

SPEED TABLE

Miles Per Hour	Time Per Mile	Miles Per Hour	Time Per Mile
12	5.00	12	5.00
14	4.29	14	4.29
16	3.75	16	3.75
18	3.33	18	3.33
20	3.00	20	3.00
22	2.73	22	2.73
24	2.50	24	2.50
26	2.31	26	2.31
28	2.14	28	2.14
30	2.00	30	2.00
32	1.88	32	1.88
34	1.76	34	1.76
36	1.67	36	1.67
38	1.58	38	1.58
40	1.50	40	1.50
42	1.43	42	1.43
44	1.36	44	1.36
46	1.30	46	1.30
48	1.25	48	1.25
50	1.20	50	1.20
52	1.15	52	1.15
54	1.11	54	1.11
56	1.07	56	1.07
58	1.04	58	1.04
60	1.00	60	1.00

C. R. Bink
H. J. Gales
H. A. Haind
F. H. Moore
J. E. O'Brien

GREAT NORTHERN RAILWAY COMPANY

KALISPELL DIVISION

Special Instructions No. 3

EFFECTIVE 12:01 A. M.

**MOUNTAIN TIME
AND**

PACIFIC TIME

Sunday, February 23, 1947

**MOUNTAIN TIME GOVERNS FIRST, SECOND,
THIRD, FIFTH AND SEVENTH SUBDIVISIONS**

**PACIFIC TIME GOVERNS FOURTH
AND SIXTH SUBDIVISIONS**

These Instructions constitute a part of the Time-Table currently in effect. Employees whose duties are in any way affected by the Time-Table must have a copy of the Current Special Instructions and Current Time-Table with them on duty.

W. R. MINTON, Superintendent
I. E. MANION, General Manager
J. B. SMITH, General Superintendent of Transportation

FIRST SUBDIVISION

(Main Line)

1. **MAXIMUM SPEED FOR TRAINS.** ^{15 16}
For Streamliners, See Item 1, Pages 14 and 15.

Between	Other Passenger	Freight
Westbound Pacific Junction and Blackfoot.....	60 MPH	45 MPH
Eastbound Blackfoot and Cut Bank.....	65 MPH	45 MPH
Eastbound Cut Bank and Pacific Junction.....	60 MPH	45 MPH

Where zone speed for Streamliner is lower than the maximum permissible speed for other trains, zone speed will govern.
2. **SPEED RESTRICTIONS.**
Bridge No. 43 to a point 1500 feet west, Galata..... 45 MPH
Between Blackfoot and Shelby, eastward trains on westward track 40 MPH
Bridge 68, Cut Bank 30 MPH
Between Home Signals of Interlockings at Shelby..... 20 MPH
3. **ENGINE RESTRICTIONS ON INDUSTRY TRACKS.**
Diesel engines may use any track declared safe for O-6.
Steam engines heavier than O-6 not permitted on industry tracks at:
Burnham.
Fresno.
Hingham, from 200 feet east International Elevator to loading platform.
Rudyard, from St. Anthony and Dakota Elevator to Farmer's Union Coal Bin.
Inverness, from International Elevator to Conoco Oil Tanks.
Chester, pit tracks; and along loading platform of stockyard track.
Tiber.
Lothair, from 50 feet east of crossing to west switch.
Devon, from Farmer's Union Oil Co. to Gallatin Valley Elevator.
Shelby, house track along platform; Illinois Pipe Line Spur;
Treasure State Refining Co. Spur; north 3 track from 290 feet west of east switch to 230 feet east of west switch.
Ethridge, halfway between elevator and stock chute west end, elevator on east end.
4. **TRAIN REGISTER EXCEPTIONS.**
Shelby, all trains register by ticket, except Nos. 3, 4, 27, 28, Third class trains, and trains originating and terminating.
Blackfoot, first class trains register by ticket.
5. **CLEARANCE PROVISIONS AND EXCEPTIONS, RULE 83 (B).**
(a) Havre, Kalispell Division clearance received at this point will clear train at Pacific Jct.
(b) Pacific Jct., eastward Kalispell Division trains will not require clearance and may proceed to Havre with the current of traffic when signals indicate proceed.
(c) Sweet Grass, Kalispell Division clearance issued to Butte Division train will clear train at Sweet Grass Line Jct.
6. **RESTRICTED CLEARANCES.**
Shelby, turnouts at end of double track and crossover east thereof, also turnout at east end south 3 track and west end industry track, these turnouts are located so close together that engines cannot safely operate on both turnouts at the same time and movements of this kind are prohibited.
7. Eastward freight trains that do not have sufficient time to get into clear at Havre before No. 236 and No. 238 are due out of Pacific Jct. will let No. 2 and No. 4 pass at some point west of Pacific Jct.
8. Engineers on westward first class trains handled by steam engines will take sufficient oil at Shelby and sufficient water at other points to allow handling of train beyond Whitefish.
9. Blackfoot, outgoing crews on through freight trains will not move train until incoming conductor has informed them that inspection has been completed, unless incoming crew has already tied up.

10. CROSSOVERS ON DOUBLE TRACK.

Facing Point	Trailing Point
Cut Bank	Shelby, west crossover
	Ethridge
	Baltic
	Sundance
	Fort Piegan
	Meriwether

11. SPRING SWITCHES WITH FACING POINT LOCK.

Buelow, East switch eastward siding.
West switch westward siding.
Tiber, East and west siding switch.
Shelby, East switch.
Cut Bank, East siding switch.

Normal position is for main track.

12. MANUAL INTERLOCKINGS WITH DUAL CONTROL SWITCHES.

Shelby End of double track
Cut Bank End of double track, at east and west end Bridge 68

Blackfoot End of double track
Switch at end of double track above points controlled from depot.

Whistle Signals for routes:

Shelby:

Single track to westward main track...2 long. 1 short.
Single track to eastward main track...1 long. 1 short. 1 long.
Eastward main track to single track...1 long. 1 short. 1 long.
Westward main track to single track...2 long. 1 short.
Eastward main track to switching lead...2 long. 1 short.
Switching lead to eastward main track...2 long. 1 short.
Blackfoot:
Single track to eastward main track...1 long. 1 short.
Westward main track to single track...2 long. 1 short.
Running against current of traffic...1 long. 1 short. 1 long.
Eastward siding, from or to...1 long. 4 short.
Westward siding, from or to...2 long. 4 short.

13. SEMI-AUTOMATIC INTERLOCKINGS.

Pacific Junction Junction with Butte Division.
Pacific Jct., switches operate automatically for all movements with the current of traffic and for westward Kalispell Division trains when running against the current of traffic, except for westward trains destined Great Falls with the current of traffic switches are controlled from depot, Havre.

Switches must be operated by hand for other movements.

When an eastward train on the Great Falls Line receives a proceed indication at home signal and is required to wait for the arrival of an eastward Kalispell Division train, trainman shall operate push button "R" located in iron box at eastward home signal which will permit route to be changed to avoid delay to eastward Kalispell Division train.

When push button "R" has been operated and no train movement made, route may be reset for eastward train on Great Falls Line by operation of push button "N".
Push button box must be locked after using.

14. SWITCH INDICATORS.

Sweet Grass Line Jct., indicators are located near Junction switch. Separate indicators are provided for eastward and westward main tracks. Push buttons and instructions for their operation are in iron box locked with a switch lock.

If train or engine movement is to be made from Sweet Grass Line to westward main track, it is only necessary to operate westward track indicator. If train or engine movement is to be made from the Sweet Grass Line to eastward main track, both indicators must be operated.

The member of the crew who is to line switches must first operate push button "R" for route desired and hold a few seconds. Both the trainmen and the engineer must observe and be governed by the indicator before lining switches or fouling main track.

If indicator displays a yellow light when push button "R" is operated, switches may be lined and movement made immediately without waiting as prescribed by Rule 513. The yellow light will be extinguished by the lining of the main track switch. If a yellow light is not displayed in the indicator when push button "R" is operated, every precaution, consistent with train rights and operating rules, must be taken before lining switch or fouling main track.

If push button "R" is operated, and the intended movement is not made or main track switch is not lined, push button "N" must be operated to restore signal system to normal condition to avoid delays to trains on main track. Push button "N" must never be operated after push button "R" if the intended movement is to be made.

Push button boxes must be kept closed and locked, except as required to be open for immediate use.

SECOND SUBDIVISION

(Main Line)

1. **MAXIMUM SPEED FOR TRAINS.** ^{15 16}
For Streamliners, See Item 1, Pages 14 and 15.

Between	Other	
	Passenger	Freight
Blackfoot and Browning	65 MPH	40 MPH
Browning and Summit	45 MPH	35 MPH
Summit and Essex	45 MPH	25 MPH
Essex and Columbia Falls	45 MPH	30 MPH
Columbia Falls and Whitefish	55 MPH	40 MPH

Where zone speed for Streamliner is lower than the maximum permissible speed for other trains, zone speed will govern.

