NORTHERN PACIFIC RAILWAY COMPANY

Rocky Mountain Division

Special Instructions No. 3

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

Sunday, January 23, 1966

These instructions constitute a part of the Time Table currently in effect.

Employes 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. W. WALTERS,
Superintendent.

N. M. LORENTZSEN,
General Manager.

E. S. ULYATT,
General Superintendent of Transportation.

ALL SUBDIVISIONS.

1. **Speed Restrictions—** **Maximum Speeds Permitted**

Passenger trains	75 MPH.
All freight and mixed trains	60 MPH.

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

All trains and engines, except as otherwise specified:		
Through crossovers, turnouts and gantlets, except where fixed signals provide otherwise		15 MPH.
Handling pile drivers 26-33 inclusive		40 MPH.
Handling other pile drivers, wrecking cranes, locomotive cranes and similar equipment		30 MPH.
Handling all scale test cars	Main Line	35 MPH.
	Branch Lines	25 MPH.
Handling air dump cars 89000 to 89059 series		35 MPH.
Picking up train orders from operators		30 MPH.
Handling dead diesel-electric engines other than NP and Tenant Lines		35 MPH.
Handling loaded ore cars		40 MPH.
Handling phosphate in open top cars		50 MPH.
Handling phosphate in open top cars not weighed and will stop to inspect cars every 35 miles		30 MPH.
Handling company gravel or ballast		50 MPH.
DF trains handling logs		35 MPH.

Diesel-electric engines	Handling trains	Running light
No. 99	50 MPH.	50 MPH.
No. 100	40 MPH.	40 MPH.
100 series, except No. 100	60 MPH.	60 MPH.
200 and 300 series, except Nos. 244, 245, 260, 263 and 267	65 MPH.	65 MPH.
Nos. 244, 245, 260, 263 and 267	75 MPH.	65 MPH.
400, 600 and 700 series	45 MPH.	45 MPH.
500, 501 and 552-569, incl except 556	65 MPH.	65 MPH.
No. 525	60 MPH.	60 MPH.
Nos. 550, 551 and 556	75 MPH.	65 MPH.
Nos. 800-803	60 MPH.	60 MPH.
850-860 series	65 MPH.	65 MPH.
900, 6000 and 7000 series	65 MPH.	65 MPH.
5400 series	55 MPH.	55 MPH.
6500, 6600 and 6700 series	75 MPH.	65 MPH.
2500 series	70 MPH.	65 MPH.
2500 series through all turnouts except where signalling permits a higher speed	12 MPH.	12 MPH.

Diesel-electric motor cars in service or being towed:	
Cars B-30 to B-32 incl. and B-40 to B-42 incl.	75 MPH.

Diesel-Electric Engines Handled Dead in Train—Diesel-electric engines or units may be handled dead in trains. The speed of such trains must not exceed the authorized operating speed specified for such engines or units.

When handling diesel-electric single units, road-switcher engines and switch engines dead in a freight train, they shall be separated from the engine handling the train and each other by at least one freight car. This does not apply to diesel-electric road engines of two or more units coupled in multiple.

All diesel-electric engines or units handled dead in freight trains must be placed on head end of train within ten cars of road engine handling train, this to insure that brakes will release properly.

When handling diesel-electric units dead in train, bridge, speed and other restrictions must be observed, same as when in operating condition.

When road passenger diesel units are coupled in multiple with road freight or road switcher units, the road passenger units must be trailing to avoid danger of sliding wheels on the freight or road switcher units due to excessive brake cylinder pressure. The speed restrictions for freight and road switcher units must be observed to avoid damage to traction motors.

If [illegible] units of a consist are of different gear ratio, the engine must not be operated at speeds exceeding that of the unit having the lowest maximum permissible speed. Also, the overload short time rating of any unit in the consist must not be exceeded.

When two, Four-Unit Diesel-electric Engines are used to double-head freight trains, the leading engine only will apply power to start train, or to make backup movement with cars.

2. Heavy Cars—Cars heavier than the following not permitted without authority of Superintendent:

35 ft. or less in length	220,000 Lbs.
Over 35 ft. in length	263,000 Lbs.

3. Train inspection.
When blowing snow or other conditions restrict visibility to the point that proper running inspection can not be made, freight trains will reduce speed to the extent required, stopping if necessary, to make such train inspection. Train crews will avail themselves of service stops to comply with the foregoing. Conductor will determine frequency of such inspections, dependent on visibility conditions, avoiding unnecessary delay to trains.

4. Rule 8(C) of the Consolidated Code of Operating Rules is amended as follows: Employes governed by time service rules must not wear wristwatches while on duty unless such watches are of the approved type.

5. Rule 7(A), 4th Paragraph of the Consolidated Code of Operating Rules is modified as follows:

When backing or pushing a train, engine or cars in response to hand or light signals from a trainman, the disappearance from view of the trainman giving such signals or of his light by which such signals are given, must be regarded as a stop signal except when movement is under control of a trainman on the leading car that is equipped with back-up air brake hose or pipe.

6. Rule 10(H)—When it is known in advance there will not be a flagman at yellow signal, per Rule 10(H), the following form of train order is authorized and will be issued when requested by foreman in charge:

ACCOUNT MEN AND EQUIPMENT ON (EASTWARD, WESTWARD OR MAIN) TRACK BETWEEN (MILEPOST LOCATIONS) BETWEEN (STATION) AND (STATION) FROM (TIME) UNTIL (TIME) ALL TRAINS ON (EASTWARD, WESTWARD OR MAIN) TRACK MUST APPROACH AND PROCEED THROUGH THIS TERRITORY AT RESTRICTED SPEED PREPARED TO STOP MAINTAINING A CAREFUL LOOKOUT FOR HAND SIGNALS RESTRICTED SPEED MUST NOT BE EXCEEDED UNLESS FOREMAN IN CHARGE VERBALLY AUTHORIZES A DIFFERENT SPEED.

Foreman in charge of work must notify Chief Dispatcher in writing, furnishing location, time, and date such protection is desired.

When train order is issued, foreman will be given copy of such order if practicable. If not practicable, he will be verbally advised when train order is in effect.

Yellow flags must be placed one and one-half (1½) miles from outer work limits.

When this train order is in effect, trains must approach and proceed through this territory at restricted speed maintaining a careful lookout for signals and be prepared to stop at red signal.

Restricted speed must not be exceeded unless foreman in charge of work verbally authorizes a different speed.

A green signal will be displayed to the right of each track at limit of restriction, but train may resume speed in advance of green signal when verbally authorized by foreman.

The above wording is a modification of Rule 10(H). The foreman may display a red signal anytime he requires its use account impassable track and trains will be governed by Rule 10(G).

(Note) The last sentence in the order would allow use of radio if desired to increase speed through limits.

Consolidated Code Rules Nos. 205 and 206 are modified to permit use of rubber stamp and printed train order forms as follows:

When rubber stamp and printed train order forms are used for issuance of train order form shown under this item, Train Dispatchers, after recording form in train order book with stamp, are required to write and transmit only train order numbers, address, track designation, mile post locations, stations, and time limits. In addition, date will be transmitted when necessary. Train order operators using printed form for such train orders are required to copy and repeat only that portion transmitted by the train dispatcher.

7. Flashing type lamps may be used as markers provided they are of the approved type. When this type of marker is used on rear of train, Rules 19 and D-19 are modified and Rule 19(E) of the Consolidated Code will not apply as indicated in the following.

Rule 19. By night, marker lamps lighted, displaying red to the rear except when train is clear of main track in non-Automatic Block Signal Territory, green will be displayed to the rear.
Rule D-19. By night, when train is turned out against the current of traffic, marker lamps lighted must display green to the rear on the side next to the main track on which the current of traffic is in the direction train is moving and red to the rear on the opposite side.

Rule 19(E). Does not apply in CTC or Automatic Block Signal territory, and following train will be governed by signal indication.

8. Rule 200. Lights will not be displayed on train order signals on the 8th, 9th, 10th, 11th, 12th, 13th, 14th and 15th subdivision. Trains will be governed by the day indication of these train order signals.

9. Second paragraph, Page 145, Consolidated Code of Operating Rules is amended as follows: Except on branch lines and as otherwise provided in the Special Instructions, Advance warning signs are, as far as feasible, located 5280 feet in advance of the Reduce speed signs.

