

NORTHERN PACIFIC RAILWAY COMPANY

Lake Superior Division

Special Instructions No. 10

In Effect at 12:01 A. M. Central Standard Time

Sunday, January 1, 1950

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.

**C. CORSER,
Superintendent.**

**C. V. BERGLUND,
General Manager.**

**R. E. MATTSO, N,
General Superintendent
of Transportation.**

ALL SUBDIVISIONS.

1. Speed Restrictions—

Maximum Speeds Permitted

Passenger trains	75 MPH.
Freight and mixed trains	50 MPH.

The above speeds are subject to the restrictions of maximum speeds in miles per hour as shown by zones under each subdivision.

Reduce speed limits, within the zones listed, are designated by Advance-warning signs (diagonally upwards), Reduce speed signs (square with clipped corners) and Resume speed signs (vertical).

The Advance-warning signs are, except as otherwise specified, located approximately 3000 feet in advance of the Reduce speed signs, and the numerals on both signs indicate in miles per hour the maximum speed permitted from the Reduce speed sign to another Reduce speed limit, or to a sign indicating a higher speed, or to a Resume speed sign (RS).

If speeds authorized by zones or by Reduce speed signs are greater than that prescribed below for certain trains or engines, such trains or engines must not exceed the prescribed speeds.

Locations where reduced speeds are required, but not indicated by signs, are listed under the zones of maximum speeds permitted for each subdivision.

All trains and engines, except as otherwise specified:

Through crossovers, turnouts and gantlets, except where fixed signals provide otherwise.....	15 MPH.
Handling steam wrecking cranes, pile drivers, locomotive cranes and similar equipment	30 MPH.
Handling 4-wheel scale test cars—Main Line	35 MPH.
Branch Lines	25 MPH.

Picking up train orders from operators.....	30 MPH.
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Engines—	Handling	Running
Classes—	trains	light

All A and Q (except on passenger trains where higher speed is authorized).....	60 MPH.	60 MPH.
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Z-6, Z-7 and Z-8	60 MPH.	50 MPH.
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Z-5, Y, Y-1, Y-3	40 MPH.	35 MPH.
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Z-3, Z-4	35 MPH.	30 MPH.
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S-4, T, T-1, W to W-5 inc., Y-2	50 MPH.	45 MPH.
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Steam switch engines, without engine trucks, under all conditions	15 MPH.	15 MPH.
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660 HP diesel-electric switch engines, Nos. 125 to 131 inc.	45 MPH.	45 MPH.
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5400 HP and 6000 HP diesel-electric road engines, 6000 series	65 MPH.	65 MPH.
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4500 HP diesel-electric passenger engines, 6500 series	75 MPH.	65 MPH.
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900 HP and 1000 HP diesel-electric switch engines and combination road-switch engines	60 MPH.	60 MPH.
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Coming from shops, under steam, to prevent running hot:		
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All A and Q and classes Z-6, Z-7 and Z-8.....	50 MPH.	
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S-4, T, T-1, W to W-5 inc., Y-2, Z-5.....	35 MPH.	
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Y, Y-1, Y-3	30 MPH.	
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Z-3, Z-4	25 MPH.	
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Main Line—With main and side rods removed:		
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All A and Q and classes Z-6, Z-7 and Z-8.....	30 MPH.	
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Z-5, S-4, T, T-1, W to W-5 inc., Y to Y-3 inc.....	25 MPH.	
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Z-3, Z-4	20 MPH.	
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With main rods removed and side rods in place:		
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All A and Q and classes Z-6, Z-7 and Z-8.....	35 MPH.	
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Z-5, S-4, T, T-1, W to W-5 inc., Y to Y-3 inc.....	30 MPH.	
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Z-3, Z-4	25 MPH.	
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Branch Lines—With either or both main and side rods removed:		
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All A and Q classes	25 MPH.	
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All other classes	20 MPH.	
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On bridges—With either or both main and side rods removed:		
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Steam switch engines, without engine trucks	15 MPH.	
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Other engines	20 MPH.	
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In the event the above speeds are in excess of 50% of the permissible speed for operating the engine in working order over any bridge carrying speed restrictions, speed on such bridges shall be 50% of the permissible speed for engine in working order.		
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Dead engines going to shops or being transferred from one district to another with all rods up or in place, the piston rod parted from the crosshead and removed and the valve motion disconnected and blocked, may be moved in trains at not to exceed the permissible speed of freight trains operating in the territory over which the engines are to be moved, or the operating speed restriction for track or bridges for that class of engine, whichever is the lower.

Engines handled in this manner when coming from shops must not exceed the operating speeds specified for engines coming from shops under steam.

Diesel-electric engines may be handled dead in trains at not to exceed the authorized operating speed specified for such engines.

Bridge or other restrictions must be observed for these engines the same as when in operating condition.