2. SPEED RESTRICTIONS.

Between Summit and Nimrod, westward trains on eastward track:

Passenger	30 MPH
Freight	20 MPH
Nimrod, through gantlet Bridge 116	20 MPH
Columbia Falls, trains handled with heavier than 0-6 using siding turnouts	5 MPH
Whitefish, freight trains pulling into yard	8 MPH

Between Summit and Essex, engineers on helper engines moving light must so regulate speed that they can stop short of snow-slides, sluff-offs, or any obstruction on track.

3. ENGINE RESTRICTIONS ON INDUSTRY TRACKS.

Diesel engines may use any track declared safe for 0-6. Steam engines heavier than 0-6 not permitted on industry tracks at:

- Spotted Robe.
 - Bison.
 - Rising Wolf, for a distance of 400 feet from west switch.
 - Belton, beyond 130 feet from clearance point Slack's Spur.
 - Coram, 1 mile west of, Diller Spur.
 - Columbia Falls, old house track; west end new house track; Westberg Spur; Superior Building Company Spur.
- If necessary to set out or pick up on these tracks hold on to sufficient cars as reachers.

4. TRAIN REGISTER EXCEPTIONS.

Blackfoot, first class trains register by ticket.

5. Blackfoot, eastward freight trains arriving on yard or main tracks will stop west of end of double track to avoid blocking crossover when cutting off to hostile engine.
6. Blackfoot, outgoing crews on through freight trains will not move train until incoming conductor has informed them that inspection has been completed, unless incoming crew has already tied up.
7. Westward passenger trains will make a running air test descending False Summit Grade, and before passing through Summit, and must know air brakes are operative before reaching heavy descending grade west of Summit.
8. Summit, head brakeman on eastward freight trains arriving with helper engine to cut out at rear, will get off head end and station himself where he can hear whistle signal of helper engine. After helper engine is cut out and into clear on westward main track, helper engineer will signal the road engine to back up and make coupling on to rear of train by sounding three blasts of the whistle. Head brakeman, after hearing whistle signals from helper engine, will give hand signal to road engine to back up.

Conductor or rear brakeman will remain on caboose until road engine has coupled on to rear portion of train to guard against the detached portion running back down the grade after helper engine has been cut off.

Eastward freight trains will make the prescribed air test after coupling up train and helper engine cut out.

9. Summit, westward freight trains will pull rear end of train clear of end of double track to avoid delay to eastward trains.
10. Summit, westward freight trains handled by steam engines must make test of air brakes and turn up retainers before proceeding.
Westward freight trains handled by Diesel engines equipped with dynamic brakes will not use retainers unless dynamic brakes have failed. Stop will be made at Nimrod to turn down retainers.
11. Westward freight trains will stop their engines just east of inspection point sign located 400 feet east of fouling point east end of Nimrod gantlet.
12. Essex, eastward freight trains will cut in helper where it can be cut out of train through crossover to westward main track when train engine is stopped clear of interlocking at end of double track, Summit.
13. Essex, freight trains cutting in helper engine will, after pulling head end up, stop and make full application of brakes and leave applied until proceed signal is received from helper engine.
Helper engineers, after pulling up rear portion and coupling into train, will make full application on rear of train and will leave applied, then cut in air through train. Helper engineer will then close double heading cock before returning brake valve to running position. Helper engineer will then sound signal, Rule 14 (b) and train engine will release brakes.
The prescribed air test must be made by train engine before starting, and speed of train departing must allow train crew to make full inspection and safely board train.
When helping freight trains engineers will set brake pipe feed valves for 60 pounds.
14. Whitefish, conductors of eastward outgoing freight trains will inform engineers if ready to depart on completion of air test. If not ready to depart, head brakeman will so locate himself that he can hear announcement over speaker system when train is ready.
15. Whitefish, when changing engines on eastward passenger trains, outgoing engine will stand into clear on east end of house track.
16. Whitefish, passenger trains arriving with engine going through will leave steam heat on train. If engine is to be changed, or there are cars to be set out or added, blow steam heat line out and shut off steam.
17. **CROSSOVERS ON DOUBLE TRACK.**

Facing Point	Trailing Point
Summit	Nimrod
Blacktail	Essex, east crossover
Singleshot	Pinnacle
Essex, west crossover	Columbia Falls, west crossover
Columbia Falls, east crossover	Half Moon
18. **EMERGENCY TELEPHONES.**
Between Blacktail and Nimrod:

Tunnel No. 1 west end	Booth
Curve No. 115 west end at Windy Point	Booth
Tunnel No. 1 1/2 east end	Booth
Snowshed No. 7	40 ft. from east end on center post...Steel Box
Snowshed No. 8	40 ft. from east end on center post...Steel Box
Snowshed No. 9	40 ft. from east end on center post...Steel Box
Curve No. 129 east end	Booth
Snowshed No. 10	40 ft. from west end on center post...Steel Box
Snowshed No. 10.7	40 ft. from west end on cent. post...Steel Box
Snowshed No. 11	40 ft. from west end on center post...Steel Box
Curve No. 140 east end	Booth
Pinnacle, 1 1/2 miles west of, 500 ft. west Tunnel No. 3	Booth
Belton, 3 1/2 miles east of, east end Tunnel No. 3.8	Booth
Columbia Falls, 4 miles east of, 500 ft. east Tunnel No. 5	Booth

19. SPRING SWITCHES WITH FACING POINT LOCK.

Belton, east and west siding switch.

Normal position is for main track.

Brent, end of double track.

Normal position is for westward main track.

Whitefish, end of double track.

Normal position is for eastward main track.

West lead switch.

Normal position is for main track.

20. DRAGGING EQUIPMENT DETECTOR INDICATORS.

Indicators for westward trains are located at east end Snowshed 4-C, approximately 2 miles west of Blacktail; 1000 ft. west MP 1190, 6 miles east of Belton. Indicators consist of a single light unit with circular background mounted on signal mast approximately 7 feet above top of rail. Normally no light is displayed on this unit. Track equipment which operates the indicator is located about one mile distant in the approaching direction and consists of apparatus installed on both sides of the rail which will be broken by dragging equipment. The breaking of this apparatus will cause the indicator to display a white light which in no way modifies block signal indications. When the indicator displays a white light, stop shall be made as promptly as possible consistent with safety to the train and inspection made for dragging equipment. The fact must be reported to the Superintendent from the first available point of communication.

21. MANUAL INTERLOCKINGS.

Red Eagle End of double track.

Whistle signals for routes:

Single track to eastward main track....1 long. 1 short.

Single track to westward main track....1 long. 1 short. 1 long.

Eastward siding to eastward main track1 long. 4 short.

Eastward main track to single track....1 long. 1 short. 1 long.

Westward main track to single track....2 long. 1 short.

Westward main track to westward siding2 long. 4 short.

22. MANUAL INTERLOCKING WITH DUAL CONTROL SWITCHES.

Blackfoot End of double track.

Summit End of double track.

Switch at end of double track above points controlled from depot.

Whistle signals for routes:

Blackfoot:

Single track to eastward main track....1 long. 1 short.

Westward main track to single track....2 long. 1 short.

Running against the current of traffic....1 long. 1 short. 1 long.

Eastward siding, from or to1 long. 4 short.

Westward siding, from or to2 long. 4 short.

Summit:

Single track to eastward main track....1 long. 1 short. 1 long.

Single track to westward main track....2 long. 1 short.

Eastward main track to single track....1 long. 1 short. 1 long.

Westward main track to single track....2 long. 1 short.

23. AUTOMATIC INTERLOCKINGS.

Nimrod Gantlet Bridge 116.

Brent End of double track.

Whitefish End of double track.

Nimrod:

Release for westward route on westward track is located in release box at eastward home signal.

Release for eastward route on eastward track is located in release box at westward home signal.

Cranks for hand operation of smashboards are attached by chains to the mechanism.

If a train moving against the current of traffic is stopped by dwarf signal, trainman will operate release located in release box nearest the dwarf signal, and if signal does not indicate proceed when release returns to normal position, trainman may flag through gantlet making certain that smashboard at opposite end of gantlet is in reverse position. Westward trains when delayed at Nimrod may hold the interlocking for their use for a period of six minutes by using push button located at westward home signal.