On branch lines, except as otherwise provided in the Special Instructions, Advance warning signs are, as far as feasible, located approximately 1500 feet in advance of the Reduce speed signs.

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.

10. Rule 519 of the 1959 edition of the Consolidated Code of Operating Rules will not apply on the Northern Pacific Railway. The following rule governs: "Unless otherwise provided, in automatic block signal territory, when a train or engine has been stopped by a signal governing movement through or over a spring switch, and signal continues to display the Stop-indication, after complying with Rule 104(B), movement may be made as provided by Rules 501(A)2 and S-509(B)."

11. Rule 607. Emergency signals are not used at interlockings operated by the Northern Pacific Railway.

12. 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.

Diesel-electric motor cars, when handled dead in freight trains, must be behind caboose.

Four-wheel scale test cars must be handled only in local freight trains. Exception:—If there is no local service available, these cars may be handled in dead freights which must be governed by speed restrictions for the handling of four-wheel scale test cars shown under Item 1. All scale test cars must be placed immediately ahead of caboose.

Air dump cars, series 89000-89059, will be handled only in work trains and local trains when available. If local trains not available, cars may be handled on the rear of other trains at a speed not to exceed 35 MPH.

Instructions for Handling Pile Drivers, Cranes, Derricks, Shovels or Similar Equipment of the Swinging or Pivoting Type, are as follows:

(a) When such equipment is moved on its own wheels, it shall be prepared and carded in accordance with current A.A.R. Loading Rules unless some condition exists which prevents those requirements being complied with.

(b) Such equipment that is geared for self-propulsion shall have the driving gears disconnected or removed.

(c) Such equipment that is Company-owned that requires speed to be restricted shall be covered by a message to the train crew stating the maximum speed permitted.

(d) The above named equipment with the exception of pile drivers 26 through 33 inclusive when properly prepared and carded may be moved at normal freight train speeds unless there is some condition that prevents it, and in that event the maximum permitted speed shall be noted on the waybill. When not prepared and carded shall be handled at speeds not to exceed 30 MPH.

13. Precautions must be taken on double track to prevent accidents from swinging doors or other loose construction attached to cars or engines.

14. Roller bearing failures on cars or engines equipped with roller bearing boxes may be due to lack of oil or grease. If the box is not blazing, the oil plug in the cover should be removed and heavy oil added and plug replaced. Oil must never be added to a box that is blazing. Grease lubricated roller bearing boxes have grease plugs locked with a metal strap which must be cut off with chisel before plug can be removed. In cases of a hot box, oil should be added and the plug replaced, train should proceed at reduced speed and care exercised until it is apparent the box is running cool.

15. **Spring Switches—**

Instructions for operation of spring switches are posted at or near the spring switch and must be complied with.

Unless otherwise specified, the normal position of spring switches is for main track.

When the target of a spring switch shows "red" to an approaching train or engine, a trailing point movement actuating the spring switch points must not be made.

Normal indication of siding signal is STOP. If siding signal does not clear on approach of train, movement must be governed by instructions posted at the switch.

16. **Bulletin Stations—**
Livingston, Bozeman, Logan, Butte.
Helena, Garrison, Missoula, Paradise.
Silver Bow—for Union Pacific trains.

17. **Standard Time Clocks—**
Livingston, passenger station.
Bozeman, passenger station.
Butte, passenger station.
Logan, passenger station.
Helena, yard office.
Garrison, passenger station.
Missoula, passenger station and yard office.
Paradise, passenger station.

18. **Watch Inspectors—**

Jack Robb, Livingston.	Wilbur Gaebe, Wallace.
Bozeman Jewelry Co., Bozeman.	S&M Jewelers, Helena.
Paul S. Jordan, Butte.	O. B. Stoverud, Missoula.

19. **Log Trains**—Maximum permissible speeds—35 MPH. Trains handling logs on flat cars will be governed by the following instructions:

Conductors must personally know that cars are not overloaded or improperly loaded, and are safe to move without loss of lading, giving particular attention to permitted maximum width and height of load.

Special precautions should be observed to avoid logs falling from cars when using overhead crossing, and in all cases obstructions or impaired clearance, prompt action taken to protect trains, making an effort to clear obstruction and reporting matter promptly.

Double track:

Conductors will notify Dispatcher when logs loaded on flat cars are in their train, and secure train order that passenger trains on opposite track will be held at next station until they have arrived.

Single track:

Such trains must be standing when meeting or being passed by passenger trains unless passenger train is standing.

20. **Mountain Grade Operation—**

At meeting points established by train orders: The train order must specify which train will take siding.

Unless otherwise directed the ascending train will take the siding. Descending freight or mixed trains holding main track at the meeting point must not pass the upper switch of the siding until the ascending train is clear of the main track.

Descending freight and mixed trains and light engines must not exceed one mile in three minutes, except as authorized in speed restrictions on First Subdivision.

Trains handling express or expedited freight having a consist of cars equipped for passenger train operation, or with a small percentage of freight refrigerators intermingled, will be governed by speed specified for passenger trains descending mountain grades.

The use of retainers may be discontinued on freight trains handled by diesel engines when tonnage in train does not exceed that which the engine can handle ascending grade without helper, providing the dynamic brake is operative on all units of the engine.

Speed of trains descending must be controlled to comply with speed restrictions.

Trains handled by engine on descending grades, having dynamic brake operative on all units and tonnage of train exceeds the tonnage rating of engine for ascending the grade, turn up one retaining valve handle for each fifty tons in excess of rated tonnage, starting from the head end of train.

Maintaining Method of Braking on Descending Grades:

Trains handled by diesel-electric engines equipped with 8-EL, 24-RL or 26-L brake equipment must use the maintaining method of braking.

To avoid derailing cars in the head portion of freight trains while descending grades 2.2% or greater, engineers must limit maximum dynamic braking amperage, in line with the number and type of diesel units in the engine consist, to that shown in the following tables:

Table 1

Any Combination of Four-Motored Diesel Units, equipped with Dynamic Brakes, Coupled in Multiple

Number of Units	Maximum allowable amperage
3	700
4	650
5	580
6	540
7	500
8	460
9	430
10	410

Table 2

All Six-Motored Diesel Units Coupled in Multiple

Number of Units	Maximum allowable amperage
3	575
4	480
5	430
6	400
7	375
8	350
9	330
10	310

When any 5400 or 6000 series units are in an engine consist, to avoid overloading and damaging the electrical equipment, the maximum dynamic brake amperage must not exceed 540 amperes, regardless of the number or type of other units in the engine consist.

When six-motored diesel units are coupled in multiple with four-motored diesel units, each six-motored diesel unit must be counted as two units to arrive at the number of units to use in determining the maximum allowable dynamic brake amperage permissible as shown under Table 1. Example: engine consist of

two 5500 series units and two 200, 300 or 7000 series units, a total of four units operating the train, but a total of six units for use in determining maximum allowable dynamic brake amperage permissible under Table 1, which would be 540 amperes.

Trains handled by diesel-electric engines with 8-EL, 24-RL or 26-L brake valve, using the maintaining method of braking, and with dynamic brake operative on all units, may handle the following tonnage without the use of retaining valves on grades not exceeding 2.2% descending.

Table 1

Any combination of four-motored diesel units, equipped with dynamic brakes, coupled in multiple

Number of Units	Tonnage
5 or more	6,500
4	5,200
3	3,900
2	2,600
1	1,300

Table 2

All six-motored diesel units coupled in multiple

Number of Units	Tonnage
3 or more	6,500
2	4,400
1	2,200

When any combination of four-motored and six-motored diesel units are in a consist, the total tonnage handled on the descending grade must not exceed the sum of the tonnage taken from the above table for each type of diesel unit. In no event shall the total tonnage exceed 6,500 tons for any combination of diesel units.

If the train tonnage exceeds the limits specified above for handling trains without retaining valves on 2.2% descending grade, use one retaining valve for each fifty tons over tonnage specified, starting from first car at head end of train.

When maintaining method of braking is used, conductor must observe caboose gauge before passing summit and note that brake pipe pressure is being maintained.

