

UNION PACIFIC RAILROAD COMPANY
SOUTH-CENTRAL DISTRICT

Utah Division

Special Rules
No. 13

Effective Thursday,
July 1, 1954

Superseding Special Rules No. 12

Employees whose duties are in any way affected thereby, must have a copy of these rules with them while on duty.

A. D. HANSON,
General Manager

C. C. LARKIN,
General Superintendent

W. B. GROOME,
Superintendent

NOTE: Changes in this issue are printed in type same as this.

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Note—Referring to note on page 17 of Operating Rules:

The term "conductor" as used in Operating Rules, Special Rules, Superintendent's Bulletins or Notices will also apply to "engine herders."

Signals

8 (R). Electric lanterns may be used by switchtenders, herders and interlocking signalmen for displaying yellow lights.

Engine Whistle Signals

14 (R). In addition to locations listed in Rule 14 (1), engine whistle must be sounded and bell rung approaching private crossings where view of crossing is obscured or where it can be seen persons or vehicles are approaching or in the vicinity of the crossing.

Markers

19 (R). Referring to Operating Rule 19 (D):

Markers displaying yellow instead of green lights may be used between Salt Lake City and Las Vegas.

Switch Lights

27 (R). Switch lights will not be used on branch lines except Cedar City Branch.

Where switch lights are not used, trains and engines must approach facing point switches prepared to stop if switch is not in normal position.

Use of Engine Bell

30 (R). Salt Lake City ordinance reads as follows:

"It shall be unlawful for any person or persons employed on a locomotive to fail to ring bell continuously on such locomotive while in motion in the inhabited portions of the city."

Train Register

83 (R). At Salt Lake City, before entering or using Second Subdivision passenger main track, between Second South Street and yard limit sign at M.P. 780.73, yard engines must obtain information regarding all first-class trains which are due.

83 (S). Trains operating between Lund and Iron Mountain need not register at Iron Springs.

At Milford, first-class trains will register by registering ticket. Trains in Provo-Geneva switching service need not register at Provo.

83 (T). At Provo, conductor of all trains will register and receive orders and clearance at D.&R.G.W. depot, except that conductor going on or off duty at Provo will register at Utah Railway joint telegraph office. When that office is closed, conductor going on duty must register and receive orders and clearance at D.&R.G.W. depot. When an eastward train arrives Provo and Utah Railway joint telegraph office is closed, conductor must give all necessary train registering information to the D.&R.G.W. operator by phone.

Starting Trains

84 (R). At Salt Lake City and Ogden, passenger trains must not leave passenger depot without a signal from stationmaster or passenger director.

Clearing Trains — Rule 251 Operation

86 (R). Referring to Operating Rule 86:

When instructed by train dispatcher to clear a first-class train, westward second-class and extra trains must clear the time of such train not less than twenty minutes at Bridge Jct.

Spacing Trains

91 (R). On Provo Subdivision, trains in the same direction must be kept at least thirty minutes apart, except between Provo and Geneva, or when closing up at stations.

Movements in Yards

93 (R). At Salt Lake City, except when view is obscured, trains and engines may move against current of traffic between Fifth North Street and passenger depot without being preceded by flagman upon receipt of proper signal from switchtender.

93 (S). At Salt Lake City, unless otherwise directed, all trains operating via Second Subdivision Passenger Line will use west track and Provo Subdivision trains will use east track on Third West Street between Second South and Eighth South Streets.

Freight train movements may be made through passenger yard at Salt Lake City only on track 10; other trains with freight equipment may use any track through passenger yard except when handling high or wide equipment.

93 (T). Syracuse, Thatcher and Bear River Branches are operated under requirements of Operating Rule 93.

93 (U). While using D.&R.G.W. tracks, employes will be under supervision of D.&R.G.W. supervisors, and will be governed by the following rules:

D.&R.G.W. Rule 11: In non-automatic block signal limits, a train finding a fusee burning on or near its track, must stop and wait until it has burned out before proceeding.

D.&R.G.W. Rule D-11: A fusee will not apply to the main track on which a train is running, if displayed beyond the first rail of adjoining main track.

