

BURLINGTON NORTHERN INC.

COLORADO AND SOUTHERN RAILWAY COMPANY

COLORADO DIVISION

TIME TABLE

AND

SPECIAL INSTRUCTIONS

5

IN EFFECT AT 12:01 A.M.
Mountain Standard Time

Sunday, November 16, 1980

President
A.E. MICHON

Gen. Manager-Operations
E.L. PHILLIPS

Dir. Transportation
W.C. DONEY

Asst. Dir. Transportation
F.F. STAKE

COLORADO DIVISION

D. H. BURNS—Division Superintendent, Denver

Assistant Superintendents

D. G. ANDERSON	Asst. Supt. Transportation	Denver
I. C. LEHR	Asst. Supt. Mechanical	Denver
C. G. PEGLOW	Asst. Supt. Roadway Maintenance	Denver
M. D. POTTHOFF	Chief Dispatcher	McCook
B. G. GILBERT	Chief Dispatcher	Fort Worth

Trainmasters

D. E. LOE	Trainmaster	Pueblo
B. C. BIDWELL	Trainmaster	Cheyenne
J. C. CLENDENEN	Trainmaster	Trinidad
F. R. GULLEDGE	Asst. Trainmaster	Trinidad
R. M. HODGSON	Trainmaster—Agent	Golden
E. R. TORRENCE	Trainmaster	Denver

Road Foreman

J. B. MURRAY	General Road Foreman	Denver
R. B. WARNER	Road Foreman	Trinidad

FIRST SUBDIVISION

WESTWARD

EASTWARD

Rule 6(A) Signs	Length of Siding in Feet	Station Numbers	Line Segment	Mile Post Location	Distance from Denver, U.D.	MAIN LINE Colorado Divn	
						STATIONS	
						Telegraph Offices and Calls	
BOK PRYWQ		40788	477	FWD 452.92	348.6	Z	TEXLINE 1.2
Y		40790		347.10	347.4		SIXELA 9.6
POQ	2960	40799		337.62	337.8	CY	CLAYTON 7.3
P	8608	40807		330.35	330.5		ROYCE 14.7
P	8484	40821		315.63	315.8		GRENVILLE 15.0
P	8280	40837		300.11	300.8		GRANDE 8.1
OPQWR	2340	40844		292.45	292.7	MS	DES MOINES 7.9
P	7300	40852		284.50	284.8		NEW FOLSOM 4.0
P	3805	40854		282.13	282.4		FOLSOM 11.4
P	4085	40865		271.60	271.0		ALPS 19.7
CBKOPQ	8665	40886		251.03	251.3		TRINCHERE 15.8
P	8767	40901		235.24	235.5		BARELA 14.8
P	8516	40917		220.16	220.9		BESHOAR 9.0
PBCFKW IQRYZ	6993	40924		211.76	211.9	DA	TRINIDAD 13.7
P	4211	40939		197.99	198.2		LUDLOW 8.1
P	8365	40946		191.01	190.1		LYNN 9.7
P	8017	40957		180.09	180.4		MAYNE 8.6
CQWJ YPX	6100	40965		171.58	171.8	WN	WALSENBURG 16.7
PX	E2965 W2965	40981		155.21	155.1		LASCAR 11.4
PX	E3065 W3115	40993		143.72	143.7		CEDARWOOD 19.1
JPYXR	4530	41013	124.35	124.6		SOUTHERN JCT. 1.9	
PY	4235	41014	122.48	122.7	MQ	MINNEQUA 4.0	

TRAINS BETWEEN PUEBLO AND MINNEQUA ARE GOVERNED BY RULES AND TIME TABLE OF A.T. & S.F. RY.

Q		41020	477	118.50	118.8	R	PUEBLO 114.4
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TRAINS BETWEEN SOUTH DENVER AND PUEBLO ARE GOVERNED BY THE JOINT AT&SF-D&RGW TIME TABLE

MIYZ		41134	477	4.05	4.1		SOUTH DENVER 1.9
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TRAINS BETWEEN S. DENVER AND DUT ARE GOVERNED BY RULES, TIME TABLE AND SPECIAL INSTRUCTIONS OF BN AND C&S.

XYJ			477	2.17	2.2		SOUTH PARK JCT. 1.1
WFRGK PQRTYZ				1.08	1.1	FX	RICE YARD 1.1
BK YMU		41137		0.00	0.0	GN	DENVER U. D.

BN Radio Channel No. 1 in service.

SECOND SUBDIVISION

WESTWARD

EASTWARD

Rule 6(A) Signs	Length of Siding in Feet	Station Numbers	Line Segment	Mile Post Location	Distance from Denver, U.D.	MAIN LINE Colorado Divn	
						STATIONS	
						Telegraph Offices and Calls	
BK MRYU		41137	476	0.00	0.0	GN	DENVER U. D. 1.4
JCRYPQ		41138		1.03	1.0	CX	PROSPECT 1.4
JPRTY		41139		1.09	2.4		JERSEY CUT OFF 1.0
IPY		41140		3.36	3.4		UTAH JCT. 5.6
P	3800	41146		9.01	9.0		SEMPER 5.0
JROP	5005	41151		14.03	14.0	OM	BROOMFIELD 14.1
MOPY	3825	41168		31.35	28.1	BR	BOULDER 6.8
P	2195	41175		38.15	34.9		NIWOT 5.9
MCTYPQ RBJW	4345	41180		43.62	40.3	MN	LONGMONT 0.7
P	1910	41186		49.23	46.0		HIGHLAND 5.2
P	2515	41191		54.48	51.2		BERTHOUD 6.2
BOTYPRJ	3950	41197		60.69	57.4	S	LOVELAND 10.8
P	3735	41208		71.19	67.9		OMEGA 3.2
WBKPRQ JMTYZO		41211		74.35	71.1	FO	FT. COLLINS 2.2
PY	4806	41213		76.52	73.3		NORTH YARD 0.7
JPY		41214		77.17	73.9		BLACK HOLLOW JCT. 8.8
P	3800	41222		85.67	82.4		WELLINGTON 6.0
P	4535	41228		91.69	88.4		BULGER 8.0
P	4860	41236		99.62	96.4		NORFOLK 13.3
P	3820	41249		112.95	109.7		SPEER 6.4
PBKQCQ URTYZWJ		41256	119.40	116.1	DI	CHEYENNE 19.7	
P	8428	41276	138.81	135.8		FEDERAL 13.5	
PWQ	3795	41289	152.40	149.1		HORSE CREEK 4.6	
P	4518	41294	156.95	153.7		ALTUS 7.3	
PW	2945	41299	162.72	159.4		FARTHING 5.8	
P	3895	41307	170.05	166.8		LAMBERT 18.6	
WOTPQ	8351	41325	188.66	185.4	UW	CHUGWATER 13.9	
P	3830	41339	202.58	199.3		BORDEAUX 11.9	
TRBO WPYQ	5760	41351	214.33	211.2	ND	WHEATLAND 1.4	
TPJ		41352	215.86	212.6		SIBYLEE 4.6	
PRYJ		41357	220.47	217.2		MOBA 10.5	
P	4520	41367	230.55	227.7		DWYER 9.8	
JPRTY	1385	32137	240.80	237.5		WENDOVER	

BN Radio Channel No. 1 in service.

THIRD SUBDIVISION

WESTWARD	Rule 6(A) Signs	Capacity of Sidings	Station Numbers	Line Segment	Mile Post Location	Distance From Prospect	BRANCH LINE Colorado Divn		EASTWARD
							STATIONS		
							Office Calls		
JRY			41136	482	1.0	0.0	CX	PROSPECT 3.8	
BETWEEN PROSPECT AND C. & S. JCT., C. & S. TRAINS AND ENGINES OPERATE OVER D. & R.G.W. TRACKS AND ARE GOVERNED BY RULES AND TIME TABLE OF D. & R.G.W.									
JY				482	4.9	3.8		C. & S. JCT. 2.7	
Y		89307			7.6	6.6		ARVADA 4.0	
JY		89311			11.8	10.6		TERRILL JCT. 4.8	
BJKY		89316			14.4	15.4		GOLDEN	

FOURTH SUBDIVISION

WESTWARD	Rule 6(A) Signs	Capacity of Sidings	Station Numbers	Line Segment	Mile Post Location	Distance From Greeley	BRANCH LINE Colorado Divn		EASTWARD
							STATIONS		
							Office Calls		
JRTY			89525	481	95.9	0.0	HG	GREELEY 5.4	
Y		89519			93.4	5.4		FARMERS 6.9	
JUY		89512			86.6	12.3	WR	WINDSOR 3.0	
Y		89509			83.6	15.2		KERNS 2.4	
Y		89507			81.2	17.7		TIMNATH 7.1	
BJKM RTY			41211			74.4	24.7	FO	FT. COLLINS

FIFTH SUBDIVISION

WESTWARD	Rule 6(A) Signs	Capacity of Sidings	Station Numbers	Line Segment	Mile Post Location	Distance From Ft. Collins	BRANCH LINE Colorado Divn		EASTWARD
							STATIONS		
							Office Calls		
BJKM RTY			41211	480	74.4	0.0		FO	FT. COLLINS 4.0
Y		89604			78.3	4.0			LA PORTE 3.7
Y		84607			82.0	7.7			FILTER 0.6
Y		89608			82.7	8.3			ROBERTS 7.6
Y		89616			90.3	15.9			OWL CANYON 2.0
Y		89618			92.3	17.9			REX

SIXTH SUBDIVISION

WESTWARD	Rule 6(A) Signs	Capacity of Sidings	Station Numbers	Line Segment	Mile Post Location	Distance From Leadville	BRANCH LINE Colorado Divn		EASTWARD
							STATIONS		
							Office Calls		
BJKTY			89150	479	151.3	0.0			LEADVILLE 14.1
TY		89164			137.2	14.1			CLIMAX

BN Radio Channel No. 1 in service.