If stop is made on descending grade, sufficient time must be allowed to recharge the train brake system which shall not be less than ten minutes after brake valve handle is placed in running position.

If stop is made on descending grade and engine brake only is not sufficient to hold the train, hand brakes must be applied to hold the train and to allow sufficient time to fully charge the train brake system.

Retaining valves shall be used when requested by enginemen.

If dynamic brake becomes inoperative, train must be stopped and retaining valves used as outlined for handling train with locomotive having no dynamic brake.

When maintaining method of braking is used without using retaining valves, no stop will be necessary to cool wheels and inspect train.

When maintaining method of braking is used, release of the train brakes must be made in the usual manner, dynamic brake and retaining valves (where required) being used to control train speed during time brake system is being recharged.

Partial release of train brakes by moving brake valve handle from "maintaining" position to "running" position momentarily and back to "maintaining" position, must not be attempted.

Before releasing the train brakes, enginemen must know that the speed and grade are such that train may be controlled with the dynamic brake only. This to insure that sufficient time will be allowed to recharge the train brake system before another application of the train brakes will be necessary.

For special instructions applicable to any specific mountain grade, see "Mountain Grade Operation" for the Subdivision on which it is located.

21. Limits of Centralized Traffic Control (CTC) are identified by roadway signs indicating the beginning of and the end of CTC territory.

FIRST SUBDIVISION.

(Main Line)

1. **Speed Restrictions—**

Zone—Between	Maximum Speeds All Freight and Mixed trains	Permitted Passenger trains
Livingston and Muir		
Ascending	40 MPH.	40 MPH.
Descending	25 MPH.	36 MPH.

Muir and West End	30 MPH.	30 MPH.
West End and 1400 feet West of MP 135 (3 miles West of Chestnut)		
Ascending	30 MPH.	30 MPH.
Descending	25 MPH.	36 MPH.

2. **Bridge and Engine Restrictions—**
At Livingston—On track No. 18 impaired clearances at new diesel washing facilities.

At East Helena,

Overhead bridge at cinder track just east of American Smelting and Refining Company ore bins will not clear engines or cars of greater height than 9 feet 6 inches from top of rail.

3. **At Helena—**
Eastward freight trains use lead extension when moving from yard.
Third Subdivision instructions govern.

4. **Mountain Grade Operation—**
Mountain Grade between Livingston and 1400 feet west of MP 135, three (3) miles west of Chestnut.
See all subdivisions Item 20.
Ninety pounds brake pipe pressure must be maintained on freight or mixed trains:

Eastward—West End to Livingston Yard.

Westward—Livingston to Helena and Butte.

Eastward freight or mixed trains, handled by engine having no dynamic brake or when engine does not have dynamic brake in effective operation on all units, stop will be made at Bozeman or before leaving West End to make brake pipe test and turn up retaining valve handles on all loads and one-half the empties, alternating the empties.

Retaining valve handles will be turned down when stop is made in Livingston yard.

Eastward freight or mixed trains, handled by diesel-electric engine having dynamic brake in effective operation on all units and tonnage rating of train does not exceed the specified tonnage for the engine ascending the grade without helper, use no retaining valves.

If helper, having dynamic brake, is used on descending grade and tonnage does not exceed the specified tonnage rating of both engines ascending the grade, use no retaining valves when dynamic brake is operative on all units of both engines.

Trains not requiring the use of retaining valves, need not stop at Bozeman or West End to make brake pipe test if consist of train has not been changed or angle cock closed after leaving terminal where terminal test was made. Conductor must know that brake pipe pressure, as indicated on caboose gauge, is being maintained before passing summit.

Westward trains, handled by engine having no dynamic brake or when engine does not have dynamic brake in effective operation on all units and when tonnage exceeds fifty-five tons per brake, retaining valves handles must be turned up on one-half of the cars beginning at head car, at Livingston or before leaving Muir and turned down at Bozeman. When tonnage is less than fifty-five tons per brake, use no retaining valves.

On westward freight or mixed trains, handled by engine having dynamic brake operating effectively on all units and tonnage rating of train does not exceed the specified tonnage for the engine ascending the grade without helper, use no retaining valves.

Conductor must know that required brake pipe pressure, as indicated on caboose gauge, is being maintained before passing summit.

In the event of failure of the dynamic brake on any unit of diesel-electric engine or when proper control of speed cannot be maintained, engineer must take action promptly to stop the train by use of the train brakes and instruct head brakeman to notify conductor that retaining valve handles must be turned up on cars in train to the requirements specified for trains handled by engine having no dynamic brake. Conductor shall instruct the brakeman accordingly and notify the engineer when specified number of retaining valve handles have been turned up, train may proceed.

5. **CTC Rules Applicable to First Subdivision—**
Employes must not enter Bozeman Tunnel unless authorized by

the train dispatcher. Before authorizing occupancy of the tunnel or closing the tunnel doors, the train dispatcher must reverse and lock the tunnel lever in the control machine and specify the time limit authority. After tunnel clear or doors open, employe to whom authority was granted must promptly advise train dispatcher who must then restore the tunnel lever in control machine to normal position.

Positive block must be maintained between West End and Muir. Between east switch at West End and west switch at Muir, protection as prescribed by Rule 99 is not required.

At West End, holding signals are located approximately 2000 feet east of west switch of siding.

At Muir, holding signals are located approximately 2000 feet west of east switch of siding. Item 20 mountain grade operation, all subdivisions paragraph 2, is modified to allow a descending freight or mixed train to pass the upper switch of the siding at West End and Muir and proceed to the holding signals, being governed by the signal aspects at these holding signals.

At Livingston—Run-away track at east end of Livingston yard will normally have switch lined for this track. The Run-away track switch will automatically restore to normal 45 seconds after the track between the control signals is unoccupied, unless signals are flashing red or unless a route has been established and a clear signal indication is displayed.

When necessary to switch over dual control switches at east end of Livingston yard, authority must be obtained from Glendive dispatcher. He will position and lock dual control switches as required and then display a flashing red signal indication on the signals involved. Switching operations can be carried on continuously while signals are flashing red. A member of the switch crew must promptly inform the train dispatcher at Glendive when switching operations have been completed. When a steady red (STOP) indication is displayed, the track between home signals must be cleared immediately and the Glendive dispatcher contacted for further instructions.

Trains or yard engines desiring to occupy the main track on the time of delayed first class trains must receive verbal authority from yardmaster. Yardmaster must receive authority from train dispatcher.

Trains arriving Livingston on the time of superior trains are authorized to proceed on the main track within yard limits if control signal located at end of CTC limits indicates "proceed".

Westward starting indicator installed west of MP 115 just east of underpass, opposite signal 1154. This starting indicator affects trains moving from the yard tracks west and does not affect trains yarded on old main track or the main track.

When a train is ready to leave one of the yard tracks a member of the crew must push the button on the starting indicator, and if the Dispatcher wishes train to leave he will authorize their movement by giving them a steady lunar light. If flashing lunar light is displayed after the crew member has pushed the button on the starting indicator a member of the crew must call the Dispatcher on CTC phone located at the indicator for further instructions. The button on the starting indicator must not be pushed until train is complete and ready to go.

At Logan: Second Subdivision trains arriving will be governed by CTC signal indication.

Hand Operated Switches Equipped with Electric Switch Locks:

Muir	East end short north siding
	West end short north siding
West End	East end short north siding
	West end short north siding
Chestnut	Spur track
Bozeman	East end yard lead
	East end cross-over
	West end yard
	Old coal dock
	Carter Oil Spur (West of Bozeman)
Belgrade	Mill track
Manhattan	East end wye Anceney Branch
	East end house track
	West end wye Anceney Branch
Trident	East end siding
	West end siding
Stanley	Spur track
Toston	East house track

Holker .....Spur track
Townsend .....East house track
East north siding (East switch)
West north siding (West switch)
Penwell .....Spur track
East Helena....East end short south siding
East end short north siding
West end short south siding
East end yard
West end short north siding
West end yard

6. **Pusher District**—Between Livingston and Bozeman.

7. **Register Stations**—
Livingston, Helena, Bozeman Trains originating and terminating.

8. **Register and Clearance Exceptions**—
At Logan—Eastward trains from Second Subdivision will not require a clearance.
Muir, West End and Bozeman—Helper engines originating will not require clearance.
At Manhattan—Trains arriving from the Ninth Subdivision will not require clearance.

