



SPOKANE DIVISION

Special Instructions No. 1

This book contains Special Instructions of the current time table, and it and the time table must be in your possession at all times while on duty.

Sunday, May 24, 1942.

J. L. CLOSE, Superintendent.

T. F. DIXON, General Manager.

**J. B. SMITH,
General Superintendent Transportation.**

First Subdivision.

1. MAXIMUM SPEED.

Between	Passenger	Freight
Hillyard and Lyons	45 MPH	35 MPH
Lyons and Wenatchee	60 MPH	50 MPH
Galena to East Galena		25 MPH

Maximum speed of locomotives by class shown on Page 11.

2. SPEED RESTRICTIONS.

Howard St. Spokane	12 MPH
Other grade crossings, Spokane	20 MPH
Over Bridge 270, Spokane, R-1, R-2, SP&S, E-1, Z-6	20 MPH
Over Bridge 273, Spokane, Q-1, N-1, E-1	20 MPH
Over Bridge 273, Spokane, R-1, R-2 Z-6	10 MPH
Over Bridge 274, Fort Wright, Q-1, Rs, S, SP&S, E-1 Z-6	20 MPH
Highway crossing 5 mi. west of East Galena, Eastward trains	8 MPH
Cheney highway, 3 mi. west of East Galena	STOP AND FLAG CROSSING
Ephrata, Train Two	30 MPH

3. RESTRICTED CLEARANCE.

HIGH VOLTAGE electric wires in Appleyard and between Appleyard and Wenatchee in some places will not clear man on top of train, and train and engine men must keep off top of cars and engines while passing through this territory, except in emergencies and then use extreme caution. Restricted clearance exists at Highway bridge between Appleyard and Wenatchee, over main track 19'9", over lead track 21'.

4. SPECIAL RULES.

Clearance Form A received at Spokane passenger station signed by Superintendent will confer the same authority to a first class train as the received at its initial station in accordance with Rule 83-B.

First class trains will approach crossover east of Bridge 270 and just west of Howard St. Spokane passenger station, at restricted speed.

5. SPECIAL INSTRUCTIONS RELATIVE TO CERTAIN REGISTERING STATIONS.

Trains 1, 2, 27 and passenger extras may use register ticket at Hillyard.

First class trains and trains originating at Spokane Passenger station will register and secure clearance Form A.

Appleyard is registering station for second and inferior class trains; No. 381 and 382 and passenger extras may register by ticket.

Wenatchee is registering station for first class trains, No. 381 and No. 382 and passenger extras.

6. HILLYARD INTERLOCKING.

At East end of yard switches at end of double track, yard lead and Safety switch are interlocked.

At West end of yard switches at end of double track, yard lead and Spike yard lead are interlocked.

Both ends of yard are electrically controlled from telegraph office, Hillyard passenger station.

Main track between these interlocking plants **IS SINGLE TRACK.**

Train movements through these interlockers will be governed by standard interlocking signal indications in accordance with Rules 601A to 671 inclusive.

If a train is stopped by a "Stop" indication of an interlocking signal and no immediate conflicting train movement is evident, trainman shall communicate with the operator by means of a telephone located in the telephone booth at this point and be governed by the operator's instructions in proceeding through the interlocking plant.

At east end of yard push buttons are provided in iron boxes locked with standard switch locks located at West No. 5 Switch and on eastward home signal at Safety Switch, for operation by trainmen for movement of eastward trains from yard to eastward or westward main line. Instructions for their use are posted in these boxes.

When the yard lead junction Spring Switch is properly set for a facing point movement to West yard lead, a green target and green light will be displayed on the switch stand. When spring

switch is properly set for a facing point movement to East yard lead, a yellow target and yellow light will be displayed on the switch stand. When spring switch is not properly set for facing point movement to either yard lead a red light will be displayed at switch stand height on eastward home signal mast at Safety Switch. For trailing point movements from either yard lead a "lunar white" light will be displayed.

When instructed by the operator on duty at Hillyard passenger station, the interlocked switches may be handled by hand for switching or other train movements as required.

Electric switch machines are equipped with two levers for hand operation. These are latched and locked with a standard switch lock.

Throw "Short" lever to position displaying "HAND".

Throw lever marked "Hand Throw" slowly until clutch engages and switch points begin to move with "Hand Throw" lever. Switch may now be handled by hand as desired.

"Short" lever shall be left in position displaying "Hand" until all switching or other train or engine movements over the switch are completed, when "Hand Throw" lever shall be latched in either position and "Short" lever shall be thrown to position displaying "Power" and locked. All home signals will indicate "STOP" during the period "Short" lever is in position displaying "Hand".

UNDER NO CIRCUMSTANCES SHALL A HAND SIGNAL BE GIVEN FOR A TRAIN OR ENGINE MOVEMENT OVER AN INTERLOCKED SWITCH UNLESS THE "SHORT" LEVER IS IN POSITION DISPLAYING "HAND" AND THE SWITCH HAS BEEN SET IN THE POSITION DESIRED BY THE "HAND THROW" LEVER.

Whistle signals, West end Hillyard yard.

Eastward trains:

To Main Track, one long, one short, one long.

To Main Yard, one long, one short.

Westward trains:

To Westward Main track, one long.

To Eastward Main track, two long, one short.

7. U. P. R. R. JCT. INTERLOCKING.

Whistle signals:

U. P. R. R. Junction, Main track—1 long.

U. P. R. R. Transfer No. 1—1 long, 1 short.

U. P. R. R. Transfer No. 2—2 long, 1 short.

8. FORT WRIGHT INTERLOCKING.

Whistle signals:

Main Track, G. N. Ry.—1 short, 1 long.

Main Track, SP&S Ry.—1 long, 1 short.

Siding, G. N. Ry.—2 long, 1 short.

Telephone located at East end Bridge 274.

9. AUTOMATIC INTERLOCKERS.

Automatic-interlocking switches at end of double track Bluestem and Lamona are controlled by track circuits and operated automatically with following exceptions:

When moving from single track to double track against current of traffic at either Bluestem or Lamona, interlocking plant requires manual operation.

When movement is to be made from double track to the siding, Lamona, the siding switch must not be opened until engine is within home signal zone.

10. CROSSING PROTECTION.

Crossing watchmen employed protecting grade crossing and railroad crossing at Trent Avenue and Sheridan St., Spokane, between the hours of 7:00 a.m. and 11:00 p.m., daily.

Train and yard movements made over the street or railroad crossing between the hours of 11:00 p.m. and 7:00 a.m. will come to a full stop in advance of the crossings and movement over the crossing will be protected by a member of the crew on the ground at the crossing.

Second Subdivision.

1. MAXIMUM SPEED.

Between	Passenger	Freight
Wenatchee and Merritt	50 MPH	50 MPH
Merritt and Berne	35 MPH	25 MPH
Berne and Scenic	30 MPH	20 MPH
Scenic and Skykomish	35 MPH	25 MPH
Skykomish and Halford	60 MPH	50 MPH
Halford and Gold Bar	45 MPH	35 MPH
Gold Bar and Seattle	60 MPH	50 MPH

2. SPEED RESTRICTIONS.

Over Main St. crossing, Cashmere	25 MPH
Over Bridge 370, Dryden, Q-1, R, S-1.....	20 MPH
Over Bridge 371, Dryden, Q-1, R, S-1.....	10 MPH
Over Bridge 372, Dryden, Q-1, R, S-1.....	10 MPH
Over Bridge 385, 2 mi. East of Berne, Q-1, R, S-1.....	10 MPH
Over Bridge 406, 4 mi. West of Scenic, Q-1, R, S-1.....	20 MPH
Over Bridge 408, 3 mi. East of Tonga, Q-1, R-2.....	20 MPH
Over Bridge 413, 1 mi. East of Tonga	15 MPH
Over Street crossings, Skykomish	15 MPH
Thru Monroe Town Limits	25 MPH
Over crossing Pacific Ave., Everett	8 MPH
Thru Edmonds Town Limits	8 MPH
Over Bridge 4, Ballard	15 MPH
Over N. P. Ry. crossing, Interbay	15 MPH
Thru Seattle Tunnel	20 MPH
Over public crossings, Seattle	20 MPH
Speed limits of trains handling snow machinery are as follows:	
Between Skykomish and Merritt	25 MPH
Between Merritt and Wenatchee	30 MPH
Between Skykomish and Lowell	30 MPH

SPEED RESTRICTIONS ACCOUNT FALLING ROCK.

All trains run at restricted speed:

Between MP 1653 and 1656 east of Monitor.

Between Swede and Winton tunnels.

Between ¼ mile east to 1½ mile west of Br. 385.

Between Alpine and 2 miles east of Skykomish.

At point 2 miles west of Index.

Between 1¼ mile east of Reiter to East switch at Reiter.

3. ENGINE RESTRICTIONS ON INDUSTRY TRACKS.

O-1 and heavier engines will not use Columbia Packing Company spur at Snohomish.

Trains running via Delta Yard with R class engines must make their set out and pick up on tracks 1, 2 and 3.

O-1 and larger class freight engines will not be operated on the North end of tunnel tracks One and Three, King Street Terminal, Seattle.

O-4 and larger class engines picking up or setting out on G. N. Freight house yard lead at Seattle must not run engine over short turnout of puzzle switch at Holgate Street from eastward main track.