2. Single and Double Headers; operation—track and bridges—general.

Where there are no governing restrictions specified for double headers in the special instructions for each subdivision, they will be governed by the most restrictive instructions applicable to a single engine when of the same class and to the heavier engine when of different classes.

Where double header restrictions are specified, double headers of different classes of engines will be governed by the restrictions applicable to double headers of the heavier class.

When necessary to doublehead a diesel-electric engine with a steam engine, except in case of emergency, the steam engine must be placed behind the diesel engine.

Diesel engines—Except as otherwise provided, diesel-electric engines of the 6000 and 6500 series and all diesel switch engines may be operated over bridges under the same restrictions shown for Class T engines.

To avoid possibility of fire or damage to traction motors, diesel-electric engines must not be permitted to pass over or to stand on cinder pits containing live fire or hot cinders.

Under no circumstances should diesel-electric engines pass through water which is deep enough to touch the bottom of the traction motor frame. When passing through water, movement must always be at very slow speed (2 to 3 MPH).

Where diesel-electric multiple-unit engines are used to handle main line through passenger trains making few or no stops, the fireman will remain in the cab at all times while the train is in motion.

Where multiple-unit diesel-electric engines are used in freight service, both the fireman and the head brakeman shall not be absent at the same time from the leading cab while the train is under way on main track between stations.

Wrecking cranes—250 tons, 45 to 48 inc. must not be coupled directly to engine or tender of engines Classes A-2 to A-5 inc. or Z-5 to Z-8 inc., but must be separated from them by at least two cars of not over 169,000 pounds total weight, for movement over bridges.

3. Use of Mars headlight on engines so equipped—

The Mars headlight can be displayed with either stationary or oscillating white light at the same time that the standard headlight is in use, but cannot be displayed with either stationary or oscillating red light when the standard headlight is in use.

The Mars white light may be used in a stationary position as a substitute headlight in case of failure of the standard headlight, but will normally be used as an oscillating light during the time full display of standard headlight is required.

The Mars oscillating red light will be used when head end protection is required, either by day or by night by engineer control, if the train becomes disabled or is stopped suddenly due to unusual occurrence with the possibility of an adjacent track being obstructed, or if it overruns the clearance point at a meeting or waiting point, or at the end of double track or at a junction, or in any other emergency situation.

The engineer of an approaching train, finding oscillating red light displayed, must stop and then be governed by conditions existing. If on an adjacent track which he finds unobstructed and safe for operation, he may proceed at restricted speed until the standing train displaying the oscillating red light has been passed.

The Mars red light shall be displayed in stationary position when a train is occupying the main track at a meeting point with an opposing train until the headlight of the opposing train has been dimmed, per Rule 17(B), after which the red headlight shall be extinguished, and the standard white headlight turned on dim until opposing train is into clear on siding.

The use of the red headlight does not in any manner relieve the train or engine men of responsibility for compliance with the provisions of Rules 99 and 102.

4. Lights will not be displayed by night on train order signals on the 4th, 5th, 6th, 7th, 8th and 9th subdivisions. Trains will be governed by the day indication of these train order signals.
5. Rule D-97 applies to all divisions.
6. Except in case of fog, storms, or otherwise bad weather, yellow signals may be used, without flagmen, when placed as prescribed by Rule 10(h) to indicate approach to a red signal on the 4th, 5th, 6th, 7th, 8th and 9th subdivisions and also in special cases authorized by the Superintendent and protected by train order.
7. Rule 606: Emergency Signals are not used at interlockings or drawbridges operated by the Northern Pacific Railway.
8. Test of hand brakes of gas-electric or diesel-electric motor cars must be made once each trip. If crew has charge of moving car prior to leaving initial station, test will be made during such movement; otherwise, as soon as possible after leaving initial station. On cars equipped with "Deadman's Control", conductor and engineer will cooperate in making test.
9. Cars will not be handled behind light-weight observation cars except in emergency or when so authorized by the Superintendent. In such cases passengers shall not be permitted to pass between such cars while train is in motion due to the unprotected opening.
Gas-electric or diesel-electric motor cars, when handled dead in freight trains, must be behind caboose.
4-wheel scale test cars must be handled only in local freight trains. All scale test cars must be placed immediately ahead of caboose.
Cranes or similar machines geared for self-propulsion moving on commercial billing, must not be handled in time freight trains. When handling pile driver 25, it must be coupled to either the regular tender or a flat or gondola car with open end next to cab end of pile driver to provide proper clearance.
Open cars loaded with material which may shift, such as poles, pipe, timbers, etc., shall not be placed immediately next to diesel-electric engines nor to cabooses in trains.
10. Precautions must be taken on double track to prevent accidents from swinging doors or other loose construction attached to cars or engines. Trains handling logs must stop when being met or passed by passenger trains.
11. Electric Switch Locks—To operate the lock, unlock and open the door:
 - (a) If indicator shows proceed, turn lock handle to the left until it rests on stop block. Then line the switch in the usual manner and movement may be made at once.
 - (b) If indicator shows stop, and no conflicting train movement is evident, unlock the time release box and push the button which starts the time release. After three minutes indicator will normally show proceed then turn the lock handle to the left and line the switch.
 - (c) After final movement over the switch is made: Restore and lock switch in normal position. Turn the electric lock handle to the right until it rests on the stop block. Close and lock the door of the electric lock.
 - (d) Exception: If the electric lock is equipped with a wire seal emergency release, located at the left of the indicator, the seal must not be broken until after the time release has been operated and the electric lock fails to show proceed.