Brent:

Interlocking operates automatically for all movements, except

for westward trains from single track to eastward track, which requires hand operation of spring switch before proceed signal indication may be obtained. Eastward trains on eastward track have preference over eastward trains on westward track. When an eastward train on westward track is to move through the interlocking while an eastward train on eastward track is standing at eastward home signal, trainman shall operate push button "R" located in an iron box and locked with a switch lock at eastward home signal. If push button "R" is operated and the intended movement is not made, or main track switch is not lined, push button "N" must be operated to restore signal system to normal condition to avoid delays to trains on main track. Push button "N" must never be operated after push button "R" if the intended movement is to be made.

Push button boxes must be kept closed and locked, except as required to be open for immediate use.

When a train in either direction is stopped by a stop-indication and no immediate conflicting train movement is evident, it may proceed in accordance with Rule 509 (B) after making certain that the spring switch is properly lined for the route desired. If necessary to line switch by hand it should be returned to the normal position after train movement has been completed.

Whitefish:

Interlocking operates automatically for all movements, except for eastward trains from single track to westward track, which requires hand operation of spring switch before proceed signal indication may be obtained.

Westward trains on westward track have preference over westward trains on eastward track. When a westward train on eastward track is to move through interlocking while a westward train on westward track is standing at westward home signal, trainman shall operate push button "R" located in an iron box locked with a switch lock at westward home signal. If push button "R" is operated and the intended movement is not made, or main track switch is not lined, push button "N" must be operated to restore signal system to normal condition to avoid delays to trains on main track.

Push button "N" must never be operated after push button "R" if the intended movement is to be made.

Push button boxes must be kept closed and locked, except as required to be open for immediate use.

Instructions from train dispatcher will govern as to preference movement to be made through interlocking at end of double track.

24. SWITCH INDICATORS.

Essex, indicators are located near hand operated east and west switches of westward siding for movements from westward siding to or across main tracks.

Separate indicators are provided for eastward and westward main tracks, and push buttons and instructions for their operation are in iron box locked with a switch lock.

If movement is to be made from westward siding to westward main track, it is only necessary to operate the westward track indicator.

If movement is to be made from westward siding to or across eastward main track, both indicators must be operated.

The member of the crew who is to line switches must first operate push button "R" for route desired and hold a few seconds. Both the trainman and the engineer must observe and be governed by the indicator before lining switches or fouling main track.

If the indicator displays a yellow light when push button "R" is operated, switches may be lined and movement made immediately without waiting as prescribed by Rule 513. The yellow light of the westward track indicator will be extinguished by the lining of the westward siding switch. The yellow light of the eastward track indicator will be extinguished by the lining of crossover switch on westward main track.

If a yellow light is not displayed in the indicator when push button "R" is operated, every precaution, consistent with train rights and operating rules must be taken before lining switch or fouling main track.

If push button "R" is operated and the intended movement is not made, or main track switch is not lined, push button "N" must be operated to restore signal system to normal condition to avoid delays to trains on main track.

Push button "N" must never be operated after push button "R" if the intended movement is to be made.

Push button boxes must be kept closed and locked, except as required to be open for immediate use.

THIRD SUBDIVISION

(Main Line)

1. MAXIMUM SPEED FOR TRAINS. 15 & 16

For Streamliners, See Item 1, Pages 14 and 15.

Between	Other Passenger	Freight
Whitefish and Troy	55 MPH	45 MPH

Where zone speed for Streamliner is lower than the maximum permissible speed for other trains, zone speed will govern.

2. SPEED RESTRICTIONS.

Whitefish, freight trains pulling into Yard 8 MPH

3. ENGINE RESTRICTIONS ON INDUSTRY TRACKS.

Diesel engines may use any track declared safe for 0-6. Steam engines heavier than 0-6 not permitted on industry tracks at:

Lupfer.
Olney.
Radnor.
Stryker.
Trego.
Fortine.
Tobacco.

Rexford, house track.

Warland Pit, tracks Nos. 3, 4 and 5.

Libby, all engines prohibited beyond first frog on tracks leading to J. Neils Lumber Company.

Troy, Car Repair tracks; Mine Spur; J. Neil's Lumber Company Spur west of stockyard.

If necessary to pick up or set out on these tracks hold on to sufficient cars as reachers.

4. TRAIN REGISTER EXCEPTIONS.

Troy, Nos. 1, 2 register by ticket.

5. Whitefish, passenger trains arriving with engine going through will leave steam heat on train. If engine is to be changed, or there are cars to be set out or added, blow steam heat line out and shut off steam.

6. Spokane "Universal" cars are placed on head end of westward freight trains at Whitefish. Hold on to these cars when picking up on line.

7. Trego, do not spot cars within 300 feet of public grade crossing.

8. Track north of main track extending between Fortine and Tobacco is known as EASTWARD FREIGHT TRACK and must be used by eastward trains only, except first class and passenger extras unless otherwise instructed by train order. All trains using this track will display markers as though running against the current of traffic on double track. (See Rule 19, fig. 9.)

When a train is given right over an opposing train to the end of EASTWARD FREIGHT TRACK at either Fortine or Tobacco and the opposing train has not arrived at the point last named in the order, the train thus given right is not required to wait for the opposing train and will proceed on its regular track, but must not go beyond the other end of the EASTWARD FREIGHT TRACK unless the second named train has arrived or is directed by train order to do so, or when time table authority will permit movement beyond.

Crossover at Fortine located 7500 feet west of east switch is known as FORTINE CROSSOVER.

Crossover at Tobacco located 7500 feet east of west switch is known as TOBACCO CROSSOVER.

Normal position of crossover switches on EASTWARD FREIGHT TRACK is for through movement on that track.

9. Tobacco, short track south of main track will be known as No. 1 track, capacity 45 cars, and must be kept clear except when being used by trains. Normal position industry track switches for No. 1 track.

10. Rexford, when train order signal indicates Stop, eastward freight trains holding main track on a meet with westward freight trains, will stop engine just west of depot so that operator may deliver train orders to the westward train on siding.

11. Troy, engines tying up must be spotted near fuel oil pumping plant so that stationary fireman can watch conveniently in addition to other duties.

12. Troy, eastward through freight trains on main track or long lead with steam power, will stop at oil standpipe for fuel, where change in crews will be made; trains using Diesel power, when on main track, engine with train may pull down to west end of station platform to change crews, unless oil spur is being switched, and when on long lead, stop clear of oil spur switch. Westward through freight trains holding main track will stop clear of east crossover, unless otherwise instructed, to permit use of crossover while engine is being hostied.

13. Troy, outgoing crews on through freight trains will not move train until incoming conductor has informed them that inspection has been completed, unless incoming crew has already tied up.

14. Troy, in application of Consolidated Code Rule 204 (A), conductor will deliver orders to rear trainman instead of operator.

15. CROSSOVERS ON DOUBLE TRACK.

Facing Point
None

Trailing Point
Troy

16. EMERGENCY TELEPHONES.

Whitefish, 3 miles west of, west end Curve

292 Watchman's Cabin

Lupfer, 1½ miles east of, near center Curve

305 Watchman's Cabin.

17. SPRING SWITCHES WITH FACING POINT LOCK.

Whitefish, west lead switch.

Vista, west siding switch.

Lupfer, east and west siding switch.

Radnor, east and west siding switch.

Trego, east and west siding switch.

Fortine, east switch eastward freight track.

Eureka, east and west siding switch.

Rexford, east and west siding switch.

Ural, east and west siding switch.

Volcour, east siding switch.

Yarnell, east and west siding switch.

Ripley, east and west siding switch.

Libby, west siding switch.

Normal position is for main track.

Troy, end of double track.

Normal position is for eastward main track.

18. SPRING SWITCHES WITHOUT FACING POINT LOCK.

Troy, east end south yard track.

Normal position is for main track.

19. MANUAL INTERLOCKINGS WITH DUAL CONTROL SWITCHES.

Tobacco West switch Eastward Freight Track.

Electrically operated interlocked switch and signals will be normally set for main track. Movements into and out of EASTWARD FREIGHT TRACK will be controlled by operator at Tobacco. Standard Interlocking Rules 601A to 671 inclusive, and Automatic Block Signal Rules 501A to 519 inclusive, will govern use of this interlocking. When instructed by the operator, the electric switch may be operated by hand for switching or other movements as required.

To Operate Switch by Hand

1. Throw short lever to position displaying "Hand".

2. Throw lever marked "Hand Throw" slowly until clutch engages and switch points begin to move with "Hand Throw" lever. Switch may now be used as a Hand throw switch 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 the interlocked switch unless the short lever is in the position displaying "Hand" and the switch has been set in the position desired by means of the "Hand Throw" lever.

20. SEMI-AUTOMATIC INTERLOCKINGS.

Kootenai FallsEnd of double track.
Kootenai Falls, switch at end of double track operates automatically with the following exception:

Movement of westward trains from single track to double track against the current of traffic requires manual operation and is controlled by operator, Libby. When interlocking is inoperative it will be necessary to line switch by hand.

