cars or engines moving on dead rail, or vice versa. Cars must not be moved over scale with one truck on live rail and other truck on dead rail.

### Handling Caboosees

822 (R). Caboose track switches must be kept lined and locked for running lead, except when moving in or out of caboose tracks. Extreme care must be used in coupling to cabooses and in switching with them and they must not be switched with unnecessarily. Cabooses must not be cut off train while in motion and in switching operations must not be cut off while in motion and allowed to strike other cars, nor may other cars be cut off while in motion and allowed to strike a caboose.

Before coupling to caboose on caboose tracks, supply employes on or about cabooses must be warned.

### Coupling Passenger Cars

824 (R). When coupling an engine or cars to passenger equipment, coupling must be tested by stretching slack after coupling is made.

After coupling to cars standing on grade, slack must be stretched and it must be known that air brakes are fully charged before releasing hand brakes.

After coupling a tight lock coupler to any coupler, it must be seen that knuckle is securely locked in closed position.

When coupling other type coupler to tight lock coupler, knuckle on tight lock coupler must be closed and knuckle on other coupler must be open, to be closed by impact of car.

After cars are coupled, tight lock couplers must be inspected to see that tell-tale hole is visible just below bottom of coupler head and that knuckle is locked.

### Engine Service

920 (R). Referring to Operating Rule 920 and to Air Brake Rule 1001 (A):

At terminals where mechanical forces are employed, the Mechanical Department will be responsible for knowing, when an engine is set out for service, that it is in good working order and is adequately furnished with fuel, water, sand and other supplies, including flagging equipment and signal appliances. Enginemen will not be required to make inspection of engine at such points, except for inspecting and testing air brakes as required by Special Instruction 1001 (R).

Engine crews will leave roundhouse or designated track promptly when engine is available.

922 (R). Engineers must not permit any unauthorized person to handle the locomotive. The fireman, when competent, may handle the locomotive when in road freight service under the close supervision of the engineer, the engineer being responsible. The fireman must not be permitted to handle the locomotive in yard service or in road passenger service, except in case of emergency.

922 (S). Rear view mirror of engines so equipped must not be used for observing conditions or hand signals in making backup or switching movements or in making couplings.

### Leaving Locomotives Unattended

922 (T). Locomotive must not be left without a man in charge, except at designated places and under authorized conditions. Locomotives must not be left standing so they will block or foul adjacent tracks.

When locomotive coupled to cars is left unattended, hand brakes must be set on not less than ten cars, or on all cars in case locomotive is coupled to only ten cars or less.

When a diesel or turbine locomotive is left unattended, reverse handle must be placed in neutral position and handle removed, independent brake set in full application position, generator field switch pulled and hand brake set on each unit, and it must be known that there is the required brake cylinder pressure.

### Speedometers

928 (R). On locomotive equipped with speedometer, engineer must verify accuracy of speedometer not less than twice during each trip, by using watch to make time check between mile posts.

First check will be made at first opportunity after departure from point where engineer takes charge of locomotive. Care should be exercised to make check while speed is constant between mile posts, and, when possible, speed should be 30 MPH or over.

When check indicates speedometer is not registering correctly, wire report must be made to train dispatcher.

### Inspecting Locomotives

928 (S). When standing at inspection points, and when stopped in yards and at points between terminals where time will permit, engineers must get on ground and inspect both sides of their locomotive. This applies to both passenger and freight trains, and to any type of locomotive.

### Units in Multiple

928 (T). Diesel units operated in multiple intermixed with F-7 (1400), F-9 (500), GP-7 or GP-9 units must be positioned with an F-7 or GP-7, operating as control unit. Short time ratings of control unit must not be exceeded.

### Shutting Down Engines of Diesel Locomotives

929 (R). When diesel switch locomotive is to be idle in excess of 30 minutes, engine must be shut down. When diesel road locomotive is to be idle for one hour at initial or intermediate stations, engines must be shut down.

Exception: In such cases, engines must not be shut down when outside temperature is below 35 degrees.

When diesel engines are shut down at terminals when a heavy rain is falling, enginemen will call on mechanical forces for covers to be placed over exhaust stacks.

929 (S). When engines of diesel locomotive are shut down, or turbine and its auxiliary engine are shut down, air brakes must be fully applied and, in addition, front and rear of a traction

(Continued on page 9.)

### 929 (R) Continued.

wheel must be blocked, hand brake applied on each unit, and sufficient hand brakes must be applied throughout the train to prevent movement should air brakes leak off.

During freezing weather, when diesel engines are shut down, cooling water must be drained to winter level and, if necessary to prevent damage to engine, must be drained completely.

929 (T). When a diesel or turbine locomotive is stopped in a tunnel under conditions preventing prompt movement, engines must be promptly shut off.

Local conditions must be carefully considered, as there may be situations where the exhaust gases are being carried away from the train by air currents, or where proximity to tunnel opening would make it unnecessary to shut off these engines. Safety of passengers and members of the crew must be the first consideration.

### Diesel Locomotives

930 (R). Doors of high voltage cabinets must not be opened and adjustments must not be attempted nor made in high voltage cabinets of diesel locomotives until engine has first been isolated and stopped and units have come to a stop.

930 (S). When a locomotive consisting of two or more units is to be moved in yards, around enginehouses, or between stations without cars, if unit at each end is equipped with control cab, locomotive must be operated from leading unit in direction of movement unless the movement is protected by a trainman.

930 (T). When diesel units are operating with less than full complement of motors or when it is necessary to cut out one or more of the motors at any time enroute, train dispatcher must be notified at first stop or first open telegraph office.

930 (U). When necessary to break seals on equipment and control lockers on diesel road units, notation must be made on engineer's work report with explanation of necessity for breaking seals.

930 (V). On diesel and turbine locomotives in road service, not more than five men must ride in control cab.

Unauthorized persons, including deadhead train and engine men, must not occupy cab of trailing unit of diesel locomotive on any train.

930 (W). On diesel locomotives, side and end doors of engine rooms must be kept closed while the locomotives are moving.

930 (X). Care must be exercised to avoid excessive use of emergency electric heaters in cabs of diesel units so equipped. These electric heaters are provided to temporarily keep cabs warm in event of engine shutdown or failure, but their use will completely deplete the batteries in a matter of two hours or less, which would result in failure of all units. Enginemen should bear this in mind and not use these electric heaters excessively and deplete the batteries.

930 (Y). Under no circumstances shall a derailed locomotive be pulled back on the rails by its own power, as serious damage to the equipment may result if this is attempted.

### Track Restrictions

934 (R). Eighty-five-foot trailer flat cars must not be handled on curves of 16 degrees except as follows:

Where movement is authorized by an officer, these cars may be handled on curves of more than 16 degrees but not exceeding 20 degrees at speed not exceeding 4 miles per hour. A member of crew must watch movement closely, prepared to give stop signal if any indication of failure to safely negotiate the curve. Particular attention must be given to lateral movement of coupler, as critical point of movement on curve develops when coupler approaches maximum lateral movement permitted by coupler opening.

Overhang at end of these cars is greater than on other cars and clearances must be watched closely when handling on curves in excess of 16 degrees.

934 (S). Pile driver 900321 weighing 222,200 pounds, may be handled on all branch lines except between Hooper Jct. and Connell on Connell Branch.

When handling pile driver 900321, or a car weighing 200,000 pounds gross over Bridge 17.23 at Riparia, there must be at least four cars between such car or pile driver and engine or between such car or pile driver and any car weighing more than 160,000 pounds gross.

When handling derrick 900309 there must be at least five cars between derrick and locomotive, or between derrick and any car weighing more than 240,000 pounds gross.

### Air Brakes

1001 (R). Engineer must know before moving an engine in engine house or from spot track that adequate air pressure is being maintained and that air brake equipment is functioning properly. Application and release test of independent brake must be made and in addition to noting brake cylinder pressure on gauge, visual inspection must be made to know that brakes apply when independent brake valve is in application position. Hand brakes must be released on all units before engine is moved.

When operating a light engine, running test of independent brake must be made immediately after movement is started. When back-up movement of a light engine is protected by an employee using back-up hose, running test of brakes must be made with back-up hose immediately after back-up movement is started.

Engines must be stopped before moving onto a turn-table, and before entering enginehouse or servicing facilities where elevated tracks or pits are used.

At locations where units are cut into or out of a locomotive, it must be known that air brake hoses are coupled, that air is cut in and that brakes are operating properly on all units before any movement is made.

At terminals where hostler relieves incoming engineer, brakes must be tested with independent brake valve immediately after locomotive is detached from train to insure that brakes are operating properly.

Movement of locomotives at enginehouses, servicing or maintenance facilities must not exceed 5 miles per hour.

1005 (R). Air Brake Rule 1005, standard brake pipe pressures, is amended to read as follows:

Class of Service	Pounds
Freight, mixed trains and branch line passenger trains.....	90
Main line passenger trains.....	110

1024 (R). Air brake companies have modified brake pipe cut-off valve on 26-L type brake equipment. Both types of valves are in service.

With old type valve, when necessary to change from "freight" position to "cut-out" position, as must be done when making brake pipe leakage test, it is necessary to move thorough "passenger" position. This is also true when changing from "cut-out" position to "freight" position.

With the modified valve, change from "freight" position to "cut-out" position, or the reverse, is made without going through "passenger" position.

Engineers on locomotives equipped with 26-L type brake equipment must determine which type valve is on that particular unit, and be certain that brake pipe cut-off valve is in "freight" position before moving train, unless operating in passenger service.

1030 (R). Where Sperry rail-detector car is working when temperature is below freezing, trains, engines and track cars must be operated at a safe speed, using sand where necessary to overcome slippery condition caused by calcium chloride solution by rail car.

1037 (R). Referring to Air Brake Rules 1037, 1037-A, 1037-B and 1037-E: When applying brakes for making ordinary slow-downs or stops, the air gauge must be observed for measuring reductions and the initial reduction should be 6 from 70, 7 from 90 and 8 from 110 pounds as indicated by equalizing reservoir gauge.

1039 (R). Air Brake Rule 1039 (F) does not apply on 5 or 6 unit locomotive if dynamic brake is operative on 4 leading units.

1066 (R). As required by Air Brake Rules 1064, 1066, 1066 (C) and 1066 (F), when necessary to cut out brakes on passenger car equipment due to sticking brakes or defective brake rigging, cut-out cock in brake cylinder pipe must be closed.

Cutout cock in brake pipe branch pipe to control valve must be used only in the event of defect causing undesired emergency application or any other defect in pipe or valve that is causing excessive loss of brake pipe pressure.



## SPECIAL INSTRUCTIONS—FIRST AND SECOND SUBDIVISIONS

### JOSEPH AND PILOT ROCK BRANCHES

#### Use of Engine Whistle

14 (S). Within the city limits of Pendleton, it is unlawful to sound engine whistle except to signal flagman or to prevent accident not otherwise avoidable.

#### Switch Lights

27 (R). Switch lights will not be used on branches shown below:  
Joseph Branch;  
Pilot Rock Branch.

Trains and engines must approach facing point switches on these branches prepared to stop if switch is not in normal position.

#### Train Registering Exceptions

83 (R). Conductors of the following trains may register by register ticket per Operating Rule 83 (A):  
LaGrande—Nos. 105 and 106;  
Hinkle —Nos. 105 and 106.

#### Flag Protection

99 (T). Trains may be relieved from protecting against following extra trains by Train Order Form Z only on the following branch lines:

Joseph Branch;  
Pilot Rock Branch.

99 (U). In territory shown below, when main track is impassable or before obstructing or in any way rendering it impassable or unsafe and there are not enough men to provide flag protection as prescribed by Rule 99 (E) and perform the work, protection as prescribed by Rule 99 (F) must be provided, after which all members of the gang may assist in the work. Foreman must maintain lookout for trains and if a train approaches, he must go toward it and flag it with hand signals:

Joseph Branch;  
Pilot Rock Branch.

#### Unusual Conditions

101 (R). At Pilot Rock, trains and engines must move at restricted speed, keeping a lookout for cars on or foul of main track west of derail.

#### Riding Leading End of Engines

103 (T). Trainman need not ride on leading platform or side steps of engine as follows:  
At LaGrande over Fir Street and Greenwood Street;  
Where through movement is made between Rieth and Pendleton.

#### Public Crossings

103 (U). At Baker, street crossings at Campbell and Auburn Streets must not be blocked in excess of five minutes by freight trains.

At Barnhart, when movements to or from ballast pit are made over public crossing, a member of the crew must be stationed on each side of track at the crossing to stop highway traffic.