When emergency release is used, there must be a wait of three minutes before switch is lined for movement. After emergency release seal has been broken, immediately notify the train dispatcher so he may call the signal maintainer to reset the emergency release, as the signals will remain at stop until repairs are made.

12. Signal Operation at Spring Switches Equipped for Switch Key Operation—Unless otherwise provided, the normal position of the spring switch is for main track. The normal indication of main track signals is Proceed. The normal indication of siding signal is Stop. To clear the siding signal when train is ready to enter main track, insert switch key in control box and turn to right. If route is clear the siding signal will immediately clear. If siding signal does not clear by switch key operation, open release box and push the button which will put the time release mechanism into operation. After time release has operated, the siding signal will clear if there is no conflicting train movement. The release box door must be left open until leading wheels of train on the siding have passed the siding signal, then close and lock the release box door. If the siding signal has been cleared and train on the siding is not ready to depart, if necessary to clear signals for a main track movement, open the release box door and push the button which will start the time release mechanism. After the time release mechanism has started to operate, close and lock the release box door.
13. Pusher engines must not push on cabooses not equipped with steel sills.
14. Bulletin Stations—
Ashland—Soo Line Passenger Station.
Duluth—Union Depot, Rices Point Yard and Roundhouse, Soo Line Passenger Station.
Superior—Soo Line Yard and Roundhouse.
Carlton—Passenger Station and Roundhouse.
Ironton—Passenger Station.
Brainerd—Passenger Station and Roundhouse.
North Bemidji—Yard Office and Roundhouse.
International Falls—Passenger Station and Roundhouse.
Staples—Passenger Station, Yard and Roundhouse.
Rush City—Passenger Station.
White Bear Lake—Passenger Station.
St. Paul—Miss. St. Yard and Roundhouse, CMStP&P Yard and Roundhouse.
Train and Engine men from St. Paul and Minneapolis without access to bulletins at those points will check bulletins at White Bear Lake.
15. Standard Time Clocks—
Duluth—Union Depot, Rices Point Yard Office and Round House.
Carlton—Passenger Station.
Brainerd—Passenger Station.
North Bemidji—Yard Office.
International Falls—Passenger Station.
Staples—Passenger Station, Round House and Yard Office.
Hinckley—Passenger Station.
Rush City—Passenger Station.
White Bear Lake—Passenger Station.

15. Watch Inspectors—

Duluth	Kanters Jewelry.
Duluth	Herbert W. Schmidt.
Duluth	Harlan Wells.
West Duluth	W. F. Hurst.
Superior	L. J. Howatt.
Cloquet	Toivo W. Alaspa.
Rush City	Howard E. Lindahl.
Brainerd	Russell A. Ashmun.
Bemidji	E. A. Barker.
International Falls	J. A. Sher.
Staples	C. E. LaBonte.
St. Paul	Christensen's.
St. Paul	Northern Watch Co.
Minneapolis	Allen and Berg.

FIRST SUBDIVISION.

(MAIN LINE)

1. **Speed Restrictions—**

Zone—Between	Maximum Speeds Permitted	
	Freight	Passenger and Mixed
Ashland and East End	35	40
Except, MP 12 (west of Moquah) and East End on curves	25	25
Trains handling loaded ore cars	20	----
All trains and engines, 7th Ave. West to 22nd Ave. West, between MP 0 and 2, Ashland	10 MPH.	
2. **Bridge and Engine Restrictions:**
 N. P. engines classes Q-5 and W-3 and heavier, and Soo Line engines classes N-20, L-3 and heavier, not permitted east of Allouez.
 Double header Soo Line engines classes L-2 and heavier not permitted.
 Wrecking cranes, 250 tons or heavier, 45, 46, 47 and 48 not permitted.
 Bridge 0, Vaughn Avenue:
 Bridge 5, Fish River:
 Bridge 49, Middle River:
 All trains25 MPH.
 Bridge 37, Brule River:
 Double header engines25 MPH.
 Bridge 48, Poplar River:
 Bridge 53, Amnicon River:
 Single header Soo Line engines Class L-2 and double header DSS&A diesel engines numbers 100 to 106 inc.25 MPH.
 Heavy Car Restrictions: Cars with total weight exceeding 214,000 pounds not permitted. Cars less than 30 ft. long with total weight exceeding 169,000 pounds must be separated from each other and from engine or tender, and cars 30 ft. or more long with total weight exceeding 169,000 pounds must be separated from engine or tender, with a car 40 ft. long with total weight not over 169,000 pounds.
3. **At Ashland—**Normal position of main track switch just east of Seventh Ave., leading to the Soo Line, is for the Soo Line connection.
4. **At Fuller Pit—**One-half mile east of MP 26, siding capacity 20 cars, derail at west end, may be used to meet or pass trains.
5. **At Allouez—**Track No. 2 must not be used by ore trains.
 N.W.C. interlocking station is closed 12:01 AM to 8:00 AM week days, and all day Sundays. During this period, route is lined for N.P. track.
6. **Between East End and Duluth,** Duluth and Superior Terminals instructions govern.
7. **Yard Limits—**Tracks between yard limit signs west of East End and east of Allouez.
8. **Register Stations—**
 Central Avenue.
 East End.
 Ashland, Soo Line Station.
 Superior, Soo Line 21st Street Yard Office, for DSS&A trains.
9. **Clearance Exceptions—**
 At East End—Trains originating secure clearance at Central Avenue, or Soo Line 21st Street Yard Office.