ALL SUBDIVISIONS

1. Speed Restrictions — Maximum Speeds Permitted

All speeds are subject to modification by speed restrictions indicated under Individual Subdivision Special Instructions.

Passenger trains will be governed by freight train speeds if passenger train speed is not specified under Individual Subdivision Special Instructions.

- Freight trains up to 100 Tons/OB* 60 MPH.
- Freight trains over 100 Tons/OB* 50 MPH.

*Tons per operative brake (Tons/OB) is defined as the gross trailing tonnage of the train divided by the total number of cars having operative brakes.

To determine if train exceeds 100 tons per operative brake, add two zeros to the number of cars having operative brakes. If train has greater trailing tonnage than the resulting figure, train exceeds 100 tons per operative brake. Example: 85 cars with operative brakes plus two zeros equal 8500. An 85 car train with 9182 tons would exceed 8500 and hence would exceed 100 tons per operative brake.

Unless otherwise provided —

- Loaded unit ore, ballast and potash trains 40 MPH.
- Loaded unit coal trains 45 MPH.
- Empty unit coal trains 50 MPH.
- Engines running light or with caboose only 50 MPH.

All trains and engines through turnouts, except as specified under Individual Subdivision Special Instructions or where fixed signals indicate otherwise 12 MPH.

When temperatures are below zero degrees fahrenheit the following speed restrictions apply:

	Pggr. Trains	Freight Trains
Zero degrees to 10 below zero	65 MPH.	50 MPH.
11 degrees below zero and colder	60 MPH.	45 MPH.

Equipment

	Main Line	Branch Line
Loaded BN ownership C-2 covered hoppers (less than 2200 cubic capacity)	50 MPH.	
Ore cars	45 MPH.	20 MPH.
Scale test cars except WO 3, 4, 5	35 MPH.	20 MPH.
Air dump cars (loaded)	35 MPH.	20 MPH.
Wedge plow or dozer (dead in tow)	35 MPH.	20 MPH.
Rotary plow, wrecking derrick, loco crane, pile driver, clamshell, shovel, Jordan spreader	30 MPH.	15 MPH.
Log cars not equipped with permanent steel side stakes	30 MPH.	15 MPH.
Ribbon rail cars (loaded)	35 MPH.	25 MPH.

Except on Main Lines as shown in timetables, diesel engines, wrecking cranes and other types of heavy work equipment must not be operated on any subdivision unless authorized by Chief Dispatcher and Roadmaster or covered by specific instructions.

Maximum Speed Diesel Units Dead in Tow —

- Switcher units with friction bearings 35 MPH.
- Switcher units with roller bearings 50 MPH.
- Road switcher and other units 60 MPH.

1A. Control of Harmonic Rocking —

Under certain conditions, operation of trains between 13 and 21 miles per hour can cause derailments due to harmonic rocking of cars. Where specified by Individual Subdivision Special Instructions or bulletin, the following restrictions will apply:

Trains, other than unit coal trains, ore trains, or trains consisting entirely

of empty equipment, which cannot maintain speed of 21 miles per hour, must reduce speed to not exceed 13 miles per hour until movement can again exceed 21 miles per hour.

2. Restrictions on Diesel Units —

The number of diesel units coupled together in train operation, either working, idle, or dead in tow, must not exceed seven. When the operating diesel units on head end of train exceed 18 powered axles, Individual Subdivision Special Instructions or bulletin must be referred to in determining if any restrictions are in effect governing trailing tonnage. Maximum tonnages expressed in Individual Subdivision Special Instructions for head end power are extreme limits under ideal conditions and superintendents will establish lower limits as required.

In the event diesel units in excess of the above restrictions are to be handled dead in train, such units must be placed not less than 5 cars or more than 15 cars behind the lead units.

Diesel units not equipped with alignment control couplers when dead in tow in freight trains must be handled singly, not in groups, and not less than 5 cars or more than 15 cars from the road engine.

Exception — Trains of 5 cars or less may handle not more than three such diesel units coupled dead in tow to the working consist.

When an engine consist of more than 3 units in service includes diesel unit or units not equipped with alignment control couplers, only the three rear units will be allowed to work power when the train is to make a back-up movement. Other units must be isolated.

Diesel units NOT equipped with alignment control couplers:

All switcher units

Road and road switcher diesel units: 256-259, 405, 406, 600-995, 1350-1355, 1357-1365, 1524-1576, 1578-1585, 1587-1601, 1603-1612, 1614, 1616-1619, 1621, 1700-1775, 1777-1875, 1877-1936, 1938-1958, 1960-1966, 1968-1998, 6070-6089

FWD 700-701, 703

C&S 150-842

3. Manned Helper Operations —

Locomotives not equipped with alignment control couplers (See Item 2) must not be operated in manned helper consists unless equipped with bolster stops.

The following units, not equipped with alignment control couplers, are equipped with bolster stops:

602-644, 653, 675, 682, 702, 704-707, 710, 720, 724-735, 738-785, 788, 794-819, 824-825, 827-829, 831-847, 986-989, 1353, 1355, 1357-1360, 1362, 1365, 1524-1542, 1545, 1551-1552, 1555-1563, 1569-1571, 1573, 1575-1576, 1578, 1580-1584, 1587, 1590, 1592-1600, 1610, 1614, 1616-1618, 1621-1622, 1626-1643, 1700-1775, 1777-1799, 1802-1812, 1814, 1816-1817, 1819-1820, 1822, 1824-1833, 1835-1866, 1868-1875, 1877-1882, 1887-1889, 1892, 1894-1901, 1903-1904, 1906, 1908-1909, 1914-1926, 1928, 1930, 1932-1933, 1941-1952, 1955-1958, 1960-1965, 1971, 1975, 1978, 1990-1997

FW&D 700-701, 703

Exception — Single, non-equipped locomotives may be operated between locomotives equipped with alignment control couplers or bolster stops.

Locomotive units including trailing unit of head end consists, in manned helper operation, which will be coupled to cars must be equipped with alignment control couplers.

When cars listed in first sentence of Item 4 are handled at rear of train, manned helper must be cut in ahead of such cars. When helper is cut in ahead of such cars, or immediately ahead of the caboose, the helper will be considered as operating at the rear of the train.

Unless otherwise provided in Individual Subdivision Special Instructions:

Helpers of twelve powered axles or less, may be operated at rear of train ahead of or behind caboose, but must not be used on rear of trains handling empty equipment 80 feet and longer unless Individual Subdivision Special Instructions or bulletin are in effect to indicate the safe buffer between such cars and rear end helper for that subdivision.

Helpers will not exceed twenty-four powered axles. Head end consists in helper trains will not exceed twenty-four powered axles.

Head end consists in helper trains which are unit coal trains, equipped entirely with Type E or F couplers cast in Grade E steel, may have up to

thirty-six powered axles. Helpers up to twenty-four powered axles may shove on the rear of such trains except that helpers with twenty-four powered axles must be cut in ahead of caboose.

Note—The following 100-ton coal cars are not equipped with Grade E steel, type E or F couplers:

- BN 513900-513999 (GN 70400-70499)
- BN 514100-514199 (NP 73600-73699)
- BN 514300-514499 (CBQ 160000-160199)
- BN 520000-520599 (NP 73000-73599)
- BN 520658-520699 (NP 74958-74999)
- BN 522000-522699
- BN 523000-523399
- BN 524000-525299 (CBQ 160200-161499)
- BN 530000-530004
- BN 540000-540210 (CBQ 163000-163209)

Helpers of more than twelve powered axles must be cut into train. Dispatcher will advise conductor of tonnage rating of helper so that conductor can determine proper location in train, arranging that tonnage trailing the helper approximately equals combined tonnage rating of helper locomotives.

When restrictions governing trailing tonnage with head end power are provided by Individual Subdivision Special Instructions or bulletin, helper may be operated on head end, providing the combined head end and helper units do not exceed seven.

Exceptions to Item 3—Helpers of six powered axles or less are not restricted by any of the provisions of this item.

3A. Diesel Unit Weights

This chart is to be used in conjunction with any weight restrictions in items 1 or 2, Individual Subdivisions.