#### Switches

104 (R). No. 14 turn-outs are installed at all dual control switches in CTC territory except:

Hilgard —Siding switches;  
Meachum—West switch to siding;  
—Switches between Tracks 1 and 2 at east and west end;  
Duncan —Siding switches;  
Gibbon —West switch to siding;  
Rieth —Switch to Pilot Rock Branch.

104 (T). Switches will be set normally at:

La Grande: Joseph Branch switch—for drill track,  
Switch to north side lead and roundhouse—for drill track;  
Joseph, main track switch, east leg of wye—for wye;

Joseph, switch at stem of wye—for east leg of wye;  
Hinkle, junction switch, Umatilla Branch—for running track;

Hinkle, wye switches—for running track;

Hinkle, switch at stem of wye—for east leg of wye.

#### Main Track Derails

104 (U). Main track derails are located at the following points:

Pilot Rock

(1500 feet west of west switch to new set out track)

} Derail will be set in derailling position at all times except when movement being made over track at point where derail located.

#### Switching at La Grande

104 (V). At La Grande, when switching movements are being made on east end of drill lead, derail and main track switch must be operated by hand.

#### Centralized Traffic Control System

267 (S). At Encina, Telocaset and Kamela, Clearance Form B need not be received by light engine leaving those stations, but movement must be governed by signal indication.

267 (T). CTC Stop signals located as follows are designated as "starting signals":

Huntington—M.P. 389.3 and 389.8.  
Baker —M.P. 341.7 and 342.4.  
La Grande —M.P. 289.7 and 290.2.  
Hinkle —M.P. 185.0.

When stopped by a "starting signal," member of crew must communicate with dispatcher or operator and be governed by his instructions. Flagman need not be sent ahead unless instructed to do so by dispatcher or operator but movement must be made at restricted speed and Operating Rule 269 must be complied with.

268 (R). At Pendleton, trains from Pendleton Branch to extension of Track 6, must obtain permission from train dispatcher at La Grande before passing Signal 2165.

268 (S). At Hinkle trains or engines must not enter main track at hand operated switch between eastward signal at M. P. 185.0 and "Begin CTC" sign at M.P. 187.5 without permission from dispatcher at LaGrande, and must wait three minutes after switch is lined before fouling main track.

#### Inspection of Trains

713 (X). In addition to inspection required by other rules, all passenger trains, including streamline trains, must be given close running inspection on the following curves:

First Subdivision—

M.P. 363 and M.P. 364.5 —single curve;  
M.P. 326.5 and M.P. 327.5—single curve;  
M.P. 302.4 and M.P. 303 —single curve.

Second Subdivision—

M.P. 281.5 and M.P. 282 —single curve;  
M.P. 257.2 and M.P. 257.8—single curve;  
M.P. 197.8 to M.P. 198.6 —reverse curves;  
M.P. 191.6 —single curve.

After rear trainman has completed inspection on the above curves, if everything is all right, he must give hand signal to proceed; this signal must be acknowledged by two long sounds of engine whistle.

If anything unusual is detected, train must be stopped and walking inspection of train must be made before proceeding.

#### Close Clearances

714 (R). There are close clearances above and at the side of main tracks as follows, and in addition thereto, at platforms and other structures above and at the side of industry, stock and other tracks. (See Operating Rule M.)

Location	Structure or obstruction	Clearance of engine or cars close at—
At all stations . . . . .	Mail cranes . . . . .	Side.
<b>First Subdivision</b>		
M.P. 388.40 . . . . .	Bridge . . . . .	Side.
M.P. 387.75 . . . . .	Bridge . . . . .	Side.
M.P. 387.36 . . . . .	Bridge . . . . .	Side.
M.P. 386.92 . . . . .	Bridge . . . . .	Side.
M.P. 385.95 . . . . .	Bridge . . . . .	Side.
M.P. 385.19 . . . . .	Bridge . . . . .	Side.
M.P. 385.02 . . . . .	Bridge . . . . .	Side.
Lima . . . . .	Overhead bridge . . . . .	Side.
M.P. 384.42 . . . . .	Bridge . . . . .	Side.
M.P. 383.27 . . . . .	Bridge . . . . .	Side.
M.P. 383.02 . . . . .	Bridge . . . . .	Side.
M.P. 381.90 . . . . .	Overhead bridge . . . . .	Top.
M.P. 381.66 . . . . .	Bridge . . . . .	Side.
M.P. 381.41 . . . . .	Bridge . . . . .	Side.
M.P. 380.44 . . . . .	Bridge . . . . .	Side.
M.P. 380.22 . . . . .	Bridge . . . . .	Side.
M.P. 379.62 . . . . .	Bridge . . . . .	Side.
M.P. 378.75 . . . . .	Bridge . . . . .	Side.
M.P. 378.60 . . . . .	Tunnel No. 6 . . . . .	Side.
M.P. 378.19 . . . . .	Bridge . . . . .	Side.
M.P. 377.15 . . . . .	Bridge . . . . .	Side.
M.P. 376.84 . . . . .	Bridge . . . . .	Side.
M.P. 376.11 . . . . .	Bridge . . . . .	Side.
M.P. 375.62 . . . . .	Bridge . . . . .	Side.
M.P. 374.80 . . . . .	Bridge . . . . .	Side.
M.P. 374.52 . . . . .	Bridge . . . . .	Side.
M.P. 373.90 . . . . .	Bridge . . . . .	Side.
M.P. 373.76 . . . . .	Bridge . . . . .	Side.
M.P. 373.00 . . . . .	Bridge . . . . .	Side.
M.P. 372.91 . . . . .	Bridge . . . . .	Side.
M.P. 372.00 . . . . .	Bridge . . . . .	Side.
M.P. 366.74 . . . . .	Bridge . . . . .	Side.
M.P. 343.94 . . . . .	Bridge . . . . .	Side.
North Powder . . . . .	Two overhead bridges . . . . .	Top and Side.
M.P. 312.07 . . . . .	Overhead bridge . . . . .	Side.
<b>Second Subdivision</b>		
La Grande . . . . .	Second Street viaduct . . . . .	Top.
M.P. 288.02 . . . . .	Bridge . . . . .	Side.
M.P. 252.52 . . . . .	Bridge . . . . .	Top.
M.P. 251.18 . . . . .	Bridge . . . . .	Side.
M.P. 238.67 . . . . .	Bridge . . . . .	Side.
M.P. 230.57 . . . . .	Bridge . . . . .	Side.
M.P. 226.86 . . . . .	Bridge . . . . .	Side.
M.P. 214.42 . . . . .	Bridge . . . . .	Side.
M.P. 206.21 . . . . .	Bridge . . . . .	Side.
M.P. 205.84 . . . . .	Bridge . . . . .	Side.
M.P. 204.91 . . . . .	Bridge . . . . .	Side.
M.P. 204.15 . . . . .	Tunnel No. 3½ . . . . .	Side.
M.P. 198.26 . . . . .	Bridge . . . . .	Side.
<b>Joseph Branch</b>		
M.P. 2.48 . . . . .	Bridge . . . . .	Side.
<b>Pilot Rock Branch</b>		
M.P. 0.16 . . . . .	Bridge . . . . .	Top and Side.

714 (S). At La Grande, look out for close clearance on Tracks 4 and 5, which have less clearance than other tracks in yard.

#### Chaining Cars to Rail

813 (S). Between Huntington and Pendleton, when cars are set out on sidings on grade where there are no derails, in addition to setting hand brakes and blocking wheels, cars must be chained to rail.

#### Track Restrictions

934 (T). On tracks listed below, only engines of types shown may be used:

(Note following are classified as DE-Switch engines:  
Alco road-switch units Nos. 1280-1295; 1000 HP units Nos. 1000-1095, 1100-1198, 1200-1210, 1300-1304, 1800-1865 and 1870-1877.)

Location	Track	Engine Permitted
Pendleton . . . . .	Harris Mill Log Track	DE-switch

Passenger type units Nos. 900 to 999, inclusive, must not be operated on Pilot Rock or Joseph Branches.

#### Air Brake Rules

1035 (R). Running test as prescribed in Air Brake Rules 1035, 1035 (A), 1035 (B) and 1035 (C) must be made before descending grades as follows:

Encina —westward and eastward;  
Telocaset —westward and eastward;  
Kamela —westward and eastward.

1043 (R). Inspection required by Air Brake Rule 1043 (D) (revised March 1, 1958) must be made on all trains at La Grande.

1044 (R). Brake pipe test, as prescribed in Air Brake Rule 1044, must be made on all freight trains before descending grade Encina eastward and westward, Kamela eastward and westward, except train No. 126 when handling 30 cars or less.

Train No. 126, when length of train does not exceed 30 cars, will make running air test as prescribed by Air Brake Rule 1035 before descending grades at Kamela and Encina. Conductors and trainmen must know that proper brake pipe pressure is maintained as indicated by the caboose gauge after air brake test is made.

1045 (R). Retaining valves must be used on trains handled with diesel locomotives with dynamic brake not in operation or when not equipped with pressure maintaining feature when descending grades, as follows:

Freight trains descending grades between Encina and Durkee and between Hilgard and Huron must use one operative retaining valve for each fifty tons of train but in no case less than one-half of all retaining valves in train. If engineer finds it difficult to control train or to recharge train, he will request train crew to turn up additional retaining valves necessary to insure safe control of train, stopping train if necessary.

Between Telocaset and Union Jct., and between Huron and Duncan, on trains averaging to exceed fifty gross tons per car, or trains handled by engines having one air compressor, one-half of all retaining valves must be used.

Retaining valves must be used consecutively from head end of train.

When retaining valves are used, freight and mixed trains will use five minutes moving first mile after turning up retaining valves, four minutes moving second mile and three minutes moving each mile thereafter, except where slower speed is otherwise prescribed.

1045 (S). On locomotives equipped with pressure maintaining feature and dynamic brakes, both of which are operative, trains will be handled on descending grades between Durkee and Huron without the use of retaining valves.

Following will govern the use of retaining valves on freight trains when handled on descending grades by diesel locomotives

(Continued on page 12)



1045 (S) Continued.

equipped with dynamic brake in operation without pressure maintaining feature:

(a) Westward between Kamela and Huron and eastward between Kamela and Hilgard:

2 Unit Locomotive	3 Unit Locomotive	4 Unit Locomotive
1375 tons or less: None. Over 1375 tons: One retaining valve must be used for each 55 tons in excess of 1375 tons, but not less than 15 retaining valves must be used.	2063 tons or less: None. Over 2063 tons: One retaining valve must be used for each 55 tons in excess of 2063 tons, but not less than 15 retaining valves must be used.	2750 tons or less: None. Over 2750 tons: One retaining valve must be used for each 55 tons in excess of 2750 tons, but not less than 15 retaining valves must be used.

(b) Eastward between Encina and Oxman:

2 Unit Locomotive	3 Unit Locomotive	4 Unit Locomotive
2000 tons or less: None. Over 2000 tons and not exceeding 2250 tons averaging not to exceed 60 tons per operative brake: None. Over 2000 tons and not exceeding 2250 tons averaging more than 60 tons per operative brake, also over 2250 tons: One retaining valve must be used for each 60 tons in excess of 2000 or 2250 tons as the case may be, but not less than 15 retaining valves must be used.	3000 tons or less: None. Over 3000 tons and not exceeding 3375 tons averaging not to exceed 60 tons per operative brake: None. Over 3000 tons and not exceeding 3375 tons averaging more than 60 tons per operative brake, also over 3375 tons: One retaining valve must be used for each 60 tons in excess of 3000 or 3375 tons as the case may be, but not less than 15 retaining valves must be used.	4000 tons or less: None. Over 4000 tons and not exceeding 4500 tons averaging not to exceed 60 tons per operative brake: None. Over 4000 tons and not exceeding 4500 tons averaging more than 60 tons per operative brake, also over 4500 tons: One retaining valve must be used for each 60 tons in excess of 4000 or 4500 tons as the case may be, but not less than 15 retaining valves must be used.

**SPECIAL INSTRUCTIONS—THIRD AND FOURTH SUBDIVISIONS**

**UMATILLA, CONDON, HEPPNER, AND GRASS VALLEY BRANCHES**

**Where Time Applies**

5 (R). At Biggs, time shown in time-table schedules and in train orders applies at the end of double track.

At The Dalles, time shown in time-table schedules and in train orders for first class trains applies at the passenger station.