4. RESTRICTED CLEARANCES.

HIGH VOLTAGE electric wires in electrified zone between Appleyard and Skykomish, in some places will not clear man on top of train and train and enginemen must keep off cars and engines while passing thru this territory, except in emergencies and them use extreme caution.

ALL WIRES MUST BE CONSIDERED ALIVE UNLESS A CLEARANCE HAS BEEN OBTAINED FROM OPERATOR AT SKYKOMISH SUBSTATION.

TELEGRAPH AND TELEPHONE LINES BETWEEN WENATCHEE AND SKYKOMISH LOCATED ALONG HIGHWAY.

EXTREME CARE MUST BE USED NOT TO ATTEMPT TO CONNECT TELEPHONE APPARATUS TO THE HIGH TENSION WIRES.

Seattle King St. Station, restricted clearance between eaves of umbrella shed and sides cabs P-2 and larger class engines. N. P. overhead trestle, Br. 455.4, located 815 feet west of West end Br. 455 and 1074 feet east of Snohomish depot, measures 19 feet from top of our rail to the bottom stringer, which will not clear a man on top of high car.

Cascade tunnel No. 15.....	19' 3" above rail
Winton tunnel No. 14	19' 11" above rail
Swede tunnel No. 13.5	19' 0" above rail
Chumstick tunnel No. 13	19' 2" above rail
Bridge 370, East of Dryden.....	19' 5" above rail
Overhead high bridge ½ mile west of	
Cashmere	19' 11" above rail
Overhead highway bridge between Wenatchee and Appleyard—	
Main track	19' 5" above rail
Lead track	21' 0" above rail

SKYKOMISH Targets on roundhouse track switch stands are so close to track they do not afford proper clearance to any one riding on side of cars or engines.

5. SPECIAL RULES.

Delta (Freight Yard) 3.26 miles west of N. P. Junction; trains and engines between N. P. Jct. and Delta will be governed by Northern Pacific Railway time table and instructions.

INSTRUCTIONS GOVERNING USE OF UNION PACIFIC TRACKS ON 5TH AVE., SEATTLE, BETWEEN OREGON ST. AND SPOKANE ST., BY THE GREAT NORTHERN RAILWAY SWITCHING CREWS.

Great Northern Railway switch crews must provide themselves with a copy of the current Union Pacific, Oregon Division time-table and Special Rules, and must have passed examination on Consolidated Code of Transportation Rules.

Before entering Union Pacific tracks at Oregon St. or Spokane St., Great Northern switch engine Foreman will register in telephone box and then will call the operator at Argo Tower, on the telephone located at Oregon St., or Spokane St., and will give the operator the number of engine, number of cars and name of Foreman.

Operator at Argo Tower will advise Foreman if due or overdue first class trains have arrived or departed, or time overdue first class trains are reported to arrive and will keep record of conversation. Foreman will repeat time given by operator.

If movement on Union Pacific main tracks can be made without holding block signals against first class trains, Great Northern switch engine crews may open main track switches, and after complying with Rule 513 by waiting two minutes before fouling main track, may use main tracks with the current of traffic between Oregon St. and Spokane St.

Should Great Northern switch engines be delayed while making movement between Oregon St. and Spokane St., proper flag protection must be afforded per Rules 93 and 99.

Until new crossover at Spokane St. has been completed, Great Northern switch crews coming out of East Side of 5th Ave. will have to head out against current of traffic on westbound main track. This movement must be made under flag protection per Rule 99.

Extreme care must be used during foggy and obscure weather as provided by Special Rule 93-B.

6. SPECIAL INSTRUCTIONS RELATIVE TO CERTAIN REGISTERING STATIONS.

Wenatchee is registering station for first class trains and passenger extras.

Monroe is registering station for C. M. St. P. & P. trains.

Snohomish is registering station for N. P. trains; Eastward N. P. trains may register by ticket.

N. P. Junction is registering station for N. P. trains.

Lowell Junction is registering station for C. M. St. P & P. trains and is located 32nd St. and McDougall Ave., Everett.

Interbay, first class trains may register by ticket.

Engineers and conductors on trains originating at Interbay who operate over joint track South of Seattle must register at Interbay yard office and show last Bulletin number issued by N. P. Ry., as well as G. N. Ry.

7. CASCADE, EVERETT AND SEATTLE TUNNELS.

Cascade Tunnel.

The track between Berne and Scenic is controlled by a positive block in both directions and the automatic block signals at these points must not be passed, except when displaying a Proceed indication, or when authorized by train order to proceed. In case of loss of power or other emergency, a train in the tunnel may make a forward or backward movement to Scenic or Berne without flag protection and may pass signals indicating Stop and Proceed at restricted speed without stopping.

Everett Tunnel.

Track between Everett Junction and West switch Pacific Avenue is controlled by a positive block in both directions. The home signals must not be passed except when displaying proceed indication or when authorized by train order to proceed. A train or engine in the block may make forward or backward movement without flag protection.

Seattle Tunnel.

Between South Portal and North Portal movements are controlled by interlocking signals and rules and positive block is maintained in both directions. A train or engine in the block may make either forward or backward movement without flag protection within these limits.

No train or engine will run against the current of traffic between South Portal and North Portal nor pass home signal in Stop position unless furnished "Tunnel Card" properly filled out and signed by the Operator-Signalman in charge. When moving against the current of traffic must not exceed ten (10) MPH.

Tunnel directions are **NORTH** from South Portal to North Portal and **SOUTH** from North Portal to South Portal.

8. INTERBAY YARD.

Commencing at a point 4000 ft. West of Bridge 4 at Ballard and extending to a point 700 ft. East of N. P. Ry. crossing, Interbay, **MAIN TRACK IS A SINGLE TRACK.**

SWITCHES AT BOTH ENDS OF THIS SINGLE TRACK ARE SPRING SWITCHES, set for trains leaving single track, to be operated in accordance with special instructions on pages 15-16.

9. INTERLOCKING.

Switches controlling end of double track and Junction between 2d and 3d Subdivisions at Everett Junction are interlocked and electrically controlled from telegraph office, Everett Passenger Station.

Third Subdivision.

1. MAXIMUM SPEED.

Between	Passenger	Freight
Delta Junction and Samish	55 MPH	45 MPH
Samish and Bellingham	40 MPH	30 MPH
Bellingham and Vancouver	55 MPH	45 MPH

2. SPEED RESTRICTIONS.

	All Trains or Engines
Over Brunette St., Sapperton	30 MPH
Over North Wye, Fraser River Bridge, New Westminster	4 MPH
Over Fraser River Bridge, New Westminster	6 MPH
Bridges 69, Colebrook	25 MPH
MP 123 and 127 between White Rock and Crescent, Oct. 1st to May 1st	20 MPH
Thru Blaine, Burlington, Mt. Vernon, Marysville	8 MPH
Over street crossings between So. Bellingham depot and street crossing just north of Bellingham freight depot	10 MPH
Account falling rock, all trains run at restricted speed between Samish Tunnel and two miles North Bellingham, Four C. M. St. P. & P. R. R. Crossings (2) Pine St., protected by gates	8 MPH
South Bellingham, N. P. Ry. crossing, protected by gates	8 MPH
Burlington, 7th, Subdivision crossing, protected by gates	8 MPH
Bridge 36, Mt. Vernon, Q-1, R-1, R-2, S-1 and N-3	5 MPH
Bridges 10, 11, 12, Delta & Marysville	10 MPH
Everett, over Bond, Hewitt, California and 24th streets	6 MPH
From May 15th to Sept. 15th, enginemen will sound their whistles at frequent intervals and ring the bell continuously from Ocean Park to two miles South of White Rock.	
Thru home zone Powell St. automatic interlocking plant on B. I. Line eight miles per hour.	

3. RESTRICTED CLEARANCES.

Restricted clearance along retaining wall Front Street crossing in front of New Westminster penitentiary.

4. SPECIAL RULES.

All trains arriving and leaving Vancouver, Vancouver Jct. and C. N. Junction will register in G. N. train order office, Vancouver.

Trains will not pass International Boundary without permission of Customs and Immigration officials.

The switches at the end of double track Still Creek and Endot are spring switches. The normal position of switch at Still Creek is for Southward trains, and at Endot for Northward trains.

Delta (Freight Yard) 1.08 miles south of Delta Junction:—

Water, Track Scales, Wye, Standard Clock, Oil, Turntable, and Bulletins.

Register at Delta for trains originating and terminating at that station.

Clearance Form A not necessary at Everett Junction.

INTERLOCKERS.

5. FRASER RIVER BRIDGE.

No train or engine movements shall be made on this bridge when interlocking plant is out of order, except when authorized to do so with regular Dominion Government clearance, which is provided for use in such cases.

6. DELTA JUNCTION.

All Southward trains or engines be governed by home signal located 700 feet North of drawspan. Top arm governs movement to Great Northern and lower arm governs movement to Northern Pacific connection. Top arm of home signal located 20 ft. North of Northern Pacific crossing governs movements to Bayside and lower arm to Delta yard.

Whistle signals for tracks with switches controlled from Delta Junction Interlocking Plant:

Main Track—One Long.

Delta Yard from North—One Long, one Short.

Delta Yard from South—Two Long, one Short.

Delta Yard North—Two Long.

Delta Yard South—Three Long, one Short.

Northward from Northern Pacific connection—One Long, one Short, one Long.