Group	Types	Unit Numbers	Weight (000)
A	SW-1	70, 80-97, SLSF 10.	198-201
B	SW-1 F-7 F-9 NW-5 GP-5 GP-7 GP-9 GP-18 ARS-11	102. 602-676, 702, 717, 720, 724, 725, 732-761. 847-853. 986-995. 1350-1365. 1553-1556, 1558-1561, 1565, 1566, 1569, 1570, 1572, 1575, 1576, 1580, 1582, 1586, 1588, 1590, 1592, 1596, 1597, 1603, 1606, 1610, 1612, 1614, 1616, 1619, 1621, 1623. FWD 700-701, FWD 703. 1723-1760, 1808-1830, 1884, 1885, 1887-1889, 1891, 1902-1958, 1960-1964, 1966-1969, 1971-1972, 1979, 1980. 1990-1997. 4180-4197.	216-251
C	SW-8 SW-900 SW-12 SW-7 SW-9 SW-10 NW-2 F-9 ARS-3 F-7	98, 99, 101. 100. 106, 162-166, 170-250, 256-259. 75-79, 108-134, 137-142, SLSF 300-304. 146-161, 167-169, 260-269, SLSF 305-314. 375-449, 574-585. 405, 410-425, 488-499, 517-573, 586-595, SLSF 250-265, C&S 150-153. 766-845. 4056, 4064, 4068. 682, 684, 703-706, 708-716, 718, 722.	233-251

Group	Types	Unit Numbers	Weight (000)
D	NW-12 SW-7 NW-2 GP-7 GP-9 SW-7 MP-15	1, 5, 14, 19. 135, 136, 143-145. 406, 451-487, 500-516. 1524-1552, 1557, 1562-1564, 1567, 1568, 1571, 1573, 1574, 1578, 1579, 1581, 1584, 1585, 1587, 1589, 1591, 1593, 1595, 1598-1602, 1604, 1605, 1607, 1608, 1611, 1613, 1615, 1617, 1618, 1620, 1622, 1626-1643. 1761-1807, 1886, 1890, 1959, 1965, 1970. C&S 154. 4000-4004, SLSF 361-365.	233-275
E	SW-1500 SW-15 GP-15-1 GP-10 GP-9 GP-20 GP-38 GP-38-2 GP-30 GP-35 GP-40 A-415 A-424 A-425 U-25B U-28B U-30B F-7 B-30-7 GP-40-2	20-65, SLSF 315-360. 300-324 1375-1399, SLSF 100-124 1400-1438 1700-1722, 1831-1883, 1892-1901, 1973-1978. 2001-2071 2072-2077, 2110-2138, SLSF 633-650, SLSF 652-662. 2078-2109, 2150-2154, 2255-2369, SLSF 400-478, SLSF 663-699. 2200-2254 2500-2545, 2550-2582, SLSF 700-732 3000-3039 4010, 4011 4240-4246 4252-4264 5400-5429, 5210-5233, SLSF 808-831. 5450-5465 5470-5484, 5770-5799, SLSF 832-862. 707, 726 5485-5492, SLSF 863-870. 3040-3064, SLSF 750-774.	255-276
F	SD-7	6048-6059	300
G	SD-7 SD-9	6023-6047, 6070-6089 6127-6206	316-326
H	SD-7 SD-9 SD-24 E-9	6000-6022 6100-6126 6240-6255 9900-9925	330-347
I	A-636 C-30-7 U-23C U-30C U-25C U-28C U-33C SD-40 SD-40-2 SD-45 F-45 SD-38-2	4360-4369 5000-5126, 5500-5599. 5200-5208 5300-5394, 5800-5944. 5600-5641 5650-5677 5700-5765 6300-6324, 6394-6399. 6325-6334, 6348-6385, 6700-8161, C&S 6850, C&S 6950, SLSF 950-957 6400-6599, 6650-6696, SLSF 900-948. 6600-6645 6260-6263.	370-421

4. Restrictions on Placing Cars in Trains—

Following equipment, loaded or empty, must be on rear of trains, except in work trains or when otherwise provided by authority of Chief Dispatcher:

Outfit cars
Scale test cars (next ahead of caboose) except WO-3, 4, 5
Pile drivers
Locomotive cranes
Rotary snowplows, wedge plows, dozers
Jordan spreaders
Rear end only cars.

Handling 80 Foot or Longer Cars—

During either throttling or braking trailing tonnage may cause lateral force sufficient for derailment, where cars 80 feet or longer are coupled to cars 50 feet or shorter, when grade and curvature exceed certain limitations. To avoid creating such conditions, trains of 8,000 or greater trailing tons must handle empty cars 80 feet or longer in the rear 8,000 tons, unless otherwise provided in Individual Subdivision Special Instructions.

Where the total tonnage of cars 80 feet or longer is so large that it is impossible to comply with Individual Subdivision Special Instructions, the train consist must instead be so arranged that all cars less than 80 feet are handled in the required rear tonnage, thus placing all long-car to short-car couplings in the safe tonnage area.

In applying these limits, the following 80-foot or longer loaded cars must be regarded the same as an 80 foot or longer empty car:

Cars weighing less than 50 tons, gross weight
Flat cars with one loaded trailer
Flat cars with empty trailers
Flat cars with either loaded or empty containers, unless the car is designated with a letter "Q" in the YHC column of the wheel report.

Locations where other restrictions are in effect are listed under Individual Subdivision Special Instructions.

Exception—Trains consisting entirely of cars 80 foot and longer, except caboose, are not restricted by this provision; however, any helper locomotive at rear of train must be cut in ahead of caboose on such trains.

5. Repeater Relay Air Car Operation—

When repeater relay air car is to be operated in train, it must be placed approximately in the middle of the train.

6. Hazardous Materials—

Holders of the Consolidated Code of Operating Rules must have BN Form 15784, "Handling Placarded Cars In Railroad Transportation", in their possession and be familiar with its contents.

Note: For complete information on these regulations, consult tariff No. BOE-6000 or B. E. Pamphlet 20.

All loaded tank cars placarded "flammable gas" or "non-flammable gas" must not be cut off while in motion and no car moving under its own momentum shall be allowed to strike these cars, nor shall such cars be coupled to with more force than is necessary to complete the coupling. Employees must be informed of the presence of these cars and instructed to handle them in accordance with the above requirements.

Loaded placarded tank cars of the 112-A or 114-A types will not be handled in freight trains authorized at maximum speed of 60 MPH.

Trains handling loaded placarded tank cars of the 112-A or 114-A types must not exceed 50 MPH. Where maximum authorized speed is 40 MPH or less, such trains must not exceed 30 MPH observing all other speed restrictions.

112-A and 114-A tank cars will be identified on wheel reports and other computer generated documents by the letters (TR) in the first two positions of the car kind column.

When derailment or incident occurs in which hazardous materials may be involved:

- Except to effect rescue, keep everyone, including employees, at a safe distance pending determination of chemicals involved.

- Notify train dispatcher (yardmaster in terminal areas) advising portion of train or cars involved. From waybills, consist or other data source, determine appropriate precautions in the event there has been a product release.
- Inspection of trains or cars should be undertaken with caution. If a release of hazardous material is evident, the area must not be entered except by person(s) with proper protective equipment.
- If flammable liquids or gases are involved and personal safety allows, remove or extinguish all sources of ignition in the area.
- When personal safety allows, take necessary action to prevent spilled material from entering lakes, streams or sewers, if possible.
- Remain at the scene, in close contact with the train dispatcher (yardmaster in terminals) and be readily accessible to advise emergency response forces of suspected dangers, contents and condition of cars. Furnish them all emergency response information available. This position should be maintained until relieved by an officer on the scene or emergency is corrected.

NOTE: Computer generated data does not indicate hazardous materials in TOFC/COFC shipments, certain mixed loads or residue remaining in empty tank cars. Such cars in a derailment may be as dangerous as other shipments. Information for such cars must be obtained from the waybill.

7. Train Inspection and Failed Equipment Detector Instructions—

When blowing snow or other conditions restrict visibility to the point that proper running inspection cannot be made or when notified that a failed equipment detector is out of service or may be ineffective account blowing snow, freight trains will reduce speed to the extent required, stopping if necessary, to make train inspection. Conductors will determine frequency of inspections depending on visibility conditions and/or inspections by employes on the ground. Inspection intervals must not exceed 35 miles. Crews will examine train in advance of inoperative failed equipment detector which protects bridge, tunnel or other structure.

When a failed equipment detector is out of service, the requirements of Operating Rules or instructions will be suspended for defective equipment indicator associated with such failed equipment detector.

Whenever a car is set out for a hot bearing discovered within 25 miles of an in-service failed equipment detector, the conductor will make a wire report to the superintendent and chief dispatcher indicating date, train, and location of failed equipment detector which failed to detect the hot bearing, with a copy of the wire to AVP Engineering, St. Paul. Dispatchers will arrange inspection of the detector by the signal maintainer in all such instances.

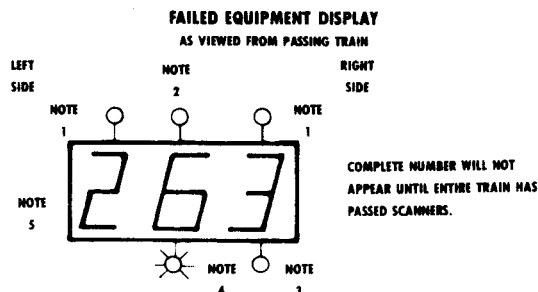
Failed Equipment Wayside Display—

This device must be observed by the crew on rear of train, and they must be governed by the information shown immediately after the rear of the train has passed.

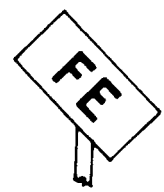
Enginemen must alert crew members on rear of train when approaching detector site.

Train must not move beyond failed equipment sign until authorization to proceed is received from rear of train.

When failed equipment is indicated engine crew must be notified to stop train for inspection. Advise dispatcher reason for delay by first available means of communication.



FAILED EQUIPMENT SIGN -



Note 1 - Hot bearing indicator light. When illuminated hot bearing detected. The hot bearing is located on right side of train when right light is illuminated, and on left side when left light is illuminated.

Note 2 - Multiple hot bearing or dragging equipment indicator light. When illuminated inspect train for more than one hot bearing or dragging equipment.

Note 3 - Dragging equipment indicator light. When illuminated dragging equipment has been detected.

Note 4 - Flashing train inspection indicator light. When illuminated train is being checked for hot bearing and dragging equipment. If this light is not illuminated immediately after the rear of the train has passed, stop and inspect train.

Note 5 - Journal number display panel. Number shown is axle count from rear of train to first hot bearing or dragging equipment detected. When making inspection, check at least four (4) axles both directions from indicated number.

All journals on the train must be inspected whenever hot bearing indicator light, dragging equipment indicator light, multiple hot bearing or dragging equipment indicator light is illuminated and there is no count shown on failed equipment display panel or when digital readout displays false indication such as numbers totaling more than train axle count.