D.&R.G.W. Rule 15: The explosion of two torpedoes is a signal to proceed at restricted speed for one-half mile and is to be acknowledged by two short blasts of engine whistle. The explosion of one torpedo will indicate the same as two, but the use of two is required.

D.&R.G.W. Definition: Restricted Speed—A speed that will permit stopping short of another train or obstruction, but not exceeding 15 miles per hour.

D.&R.G.W. Rule 93: Yard limits will be indicated by yard limit signs. Within yard limits, the main track may be used clearing first-class trains as prescribed by the rules.

Second and inferior class trains, extra trains and engines must move on all tracks within yard limits prepared to stop unless the track is seen or known to be clear.

D.&R.G.W. Special Rule 20-B: Trains have no time-table superiority between First South and Ninth South Streets, Salt Lake City Union Depot Company trackage on Fourth West Street, Salt Lake City. Yard engines and other engines occupying these tracks must make way for passenger trains without unnecessarily delaying them. Trains, yard engines and other engines must move on Depot Company tracks prepared to stop within one-half the range of vision.

D.&R.G.W. Special Rule 20-F: All freight trains, switch and light engine movements, including interchange deliveries between U.P. North Yard and D.&R.G.W. Roper yards, will, unless otherwise provided, use the two running tracks extending from D.&R.G.W. main track, Subdivision 7, between 1st North Street and North Temple Street to 21st South Street, Roper yards.

Between crossover leading to W.P. connection just south of 1st South Street, Salt Lake City, and 21st South Street, Roper, all trains, switch, light engines, and interchange delivery movements will keep to the right and movement against the current of traffic can be made only under flag protection.

When display of markers not required, as in switch movements, a member of crew must ride rear car and display a white light to rear at all times between sunset and sunrise.

93 (V). At Garfield, American Smelting & Refining Company yard commences at a point 250 feet west of first switch leading into smelter from Union Pacific highline extending from Lake Point.

93 (W). At Salt Lake City, trains and engines using westward main track must approach diesel fuel pump opposite roundhouse prepared to stop if fueling hose is across track.

Clearances

96 (R). Trains are not required to receive clearance as per Operating Rule 96 at initial stations which are not train order offices.

Unless other wise provided, all trains must receive clearance at:

Ogden Brigham City Cache Jct. Provo Caliente

96 (S). At Delta, all eastward trains destined to points on Provo Subdivision must receive clearance Form 2643, which will confer the same authority on Provo Subdivision as when received at Lyndyl.

Eastward trains destined to points on Provo Subdivision must identify opposing westward trains between Delta and Lyndyl.

At Provo, all westward trains must receive clearance Form B, which will confer the same authority on Second Subdivision as when received at Lyndyl.

96 (T). On Provo Subdivision, eastward trains destined to points east of Geneva must receive Clearance Form 2643 at Provo.

Railroad Crossings and Junctions

98 (R). Trains and engines must be governed by the following at the railroad crossings and junctions indicated:

Location	Railroad Crossed, or Junction With	Trains Which Have Precedence	How Governed
North Salt Lake. (M.P. 31.0)	B.R.R.	U.P.	Cabin Interlocking. Operating Rule 613.
North Salt Lake. (M.P. 31.3)	D. & R.G.W.	D. & R.G.W.	Electric locked switches and derails. Special Rule 98 (U).
Becks. (M.P. 32.9)	D. & R.G.W.	D. & R.G.W.	Electric locked switches and derails. Special Rule 98 (U).
Salt Lake Gravel Pit Spur.	B.R.R.	B.R.R.	Electric locked derails. Special Rule 98 (S).
Salt Lake City. (First South and Tenth West Streets, Fisher Brewery track)	W.P.	W.P.	Special Rule 98 (V).
Salt Lake City. (M.P. 781.3, Freight Line)	W.P.		Automatic Interlocking. Operating Rule 612.
Salt Lake City. (Between South Temple and First South Street on Fourth West Street)	D. & R.G.W.		Operating Rule 609.
Salt Lake City. (M.P. 37.8, M.P. 38.0, Second Subdivision)	D. & R.G.W.		Operating Rule 612 and Special Rule 612 (R).
Salt Lake City. (Between Eighth and Ninth South Streets on Fourth West Street, Utah Junk Spur)	D. & R.G.W.	D. & R.G.W.	D. & R.G.W. trains do not stop. U.P. engines stop and line derail. Special Rule 98 (V).
Salt Lake City. (M.P. 38.4, Provo Subdivision)	D. & R.G.W.	U.P.	Semi-automatic Interlocking. Operating Rule 613.
Near Burton. (M.P. 39.7)	D. & R.G.W.	U.P.	Gate. Operating Rule 613.
Near Sandy. (M.P. 48.6)	D. & R.G.W.	U.P.	Semi-automatic Interlocking. Operating Rule 613.
Near Geneva. (M.P. 757.3)	D. & R.G.W.		Automatic Interlocking with movable point frogs. Special Rule 98 (W).
Ironton. (M.P. 0.67)	D. & R.G.W.		Semi-automatic Interlocking. Operating Rule 613.
Garfield. (M.P. 767.1)	D. & R.G.W.	U.P.	Semi-automatic Interlocking. Operating Rule 613.
Syracuse Branch. (M.P. 0.3)	D. & R.G.W.	D. & R.G.W.	Semi-automatic Interlocking. Normal position of derails and signals against U.P. See instructions in signal case.

98 (S). At B.R.R. Crossing on Salt Lake Gravel Pit Spur, switch locks must not be removed nor derails reversed when track occupancy indicators display Occupied indication. When such indication is displayed and no conflicting movement is evident, time release in relay box may be operated only after calling Bamberger dispatcher and ascertaining there is no movement approaching on their tracks.

98 (T). At Atwood, trains and engines moving from Midvale Branch must stop clear of derail 325 feet from main track switch, and a member of crew must see that there is no conflicting movement approaching before lining switch for movement to main track.

98 (U). At North Salt Lake (M.P. 31.3) and Becks, before movement in either direction may be made over D.&R.G.W. main track, member of crew must communicate with D.&R.G.W. operator at North Salt Lake. After electric locks have been released by operator both D.&R.G.W. switches must then be hand operated and train or engine may proceed on signal indication.

When communication fails, or when operator is unable to release electric locks, crews will be governed by instructions posted in telephone booth and by Operating Rule 613.

98 (V). At Salt Lake City, Fourth West Street, on the Utah Junk Spur before crossing D.&R.G.W. passenger main tracks, understanding must be had with train dispatcher that he will hold westward D.&R.G.W. trains. In addition, member of crew must be left at crossing to provide protection against eastward D.&R.G.W. trains. Train dispatcher must be notified when work has been completed.

On Fisher Brewery spur, member of crew must obtain permission from W.P. dispatcher to cross over W.P. track when going to Fisher Brewery. When returning from this industry, permission must be obtained from both W.P. dispatcher and U.P. dispatcher to cross W.P. track and enter U.P. main track.

Switching operations on Utah Junk and Fisher Brewery Spurs will be confined to daylight hours.

98 (W). At Geneva, automatic interlocking M.P. 757.3, release section is located 500 feet east of westward interlocking home signal.

Westward trains occupying approach section of interlocking in advance of release section sign for a period of five minutes or more will automatically release interlocking, and home signals will change to Stop indication. To again clear home signal, westward trains will proceed into release section and home signal should change to Proceed indication after interval of two minutes. If signal does not change in two minutes, Operating Rule 612 and instructions in signal case will govern.

Westward U.P. trains or engines standing between switches at Geneva will cause signals to display Stop indication for D.&R.G.W. trains and opposing U.P. movements. To clear signals, west switch of Geneva siding must be lined for the siding.

Member of crew of diesel switch engine without cars or Sperry rail-detector car or operator of bus or track car must place selector levers in HAND position before using this crossing.