SECOND SUBDIVISION.
(MAIN LINE)

1. **Speed Restrictions**—

Zone—Between	Maximum Speeds All Freight and Mixed trains	Permitted Passenger trains
At Sappington—Interlocking	45 MPH.	55 MPH.
At Whitehall, over Street Crossing	30 MPH.	30 MPH.
MP 43 and Spire Rock		
Ascending	30 MPH.	30 MPH.
Descending	20 MPH.	30 MPH.
Spire Rock and Homestake		
Ascending	30 MPH.	30 MPH.
Descending	20 MPH.	25 MPH.
Homestake and Skones	15 MPH.	
Homestake and MP 68 (east of M.U. Transfer)		
Ascending	30 MPH.	30 MPH.
Descending	20 MPH.	30 MPH.
MP 68 and Butte	35 MPH.	60 MPH.
At Butte, within city limits, all trains.		
On main track		20 MPH.
On other tracks		15 MPH.
Approach passenger station at	Restricted Speed	

2. Butte, Fourth Subdivision instructions govern.

3. **At Whitehall**—
The west switch of the cross-over at the passenger station is the west end of the siding.

4. **Double Track**—The normal position of switches at M. U. Transfer and Butte is for westward track.

5. **Spring Switches**—M. U. Transfer, one at end of double track equipped with facing point lock, normal position for westward main track.

6. **Mountain Grade Operation**—Mountain grade between two (2) Miles east of Pipestone and two (2) miles east of M. U. Transfer.
See all subdivisions Item 20.
Ninety pounds brake pipe pressure must be maintained on freight and mixed trains in both directions, between Whitehall and Butte and Whitehall to Livingston.
Eastward freight or mixed trains, requiring the use of retaining valves, will stop at Spire Rock to cool wheels and inspect train.
Conductor shall observe the caboose gauge and determine that required brake pipe pressure is being maintained before passing summit of grade.
Eastward freight or mixed trains, handled by engine having no dynamic brake or when engine does not have dynamic brake in effective operation on all units, retaining valve handles

will be turned up on all cars at Butte after terminal test has been completed and turned down at Whitehall.
Eastward freight or mixed trains, handled by diesel-electric engine having dynamic brake in effective operation on all units and tonnage rating of train does not exceed the specified tonnage for the engine ascending the grade without helper, use no retaining valves.
If helper is used on descending grade and tonnage does not exceed the specified tonnage rating of both engines ascending the grade, use no retaining valves when dynamic brake is operative on all units of both engines.
In the event of failure of the dynamic brake on any unit of diesel-electric engine or when proper control of speed cannot be maintained, engineer must take action promptly to stop train by use of the train brakes and instruct head brakeman to notify the conductor that retaining valve handles must be turned up on cars in train to the requirements specified for trains handled by engine having no dynamic brake. Conductor shall instruct the brakeman accordingly and notify the engineer when specified number of retaining valve handles have been turned up, after which, train may proceed.
Westward freight or mixed trains, handled by engine having no dynamic brake or when engine does not have dynamic brake in effective operation on all units will stop at Whitehall or Homestake to make brake pipe test and turn up retaining valve handles on all cars. Retaining valve handles will be turned down on arrival at Butte.

7. **Yard Limits**—
Tracks between yard limit signs east of M. U. Transfer and west of Butte operated as one yard.

8. **Register Stations**—
Logan, Butte.
Whitehall for second class and inferior trains.

9. **Clearance Exception**—
At Sappington, Trains from Tenth Subdivision will not require clearance.

THIRD SUBDIVISION.
(MAIN LINE)

1. **Speed Restrictions**—

Zone—Between	Maximum Speeds All Freight and Mixed trains	Permitted Passenger trains
GN Crossing Interlocking	50 MPH.	50 MPH.
Birdseye (east Switch) and Austin		
Ascending	30 MPH.	35 MPH.
Descending	20 MPH.	35 MPH.
Austin and Blossburg		
Ascending	30 MPH.	30 MPH.
Descending	20 MPH.	25 MPH.
Blossburg and MP 51 (Garrison)		70 MPH.
At Missoula, within city limits, all trains.		
Over public crossings		30 MPH.
Elsewhere		45 MPH.

2. **Bridge and Engine Restrictions**—
At Avon, engines must not pass, and trainmen must not ride platform side of cars passing ore loading platform.
At McQuarrie Gravel Pit, engines or high cars must not be moved under gravel hopper located 1400 feet from head block Hopper will not clear man on side of car.
Missoula, diesel road engines not permitted on coach tracks 1 and 2 east of passenger station and coach Track 2, west of passenger station.
Wrecking cranes numbers 45, 46, 47 and 48 will clear bridges 37, 38, 41 and 43, between Helena and Garrison, five and one-half inches at one foot three inches above rails.

3. **At Helena**—End of double track is at spring switch west of Montana Ave. crossing. Movements from eastward track to freight yard will be made through crossover at MP 1 west end of yard.

Spring switch with facing point lock at east end double track just west of Montana Ave. crossing, normal position for westward main track.

Spring switch with facing point lock at west end of yard lead connection with westward main track, normal position for yard lead.

Trains or yard engines desiring to occupy main track on the time of delayed first class trains must receive verbal authority from the train dispatcher.

Trains arriving Helena on the time of delayed first class trains are authorized to proceed on the main track inside yard limits when the following signal indications are displayed on the control signals at the end of CTC limits:

Westward trains—601 B figure 1, or 601 C figure 1

Eastward trains—601 F figure 1 for movements through crossover and down westward track.
601 B figure 1, eastward main track.
601 F figure 4, westward track from Tobin for through movement on this track.

Westward starting signals are located at Robert Street and at yard office. Trainmen will press button to indicate the train is ready to move, and if the dispatcher wishes train to leave, he will authorize their movement by giving them a steady lunar white light. If flashing lunar light is displayed after the crew member has pushed the button on the starting indicator a member of the crew must call the dispatcher on CTC phone located at the indicator for further instructions. The button on the starting indicator must not be pushed until train is complete and ready to go.

Westward trains may use eastward main track between end of double track and passenger station upon receipt of verbal or message authority from the train dispatcher. Train dispatcher must receive authority from yardmaster.

Eastward trains and engines must not exceed 10 MPH from a point 500 feet west of Montana Avenue until engine reaches crossing at Roberts Street.

Westward trains and engines must not exceed 10 MPH from a point 500 feet east of Roberts Street until engine reaches crossing at Roberts Street.

Passenger trains making station stop at Helena must stop to clear the insulated joint located approximately fifty (50) feet east of Roberts Street Crossing.

4. **At Elliston**—
Trains moving from the west end of the yard to main track must first obtain authority from the dispatcher before entering the main track.

5. **At Garrison**—
West switch of passenger siding is equipped with spring switch and facing point lock and is also provided with an electric lock on the hand throw lever.

6. **At Clinton**—
Westward trains occupying either the main track or siding, when standing, will stop east of the crossing a sufficient distance to afford motorists good vision of either track.

7. **At Missoula**—
Trains or yard engines may occupy main track on the time of westward first class trains upon receipt of verbal authority from the yardmaster. Yardmaster must receive authority from train dispatcher.

Westward trains may use eastward main track between end of double track and passenger station upon receipt of verbal or message authority from the train dispatcher. Train dispatcher must receive authority from yardmaster.

Westward extra trains may enter yard limits on main track on the time of first class trains when westward control signal at east end Missoula provides for movement. Unless otherwise directed by yardmaster these trains will proceed to the east leg of the west yard and clear the main track as promptly as practicable.

Eastward extra trains may use the main track on the time of delayed first class trains upon the authority of the yardmaster. Yardmaster must receive authority from the dispatcher.

8. **CTC Rules Applicable to Third Subdivision**
At meeting points between freight trains on mountain grade, a descending freight or mixed train with more than 30 cars or 1500 tons holding main track must not pass the upper switch of the siding until ascending train is clear of main track.

Employes must not enter Mullan tunnel unless authorized by the train dispatcher. Before authorizing occupancy of the tunnel or closing the tunnel doors, the train dispatcher must reverse and block the tunnel lever in the control machine and specify the time limit authority. After tunnel clear or doors open, employe to whom authority was granted must promptly advise train dispatcher who must then restore the tunnel lever in control machine to normal position.