Failed Equipment Radio Reporter -

Failed Equipment detectors at locations shown under Individual Subdivisions Special Instructions, convey information to train crews by Burlington Northern radio.

Each radio message from these devices will contain the site identification such as: "Burlington Northern (Town, State)".

A four second warning tone is issued immediately upon each defect detected.

This type of device must be monitored by the train crew and they must be governed by the information conveyed immediately after the train has passed.

Detector Status Message	Train Crew Response
"... No Defects"	Proceed
"... Integrity Failure"	Stop train for inspection
"... First hot box right side XXX"	Stop train for inspection near indicated axle
"... First Dragging equipment near axle XXX"	Stop train for inspection near indicated axle
"... First hot wheel near axle XXX"	Stop train for inspection near indicated axle
"... (No detector status message)"	Stop train for inspection*

Detector status messages may describe more than one defect such as:

- "... First hot box left and right side XXX"
- "... First hot wheel near axle XXX"
- "... Second hot box right side XXX"
- "... Third hot box left side XXX"

All detector status messages will be repeated in order of detection. XXX is the axle count from the rear of the train to the defect indicated. When making inspection check at least (4) axles both directions from indicated number.

*When incomplete message or no message is received stop train for inspection.

Train must not move beyond failed equipment sign unless a proceed message is received from the detector site or until inspection is completed.

When failed equipment is indicated, train crew must stop train for inspection and advise dispatcher reason for delay by first available means of communication.

Failed equipment (FE) signs are located 13,500 feet beyond the failed equipment detector site.

8. Storage of Cars Within Yard Limits Non-ABS Territory - Within yard limits in non-ABS territory, the main track must not be used as a storage track except in case of emergency. When it becomes necessary to leave cars on main track in such territory, they must be protected by train order. This does not modify the requirement to move as required in Rule 93.

9. Spring Switches - Instructions for operation of spring switches are posted at or near the spring switch and must be complied with. Spring switches are identified by yellow sign with black letter "S" located on or near spring switch. All spring switches are equipped with facing point locks except when identified as not having a facing point lock in the Individual Subdivision Special Instructions.

10. Commodities insulating track in CTC and ABS - Employees should be alert for insulating commodities such as clay, chips, oil, etc., getting on top of rails. This condition could possibly insulate the track, and cause loss of train shunt. Such conditions should be promptly reported and trains protected per rules while in CTC and ABS territory.

11. Rules Changes and Modifications - BN Safety Rule 94 - BN Safety Rule 94 is cancelled and the following rule applies: Train, engine and yard service employees must not occupy the roof of a freight car or caboose under any circumstances. Other employees whose duties require them to occupy the roof of a freight car or caboose may do so only when equipment is stopped.

BN Safety Rule 144 - BN Safety Rule 144 is cancelled and new Safety Rules 144(A) and 144(B) are in effect and read as follows:

144(A) Manual uncoupling of air hose on passenger equipment, between locomotives, yard air lines or when changing an air hose or air hose gasket must be performed as follows:

- a) Have both angle cocks closed. When disconnecting yard air line, valve must be closed.
- b) Take firm grip on hose coupling and apply upward pressure.
- c) Break connection gradually to reduce pressure in hose.
- d) Turn face away from air hose connection as pressure is released.
- e) When practicable, keep one foot outside of rail.

144(B) When air hoses are not manually uncoupled and separation is to be made, the following applies:

- a) Close angle cock on locomotive or on car toward locomotive when cut is made between cars.
- b) Operate uncoupling lever and signal for movement.
- c) Allow air hoses to part keeping all parts of body fully in the clear.

BN Safety Rule 217—

BN Safety Rule 217 has been modified to include a second paragraph which reads:

"When necessary to work under cars in trains where inadvertent movement of the car being worked on could occur, sufficient hand brakes must be applied adjacent to the car to prevent such movement."

BN Safety Rule 653 and Maintenance of Way Rule 889—

BN Safety Rule 653 is cancelled and the following new BN Safety Rule 653 is in effect, also, the following is added to Maintenance of Way Rule 889:

Employees performing maintenance or repair work to vehicular crossings at grade or who are exposed to contact with vehicular traffic during work shift, must wear a high visibility vest during time so engaged in such work.

12. Air Brake and Train Handling Rules—

BN Air Brake and Train Handling Rules, Form 15338 8-1-79, are in effect. Employees whose duties are in any way affected by these rules must have a copy of this book available while on duty.

13. Automatic Cab Signals—

Cab signals on any engine unit, so equipped, must not be used on any other portion of Burlington Northern except on suburban equipment only on Chicago Division, First Subdivision.

COLORADO DIVISION

(Texline - Denver UD)

FIRST SUBDIVISION**1. Speed Restrictions—**

	Maximum Speeds Permitted
Zone— Between	Freight
Texline and MP 296.7	49 MPH.
MP 296.7 and Denver	40 MPH.
Unit Coal Trains (Loaded and Empty)	
Texline and MP 296.7	40 MPH.
MP 296.7 and Denver	35 MPH.

The following speed limits apply to trains and engines operating under the conditions outlined, unless rules or conditions require a further reduction.

Location	Freight Trains
Through Denver Union Terminal Limits	10 MPH.
Trains, engines, and switch movements entering or departing Rice yard, Denver	5 MPH.
Between the east interlocking limits of Denver U.D. and South Denver interlocking	15 MPH.
Spring Switches— Southern Junction	10 MPH.
Dual Control Switch— Walsenburg	20 MPH.
Entire train over street crossings between MP 210.8 and MP 212.6 at Trinidad	10 MPH.
Engine or leading car over Main Street crossing, Clayton, MP 337.7	25 MPH.

2. Bridge, Engine and Heavy Car Restrictions—

Cars heavier than the following, for minimum lengths shown, not permitted without authority of Superintendent:

220,000 lbs. or less, minimum length 38 ft.

263,000 lbs. or less, minimum length 44 ft.

220,000 lb. ore cars not shorter than 24 ft. and 263,000 lb. ore cars not shorter than 35 ft. may operate.

3. Train Register Exceptions—

Des Moines, Southern Jct.— Trains will register when directed by train order.

4. Clearance Provisions and Exceptions Rule 83(B)—

C&S-AT&SF Eastward trains originating Denver must secure two numbered AT&SF clearance cards Form 902, one of which issued by D&RGW train dispatcher and one by AT&SF train dispatcher, before leaving.

Pueblo—C&S - D&RGW Eastward trains, two C&S clearances will be required, one over signature of D&RGW Superintendent and one over signature of C&S Chief Dispatcher.

Pueblo, Trinidad— Train must receive clearance.

5. Rule 99— When flagging is required, distance will be as follows.

Denver U.D. to South Denver .....	.5 Miles
Pueblo to Texline	2.0 Miles

6. Spring Switches—

Following spring switches not equipped with facing point lock:

Southern Jct. crossover switch MP 124.4.

7. Interlocking, South Denver—

D&RGW train dispatcher, Denver, will control interlocking signals and dual controlled switches within the interlocking limits.

C&S-ATSF Switch Movements—

Switching movements may enter and pass through the interlocking limits on signal indication or as verbally authorized by D&RGW train dispatcher. These movements may be made without Clearance Card, being governed by instructions from D&RGW train dispatcher relative to clearing trains. Before D&RGW train dispatcher clears signals or verbally authorizes switch movements to C&S-ATSF Rice yard, he must contact C&S yardmaster, Rice yard, and be governed by his instructions.

C&S-ATSF Westward Joint Line Trains—

When westward signal indicates proceed and route is lined, or when verbally authorized by D&RGW train dispatcher, such trains may proceed through South Denver interlocking. Prior to clearing signals or verbally authorizing such movements, D&RGW train dispatcher must advise C&S yardmaster, Rice yard, of such movement and be governed by his instructions. This also confers authority for movement against the current of traffic from South Denver to Rice yard.

8. Interlocking, Trinidad—

Trinidad—Interlocking at AT&SF crossing is remotely controlled by AT&SF train dispatcher at La Junta, Colorado. Interlocking rules are in effect.

9. Denver— Train and engine crews using Denver Union Terminal Railway Company's tracks must provide themselves with copy of and be governed by general and interlocking rules of that Company.

All trains or engines at highways or street intersections with railroad tracks where official traffic control devices are installed must start movement into street intersection or highway only on clear (green light) traffic signal. When the train or engine has entered the crossing or intersection on proper traffic signal indication it may then proceed without regard to other indications which the traffic signal may subsequently display.

10. Rice Yard and South Denver— Movements of train and engines with or against the current of traffic between west limits Rice yard interlocking and South Denver will be made on authority of yardmaster, Rice yard.**11. Double track between Southern Jct. and D&RGW Jct. Walsenburg used jointly by D&RGW and C&S. Westward track is under C&S operating**

jurisdiction. Eastward track is under D&RGW operating jurisdiction. C&S timetable and rules of the Operating Department govern train operation on both tracks. C&S form of train orders and clearance will be used and issued over signature of D&RGW superintendent on eastward track.

12. D&RGW trains and engines while on C&S trackage will be governed by C&S rules, timetable and special instructions.

13. **Minnequa**—No. 4 track extending from MP 124.2 Minnequa to crossover east end of Minnequa yard, is known as "Minnequa siding".

14. **Southern Jct.**—Track just south of main track extending from MP 124.2 to crossover east end Minnequa yard, is Southern Jct. siding.

Eastward trains will not use Southern Jct. siding without permission of AT&SF Pueblo Yardmaster.

Westward trains must secure permission from ATSF Pueblo yardmaster to use main track, Southern Jct. to Minnequa.