**Switch Lights**

27 (R). Switch lights will not be used on branches shown below:  
Umatilla Heppner  
Condon Grass Valley

Trains and engines must approach facing point switches on these branches prepared to stop if switch is not in normal position.

**Train Registering Exceptions**

83 (R). Conductors of the following trains may register by register ticket per Operating Rule 83 (A):

Hinkle —Nos. 105 and 106;  
The Dalles —Nos. 105, 106, 17, 18, 11 and 12.

**Clearances**

83 (S). Clearance Form A must be received as follows:  
St. Johns Jct.—All eastward trains via Kenton;  
The Dalles —All trains enroute Bend Branch must receive SP&S clearance.

(c) Westward between Telocaset and Union Junction:

2 Unit Locomotive	3 Unit Locomotive	4 Unit Locomotive
3000 tons or less: None. Over 3000 tons: One retaining valve must be used for each 60 tons in excess of 3000 tons, but not less than 15 retaining valves must be used.	4500 tons or less: None. Over 4500 tons: One retaining valve must be used for each 60 tons in excess of 4500 tons, but not less than 15 retaining valves must be used.	6000 tons or less: None. Over 6000 tons: One retaining valve must be used for each 60 tons in excess of 6000 tons, but not less than 15 retaining valves must be used.

(d) If due to any condition engineer or conductor considers a particular train cannot be safely handled beyond Huron or Oxman as prescribed in Paragraphs (a) and (b) of this rule without use of retaining valves, trains must be stopped and remain standing ten minutes at Huron or Oxman to cool wheels and inspect train.

(e) When use of retaining valves is required, these valves must be used consecutively from head end of train.

(f) Additional retaining valves must be used in accordance with provisions of Air Brake Rule 1045 (B) when in the judgment of the engineer or conductor use thereof is necessary.

(g) Conductor must advise engineer number of cars, total tonnage, average tons per operative brake, and location of loads and empties in train.

(h) When retaining valves are used, freight and mixed trains will use five minutes moving first mile after turning up retaining valves, four minutes moving second mile and three minutes moving each mile thereafter, except where slower speed is otherwise prescribed.

1045 (T). Freight trains handled with diesel locomotives with dynamic brake not in operation must stop and remain standing ten minutes to allow wheels to cool and inspect train at the following points when retaining valves are required to be used beyond these points:

- Oxman —Eastward;
- M.P. 279 —Eastward;
- Meacham—Westward;
- Huron —Westward.

When eastward freight trains stop at Motanic and remain standing ten minutes stop need not be made at M.P. 279 to cool wheels and inspect train.

**Identification of Trains**

87 (R). On double track, westward trains between The Dalles and Crates and eastward trains between The Dalles and Biggs, must make necessary identification of all trains met or passed.

**Movements in Yards**

93 (R). Yard limits include territory shown:  
Troutdale —on Kenton Line only.

93 (S). At points shown below, trains and engines may move against the current of traffic within yard limits without being preceded by a flagman, except when a first-class train is due or when view is obscured:  
The Dalles

**Flag Protection**

99 (T). Trains may be relieved from protecting against following extra trains by Train Order Form Z only on the following branch lines:

- Umatilla Branch; Condon Branch;
- Heppner Branch; Grass Valley Branch.

99 (U). In territory shown below when main track is impassable or before obstructing or in any way rendering it impassable or unsafe and there are not enough men to provide flag protection as prescribed by Rule 99 (E) and perform the work, protection as prescribed by Rule 99 (F) must be provided, after which

(Continued on page 13.)

99 (U). Continued.

all members of the gang may assist in the work. Foreman must maintain lookout for trains and if a train approaches, he must go toward it and flag it with hand signals:

- Grass Valley Branch; Condon Branch;
- Heppner Branch; Umatilla Branch.

99 (V). At Hood River and The Dalles, when passenger train stops at passenger station, engineer will not sound whistle for flagman to protect rear of train, but in foggy or stormy weather, when ready to proceed, flagman must be recalled by engine whistle.

These instructions do not relieve conductor or flagman of the responsibility of protecting as required by the rules.

99 (W). On following branches between 6 A.M. and 6 P.M. daily, a speed of 10 MPH must not be exceeded by all extra trains approaching and moving on curves and where view is obscured, looking out carefully at all points for track cars and men working on track without flag protection. Speed on curves must be such as to be able to stop within one-half the distance track is seen to be clear and whistle signal 14 (1) must be sounded frequently:

- Umatilla Branch; Condon Branch;
- Heppner Branch; Grass Valley Branch.

**Public Crossings**

103 (V). At The Dalles, public crossings must not be blocked longer than 10 minutes. When a train is to be delayed getting in or out of the yard, crossings must be cut immediately.

**Switches**

104 (T). Switches will be set normally at:  
Hinkle, junction switch, Umatilla Branch—for running track;  
Hinkle, wye switches—for running track;  
Hinkle, switch at stem of Wye—for east leg of Wye;  
Arlington, Condon Branch switch—for Condon Branch.

**Train Order Signals**

200 (T). At Biggs: When train order signal for eastward trains indicates stop, eastward trains must stop before any part of train or engine passes Automatic Block Signal 1030, unless proceed signal with yellow flag by day or yellow light by night is received from operator.

**Centralized Traffic Control System**

267 (T). CTC Stop signals located as follows are designated as "starting signals":  
Hinkle—M. P. 185.0.

When stopped by a "starting signal," member of crew must communicate with dispatcher or operator and be governed by his instructions. Flagman need not be sent ahead unless instructed to do so by dispatcher or operator but movement must be made at restricted speed and Operating Rule 269 must be complied with.

268 (S). At Hinkle trains or engines must not enter main track at hand operated switch between eastward signal at M.P. 185.0 and "Begin CTC" sign at M.P. 187.5 without permission from dispatcher at LaGrande, and must wait three minutes after switch is lined before fouling main track.

**Remote Control Switches**

275 (U). Remote control switches are located as follows: (See Rules 275 and 275 A.)

Location	Under control of
Troutdale, junction switch to Kenton line and east switch of siding on Kenton Line.	Operator, Troutdale
Hinkle, main track switch at west end of passenger yard.	Operator, Hinkle

**Electric Locked Switches**

280 (R). Crossover and Junction switches at Oregon Trunk Jct., are equipped with electric locks and are controlled by Operator at The Dalles.

Signal A 95.1 has siding indicator. (See Rule 240 L.)

When this signal displays red-over-illuminated S, it indicates that Oregon Trunk Jct. switch and crossover to westward main track are unlocked and crew member may hand operate switches to enter westward main track.

When switches are lined for movement to Westward main track, and signal A 95.1 displays proceed indication it is authority to proceed to The Dalles on westward main track without receiving clearance.

Member of crew on trains to and from Bend branch must request Operator at The Dalles via telephone, located at cross-over switches, to unlock switches and must be governed by Rule 280.

**Routes Through Interlocking**

605 (R). At Troutdale, upper unit of interlocking signal, located just east of the junction switch, governs westward movements via Graham and the lower unit governs westward movements via Kenton line.

When lower units displays Approach indication (Rule 240-F), movement is authorized on Kenton Line main track. When lower unit displays restricting indication (Rule 240-H), movement is authorized into Kenton Line siding.

Proceed indication of interlocking signal located just west of junction switch will authorize eastward trains from Kenton Line to proceed to train order office.

**Inspection of Trains**

713 (X). In addition to inspection required by other rules, all passenger trains, including streamline trains, must be given close running inspection on the following curves:

Third Subdivision—	—single curve;
M.P. 180.1	—reverse curves;
M.P. 159.9 to M.P. 161.4	—single curve;
M.P. 138.2	—reverse curves.
M.P. 129.4 to M.P. 130.0	
Fourth Subdivision—	
M.P. 68.8 to M.P. 69.2	—reverse curves;
M.P. 49.3 to M.P. 49.7	—reverse curves;
M.P. 14.9 to M.P. 15.9	—reverse curves.

After rear trainman has completed inspection on the above curves, if everything is all right, he must give hand signal to proceed; this signal must be acknowledged by two long sounds of engine whistle.

If anything unusual is detected, train must be stopped and walking inspection of train must be made before proceeding.

713 (Y). Westward trains must stop and trainmen must inspect train at Barnett, Grass Valley and Thornberry.

**Close Clearances**

714 (R). There are close clearances above and at the side of main tracks as follows, and in addition thereto, at platforms and other structures above and at the side of industry, stock and other tracks. (See Operating Rule M.)

Location	Structure or obstruction	Clearance of engine or car is close at—
At All Stations . . . . .	Mail Cranes . . . . .	Side.
<b>Third Subdivision</b>		
M.P. 148.49 . . . . .	Bridge . . . . .	Side.
M.P. 114.3 . . . . .	Bridge . . . . .	Side.
<b>Fourth Subdivision</b>		
M.P. 69.40 . . . . .	Bridge . . . . .	Side.
M.P. 63.32 . . . . .	Bridge . . . . .	Side.
M.P. 61.03 . . . . .	Bridge . . . . .	Side.
M.P. 39.90 . . . . .	Bridge . . . . .	Side.
M.P. 32.15 . . . . .	Bridge . . . . .	Side.
M.P. 31.85 . . . . .	Bridge . . . . .	Side.
M.P. 29.65 . . . . .	Bridge . . . . .	Side.
M.P. 26.01 . . . . .	Bridge . . . . .	Side.
M.P. 15.82 . . . . .	Bridge . . . . .	Side.
M.P. 15.4 . . . . .	Overhead bridge . . . . .	Top.
M.P. 10.3 . . . . .	Underpass handrails . . . . .	Side.
M.P. 8.5 . . . . .	Underpass handrails . . . . .	Side.
M.P. 5.43 . . . . .	Overhead bridge (N.E. 82nd Ave.) . . . . .	Top.
M.P. 5.01 . . . . .	Overhead bridge (N.E. 74th Ave.) . . . . .	Top.
M.P. 4.65 . . . . .	Overhead bridge (N.E. Halsey) . . . . .	Top.
M.P. 4.5 . . . . .	Tunnel (Peninsula Jct.) . . . . .	Top and side.
M.P. 4.14 . . . . .	Overhead bridge (N.E. 60th Ave.) . . . . .	Top and side.
M.P. 3.8 . . . . .	Overhead bridge (N.E. 53rd Ave.) . . . . .	Top and side.
M.P. 2.86 . . . . .	Overhead bridge (N.E. 37th Ave.) . . . . .	Top.
M.P. 2.59 . . . . .	Overhead bridge (N.E. 33rd Ave.) . . . . .	Top.
M.P. 0.43 (Willamette River)	Bridge . . . . .	Side.
Portland . . . . .	Depot umbrella shed . . . . .	Top and side.
<b>Umatilla Branch</b>		
M.P. 10.67 . . . . .	Bridge . . . . .	Side.



714 (T). On Grass Valley Branch, employes must not ride on the side of cars or engines while moving in trains, as there are a number of places on this branch where clearance is impaired by narrow cuts.

**Track Restrictions**

934 (T). Passenger type units numbers 900 to 999, inclusive, must not be operated on Umatilla, Heppner, Condon and Grass Valley Branches.  
Cars weighing in excess of 240,000 pounds not permitted on Condon and Heppner Branches.

**Air Brake Rules**

1044 (R). Brake pipe test as prescribed in Air Brake Rule 1044 must be made on all freight and mixed trains before descending grade on Condon Branch between Barnett and Rock Creek and on Grass Valley Branch between Klondike and Biggs and this test must also be made at intermediate points on these grades either ascending or descending, whenever engine is changed, cars picked up or set out, air hose parted, angle cock turned or when train has been standing for 30 minutes or more.

**SPECIAL INSTRUCTIONS—ALBINA TERMINAL AREA**

**Movements in Yards**

93 (T). The following instructions govern while using track-age of Northern Pacific Terminal Company at Portland:

Trains and engines using tracks 1 to 10 inclusive, Portland Union Station, must move at restricted speed when passing a train receiving or discharging passengers, and must not cross High Shed at passenger station unless proceed signal is received from station master or his assistant, or preceded by a member of the crew when passage over the High Shed is seen to be clear and it is safe to proceed.

Interlocking at south end of freight and passenger yards governs all trains and engines entering or leaving yards.

When the home signal indicates Stop, the following whistle signals will be used to call for desired route: (When conditions are favorable, hand or lantern signals should be used instead of whistle signals.)

- For Albina ..... 0
- For Troutdale ..... 0
- For S. P. Main Line..... 0
- For S. P. Yard ..... 0 0
- For East Second Street ... 0 0
- For S. P. & S. to East Side. . 0 0

When the home signal indicates Proceed, the whistle signal must not be sounded.