SECOND SUBDIVISION.

(MAIN LINE)

1. **Speed Restrictions—**

Zone—Between	Maximum Speeds Permitted	
	Freight and Mixed	Passenger
Central Ave. and Anton	50	65
Anton and State Line (both tracks)....	50	60
State Line and MP 20 (Barker)	50	60
MP 20 and MP 28 (Carlton)	50	65
MP 28 and MP 148 (Staples).....	45	55
Trains handling loaded ore cars	40 MPH.	
At Brainerd; over highway crossings	10 MPH.	
First class trains—		
Between east switch of north siding (east of car shop) and St. Paul Division connection at 8th St....	20 MPH.	
Between St. Paul Division connection and 8th Subdivision Jct.	Restricted speed.	
At Aitkin; through village	30 MPH.	
At Carlton; over double-slip switch within interlocking; through movements via Second Subdivision	30 MPH.	
Other movements	15 MPH.	
2. **Bridge and Engine Restrictions—**
 Between Central Ave. and Brainerd:
 Engines classes A-2 to A-5 inc. and Z-5 to Z-8 inc., not permitted.
 Wrecking cranes, 250 tons or heavier, 45, 46, 47 and 4815 MPH.
 Bridge 9 just west of Central Avenue20 MPH.
 Avoid using automatic brakes on bridge, except in emergency.
 Bridge 119, Mississippi River:
 Double headers, engines class Z-5 not permitted.
 Single headers, engines class Z-5 5 MPH.
 Double headers, engines classes A-2 and heavier and Z-6 and heavier 5 MPH.
 Single headers, engines classes A-2 and heavier and Z-6 and heavier, except Z-510 MPH.
 Wrecking cranes, 250 tons or heavier, 45 to 48 inc.15 MPH.
 Engines classes W and heavier not permitted on following tracks:
 Brainerd, west end tracks, 13, 14, 15, 16 and 17; beer spur; oil house track; west end of lumber tracks 2 and 4.
 Engines classes W-3 and heavier not permitted on following tracks:
 Wrenshall, brick yard tracks 1 and 2.
 Zenith, gravel pit spur.
 Aitkin, power house spur, and hole track beyond First St. Motley, north spur.
3. **At Carlton—**Eastward freight trains and light engines from the Second Subdivision will head in on North Siding, unless otherwise instructed.
 Westward trains, yard engines or branch trains will not use north siding without permission from the train dispatcher.
 No train order signal maintained.
 At Interlocking—Trains will call for route as follows:

Second to Second "East & West":	oo & oo.
Second to Third "East & West":	oo & ooo.
Second to Loop Track "West":	oo & oooo.
Second to 5th Subdivision "East":	oo & oooo.
Third to Third "East and West":	ooo & ooo.
Third to Second "East and West":	ooo & oo.
Third to Loop Track "West":	ooo & oooo.
Third to 5th Subdivision "East":	ooo & oooo.
Fifth to Second "West":	oooo & oo.
Fifth to Third "West":	oooo & ooo.
Fifth to Loop Track:	oooo & oooo.
Loop Track to Second "East":	oooo & oo.
Loop Track to Third "East":	oooo & oo.
Loop Track to 5th Subdivision "West":	oooo & oooo.
Lower yard lead to Second Subdiv. "East and West":	—o.
No. 9 Lead through Interlocking "East and West":	—.

4. At McGregor—

At Interlocking—Trains will call for route as follows:

For Northern Pacific and Soo Line main tracks: —
 From Northern Pacific and Soo Line to West wye: —o
 From Northern Pacific and Soo Line to East wye: o—
 Between Interchange Track and West wye: oooo
 To eastward siding: oo—
 To Coal Dock Track: oo— —

5. At Brainerd—St. Paul Division trains must stop before fouling Lake Superior Division main track.

St. Paul Division first class trains head in on inside track at passenger station.