15. Automatic dual control switch, Walsenburg. MP 171.7. Dual control switch at the end of double track is automatically operated. Normal position of switch is for the westward track.

When a train or engine is stopped by signal governing movement over this switch and no conflicting movement is evident, or when necessary to use this switch for switching purposes, it must be hand operated in accordance with Rule 275A without permission or time limits from Train Dispatcher. Rules 275 and 276 are modified accordingly.

Signal governing trailing movement through hand-thrown D&RGW Junction switch is normally red and stop must be made. After stop is made, Train or Engineman will proceed to instrument house located adjacent to switch, operate push button and observe indicator light. If indicator light is on, reverse hand-thrown D&RGW Junction switch and governing signal will clear.

If indicator light does not light, movement must be made in accordance with Rule 275, and modified Rule 275 and 276, then wait two (2) minutes before lining hand-thrown D&RGW Junction switch for the route to be used, complying with Rule 104.

16. BN-C&S crews will be governed by Burlington Northern Inc. Operating Rules while operating on D&RGW tracks, except the following D&RGW rules are more restrictive and will apply:

D&RGW Definitions

Positive ABS—An automatic block signal designated by the letter "P".

D&RGW Rule No. 105

Unless otherwise provided, a train or locomotive using a siding or any track other than a main track, must move at reduced speed, but not to exceed 30 MPH.

D&RGW Rule No. 509

When a train or locomotive is stopped by a stop and proceed ABS, it may proceed at once at restricted speed to the next ABS, expecting to find a train in the block, broken rail, slide warning device plug pulled out, or switch not properly lined. It must be known that all facing point switches are properly lined for the route to be used.

D&RGW Rule 509 A

When a train or locomotive is stopped by a positive stop ABS, it may proceed when the ABS is cleared or when it is authorized to proceed by permissive card showing proper form if the positive ABS governs entrance to a diverging route, permissive card must show on which track train or locomotive must proceed. If it is possible for an opposing train or locomotive to be in the block, the train dispatcher will authorize the train or locomotive to proceed by issuing permissive form "A".

Form "A"—Proceed on _____ track under flag protection and according to Rule 509.

When the train dispatcher positively knows there is no opposing train or locomotive between the communicating points, permissive Form "B" will be issued.

Form "B"—Proceed on _____ track at restricted speed, according to Rule 509.

In case a work train is in the block, permissive Form "C" will be issued.

Form "C"—Proceed on _____ track at restricted speed, according to Rule 509, looking out for work extra _____ in the block.

If movement is to enter siding, Form "D" will be issued.

Form "D"—Proceed into _____ siding, at restricted speed, according to Rule 509.

17. Twin Mountain Industry track has an overhead clearance of 16 feet 6 inches from top of rail when the conveyor belt is not loading ballast. When conveyor belt is in loading position, it has a clearance of 13 feet from top of rail. The load tracks have an overhead clearance of 15 feet 6 inches from top of rail when the conveyor belt is not loading ballast. When conveyor belt is in loading position, it has a clearance of 12 feet 6 inches from top of rail.

18. **Handling 80 Foot or Longer Cars—**

(See All Subdivisions items 3 and 4.)

During either throttling or braking trailing tonnage may cause lateral force sufficient for derailment, where cars 80 feet or longer are coupled to cars 50 feet or shorter, when grade and curvature exceed certain limitations.

To avoid creating such conditions, following restrictions are in effect:

Between Pueblo and Minnequa—

Trains of greater than 3600 trailing tons must handle empty cars, 80 feet and longer in the rear 3600 tons.

Trains greater than 5600 trailing tons must handle loaded cars, 80 feet and longer in the rear 5600 tons, except 80 feet and longer cars in excess of 100 gross tons will have no restriction on location in train.

Between Minnequa and Trinidad—

Trains of greater than 7000 trailing tons must handle empty cars, 80 feet and longer in the rear 7000 tons.

Between Trinidad and Texline—

Trains of greater than 5300 trailing tons must handle empty cars 80 feet and longer in the rear 5300 tons.

Trains of greater than 8300 trailing tons must handle loaded cars, 80 feet and longer in the rear 8300 tons, except 80 feet and longer cars in excess of 100 gross tons will have no restriction on location in train.

In applying restrictions in this item, the following 80 feet or longer cars must be regarded the same as an empty 80 feet or longer car:

Cars weighing less than 50 ton, gross weight
Flat cars with 1 loaded trailer
Flat cars with empty trailers
Flat cars with either loaded or empty containers.

19. Telephones—MP 150.1, MP 135.0, MP 233.4, MP 286.9.
20. If visibility prevents inspection of your train, the following will apply: All trains will not exceed 30 MPH, and will be inspected on both sides at least every 25 miles either by pull-by or back-up inspections, unless inspected on roll-by from other employees.
21. When necessary for one train to assist another, the assisting train must cut its power from its train, and properly secure the train. The assisting power may then be positioned on head end, at rear of, or cut into train to be assisted, in accordance with Air Brake and Train Handling Rules 437-439.

COLORADO DIVISION

(Denver UD - Wendover)

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

Zone — Between	Freight
Denver and Wendover	40 MPH.
Unit coal trains (loaded and empty)	20 MPH.
Trains, engines, and switch movements entering or departing Rice yard	5 MPH.
Between Rice Yard Denver Union Station and Utah Jct. both Main Tracks	10 MPH.
Pepper Packing Plant, railroad crossing on Jersey Cut Off in Denver Yard	5 MPH.
Through Denver Union Terminal Limits	10 MPH.
Between MP 42.2 and MP 46.8	20 MPH.
Westward trains from Prospect Street MP 72.8 until entire train has passed North College Avenue MP 74.7	15 MPH.
Eastward trains from MP 74.7 until lead unit has passed Prospect Street MP 72.8	15 MPH.
Item 1A, All Subdivisions applies.	
MP 130.2 and MP 132.3	
MP 138.0 and MP 165.7	
MP 222.0 and MP 240.8	

2. Bridge, Engine and Heavy Car Restrictions —

Cars heavier than the following, for minimum lengths shown, not permitted without authority of Superintendent:

220,000 lbs. or less, minimum length 38 ft.

263,000 lbs. or less, minimum length 44 ft.

SD-24, SD-45, U25C, U28C, GP-40, SD-40, U30C and U33C engines must not operate on following tracks: IBM, Sibylee, and Black Hollow.

Engines heavier than SD-9's and cars with a gross weight of more than 177,000 pounds must not be handled beyond 1000 feet from wye switch leading to Sibylee Branch.

3. Train Register Exceptions —

Prospect — Trains will register by register ticket.

Jersey Cut Off, Clear Creek, Broomfield, Longmont, MOBA, Wendover — Trains will register when directed by train order.

4. Clearance Provisions and Exceptions Rule 83(B) —

Westward trains departing 31st Street via Jersey Cut Off will receive clearance and train orders at Prospect and will contact the operator at Prospect before entering the westbound main track at the Jersey Cut Off Junction.

Westward trains departing Rice Yard and 31st Street Yard via Prospect will receive clearance and train orders at Prospect.

Prospect — Westward trains, C&S engines except Denver Yard engines, moving from Prospect to C&S Jct. via the D&RGW and who will occupy the Third Subdivision track beyond C&S Jct. must receive C&S clearance at Prospect.

Fort Collins — Trains must receive clearance when operator on duty. Operator hours are continuous except as follows: Saturday — 3:30 p.m. to 11:30 p.m., Sunday — 3:30 p.m. to 11:30 p.m.

Cheyenne — Trains must receive clearance.

Wendover — Clearance received at Guernsey in care of conductor over the signature of the chief dispatcher at McCook clears the train at Wendover on the Second Subdivision.

Longmont-Operator on duty continuously except 3:00 p.m. to 11:00 p.m. Saturday and Sunday.

Clearance received over the signature of the chief dispatcher at McCook also clears the train at Wendover on the Eighth Subdivision of the Alliance Division for movement to Guernsey.

5. Rule 99 — When flagging is required, the distance will be as follows:

Denver U.D. to MOBA 1.5 Miles
MOBA to Wendover 2.0 Miles

6. Spring Switches —

Without Facing Point Lock — Utah Jct., end of double track.

7. Manual Interlockings —

D&RGW crossing, Utah Jct. remotely controlled by D&RGW train dispatcher at Denver. D&RGW dispatcher's phone is located adjacent to the interlocking signal.

8. Railroad Crossings Protected by Gates not Indicated at Station —

Normal position of gates protecting railroad crossings at following locations:

C&S Jersey cut-off,
Denver Union Stockyard against Pepper Pkg. Co. track
Sloss against C&S
Boulder against UP
Longmont against BN
Ft. Collins against Fourth Subdivision
Ft. Collins against UP

9. Denver — Train and engine crews using Denver Union Terminal Railway Company's tracks must provide themselves with copy of and be governed by General and Interlocking rules of that company.**10. Prospect —**

All trains or engines must stop to clear junction switch or crossovers 200 feet, except trains or engines may, when given a proceed signal by operator with a yellow flag by day or yellow light by night, proceed at reduced speed without stopping.

Yard crews will not handle switches except when given permission by operator.

Train or engine movements against current of traffic between Prospect and Utah Jct. may be made on authority of operator at Prospect.

Positive block against through opposing movement will be maintained by operator at Prospect and tower man at Tower, Denver U.D. C&S freight trains and yard engines will use C&S freight lead between Rice yard and Prospect. Normal position of switches is for freight lead.