93 (U). Two parallel tracks between East Portland and Albina are designated as:

- Running track 1—track nearest river;
- Running track 2—track farther from river.

These tracks are signalled for movement in both directions.

- Telephones are installed at following locations:
- Switch Tenders Building Randolph St.;
- Crossover at Clark St.;
- Crossover at Irving Dock Elevator;
- Globe Dock Elevator, near track 1.

Trains and engines moving from East Portland to Albina may enter Running tracks 1 or 2 on proper interlocking signal indication.

Trains or engines moving from Albina to East Portland may enter Running tracks 1 or 2 on receipt of proceed signal given with yellow flag or yellow light by switchtender at Harding Street, Albina. Unless such proceed signal is received, trains and engines must stop clear of switches and cross-overs at Harding and Randolph streets.

Engines leaving Running track 1 or 2 at any industry between Albina and East Portland must report by telephone to operator East Portland after running track is clear and switch is properly lined.

A train or engine must not enter Running track 1 or Running track 2 at any intermediate location, or cross from one running track to the other without permission from operator at East Portland. Operating Rule 513 will apply.

1045 (U). Retaining valves must be used on descending grades as follows:

Condon Branch, all trains, M.P. 35 to Arlington, all retaining valves must be used.

Grass Valley Branch, all trains on descending grades between M.P. 33 and Moro and between Sandon and Hay Canyon, retaining valves must be used on all cars. Between Klondike and Biggs, retaining valves on all cars must be used in maximum pressure position. On engines not equipped with pressure maintaining feature or dynamic brakes inoperative, retaining valves on all cars must be used on descending grades between Moro and Hay Canyon.

Retaining valves must be used consecutively from head end of train.

When retaining valves are used, freight and mixed trains will use five minutes moving first mile after turning up retaining valves, four minutes moving second mile and three minutes moving each mile thereafter, except where slower speed is otherwise prescribed.

Conductor must advise engineer number of cars, total tonnage, average tons per operative brake, and location of loads and empties in train.

Normal position of all switches on these tracks between Albina and East Portland is for the running tracks.

Switchtender at Albina must not give proceed signal to a train or engine moving beyond Albina Avenue to enter running tracks without first securing permission from operator at East Portland, nor may operator at East Portland clear interlocking signal for a train or engine which is to move beyond interlocking limits to enter these tracks without first notifying switchtender at Albina.

Operator East Portland and switchtender Albina will arrange for movement of trains or engines on right hand track in direction of their movement, except in emergency or for movement which requires that track to the left be used.

Operator East Portland will maintain a record on prescribed form showing occupancy of Running tracks 1 and 2 and operators' transfer must include trains or engines which have not cleared these tracks when transfer is made.

**Railroad Crossings and Junctions**

98 (R). Trains and engines must be governed by the following at the railroad crossings and junctions indicated.

Location	Railroad Crossed, or Junction With	Trains Which Have Precedence	How Governed
East Portland. (S.E. Second Ave. between S.E. Main and S.E. Madison Sts.)	S. P. & S.	U. P.	Stop signs.
Peninsula Jct. (M.P. 5.8 Kenton Line)	Seattle main track.		Special Instruction 605 (U).

**Riding Leading End of Engines**

103 (T). Trainmen need not ride on leading platform or side steps of engine over crossings Albina Terminal Area.

**Handling Cars Ahead of Engine**

103 (W). Cars, except business cars equipped with spotlight, must not be shoved ahead of engines through tunnel between St. Johns Jct. and Peninsula Jct.

**Interlocking**

605 (S). To indicate the route to be used through interlocking, the following whistle signals will be used:

- At East Portland:
- For Portland ..... 0
- For Albina ..... 0

(Continued on page 15.)

605 (S) Continued.

- For Graham ..... 0
- For S. P. Main Line..... 0
- For S.E. Second Ave..... 0 0
- For S. P. yard ..... 0 0
- For transfer track ..... 0
- For East Side Freight Terminal... 0 0

At St. Johns Jct.:

- For North Portland Jct..... 0
- For Kenton ..... 0
- For St. Johns ..... 0

At Peninsula Jct.:

As westward trains or engines approach and pass whistling posts and microphones located approximately one-half mile in advance of home interlocking signals on Kenton Line and North Portland Jct. Line, engineers will sound whistle signals as follows:  
For tunnel and to Albina. .... 0

605 (T). Movement of trains and engines between St. Johns Jct. and Peninsula Jct. is governed by interlocking which is operated from St. Johns Jct.

At St. Johns Jct., when a green light or green flag is displayed by operator to train or engine leaving Albina via yard lead, it will indicate that route is lined and switch at east portal of tunnel is in proper position for movement via North Portland Jct. When interlocking signal indicates that route is lined for movement through tunnel and a green flag or green light signal is not displayed, it indicates that switch at east portal of tunnel will be lined for movement to Kenton.

When a train or engine is stopped by interlocking signal at junction of North Portland and Kenton Lines, member of crew must immediately notify operator at St. Johns Jct. If operator is unable to clear signal, he must communicate with train dispatcher who may authorize flagman to precede the train or engine, examine route and report to operator at St. Johns Jct. if track is clear, operator will then authorize train or engine to proceed at restricted speed.

A member of crew must obtain authority from operator at St. Johns Jct. before hand-operating any switch within interlocking limits and before hand-operating electrically controlled switch at junction of North Portland and Kenton Lines. After using electrically controlled switch, it must be restored to position in which it was found and operator at St. Johns Jct. notified.

605 (U). Movement over railroad crossing with Seattle main track M.P. 5.8, just west of Peninsula Jct., is governed by color light signals. Electric lock derails are in use. Trains or engines must obtain authority from operator at St. Johns Jct. for movement over this crossing and operator will release electric lock for operation of derails. After movement is completed, derails must be restored to normal position and locked with switch lock and operator notified.

**Close Clearances**

714 (R). There are close clearances above and at the side of main tracks as follows, and in addition thereto, at platforms and other structures above and at the side of industry, stock and other tracks. (See Operating Rule M.)

Location	Structure or obstruction	Clearance of engine or car is close at—
At all stations.....	Mail cranes.....	Side.
M.P. 15.82.....	Bridge.....	Side.
M.P. 15.4.....	Overhead bridge.....	Top.
M.P. 10.3.....	Underpass handrails.....	Side.
M.P. 8.5.....	Underpass handrails.....	Side.
M.P. 5.43.....	Overhead bridge (N.E. 82nd Ave.)	Top.
M.P. 5.01.....	Overhead bridge (N.E. 74th Ave.)	Top.
M.P. 4.65.....	Overhead bridge (N.E. Halsey)..	Top.
M.P. 4.5.....	Tunnel (Peninsula Jct.).....	Top and side.
M.P. 4.14.....	Overhead bridge (N.E. 60th Ave.)	Top and side.
M.P. 3.8.....	Overhead bridge (N.E. 53rd Ave.)	Top and side.
M.P. 2.86.....	Overhead bridge (N.E. 37th Ave.)	Top.
M.P. 2.59.....	Overhead bridge (N.E. 33rd Ave.)	Top.
M.P. 0.43 (Willamette River)	Bridge.....	Side.
Portland.....	Depot umbrella shed.....	Top and side.

714 (U). At south end of Union Station, Portland, clearance is very close and will not clear a man on side of car between tracks 1 and 2, 3 and 4, 5 and 6, 7 and 8, 9 and 10 from interlocking signals to point 100 feet north of the crossing.

714 (V). Cars or loads of excessive height or width must not be placed under shed on Rip tracks 1, 2 or 3, under loud shifter or inside Freight House, Albina.

**Track Restrictions**

934 (T). On tracks listed below, only engines of types shown may be used:

(Note—following are classified as DE-Switch engines: Alco road-switch units Nos. 1280-1295; 1000 HP units Nos. 1000-1095, 1100-1198, 1200-1210, 1300-1304, 1800-1865 and 1870-1877.)

Location	Track	Engine Permitted
East Portland	Canada Dry Spur, 44th St.	DE-Switch
East Portland	Doernbecher's Spur No. 1	
Kenton	Smithwick Spur	
Kenton	Sunshine Biscuit Spur	
Albina	Swan Island Trackage	
St. Johns	Willamette Tug and Barge Spurs on River Side	
Terminal No. 4	Various spurs and cross-overs	
Oregon Ship Yard	Various spurs and cross-overs	
Union Carbide	Various spurs and cross-overs	

934 (V). Referring to Special Instruction 934 (R), All Subdivisions:

At the following locations, 85-foot rail trailer flat cars may be handled on curves in excess of 16 degrees as provided therein:  
Between Albina and east end of Steel Bridge, Portland;  
Between East Portland and east end of Steel Bridge, Portland.

**Air Brake Rules**

1043 (R). Inspection required by Air Brake Rule 1043 (D) (revised March 1, 1958) must be made on all trains at Albina.



**SPECIAL INSTRUCTIONS—FIFTH SUBDIVISION**

**OLYMPIA AND GRAYS HARBOR BRANCHES**

**Switch Lights**

27 (R). Switch lights will not be used on branch shown below:  
Olympia Branch.  
Trains and engines must approach facing point switches on this branch prepared to stop if switch is not in normal position.

**Train Registering Exceptions**

83 (R). Conductors of the following trains may register by register ticket per Operating Rule 83 (A):

Black River—All trains;  
Reservation—All westward trains.

At Argo, only trains which originate or terminate in UP yard at that station will register.

At Centralia, Grays Harbor Branch trains originating or terminating at Blakeslee Jet. must register in UP train register at NP telegraph office.

D-83 (R). Information required by Operating Rule D-83 need not be received at:

Argo, by westward trains and engines.

**Clearances**

83 (S). Clearance Form A must be received as follows:

Black River—all westward trains.

Argo —all eastward trains.

Centralia —all westward Grays Harbor branch trains originating at Blakeslee Jet.

Northern Pacific clearance must be received as follows:

Reservation —all eastward second-class and extra trains passing through Tacoma;

Tacoma, McCarver Street

—all eastward second-class and extra trains originating at Tacoma.

83 (T). Trains are not required to receive a clearance as per Operating Rule 83 (B) as follows:

Seattle—eastward trains. Clearance received at Argo by an eastward train confers same authority on Fifth Subdivision as when received at Seattle.

**Movements in Yards**

93 (R). Yard limits include territory shown:

Aberdeen—between yard limit sign just east of Cosmopolis and N. P. yard limit sign at Myrtle St. west of Aberdeen depot.

Olympia Branch—From yard limit sign near switch at stem of Wye East Olympia to and including Olympia.

93 (V). At Seattle Union Station, trains and engines on eastward main track must stop clear of Signal 1827-A when waiting for eastward trains that are to use crossover from Tracks 7 and 12.

**Railroad Crossings and Junctions**

98 (R). Trains and engines must be governed by the following at the railroad crossings and junctions indicated.

Location	Railroad Crossed, or Junction With	Trains Which Have Precedence	How Governed
Holsing Jet.	C. M. St. P. & P.	U. P.	Automatic block signals.
South Aberdeen. (Donovan Mill)	N. P.	N. P.	Stop signs.
Olympia. (Jefferson and 7th Sts.)	N. P.	U. P.	Stop signs.
Tacoma. (Dempsey Mill Spur)	N. P.	N. P.	Stop signs.
Tacoma, Tidewater.	N. P.		Semi-automatic interlocking. Special Instruction 98 (S).
Seattle. (Duwamish Avo. and East Marginal Way.)	G. N. C. M. St. P. & P.	G. N. C. M. St. P. & P.	Stop Signs
Seattle. (East Marginal Way & Spokane St.)	N. P.	N. P.	Stop Signs
Seattle. (Railroad Ave. and Atlantic St.)	G. N. N. P. C. M. St. P. & P.	G. N. N. P. C.M.St.P.&P.	Stop Signs

98 (S). At N.P. Crossing, Tacoma-Tidewater, when stopped by semi-automatic interlocking signal and no conflicting movement is evident, a member of crew must go to the crossing, push time release push-button, hold for five seconds, then release. At expiration of time interval, indicator lamp will light to indicate time interval has expired. If signal does not then change to permit train or engine to proceed, member of crew will signal engineer to proceed if no train or engine is approaching on conflicting routes. See operating rule 672.