Positive block must be maintained between Blossburg and Skyline.

Between east switch at Blossburg and west switch at Skyline, protection as prescribed by Rule 99 is not required.

Eastward trains, except light engines or engines and caboose only, are not permitted to follow passenger trains from any station between Blossburg and Tobin until passenger train is clear of next station in advance.

Hand operated switches equipped with electric switch locks:

Helena—East interchange track switch
West interchange track switch
Rimini spur track
Fair Ground spur track
Fort Harrison spur track
Austin spur track
Blossburg—East end short north siding
West end short north siding
Calcium spur track
Avon—East house track switch
West house track switch
Garrison—East and west end of house track, east end wye track and pocket track spur
Phosphate—East and west end of Non-Controlled siding
Gold Creek—Spur track
Drummond—East and west end of house track
Bradman—Spur track
Bonita—Spur track
McQuarrie—East and west end of Non-Controlled siding
Clinton—Spur track and both ends of storage track.
Bonner—East and West switch of storage track.

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9. **Mountain Grade Operation** between east switch Blossburg and Birdseye.

See all subdivisions Item 20.

On eastward freight and mixed trains, the feed valve on engine must be adjusted to allow the brake system to charge to ninety pounds before passing Blossburg and conductor must know by observing the caboose gauge that this rule is being complied with.

Trains requiring the use of retaining valves, will stop at Elliston to make a brake pipe test and turn up retaining valve handles.

Trains handled by engine, having no dynamic brake or when engine does not have dynamic brake in effective operation on all units, retaining valve handles will be turned up at Elliston on all loaded cars and on one-half the empties, alternating the empties.

On trains of all empty cars, retaining valve handles will be turned up on one-third of the cars, alternating, beginning with the head car.

On these trains, stop must be made at Austin to cool wheels and inspect train and at Fort Harrison to turn down retaining valve handles and inspect train.

Eastward trains, handled by diesel-electric engine having dynamic brake operating effectively on all units and tonnage

rating of train does not exceed the specified tonnage for the engine ascending the grade without helper, use no retaining valves.

If helper, having dynamic brake, is used on descending grade and tonnage does not exceed the specified tonnage rating of both engines ascending the grade, use no retainers when dynamic brake is operative on all units of both engines.

Trains, not requiring the use of retaining valves, need not stop at Austin or Fort Harrison.

In event of failure of the dynamic brake on any unit of diesel-electric engine or when proper control of speed cannot be maintained, engineer must take action promptly to stop train by use of train brakes and instruct head brakeman to notify the conductor that retaining valve handles must be turned up on cars in train to the requirements specified for trains handled by engine having no dynamic brake. Conductor shall instruct the brakemen accordingly and notify the engineer when specified number of retaining valve handles have been turned up, before train proceeds.

At Missoula—Terminal air brake test to be made in accordance with air brake rules and special instructions will satisfy the requirements of Rule 63 of air brake rules Form 610. Carmen will know that 90 pounds brake pipe pressure is obtained before making terminal test and will make a complete record of the test on prescribed Form 3797, record of terminal test.

In event terminal test is required at points other than Missoula, Conductor will make a complete record of the test on prescribed Form 3797.

10. **Helper District** between Helena and Blossburg.
At Helena, when diesel-electric engines are used as helpers Helena to Blossburg, those consisting of two units or less will be placed behind caboose and those consisting of three or more units will be placed ahead of 40 per cent of train tonnage.

While handling single engine tonnage over the entire district and two four unit diesel engines are double headed, the leading engine only will use dynamic brakes.

At Blossburg—When two helper engines, returning to Helena, are available for movement at the same time, they should couple together, unless otherwise instructed.

11. **Register Stations—**
Helena Yard,
Garrison for trains originating or terminating only,
Missoula.

12. **Clearance Exceptions—**
At Blossburg—Helper engines originating will not require clearance.

At Phosphate—Trains from Eighteenth Subdivision will not require clearance.

FOURTH SUBDIVISION.

(MAIN LINE)

1. **Speed Restrictions—**

Zone—Between	Maximum Speeds All Freight and Mixed trains	Permitted Passenger trains
Butte and Hackney		60 MPH.
Dempsey—Interlocking	45 MPH.	60 MPH.
At Butte—within city limits, all trains.		
On Main track		20 MPH.
On other tracks		15 MPH.
All trains approaching and over Kaw Ave.		10 MPH
Approach passenger station at		Restricted Speed
At Deer Lodge when discharging or receiving mail		35 MPH.

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

3. **At Silver Bow**—Train order signal does not govern eastward Union Pacific Trains.

Hand operated switches equipped with electric switch locks:
Silver Bow—East end siding
West end siding

4. **At Garrison—**
Third Subdivision instructions govern.

5. **Register Stations**—Butte, Garrison.
Silver Bow for UP trains.

6. **Register Exceptions—**
At Silver Bow, Union Pacific trains may register by Form 608 and 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.

7. **Clearance Exceptions—**
At Butte—Union Pacific trains must secure both Northern Pacific and Union Pacific clearance before leaving.

FIFTH SUBDIVISION.

(MAIN LINE)

1. **Speed Restrictions—**

Zone—Between	Maximum Speeds All Freight and Mixed trains	Permitted Passenger trains
Missoula and DeSmet—Both tracks	60 MPH.	70 MPH.
Against the Current of Traffic	49 MPH.	59 MPH.
DeSmet and Paradise		60 MPH.
Except Huson—Interlocking	45 MPH.	50 MPH.
At Missoula, within city limits, over public crossing and first crossing East and West of stockyards, all trains		30 MPH.
Elsewhere		45 MPH.
At Fish Creek, on spur		5 MPH.

Advance warning 40 MPH speed sign located 2439 feet West of MP 125 on westward track and Reduce 40 MPH speed sign located 1473 feet West of MP 126 on the North side of Sixth Subdivision main track govern speed restrictions on both Fifth and Sixth Subdivisions.

2. At Missoula—Third Subdivision instructions govern.

3. **Spring Switches—**

DeSmet—One at west end east crossover, normal position for eastward main track, and one at east end west crossover, normal position for Fifth Subdivision main track, both equipped with facing point locks.

Rivulet, east end of siding, equipped with facing point lock.
Westfall, west end of siding, equipped with facing point lock.
Spring Gulch, west end of siding, equipped with facing point lock.

Hand operated switches equipped with electric switch locks:
Schilling—East end siding
West end siding

4. **At Fish Creek Spur, a three per cent ascending westward grade from west switch of runaround track to end of main spur 4468 feet west of main track switch requires the following operation.**

Air brakes must be charged to a maximum of 90 pounds brake pipe pressure and a brake test made in accordance with Air Brake Rule before descending or ascending this grade, retaining valves to be used descending on all loads and one half the empties, alternating the empties. When shoving cars descending a trainman must ride the leading car.

On the two spurs leading west from the main spur the grade is one percent ascending westward, and hand brakes must be set on the two east cars of any cut of cars left on these spurs.

5. **Extra Trains**—Between Missoula and Paradise will run via Fifth Subdivision unless otherwise instructed by train order.

Eastward extra trains may run ahead of delayed first class trains DeSmet to Missoula without train order authority, avoiding delay to the greatest practicable extent.

6. **Register Stations**—Missoula and Paradise.

Clearance exceptions

At DeSmet—Eastward trains from 6th Subdivision will not require a clearance if train order signal indicates proceed.

SIXTH SUBDIVISION.

(MAIN LINE)

1. **Speed Restrictions**—

Zone—Between	Maximum Speeds All Freight and Mixed trains	Permitted Passenger trains
One mile West of DeSmet and Evaro		
Descending	20 MPH.	30 MPH.
Ascending	30 MPH.	30 MPH.
Evaro and MP 19 (East of Arlee)		
Descending	20 MPH.	35 MPH.
Ascending	30 MPH.	35 MPH.

2. **Bridge and Engine Restrictions**—
Bridge 55, Flathead River—
Trains handling wrecking cranes 45, 46, 47 and 48..... 20 MPH.

3. **At Arlee**—Normal position of switch at east end of siding is for house track.