When delivery of cars from Burlington Northern 38th Street Yard is made to D&RGW North Yard, Denver, Burlington Northern yardmasters will first contact D&RGW North Yard Yardmaster to be in readiness to accept delivery. D&RGW train dispatcher will be notified by North Yard yardmaster as to movements to be made. Train, Yard and other locomotive movements between Prospect and D&RGW North Yard will be governed by Centralized Traffic Control signal indications. At North Yard, Burlington Northern crews will be governed by instructions from the D&RGW yardmaster. C&S trains enroute to or from Golden are governed by CTC between Prospect and C&S Junction, unless routed through yard tracks North Yard, then be governed by Yardmaster instructions on yard tracks, and CTC rules where applicable.

All C&S trains operating between Denver and Golden will operate over D&RGW tracks between Prospect and C&S Jct. in accordance with D&RGW rules.

Gates at the American Smelting and Refining Company plant will be locked at 51st Street across sewage disposal lead, and at Washington Street across sewage disposal lead.

11. Prospect to Broomfield —

BN trains use C&S track between Prospect MP 1.0 and east siding switch, Broomfield and C&S siding, Broomfield, to BN connection at MP 14.7.

At Western Paving—

With regard to the signal light and all known lights at the unloading trestle, red means not to proceed, green means that the trestle is clear and you may proceed onto the trestle, and if neither red nor green is showing, it shall be considered as a red, and until cleared by Western Paving personnel, the train shall not proceed onto the trestle.

This procedure is to be followed whenever train unloading operation occurs. Train movement will be made under the direction of the conductor by radio control with the engineer up to the west end of the unloading trestle. Western Paving unloading personnel will insure all personnel are in the clear of train movement and the unloading area before the signal light indication is changed from red to green. The train will proceed only on the green indication of either control light attached to the trestle. If there is no signal indication (dark lights), train will not proceed until verbal instructions have been received from Western Paving personnel. Signal light indication must remain green until the unloading operation is complete and the train is clear of the west end of the trestle.

12. Broomfield—

On Atlas Spur, curtains over and around unloading doors on outside track will not clear man on side of car.

13. Sloss—

Near end of industry track, ore loading dock has been constructed and is served by a depressed track measuring 402 feet from clearance point to end of track. Dock apron, when in loading position, presents close clearance. Care must be used in switching at this location.

14. Boulder—

Siding located at MP 27.3 east of UP crossing MP 27.9.

UP trains use C&S yard tracks.

IBM industrial spur, 4.6 miles west of Boulder, Colorado of the Denver Division, traffic signals in service on Highway 119 crossing of track entering IBM plant.

Normally, traffic signals will display a red aspect for rail movements, which will require movement to stop short of Highway 119. Upon approach of train or engine movement, traffic signals should display green aspect on traffic signals paralleling track for movement over Highway 119.

Absence of light in all traffic signals, and when unable to obtain green aspect for movement over Highway 119, will require movement to be protected by a member of crew and occurrence should be reported to the superintendent.

15. At Highland, Colorado—

Track scale installed on Coors Elevator track; scale located 635 feet from switch off siding. There are no dead rails protecting scale. All locomotives are restricted from operating over track scale.

16. Loveland—

Auto dock on north side of G. W. Ry. No. 1 interchange track will not clear man on side of car.

17. Cheyenne—

Yard and engine movements over the following avenues will be preceded by flagman: Capitol, Warren, House and Pioneer.

Look out for close clearance for tank car unloading rack on Cheyenne Light, Fuel and Power lead 100 feet east of switch leading to TOFC Track.

18. Murke Quarry Tracks—

Loading dock on west track at rock quarry will not clear engine or box car. Loading tipple will not clear engine.

19. At Wheatland—

Westward trains setting out or picking up must stop with the head end of the train in the clear of Cole Street Crossing.

Eastward trains setting out or picking up must stop with the head end of the

train in the clear of Oak Street Crossing.

Siding is only to be used for set out, pick up and storage of local cars.

The siding approach section for crossing signals will be disconnected and all movements on siding over Oak Street must be protected by a member of the crew, who must be on the ground at the crossing until forward movement has passed over the crossing.

20. MOBA— At MOBA gate has been installed across MOBA lead 7282 feet from Main Track switch and 1035 feet from No. 1 Track switch.

Advance warning sign reading 750 feet to gate across railroad has also been erected and is to be used for movement into the plant.

Gate will have automatic gate keepers for reverse movement with dual padlocks, with switch lock being closed when not in use.

21. At Wendover on the Eighth Subdivision of the Alliance Division—

Eastbound C&S trains must contact Operator at Guernsey for Dispatcher authority to enter Main Track at Wendover and move to beginning of CTC.

Westbound C&S trains will advise Operator at Guernsey when clear of Main Track at Wendover.

From beginning of CTC to Wye switch East end of Wendover is within yard limits and trains are governed by Rule 93.

22. Telephones— MP 4, MP 6.2, MP 25.3, MP 26.9, MP 47.7, MP 41.7, MP 57.3, MP 131.2, MP 123.9, MP 143.5, MP 162.7, MP 177.5, MP 183.7, MP 215.7, MP 220.5.**23. Handling 80 Foot or Longer Cars—**

(See All Subdivisions items 3 and 4.)

During either throttling or braking trailing tonnage may cause lateral force sufficient for derailment, where cars 80 feet or longer are coupled to cars 50 feet or shorter, when grade and curvature exceed certain limitations.

To avoid creating such conditions, following restrictions are in effect:

**Between Wendover and Cheyenne—
Between Boulder and Louisville—**

Trains of greater than 5900 trailing tons must handle empty cars 80 feet and longer in the rear 5900 tons.

Trains of greater than 9100 tons must handle loaded cars 80 feet and longer in the last 9100 tons, except 80 feet and longer cars in excess of 100 gross tons will have no restriction on location in train.

In applying restrictions in this item, the following 80 feet or longer cars must be regarded the same as an empty 80 feet or longer car:

Cars weighing less than 50 ton, gross weight
Flat cars with 1 loaded trailer
Flat cars with empty trailers
Flat cars with either loaded or empty containers.

Westbound trains departing Denver Yard via the Jersey Cut Off:

All 80-foot or longer cars must be within the rear 25% of train!

24. Between Denver and Wendover—

When high wind warnings are in effect and gusts in excess of 50 MPH, conductors arrange with dispatcher to set out empty auto racks and TOFC flats carrying empty trailers or containers.

25. If visibility prevents inspection of your train, the following will apply: Freight trains will not exceed 30 MPH, and will be inspected on both sides at least every 25 miles either by pull-by or back-up inspections, unless inspected on roll-by from other employees.**26. When necessary for one train to assist another, the assisting train must cut its power from its train, and properly secure the train. The assisting power may then be positioned on head end, at rear of, or cut into train to be assisted, in accordance with Air Brake and Train Handling Rules 437-439.**

COLORADO DIVISION

THIRD SUBDIVISION (Prospect - Golden)
FOURTH SUBDIVISION (Ft. Collins - Greeley)
FIFTH SUBDIVISION (Ft. Collins - Rex)
SIXTH SUBDIVISION (Leadville - Climax)

1. Speed Restrictions—	Maximum Speeds Permitted
Zone—Between	Freight
C&S Jct. and Golden	20 MPH.
MP 7.7—Wadsworth Avenue Arvada	10 MPH.
MP 14.2 to MP 15.0	5 MPH.
Ft. Collins and Greeley	20 MPH.
Ft. Collins and Rex	10 MPH.
Leadville and Climax	15 MPH.

2. Bridge, Engine and Heavy Car Restrictions—
 Wrecking cranes 250-ton Not Permitted
 Diesel Units in Group I not permitted, except 3rd Subdivision.
 Cars heavier than the following, for minimum lengths shown, not permitted without authority of Superintendent:
 220,000 lbs. or less, minimum length 38 ft.
 263,000 lbs. or less, minimum length 44 ft.
 EXCEPT on Fifth Subdivision cars heavier than 177,000 lbs., minimum length 38 ft. not permitted.

Exception—Third Subdivision—
 Will not apply to car loaded with soda ash for Columbine Glass. These cars are to have a mechanical inspection and light cars to be placed on each end of any car containing soda ash exceeding 263,000 pounds gross weight.

3. Clearance Provisions and Exceptions Rule 83(B)—
 Trains must receive clearances at Prospect.
 Third, Fourth, Fifth and Sixth Subdivisions are continuous yard limits. Rule 93 applies.

4. Third Subdivision—
 Look out for gates, side platforms and doors into buildings at Jeffco and Boise Cascade which will not clear man on side of car.
 At approximately 644 feet from point of switch at Coors Glass Plant at Mt. Olivet there has been an installation of propane unloading tower. **DO NOT PASS** the tower when ramp is in down position.

5. Fourth Subdivision—
 Normal position of stop gate to protect UP crossing MP 74.6 will be against UP trains.
 At Greeley, trains, engines or cars moving over any street or avenue must not exceed a speed of 10 MPH when engine in forward motion and no cars being shoved ahead of engine, and a speed of 5 MPH when in backward motion or when cars are shoved ahead of engine. When engine in backward motion or when cars are shoved ahead of engine, trainman must precede movement and act as crossing watchman except when such crossings are protected by crossing watchman on duty.
 All forward and back up movements over 14th, 11th and 9th Avenue, and 13th, 8th and 5th Street crossings will be preceded by a member of train crew, who will protect crossing.

At Windsor—
 Gate installed 100 feet from East end of G.W. Sugar Co., warehouse track by Windsor Lumber Co.