**Drawbridges**

98 (T). Trains and engines after stopping at stop signs must not proceed onto draw span of bridge between Montesano and South Montesano until they have called for, received and acknowledged proceed signal from bridge tender, and in addition must be governed by position of derail located 128 feet east, and derail located 195 feet west of trestle leading to drawbridge. During certain hours each day draw span will be left open for river traffic and derails will be set in derailing position. If necessary for train or engine to use drawbridge during such hours, notify Agent Montesano or dispatcher to call drawbridge operator.

98 (U). At Tacoma, all trains and engines after stopping at stop signs must not proceed onto draw span of bridge at Tacoma until they have called for, received and acknowledged proceed signal from bridge tender.

**Flag Protection**

99 (U) In territory shown below when main track is impassable or before obstructing or in any way rendering it impassable or unsafe and there are not enough men to provide flag protection as prescribed by Rule 99 (E) and perform the work, protection as prescribed by Rule 99 (F) must be provided, after which all members of the gang may assist in the work. Foreman must maintain lookout for trains and if a train approaches, he must go toward it and flag it with hand signals:

Olympia Branch;

Grays Harbor Branch.

99 (W). On following branches between 6 A.M. and 6 P.M. daily, a speed of 10 MPH must not be exceeded by all extra trains approaching and moving on curves and where view is obscured, looking out carefully at all points for track cars and men working on track without flag protection. Speed on curves must be such as to be able to stop within one-half the distance track is seen to be clear and whistle signal 14 (1) must be sounded frequently:

Olympia Branch;

Grays Harbor Branch.

**Unusual Conditions**

101 (S). Seattle, at Rail-Barge Dock located 12th Ave. S.W. and Massachusetts Ave., on Harbor Island, employes must not ride on sides, ends or tops of cars while being moved on or off barges, from where impaired clearance signs are posted near edge of Massachusetts Ave.

Clearance is very close on all tracks approaching barge apron and on the barges proper, and no movements will be permitted with any equipment standing on adjacent tracks west of crossover.

All cars must have air cut in and operative when moving on or off barges and all moves must be made slowly and with extreme care. Permission must be received from Supervisor in charge of Pier 16 before any movement is made on or off barges.

Engines are not permitted on apron of barge slip, and must hold onto enough cars to keep engine off apron of slip.

**Riding Leading End of Engines**

103 (T). Trainmen need not ride on leading platform or side steps of engine over crossings as follows:

At Seattle, over Spokane Street, Harbor Island, Alaskan Way, between Argo and Seattle Passenger station or local yard, and along East Marginal Way.

**Movements at Olympia**

103 (X). At Olympia, City Ordinance relating to the movement of railroad trains and railroad traffic provides for the following:

1. No car or cars are to be kicked or dropped over any street grade crossing, or along any tracks extending along any streets or immediately adjacent to any streets.

(Continued on page 17.)

103 (X) Continued.

2. All switch movements over crossings, unless protected by automatic signal devices, must be protected by flagmen.

3. No locomotive, railroad car or cars may be left unattended on any main track having a grade of 1% or more.

4. No street or street crossing may be blocked to vehicular traffic for more than 5 minutes at any time.

5. Not more than 3 consecutive street intersections may be blocked by any moving train at any given time.

6. Not more than 2 consecutive street intersections may be blocked by any standing train at any time.

7. No switch move may exceed a speed of 5 MPH at any intersection within the City of Olympia.

8. When switch movements across grade crossing have been completed and the crossing cleared, reverse movement across such crossing may not be made until all accumulated vehicular traffic at the crossing shall have cleared the intersection.

9. Switch movements of engine and 5 cars only may be moved across the following crossings between the hours of 7:30 A.M. and 8:15 A.M., 11:50 A.M. and 12:20 P.M., 12:40 P.M. and 1:05 P.M., 3:25 P.M. and 3:45 P.M. and between 4:50 P.M. and 5:30 P.M.:

East Union Avenue

Columbia Street at

Legion Way

West Seventh

East Fourth Avenue

East State Avenue

10. No public road or street crossing may be blocked to vehicular traffic by any standing engine, car or train during the hours prescribed in paragraph 9 above.

11. No car may be left standing on any track within 25 feet of a street right-of-way-line, except on spurs or sidings serving industries.

The items listed above are in addition to any other regulations governing railroad traffic in effect at Olympia, and violation carries a heavy penalty.

**Public Crossings**

103 (Y). At Fifteenth Street, Tacoma, all trains and engines must stop and a member of the crew must be sent ahead to act as crossing watchman.

**Switches**

104 (T). Switches will be set normally at:  
Tacoma Jet., junction switch—for C. M. St. P. & P.;  
Aberdeen, switch at end of double track—for eastward trains;  
South Montesano, wye switch on Montesano Branch—for west leg of wye;  
Helsing Jet., junction switch—for U. P. main track;  
At Tacoma, when cross-over switches from Northern Pacific double track to U. P. drawbridge line are handled by trainmen, all such switches must be returned to normal position after movement is completed.

**Staff System**

301 (R). Movements on Olympia Branch are governed by Staff system.

Single staff will be used, located in staff box at Mechanical Foreman's Office, Olympia. Trains or engines must secure this staff before using Olympia Branch east of Union Avenue, City of Olympia, and must retain staff until movement is completed.

Trains or engines must not move from East Olympia to Tumwater Yard or Olympia without having staff in their possession. When such movement is necessary, dispatcher will instruct how staff will be obtained.

After movements are completed, staff must be placed in staff box and securely locked.

**Interlocking**

605 (S). To indicate the route to be used through interlocking, the following whistle signals will be used:

At Argo:

For Seattle ..... ————  
For yard lead ..... ———— o ————  
From Seattle to Pacific Coast R. R. .... ———— o ————  
From Argo yard to Georgetown lead. . . ———— o

**Close Clearances**

714 (R). There are close clearances above and at the side of main tracks as follows, and in addition thereto, at platforms and other structures above and at the side of industry, stock and other tracks. (See Operating Rule M.)

Location	Structure or obstruction	Clearance of engine or car is close at—
At All Stations.....	Mail Cranes.....	Side.
<b>Fifth Subdivision</b>		
Tacoma.....	N. P. overhead bridge to draw span.	Top and side.
Tacoma.....	Viaduct.....	Top and side.
M.P. 144.92.....	Bridge.....	Side.
M.P. 146.93.....	Bridge.....	Side.
M.P. 174.6.....	Bridge.....	Side.
Seattle (Albro Place).....	Overhead bridge.....	Side.
Seattle (Eighth Ave. So.).....	Overhead bridge.....	Top.
Seattle (Dearborn Ave.).....	Overhead bridge.....	Top and side.
Seattle.....	Dopot umbrella shed.....	Top and side.
Seattle (Jackson St.).....	Overhead bridge.....	Top.
<b>Olympia Branch</b>		
M.P. 5.2.....	Tunnel No. 25.....	Top and side.
M.P. 5.77.....	Tunnel No. 26.....	Top.
M.P. 6.7.....	Overhead bridge.....	Top and side.
<b>Grays Harbor Branch</b>		
M.P. 1.25.....	Bridge.....	Side.
M.P. 4.35.....	Bridge.....	Side.
M.P. 43.53.....	Overhead bridge.....	Top and side.
Cosmopolis.....	Weyerhaeuser Plant.....	Side.
M.P. 53.33.....	Bridge.....	Side.
<b>Montesano</b>		
M.P. 0.31.....	Bridge.....	Side.
<b>St. Johns</b>		
M.P. 6.93.....	Overhead bridge.....	Top and side.

714 (W). Employees are warned that overhead clearances to trolley wires and side clearances to supporting poles are close at locations shown below. Trolley wires must not be touched and careful lookout must be kept for low and broken wires.

Station	Location	
Black River.....		C. M. St. P. & P.
Argo-Seattle.....	Argo yard lead and between Argo and Seattle passenger station.....	C. M. St. P. & P.
Georgetown.....	West end of siding entering main track.....	C. M. St. P. & P.

714 (X). At Olympia, account insufficient clearance between N. P. connection scale track and main track, trains or engines must not attempt to pass on main track if trains or engines are moving on connection.

At Aberdeen, account insufficient clearance between coach track No. 1 just east of passenger station and main track at turnout, trains and engines must not attempt to pass on main track if trains or engines are moving on coach track No. 1.

934 (T). On tracks listed below, only engines of types shown may be used:

(Note—following are classified as DE-Switch engines: Alco road-switch units Nos. 1280-1295; 1000 HP units Nos. 1000-1095, 1100-1198, 1200-1210, 1300-1304, 1800-1865 and 1870-1877.)

Location	Track	Heaviest Engine
Seattle	Various Spurs along 5th Avenue	DE-Switch
Seattle	Various Spurs along East Marginal Way	
Seattle	Various Spurs on 11th Ave. S. W.	
Seattle	Various Spurs on Alaskan Way	
Aberdeen	Various Front St. Spurs	
Hoquiam	Grays Harbor Chair Spur	



934 (W). At Olympia, track serving rail trailer facilities contains curve of 20 degrees. 85 foot rail trailer flat cars must not be handled on this trackage.

934 (X). Bridge 51.89S on west leg of wye near Cosmopolis is unsafe and must not be used. Footwalk and hand rail have been removed from this bridge and employes must not cross it.

### SPECIAL INSTRUCTIONS—SIXTH SUBDIVISION

YAKIMA, SUNNYSIDE, SPOKANE-TEKOA, PLEASANT VALLEY, WALLULA, MOSCOW, CONNELL, TEKOA-AYER, POMEROY, TUCANNON, PENDLETON, DAYTON, WALLACE, AND SIERRA NEVADA BRANCHES

#### Use of Engine Whistle

14 (T). Within the city limits of Spokane, Pendleton and Pomeroy, it is unlawful to sound engine whistle except to signal flagman or interlocking signalman, or to prevent accident not otherwise avoidable.

At Walla Walla, the use of the engine whistle at the public crossings at West Cherry Street and Gardeners' Association just west of Mill Creek Bridge, is prohibited except to prevent accident not otherwise avoidable.

#### Switch Lights

27 (R). Switch lights will not be used on branches shown below:

Pomeroy,	Connell,
Dayton,	Wallace,
Sierra Nevada,	Pleasant Valley,
Tucannon,	Pendleton.
Moscow,	

Trains and engines must approach facing point switches on these branches prepared to stop if switch is not in normal position.

#### Train Registering Exceptions

83 (R). Conductors of the following trains may register by register ticket, per Operating Rule 83 (A):

N. P. Crossing, Spokane—all G. N. trains;	
Marengo	—all U. P. trains;
Wallula	—all trains.

#### Clearances

83 (S). Clearance Form A must be received as follows:

Ayer	—All trains;
NP Crossing	—All westward Sixth Subdivision trains originating at East Spokane;
Dishman	—All westward Spokane-Tekoa Branch trains originating at East Spokane;
Walla Walla	—All trains;
Wallula	—All eastward Wallula Branch trains;
Wallula	—All eastward Yakima Branch trains.

83 (T). Trains need not receive Clearance Form A as required by Operating Rule 83 (B) at:

East Spokane,	Bolles,
Hooper Jct.,	Richland Jct.
Tucannon,	Seltice
Starbuck,	Moscow,
La Crosse,	Colfax.
Pomeroy,	

When train order signal indicates Proceed trains need not receive clearance as per Operating Rule 83 (B) as follows:

Manito—Trains 382 and 388;  
Tekoa—All trains.

#### Railroad Crossings and Junctions

98 (R). Trains and engines must be governed by the following at the railroad crossings and junctions indicated:

#### Air Brake Rules

1039 (R). On Fifth Subdivision, when flat cars 65 ft. or more in length, either loaded or empty, and located less than 25 cars behind engine are being handled by locomotives equipped with dynamic brakes, the use of dynamic brakes is prohibited.

Location	Railroad Crossed, or Junction With	Trains Which Have Precedence	How Governed
Marongo. (M.P. 306.6)	C. M. St. P. & P.		Automatic block signals.
Spokane N. P. Crossing (M.P. 163.5)	N. P.		Interlocking.
Spokane G. N. Crossing	G. N.		Automatic Interlocking.
Manito. (M.P. 143.7)	C. M. St. P. & P.		Automatic block signals. Special Instructions 98(V).
Farmington. (M.P. 103.4)	N. P.	U. P., except passenger trains have precedence over freight trains.	Gate set against N. P.
Garfield. (M.P. 95.4)	N. P.	U. P.	Stop signs.
Colfax. (M.P. 77.3)	G. N.	U. P.	Gate and automatic interlocking signals. Gate set against G. N.
Oakesdale. (M.P. 39.68)	G. N.	U. P.	Stop signs.
Oakesdale. (M.P. 39.65)	N. P.	N. P.	Stop signs.
Thornton. (M.P. 30.6)	G. N.	U. P.	Gate.
Riparia. (M.P. 17.4)	N. P.	U. P.	Gate set against N. P.
Walla Walla. (M.P. 47.2)	N. P.	U. P.	Stop signs.
Walla Walla. (M.P. 46.6)	W. W. V.	U. P.	Gate.
Langdon. (M.P. 44.2)	W. W. V.	U. P.	Gate.
Milton. (M.P. 36.2)	W. W. V.	U. P.	Gate.
Parker. (M.P. 91.3)	N. P.		Automatic Interlocking.