Southward for Northern Pacific connection—One Long, one Short, two Long.
 Train or engine movements from Bayside northward be governed by top arm of home signal.
 Train or engine movements from Delta northward be governed by top arm of home signal.
 Train or engine movements between Delta and Bayside be governed by lower arm of home signal.
 Train or engine movements northward from Northern Pacific connection to Great Northern main track governed by lower arm of home signal on Northern Pacific track. Top arm on advance home signal 500 feet south of Drawspan.

7. PRIVATE ROAD CROSSING, DELTA.

Rule 103 will be complied with at this private crossing.

8. STANDARD CROSSING GATES MAINTAINED ACROSS G. N. TRACKS, MAIN ST., VANCOUVER, B. C.

Normal position of gates is against railroad traffic.
 Before making a movement of engines or cars across Main Street, it will be necessary that yard foreman or engineer see that a man is stationed on the Street crossing to flag and prevent accidents to pedestriains, vehicles or street cars.

9. NEW WESTMINSTER SEMI-AUTOMATIC. FRASER MILL SPUR CROSSING AND CROSS OVER TO WATERFRONT TRACK.

Great Northern train movements over Fraser Mill spur crossing will be governed by manually operated gates. G. N. route over Fraser Mill spur crossing will be set manually after obtaining release of electric lock holding gates in STOP position.

Great Northern train movements from Main Track to Waterfront Track over C. P. R. crossing will be governed by indicator and electrically operated lock on main track switch stand. Great Northern route from main track to Waterfront Track over the C. P. R. crossing will be set manually after obtaining release of electric lock holding main track switch in normal position. Both ends of this long crossover are handled by the main track switch stand.

To unlock gates or switch, train man shall open lock box locked with standard switch lock and if light indicator is burning, push operating button. If the semaphore indicator in the lock box indicates CLEAR at close of this operation, gates or switch may be unlocked by raising the handle under the indicator to the vertical position. Handle must be left in this position until gates or switch are closed after train movement is completed, when it must again be placed in NORMAL position before door of the box can be locked.

If pushing the operating button does not bring about the above operation and no conflicting train movement on the C. P. R. is evident, trainman shall operate time release provided in box marked "RELEASE" and locked with a standard switch lock. Turn knob to the right until stopped, hold a few seconds and let go. Clockwork movement will return pointer to zero, or NORMAL position after a period of from one to two minutes. Under ordinary conditions the completion of the return movement should release the electric lock as indicated by the Semaphore indicator.

10. SEMI-AUTOMATIC INTERLOCKER AT THE CROSSING WITH THE C.P.R. AT BURRARD INLET, VANCOUVER, B. C.

C.P.R. train movements over the crossing will be governed by standard interlocking signal indications.

V.V.&E. train movements over the crossing will be governed by manually operated gates set normally across V.V.&E. track on both sides of the C.P.R. tracks.

C.P.R. routes will be set up automatically upon approach of C.P.R. trains.

V.V.&E. route will be set up manually after obtaining release of electric lock holding the gates in their normal position against V.V.&E. train movements. Traffic on Powell Street is governed by crossing signals of the wigwag type, interconnected with the electric gate lock and manually operated gates.

Control of the electric gate lock is provided in the yard office of the Harbours Board so that gates may be held locked against V.V.&E. train movements if C.P.R. trains are approaching.

To unlock gates, trainman shall open lock box secured by a standard switch lock and if small light indicator is burning, push operating button. If the semaphore indicator in the lock box indicates "Proceed" the gates may be unlocked by raising the handle under the indicator to the vertical position. Handle must

be left in this position until gates are closed, except as required for control of wigwags on Powell Street, when it must be returned to its normal (horizontal) position in order to close and lock door of lock box.

If the pushing of the operating button does not bring about the condition described above, and Harbours Board yard office control is closed, and no conflicting train movement on any of the three C.P.R. tracks is evident, trainman shall operate the clockwork time release provided in the release box by turning dial to the Right until it stops and then releasing it. It will return to the zero position after the time interval of approximately two minutes has elapsed and should release the electric lock as indicated by the semaphore indicator.

Standard interlocking Rule No. 672 supplemented by the following shall govern in the use of this interlocker.

V.V.&E. westward trains shall stop clear of Powell Street until gates are opened and way clear for movement across C.P.R. tracks, in order not to block traffic on Powell Street.

V.V.&E. trainmen shall use special care to determine that no immediate C.P.R. train movement toward the crossing is under way and that Harbours Board yard office control is closed before operating the clockwork time release in case operating push button fails to release the electric lock.

The wigwag crossing signals on Powell Street will be set in operation automatically when V.V.&E. gates are opened for V.V.&E. train movements. It is desirable that these wigwags operate only when V.V.&E. trains are closely approaching or actually fouling Powell Street. Wigwags may be cleared for street traffic when gates are open by moving lock handle from its vertical position to the right through approximately half of its stroke, or as far as it will go without forcing, or they may be set against street traffic by moving lock handle back to its vertical position.

If C.P.R. train is stopped by a "Stop" indication of interlocked signal, and no conflicting train movement is evident, trainmen may signal train to proceed over crossing, after making certain that gates are properly set against the movement of V.V.&E. trains.

11. LOCATION OF CROSSOVERS BETWEEN INTERBAY AND EVERETT JUNCTION.

MP 7-36 East of Ballard.

MP 15-02 Standard Oil Spur, East of Richmond Beach.

MP 17-92 East of Edmonds.

MP 24-29 Between Meadowdale and Mukilteo.

MP 28-40 Mukilteo Depot.

MP 29-84 East of Mukilteo.

MP 31-33 G. N. Oil Spur, West of Everett Jct.

12. ROUTING OF FREIGHT TRAINS BETWEEN WENATCHEE AND APPELYARD.

EASTWARD 2D SUBDIVISION FREIGHT TRAINS will use main line Wenatchee to Appleyard and westward trains will use lead track Appleyard to Wenatchee, entering main line at crossover just west of Wenatchee depot unless otherwise instructed by Yardmaster.

13. MANUAL CONTROL FOR OPERATION OF CROSSING SIGNALS AT CASHMERE is located in relay box on cable post just west of crossing. Control box is locked with switch lock. To put crossing signals in stop position, open circuit control switch by pulling handle down. After using, place handle in normal position and lock control box.

14. SPECIAL INSTRUCTIONS COVERING OPERATION OF TRAINS IN ELECTRIFIED TERRITORY:

With the object of avoiding damage to equipment and excessive delays on heavy grade Peshastin to one mile east of east switch, Leavenworth, and from a point one mile west of west switch at Leavenworth to Winton Tunnel, single trains in excess of 3,500 tons, with three General Electric locomotives coupled on the head end, are for any reason stopped on the heavy grade, they will double their trains into either Leavenworth or Winton and will not attempt to start train on the Chumstick line.

In the operation of freight trains with helper engine in the electrified zone, conductors must see that the helper engine is cut into train so that not more than rated tonnage of the helper engine will be trailing. When train does not have full tonnage for all of the engines, tonnage in the train must be pro-rated between the train engine and the helper engine.

When necessary to make back-up movement on ascending mountain grade, sufficient hand brakes must be set on rear end to

hold up the slack; and then when ready to proceed ahead again, these hand brakes must be released, starting from the rear car first and working towards the head end of the train, so the slack will run out gradually and avoid break-in-two.

Engineers must operate helper engines from controls on the right side when possible.

In handling trains 5000 tons or over, between Skykomish and Wenatchee, see that 15 heavily constructed cars with large ARA drawbars and heavy draft rigging are placed next behind motors with the heavy drawbar pull.

Helper engines on eastbound tonnage trains will drop their regeneration load at 20 miles per hour at foot of 2.2 grade Merritt and pick it up again starting down Winton Hill, and will drop their regeneration load at 20 miles per hour when stopping at Dryden to cut out helper.

Westbound helper engines will not assist train engineer thru regeneration in making final stop at Skykomish.

Holding capacity of units in regeneration are as follows:

One G. E. 1400 tons on 2.2 grade; 1900 tons on 1.6 grade at 15 to 18 miles per hour. One Westinghouse 1250 tons on 2.2 grade; 1750 tons on 1.6 grade at 15 to 18 miles per hour.

TONNAGE RATING ELECTRIC LOCOMOTIVES ON 2.2 GRADE.

General Electric1000 tons per cab
Westinghouse 750 tons per cab

Steam derricks, ditcher and other roadway machines must not be worked within two hundred feet of tunnel portals in the electrified territory, unless power is turned off on the trolley line. Arrangements for handling of the power to be made with Electrical Superintendent or his forces.

General Electric motors 5010 to 5017, inclusive, operating between Appleyard and Skykomish, have been equipped with high voltage connectors at the top of each end of cabs so that when motors are coupled together these connectors contact each other. These connectors are painted red, and when any pantagraph of a coupled number of these units is in contact with the trolley wire, all of these connectors are energized.

DO NOT COME IN CONTACT WITH THESE CONNECTORS.

15. MANUAL CONTROL SWITCH GOVERNING SIGNALS AT WINTON, BERNE AND SCENIC:

Knife switches have been installed in the depots at Scenic, Berne and Winton so connected to the westward automatic signal at the west switch at Scenic and Winton and the eastward automatic signal at the east switch at Berne that these signals can be set at stop in case anything is noticed wrong while trains are passing these depots.

Enginemen stopped by any of these three signals will not proceed until instructed to do so by the train men.