Connection with 8th Subdivision is governed by automatic block signals.

6. At Staples Interlocking—Trains which may be unable to start at home signal may pass signal 1459 only when lower arm indicates Proceed, and must then proceed at slow speed. If such indication is not secured, use telephone and then proceed at restricted speed on instructions from towerman.

7. At Staples, St. Paul Division instructions govern.

8. Sidings—

McGregor, siding east of passenger station is westward siding.

Siding west of passenger station is eastward siding.

Aitkin, north siding is westward; south siding is eastward.

9. Spring Switches—

Anton, at end of double track, normal position for westward track, equipped with facing point lock.

Deerwood, at junction of Second and Fourth Subdivisions, one and three-fourths miles east of passenger station, normal position for Second Subdivision main track, equipped with facing point lock.

10. Pusher Districts—Duluth to Sawyer.

11. Retaining Valves—On freight trains retaining valves must be used on grades Sawyer to Pokegama, handles to be turned up to low pressure (horizontal) position, beginning at head end of train, as follows:

Trains of 8000 tons or over—20 retainers.
 Trains of 6000 tons or over—16 retainers.
 Trains of 4000 tons or over—10 retainers.
 Trains of less than 4000 tons—No retainers unless requested by engineer.

All retaining valves will be turned down between Pokegama and Central Avenue.

On solid trains of ore or trains consisting of a large percentage of ore, retaining valves must be turned up on one-fourth of the total number of cars in the train, and 90 lbs. brake pipe pressure will be used from Sawyer to point where train is set out.

When engine has been cut off and recoupled, retaining valves will be turned down while the brake pipe test is being made, and then turned up again.

12. Register Stations—

Central Avenue, Carlton, Staples.

13. Register Exceptions—At Central Ave. and Carlton trains register by Form 608.

A check of register on Form 602 may be issued by operator when authorized by train dispatcher, either instead of, or in addition to, train order check, at Central Avenue, Carlton and Staples Interlocking.

14. Clearance Exceptions—At Carlton, all trains secure clearance.

THIRD SUBDIVISION.

(MAIN LINE)

1. Speed Restrictions— Zone—Between	Maximum Speeds Permitted		
	Loaded Freight Cars	Ore and Mixed	Passenger
West Duluth Jct. and MP 143 (between Short Line Park and West Duluth Jct.).....	40	50	60
MP 143 and MP 135 (Brownell)....	25	25	45
MP 135 and MP 129 (West end Carlton yard)	40	50	60
MP 129 and MP 119 (Mahtowa).....	40	50	70
MP 119 and MP 106 (2 miles west of Moose Lake)	40	50	70
MP 106 and MP 94 (Rutledge)	40	50	65
MP 94 and MP 46 (Harris)	40	50	70
MP 46 and White Bear Lake	40	50	60
At Carlton, over double slip switch within interlocking, except through movements via Third Subdivision.....			
			15 MPH.
At Wyoming, engines using Tyra spur at west end of eastward siding			
			5 MPH.

2. Bridge and Engine Restrictions—

Engines classes A-2 to A-5 inc. and Z-5 to Z-8 inc., not permitted.

Wrecking cranes, 250 tons or heavier, 45, 46, 47
and 4815 MPH.

3. At West Duluth Jct.—Switch at end of double track is automatically operated dual control. Normal position is for westward track.

4. At Carlton—Second Subdivision instructions govern.

5. At Hinckley—Cars must not be left on No. 1 yard track.

Switch from Roundhouse lead to Coal Dock Pit Track must be set and locked for Coal Dock Pit Track when not in use.

At Interlocking—trains will call for route as follows:

For Through Main Track Movement: —
 For Movement from Main Track to Sidings: —o
 For Movement from Sidings to Main Track: o—
 For Movement between yard and eastward siding: oo

6. At White Bear Lake—West switch of crossover to New Yard will be left lined for the lead, which is the normal position. NP Ry and M&StL Ry Joint Terminal instructions govern.

7. Sidings—

Hinckley, siding east of Grind Stone River is westward siding; siding west of G. N. crossing is eastward siding.

Rush City, siding east of passenger station is westward siding, siding west of passenger station is eastward siding.

Wyoming, siding east of passenger station is westward siding, siding west of passenger station is eastward siding.

8. Pusher Districts—Duluth to Otter Creek.

9. Retaining Valves—On freight trains retaining valves must be used on grades Brownell to Smithville. Handles to be turned up to low pressure (horizontal) position, beginning at head end of train, as follows:

Trains of 8000 tons or over—20 retainers.
 Trains of 6000 tons or over—16 retainers.
 Trains of 4000 tons or over—10 retainers.
 Trains of less than 4000 tons—No retainers unless requested by engineer.

All retaining valves will be turned down between MP 143 and West Duluth Junction.

10. Register Stations—

West Duluth, Carlton, White Bear Lake.

11. Register Exceptions—

At West Duluth, Carlton and White Bear Lake trains register by Form 608.