FOURTH SUBDIVISION

(Main Line)

1. MAXIMUM SPEED FOR TRAINS.

For Streamliners, See Item 1, Pages 14 and 16. *15-16817*
Other

Between	Passenger	Freight
Troy and Hillyard	55 MPH	45 MPH

Where zone speed for Streamliner is lower than the maximum permissible speed for other trains, zone speed will govern.

2. SPEED RESTRICTIONS.

Bonnors Ferry, over public crossing east of depot	15 MPH
Priest River, train No. 4 passing mail crane	12 MPH
Priest River, Bridge 244, R engines	20 MPH
Between Albeni Falls Spur and Diamond Match Mill	10 MPH
Mead, over switches and frogs on curves at Aluminum Plant	3 MPH

3. ENGINE RESTRICTIONS ON INDUSTRY TRACKS.

Diesel engines may use any track declared safe for 0-6.
Steam engines heavier than 0-6 not permitted on industry tracks at:

Leonia, east end to crossing west of depot.
Katka.

Crossport.

Bonnors Ferry, $\frac{3}{4}$ mile east of, beyond 500 ft. from main track switch to Boyd-Conlee Spur.

Bonnors Ferry, Elevator track; S. I. Ry. transfer track; Pea Spur; No. 4 yard track; west leg of wye; Dock track.

Moravia.

Naples, east end to crossing east of depot; Mill Spur.

Elmira, east half.

Colburn, 0.6 mile east of, Brown Timber Company Spur.

Colburn.

Sandpoint, all tracks leading off main stem of wye.

Wrencoe.

Laclede.

Thama.

Priest River, Kaniksu Spur; Lindsay's Spur; Log Spur.

Newport, Log Spur and all tracks east of C.M.St.P.&P. Ry. crossing on Dock track.

Camden.

Elk, west end to crossing east of depot.

Albeni Falls, Diamond Match Company Spur. If necessary to pick up or set out on these tracks hold on to sufficient cars as reachers.

4. TRAIN REGISTER EXCEPTIONS.

Hillyard, First class trains and passenger extras register by ticket.

Troy, Nos. 1, 2 register by ticket.

5. RESTRICTED CLEARANCES.

Albeni Falls Spur, when switching Diamond Match Company Mill, be governed as follows:

(a) Be sure that drawbridge over planer track is raised and into clear.

(b) Kicking or dropping cars on mill spur, or any tracks leading to planer, saw mill, or pole yard tracks, is prohibited.

(c) Before coupling onto cars on any tracks, see sufficient hand brakes are set to prevent cars running in case coupling fails.

(d) Employes are prohibited from riding on sides or top of engines and cars or walking along side when switching planer track.

(e) Smoking is prohibited in vicinity of mill, lumber and pole yards.

6. Spokane "Universal" cars are placed on head end of westward freight trains at Whitefish. Hold on to these cars when picking up on line.

7. Troy, engines tying up must be spotted near fuel oil pumping plant so that stationary fireman can watch conveniently in addition to other duties.

8. Troy, eastward through freight trains on main track or long lead with steam power, will stop at oil standpipe for fuel, where change in crews will be made; trains using Diesel power, when on main track, engine with train may pull down to west end of station platform to change crews, unless oil spur is being switched, and when on long lead, stop clear of oil spur switch. Westward through freight trains holding main track will stop clear of east crossover unless otherwise instructed, to permit use of crossover while engine is being hostled.

9. Troy, outgoing crews on through freight trains will not move train until incoming conductor has informed them that inspection has been completed, unless incoming crew has already tied up.

10. Troy, in application of Consolidated Code Rule 204 (A), conductor will deliver orders to rear trainman instead of operator.

11. Bonnors Ferry, normal position of junction switch, Sixth Subdivision, is for eastward siding.

12. Newport, Town Ordinance prescribes public crossings shall not be blocked in excess of five minutes.

13. Dean, normal position of junction switch, Spokane Division, Fifth Subdivision, is for Kalispell Division main track.

14. Hillyard, westward freight trains arriving without advance notice of designated track to head in on, will remain on westward main track east of end of double track, until necessary information is obtained by telephone.

15. CROSSOVERS ON DOUBLE TRACK.

Facing Point	Trailing Point
Mead	Troy
	Davies Spur, 1.9 miles east Mead
	Mead

16. EMERGENCY TELEPHONES.

Between Troy and Yakt10 poles west MP 1341.

Between Yakt and LeoniaEast portal Tunnel No. 8.

Between Leonia and Katka13 poles east MP 1353.

3 poles east MP 1356.

Between Katka and Crossport.....West portal Tunnel No. 10.

Curve 593, 2 miles east Crossport.

Between Scotia and Camden.....8 poles east Tunnel No. 11.

17. SPRING SWITCHES WITH FACING POINT LOCK.

Troy, end of double track.

Normal position is for eastward main track.

Crossport, east and west siding switch.

Bonnors Ferry, west switch eastward siding.

Naples, east and west siding switch.

Colburn, east and west siding switch.

Laclede, east and west siding switch.

Scotia, east and west siding switch.

Camden, east and west siding switch.

Milan, east and west siding switch.

Normal position is for main track.

Dean, end of double track.

Normal position is for westward main track.

Hillyard, east end yard, junction switch of the two yard leads located just west of Safety switch.

Normal position is for west yard lead.

18. SPRING SWITCHES WITHOUT FACING POINT LOCK.

Troy, east end south yard track.

Normal position is for main track.

19. MANUAL INTERLOCKINGS WITH DUAL CONTROL SWITCHES.

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

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

Interlockings at east and west end of yard are electrically controlled from depot.

Main track between these interlockings is a single track.

If a train is stopped by a Stop-indication and no immediate conflicting train movement is evident, trainman shall communicate with the operator and be governed by his instructions.

At east end of yard push buttons are provided in iron box locked with a switch lock located at west No. 5 switch and on eastward home signal at Safety switch for operation by trainman for movement of eastward trains from yard to eastward or westward main tracks.

Eastward trains leaving yard will use westerly push button in order to line routes instead of pulling down and using push button at eastward home signal Safety switch.

Instructions for operation of push buttons are posted in these boxes, which must be locked after using.

When the yard lead junction spring switch is lined 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 lined 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 lined for facing point movement 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 so instructed by the operator, interlocking switches may be lined by hand for switch or other train movements as required.

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

Move "Short" lever to position displaying "Hand".

Move lever marked "Hand Throw" slowly until clutch engages and switch points begin to move with "Hand Throw" lever. Switch may be lined by hand as desired. "Short" lever shall be left in position displaying "Hand Throw" 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 moved 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 interlocking switch unless the "Short" lever is in position displaying "Hand" and the switch has been lined in the position desired by the "Hand Throw" lever.

Whistle signals for routes west end of yard:

Eastward trains:

To main track1 long. 1 short. 1 long.

To yard1 long. 1 short.

Westward trains:

To westward main track1 long.

To eastward main track2 long. 1 short.

20. AUTOMATIC INTERLOCKINGS.

DeanEnd of double track.

Interlocking operates automatically for all movements, except for westward trains from single track to eastward track, which

requires hand operation of spring switch before proceed signal indication may be obtained. Eastward trains on eastward track have preference over eastward trains on westward track. When an eastward train on westward track is to move through the interlocking while an eastward train on eastward track is standing at eastward home signal, trainman shall operate push button "R" located in an iron box and locked with a switch lock at eastward home signal. If push button "R" is operated and the intended movement is not made, or main track switch is not lined, push button "N" must be operated to restore signal system to normal condition to avoid delays to trains on main track. Push button "N" must never be operated after push button "R" if the intended movement is to be made. Push button boxes must be kept closed and locked, except as required to be open for immediate use. When a train in either direction is stopped by a Stop-indication and no immediate conflicting train movement is evident, it may proceed in accordance with Rule 509 (B) after making certain that the spring switch is properly lined for the route desired. If necessary to line switch by hand, it should be returned to the normal position after train movement has been completed.

21. SWITCH INDICATORS.

Dean, indicator is located near hand operated junction switch for movements from Spokane Division Fifth Subdivision to Kalispell Division Fourth Subdivision. Push buttons and instructions for their operation are in iron box locked with a switch lock. The member of the crew who is to line switches must first operate push button "R" for route desired and hold a few seconds. Both the trainman and the engineer must observe and be governed by the indicator before lining switches or fouling main track. If the indicator displays a yellow light when push button "R" is operated, switches may be lined and movement made immediately without waiting as prescribed by Rule 513. The yellow light will be extinguished by the lining of the main track switch. If a yellow light is not displayed in the indicator when push button "R" is operated, every precaution, consistent with train rights and operating rules, must be taken before lining switch or fouling main track.