16. RULES COVERING SPECIAL OPERATION AT VANCOUVER, B. C.

National Harbor Board Railway are joint users of G. N. Ry. tracks at Vancouver, B. C. between Water front and connection with G. N. Ry. main line North of the roundhouse. Also North leg of wye from main line switch to connection with C. N. Ry. in the G. N. Ry. South yard, all of which is located in Vancouver Yard limits.

Dispatcher's and City phone located in a box car body near G. N. Ry. main line connection, and a City phone and train register located in the National Harbor Board yard office. All movements over the B. I. Line must be registered in both directions. Before movement is made over the B. I. Line in either direction, yard foreman or engineer will contact the yard office of the National Harbor Board Railway, and ascertain if there are any conflicting movements.

Air brakes must be cut in on all engines and cars and must be known to be working properly, and during the hours of darkness the engine must be on the leading end of the cars.

Speed restrictions over Georgia, Kiefer, Pender and Cordova Streets, eight miles per hour, and on Southward movements, before passing over Union St. the flagman must be sent ahead on the ground. Northward trains must not exceed ten miles per hour over Union St.

Fourth Subdivision.

1. MAXIMUM SPEED.

Between	Passenger	Freight
Hedley and Oroville	15 MPH	15 MPH
Oroville and Wenatchee	35 MPH	30 MPH

2. SPEED RESTRICTIONS.

H-4 engines when used on the W. O. Line should not exceed speed of 20 MPH on curves and 30 MPH on straightaway.

3. SPECIAL RULES.

Trains will not pass the International Boundary without permission of Customs and Immigration officials.
Take water only when absolutely necessary at Wakefield, Tonasket and Riverside.

Fifth Subdivision.

1. MAXIMUM SPEED.

Between	Passenger	Freight
Troup Jct. and South Nelson	15 MPH	15 MPH
South Nelson and Kettle Falls	30 MPH	20 MPH
Kettle Falls and Valley	40 MPH	30 MPH
Valley and Dean	35 MPH	30 MPH
Troup Jct. and Kettle Falls F-1.....	20 MPH	20 MPH

2. SPEED RESTRICTIONS.

Over Clark Fork Bridge, Waneta.....	8 MPH
Thru Chewelah Town Limits.....	8 MPH
Thru Deer Park Town Limits.....	10 MPH

3. SPECIAL RULES.

Class O-1 and larger engines must not be used on the siding at Addy.

All trains secure clearance Form A at Kettle Falls.

Northward trains will stop and make service test of air brakes at Apex before descending Nelson Hill.

Trains must come to a stop before reaching Troup Jct. switch and must know track is clear before using Canadian Pacific main track.

Trains will not pass International Boundary without permission of Customs and Immigration officials.

Water 4 miles south of Marble, 3 miles south of Fruitvale.

Sixth Subdivision.

1. MAXIMUM SPEED.

All trains	20 MPH
Trains with loaded log cars.....	15 MPH

2. SPECIAL RULES.

Normal position of Junction switch at Kettle Falls is for Fifth subdivision.

Trains will not pass International Boundary without permission of Customs and Immigration officials.

Seventh Subdivision.

1. MAXIMUM SPEED.

All trains	20 MPH
Bridge 12 Whitney	8 MPH
Bridge 52 Concrete	10 MPH

2. SPECIAL RULES.

Water station at Concrete is closed. In case of emergency, call on agent for instructions.

Engines should not go in on the log dump trestle Puget Sound Mill and Lumber Company, Anacortes account excess elevation. Can be used for cars only.

All trains secure clearance Form A at Burlington.

All Subdivisions.

1. MAXIMUM SPEED FOR ENGINES.

Steam:	
F-8, G-3,	40 MPH
N, Q-1, R,	45 MPH
O-5, Q-2	50 MPH
O-1, O-3, O-4, O-6, O-7, O-8	55 MPH
S-1	60 MPH
H-4, H-5, H-6, H-7, P-2, S-2	65 MPH
Oil and Gas Electric:	
5200-5201	35 MPH
5300-5301	40 MPH
5101 to 5105, 5302 to 5333, 5600, 5900-5901	45 MPH
5400 to 5404	75 MPH
5700-5701	85 MPH
2300 to 2324	50 MPH
2325 to 2341	70 MPH
Diesel-electric passenger engines light	60 MPH
All engines backing up	20 MPH

2. SPEED RESTRICTIONS.

When freight cars are moved in passenger trains the maximum speed of the train shall not exceed speed authorized for freight trains. Except cars equipped with passenger trucks and steel wheels.

Trains handling steam derricks, pile drivers ditchers, steam shovels, Main Line	25 MPH
Branch lines	15 MPH
and booms, if attached to machines must be in trailing position.	
Engine & train thru No. 20 turnouts Hillyard, Bluestem and Lamona	45 MPH
Engine & train through No. 15 turnouts, Fort Wright, Everett Jct. and Interbay	30 MPH
Engine & train through all other turnouts	15 MPH
Trains moving against current of traffic on double track thru interlocking plants or where governed by dwarf signals shall not exceed	15 MPH
Q-1 and R-1 class engines prohibited from all industry tracks.	

All trains must run at restricted speed where slides or falling rocks likely to be encountered.

MOVEMENT OF DEAD ENGINES IN TRAINS.

Steam engines with side rods on both sides	40 MPH
Steam engines without side rods	10 MPH
Gas-electric 2300-2324 inclusive	50 MPH
Gas-electric 2325-2339 inclusive	60 MPH
Oil-electric 2340-2341	60 MPH
Diesel-electric switch engines	40 MPH
Diesel-electric freight engines	45 MPH
Diesel-electric passenger engines	75 MPH

Place "O" class and larger engines, not to exceed 15 cars behind road engine, class F-8 and smaller engines next ahead of caboose.

Not less than 5 cars between all engines.

Gas and oil-electric motors must be handled on rear of train.

3. Omitted.

4. FOLLOWING TRANSPORTATION RULES IN THE CONSOLIDATED CODE, EFFECTIVE APRIL 1, 1939, ARE AMENDED, MODIFIED OR SUPPLEMENTED AS FOLLOWS:

Definitions: "Two or More Tracks" amended: Term "Double Track" to be continued in Time Table and Train Orders.

Rule M: Supplemented:

(a). Paragraph 4: Modified: Employees may step up on footboard of an approaching engine when standing outside of rail, but will not get on or off between rails.

(b). Not more than one employe will ride on leading footboard of engine, then outside of rail, preferably on engineer's side.

(c). Employees are prohibited from riding on pilot or pilot beam of engine, or on footboard between engine and cars when cars are being pulled, shoved, switched, or while coupling is being made.

(d). When adjustment is necessary to drawbar, knuckle pin, or locking block prior to making coupling, or when coupling fails, engines or cars must be separated not less than 10 feet and action taken to prevent movement before going between cars.

(e). Where helper engine is used behind caboose helping train, helper pilot will ride engine, and engine will be uncoupled by trainman from caboose platform.

(f). Employees are forbidden to stand with feet resting upon car trucks, truck frame, or oil box while car is in motion.

(g). Riding on end of cars containing lading which may shift is prohibited.

(h). Trainmen or other employees, when carrying baggage or other articles, except brake club and lantern, are prohibited from climbing up or walking over top of trains.

Rule 2: Second sentence modified: The certificate in prescribed form must be renewed and filed with the Watch Inspector during the month of August each year.

Rule 2(A): Modified: "At monthly intervals" instead of "At semi-monthly intervals."

Watch comparison should be made as nearly as possible at 30 day intervals.

Rule 5: Paragraph 5 amended: In Time Table train numbers in small figures adjoining will not be shown at scheduled meeting or passing stations.

Rule 8(A): Modified: Electric lanterns displaying yellow light approved for use of switch tenders.

Rule 26: Supplemented: Switches at repair tracks will be locked with private lock, in addition to the blue signal protection, and lock may be removed only by the foreman in charge of repair track.

Rule 27: Supplemented: Lights will be displayed at night on all main line train order signals. On branch lines where lights are not used in train order signals at night, trains will positively ascertain position of signal before passing.

Lamps on main line switches in Automatic Block Signal territory, and on branch lines where no night service is performed, have been discontinued, except at authorized locations.

Rule 91: Supplemented: On tracks where no block signals are in service and on double track movements against the current of traffic, the train order signal will be used by operators, during their assigned hours, for spacing trains 10 minutes apart after train has passed the train order signal 300 feet.

Rule 95 & S-96 & Train Order Form F (For sections): When signals are displayed to an intermediate register station of a schedule, the first section will display the signals to the regular stop of the train at that station, whether it be on the main track or some other track; following sections must clear the main track at the entrance switch of the siding at that station unless otherwise directed by train order or unless Rule 93 permits them to use the main track. When signals are displayed to the terminal of schedule on a sub-division, all the sections have the same right as the regular train has when no signals are displayed. Rule D-97: When a clearance is used authorizing an extra train to move with current of traffic, the point to which this movement is authorized must be endorsed on the clearance in the form, To filling in the name of the station in addition to the number of the clearance. The authority for train movements will thus be restricted to the point named without necessity of cancelling the clearance in each case.

Rule D-97 is in effect on this division.

Rule 99: Supplemented: When a passenger train stops the flagman must immediately appear on the ground at the rear of rear car with necessary flagging equipment and properly clad, prepared to remain out for an indefinite time without having to return to the train for any purpose.