A check of register on Form 602 may be issued by operator when authorized by train dispatcher, either instead of, or in addition to, train order check, at West Duluth, Carlton and White Bear Lake.

12. Clearance Exceptions—

At West Duluth Junction: Trains originating secure clearance at West Duluth.

At Carlton: all trains secure clearance.

FOURTH SUBDIVISION.

(CUYUNA NORTHERN BRANCH)

- Speed Restrictions—**

Zone—Between	Maximum Speeds Permitted	
	Freight	Passenger and Mixed
Deerwood and Ironton	40	40
- Bridge and Engine Restrictions—**Engines heavier than Classes W-5 and Z-4 not permitted.
Trestles at Middleton and Armour Coal spurs, and bridge north of Sintering Plant, not safe for engines.
- At Deerwood—**Eastward trains use junction switch one and three-fourths miles east of passenger station; westward trains use crossover west of passenger station, unless otherwise authorized by train order.
Train order signal does not govern Fourth Subdivision trains.
- At Ironton—**Track must not be used beyond point 1,900 feet west of Trommald Jct.
- Spring Switches—**
Deerwood, at junction of Second and Fourth Subdivision main tracks, one and three fourths miles east of passenger station, normal position for Second Subdivision main track, equipped with facing point lock.
- Register Stations—**Ironton and Deerwood.
- Register Exceptions—**At Deerwood, when operator on duty, trains will register by Form 608.

FIFTH SUBDIVISION.

(CLOQUET BRANCH)

- Speed Restrictions—**

Zone—Between	Maximum Speeds Permitted	
	Freight	Passenger and Mixed
Cloquet and MP 3 (east of Scanlon)	15	15
MP 3 and Carlton	30	30
Carlton, over double-slip switches through the Interlocking	15 MPH.	
- Bridge and Engine Restrictions—**Between Carlton and MP 3, engines heavier than Class W-3 not permitted; between Cloquet and MP 3, engines heavier than Class W-1, not permitted.
Wrecking cranes, 250 tons or heavier, 45 to 48 inc., not permitted.
At Cloquet, engines Classes W and heavier must not be used around curvature of over 15 degrees on yard tracks. Engines Classes W and heavier must not use the D&NE interchange track.
- At Carlton—**Second Subdivision instructions govern.
- At Cloquet—**D.&N.E. engines may use main track between Johnson-Wentworth lead, one-half mile east of passenger station, and west end of yard.
- Register Stations—**Carlton and Cloquet.
- Clearance Exceptions—**
At Carlton all trains secure clearance.
At Cloquet trains will not require clearance.

SIXTH SUBDIVISION.

(GRANTSBURG BRANCH)

- Speed Restrictions—**

Zone—Between	Maximum Speeds Permitted	
	Diesel Engines	Steam
Rush City and Bridge 5 (St. Croix River)....	20	30
Bridge 5 and Grantsburg	25	30
Rush City, approach Highway No. 61 at restricted speed.		
- Bridge and Engine Restrictions—**
Engines Classes T, T-1, G-1, G-2, Q-3 and heavier, and Class Q-1 with tender heavier than 7000 gallon tender, not permitted.
Diesel engines with total weight in excess of 230,000 pounds, and wrecking cranes 41 to 48 inc., not permitted.
Bridge 5, St. Croix River:
Diesel engines, numbers 107, 108, 113 to 118 inc.
125 to 131 inc., 150, 151, 152 5 MPH.
Engines Classes L-9 and L-10 5 MPH.
Other engines 8 MPH.
Heavy Car Restrictions: Cars with total weight exceeding 214,000 pounds, or cars less than 30 ft. long with total weight exceeding 169,000 pounds not permitted. Cars with total weight exceeding 169,000 pounds must be separated from each other and from engine or tender with one car 40 ft. long with total weight not exceeding 169,000 pounds.
- At Rush City—**West leg of Wye blocked by coach and engine standing on frog of roundhouse track between the hours of 1:30 PM and 6:00 AM, Monday to Saturday inc., and all day Sunday.
- Register Stations—**
Rush City.
- Clearance Exceptions—**At Grantsburg, trains will not require clearance.

SEVENTH SUBDIVISION.

(BULLHEAD LAKE BRANCH)

- Speed Restrictions—**

Zone—Between	Maximum Speeds Permitted
Funkley and Kelliher	15 MPH.
- Bridge and Engine Restrictions—**
Engines classes Q-1, W and heavier, and wrecking cranes, 250 tons or heavier, 45 to 48 inc., not permitted.
Heavy Car Restrictions, All Bridges.
Cars with total weight exceeding 214,000 pounds or cars less than 30 ft. long with total weight exceeding 169,000 pounds not permitted when coupled in groups or next to engine or tender. Cars 30 ft. or more long exceeding 169,000 pounds may be handled in groups, but must be separated from engine or tender with at least one car 40 ft. long with total weight not over 169,000 pounds.
- Register Stations—**
Funkley Kelliher
- Clearance Exceptions—**
At Funkley: Westward trains will not require clearance.