If push button "R" is operated and the intended movement is not made, or main track switch is not lined, push button "N" must be operated to restore signal system to normal condition to avoid delays to trains on main track. Push button "N" must never be operated after push button "R" if the intended movement is to be made.

Push button boxes must be kept closed and locked, except as required to be open for immediate use.

FIFTH SUBDIVISION

(Kalispell Line)

1. MAXIMUM SPEED FOR TRAINS.

Between	Passenger	Freight
Columbia Falls and Kalispell	30 MPH	20 MPH

2. SPEED RESTRICTIONS.

Bridges 145 and 146, Kalispell:	
0-1, 0-3, 0-4, P-2	20 MPH
0-6, 0-7, 0-8, Q-2, S-2	10 MPH
M-2, N-3, Q-1, S-1	5 MPH
R-1, R-2	Prohibited

3. ENGINE RESTRICTIONS.

Engines heavier than 0-5 prohibited.

4. ENGINE RESTRICTIONS ON INDUSTRY TRACKS.

Columbia Falls, engines heavier than F-8 not permitted on Plum Creek Lumber Co. Spur.

Kalispell, all engines prohibited from going beyond public crossing on Bjorneby Spur. If necessary to set out or pick up on this track, hold on to enough cars as reachers.

Kalispell, engines heavier than F-8-S not permitted on wye.

SIXTH SUBDIVISION

(K. V. Line)

- 1. MAXIMUM SPEED FOR TRAINS.**
Between
Bonners Ferry and Port Hill, all trains20 MPH
- 2. SPEED RESTRICTIONS.**
Bridge 1, Bonners Ferry, all trains10 MPH
Engines heavier than H-4Prohibited
On curves, all trains10 MPH
On straight track, G-3 and G-415 MPH
- 3. ENGINE RESTRICTIONS.**
Engines heavier than G-3 and G-4, or engines having axle load over 45,000 pounds prohibited.
- 4. Bonners Ferry, normal position of junction switch, Sixth Sub-division, is for eastward siding.**

SEVENTH SUBDIVISION

(Somers Line)

- 1. MAXIMUM SPEED FOR TRAINS.**
Between
Somers and Hubbard, all trains20 MPH
- 2. SPEED RESTRICTIONS.**
Between Hubbard and Kila, all trains handling logs15 MPH
- 3. ENGINE RESTRICTIONS.**
Engines heavier than F-8-S prohibited.

ALL SUBDIVISIONS

- 1. INSTRUCTIONS GOVERNING THE OPERATION OF STREAMLINER TRAINS.**

CLEARING OF STREAMLINERS.

The time of No. 1 must be cleared by westward first class trains not less than 5 minutes before No. 1 is due to leave the last station where time is shown, and by other westward trains not less than 10 minutes before No. 1 is due to leave the last station where time is shown.

The time of No. 1 must be cleared by eastward first class trains, except No. 2, not less than 10 minutes at all stations, and by other eastward trains not less than 15 minutes.

The time of No. 2 must be cleared by eastward first class trains not less than 5 minutes before No. 2 is due to leave the last station where time is shown, and by other eastward trains not less than 10 minutes before No. 2 is due to leave the last station where time is shown.

The time of No. 2 must be cleared by westward first class trains, except No. 1, not less than 10 minutes at all stations, and by other westward trains not less than 15 minutes.

Within Yard limits, inferior trains and engines must clear the main track not less than 10 minutes before No. 1 and No. 2 are due to leave the last station where time is shown.

MAXIMUM SPEED OF STREAMLINERS.

Maximum speed of Streamliner trains, consisting of Streamliner cars hauled by Diesel engines, will be designated by distinctive roadway signs in the shape of the letter "D", with silver gray Scotchlite background.

Except as directly affected by restrictions under Items 1 and 2, All Subdivisions, of Special Instructions No. 3, the "D" signs designate zone speed territories and the numerals thereon indicate in miles per hour the maximum permissible speed which will govern until the next zone is reached.

Between Hillyard and Spokane, Streamliners will be governed by speed restriction as indicated under Item 2, First and Second Subdivisions, Spokane Division, Special Instructions No. 4.

Where zone speed for Streamliner is lower than the maximum permissible speed for other trains, zone speed will govern.

Where the movement is from a higher to a lower speed zone the zone sign is located approximately 5000 ft. from the point where the lower speed becomes effective. When the movement is from a lower to a higher speed zone the zone sign is located at the point where the speed may be increased. Zone territories are listed herein for the convenience of employees.

MAXIMUM SPEED EXCEPTIONS:

When a Streamliner is detoured over Great Northern tracks outside of regular Streamliner territory, the Streamliner must not exceed by more than 10 MPH the maximum permissible speed for other passenger trains in the territory operated.

When Streamliner is operated against the current of traffic in double track territory the Streamliner must not exceed the maximum permissible speed for other passenger trains.

When Streamliner is handled by steam engine, or when other passenger trains are operated on Streamliner schedule, or when train consists of mixed Streamliner and conventional type equipment, the train must not exceed maximum permissible speed for other passenger trains in territory operated.

In event of failure of the electric straight air brakes, or if electric brakes cannot be used on account of cars not equipped with electric straight air brakes, automatic air brakes will be used and Superintendent notified. In this event speed of train will not exceed that of conventional passenger trains through the respective districts in which the train will be handled in this manner.

ZONE TERRITORIES AND MAXIMUM SPEED OF STREAM-LINERS

Between	Zone Territories		Maximum Speed MPH	
	Between Mile Posts		Westward	Eastward
Havre	430 and 431		Regular Stop	
	431	434 (964.0)	60	60
Pacific Jct.	964.0	965.0	40	60
	965.0	967.3	60	60
	967.3	1014.3	70	70
Buelow	1014.3	1036.0	60	60
Lothair	1036.0	1036.3	55	55
	1036.3	1041.8	60	60
	1041.8	1042.6	50	50
	1042.6	1065.4	60	60
Shelby	1065.4	1066.4	20	20
	1066.4	1087.0	55	60
	1087.0	1089.5	55	55
Cut Bank	1089.5	1091.0	30	30
	1091.0	1094.0	50	50
	1094.0	1095.5	50	60
Blackfoot	1095.5	1111.5	55	60
(1116.5)	1111.5	1116.5	55	55
	1116.5	1128.0	55	55
	1128.0	1131.2	45	45
	1131.2	1137.0	50	50
Glacier Park	1137.0	1140.5	40	40
(1138.0)	1140.5	1143.6	50	50
	1143.6	1144.4	45	45
	1144.4	1147.8	50	50
Summit	1147.8	1150.4	40	40
(1150.4)	1150.4	1157.0	45	30
	1157.0	1165.1	35	30
	1165.1	1166.1	20	20
	1166.1	1169.1	35	30
Essex	1169.1	1174.3	45	45
(1169.3)	1174.3	1174.4	30	45
	1174.4	1180.7	45	45
	1180.7	1181.7	35	35
	1181.7	1184.7	45	45
Red Eagle	1184.7	1185.3	35	45
(1185.0)	1185.3	1188.3	45	45
	1188.3	1188.9	40	40
Belton	1188.9	1196.1	45	45
(1196.1)	1196.1	1204.6	60	60
Bridge 140	1204.6	1205.1	40	40
	1205.1	1208.6	45	45
Brent	1208.6	1209.0	45	35
Whitefish	1209.0	1219.3	60	60
(1219.3)	1219.3	1227.0	50	50
Stryker	1227.0	1319.3	55	55
(1249.5)				
Rexford	1319.3	1324.0	50	50
(1280.5)	1324.0	1346.0	55	55
Kootenai Falls	1346.0	1347.8	45	45
(1346.5)	1347.8	1351.5	50	50
Troy	1351.5	1353.8	40	50
(1353.8)	1353.8	1343.9	55	55
	1343.9	1344.6	50	50
	1344.6	1345.5	35	35
	1345.5	1348.3	40	40
	1348.3	1349.0	35	35
	1349.0	1363.1	40	40
	1363.1	1368.0	55	55
	1368.0	1368.5	15	15

Between	Zone Territories		Maximum Speed MPH	
	Between Mile Posts		Westward	Eastward
Bonnars Ferry	1368.5 and 1384.3		55	55
(1368.5)	1384.3	1391.2	60	60
	1391.2	1392.0	55	55
	1392.0	1419.8	60	60
	1419.8	1420.5	55	55
Thama	1420.5	1425.0	60	60
Priest River	1425.0	1429.0	45	45
(1424.0)	1429.0	1434.9	55	55
	1434.9	1436.2	45	45
	1436.2	1439.6	55	55
	1439.6	1442.5	45	45
	1442.5	1443.5	30	30
	1443.5	1444.5	45	45
	1444.5	1445.5	40	40
Milan (1453.0)	1445.5	1455.2	45	45
	1455.2	1459.8	50	50
	1459.8	1463.3	60	60
Dean (1463.7)	1463.3	1463.8	55	35
	1463.8	1468.5	55	55
	1468.5	1470.5	50	55
Hillyard	1470.5	1472.5	50	50
(1472.5)				

2. SPEED RESTRICTIONS GENERAL.

(a) For the guidance of employes handling passenger and freight trains, except Streamliners, standard roadway signs, with silver gray Scotchlite background, are located on engineer's side of track and will indicate where speed must be reduced.