Rule 206: Supplemented: Engine numbers of regular trains will be shown in train orders. In transmitting and repeating train orders by telephone, numerals one to nine inclusive and fractions, as well as the station and time in the body of an order will be first plainly pronounced and then spelled letter by letter, thus: Aurora, A-u-r-o-r-a and one naught five-o-n-e n-a-u-g-h-t f-i-v-e. Other numerals above nine will first be plainly pronounced, and then each figure separately pronounced, thus: ten, one-naught; four hundred one, four-naught-one; twenty one eighty five, two-one-eight-five.

Rule 509-B: Supplemented: When a train is proceeding through a block on a stop and proceed indication, all facing point switches shall be examined before passing over them. When stopped by a stop and proceed indication at the leaving end of a siding, enginemen and trainmen should understand that such signal indication may be due to an opposing train proceeding into the same block at the opposite end under an approach signal indication, Rule 501 (B), and before proceeding into the block every precaution, consistent with running orders, and the nature of the track ahead, should be taken to insure safe movement through the block.

Rule 728 and Maintenance of Way Rule 28: Supplemented: In double track territory, the red flag or red light will be placed between the rails of obstructed track, instead of between tracks.

Rule 812: Supplemented: Running inspection should also include frequent inspection of the track behind the caboose. If any fresh marks are noticed train should be stopped immediately and train dispatcher notified so slow order can be issued for information of other trains to avoid unnecessary stopping of trains.

5. The following Consolidated Code of Transportation Rules and definitions do not apply to Great Northern or Northern Pacific employes, unless they work in joint territory where such rules are in effect.

10f	251-264 incl.	Manual Block
14 t, u, v, w.	300-373 (A) incl.	system
210	501 F	Block Stations
217	606 a, b, c, d.	Cab signals
225	636	

6. Double heading trains is prohibited, except as authorized by Superintendent.
7. Cars will not be pushed by engines between stations, except:
(a). To switch spur tracks between stations, cars then to be moved to first available switch where they will be run around. When making such a move, trainman or yardman must take a conspicuous place on the lead car, and speed be restricted to 10 MPH.
(b). Steam derricks, snow, track and bridge equipment may be so handled when absolutely necessary to maintain satisfactory train operation.
8. After severe blizzard or dirt storm, employes on first train over road must exercise care to avoid accident caused by striking drifts without first having drifts faced with hand shovels, cutting in far enough to get beyond the hard snow and giving a perpendicular wall to strike against instead of slope or wedge-like shape.
9. Omitted.
10. On snow and dirt dozers every precaution must be taken to see that cage, flangers and wings clear all obstacles when in service and are properly secured when in through trains, and dozers properly turned.
11. When operating snow machines in non-block signal territory no train should be permitted to follow closer than a station apart, when that cannot be done they will be blocked not less than thirty minutes apart.
12. If a car handled on rear of train has coupler pulled out, draft gear housing should be removed if possible. When that cannot be done trainmen must know that housing is securely fastened to prevent further accidents in transit.
13. When a train strikes livestock bring train to a stop and make prompt inspection to ascertain if any damage to equipment. If livestock is struck by trains near switches, the switches should be examined, dispatcher notified, and sectionmen called so permanent repairs can be made.
14. When a main track switch is run through trainman must, in addition to spiking it, notify dispatcher and call sectionman so that permanent repairs can be made.
15. When main track is out of service between siding switches and trains must be run through siding, dispatcher will be notified immediately, and switches will be set for siding. In non-block signal territory, flagmen will be provided beyond switches in addition to other protection.
16. Facing point locks on hand operated switches are indicated by a six inch yellow stripe painted on target staff. Be positive locking device is restored to normal position after using. A running switch must not be made through this type switch.
17. When placing cars on delivery tracks at elevators, warehouses, platforms, or where material of any kind is piled close to the tracks above the height of the sill steps, trainmen and yardmen must not ride the sides of the cars next to such obstructions while cars are in motion. Work should be carried on from either the tops of the cars, when conditions permit, or on the opposite side of the track from such obstructions.

18. Trainmen will closely observe lading of open top cars in transit, and if found shifting, see that it is properly adjusted or car set out.
19. Loaded dump cars should not be handled on double track after dark, but if necessary to do so, close watch must be kept by trainmen and if a car dumps its load, train must be stopped and protection afforded on the opposite track.
20. Brakeman with less than one year of experience should not be used as flagman except in emergency, and then Superintendent will be notified by wire.
21. Where Automatic Highway crossing signals are in service, every effort will be made to avoid unnecessary operation of these signals and delay to highway traffic. Manual control is provided where conditions require, and instructions for its use are posted in box attached to instrument case at crossing.
22. Conductors will see that multiple sheet metal protectors are returned to equipment box on baggage cars when extra journal bearings are used.
23. Conductors will report by wire all flat spots on wheels of passenger cars. Any cars having flat spots on wheels of more than two and one-half inches long must be set out.
24. Conductors of stock trains will see that coaches occupied by stock attendants are properly heated and kept comfortable while in their charge.
25. U. S. Postal Mail Clerks must be notified by conductors when trains are operated against the current of traffic on double track or through sidings.
26. Conductor will make prompt wire report to Superintendent and General Foreman of Passenger Equipment, St. Paul, when air hose is removed from sealed box marked "Emergency Air Hose" found over Jennings Drive on passenger cars having truck mounted brakes, and when spare belt is removed from air-conditioned cars.
27. Account necessity of heating road oil to permit faster flowing such cars will not be spotted in the immediate vicinity of any building due to fire hazard.
28. Baggage cars returned deadhead when moved in storage mail service in opposite direction will be accompanied by waybill carrying notation "Deadhead mail car, no material of any character other than U. S. Mail or mail sacks to be loaded in it." Conductors will be held responsible for compliance of waybill instructions.
29. Handling of Explosives, Inflammable and Corrosive Liquids. Cars placarded explosives moving in through freight trains must be handled not less than 16th car from road engine, one car from helper engine, and 11 cars from caboose. These cars may be handled second car from engine or caboose in local trains. These cars must not be placed in train next to loaded tank cars, flat or gondola cars loaded with pipe, lumber, poles, iron, steel, or refrigerator cars equipped with gas burning heaters, stoves or lanterns, or next to box cars bearing inflammable or corrosive liquids. Cars containing explosives must have air and hand brakes in operative condition, and must not be cut off while in motion. Placarded loaded tank cars must not be placed in train next to cars containing lighted heaters, stoves, lanterns or gas burning type refrigerators, or next to flat or gondola cars loaded with logs, lumber, rails, pipe or anything that is liable to shift, and cars must not be handled less than 6th car from engine or caboose when possible to do so. Loaded tank cars must not be cut off in motion until all preceding cars have cleared route, and in turn cleared, before any cars are allowed to follow. Further details covering handling of Explosives, Inflammable and Corrosive Liquids may be found in I.C.C. Regulations.
30. The use of open flame lights, burning oil lanterns, and smoking, prohibited when handling gasoline or other flammable oils, and in or around the operating cab of gas-electric motors.
31. Delivery of gasoline or other flammable oils must not be made after dark.
32. Gas-electric motors must not be fueled while occupied by passengers, or coupled to cars occupied by passengers.

33. When engine is being spotted for purpose of taking fuel or water, or leaving there, it will not be moved until it is positively known that employees are located where they will not be injured. To prevent ice forming during cold weather, be careful to avoid overflowing of engine tank.
34. Employes must not go out on exterior of cab or use running board, nor hang from gangway or steps of a moving engine. On standing engines the narrow ledge along the bottom of cab must not be used. In climbing down from cabs, employes must face towards engine.
35. Snow or ice should not be allowed to accumulate on footboards.
36. Employees who are authorized to move engines at shops and roundhouses, either on inside or outside tracks, must, by inspection, know before moving engine that it is in condition to be moved, and be positive that no one is working underneath or around it that is liable to be injured. When necessary to work under engine on outside tracks another employe will stand watch to prevent engine being moved.
37. Fire builders must see that reverse lever is in center of quadrant with throttle closed and cylinder cocks open before starting fire to generate steam in boiler.
38. No person will move the reverse lever of an engine without first knowing that no one is working around links or other parts who might be injured thereby.
39. When changing brake shoes on engines or doing work about them that might cause injury due to unexpected application, employes must know that air brakes are cut out and inoperative.
40. On engines equipped with bridge sprinklers, enginemen must use sprinklers (except during freezing weather) when passing over bridges, station platforms, and when pulling away from stations where ashes have been dumped. Trainmen should observe whether or not sprinklers are working and report failures to enginemen.
41. The hole in fire box door of oil burning engines will be closed except when being used for sanding purposes.
42. Employes who desire to wear colored glasses while on duty are obliged to purchase them from Company Storekeeper.

OPERATING SPRING SWITCHES.

43. **TRAIN OR ENGINE MOVEMENTS MAY BE MADE "THROUGH" THE SWITCH IN A TRAILING POINT DIRECTION WITHOUT OPERATING THE SWITCH STAND.**

Train or engine movements over the switch will be governed by color light type signals, located at the switch, displaying a "LUNAR WHITE" light to designate a "SPRING SWITCH IN NORMAL OPERATING CONDITION", and "RED" for "STOP AND PROCEED".

The speed of a train or engine "RUNNING THROUGH" the Spring Switch shall not exceed 15 MPH until the leading truck has passed through the switch, when normal speed may be resumed.