EIGHTH SUBDIVISION.

(INTERNATIONAL FALLS BRANCH)

(BRAINERD TO NORTH BEMIDJI)

- Speed Restrictions—**

Zone—Between	Maximum Speeds Permitted	
	Freight	Passenger and Mixed
Brainerd and North Bemidji	40	50

2. Bridge and Engine Restrictions—

Engines classes Q-5 and heavier and classes G-1 and G-2, and wrecking cranes, 250 tons or heavier, 45 to 48 inc., not permitted.

Heavy Car Restrictions:

Cars with total weight exceeding 214,000 pounds, not permitted, or cars less than 30 ft. long with total weight exceeding 169,000 pounds not permitted when coupled in groups or next to engine or tender. Cars more than 30 ft. long exceeding 169,000 pounds may be handled in groups, but must be separated from engine or tender with one car 40 ft. long with total weight not exceeding 169,000 pounds.

3. At Brainerd—Connection with 2nd Subdivision is governed by automatic block signals.

The signal governing movements from the 8th to the 2nd Subdivision displays interlocking indication Rule (601A) and will not display a proceed indication until the junction switch is properly lined and there are no conflicting train or engine movements in the Automatic Block Signal territory.

Trains will be governed by Second Subdivision Time Table.

Train order signal does not govern Eighth Subdivision trains.

4. At Bemidji Tower—Trains will call for routes as follows:

For Through Main Track Movement—4 Long.

For East Leg of Wye in and out of Bemidji—2 Long.

Interlocking at crossing over GN and Soo Line tracks is unattended between the hours of 2:00 PM and 10:00 PM daily, and between the hours of 6:00 AM and 2:00 PM on Mondays only. During these hours routes will be set for the GN and Soo Line. Home Signals will be set to display proceed indication for those routes, but should a stop indication be displayed, movement through the interlocking must be made in accordance with Transportation Rule 671.

If N. P. movement is necessary during closed hours, notify Trainmaster sufficiently in advance to call towerman.

5. At Bemidji—The wye switch on the Bemidji Branch will be in normal position when lined for the east leg of the wye.

6. Exclusive Sidings At—

Pequot

Backus

Pine River

Walker

Must not be blocked with cars except on authority of trainmaster, except in case of emergency and then must be reported at first open telegraph office.

7. Register Stations—

Brainerd

North Bemidji

8. Register Exceptions—Eastward trains secure from the telegraph office at Brainerd by telephone check of register covering first class trains.

9. Clearance Exceptions—

At 8th Subdivision Junction: Eastward trains will not require clearance. Westward trains will secure clearance at Brainerd.

At Bemidji: No. 729 and No. 737 will not require clearance.

At North Bemidji: No. 730 and No. 738 will not require clearance.

NINTH SUBDIVISION.

(INTERNATIONAL FALLS BRANCH)

(NORTH BEMIDJI TO INTERNATIONAL FALLS)

1. Speed Restrictions— Zone—Between	Maximum Speeds Permitted	
	Freight	Passenger and Mixed
North Bemidji and International Falls.....	35	45

2. Bridge and Engine Restrictions—

Engines classes G-1, G-2, Q-5 and heavier, W-3 and heavier, and wrecking cranes, 250 tons or heavier, 45 to 48 inc., not permitted.

Bridge 166, Big Fork River and Bridge 185, Little Fork River:
All trains 10 MPH.

Double header engines Classes W, W-1, W-2 and W-4 not permitted.

Heavy Car Restrictions, All Bridges:

Cars with total weight exceeding 214,000 pounds not permitted. Cars with total weight exceeding 169,000 pounds must be separated from each other and from engine or tender with two cars 40 ft. long with total weight not over 169,000 pounds.

3. At Blackduck—Spur 118-07, Carney's Spur, must not be used beyond 650 feet from switch.

4. At Big Falls—Tail of wye must not be used beyond 1,195 feet from switch. Blandin Paper Co. tracks may be used for switching cars to or from temporary pulpwood platform.

5. At Waukanha—Spur track must not be used beyond 720 feet from switch.

6. At Happyland—Spur track must not be used beyond 630 feet from switch.

7. At Little Fork—The time of first class trains and passenger extras applies at the passenger station.

8. At International Falls—On K and S tracks all movements across Sixth Street must be protected.

9. Exclusive Sidings At—

Little Fork, the River Track is the siding and must not be blocked with cars except on authority of trainmaster, except in case of emergency and then must be reported at first open telegraph office.

10. Register Stations—

North Bemidji, International Falls.

Funkley, for trains originating or terminating.

11. Clearance Exceptions—

At Funkley:

Trains originating will not require clearance.