OTHER ROAD LINE SEGMENTS

Line Segments	Limits	Mileposts
478	Sibylee—Hightower	215.6 to 222.2
483	South Park Jct.—Sheridan	4.8 to 15.9
484	South Denver—Connors	4.0 to 8.6
495	Black Hollow Jct.—Black Hollow	77.1 to 86.1

YARD LINE SEGMENTS

494	Denver West Side Line
496	Jersey Cut Off

COLORADO DIVISION
INDUSTRIAL TRACKS AND OTHER TRACKS NOT SHOWN AS STATIONS ON TIME TABLE

Name	Location	Length In Feet	Switch Opens	Name	Location	Length In Feet	Switch Opens
First Subdivision							
40850 Twin Mountain	5.5 miles west of Des Moines	7070	Both	89904 Wilson	4.3 miles west of Sibylee Jct.	660	Both
Second Subdivision							
Clear Creek (Western Paving) Wye	1.1 miles west of Utah Jct.	2500	Both	89907 Hightower	6.3 miles west of Sibylee Jct.	1000	East
41142 Homestead House	1.9 miles west of Utah Jct.	560	East	41353 Curtis	2.4 miles west of Wheatland	1300	West
41143 A&K Trailer	2.4 miles west of Utah Jct.	400	West	41357 MOBA	5.8 miles west of Wheatland		
41143 Westminster	2.8 miles west of Utah Jct.	610	Both	Track No. 1		5200	Both
41156 Louisville	5.7 miles west of Broomfield	325	West	Track No. 2		780	West
41161 Valmont	11.5 miles west of Broomfield	300	West	Track No. 3		858	West
41162 Sloss Jct.	11.8 miles west of Broomfield	1130	West	Track No. 4		1700	East
41163 Atwell	12.4 miles west of Broomfield	875	West	Track No. 5		1200	East
41172 IBM	4.6 miles west of Boulder	4505	East	Track No. 6		900	Both
41175 MKP Associates	3.4 miles west of Niwot	865	East	Track No. 7		1000	Both
41192 Small	1.2 miles west of Berthoud	500	East	Track No. 8		400	West
Champion Home Builders	1.3 miles west of Berthoud	340	East	Track No. 9		1200	East
41194 Campion	2.8 miles west of Berthoud	555	East	Third Subdivision			
41207 Wickes	9.2 miles west of Loveland	540	West	89306 Blue River Contractors	1.5 miles west of C&S Jct.	775	West
41207 McClellands	9.2 miles west of Loveland	270	West	89309 Horton (Columbine Glass & Container Systems)	1.9 miles west of Arvada	1095	East
41209 Drakes	0.7 miles west of Omega	620	Both	89310 Sweetners	2.8 miles west of Arvada	870	East
41211 Union Mfg. Co.	1.3 miles west of Ft. Collins	1872	West	89311 Mount Olivet	3.3 miles west of Arvada	892	Both
41216 Giddings	1.2 miles west of Ft. Collins	1109	West	89313 Ball Metals	4.9 miles west of Arvada	515	West
41224 Dixon	1.8 miles west of Wellington	2890	East	89313 Boise	5.0 miles west of Arvada	720	West
41257 Warren Missile Base	2.4 miles west of Cheyenne	3000	East	Coors Bulk Plant	5.22 miles west of Arvada	870	West
41268 Silver Crown	12 miles west of Cheyenne	1850	East	Coors End Plant	5.48 miles west of Arvada	1475	West
89753 Murke Spur	0.5 mile west of Horse Creek	4982	East	89316 Golden Depot	14.4 miles west of Prospect	1993	Both
41334 Slater	9.0 miles west of Chugwater	1145	Both	Fourth Subdivision			
41352 Sibylee Wye	2.0 miles west of Wheatland	34655	Both	89515 Kodak	2.4 miles west of Windsor	1735	West
				89507 U.S. Steel	0.8 mile east of Timnath	425	East
				89503 Schumacher	3.8 miles west of Timnath	355	East

RADIO INFORMATION

FIRST SUBDIVISION

Base Station	Channel	Hours in Service or Attended
Pueblo	1	24
Walsenburg	1	24
Trinidad	1	24
Trinchere	1	24
Des Moines	1	24
Clayton	1	8:00 a.m.-5:00 p.m. Mon. thru Fri.
Texline	1	24

SECOND SUBDIVISION

Base Station	Channel	Hours in Service or Attended
Denver	1	24
Prospect	1	24
Longmont	1	24
Ft. Collins	1	24 - Mon. thru Fri. plus 3:30 p.m.-11:30 p.m. Sat. & Sun.
Cheyenne	1	24
Chugwater	1	8:00 a.m.-5:00 p.m. Mon. thru Fri.
Wheatland	1	8:00 a.m.-11:59 p.m. Mon. thru Fri.
Horse Creek	1	Unattended

THIRD SUBDIVISION

Base Station	Channel	Hours in Service or Attended
Golden	1	24

FOURTH SUBDIVISION

Base Station	Channel	Hours in Service or Attended
Ft. Collins	1	(Same as Second Subdivision)

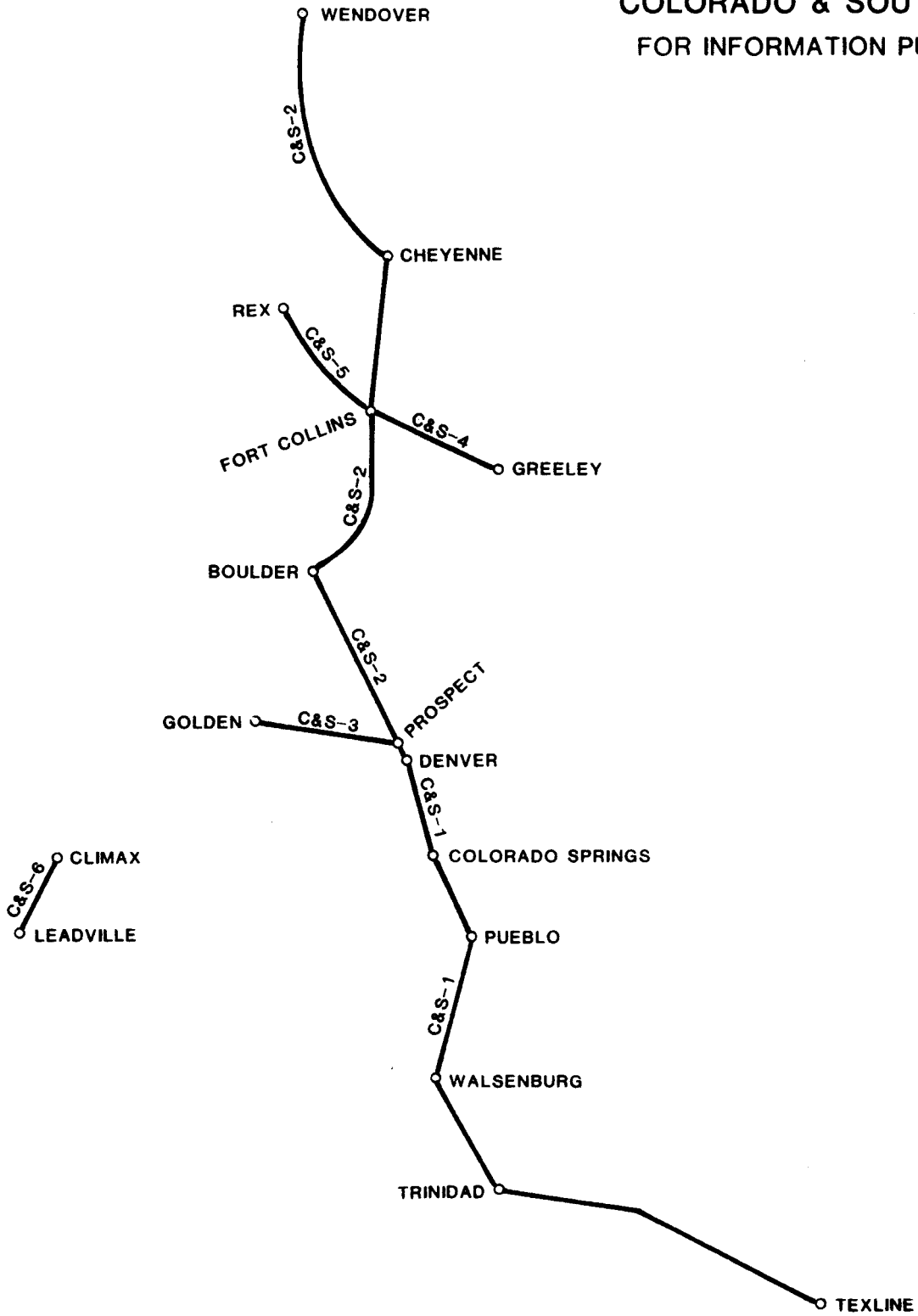
FIFTH SUBDIVISION

Base Station	Channel	Hours in Service or Attended
Ft. Collins	1	(Same as Second Subdivision)