When part of a train or engine has "RUN THROUGH" the Spring Switch, no movement shall be made in the opposite direction until the Switch has been thrown to the reversed position by means of the switch stand. **TO BACK UP THE TRAIN BEFORE SWITCH HAS BEEN THROWN WILL CAUSE A DERAILMENT.**

When a train or engine moving in either direction, not "through" the switch, is stopped by a "STOP AND PROCEED" signal at the Spring Switch, it may proceed after making certain that the switch is properly set for such movements.

When a train or engine moving in the direction to run "THROUGH" the switch is stopped by a "STOP AND PROCEED" signal at the Spring Switch, it may proceed after throwing the switch by hand and making certain that it is properly set for such movement. Switch shall be returned to its **NORMAL POSITION.**

44. **REVISED AIR BRAKE BULLETIN INSTRUCTIONS.**

All employes concerned have been provided with a Book of Rules and Regulations governing the Care and Operation of Air Brake and Air Signal equipment, effective January 1, 1936. This book of instructions gives reference to certain bulletins

issued by the Superintendent. In this connection, be governed by the following:

AT REPAIR POINT TERMINALS:

At Hillyard, Spokane, Appleyard, Wenatchee, Delta, Interbay, Seattle and Vancouver, B. C., car inspectors are employed and will handle the inspection and testing of air brakes as well as signal equipment, on passenger and freight trains in the manner prescribed in the above mentioned book of rules. They will be held responsible for and see that all hand and air brakes are fully released before the train is permitted to leave the terminal. Trains leaving these points must have the air brakes on all cars in effective operation condition, viz. 100%. On incoming freight trains, the terminal brake test will be made as prescribed in Rule 47.

AT ALL OTHER TERMINALS:

At terminals or points where trains, transfer or special switch movements specified below originate, or where engine, or engine crew, or train crew change on train, the inspection of air brakes must be done by the train or yard crew and the engine crew as prescribed in Rule 42. The train will not be allowed to leave such points with less than a continuous 85% of the cars behind the engine with operative air brakes. If any car is found with inoperative brakes, such car or cars must be switched to the rear of train and defect card, Form 1127, attached to such car in a conspicuous place, as prescribed in Rule 56 and Transportation Rule 815.

Conductors and Yard Foremen will be held responsible for the observation of these instructions.

Transfer or special switch movements between

Hillyard and Fort Wright,

Appleyard and Olds,

Delta and Lowell,

Delta and Water Front tracks,

South Bellingham and cement plant and North Bellingham,

Across main track and over B. I. line, Vancouver, B. C.,

Between Interbay and Seattle,

Between Interbay and Ballard, and connecting lines and in all interchange movements,

will have air brakes coupled and connected with the engine and air brakes will be tested in the prescribed manner.

AT OTHER POINTS ENROUTE THE FOLLOWING WILL APPLY:

Where one or more cars are added to a train, the cars picked up, when placed in a position where they are to be handled in train, must be tested, as prescribed in Rule 42. Where cars are discovered with defective air brakes, it is permissible to move them to nearest repair point, providing that 85% of the remaining cars in train are subject to air brake control from the engine.

CURRENT CONSOLIDATED CODE OF TRANSPORTATION RULES 814 to 818, inclusive, do not supersede, in any way, Air Brake and Air Signal rules of January 1, 1936, but are supplementary thereto.

Brake pipe pressure of 90 lbs. will be carried on all main line passenger trains. Freight trains and branch line passenger trains will carry 70 lbs., except freight trains in the mountain district will carry 90 lbs., when handled by steam locomotive.

Freight trains handled by electric locomotives between Skykomish and Appleyard, will normally carry 70 lbs., train line pressure, except that if necessary to make use of the air brakes, immediately thereafter, the train line pressure will be increased to 90 lbs., and maintained the balance of the trip.

Both passenger and freight trains must make running test of automatic air brakes shortly after leaving terminal points, as described in air brake rules, and at any other point before descending grades or when weather or other conditions make it advisable. On descending grades in excess of 1.8%, retainers must be used and before descending such grades, terminal test must be made by train crews. Conductors will confer with engineer and between them decide on the number of retainers to be used.

On passenger and freight trains handled by electric power between Skykomish and Appleyard, the use of retainers is not necessary, except when it is necessary to handle the movement of the train with automatic air brakes.

Where necessary for one man to change engine on passenger trains, the engineer, after stop for this purpose has been made, will make service application of 25 lbs., after which he will place

brake valve in emergency position and leave it there until signal is received to release. On a departing train after the power unit is coupled, the engineman will make a service application of 25 lbs., after which he will place the brake valve in emergency position and leave it there until a signal to release is received. The usual air brake tests will then be made after the brake system has been charged to not less than 70 lbs.

45. OPERATION OF INTERLOCKINGS.

Trains moving against the current of traffic on double track through interlockings, or where governed by dwarf signals, shall not exceed 15 MPH. Conditions may require a further speed restriction.

SEMI-AUTOMATIC INTERLOCKING.

New Westminster—0.80 miles north of New Westminster.
Vancouver, B. C., C. P. R. R. crossing at Burrard Inlet.

RAILROAD CROSSINGS PROTECTED BY CROSSING GATES.

Burlington, Seventh Subdivision.

One and one-fourth miles north of So. Bellingham, N. P. Ry.
Bellingham, Four—C. M. St. P. & P. Ry.; (1) Army St., (1) Commercial St., (2) Pine St.

STANDARD INTERLOCKING RULE 672 SUPPLEMENTED BY THE FOLLOWING SHALL GOVERN IN THE USE OF AUTOMATIC INTERLOCKING PLANTS. ADDITIONAL INSTRUCTIONS AS REQUIRED WILL BE POSTED IN RELEASE BOXES:

If smash boards or semaphore type signals are not in use trainmen, before giving hand signal in accordance with Rule 672, shall place a burning red fusee at each home signal on conflicting routes. If smash boards or semaphore type signals are in use, and may be plainly seen to be in their "normal" position (set against train movements on conflicting routes), the placing of fusees will not be required.

When necessary to operate smash board mechanism by hand, crank for this purpose is located in **RELEASE** box. Crank must be inserted in shaft on back of smash board mechanism after opening small cover locked with standard switch lock. Crank should be turned slowly and uniformly until movement has completed its entire stroke and smash board has been moved to its "reverse" position. When operation is complete, small cover must be locked and crank returned to the **RELEASE** box.

46. Omitted.

47. SPECIAL RULES.

Baggage cars on trains 1 and 2 carry 100 ft. of steam hose in two 50 ft. lengths for emergency use in event of steam failure on train engine and non-steam train line engine furnished to handle train. On one of the 50 ft. lengths, one end is equipped with standard connection to fit steam dome of engine and other end equipped with standard Vapor No. 312 steam coupler which fits all steam conduits. The other 50 ft. hose has both ends equipped with Vapor No. 312 steam coupler. Fastened to base of reel is an extra combination Vapor No. 312 steam coupler, which can be attached to hose with steam dome connection and in case of steam line failure on a car both hose can be used to run around such car so can be taken to first terminal, but car to be drained before proceeding.

48. INSTRUCTIONS RELATIVE TO HANDLING LOGS.

Flat or skeleton cars loaded with logs must not pass thru tunnels without permission of Superintendent.

Must be inspected before passing over drawbridges and Howe truss spans.

Must not exceed 20 miles per hour.

Trainman must be on rear platform while train is in motion.

In double track territory, conductor must notify dispatcher when logs are to be handled and trains must be at stop when meeting or being passed by other trains, except when two trains handling logs are meeting or passing.

In electrified zone and double track territory, logs must be secured to cars by chains or cables, except between Hillyard and Fort Wright.

On single track, trains must be at stop when meeting or being passed by passenger trains, except when there are more cars than siding will hold, when it will be permissible to pull by passenger trains slowly.

No trains may pass under overhead railroad bridge at Snohomish or Skykomish when cars loaded with logs are passing over the bridges.

49. GREAT NORTHERN BULLETINS ON TENANT LINES.

N. P. Ry. Everett, Auburn, Sumas, Seattle.
C. M. St. P. & P. R. R. Everett, Tacoma, Enumclaw.
Canadian National Port Mann.
Harbor Board Vancouver, B. C.

50. POWER LINES LESS THAN 27 FT. CLEARANCE.

Under present regulations, we are required to maintain a 27 foot clearance space between rails and the lowest signal line conductor, or power lines. Locations where a 27 ft. clearance is not maintained are as follows:

Location	Present Clearance
One mile west of Rock Island, Wash.	23' 9"
MP 1646 east of Appleyard, Wash.	25' 6"
MP 1775 Snohomish	25' 9"
Public crossing Startup MP 1758	24' 9"
528 ft. West MP 1762	25' 6"
700 ft. West Fry's Switch MP 1770	25' 3"
900 ft. West Fry's switch spur track	26' 9"
925 ft. West Fry's Spur track	25' 1"
300 ft. West MP 1775	25' 9"
South Switch Delta Wye	25'
Industry Spur, Marysville, Wash.	23'
House track, Stanwood, Wash.	24'
Industry track, Stanwood, Wash.	24'
English Lumber Spur 1.3 mi. south of Fir, Wash.	25'
Union Oil Co. Spur, Mount Vernon, Wash.	25' 10"
Carnation Milk Spur, Burlington, Wash.	25' 6"

In operation at these places and at any other similar restricted clearance that may not be included above the necessary care and precaution must be used by men riding on cars.