The "Reduce Speed" sign set in an upward angle of 45 degrees is located approximately 3000 feet from where the lower speed becomes effective and numerals thereon indicate in miles per hour the permissible speed through the restricted area.

The "Resume Speed" sign set in a vertical position with letters "RS" thereon indicate that normal speed may be resumed.

Where these signs have two sets of figures, the numerals preceded with letter "P" apply to passenger trains, except Streamliners, and letter "F" to freight trains.

(b) When passenger trains are handled by freight engines or when freight cars, except cars equipped with passenger trucks and steel wheels, are handled in passenger trains, the train will not exceed maximum permissible speed for freight trains in the territory operated.

(c) Speed shown on Speed Limit Plates on engines must not be exceeded.

(d) F-8, G-3 and M Class engines 40 MPH
 Diesel engines 2300-2324 50 MPH
 2325-2341 70 MPH

Steam engines backing up 20 MPH

Steam engines in forward motion running light or with caboose only 35 MPH

Diesel and Electric engines light or with caboose only 50 MPH

Trains will run at restricted speed where slides or falling rock are liable to be encountered.

Trains handling steam derricks, pile drivers, ditchers, cranes, steam shovels, dozers, etc. On main line 25 MPH

except on 6 degree curves or sharper and on branch lines 15 MPH

Trains handling ore cars or air dump cars loaded with ore or gravel and scale test car on main line 30 MPH

except on 6 degree curves or sharper, and on branch lines 20 MPH

Unless conditions require a further speed restriction, trains or engines moving against the current of traffic on double track through interlockings 15 MPH

Trains or engines over drawbridges 15 MPH

Trains or engines moving on main routes actuating points of spring switches 35 MPH

Trains or engines moving in facing point direction at spring switches without facing point lock 25 MPH

Trains or engines through No. 20 turnouts at: 35 MPH

Brent, Whitefish, Kootenai Falls, Dean, Hillyard east end yard end of double track.

Trains or engines through No. 15 turnouts at: 25 MPH

Pacific Junction, end of double track.
 Tiber, east and west siding switch.
 Cut Bank, west end Bridge 68.
 Blackfoot, end of double track.

Summit, end of double track.
 Nimrod, east and west ends of gantlet.
 Red Eagle, end of double track.
 Whitefish, west switch to yard.
 Tobacco, west switch eastward freight track.
 Troy, end of double track.
 east end south yard track.

Laclede, east and west siding switch.

Trains or engines through all other turnouts 15 MPH
 Passenger trains passing 19 order board 25 MPH
 Between Hillyard and Spokane, Streamliners will be governed
 by speed restrictions as indicated under Item 2, First Subdi-
 vision, Spokane Division, Special Instructions No. 4.

3. MOVEMENT OF ENGINES DEAD IN TRAINS.

Class O and larger engines will be placed not to exceed 15 cars
 behind road engine. In electrified zone only class R engine
 will be handled on head end, all others near rear.
 Class F-8 and smaller engines will be placed next ahead of ca-
 boose.

Diesel engines 2300-2341 must be handled on rear of train.

Not less than five cars will be placed between all engines.

Trains handling steam engines dead in train with side rods on
 both sides will not exceed 40 MPH; and without side rods will
 not exceed 10 MPH.

Trains handling Electric, Diesel and Gas Electric engines dead
 in train will not exceed following speeds:

50 and 51, 75 to 150	35 MPH
175 to 207, 225 to 231	60 MPH
250 and 251	65 MPH
252, 253, 258 and 259	40 MPH
260 and 261	65 MPH
262 and 263, 300 to 305, 400 to 428	40 MPH
500 to 512	75 MPH
2300 to 2324	50 MPH
2325 to 2341	60 MPH
5000 to 5008B	45 MPH
5010 to 5019	55 MPH

4. Under Rule 2 of the Consolidated Code of Operating Rules,
 watches that have been examined and certified to by a desig-
 nated inspector must be used by train dispatchers and yardmen.

5. The following Consolidated Code of Operating Rules and defi-
 nitions do not apply to Great Northern or Northern Pacific em-
 ployes, unless they work in joint territory where such rules
 are in effect:

10f	251-264 incl.	Manual Block System
14 t, u, v, w.	300-373 (A) incl.	Block Stations
210	S-509 (A)	Cab Signals
217	606 a, b, c, d.	
225	636	

6. (a) Not more than one employe will ride on leading foot board
 of engine, then outside of rail, preferably on engineer's side.
 (b) Employes are prohibited from riding on pilot or pilot beam
 of engine, or on foot board between engine and cars when cars
 are being pulled, shoved, switched, or while coupling is being
 made.

Streamliner cars are equipped with diaphragms full width of the
 car. There is no clearance between the ends of these cars when
 coupled. Employes must stay entirely in the clear while these
 cars are being switched or coupled.

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

(d) Where helper engine is used behind caboose helping train,
 helper pilot will ride engine, and engine will be uncoupled by
 trainmen riding caboose platform.

(e) When heading out of sidings, freight trains with helper
 engine behind caboose must regulate speed so that rear train-
 man can line switch and get on caboose instead of on tank of
 helper engine. This as a matter of safety because employes are
 prohibited from using running board of engine or passing from
 front of engine to caboose while train is in motion.

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

(g) Riding upon open cars containing lading which may shift
 is prohibited, except as required to operate hand brakes or to
 ride the lead car when cars are being pushed. Employes must
 make every effort to station themselves to prevent injury, and

on gondola cars must not stand or place arm, leg, or other part
 of the body between sides or end of car and lading.

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

(i) Employes are forbidden to ride on top or sides or stand
 on top of air dump cars, either loaded or empty.

(j) Jumping from the top of one car to the top of another car
 on adjacent track is prohibited.

(k) When passing around end of standing car or train, always
 keep a clearance of at least fifteen feet.

7. Snow or ice should not be allowed to accumulate on footboards.
8. Employes who desire to wear colored glasses while on duty are
 obligated to purchase them from Company Storekeeper.
9. Brakemen with less than one year of experience should not be
 used as flagmen except in emergency, and then Superintendent
 will be notified by wire.
10. Double heading trains is prohibited, except as authorized by
 Superintendent.
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. After severe blizzard or dirt storm, employes on first train over
 road must exercise care to avoid accident caused by striking
 drift without first having drifts faced with hand shovels, cutting
 in far enough to get beyond the hard snow and giving a per-
 pendicular wall to strike against instead of slope or wedgelike
 shape.
13. When operating snow dozer, conductor to ride in same.
14. 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. Hand screws must be tightened to raise
 flangers on dozers as high as possible before making a back-up
 movement, and must not be released until the dozing work is
 actually to start. Hand screws holding the cage on dozers
 must be tightened or chains otherwise fastened except when
 dozer has air in cylinders and is attended by an employe.
15. 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.
16. Account necessity of heating road oil to permit faster flowing,
 such cars will not be spotted in the vicinity of any building, due
 to fire hazard.
17. When dining cars or other non-platform cars are placed on the
 rear of passenger trains, in addition to flexible gate being closed
 and fastened in place, rear door of car must be kept locked with
 coach key.
18. Kicking or dropping cars into tracks on which there are oc-
 cupied outfit cars is prohibited.
19. Baggage cars returned deadhead when moved in storage mail
 service in opposite direction will be accompanied by waybill car-
 rying notation "Deadhead mail car, no material of any character
 other than U. S. Mail or mail sacks to be loaded in it". Con-
 ductors will be held responsible for compliance of waybill in-
 structions.
20. Baggage cars on trains 1 and 2, and dormitory cars on trains
 3, 4, 7 and 8 carry 100 ft. of steam hose in two 50 ft. lengths
 for emergency use in the event of steam failure on the train
 engine and a non-steam train line engine is furnished to handle
 the 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.