Flag Protection

99 (R). Trains may be relieved from protecting against following extra trains by the use of Example (7) of train order Form E only on the branches named:

Malad	Iron Mountain
Cache Valley	Pioche
Fillmore	Mead Lake

99 (S). On Fillmore, Pioche and Mead Lake Branches between 7 A.M. and 5 P.M. daily except Saturday and Sunday, a speed of 10 MPH must not be exceeded by all trains approaching and moving on curves and where view is obscured, looking out carefully at all points for track cars and men working on track without flag protection. Speed on curves must be such as to be able to stop within one-half the distance track is seen to be clear and whistle signal 14 (1) must be sounded frequently.

99 (T). There must be a trainman at rear of train while standing at Crestline.

99 (U). At Caliente, when rear of train in depot siding fouls main track, flagman must be in position to protect rear end of his train against main track movements from either direction.

Public Crossings

103 (R). At Salt Lake City, movement must not be made over main cross-walk in front of passenger depot unless proceed signal is received from station or yard employe or movements preceded by flagman.

Switching movements over main cross walk must not exceed 4 MPH.

At Salt Lake City, while trains are passing on opposite track, switching movements between Second South and Eighth South Streets on Third West Street must stop and stand clear of street crossings.

At Salt Lake City, on running track between Sixth North and Thirteenth North, speed of 10 MPH must not be exceeded, keeping careful lookout for vehicular traffic over road crossing into rip track area.

At North Salt Lake, Cudahy Packing Plant crossing must not be blocked by standing train under any circumstances either day or night.

At S.P. Jct., when an eastward train is held out of Ogden yard, 12th Street crossing must be cut on arrival and train must not be re-coupled until switchtender at Cecil Jct. advises train may enter yard and Signal 18 or 16 permits train to proceed to Cecil Jct.

103 (S). All trains and engines must stop and be preceded by flagman over the following public crossings and flagman must display lighted fusee at night:

Bushnell Hospital Spur	—Highway 91;
Logan Sugar Factory Spur	—Main highway crossing on Sugar Factory spur;
Lehi	—Main highway crossing on Wasatch Oil spur;
Pleasant Grove	—Main highway crossing on beet spur;
Hardy	—Main highway crossing on spur track;
Bunker	—Highway 6;
Eureka	—Highway 91;
Lovell Spur	—Highway 91.
Nellis Spur	

103 (T). At Geneva Steel Company plant, where spur into plant crosses highway, when cars are being shoved over this crossing, crossing must be protected by a member of crew as prescribed in Operating Rule 103 (B).

When cars are being pulled over this crossing, trainman must be riding on engine in a position to stop movement if any vehicle is on crossing.

Switches

104 (R). No. 14 turnouts are installed at all dual control switches in CTC territory, except at Little Springs, west short siding switch at Carp and east Warner yard switch.

Other switches equipped with No. 14 turnouts are indicated by a figure "14" on switch targets.

104 (S). Switches will be set normally at:

Provo	—Switch leading to Ironton, for Ironton spur;
Tintic	—Wye on Eureka Branch, for Silver City main track;
Lynndyl	—All switches on No. 1 track, for No. 1 track;
Caliente	—Spring switch at west end of Track No. 2, for eastward trains using track No. 1;
Iron Springs	—Switch at stem of wye, for east leg of wye;
Cedar City	—Switch and spring point derail at entrance to loop track, for westward trains;
Pioche	—Highline switch, for highline;
Nellis Field	—Switch at west end of run-around track near highway crossing, for run-around track;
Becks	—Switch from advance track to Standard Oil Company cross-over, for the cross-over.

104 (T). Color light switch point indicator governing facing point movements over spring switch located in main track at

Continued on Opposite Side.

104 (T). Continued.

east wye switch at Comstock, M.P. 10.91, Iron Mountain Branch, displays indications as follows:

Green	—Spring switch is properly lined for main track movement.
Yellow	—Spring switch is properly lined for movement to east leg of wye.
Red	—Trains and engines must stop and make inspection of switch points to determine if properly lined for movement desired.

Derails

104 (U). At Cedar City, spring point derail is located in main track just east of balloon track switch and must be locked in derailing position when not being used.

Westward trains trail through derail; eastward trains stop and line balloon track switch and derail, restoring switch and derail to normal positions after being used.