(Continued on page 19.)

#### 98 (R) Continued.

Location	Railroad Crossed or Junction With	Trains Which Have Precedence	How Governed
Donald. (M.P. 89.35)	N. P. (gauntlet track).		Automatic Interlocking. Special Instruction 672 (R).
Garrott. (M.P. 28.7)	W. W. V.	U. P.	Gate.
Dayton. (M.P. 12.09)	N. P.	U. P.	Stop signs.
Dayton. (M.P. 13.11)	N. P.	U. P.	Stop signs.
Pullman. (M.P. 19.3)	N. P.	U. P.	Stop signs.
Wallace. (M.P. 80.4)	N. P.	U. P.	Stop signs.
Wallace. (M.P. 80.6)	N. P.	U. P.	Stop signs.
Plummer Jct. (M.P. 16.2)	C. M. St. P. & P.		Special Instructions 98 (W).

98 (V). At Manito, junction switch will be lined normally for movement from Union Pacific to C.M.St.P.&P. Upper unit of Block Signal 1437 governs movement from Union Pacific to C.M.St.P.&P.

98 (W). At Plummer Jct. movement from Union Pacific connection to C.M.St.P.&P. main track is governed by dwarf signal at clearance point on U.P. connection. When illuminated "S" is displayed, switch may be lined. If signal then displays proceed indication, movement may be made to C.M.St.P.&P. main track.

#### Drawbridges

98 (X). At drawbridge, MP 23.45 Wallace Branch, after stopping at stop sign, train must not proceed until proceed signal is received from bridge tender, except that if such proceed signal is not received a member of crew must determine that draw span is properly closed and locked, and give proceed signal when safe to proceed.

98 (Y). At M.P. 17.23, Tekoa-Ayer Branch, trains must stop before passing over drawbridge and may then proceed if draw span is seen to be closed.

#### Flag Protection

99 (T). Trains may be relieved from protecting against following extra trains by train order Form Z, only on the following branch lines:

Connell Branch between Hooper Jct. and Connell;  
Dayton Branch between Dayton and Turner;  
Pomeroy Branch;  
Moscow Branch;  
Pleasant Valley Branch;  
Pendleton Branch between Walla Walla and Alto.

99 (U). In territory shown below when main track is impassable or before obstructing or in any way rendering it impassable or unsafe and there are not enough men to provide flag protection as prescribed by Rule 99 (E) and perform the work, protection as prescribed by Rule 99 (F) must be provided, after which all members of the gang may assist in the work. Foreman must maintain lookout for trains and if a train approaches, he must go toward it and flag it with hand signals:

Pendleton Branch;  
Dayton Branch, between Turner and Dayton Jct. and between Waitsburg Jct. and Bolles;  
Moscow Branch;  
Pomeroy Branch;  
Connell Branch;  
Yakima Branch, between Richland Jct. and Yakima;  
Sunnyside Branch;  
Wallula Branch, between Zangar Jct. and Walla Walla;  
Wallace Branch, between Plummer Jct. and Burke;  
Sierra Nevada Branch;  
Pleasant Valley Branch;

Tekoa-Ayer Branch;  
Tucannon Branch;  
Spokane-Tekoa Branch.

99 (W). On following branches between 6 A.M. and 6 P.M. daily, a speed of 10 MPH must not be exceeded by all extra trains approaching and moving on curves and where view is obscured, looking out carefully at all points for track cars and men working on track without flag protection. Speed on curves must be such as to be able to stop within one-half the distance track is seen to be clear and whistle signal 14 (1) must be sounded frequently:

Dayton Branch; Starbuck to Relief (on Tucannon Branch); Hooper Jct. to Connell (on Connell Branch);	Alto to Bolles (on Pendleton Branch); Pomeroy Branch.
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#### Public Crossings

103 (Z). The following will govern trains and engines at the public crossings named below:

Location	Instructions
Spokane—Medelia and Washington Street.	All engines using switching tracks must stop clear of crossing and member of crew will ascertain that flashing light signals are operating and bells ringing before proceeding over crossing. Cars must not be left within 30 feet on either side of crossing.
Spokane—Division Street.	Unless absolutely necessary, movements across street must not be made between 6:00 AM and 8:00 AM, 11:30 AM and 1:30 PM, 5:00 PM and 7:00 PM. Between 6:00 AM and midnight, the number of movements across the street is limited to twenty, and the street must not be crossed when to do so would interrupt traffic.
Tekoa—County road at junction switch to McGoldrick's Spur.	Flagman must be on ground and stop traffic before movement is made over the crossing.

#### Switches

104 (T). Switches will be set normally at:  
Hinkle—Wye switches—for running track;  
Hinkle—Switch at stem of wye—for east leg of wye;  
Fairfield—switch to G.N. connection on siding—for G.N.;  
Hooper Jct. (Connell Branch)—for line via Park;  
Seltice—for line via Colfax;  
Winona—for line via Colfax;  
LaCrosse—Connell Branch switch—for Connell Branch;  
Tucannon—for line via Pataha;  
Riparia-Junction switch—for movement to Camas Prairie;  
Walla Walla—East wye switch Pendleton Branch—for Pendleton Branch;  
Wye switch Wallula Branch—for movement to east leg of wye;  
Yakima, Walnut Street—for main switching lead.

104 (U). Main track derails are located at the following points:

Pomeroy (M.P. 29.65) (M.P. 29.91)	Deraill will be set in derailing position only when cars are left standing on main track above it.
Dayton (100 feet east of depot) (150 feet east of west switch to cannery track)	

(Continued on page 20.)



104 (U). Continued.

McAdams (500 feet west of west switch)	Derail will be set in derailing position only when cars are spotted to foul the main track, or when the warehouse track switches are set so as to permit loaders to drop cars west onto main track.
Wacota (500 feet west of west switch)	
Estes (500 feet west of west switch)	
Sulphur (500 feet west of west switch)	
Wallace (M.P. 81.13)	Spring switch point set in derailing position at all times and must be changed for eastward movement.
Gem (M.P. 84)	Derail will be set in derailing position only while switching is being done above it.
Burke (M.P. 86.3)	
Burke (M.P. 86.4)	Derail must be set in derailing position at all times when not being used.
Sierra Nevada Spur (300 feet east of refinery track switch)	Spring switch point must be set in derailing position at all times except when changed for descending movement.
Sierra Nevada Spur (west of No. 1 track switch at zinc plant)	Derail will be set in derailing position only when cars are left standing on main track above it.

104 (W). At East Spokane, spring switch equipped with facing point lock is installed in main track at west end of yard.

Spring switch installed on Milwaukee connection, equipped with switch indicating signal for eastward movements. When this signal displays green, switch points are lined for movement on Union Pacific track. When signal displays yellow, switch is lined for eastward movement on Milwaukee track. If this signal displays red, switch points must be examined to know switch is lined for movement to be made.

Westward movements through either of these spring switches will be governed by westward dwarf signal located near west end of Union Pacific running track and between that track and main track, controlled by Operator at Dishman. Before making movements from U.P. running track to main track, crews must secure permission from Operator at Dishman by telephone. Milwaukee crews must obtain this permission before leaving Milwaukee yard.

104 (X). At Kahlotus, siding will be used as main track. Switches must be lined and locked accordingly. Main track west of elevator will be used as extension of elevator track.

Automatic Block Signals

240 (S). Between Hinkle and Spokane, when Train No. 19 or Train No. 20 is stopped by an automatic block signal indicating Stop (Rule 240-A) and train has only one brakeman, Rule S-509 will apply.

Centralized Traffic Control System

267 (T). CTC Stop signals located as follows are designated as "starting signals":

Hinkle—M.P. 185.0.

When stopped by a "starting signal," member of crew must communicate with dispatcher or operator and be governed by his instructions. Flagman need not be sent ahead unless instructed to do so by dispatcher or operator but movement must be made at restricted speed and Operating Rule 269 must be complied with.

267 (U). Clearance Form B need not be received for movements in CTC territory between Wallula Jct. and Villard Jct.

268 (R). At Pendleton, trains from Pendleton Branch to extension of Track 6, must obtain permission from train dispatcher at La Grande before passing Signal 2165.

268 (S). At Hinkle trains or engines must not enter main track at hand operated switch between eastward signal at M.P. 185.0 and "Begin CTC" sign at M.P. 187.5 without permission from dispatcher at La Grande, and must wait three minutes after switch is lined before fouling main track.

269 (S). When Stop indication is displayed on either of the following signals, in addition to receiving Clearance Form C, flagman must be sent ahead to next signal and movement must be made at restricted speed:

Eastward stop signal governing movement from joint track from Yakima Branch to Villard Junction;

Eastward stop signal, located just west of N. P. cross-over east end of Wallula, governing movement to Sixth Sub-division main track;

Westward stop signals governing movement over Yakima junction switch.

Remote Control Signals

275 (V). On Spokane-Tekoa Branch, train and engine movements between N. P. Crossing and Dishman will be governed by remote controlled signals located at N. P. Crossing, at east and west ends of East Spokane, and east end of siding at Dishman.

Indications of such signals will supersede the superiority of trains between these points. When one of these remote controlled signals displays Stop indication, member of crew must communicate with operator and be governed by his instructions.

Trains and engines must not enter main track at East Spokane or at east switch Dishman without permission from operator, except that when illuminated letter "S" is displayed on dwarf signal at east end of East Spokane or at east switch Dishman, switch may be lined for main track and movement then made according to dwarf signal indication.

Staff System

301 (S). Movements of trains and engines on the Government trackage between Richland Junction (Yakima Branch) and yard limit sign on Government trackage at M.P. 43.8, are governed by staff system.

Divided staff, lettered "A" and "B", will be used and staff boxes are located at Richland Junction and at M.P. 43.8.

When only one train movement is to be made in the staff limits, dispatcher will notify the crew and that crew must have both staffs "A" and "B" in their possession and retain them for the round trip.

When two trains are to be run in these limits, the first train must not enter the staff limits until it has been ascertained that both staffs are in box at that point, and has taken staff "A" for their movement. Second train entering staff limits must have staff "B" in their possession.

After moving through the staff limits, both staffs must be left in staff box. Staff box must be left locked at all times.

Conductor of train which is to move, or has moved, through the staff limits, must register his train on train register at Richland Junction, and indicate staff used, either "A" or "B" or both.

Train or engine movements on Government trackage from end of staff system into interchange yard and wye at North Richland will be governed by yard limit rules and instructions issued by Government dispatcher. When two trains are run, the first train arriving at interchange yard must remain at that point until the second train arrives.

Slide Detector Signals

509 (U). On Yakima Branch, between M.P. 41 and M.P. 42, slide detector signals, designated by triangular number plates, are in service. When signal displays Stop indication, train must stop before passing and may then proceed at restricted speed to signal at opposite end of protected territory, looking out for damaged rail or obstruction, and wire report must be made to chief dispatcher and superintendent.

Routes Through Interlocking

605 (S). To indicate the route to be used through interlocking, the following whistle signals will be used:

At N. P. Crossing, Spokane:

- For Spokane Union Station..... 0 0 0
- For old yard ..... 0 0 0 0
- For East Spokane ..... 0 0 0 0
- For N. P. transfer ..... 0 0 0
- For G. N. transfer..... ————

663 (S). At Columbia River Bridge, M.P. 7.44 Yakima Branch, when a train is stopped by semi-automatic interlocking signal, a flagman must be sent to drawbridge to give proceed signal if derailed and draw span are properly closed. Two long sounds of engine whistle must be sounded before proceeding, and movement must be made at restricted speed.

672 (R). At Yakima River Bridge, M.P. 89.35, Yakima Branch, trains and engines are governed by automatic interlocking signals and must approach gauntlet track at restricted speed. A train or engine stopped by an interlocking signal must comply with Operating Rule 672. If signal does not change its indication after one minute, flag protection must be provided for movement between home signals governing gauntlet track.