4. **At Ravalli**—Normal position of switch at west end of siding is for house track.

5. **At Paradise**—Idaho Division Instructions govern.

6. **At DeSmet**—Fifth Subdivision instructions govern.

7. **Extra Trains between DeSmet and Paradise will run via Fifth Subdivision unless otherwise instructed by train order.**

8. **Mountain Grade Operation** between one mile west of DeSmet and two miles east of Arlee.

See all subdivisions Item 20.

Ninety pounds brake pipe pressure must be maintained on freight and mixed trains in both directions, Evaro to one mile west of DeSmet and Evaro to Arlee.

Conductor shall observe the caboose gauge and determine that required brake pipe pressure is being maintained before passing summit of grade.

On these trains, handled by engine having no dynamic brake or when engine does not have dynamic brake in effective operation on all units, retaining valve handles will be turned up on all cars between Evaro and MP 3, west of DeSmet, and Evaro to Arlee. Stop will be made at DeSmet and Arlee to turn down retaining valve handles.

On these freight or mixed trains, operating on descending grade east or west of Evaro handled by diesel-electric engine having dynamic brake in effective operation on all units, and tonnage rating of train does not exceed the specified tonnage for the engine ascending the grade without helper, use no retaining valves.

If helper, having dynamic brake is used on descending grade and tonnage does not exceed the specified tonnage rating of both engines ascending the grade, use no retaining valves, when dynamic brake is operative on all units of both engines.

In the event of failure of the dynamic brake on any unit of diesel-electric engine or when proper control of speed can not be maintained, engineer must take action promptly to stop train by use of the train brakes and instruct head brakeman to notify the conductor that retaining valve handles must be turned up on cars in train to the requirements specified for trains handled by engine having no dynamic brake. Conductor shall instruct the brakeman accordingly and notify the engineer when specified number of retaining valve handles have been turned up, train may proceed.

At Missoula—Terminal air brake test to be made in accordance with air brake rules and special instructions will satisfy the requirements of Rule 63 of air brake rules Form 610. Carmen will know that 90 pounds brake pipe pressure is obtained before making terminal test and will make a complete record of the test on prescribed Form 3797, (record of terminal test.)

In event terminal test is required at points other than Missoula, Conductor will make a complete record of the test on prescribed Form 3797.

9. **Register Stations**—
Paradise.

10. **Clearance Exceptions**—
At DeSmet—Trains will not require a clearance if the train order signal indicates proceed.

At Dixon—Clearance not required.

EIGHTH SUBDIVISION.

(PARK BRANCH)

1. **Speed Restrictions**—

Zone—Between	Maximum Speeds Permitted
Livingston and Gardiner	30 MPH.
except trains handling gravel and rock	20 MPH.
At Gardiner, on circle	10 MPH.

2. **Bridge Restrictions**—
Wrecking cranes 45 to 48 inc. over bridges ..... 15 MPH.

2500 series diesel engines not permitted.
Pile drivers 26-28 incl., cars less than 35 ft. long weighing between 177,000 lbs. and 220,000 lbs. when handled in groups of two or more and cars over 35 ft. long weighing between 220,000 lbs. and 263,000 lbs. when handled in groups of two or more, over Bridge 53 ..... 20 MPH.

3. **At Electric**—Siding is one (1) mile west of station.

4. **Register Stations**—
Livingston, Gardiner.

5. Unless otherwise instructed, protection against following trains, as required by Consolidated Code Rule 99, is not necessary on the 8th Subdivision.

NINTH SUBDIVISION.

(CAMP CREEK BRANCH)

1. **Speed Restrictions**—

Zone—Between	Maximum Speeds Permitted
Manhattan and Anceney	25 MPH.

2. **Bridge Restrictions**—
Wrecking cranes 45 to 48 inc. over bridges ..... 15 MPH.

3. **At Anceney**—Derail located on main track three hundred thirty (330) feet east of east switch. Derail to be left in derail position and east switch of industry track lined for main track when occupied by cars.

4. **Clearance Exceptions—**
At Anceney, trains will not require clearance.

5. Unless otherwise instructed, protection against following trains as required by Consolidated Code Rule 99, is not necessary on the 9th Subdivision.

TENTH SUBDIVISION.

(RED BLUFF BRANCH)

1. **Speed Restrictions—** Maximum Speeds Permitted
Zone—Between
Sappington and Norris ..... 25 MPH.
except MP 2 to MP 8—Descending ..... 15 MPH.
MP 8 to MP 14 diesel units in excess of 248,000 lbs. ..... 20 MPH.

2. **Bridge and Engine Restrictions—**
Wrecking cranes 45 to 48 inc. over bridges ..... 15 MPH.
Trains over Bridge 14 ..... 10 MPH.

3. Mountain grade MP 2 and MP 8 between Sappington and Harrison.

See all subdivisions Item 20.

Ninety pound brake pipe pressure must be maintained on freight and mixed trains between Harrison and Sappington, and Conductor must know by caboose gauge that this pressure is attained before making terminal test.

Trains handled by engine having no dynamic brake or when engine does not have dynamic brake in effective operation on all units, retaining valves must be used on all cars, Harrison to Sappington.

Trains handled by diesel-electric engine, having dynamic brake in effective operation on all units and tonnage rating of train does not exceed the specified tonnage for the engine ascending the grade without helper, use no retaining valves.

4. **Clearance Exceptions—**
At Sappington—Trains will not require a clearance.

5. Unless otherwise instructed, protection against following trains, as required by Consolidated Code Rule 99, is not necessary on the 10th Subdivision.

ELEVENTH SUBDIVISION.

(RUBY VALLEY BRANCH)

1. **Speed Restrictions—** Maximum Speeds Permitted
Zone—Between
Whitehall and Alder ..... 25 MPH.
MP 2 to Alder: Diesel engine units in excess of 248,000 lbs. ..... 20 MPH.

2. **Bridge and Engine Restrictions—**
Wrecking cranes 45 to 48 inc. over bridges ..... 15 MPH.

3. **At Whitehall—**
Second Subdivision instructions govern.

4. **At Alder—When cars are left on stock yard track, derail on west end of house track must be set in derailing position, the west house track switch left lined for the house track, the east wye switch left lined for the wye and the stockyard switch left lined for the stockyard.**

5. **Register Stations—**
Whitehall, Alder.

6. Unless otherwise instructed, protection against following trains as required by Consolidated Code Rule 99, is not necessary on the 11th Subdivision.

TWELFTH SUBDIVISION.

(PHILIPSBURG BRANCH)

1. **Speed Restrictions—** Maximum Speeds Permitted
Zone—Between
Drummond and Philipsburg ..... 25 MPH.
except Drummond—Interlocking ..... 20 MPH.
Elephant to end of track (Ascending) ..... 25 MPH.
End of track to Elephant (Descending) ..... 20 MPH.

2. **Bridge Restrictions—**
Wrecking cranes 45 to 48 inc. over bridges ..... 15 MPH.
At Elephant—At Mill site engines are not permitted on loading track under tipple account no clearance.

3. **Derail Switches—**
Philipsburg ..... 650 feet east of station on main track.
On Main Track—Fifty feet west of MP 1.

4. Unless otherwise instructed, protection against following trains, as required by Consolidated Code Rule 99, is not necessary on the 12th Subdivision.

THIRTEENTH SUBDIVISION.

(BITTER ROOT BRANCH)

1. **Speed Restrictions—** Maximum Speeds Permitted
Zone—Between
Missoula and Darby ..... 30 MPH.
except trains handling steam wrecking crane, pile driver or locomotive crane ..... 20 MPH.
Trains handling loaded chip cars in the series 118000 and 119000 series ..... 25 MPH.
At Stevensville—Over highway crossing 1817 feet east of passenger station ..... 10 MPH.

2. **Bridge and Engine Restrictions—**
Wrecking cranes 45 to 48 inc. over bridges ..... 15 MPH.
Pile drivers 26-28 incl.
Over Bridge 16 ..... 20 MPH.
2500 series diesel engines not permitted.

Heavy car restrictions:
Over Bridges 0, 4 and 16, cars less than 35 ft. long weighing between 177,000 lbs. and 220,000 lbs. must be preceded and followed by a car weighing under 177,000.
Over Bridges 0.1 and 16, cars weighing between 220,000 lbs. and 263,000 lbs. must be preceded and followed by a car weighing under 177,000.