Movements Controlled by Switchtenders

104 (V). At Salt Lake City, Second South Street, unless proceed signal is received from switchtender, trains and engines must remain clear of following points:

Leaving passenger depot, remain clear of passenger lead. (Does not apply to yard engines unless a first-class train is due.)

Entering Salt Lake City, remain clear of Second South Street, stopping before fouling adjacent main track.

Entering Second South Street westward from Pedro 1 or Pedro 2 tracks, remain clear of cross-over just east of Second South Street.

Second South switchtender must handle D.&R.G.W. interchange movements on Provo Subdivision unless that track is blocked. If necessary to handle on Second Subdivision main track, switchtender must receive verbal permission from train dispatcher authorizing movement.

Freight trains for North Yard, passenger and mixed trains for Passenger Station will stop to clear Second South Street before fouling adjacent main track if route is not lined for movement of freight trains to North Yard via Pedro No. 2, or for movement of passenger and mixed trains into the Passenger Station, in which case oral instructions from switchtender must be received before proceeding.

At Salt Lake City, trains and engines must not foul adjacent tracks or slip switches between North Temple Street and Second North Street without first receiving proceed signal from switchtender. (Does not apply to yard engines unless a first-class train is due.)

104 (W). At Salt Lake City, eastward trains and engines on main track must stop to clear Fifth North Street unless proceed signal is received from switchtender.

Unless otherwise directed, all westward trains and engines moving from west yard or Toonerville yard via Freight Line will head through Main 1 pocket either via Toonerville lead or via cross-over just north of Fifth North Street. Proceed signal need not be received from switchtender at Fifth North Street for movements via this route.

Other trains and road engines, including D.&R.G.W. switch engines, must stop to clear Fifth North Street unless proceed signal is received from switchtender.

Unless otherwise directed, trains and engines, including D.&R.G.W. switch engines, moving to North Yard tracks from Freight Line must stop on straight track to clear Fourth North Street cross-over, unless proceed signal is received from Fifth North Street switchtender.

All trains and road engines moving to roundhouse or tracks in North Yard from points south of Fourth North Street on passenger main tracks must stop to clear Fourth North Street unless proceed signal is received from switchtender at Fifth North Street.

Continued on Page 6.

104 (W). Continued.

Road engines moving from roundhouse lead must sound whistle signals as follows:

- Roundhouse to passenger depot 0 —
- Roundhouse to Thirteenth North Street 0 0 0 0
- Roundhouse to east or west lead, Fifth North Street. —

104 (X). At North Yard, unless otherwise directed, freight trains must enter and leave at Seventeenth North.

All trains must approach Seventeenth North prepared to stop clear of cross-overs and must not proceed until proceed signal is received from switchtender.

Eastward trains approaching Seventeenth North must use one long sound of whistle when they are to be routed via main track, and one long and one short when they are to be routed into yard.

Trains and engines crossing eastward main track at Seventeenth North may accept proceed signal from switchtender as authority to make this move.

104 (Y). At S.P. Jct., when signals governing movement to Cecil Jct. do not display proceed indication when route is properly lined, a member of crew must communicate with switchtender at Cecil Jct. for instructions.

When call light on instrument house at S.P. Jct. is burning and governing signal displays Stop indication, member of crew must communicate with switchtender at Cecil Jct.

Sidings and Side Tracks

105 (R). At Brigham City, westward siding extends from east switch near M.P. 20 to cross-over at depot, and eastward siding is located on north side of main track. Track from cross-over at depot to cross-over near stockyards, including Malad Branch old main track, is designated as a yard track, upon which movements may be made in either direction, but cars must not be stored on this track.

At Cache Jct., westward siding extends from east switch near M.P. 47.6 to east crossover near depot. Eastward siding extends from west switch near M.P. 49.5 to west crossover at depot.

At McCammon, westward siding is south of the main track; eastward siding is north of the main track.

At Caliente, No. 1 track is eastward siding; No. 2 track is westward siding. When movement is to be made opposite to the assigned direction, verbal permission must be received from Salt Lake City dispatcher for westward siding, and from Las Vegas dispatcher for eastward siding.