Close Clearances

714 (R). There are close clearances above and at the side of main tracks as follows, and in addition thereto, at platforms and other structures above and at the side of industry, stock and other tracks. (See Operating Rule M.)

Location	Structure or obstruction	Clearance of engine or car is close at—
At All Stations.....	Mail Cranes.....	Side.
<b>Sixth Subdivision</b>		
M.P. 199.93.....	Bridge.....	Side.
M.P. 210.11.....	Bridge.....	Side.
M.P. 229.5.....	Tunnel No. 7.....	Top and side.
M.P. 275.1.....	Tunnel No. 10.....	Top and side.
M.P. 275.5.....	Tunnel No. 11.....	Top and side.
M.P. 276.0.....	Tunnel No. 12.....	Top and side.
M.P. 276.3.....	Tunnel No. 13.....	Top and side.
M.P. 276.5.....	Tunnel No. 14.....	Top and side.
M.P. 278.36.....	Overhead bridge.....	Top and side.
M.P. 281.3.....	Tunnel No. 15.....	Top and side.
M.P. 286.75.....	Overhead bridge.....	Top and side.
M.P. 292.1.....	Tunnel No. 16.....	Top and side.
M.P. 294.4.....	Tunnel No. 17.....	Top and side.
M.P. 305.62.....	Overhead bridge.....	Top and side.
M.P. 325.70.....	Overhead bridge.....	Top and side.
M.P. 329.46.....	Overhead bridge.....	Top and side.
M.P. 337.20.....	Overhead bridge.....	Top and side.
M.P. 352.13.....	Bridge.....	Side.
M.P. 353.57.....	Overhead bridge.....	Top.
M.P. 353.94.....	Overhead bridge.....	Top.
M.P. 357.48.....	Overhead bridge.....	Top and side.
M.P. 357.95.....	Overhead bridge.....	Top and side.
M.P. 363.76.....	Overhead bridge.....	Side.
Spokane.....	Umbrella sheds.....	Side.
<b>Yakima Branch</b>		
M.P. 7.44.....	Bridge.....	Top and side.
M.P. 11.52.....	Bridge.....	Side.
M.P. 14.16.....	Overhead bridge.....	Top and side.
M.P. 16.06.....	Bridge.....	Side.
M.P. 24.35.....	Overhead bridge.....	Top.
M.P. 35.89.....	Bridge.....	Top and side.
M.P. 53.30.....	Bridge.....	Side.
M.P. 56.83.....	Bridge.....	Side.
M.P. 58.03.....	Bridge.....	Side.
M.P. 58.19.....	Bridge.....	Side.
M.P. 73.03.....	Bridge.....	Side.
M.P. 73.20.....	Bridge.....	Side.
M.P. 73.30.....	Bridge.....	Side.
M.P. 89.35.....	Bridge.....	Top and side.
Union Gap.....	Overhead bridge.....	Top.
Yakima, First Avenue and C Street.....	Traffic light.....	Top.
<b>Tekoa-Ayer Branch</b>		
M.P. 17.23.....	Bridge.....	Top and side.
M.P. 19.96.....	Bridge.....	Side.
M.P. 26.73.....	Bridge.....	Side.
M.P. 77.23.....	Bridge.....	Top and side.
M.P. 90.27.....	Bridge.....	Top and side.
M.P. 93.01.....	Bridge.....	Side.
M.P. 94.70.....	Overhead bridge.....	Top.

Location	Structure or obstruction	Clearance of engine or car is close at—
M.P. 98.03.....	Bridge.....	Side.
M.P. 112.97.....	Overhead bridge.....	Top.
M.P. 115.79.....	Bridge.....	Side.
M.P. 115.86.....	Overhead bridge.....	Top.
<b>Spokane-Tekoa Branch</b>		
M.P. 143.67.....	Overhead bridge.....	Side.
M.P. 163.56.....	Bridge.....	Side.
M.P. 164.06.....	Bridge.....	Top and side.
Spokane.....	Market Street bridge.....	Top and side.
Spokane.....	Division Street bridge.....	Top.
Spokane.....	Tunnel, westward track.....	Top and side.
Spokane.....	Tunnel, eastward track.....	Top and side.
<b>Moscow Branch</b>		
M.P. 8.54.....	Bridge.....	Top and side.
M.P. 18.77.....	Bridge.....	Top.
M.P. 18.97.....	Bridge.....	Top and side.
M.P. 19.28.....	Overhead bridge.....	Top.
<b>Wallace Branch</b>		
M.P. 0.14.....	Bridge.....	Side.
M.P. 16.30.....	Bridge.....	Top and side.
M.P. 23.45.....	Bridge.....	Top and side.
M.P. 55.56.....	Bridge.....	Side.
M.P. 58.01.....	Bridge.....	Top and side.
M.P. 62.14.....	Bridge.....	Top and side.
M.P. 63.48.....	Bridge.....	Top and side.
M.P. 64.03.....	Bridge.....	Side.
M.P. 72.59.....	Bridge.....	Side.
M.P. 79.36.....	Bridge.....	Top and side.
<b>Pleasant Valley Branch</b>		
M.P. 1.51.....	Bridge.....	Top and side.
M.P. 41.21.....	Overhead bridge.....	Top.
<b>Pendleton Branch</b>		
M.P. 0.51.....	Bridge.....	Top.
M.P. 36.86.....	Bridge.....	Side.
M.P. 74.14.....	Overhead bridge.....	Top and side.
<b>Wallula Branch</b>		
M.P. 10.01.....	Overhead bridge.....	Top and side.
M.P. 14.32.....	Bridge.....	Side.
<b>Connell Branch</b>		
M.P. 15.13.....	Bridge.....	Side.
M.P. 15.71.....	Overhead bridge.....	Top and side.

931 (T). On tracks listed below, only engines of types shown may be used:

(Note—Following are classified as DE-Switch engines: Alco road-switch units Nos. 1280-1295; 1000 HP units Nos. 1000-1095, 1100-1198, 1200-1210, 1300-1304, 1800-1865 and 1870-1877.)

Location	Name of Track	Engines Permitted
Walla Walla ..	Pacific Fruit Spur	DE-Switch
Walla Walla ..	Walla Walla Gardeners Spur	
Walla Walla ..	Pacific Supply Co-op.	
Walla Walla ..	Walla Walla Cannery	
Walla Walla ..	Jefferson St. Connection Libbys.	
Walla Walla ..	Mill Spur.	

Passenger type diesel locomotives number 900 to 999, inclusive, are not permitted to operate on any Branches except:

- Wallula Branch;
- Pendleton Branch—between Walla Walla and Pendleton;
- Tekoa-Ayer Branch;
- Pleasant Valley Branch;
- Connell Branch—between Hooper Jct. and La Crosse;
- Spokane-Tekoa Branch;
- Wallace Branch;
- Moscow Branch.



934 (U). Referring to Special Instructions 934 (R), All Subdivisions:

At the following locations, 85 foot trailer flat cars may be handled on curves in excess of 16 degrees as provided therein: Walla Walla, track serving rail trailer facilities.

934 (Y). When handling pile driver 900321, or a car weighing 200,000 pounds gross over Bridge 17.23 at Riparia, there must be at least four cars between such car or pile driver and engine or between such car or pile driver and any car weighing more than 160,000 pounds gross.

**Air Brake Rules**

1035 (R). Running test as prescribed in Air Brake Rules 1035, 1035 (A), 1035 (B) and 1035 (C) must be made before descending grades as follows:

Spokane-Tekoa Branch—eastward trains at Darknell and Freeman;

Tekoa-Ayer Branch —westward trains at Jerita;

—eastward trains at Crest;

Pendleton Branch —eastward trains at Weston;

—westward trains at Alto.

1035 (S). At Spokane Union Station, passenger trains will make running air test only after leaving the elevated structure.

1044 (R). Brake pipe test, as prescribed in Air Brake Rule 1044, must be made on all freight trains before descending grade Weston to Barrett, Relief to Starbuck, Alto to Menoken, Crest to Colfax, Plummer Jct. to Chatcolet, Burke to Wallace, Sierra Nevada Branch end of track to Bradley.

1045 (U). Retaining valves must be used on descending grades as follows:

On all trains Crest to Colfax, Relief to Starbuck, Weston to Barrett, Burke to Wallace and Sierra Nevada Branch end of track to Bradley, all retaining valves must be used.

On freight trains descending grades Mica to Chester and Darknell to Rockford and on freight and mixed trains Jerita to Hay, Alto to Menoken, Turner to Dayton, trains averaging not to exceed fifty gross tons per car, may be handled without the use of retaining valves. On trains averaging to exceed fifty gross tons per car, one half of all retaining valves must be used.

Retaining valves must be used consecutively from head end of train.

When retaining valves are used, freight and mixed trains will use five minutes moving first mile after turning up retaining valves, four minutes moving second mile and three minutes moving each mile thereafter, except where slower speed is otherwise prescribed.

**RATING OF DIESEL LOCOMOTIVES IN FREIGHT SERVICE IN TONS OF 2000 POUNDS**

Total weight of train exclusive of locomotive, which the different classes of locomotives will haul in each direction between stations named, under favorable weather conditions. Rating shown is for single unit. If more than one unit, rating of combined units will govern.

TYPE OF LOCOMOTIVE	NUMBERS (Inclusive)	FIRST SUBDIVISION										SECOND SUBDIVISION						
		Huntington to Durkee	Durkee to Encina	Encina to North Powder	North Powder to Telocaset	Telocaset to La Grande	La Grande to Union Jct.	Union Jct. to Telocaset	Telocaset to Baker	Baker to Encina	Encina to Huntington	La Grande to Hilgard	Hilgard to Kamela	Kamela to Hinkle	Hinkle to Duncan	Duncan to Kamela	Kamela to La Grande	
EMD-GP9-F9	130 to 349 500 to 542B	1780	840	3440	1760	3610	0900	1220	2480	1230	Car limit	1810	830	3610	1640	920	Car limit	
EMD-GP7-F7	100 to 129 1400 to 1496	1700	830	3390	1710	3550	5970	1180	2450	1220	Car limit	1790	800	3550	1620	890	Car limit	
EMD-GP-20	700 to 729	1690	790	3230	1690	3390	6490	1170	2350	1170	Car limit	1720	790	3390	1550	880	Car limit	
EMD-SD-24	400 to 444	2740	1290	5290	2740	5550	10860	1900	3820	1900	Car limit	2790	1280	5550	2520	1420	Car limit	
EMD	1000 to 1095	1100	560	3000	1250	3000	5000	890	2250	890	Car limit	1100	560	3000	1100	560	Car limit	
EMD	1800 to 1824	1300	590	3250	1300	3250	6000	960	3250	960	Car limit	1300	590	3250	1300	590	Car limit	
GE-U25B	625 to 628	1930	920	3680	1930	3850	7370	1340	2670	1340	Car limit	1960	1010	3850	1770	920	Car limit	
Alco DL-640	675 to 678	1890	900	3620	1890	3790	7260	1310	2640	1310	Car limit	1930	890	3790	1740	920	Car limit	
		THIRD SUBDIVISION					FOURTH SUBDIVISION					FIFTH SUBDIVISION						
		Hinkle to Munley	Munley to The Dalles	The Dalles to Seufert	Seufert to Boardman	Boardman to Hinkle	The Dalles to Dodson	Dodson to Albina via Kenton	Troutdale to Portland via Graham	Portland to Troutdale via Graham	Albina to Hood River via Kenton	Hood River to The Dalles	Albina to Vader	Vader to Napavine	Napavine to Argo	Argo to Centralia	Centralia to Napavine	Napavine to Albina
EMD-GP9-F9	130 to 349 500 to 542B	4000	4500	3740	5260	2670	4000	5260	3200	1900	4300	4000	6000	2200	4500	4750	1900	5000
EMD-GP7-F7	100 to 129 1400 to 1496	3860	4320	3610	4550	2600	3500	4550	3140	1730	4150	3930	4250	1990	4320	4000	1560	4240
EMD-GP-20	700 to 729	3620	4040	3390	4990	2550	2910	4990	2960	1640	3890	3690	4040	1880	4040	3750	1480	5640
EMD-SD-24	400 to 444	5950	6650	5550	8260	4160	4760	8260	4830	2670	6400	6050	6050	3060	6650	6160	2400	9390
EMD	1000 to 1095	2000	3000	2200	3300	1900	3000	4000	3000	1250	3000	3000	3500	1800	3500	3500	1650	3000
EMD	1800 to 1824	2200	3200	2400	3500	2100	3200	4300	3200	1350	3200	3200	3700	1900	3700	3700	1750	3500
GE-U25B	625 to 628	4120	4590	3850	5670	2910	3320	5670	3360	1880	4420	4190	4590	2150	4590	4270	1690	6410
Alco DL-640	675 to 678	4050	4520	3790	5580	2860	3260	5580	3310	1850	4350	4130	4520	2110	4520	4200	1660	6310
		SIXTH SUBDIVISION																
		Spokane to Ceib	Ceib to Page	Page to Humorist	Humorist to Wallula	Wallula to Juniper	Juniper to Hinkle	Hinkle to Wallula	Wallula to Humorist	Humorist to Ayer	Ayer to Ceib	Ceib to Spokane						
EMD-GP9-F9	130 to 349 500 to 542B	2670	6900	4250	6900	4320	2670	4780	3090	4320	2670	Car limit						
EMD-GP7-F7	100 to 129 1400 to 1496	2300	5970	3070	5970	4250	2600	4700	3050	4250	2300	Car limit						
EMD-GP-20	700 to 729	2550	6490	4040	6490	4040	2550	4470	2910	4040	2550	Car limit						
EMD-SD-24	400 to 444	4160	10860	6650	10860	6650	4160	7370	4760	6650	4160	Car limit						
EMD	1000 to 1095	1900	3500	3200	3500	3300	1900	2900	1900	3500	1900	Car limit						
EMD	1800 to 1824	2150	3700	3400	3700	3500	2100	3100	2200	3700	2100	Car limit						
GE-U25B	625 to 628	2910	7370	4590	7370	4590	2910	5070	3320	4590	2910	Car limit						
Alco DL-640	675 to 678	2860	7260	4520	7260	4520	2860	4990	3260	4520	2860	Car limit						
FM	1300 to 1304	1900	3500	3200	3500	3300	1900	2900	1900	3500	1900	Car limit						
FM	1325 to 1329	2620	6820	4180	6820	4180	2620	4630	2990	4180	2620	Car limit						
FM	1340 to 1342	2980	7760	4750	7760	4750	2980	5270	3410	4750	2980	Car limit						
FM	1300 to 1370	2580	6620	4100	6620	4100	2580	4530	2950	4100	2580	Car limit						