TONNAGE RATING

Subdivision	District	Class of Engines				
		T	W	W-3	W-5	Z-3
First Eastward..	Central Ave. to Iron River.....	1200	1650	.....	.....	.....
	Iron River to Ashland.....	1350	1850	.....	.....	.....
First Westward..	Ashland to Central Ave.....	1100	1500	.....	.....	.....
Second Eastward	Staples to Brainerd	3500	5400	8500	10000	12000
	Brainerd to Duluth.	2650	4200	6000	7000	9000
	Ironton to Central Ave.....	.....	5000	8500	10000	12000
Second Westward	Duluth to Sawyer..	1150	1600	2600	3000	4000
	Sawyer to Brainerd.	2300	3500	5200	6000	7800
	Brainerd to Staples.	2800	4000	5900	6800	8800
Third Eastward..	White Bear Lake to Hinckley.....	2250	3450	4000	4600	.....
	Hinckley to Groningen.....	2150	3100	3700	4300	.....
	Groningen to Carlton.....	2800	3900	5800	6700	.....
	Carlton to Duluth.	2600	3500	5200	6000	7800
Third Westward.	Duluth to Carlton..	950	1300	1800	2100	2700
	Carlton to Hinckley	2300	3700	5400	6200	.....
	Hinckley to White Bear Lake.....	2000	3900	5900	6800	.....
Eighth Eastward.....	No. Bemidji to Brainerd.. (Helper to Hackensack) No. Bemidji to Hackensack	Q-1	T	W		
		2500	2700	3780	.....	.....
Eighth Westward	Brainerd to No. Bemidji..	1670	1800	2510	.....	.....
Ninth Eastward.	International Falls to Funkley.....	1530	1650	2310	.....	.....
	Funkley to No. Bemidji..	1575	1700	2380	.....	.....
Ninth Westward.....	No. Bemidji to Northome. Northome to International Falls.....	2500	2700	3780	.....	.....
		1730	1900	2660	.....	.....

This rating is made to govern ruling grades only, and will in no manner interfere with handling additional tonnage where grades will permit.

Rating for class W-5 engines without boosters is same as that shown for Class W-3 engines.

MAXIMUM CLEARANCES.

LIMIT OF LOAD MEASUREMENT.											Governing Structure
Height Above Top of Rail.											
1 ft. Wide	2 ft. Wide	3 ft. Wide	4 ft. Wide	5 ft. Wide	6 ft. Wide	7 ft. Wide	7 ft. 6 in. Wide	8 ft. Wide	Max. Hgt.	Max. Wth.	
1st Sub-division, Ashland to East End	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	11' 6"	St. Louis Bay Bridge
2nd Sub-division, Duluth to Staples	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	11' 6"	
3rd Sub-division, Duluth to White Bear Lake..	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	11' 6"	
4th Sub-division, Deerwood to Ironton	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	11' 6"	St. Croix River Bridge
5th Sub-division, Carlton to Cloquet	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	11' 6"	
6th Sub-division, Grantsburg to Rush City	19' 2"	19' 2"	19' 2"	19' 2"	19' 2"	19' 2"	19' 2"	19' 2"	19' 2"	11' 6"	
8th and 9th Sub-divisions {	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	11' 6"	Big Fork & Little Fork River Bridges
	Brainerd to Big Falls										
	Big Falls to International Falls										

Note:—Limit of load measurements based on 52' cars with 42' truck centers. Heights and widths in table allow 6 inches clearance. Table is based on open car loading equally divided on either side of center line of car.

MAXIMUM CLEARANCES.

LIMIT OF LOAD MEASUREMENT.										Governing Structure
Height Above Top of Rail.										
8 ft. 6 in. Wide	9 ft. Wide	9 ft. 6 in. Wide	10 ft. Wide	10 ft. 6 in. Wide	11 ft. Wide	11 ft. 6 in. Wide	Max. Hgt.	Max. Wth.		
1st Sub-division, Ashland to East End.....	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	11' 6"	St. Louis Bay Bridge
2nd Sub-division, Duluth to Staples.....	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 4"	20' 6"	
3rd Sub-division, Duluth to White Bear Lake.....	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	
4th Sub-division, Deerwood to Ironton.....	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	St. Croix River Bridge
5th Sub-division, Carlton to Cloquet.....	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	
6th Sub-division, Grantsburg to Rush City.....	19' 2"	19' 2"	19' 2"	19' 2"	19' 2"	19' 2"	19' 2"	19' 2"	11' 6"	
8th and 9th Sub-divisions, { Brainerd to Big Falls.....	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	11' 6"	Big Fork and Little Fork River Bridges

Note:—Limit of load measurements based on 52' cars with 42' truck centers. Heights and widths in table allow 6 inches clearance. Table is based on open car loading equally divided on either side of center line of car.

G. M. HARE,
Asst. Superintendent.

C. B. WOLF,
Trainmaster.

N. M. LORENTZSEN,
Trainmaster.

M. R. SMITH,
Trainmaster-Roadmaster.

E. J. WIGG,
Chief Dispatcher.