105 (S). At Salt Lake City, Provo Subdivision main track between Eighth South Street and Second South Street may be used as a siding, complying with Operating Rules 93, 99 and 105.

105 (T). At Cache Junction, Cache Valley Branch ends at depot.

At Brigham City, Malad Branch ends at sign located at west end of yard.

105 (U). At Iron Springs, eastward trains from Iron Mountain Branch will use extension track. Stop should not be made until entire train is clear of cross-over at depot.

Train Order Signals

200 (R). On branches, except Cedar City Branch, lights will not be kept burning at night in train order signals. Trains must be governed by day indication of such signals.

221 (R). At Iron Springs, when train order signal displays Stop indication for eastward trains, such trains on Cedar City Branch must stop east of junction switch and must not proceed until train order authority is received, except for switching movements.

Automatic Block Signals

240 (R). On Midvale Spur, Provo Subdivision, when Signal 01 or 02 displays Stop indication, trains and engines must be preceded by flagman between these two signals and must move at restricted speed.

Centralized Traffic Control System

266 (R). At Buena Vista, when an eastward train receives Clear or Approach indication on CTC signal or Form C clearance, train may proceed on Passenger Line to passenger depot Salt Lake City or to North Yard or on Freight Line to North Yard, being governed by CTC and interlocking signals.

At North Yard, in addition to receiving Form B clearance, conductor of westward train using Freight Line must receive permission from train dispatcher before starting, which will be authority to proceed to beginning of CTC territory.

At Salt Lake City, in addition to receiving Form B clearance, conductor of westward train using Passenger Line must receive permission from train dispatcher before starting. Proceed signal must be received from Second South Street switchtender, which will be authority to proceed to beginning of CTC territory.

Before Second South Street switchtender may give proceed signal to a westward train, he must receive verbal permission from train dispatcher and track occupancy indicator at Second South Street must display Unoccupied indication. When indicator displays Occupied indication but train dispatcher informs switchtender that track is clear and route properly lined, proceed signal may be given.

Yard movements on Passenger Line must not pass signal at Eighth South Street until verbal permission is received from train dispatcher. When authorized by train dispatcher and CTC signal indication, yard movements may be made into CTC territory without receipt of Form B clearance. Yard movements beyond yard limit board must receive Form C clearance from train dispatcher.

266 (S). Clearance Form B will not be required by trains entering CTC territory from Cedar City, Fillmore or Mead Lake Branches, or Tintic mine tracks, but trains will be governed by signal indication and instructions from train dispatcher.

Exception: When crew of a train in turn-around service leaves CTC territory and ties up, they must receive CTC clearance before re-entering CTC territory.

266 (T). CTC Clearance Form B need not be received by trains or engines entering CTC territory at Provo or Geneva, but must be governed by signal indication and instructions from operator at Provo.

267 (R). CTC Stop signals located as follows are designated as "starting signals":

- Lyndyl** — Westward dwarf signal west of cross-overs, governing movements on Track No. 1.
- Milford** — Westward high signal west of highway crossing governing main track movements;
 - Westward signals on signal bridge west of cross-overs governing movements on main track and west drill track;
 - Eastward high signal near main track cross-over east end of yard;
 - Eastward dwarf signal governing movements on east drill track.
- Caliente** — Westward signal on cantilever west of depot governing main track movements;
 - Eastward signals on signal bridge east of depot governing movements on main track and drill track.
- Las Vegas** — Eastward dwarf signal at east end of passenger station;
 - Eastward high signals on main track and drill track just west of Bonanza underpass;
 - Westward dwarf signal at west end of passenger station platform;
 - Westward high signal just west of west passing track switch.

When a train or engine is stopped by one of these signals, if movement is verbally authorized by dispatcher, flagman must be sent ahead to next signal and movement must be made at restricted speed. Clearance Form C will not be required.

267 (S). At Caliente, when a "starting signal" governing main track movements designated in Special Rule 267 (R) displays Stop indication, trains and engines must stop clear of fouling point of depot siding until authorized to proceed by train dispatcher or signal indication.

267 (T). At Geneva, engines must not move from Geneva Steel Company Yard to siding without permission from operator at Provo.