**RATING OF DIESEL LOCOMOTIVES IN FREIGHT SERVICE IN TONS OF 2000 POUNDS**

Total weight of train exclusive of locomotive, which the different classes of locomotives will haul in each direction between stations named, under favorable weather conditions. Rating shown is for single unit. If more than one unit, rating of combined units will govern.

TYPE OF LOCOMOTIVE	NUMBERS (Inclusive)	JOSEPH BRANCH						PILOT ROCK BRANCH		UMATILLA BRANCH		HEPPNER BRANCH					
		Joseph to Bendown	Bendown to Elgin	Elgin to La Grande	La Grande to Lostine	Lostine to Enterprise	Enterprise to Joseph	Pilot Rock to Rieth	Rieth to Pilot Rock	Umatilla to Blinley	Blinley to Irrigon	Heppner to Heppner Jet.	Heppner Jet. to Ione	Ione to Heppner			
EMD-GP9-F9	130 to 349 500 to 542B	3500	2000	3500	2200	1750	1300					3000	2350	1610			
EMD-GP7-F7	100 to 129 1400 to 1406	3500	1900	3500	2100	1700	1250					2800	2150	1410			
EMD	1000 to 1095	3500	2300	3500	2300	1750	1300	3500	1015	1800	3000	3000	1550	1015			
EMD	1800 to 1824	3500	2500	3700	2500	1950	1500	3500	1610	2000	3200	3200	1750	1015			
		CONDON BRANCH						BEND BRANCH									
		Condon to Clem	Clem to Mikkaloo	Mikkalo to Shutler	Shutler to Arlington	Arlington to Rock Creek	Rock Creek to Barnett	Barnett to Mikkalo	Mikkalo to Gwendolyn	Gwendolyn to Condon	O. T. Jet. to North Jet.	North Jet. to South Jet.	South Jet. to Madras	Madras to Bend	Bend to O. T. Jet.		
EMD-GP9-F9	130 to 349 500 to 542B	3500	1200	1650	3300	800	600	850	1100	1100	2350	2600	1150	2350	4000		
EMD-GP7-F7	1400 to 1496 100 to 129	3100	1150	1600	3100	700	500	800	1000	1000	1900	2100	1100	1900	4000		
EMD	1000 to 1095	3000	600	1500	3000	600	450	600	450	1100	1500	1700	850	1400	1700		
EMD	1800 to 1824	3200	700	1700	3200	650	500	650	500	1200	1650	1850	950	1550	1850		
		GRASS VALLEY BRANCH								GRAYS HARBOR BRANCH				OLYMPIA BRANCH			
		Biggs to Thornberry	Thornberry to Klondike	Klondike to Hay Canyon	Hay Canyon to Moro	Moro to Grass Valley	Grass Valley to Kent	Kent to Erskine	Erskine to Hay Canyon	Hay Canyon to Sandon	Sandon to Biggs	Hoquiam to Cosmopolis	Cosmopolis to Centralia	Centralia to Cosmopolis	Cosmopolis to Hoquiam	Olympia to East Olympia	East Olympia to Olympia
EMD-GP9-F9	130 to 349 500 to 542B	525	875	1400	850	900	1400	1200	3000	1000	3000	1700	4500	5000	2150	1800	3500
EMD-GP7-F7	100 to 129 1400 to 1496	475	800	1000	750	775	1200	1100	3500	850	3000	1650	4200	5000	2100	1750	3500
EMD	1000 to 1095	325	450	1100	425	650	800	850	3000	650	3000	1200	3200	3800	1500	1400	3500
EMD	1800 to 1824	375	500	1200	500	700	1000	1050	3200	750	3200	1400	3400	4000	1700	1500	2700

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TYPE OF LOCOMOTIVE	NUMBERS (Inclusive)	YAKIMA BRANCH					WALLULA BRANCH		PENDLETON BRANCH							
		Wallula to Viliard	Viliard to Richland Jet.	Richland Jet. to Yakima	Yakima to Richland Jet.	Richland Jet. to Wallula	Wallula to Walla Walla	Walla Walla to Wallula	Pendleton to Weston	Weston to Walla Walla	Walla Walla to Bolles	Bolles to Alto	Alto to Milton	Milton to Weston	Weston to Pendleton	
EMD-GP9-F9	130 to 349 500 to 542B	4000	3500	3500	3500	4000	1700	3000	1500	1350	1200	950	1750	750	3700	
EMD-GP7-F7	100 to 129 1400 to 1496	4000	3500	3500	3500	4000	1700	3000	1500	1350	1200	950	1750	750	3500	
EMD	1000 to 1095	3300	3300	3300	3300	3300	1450	2850	1400	1150	1050	750	1400	775	3500	
EMD	1800 to 1824	3200	3200	3300	3200	3200	1550	3000	1400	1250	1125	800	1400	850	3750	
FM	1300 to 1304	3500	3000	3000	3000	3500	1450	2800	1600	1425	1250	975	1550	800	3500	
FM	1325 to 1329	4000	3500	3500	3500	4000	1400	3000	1700	1550	1350	950	1650	875	3500	
FM	1340 to 1342	4200	3700	3700	3700	4200	1400	3000	1900	1750	1550	1150	1850	1000	3500	
FM	1360 to 1370	4000	3500	3500	3500	4000	1600	3000	1700	1550	1350	950	1650	875	3500	
		TEKOA-AYER BRANCH														
		Tekoa to Garfield	Garfield to Colfax	Colfax to Crest	Crest to Winona	Winona to Jerita	Jerita to Ayer	Ayer to Eljerita	Eljerita to Hay	Hay to Jerita	Jerita to Winona	Winona to Mockonema	Mockonema to Crest	Crest to Elberton	Elberton to Tekoa	
EMD-GP9-F9	130 to 349 500 to 542B	1700	4000	625	4000	1900	5000	4000	1400	1000	1850	1750	1350	2300	1450	
EMD-GP7-F7	100 to 129 1400 to 1496	1700	4000	600	4000	1900	5000	4000	1350	1000	1800	1750	1350	2300	1400	
EMD	1000 to 1095	1200	3500	400	3500	1500	4000	3200	1150	700	1500	1400	1000	2000	1150	
EMD	1800 to 1824	1300	3700	450	3700	1650	5000	3400	1250	750	1650	1550	1100	2200	1250	
FM	1300 to 1304	1450	3500	525	3500	1700	5000	3500	1300	900	1750	1650	1250	2250	1350	
FM	1325 to 1329	1700	4000	750	4000	1900	5000	4000	1350	1000	1950	1850	1350	2300	1400	
FM	1340 to 1342	1900	4000	850	4000	2100	5000	4000	1450	1200	2100	2000	1450	2600	1600	
FM	1360 to 1370	1700	4000	750	4000	1900	5000	4000	1350	1000	1950	1850	1350	2300	1400	
		PLEASANT VALLEY BRANCH					DAYTON BRANCH				POMEROY BRANCH				MOSCOW BRANCH	
		Seltice to Willada	Willada to Winona	Winona to St. John	St. John to Oakesdale	Oakesdale to Seltice	Bolles to Dayton	Dayton to Turner	Turner to Dayton	Dayton to Bolles	Tucannon to Pomeroy	Pomeroy to Tucannon	Relief to Starbuck	Starbuck to Relief	Colfax to Moscow	Moscow to Colfax
EMD-GP9-F9	130 to 349 500 to 542B	1780	3500	1575	1400	2350	1600	800	1500	2000	1500	2500	1000	400		
EMD-GP7-F7	100 to 129 1400 to 1496	1750	3500	1550	1400	2350	1650	850	1550	2100	1550	2550	1100	400		
EMD	1000 to 1095	1400	3000	1150	950	1900	1600	875	875	3000	1200	3500	3500	300	1200	3500
EMD	1800 to 1824	1550	3200	1250	1025	2100	1600	875	875	3000	1350	3500	3500	490	1300	3700
FM	1300 to 1304	1600	3000	1410	1130	2200	2000	1150	1150	3350	1400	3500	3500	600	1700	3500
FM	1325 to 1329	1700	3000	1550	1400	2350	2000	1150	1150	3350	1400	3500	3500	600	2200	3500
FM	1340 to 1342	1900	3500	1750	1600	2500	2000	1150	1150	3350	1400	3500	3500	600	2400	3500
FM	1360 to 1370	1700	3000	1550	1400	2350	1675	1000	1000	3000	1400	3500	3500	600	2200	3500



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		SPOKANE-TEKOA BRANCH						WALLACE BRANCH							CONNELL BRANCH			
		Spokane to Chester	Chester to Fairfield	Fairfield to Latah	Latah to Tekoa	Tekoa to Freeman	Freeman to Spokane	Plummer Jt. to Enaville	Enaville to Kellogg	Kellogg to Wallace	Wallace to Gem	Gem to Burke	Burke to Wallace	Wallace to Chatcolet	Chatcolet to Plummer Jct.	La Crosse to Hooper Jct.	Hooper Jct. to Connell	Connell to La Crosse
EMD--GP9-F9	130 to 349 500 to 542B	1750	1130	1650	2200	1435	4000	2250	1900	1900	500	450	900	3000	1000	3700	1200	1300
EMD--GP7-F7	100 to 129 1400 to 1496	1720	1100	1600	2100	1400	4000	2200	1850	1850	475	425	870	3000	900	3700	1200	1300
EMD	1000 to 1095	1175	750	1042	2000	964	3500	1700	1300	1200	275	225	750	2500	550	3500	1100	1200
EMD	1800 to 1824	1275	825	1140	2150	1050	3700	1850	1750	1300	300	275	750	2700	600	3700	1200	1300
FM	1300 to 1304	1175	750	1050	2000	950	3500	2000	1500	1400	375	350	750	2500	775	3500	1200	1300
FM	1325 to 1329	1750	1190	1580	2250	1300	4000	2300	1850	1850	475	425	870	3000	700	3500	1200	1300
FM	1340 to 1342	2000	1360	1810	2550	1560	4000	2200	1850	1850	475	425	870	3000	900	3500	1200	1300
FM	1360 to 1370	1700	1180	1570	2170	1350	4000	2200	1850	1850	475	425	800	3000	870	3500	1200	1300