51. In case fire occurs on an air conditioned passenger car occupied by passengers, immediate action must be taken to shut off the blower fan switch located in cabinet box.

52. When necessary to set out equipment due to hot box, be sure that all traces of fire are extinguished.

53. The contract with the Western Fruit Express Company does not relieve the Railway of responsibility for proper handling of perishable freight on the road and at points where the Express Company does not maintain representatives. Conductors on trains carrying perishable freight will ascertain from waybills service required and light or extinguish heaters and manipulate vents in accordance with current CODE OF RULES FOR HANDLING PERISHABLE FREIGHT issued by the National Perishable Freight Committee, copies of which are furnished to all interested parties.

54. Telephones located in booths and freight houses must be kept secured by lock except when being used.

55. Air hose on Diesel engines must be kept hooked up in hose fastener when not in use.

SPECIAL RULES APPLYING IN CANADA

Canadian Maintenance of Way flagging rules, Board of R. R. Commissioners General Order No. 188, amended by Orders Nos. 248, 280 and 368.

MW-49. Before undertaking any work which will render the track impassable, or if rendered impassable from any cause or defect, trackmen, bridgemen, or other employes of the Company shall protect the same as follows:

(a) On double track; (b) on three or more tracks; (c) in mountain territory; and (d) on all lines with frequent (i. e., nine or more trains per day), or fast (35 miles per hour or over), train service.

Send out a flagman in each direction with stop signals, at least:

1,500 feet in daytime, if there is no down grade towards the obstruction within one mile, and there is a clear view of 6,000 feet from an approaching train.

3,600 feet at other times and places, if there is no down grade towards the obstruction within one mile.

5,400 feet if there is a down grade towards the obstruction within one mile.

MW-50. The flagman must, after going the required distance from the obstruction to insure full protection, take up a position where there will be an unobstructed view of him from an approaching train of, if possible, 1,500 feet, first placing two torpedoes on the rail (not more than 200 or less than 100 feet apart), on the same side as the engineman of an approaching train, 300 feet beyond such position. The flagman must display a red flag by day and red light by night, and remain in such position until recalled or relieved.

MW-51. On other lines:

(a) By day place a red flag and, in addition, by night a red light, on the same side of the track as the engineman of an approaching train, at a point 600 feet from the defective or working point, with two torpedoes placed on the rail opposite each other so as to cause but one explosion, 150 feet in advance of the red signal, and provide further protection as follows:

(b) By day place a red flag supported on two staffs with flag drawn out between them, at right angles to the track and five feet above rail level; and, in addition, by night, a red light; on the same side of the track as the engineman of an approaching train so that it will be clearly in his view, at least:

3,600 feet from the defective or working point, if there is no down grade towards the obstruction.

5,400 feet if there is a down grade within one mile of the obstruction, or as much farther as may be necessary to insure full protection.

(c) Place two torpedoes (not more than 200 or less than 100 feet apart) on the rail on the same side as the engineman of an approaching train, 300 feet in advance of the red signal.

(d) Between sunset and sunrise and during stormy, foggy or smoky weather conditions, flagman must be placed instead of outer signals referred to in clause (b).

MW-52. (a) Trains stopped by flagman, as per Rules MW-49 and MW-51 (d), shall be governed by his instructions and proceed to the working point signal, and there be governed by signal or instructions of the foreman in charge.

(b) Trains stopped by red signal, as per Rule MW-51, shall replace the torpedoes exploded and proceed to the working point signal, and there be governed by signal or instructions of the foreman in charge, unless in the meantime stop signal has been removed.

(c) In the event of train order protection being provided, the defective or working point may be marked by signals placed in both directions as follows:

Yellow flags by day, and in addition, yellow lights by night, 3,600 feet from the defective or working point, red flags by day, and in addition, red lights by night, 600 feet from the defective or working point, on the same side of the track as the engineman of an approaching train; except on double track, where trains run to the left, in which case signals shall be placed to the left hand side as seen by an engineman of an approaching train, and there is a clear view of at least 1,200 feet.

(d) When weather or other conditions obscure day signals, night signals must be used in addition.

(e) That a signal of serviceable type, consisting of a bunting flag, 22x28 inches, five feet above rail level, supported by any satisfactory device which will securely maintain such flag in proper position, be used to display the signals directed to be provided under Rule MW-51, paragraphs A and B (red signal), Rule MW-52, paragraph C (yellow signal) of this circular, and Rule 35 (yellow signal) of the uniform code of operating rules.

(f) Flagmen then must each be equipped for day time with a red flag and four torpedoes, and for night time, and when weather or other conditions obscure day signals, with a red light, or white light, four torpedoes, three red fuses, and a supply of matches.

GENERAL ORDER NO. 361 OF THE BOARD OF TRANSPORT COMMISSIONERS FOR CANADA PROVIDES IN PART:

That in the case of—

(a) derailments, collisions, failures of locomotive boilers, highway crossing accidents, when the same are attended with personal injury to any person using the Railway, or to any employes of the Company;

(b) All other accidents occurring on the Railway attended with personal injury to any person using the railway, or to any employes of the Company, and in which accidents the movement of trains, engines or cars is involved (but not in the case of accidents occurring in Railway shops, manufacturing establishments, or other places of the Railway Company in which the movement of trains, engines or cars is not involved in the accident); and

(c) any damage caused by any such accidents to any bridge, culvert, viaduct or tunnel on the Railway rendering the same impassable or unfit for immediate use (and whether attended by personal injury to any person, or employes of the Company or not):—the Conductor or other employe of the Railway Company who is in charge of the train, place or structure in connection with which the accident occurred, shall at the expense of the company and at the same time as he reports to the company, send a telegram addressed to the Chief Operating Officer of the Board at Ottawa, containing the following information:

(a) Date and place.

(b) Name of Railway.

(c) Number and description of train or trains, engine or engines concerned.

(d) Number of passengers, employes or others killed and injured.

(e) Statement of any damage to any bridge, culvert, viaduct or tunnel.

(f) A short and concise statement of the apparent cause of the accident.

(g) Name and title of person sending report.

Attention of conductors, section foremen and B & B foremen is particularly called to the provision in the Order which requires that in case of certain accidents involving damage to track or structures, the foreman in charge of the work must file a wire report to the Chief Operating Officer of the Board at Ottawa, giving information under the heads specified in the Order, and in the case of train accidents such reports must be filed by wire by the conductor.

Where the foreman or the conductor have occasion to file such wire, they should be filed with the nearest agent of this company, who will transmit same and make claim for relief of charges covering the cost of the telegram.

PROTECTION IN FOGGY OR STORMY WEATHER.

By night, or in foggy or stormy weather, a red light must be placed on unattended cars or dead engines obstructing main tracks within yard limits.

KEEP OFF MAIN TRACKS WHILE TRAINS PASSING.

Where the main tracks parallel each other and are less than twenty feet from center to center whether such tracks are for double or single track operations, employes in every instance when stepping out of the way of approaching engines, must move to the right of way and not to the other tracks.

This is called to the attention of all employes in Canada with special reference to our two main tracks between Still Creek and Endot, B. C., which are but fourteen feet center to center.

REVERSE MOVEMENT OVER PROTECTED CROSSING.

In Canada when trains or engines pass over any highway crossing protected by automatic signals or automatic gates, before making a reverse movement over the same crossing, it is necessary for a member of the train crew to protect same.

GENERAL ORDER NO. 382 DATED MAY 11, 1923, ISSUED BY THE BOARD OF TRANSPORT COMMISSIONERS FOR CANADA HAS BEEN RESCINDED, AND IT IS ORDERED:—

That paragraph No. 1685 of the Regulations for the Transportation of Explosives, approved by the said General Order No. 204 dated August 11, 1917, be struck out and the following substituted therefor:

1685 (1) On lines where regular trains are operating in freight service only, cars containing explosives must not be hauled in a train that carries passengers.

(2) Where only a mixed train service is operated or where passengers are carried in a caboose car of a freight train.

(a) A car containing a shipment of explosives (not exceeding 1000 lbs.) may be hauled, provided the said car be so placed in the train that not less than three freight cars are between it and the car carrying passengers, and not less than one freight car between it and the locomotive hauling the train.

(b) A car containing a shipment of explosives exceeding 1000 lbs. may be hauled, the said car to be so placed in the train that not less than five freight cars are between it and the car carrying passengers, and not less than three freight cars between it and the locomotive hauling the train.

(c) Provided further that should there be two or more cars containing explosives at any one time, a special train must be run to carry such shipments over the branch or mixed train run.

(d) Whenever it is practicable to do so, cars containing explosives, must be placed between freight cars not bearing "ACID" or "INFLAMMABLE" placards. Cars containing explosives must have air and hand brakes in service.

USE AND CARE OF HEADLIGHTS IN CANADA.

It is ordered, as follows:

1. That every Railway Company subject to the legislative authority of the Parliament of Canada, be, and it is hereby, required to equip its locomotives used in road service between sunset and sunrise, with headlights which will enable persons with normal vision in the cab of a locomotive, under normal conditions, to see a dark object the size of a man for a distance of 800 feet or more, ahead of locomotive. Such headlight must be maintained in good condition.

2. That every locomotive used in road service which is regularly required to run backward for any portion of its trip, except to pick up a detached portion of its train, or in making terminal movements, shall have on the rear a headlight which will meet the requirements of this order.