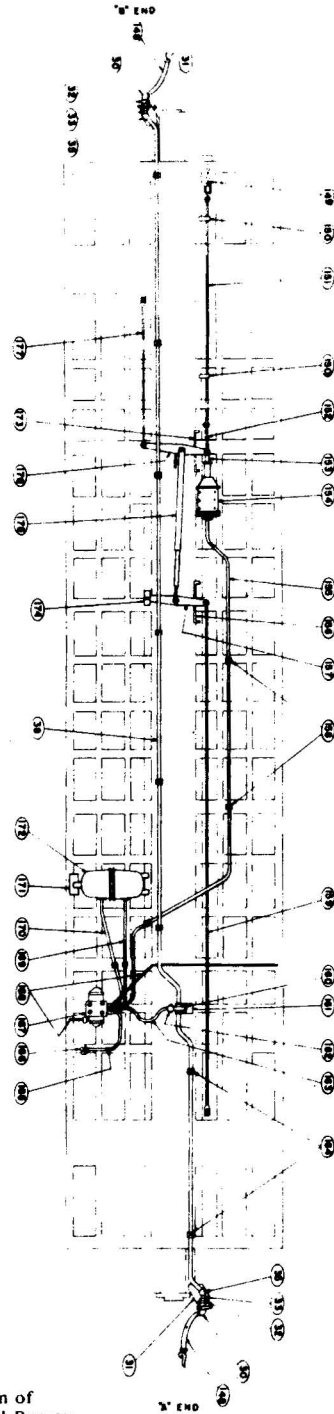
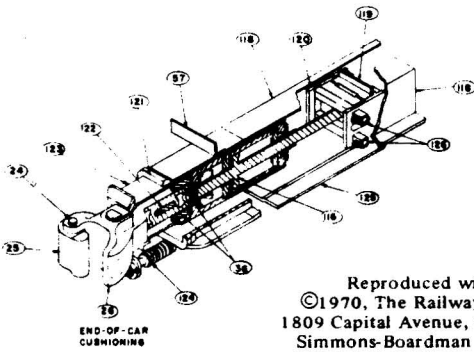
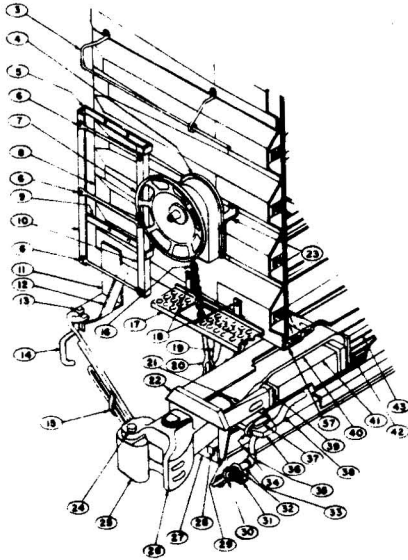
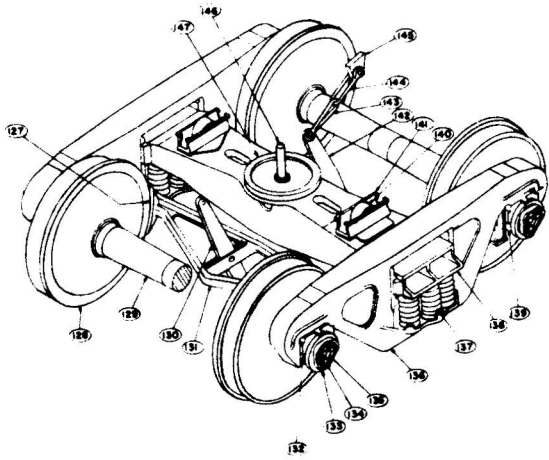
SIXTH SUBDIVISION

Base Station	Channel	Hours in Service or Attended
Leadville	1	8:00 a.m.-5:00 p.m. Mon. thru Fri.

COLORADO & SOUTHERN RY. CO.
FOR INFORMATION PURPOSES ONLY



CAR CHART



3. Horizontal end handhold
4. Hand brake housing
5. End ladder support—top
6. End ladder tread
7. Hand brake wheel
8. Steel end—bottom
9. End ladder support—bottom
11. Uncoupling lever bracket
12. Uncoupling lever bracket support
13. Uncoupling lever support
14. Telescoping uncoupling rod
15. Uncoupling lever guide
16. Hand brake chain
17. End platform (combined crossover and brake step)
18. End platform support
19. Bell crank
20. Vertical hand brake rod
21. Front draft gear stop
22. Striker
23. Hand brake housing support
24. Coupler knuckle pin
25. Coupler knuckle
26. Type E coupler head
27. Coupler carrier
28. Coupler wear plate
29. Striker flange
30. Angle cock
31. Angle cock support
32. Angle cock "U" bolt
33. Nipple
34. Draft key washer
35. 45° elbow
36. Draft key
37. Draft key retainer
38. Brake pipe, 1 1/4" (Train line)
39. Follower block
40. Coupler yoke
41. Draft gear
42. Rear draft gear stop
43. Rear draft gear stop reinforcement
116. Hydraulic piston
118. Center sill
119. Back stop plate
120. Rear lug casting
121. Striker casting
122. Coupler key
123. Cushioning unit
124. Restoring mechanism
125. Inspection plate
126. Rear cross key
127. Brake shoe
128. Wheel
129. Axle
130. Truck live lever
131. Brake beam
132. Roller bearing adapter
133. Roller bearing end cap
134. End cap retaining bolt
135. End cap locking plate
136. Truck side frame
137. Truck spring
138. Truck bolster
139. Roller bearing assembly
140. Truck side bearing roller
141. Truck side bearing housing
142. Truck dead lever
143. Clevis at dead lever
144. Clevis at dead lever fulcrum
145. Dead lever anchor—underframe mounted
146. Center pin
147. Truck center plate cast integral with truck bolster
148. Air hose
149. Hand brake chain at bell crank
150. Hand brake rod guide
151. Hand brake rod
152. Hand brake chain at cylinder
153. Cylinder push rod
154. Air brake cylinder
155. Cylinder pipe, 3/4"
156. Floating lever guide
157. Floating lever
158. Pipe clamp, 3/4"
159. Top rod, "A" end
160. Branch pipe tee
161. Branch pipe tee support
162. Combined dirt collector and cut-out cock
163. Connection hose
164. Pipe clamp, 1 1/2"
165. Retainer pipe
166. Retainer valve
167. ABD control valve
168. Release rod
169. Auxiliary reservoir pipe, 3/4"
170. Emergency reservoir pipe, 3/4"
171. Reservoir support
172. Combined auxiliary and emergency reservoir
173. Cylinder lever guide
174. Brake lever fulcrum
175. Brake slack adjuster
176. Cylinder lever
177. Top rod, "B" end

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RADIO INFORMATION

FIRST SUBDIVISION

Base Station	Channel	Hours in Service or Attended
Pueblo	1	24
Walsenburg	1	24
Trinidad	1	24
Trinchere	1	24
Des Moines	1	9:00 a.m.-6:00 p.m. Mon. thru Fri.
Clayton	1	8:00 a.m.-5:00 p.m. Mon. thru Fri.
Texline	1	24

SECOND SUBDIVISION

Base Station	Channel	Hours in Service or Attended
Denver	1	24
Prospect	1	24
Longmont	1	24
Ft. Collins	1	24 - Mon. thru Fri. plus 3:30 p.m.-11:30 p.m. Sat. & Sun.
Cheyenne	1	24
Chugwater	1	8:00 a.m.-5:00 p.m. Mon. thru Fri.
Wheatland	1	8:00 a.m.-11:59 p.m. Mon. thru Fri.
Horse Creek	1	Unattended

THIRD SUBDIVISION

Base Station	Channel	Hours in Service or Attended
Golden	1	24

FOURTH SUBDIVISION

Base Station	Channel	Hours in Service or Attended
Ft. Collins	1	(Same as Second Subdivision)

FIFTH SUBDIVISION

Base Station	Channel	Hours in Service or Attended
Ft. Collins	1	(Same as Second Subdivision)

SIXTH SUBDIVISION

Base Station	Channel	Hours in Service or Attended
Leadville	1	8:00 a.m.-5:00 p.m. Mon. thru Fri.

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PERFORM SWITCHING IN A MANNER WHICH WILL AVOID DAMAGE TO CONTENTS OF CARS AND EQUIPMENT

Safe Coupling Speed (MPH)	Impact Force
1	1
2	4
3	9
4	16
Damaging Coupling Speed (MPH)	Damaging Force
5	25
6	36
7	49
8	64
9	81
10	100

SPEED TABLE

Time Per Mile		Miles Per Hour	Time Per Mile		Miles Per Hour
Minutes	Seconds		Minutes	Seconds	
0	45	80.0	1	12	50.0
0	46	78.3	1	15	48.0
0	47	76.6	1	20	45.0
0	48	75.0	1	25	42.3
0	49	73.5	1	30	40.0
0	50	72.0	1	40	36.0
0	51	70.6	1	45	34.3
0	52	69.2	1	50	32.7
0	53	67.9	2	....	30.0
0	54	66.6	2	10	27.6
0	55	65.4	2	15	26.6
0	56	64.2	2	20	25.7
0	57	63.1	2	30	24.0
0	58	62.0	2	40	22.5
0	59	61.0	2	45	21.8
1	....	60.0	2	50	21.2
1	1	59.0	3	....	20.0
1	2	58.0	3	9	19.0
1	3	57.1	3	20	18.0
1	4	56.2	3	31	17.0
1	5	55.3	3	45	16.0
1	6	54.5	4	....	15.0
1	7	53.7	5	....	12.0
1	8	52.9	6	....	10.0
1	9	52.1	7	30	8.0
1	10	51.4	10	....	6.0

MAINTENANCE OF WAY
CONDITIONAL STOP

(Form Y Train Order)

The following forms of oral authorization by the Foreman and acknowledgment of understanding by the engineer are to be used to permit trains to pass a red flag without stopping within the limits of a Form Y train order.

Foreman will state: "Burlington Northern Railway Foreman calling Extra 232 East about Order No. (Form Y Train Order No.)"

Engineer must respond, identifying his train as: "This is Burlington Northern engineer, Extra 232 East."

When engineer has answered as above, the foreman will state: "Extra 232 East may pass red signal at (M.P. Location and specify track involved) without stopping."

The foreman may also authorize a different speed from that shown in the Form Y train order by adding to his instructions: "Proceed at _____ MPH," or "Proceed at normal speed."

The engineer must repeat back to the foreman the instructions that are given him.