3. **At Darby—Normal position of west switch of siding is for siding.**
Normal position of spur switch is for spur.

4. **Register Stations—Missoula, Darby.**

5. Unless otherwise instructed, protection against following trains, as required by Consolidated Code Rule 99, is not necessary on the 13th Subdivision.

FOURTEENTH SUBDIVISION.

(FLATHEAD VALLEY BRANCH)

1. **Speed Restrictions—** Maximum Speeds Permitted
Zone—Between
Dixon and Polson ..... 25 MPH.

2. **Bridge Restrictions—**
Wrecking cranes 45 to 48 inc. over bridges ..... 15 MPH.

3. **Clearance Exceptions—**
At Dixon—Clearance not required.

4. Unless otherwise instructed, protection against following trains, as required by Consolidated Code Rule 99, is not necessary on the 14th Subdivision.

FIFTEENTH SUBDIVISION.

(COEUR D'ALENE BRANCH)

1. **Speed Restrictions—** Maximum Speeds Permitted

Zone—Between

Haugan and Saltese	25 MPH.
Lookout and Larson over bridges 39.2, 40.1, 40.2 and 41.1	10 MPH.
At Mullan, over public crossings	10 MPH.
At Wallace, over public crossings	5 MPH.

Descending—

Saltese and Lookout	20 MPH.
Lookout and MP 44	15 MPH.
MP 44 and Mullan	20 MPH.
Mullan and Wallace	25 MPH.

Ascending—

Saltese and Lookout	25 MPH.
Lookout and MP 44	15 MPH.
MP 44 and Wallace	25 MPH.

2. **Bridge and Engine Restrictions—**

Wrecking cranes 45 to 48, incl. over bridges ..... 15 MPH.

Do not make air brake application except in emergency while on Bridges 39.2 through 41.1 east of Dorsey.
Heavy car restrictions:
Cars with total weight exceeding 177,000 pounds must be separated from engine with car 40 feet long with total weight under 177,000 pounds. Cars less than 30 feet long with total weight exceeding 177,000 pounds also must be separated from each other with one car 40 feet long with total weight under 177,000 pounds.

3. **At Lookout**—Rule 91 is modified to require trains and engines descending in same direction to keep not less than twenty (20) minutes apart.

South siding is eastward, north siding is westward.

4. A runaround track 1350 feet in length is located 1350 feet west of MP 43. End of track is located 2950 feet west of MP 43. Trains must be runaround and movement must be made in reverse direction at this location.

5. **Mountain Grade Operations** between Saltese and Mullan.

See all subdivisions Item 20.

Ninety pounds brake pipe pressure must be maintained on all freight or mixed trains in either direction, between Saltese and Mullan. A brake pipe test to be made at Lookout.

Conductor must know that required brake pipe pressure, as indicated on caboose gauge, is being maintained before passing summit. Retaining valves must be used on all cars, Lookout to Saltese and Lookout to Mullan.

Diesel engines will not exceed 8 MPH when handling Rotary Snow Plow or other snow equipment in service while descending the 4 percent grade both east and west of Lookout and this speed must be maintained by use of air brakes entirely.

6. **Register Stations—**
Haugan. Wallace.

7. Unless otherwise instructed, protection against following trains as required by Consolidated Code Rule 99, is not necessary on the 15th Subdivision between Haugan and Wallace.

EIGHTEENTH SUBDIVISION.

1. **Speed Restrictions:**

Phosphate to end of track	25 MPH.
End of track to Phosphate	20 MPH.

2. **Bridge Restrictions—**
Wrecking cranes 45 to 48 inc. over bridges ..... 15 MPH.

3. **Mountain Grade Operation:**
Mountain grade 2400 feet west of the junction switch to end of track.

See all subdivisions Item 20.

Ninety pound brake pipe pressure must be maintained on all trains between 2400 feet West of the Junction switch and End of track.

Retaining valve handles to be turned up to horizontal position descending.

When shoving cars on descending grade a trainman must ride the leading car and sufficient hand brakes must be set on low end of cut to control slack.

4. **At Phosphate**—Trains from Eighteenth Subdivision must receive permission from dispatcher before entering siding.

5. **At MP 4**—At loading dock close clearance exists. Trainmen must not ride side of cars passing dock, nor stand between dock and moving cars.

6. **Derail Switches:**

In Lower Phosphate Yard—20 feet east of headblock just west of Highway No. 10.

At MP 4—On the main track 20 feet east of the east switch, and east end of track No. 3 in Middle Yard.

7. **Yard Limits**—At Phosphate from 1075 feet west of junction switch with Third Subdivision to 300 feet east of MP 1.

8. **Clearance Exceptions**—At Phosphate and end of track trains will not require a clearance.

9. Unless otherwise instructed, protection against following trains, as required by Consolidated Code Rule 99, is not necessary on the 18th Subdivision.

Note—Limit of load measurements based on 53' cars with 42' truck centers.
Heights and widths in table allow 6 inches clearance.

MAXIMUM CLEARANCES.

Table is based on open car loading equally divided on either side of center line of car.

		LIMIT OF LOAD—MEASUREMENT											Governing Structure
		Height Above Top of Rail											
		1'0" Wide	2'0" Wide	3'0" Wide	4'0" Wide	5'0" Wide	6'0" Wide	7'0" Wide	7'6" Wide	8'0" Wide	Max. Height	Max. Width	
1st Subdivision	M. L., Livingston to Helena	20'6"	20'6"	20'6"	20'6"	20'6"	20'6"	20'6"	20'6"	20'6"	20'6"	12'0"	
2nd Subdivision	M. L., Logan to Butte	18'2"	18'2"	18'2"	18'2"	18'2"	18'2"	17'10"	17'3"	17'1"	18'2"	12'0"	Tunnel No. 3 at M. P. 57½
3rd Subdivision	M. L., Helena to Garrison	19'3"	19'2"	19'1"	18'11"	18'9"	18'7"	18'4"	18'2"	18'0"	19'3"	12'0"	Iron Ridge & Mullan Tunnels
3rd Subdivision	M. L., Garrison to Missoula	20'6"	20'6"	20'6"	20'6"	20'6"	20'6"	20'2"	19'11"	19'9"	20'6"	12'0"	Garrison and Bonita Tunnels
4th Subdivision	M. L., Butte to Garrison	19'3"	19'3"	19'3"	19'3"	19'3"	19'3"	19'3"	19'3"	19'3"	19'3"	12'0"	B. A. & P. Overhead
5th Subdivision	M. L., Missoula to Paradise	20'1"	19'11"	19'9"	19'7"	19'4"	19'1"	18'8"	18'6"	18'3"	20'1"	12'0"	Tunnels Nos. 8, 9 and 10 near Quinns
6th Subdivision	M. L., DeSmet to Paradise	20'6"	20'6"	20'6"	20'6"	20'6"	20'6"	20'6"	20'6"	20'6"	20'6"	12'0"	Bridge No. 55
8th Subdivision	Livingston to Gardiner	20'6"	20'6"	20'6"	20'6"	20'6"	20'6"	20'6"	20'6"	20'6"	20'6"	12'0"	
9th Subdivision	Manhattan to Anceney	20'6"	20'6"	20'6"	20'6"	20'6"	20'6"	20'6"	20'6"	20'6"	20'6"	12'0"	
10th Subdivision	Sappington to Norris	20'6"	20'6"	20'6"	20'6"	20'6"	20'6"	20'6"	20'6"	20'6"	20'6"	12'0"	
11th Subdivision	Whitehall to Alder	20'6"	20'6"	20'6"	20'6"	20'6"	20'6"	20'6"	20'6"	20'6"	20'6"	12'0"	Bridge No. 9
12th Subdivision	Drummond to Philipsburg	19'11"	19'11"	19'11"	19'11"	19'11"	19'11"	19'11"	19'11"	19'11"	19'11"	12'0"	Wire Crossing—1041 feet west of M. P. 6
13th Subdivision	Missoula to Darby	20'6"	20'6"	20'6"	20'6"	20'6"	20'6"	20'6"	20'6"	20'6"	20'6"	12'0"	Bridge No. 4
14th Subdivision	Dixon to Polson	20'6"	20'6"	20'6"	20'6"	20'6"	20'6"	20'6"	20'6"	20'6"	20'6"	12'0"	
15th Subdivision	St. Regis to Wallace	20'6"	20'6"	20'6"	20'6"	20'5"	20'2"	19'9"	19'6"	19'3"	20'6"	12'0"	Tunnel No. 1—1 mile west of Borax

Note—Limit of load measurements based on 53' cars with 42' truck centers.
Heights and widths in table allow 6 inches clearance.