21. Unless otherwise provided, when passenger trains are operated against current of traffic on double track or through sidings, Conductors shall notify Railway Postal Clerks; trains shall stop at points where U. S. mail is usually picked up and Conductors are responsible for delivery of mail to Postal car.
22. Conductors will report by wire all flat spots on wheels of passenger cars, and cars having flat spots on wheels of more than two and one-half inches long must be set out.
23. Pullman Troop Sleepers and Pullman Troop Kitchen cars have two separate sets of brake equipment cylinders. When necessary to release air brakes, both of these cylinders must be bled off to avoid slid flat wheels.
24. Conductors will see that multiple sheet metal protectors are returned to equipment box on baggage cars when extra journal bearings are used.
25. Where journal boxes on passenger cars are equipped with spring packing retainers and it becomes necessary to repack or re-brass journal, trainmen will see packing retainer is put back in place.
26. When necessary to set out equipment due to hot journal, be sure that all traces of fire are extinguished, and journal box properly marked.
27. Telephones located in booths and freight houses must have switch cut out after using and must be kept secured by lock, except when being used.
28. Conditions make it necessary to handle in trains, and in switching movements, certain equipment of extreme height and width, and all employes are warned to keep off top of these cars when moving and also such standing cars in electrified zone except in case of emergency as height of cars is such that man standing on top of cars will not have proper overhead clearance at many tunnels and structures. Train, engine and yardmen are cautioned to be on the lookout for such equipment and in absence of previous advice, wire proper officer for instructions.
29. The contract with the Western Fruit Express Company does not relieve the Railway Company 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 class of service required and light or extinguish heaters and manipulate vents in accordance with current instructions for handling perishable freight issued by the National Perishable Freight Committee, copies of which are furnished to all interested parties.

30. 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.

The following will govern shipments of explosives by express and handled in passenger trains:

Carload shipments of explosives may be made by Express and handled in passenger trains when in sealed express car properly placarded. Less than carload shipments may be made in so-called Express peddler car with messenger in charge when such car is assigned to the handling of express and baggage exclusively, provided shipments are accompanied by an authorized representative of U. S. Government while on our trains.

Placarded loaded tank cars must not be placed in train next to cars containing lighted heaters, stoves, lanterns, or gas burning type of 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 governing handling of Explosives, Inflammable and Corrosive Liquids may be found in I.C.C. Regulations.

31. The use of open flame lights, burning oil lanterns, and smoking, is prohibited when handling gasoline or other flammable oils, also in and around the operating cab of gas-electric engines.
32. Gas-electric engines must not be fueled while occupied by passengers, or coupled to cars occupied by passengers.
33. Delivery of gasoline or other flammable oils must not be made after dark.
34. The normal position of a spring switch with facing point lock is identified by a color light type signal displaying a lunar white light for train or engine movements in a trailing point direction and for movements in facing point direction when conditions require.
35. The normal position of a spring switch without facing point lock is identified by a triangular yellow target on switch stand with letter "S" in black and "lunar white" light in switch lamp in place of green light displayed in both directions through or over the switch.
36. Trains when departing from stations, either from siding or main track in trailing point movement which actuate points of spring switches, a member of the crew must observe the indication of the governing signal in the opposite direction after rear end of train has passed through switch to ascertain if switch points return to normal position. If this signal indicates Stop and no immediate train movement or other cause is evident, report the fact to the Superintendent from the first available point of communication.
37. **SWITCH INDICATORS AT SPRING SWITCHES.**
A switch indicator, consisting of a single yellow light unit (normally dark) and a switch-key-controller mounted on an iron mast located at the clearance point of a siding, must be operated by a member of the crew who, together with the engineer, must observe and be governed by its indication before fouling main track or making movement from a siding to the main track through a spring switch in automatic signal territory, unless the movement is made immediately after an opposing train has passed the switch.
If the indicator displays a yellow light when the switch-key-controller is operated, train or engine movement to the main track may be made immediately in accordance with train rights and operating rules. Display of yellow light must continue until the leading wheels have passed the clearance point.
If the indicator does not display a yellow light when the switch-key-controller is operated, every precaution consistent with train rights and operating rules must be taken to provide proper protection before passing the clearance point and fouling the main track.
To operate Switch Indicator, insert switch key in controller and turn clockwise toward "R" and hold a few seconds. If yellow light is displayed and intended movement is not made, insert switch key in controller and turn counter clockwise toward "N" to restore signal system to normal condition to avoid delays to trains on main track.
Switch-key-controller must never be operated toward "N" after having been operated toward "R" if intended movement to the main track is to be made.
38. 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.
39. Unless otherwise displayed, yard limit signs of the reflectorized type consist of letter "Y" and approach signs, one mile distant, are diamond shaped.
40. Employes are forbidden to go out on ledges, running boards, or any outside structure of ditchers, steam shovels, cranes, or other similar machines while moving.
41. Employes must not go out on exterior of cab or use running board, nor hang from gangway of steps of moving engine. Using the narrow ledge along the bottom of the engine cabs to pass to or from cab to running board or to work from is prohibited.

This narrow ledge is to be used only in cases of extreme emergency when it is necessary to escape from the cab in this manner to prevent injury from escaping steam, hot water, fire, or similar causes.

If necessary to get out on running board of engine, engine must not be moving and employe shall use the steps that are provided on the front end of the engine from pilot to running board. On engine in roundhouse or shop, it is permissible to use ladders or special built stair platforms.

42. Under Consolidated Code Rule 24, engine number only will be displayed in indicators on engines so equipped. This will also apply when our engines are operating over Northern Pacific tracks. Between Klamath Falls and Chemult, Southern Pacific Rules will govern.
43. When picking up train orders on head end of train it must be done from window of engine cab, and never from gangway or steps.
44. While Consolidated Code Rule 204 (A) prescribes that copies of train orders will be furnished the rear trainman, such orders will only be furnished on trains designated as follows: Trains Nos. 1, 2, 3, 4, 7, 8, 9, 10, 28, 29, 30, 355, 358, 359, 360, and sections thereof; also any extra passenger train whether operated as section of regular trains or as a passenger extra.
45. When no color indication is displayed by a train order signal of the color light type, trains which have not been notified must stop. Trains thus stopped may proceed after securing clearance from operator. If there is no operator on duty, call the operator and secure clearance. Failing to contact operator, communicate with train dispatcher for instructions before proceeding. Report the fact to the Superintendent from the first available point of communication.
46. 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 employes are located where they will not be injured. Manhole cover must not be removed until actually necessary and replaced immediately after using. Avoid overflowing engine tanks particularly during freezing weather to prevent ice forming on ground, grab irons, tanks and footboards of engines.
47. Employes must see that manhole covers on fuel oil cistern of oil burning engines are securely fastened by all lugs after fuel oil has been taken.
48. On stoker equipped engines, stoker must be stopped before employes attempt to pass through or perform any work in the coal space of tender.
49. Employes 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 engines on outside tracks, another employe will stand watch to prevent engine being moved.
50. When moving engines or heater cars in or about roundhouse tracks, employes in charge of such movement must see man is stationed on rear end of engine or on leading end of heater car while movements are being made, and at night white light must be displayed on the rear end of engine or heater car.
51. No employe 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.
52. Employes firing up boilers must see that the boiler is full of water, that reverse lever is in center of quadrant with throttle closed and cylinder cocks open before starting fire to generate steam in boiler.
53. The hole in fire box door of oil burning engines will be closed except when being used for sanding purposes.
54. Air hose on Diesel and electric engines must be hooked up in hose fastener when not in use.
55. Before leaving any engine terminal enginemen will make proper tests and inspections of water glasses, gauge cocks, water column and injectors, and will not leave the terminal unless all these are in proper working order. Should enginemen on

steam engines find that the water is not in sight in water glass by opening throttle, on oil burning engines the fire must be extinguished immediately and on coal burning engines the fire must be knocked out or smothered to the extent there will be no damage done to the crown sheet. If water can be raised to the bottom gauge cock or water glass, the water level should be built up by use of the pump, or injector, or both.

Should the low water alarm whistle blow, on any engine so equipped, enginemen will immediately ascertain where the water level is in the boiler by blowing out water glasses and water column, and being sure that water glass mounting valves are open and if water cannot be raised to the bottom gauge cock or water glass by opening throttle, enginemen will be governed by instructions in the preceding paragraph.