3. That nothing in these regulations shall prevent the use of a device whereby the light may be diminished in yards, at stations, (and on two or more tracks when approaching trains moving in opposite direction) to an extent that will enable a person or persons operating the locomotive to see a dark object the size of a man for a distance of 300 feet or more ahead of the locomotive, under normal weather conditions.

4. (a) That nothing in these regulations shall prevent the use of temporary devices being used to substitute the regular headlight when necessary to move a train from the point at which the headlight equipment has broken down or failed, provided the train moves at a speed not exceeding ten miles an hour over any public highway crossing not specially protected by watchman, gates, or automatic signal, until the first station with passing track or siding as shown in the time table is reached where an examination must be made, and if possible, the headlight put in good working condition.

(b) That in case repairs cannot be made at the station referred to, the train may proceed to the first repair point, displaying such light as may be available and provided at such station, passing over all public highway crossings, not specially protected by watchman, gates or automatic signal at a speed not exceeding twenty miles an hour, provided that in the event a light cannot be furnished, the engine must be replaced or assisted by an engine displaying a proper light.

(c) That while proceeding to the first station and/or repair point, the whistle signal for all highway crossings not protected by watchman, gates or automatic signal must be given the second time approaching all such crossings.

(d) That repairs to the equipment must be effected at the first repair point, or the engine replaced. (First repair point is such a place at which the company has the necessary facilities to make ordinary repairs to electrical or other power headlight equipment.)

(e) That spare bulbs and other necessary parts must be supplied at the initial terminal and carried on each locomotive, and that a list of such parts be furnished for the information of the engineer, whose duty it shall be to check over to see that such supplies are furnished before starting out on his trip from such terminal.

5. That each locomotive used in yard service between sunset and sunrise shall have two lights, one located on the front of the locomotive and one on the rear, each of which shall enable a person with normal vision in the cab of a locomotive, under normal weather conditions, to see a dark object the size of a man for a distance of at least 300 feet in front of such light; and such lights must be maintained in good condition.

6. That the said General Orders Nos. 199 and 226 dated respectively July 24, 1917 and April 4, 1918, be, and they are hereby rescinded.

GENERAL ORDER NO. 548 OF THE BOARD OF TRANSPORT COMMISSIONERS FOR CANADA DATED MARCH 11, 1936, SUPERSEDING THEIR ORDER NO. 362 DATED MARCH 1, 1935.

In carrying out this Order it will be the duty of all officers and employes generally to take precaution to prevent fires on or along the road-way of the Company to promptly extinguish, investigate and report fires and the probable cause thereof.

Conductors, enginemen or trainmen who discover or receive notice of the existence and location of a fire burning upon or near the right of way, or a fire which threatens lands adjacent to the right of way shall report same by wire to the Superintendent and shall also report it to the agent or the persons in charge at the next or nearest point at which there shall be communication by telephone or telegraph and to the first section employes passed, giving exact location by mileage.

Enginemen shall, on discovering or receiving notice of a fire, stop and notify the first section employes passed of such fire unless it is practicable for the train crew to extinguish same immediately, in which case this action shall be taken.

When a fire is discovered, presumably started by the Railway, section men or other employes of the Railway as are available shall, either independently or at the request of any authorized officer, proceed to the fire immediately and take action to extinguish the fire, provided such section men or other employes are not at the time engaged in labor immediately necessary for the safety of trains.

No employes shall in any way cause damage to the netting or any fire protection appliances, on any locomotive or other boiler in service, open the back dampers of any locomotive while running ahead or the front dampers while running tender first, except when there is snow on the ground and it is necessary to take such action in order to have the engine steam properly.

Fire, live coals or hot ashes shall not be deposited on the track or right of way unless they are extinguished immediately thereafter except in pits provided for that purpose.

Under no circumstances, shall ash pans be dumped or ashes taken from cars or cabooses be thrown out on the ground or right of way while running. Burning or smouldering waste taken from hot boxes shall be covered with earth or otherwise completely extinguished.

All Ditcher, Derrick and Pile Driver Engineers shall see that all necessary fire preventive appliances are kept properly attached to their equipment.

Conductors, enginemen and trainmen have received instructions to report all fires occurring on or adjacent to the right of way, and it shall be your duty, on receiving such report, to notify immediately the Superintendent or Roadmaster by wire, also the Section Foreman and local Fire Inspector of the Transport Commission, giving the exact location by mileage of the fire, its extent and any other information which may be of value, particularly as to the number of men needed to extinguish same.

THE BOARD OF TRANSPORT COMMISSIONERS FOR CANADA IN THEIR CIRCULAR NO. 240 OF APRIL 19TH, PLACED FOLLOWING INTERPRETATIONS ON THOSE PARTS OF RULE 103 OF THE GREAT NORTHERN BOOK OF RULES THAT ARE APPLICABLE:

That where instructions require that all switching movements over a highway crossing shall be protected by a member of the train crew, those instructions include movements of the engine over the crossing either before, during or after switching movement takes place.

The Board of Transport Commissioners for Canada have directed our attention to the fact that slow orders over highway crossings are not being lived up to. This refers to both crossings where there has been an accident and the slow order is in effect pending investigation and to those where permanent slow orders have been placed.

Train and enginemen shall be very careful to see to it that slow orders placed on particular crossings are closely observed.

HOURS OF SERVICE.

All train and enginemen operating into Canada will comply with the requirements of the United States Federal Hours of Service Law commonly known as the 16 Hour Law.

BUSINESS TRACKS NOT SHOWN ON TIME TABLE

NAME	LOCATION	Capacity Cars
FIRST SUBDIVISION:		
East Galena	8.2 miles South of Galena	30
Adrian Pit	0.8 mile East of Adrian	75
Stratford Spur	1.3 miles West of Stratford	12
Sand Spur	1.6 miles West of Trinidad	16
Gravel Spur	2.9 miles West of Trinidad	63
Ohio Colony	1.5 miles West of Rock Island ..	8
Landreth Spur	4.4 miles East of Wenatchee ..	10
SECOND SUBDIVISION:		
Old Leavenworth	0.53 mile East of Leavenworth ..	67
Great Republic Mining Co., Miller River	2.2 miles West of Skykomish ..	11
Weyerhaeuser Timber Co.	1.0 mile East of Grotto	57
Baring	1.26 miles East of Halford	19
Index, Galena Mill Spur	0.3 mile East of Index	42
Western Granite Works Spur	1.0 mile West of Index	8
Wallace Falls Timber Co.	1.8 miles East of Gold Bar	76
Startup	1.9 miles West of Gold Bar	22
Fryeland	1.9 miles West of Monroe	10
Robinson Lettuce Spur	2.0 miles West of Monroe	56
G. N. Oil Tank Spur	1.0 mile West of Everett Jct.	45
Standard Oil and Shell Co.'s Spur	0.9 mile East of Richmond Beach	90
THIRD SUBDIVISION:		
Clark and Buzza	0.1 mile South of Still Creek ..	2
Dominion Bridge Co.	1.4 miles South of Still Creek ..	58
Sapperton Pit	0.9 mile North of Sapperton ..	77
B. C. Peat Product's	6.05 miles North of Colebrook ..	12
Dakota Creek Spur	2.1 miles South of Blaine	21
Olympic Portland Cement Co. Spur	2.0 miles South of Ferndale	27
Chuckanut Cannery Spur	6.56 miles North of Samish	6
Belleville Pit	4.3 miles North of Burlington ..	102
English Lbr. Co.—Inter- change	1.3 miles South of Fir	2
Norman Spur	1.0 mile North of Silvana	9
FOURTH SUBDIVISION:		
Ruby Mine Spur	4.9 miles South of Chopaka	4
Dwinnell Siding	1.0 mile South of Cordell	20
Peterson Spur	2.0 miles North of Ellisford	1
Thornton Spur	3.41 miles North of Tonasket ..	2
Ribbon Cliff Fruit Co.	5.1 miles North of Entiat	6
Olds Washing Plant	2.02 miles North of Olds	60
FIFTH SUBDIVISION:		
Euphrates Spur	1.7 miles South of Apex	1
Porto Rico Spur	3.6 miles North of Ymir	2
Swansons Spur	1.3 miles South of Ymir	4
Durango Spur	1.8 miles South of Ymir	13
Baskins & Gevurtz Spur	1.9 miles South of Ymir	8
Archibald	1.0 mile South of Erie	11
Benton Pole & Lbr. Co. Spur	2.0 miles South of Meadows ..	6
Ross Spur	3.2 miles South of Meadows ..	9
Nelson's Spur	2.4 miles North of Fruit- vale	2
Stroh Spur	5.33 miles North of North- port	3
Hudson's Spur	3.3 miles South of North- port	10
Cameron	4.5 miles South of North- port	12
Kanes	4.1 miles South of North- port	5
Hendrix Cut	3.8 miles North of Bossberg ..	3
Kulzer's Spur	1.7 miles South of Valley	8

**BUSINESS TRACKS NOT SHOWN ON TIME
TABLE—Continued.**

NAME	LOCATION	Capac- ity Cars
Gess Spur	2.8 miles North of Valley	3
Blue Creek Spur	3.1 miles South of Addy	12
SIXTH SUBDIVISION:		
Hedlund Spur	3.8 miles East of Boyds	3
SEVENTH SUBDIVISION:		
Mountview	3.7 miles West of Rockport	16
Van Horne's Spur	1.0 mile West of Nestos	5
Puget Sound Saw Mill Co...	0.8 mile West of Nestos	80