MAXIMUM CLEARANCES

Table is based on open car loading equally divided on either side of center line of car.

		LIMIT OF LOAD—MEASUREMENT										Governing Structure
		Height Above Top of Rail										
		8'6" Wide	9'0" Wide	9'6" Wide	10'0" Wide	10'6" Wide	11'0" Wide	11'6" Wide	12'0" Wide	Max. Height	Max. Width	
1st Subdivision	M. L., Livingston to Helena	20'6"	20'6"	20'6"	20'6"	20'6"	20'6"	20'6"	20'6"	20'6"	12'0"	
2nd Subdivision	M. L., Logan to Butte	16'11"	16'9"	16'2"	15'8"	15'8"	15'7"	14'3"	13'0"	18'0"	12'0"	Tun. No. 3 at M. P. 57½.
3rd Subdivision	M. L., Helena to Garrison	17'10"	17'7"	17'4"	17'1"	16'10"	16'6"	16'2"	15'9"	19'3"	12'0"	Iron Ridge & Mullan Tunnels
3rd Subdivision	M. L., Garrison to Missoula	19'7"	19'4"	19'1"	18'9"	18'6"	18'2"	17'10"	17'4"	20'6"	12'0"	Garrison and Bonita Tunnels.
4th Subdivision	M. L., Butte to Garrison	19'3"	19'3"	19'3"	19'3"	19'3"	19'3"	19'3"	19'3"	19'3"	12'0"	B. A. & P. Overhead.
5th Subdivision	M. L., Missoula to Paradise	18'0"	17'9"	17'4"	16'11"	16'8"	16'0"	15'7"	14'11"	20'1"	12'0"	Tunnels Nos. 8, 9 and 10 near Quinns
6th Subdivision	M. L., DeSmet to Paradise	20'6"	20'6"	20'6"	20'6"	20'6"	20'6"	20'4"	20'0"	20'6"	12'0"	Bridge No. 55.
8th Subdivision	Livingston to Gardiner	20'6"	20'6"	20'6"	20'6"	20'6"	20'6"	20'6"	20'6"	20'6"	12'0"	
9th Subdivision	Manhattan to Anceney	20'6"	20'6"	20'6"	20'6"	20'6"	20'6"	20'6"	20'6"	20'6"	12'0"	
10th Subdivision	Sappington to Norris	20'6"	20'6"	20'6"	20'6"	20'6"	20'6"	20'6"	20'6"	20'6"	12'0"	
11th Subdivision	Whitehall to Alder	20'6"	20'6"	20'6"	20'6"	20'6"	20'6"	20'6"	20'5"	20'6"	12'0"	Bridge No. 9.
12th Subdivision	Drummond to Philipsburg	19'11"	19'11"	19'11"	19'11"	19'11"	19'11"	19'11"	19'11"	19'11"	12'0"	Wire Crossing 1041 feet west of M. P. 6
13th Subdivision	Missoula to Darby	20'5"	20'2"	20'0"	19'9"	19'6"	19'3"	19'0"	18'9"	20'6"	12'0"	Bridge No. 4.
14th Subdivision	Dixon to Polson	20'6"	20'6"	20'6"	20'6"	20'6"	20'6"	20'6"	20'6"	20'6"	12'0"	
15th Subdivision	St. Regis to Wallace	19'0"	18'8"	18'5"	18'1"	17'10'	17'3"	16'7"	15'3"	20'6"	12'0"	Tunnel No. 1—1 mile west of Borax.

TONNAGE RATINGS.

(Tonnage Shown is per Unit Rating.)

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

WESTWARD	Ruling Grade	99-106 400-427 700-724 750 800-803	107-177	5400-5410	550-551 6500-6513 6550 6600-6601	244-245 6000-6006 6700 Series	500-501-525 552-569 850-863 900 Series 6007-6020 6050	200 Series 300 Series 7000 Series Ex. 244-245	2500 Series
Livingston to West End	1.8	430	510	950	570	740	900	1100	1900
West End to Townsend	.....	.....	.....	.....	.....	.....	.....	.....	.....
Townsend to Winston	1.0	745	890	1500	985	1310	1640	1900	3300
Winston to Helena	.....	.....	.....	.....	.....	.....	.....	.....	.....
Logan to Whitehall	0.5	1310	1560	2830	1730	2250	2910	3340	4980
Whitehall to Homestake	2.2	350	420	750	460	560	750	850	1430
Sappington to Norris	2.2	.....	.....	750	.....	.....	.....	.....	.....
Whitehall to Alder	1.0	.....	.....	1500	.....	.....	.....	.....	.....
EASTWARD									
Helena to Winston	1.0	745	890	1500	985	1310	1640	1900	3300
Logan to Bozeman	0.84	860	1020	1725	1130	1510	1890	2180	3425

TONNAGE RATINGS.

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EASTWARD	Ruling Grade	99-106 400-427 700-724 750 800-803	107-177	5400-5410	550-551 6500-6513 6550 6600-6601	244 245 6000-6006 6700 Series	500-501-525 552-569 850-863 900 Series 6007-6020 6050	200 Series 300 Series 7000 Series Ex. 244-245	2500 Series
Bozeman to Muir	1.9	410	480	900	540	700	850	1050	1840
Butte to Homestake	2.2	350	420	750	460	600	750	850	1430
Whitehall to Logan	.....	.....	.....	.....	.....	.....	.....	.....	.....
Norris to Sappington	1.3	.....	.....	1260	.....	.....	.....	.....	.....
Paradise to Missoula (Via St. Regis)	0.5	1320	1430	2850	1740	2270	2950	3360	4980
Paradise - Dixon	0.2	2250	2680	4850	2970	3870	5030	5750	8630
Dixon - Arlee	1.0	745	890	1500	985	1310	1640	1900	3300
Arlee - Evaro	2.2	350	420	750	460	600	750	850	1430
Missoula - Garrison	0.4	1530	1820	3310	2020	2630	3420	3900	5800
Garrison - Elliston	1.0	745	890	1500	985	1310	1640	1900	3300
Elliston - Blossburg	1.4	550	650	1250	720	950	1250	1400	2400

TONNAGE RATINGS.

(Tonnage Shown is per Unit Rating.)

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EASTWARD	Ruling Grade	99-106 400-427 700-724 750 800-803	107-177	5400-5410	550-551 6500-6513 6550 6600-6601	244 245 6000-6006 6700 Series	500-501-525 552-569 850-863 900 Series 6007-6020 6050	200 Series 300 Series 7000 Series Ex. 244-245	2500 Series
Garrison - Butte	1.0	745	890	1500	985	1310	1640	1900	3300
Wallace - Dorsey	2.2	350	420	750	460	600	750	850	1430
Dorsey - Lookout	4.0	180	215	370	240	310	400	460	890
Lookout - Sohon									
WESTWARD									
Helena - Blossburg	2.2	350	420	750	460	600	750	850	1430
Missoula to Paradise (Via St. Regis)	0.4	1530	1820	3310	2020	2630	3420	3900	5800
DeSmet - Evaro	2.2	350	420	750	460	600	750	850	1430
St. Regis - Saltese	1.0	745	890	1500	985	1310	1640	1900	3300
Saltese - Sohon	2.2	350	420	750	460	600	750	850	1430
Sohon - Lookout	4.0	180	215	370	240	310	400	460	890
Lookout - Dorsey									

L. L. WOLLSCHLAEGER, Asst. Supt. **L. M. HUNTER, Trainmaster.** **R. J. DAVIS, Trainmaster.** **W. J. EYER, Trainmaster.** **R. E. JOHNSTON, Trainmaster.** **H. F. CAIN, Chief Dispatcher.**