56. Wheel slip light on Diesel engines functions because of a difference in voltage between two traction motors. This is caused by the power wheels revolving at different speeds which may be due to either one pair of wheels slipping or sliding. When one pair of wheels slip on one or more trucks the Wheel Slip Light on the engineer's instrument panel will light intermittently. When one pair of wheels lock or skid, due to a broken pinion or axle gear, or the armature shaft frozen on its bearings, the Wheel Slip Signal will light and give a continuous warning as long as power is being supplied to the motors. When the Wheel Slip Light gives continuous warning, the train should be brought to a stop and positive observation made to ascertain whether or not all the Diesel truck wheels are turning. In the event that a pair of wheels is locked, Superintendent should be notified immediately and no attempt made to move engine until properly authorized.
57. On Diesel road engines consisting of one or more units in freight and passenger service, the following will govern in the event of emergency: In the event that enginemen observe Diesel engine emitting fire, smoke, or water; or in event of derailment, fire in one of the units; or broken connecting rod or other rotating part in one of the engines causing excessive pounding, the engineman should immediately shut down all the engines from the operating position in the engineer's control station in the cab. This can be done on road engines by pushing the button at the end of the throttle handle with the thumb and then moving the throttle forward to the farthest position. The fuel pump switch at the control box should also be pulled; and in the event of fire, the emergency fuel cut-off valve cord should be pulled. If there is any question in the engineer's mind as to what is occurring in the trailing cabs, all the units should be shut down from the operating cab as stated above and details investigated when the train has stopped. In the event of a fire in the engine, fire fighting equipment should be operated in accordance with the instructions mounted in each engine cab.
58. Diesel engines are provided with bayonet gauges or lubricating oil sight glasses which provide a means of determining the lubricating oil level in the engine. The oil level should always be between the "Low" and "High" limits. Any increase in oil level in the crankcase above the "Full" mark would indicate a fuel oil or water leak into the oil pan. If this condition is found, the engine should be shut down and not again operated until a qualified mechanic or supervisor ascertains whether the engine is in safe condition to continue operation.
59. When necessary to shut down one of the engines on freight or passenger Diesel engines during freezing weather the following will govern:
 - (a) Engine should be drained to low level and "G" valve opened.
 - (b) Steam admission valve to engine must be opened to supply steam to engine cooling system from steam generator.
60. **MARS LIGHT.** Engineers operating engines equipped with Mars Light must familiarize themselves with the instructions and will be governed by the following: Mars Light on engines are of a type that will display either a white, or emergency red, oscillating light. An operating headlight panel switch is located to the right of the engineer. First turn on dynamo motor generator snap switch adjacent to panel switch, then turn on snap switch on headlight panel switch. This will start the oscillating motion of the light. The operating lever on headlight panel may then be placed in one of the fol-

lowing positions: emergency red - off - full - dim - which will display corresponding lights: bright emergency red light - bright white light - dim white light. This light takes a 480 watt, 12 volt globe.

The Mars Light on engines will be used in addition to the headlight and will be displayed in the same manner as the headlight as prescribed by Rules 17 and 17 (B) of the Consolidated Code of Operating Rules.

When necessary, the Mars Light can be used as an emergency headlight in case of failure of regular headlight, or as a focus light in territories where there is falling rock. When used as a focus light the Mars Light will come to a stop by turning off the oscillating snap switch, then by operating the push button on the headlight panel switch it can be focused to any position desired.

When necessary to use the Mars Light as a protection light on engine, the engineer must immediately place the operating lever in red position and it must be used in that position by day or night when protection is required in double and single track territory such as—when a train is disabled or stopped suddenly by an emergency application of the air brakes; over-running the fouling point at meeting or waiting points, at end of double track or a junction; or other emergencies when in the judgment of the conductor or engineer protection is necessary at front end of train or engine.

Engineer of an approaching train finding a Mars Light displayed in red position must immediately stop and if running on an adjacent track will not proceed until it has been ascertained that track is clear and will then proceed at restricted speed until train has been passed.

The use of the emergency red oscillating light at either the head end or rear end of train does not in any way relieve enginemen and trainmen from complying with requirements of Rules 99 and 102 of the Consolidated Code of Operating Rules or the observance of other rules.

Conductors and trainmen on trains equipped with Mars Light at rear of train must familiarize themselves with instructions on the type of light and location of switches which control the light and will be governed by the following:

Mars emergency red oscillating light on cars are of two types—Automatic Control and Portable Manual Control. The Master Switch, emergency switch, pilot light and detailed instructions covering operation of light are located in locker inside of car. There are two emergency switches on business cars, lounge and parlor cars with non-vestibule ends: one inside of car and the other on outside at rear under body of car on engineer's side. When the master switch is cut out the Mars Light may be turned on and off by either of these emergency switches.

On cars equipped with automatic control light, immediately as the train departs from its initial station the flagman must at once turn on the master switch which will set the automatic control and emergency red light into operation; it will continue to operate automatically when train speed is below 18 MPH and off when above that speed. Light will remain burning during stops.

If the automatic control feature fails, the Mars Light will remain burning continuously regardless of train speed. Under such condition flagman must promptly cut out master switch and operate light manually with emergency switches.

Portable Mars Light can be turned on and off by a pull and push switch mounted on outside casing of light. Before coupling another car on rear the Portable Light must be removed.

Automatic Control or Portable Mars red light must be displayed by day or night each time train stops; also, when moving under circumstances in which it might be overtaken by another train or engine, and, also during foggy and stormy weather. When necessary to protect train at speeds above 18 MPH the flagman may operate light manually with the emergency switch complying at all times with requirements of Rule 99.

Flagman must make frequent inspection to determine that Mars Light is functioning properly, particularly when going out to flag.

The pilot light must not be depended on as indicating that the Mars Light is burning. If pilot light is burning and Mars Light is out this is an indication that Mars Light globe is burned out. If both Mars Light and pilot light are not burning, check the fuses. If this fails to correct, the conductor will wire Car Foreman at next terminal. Spare globes are carried in rack in the locker. Mars Light on cars take a 250 watt, 32 volt globe.

The Mars Light must be extinguished under following conditions:

(a) When train is standing at the initial and terminal station.

(b) When switching is to be performed from rear end of trains.

(c) When train is on siding to be passed by another train.

(d) When operating in double track or in territory where another train is approaching from the rear on an adjacent track, but not until the flagman has definitely ascertained that the approaching train is running on the adjacent track.

The terms "Initial" and "Terminal" stations as used herein refer to the starting and ending points of the train run, such as St. Paul, Duluth, Seattle, etc.

61. ON ENGINES, PASSENGER AND FREIGHT CARS EQUIPPED WITH ROLLER BEARINGS, EMPLOYEES WILL BE GOVERNED AS FOLLOWS:

American Steel Foundries' type roller bearings have the roller bearing in the hub of the wheel and standard journal brasses in the journal box. Should the roller bearing fail, or overheat, the axle will then turn on the conventional brass in the journal box and should be given the same attention as standard non-roller bearing boxes. If the roller bearings should fail in such a manner as to permit the wheel to wobble on the axle, care must be exercised, train moved slowly to first siding and car set out.

Roller bearing failures on cars or engines equipped with roller bearings in the journal boxes may be due to lack of oil. If the box is not blazing, the oil plug in the cover should be removed and engine or valve oil added. Oil must never be added to a box that is blazing. After the oil has been added and plug replaced, the train should then proceed at reduced speed and care exercised until it is apparent that the box will run cool. A car equipped with roller bearings that is on fire must be closely watched, train moved slowly to first siding and cars set out. Prompt report of all roller bearing failures occurring on engines and cars must be made to the Superintendent from the first available point of communication.

Some engines and cars equipped with roller bearings have heat indicators or stench bombs inserted in the housing of boxes which release a strong pungent odor in the event of excessive journal box temperatures. When this odor is detected train must be stopped at once and box located. Compare the temperature of this box with the other boxes on the same engine or car, check the oil level, and if there is no evidence of overheating, train may proceed, but if the box is overheating, proceed only as instructed in the preceding paragraph.

62. TRAIN INSPECTION.

On passenger trains frequent running inspection shall be made from the vestibules in various parts of the train and trainman should so place himself as to take advantage of air currents or other atmospheric conditions. When stops are made for water or fuel, or when on siding at meeting points and at other stops where in the judgment of the conductor it is necessary, a careful inspection shall be made of the running gear.

Freight and mixed trains when stopped for the purpose of taking fuel, water, meeting trains, station work, train orders, etc., conductors must see that careful inspection is made of running gear before proceeding, and when practicable such stops should be made between switches. This, however, does not relieve trainmen from making inspection when other stops permit or whenever in the judgment of the conductor it is necessary.

During stormy weather, when view of running gear is obscured, or if other conditions require, more frequent inspections shall be made.

Engine and trainmen must frequently look along both sides of the train from the head end and the rear end, especially while rounding curves and approaching sidings, to observe condition of train. They must be on the lookout for signals given by other employees who may observe defects on passing trains. Frequent inspection shall be made by trainmen of track behind moving train to detect if anything on the train is dragging so that if any indications of fresh marks on the track are observed, the train may be brought to a stop as quickly as possible to avoid derailment. When caboose is equipped with electric spot light it shall be used at night to make such track inspection; when not so equipped trainmen shall use electric lantern for this purpose.

During winter weather at points where inspections are made train line in first four cars behind engine shall be thoroughly blown out to prevent ice from forming in train line due to moisture accumulation.