267 (U). At Milford, eastward and westward freight trains must remain clear of yard lead until train dispatcher is contacted and must be governed by his instructions and signal indication.

267 (V). At Caliente, main track switch at west end of yard, and derail at west end of Track No. 1, are power-operated and controlled by dispatcher at Las Vegas. When illuminated "S" is displayed on signal unit located on top of signal case near derail, member of crew must operate push button on east side of signal case to cause switch and derail to line for movement and signal to display Proceed indication.

When west switch is lined for movement into siding but signal displays Stop indication, in addition to being governed by Operating Rule 528, a member of crew must examine points of spring switch and derail before passing over them.

When necessary to hand operate main track switch or place selector lever in hand position, as provided in Operating Rules 527 and 528, derail switch and selector lever on derail switch must also be hand operated.

267 (W). Eastward freight trains leaving Las Vegas will, unless otherwise directed, use drill track and leave yard at extreme east switch, being governed by signal indication at that point.

267 (X). At Lynndyl, westward trains or engines must not move from Track 2 to Track 1 at west end of yard without permission from train dispatcher.

Block Signals

512 (R). At Salt Lake City, when automatic block signals governing movements through Seventeenth North display Stop indication, trains and engines must stop before acting on proceed signal from switchtender.

Power Operated Derails

526 (R). Power operated derail on drill track, east end of Las Vegas Yard, operates in conjunction with main track switch. When necessary to hand operate main track switch or place selector lever in hand position, as provided in Operating Rules 527 and 528, derail switch and selector lever on derail switch must also be hand operated.

612 (R). At D.&R.G.W. Crossings, M.P. 37.8 and M.P. 38.0 Second Subdivision, when time release has been operated as per Operating Rule 612, if signal governing movement over crossing does not change its indication within eight minutes after time release has been operated, a member of the crew must notify train dispatcher.

When a train or engine has moved over the crossing and has cleared the interlocking limits, if it is necessary to make a reverse movement over crossing, member of crew must depress push button located in box on home signal, hold for five seconds, then release to receive signal indication for movement over crossing.

Exchanging Signals and Inspection of Trains

713 (R). Where Operating Rule 713 (A) or Special Rule requires a trainman to be stationed on rear of train in position to give or receive signals, on freight trains he must be on rear platform of caboose; on passenger trains, including streamline trains, he must be on rear platform or in rear door, or if rear car is a business, dining or observation car, he must be on front platform of rear car or rear platform of car next ahead, and vestibule door must be open.

Handling of Explosives or Other Dangerous Articles

802 (R). Trainmen, enginemen, yardmen, agents and other employes who in any way handle or care for explosives and other dangerous articles must familiarize themselves with the regulations and instructions governing the handling of them.

Placards on Cars

BE 589 (b). A car requiring car certificates and "Explosives," "Dangerous," "Dangerous—Class D Poison," "Poison Gas," or "Caution—Residual Phosphorous" placards under the provisions of this part shall not be transported unless such freight car is at all times placarded and certificated as required by this part. Placards and car certificates lost in transit shall be replaced at next inspection point and those not required shall be removed.

BE 589 (b). (1) At points where trains are inspected, cars placarded "Explosives" and adjacent cars shall be inspected; such cars shall continue in movement only when inspection shows them to be in condition for safe transportation.

Switching Cars Containing Explosives or Poison Gas

BE 589 (c). A car placarded "Explosives" or placarded "Poison Gas" shall not be cut off while in motion. No car moving under its own momentum shall be allowed to strike any car placarded "Explosives," or placarded "Poison Gas." No freight car placarded "Explosives" or placarded "Poison Gas" shall be coupled into with more force than is necessary to complete the coupling.

BE 589 (c). (1) When transporting a car placarded "Explosives" in terminals, yards, side tracks, or sidings, such cars shall be separated from the engine by at least one non-placarded car.

BE 589 (c). (2) Closed cars placarded "Explosives" shall have doors closed before they are moved.

Switching of Cars Containing Dangerous Articles

BE 589 (d). In switching operations where use of hand brakes is necessary, a placarded loaded tank car, or a draft which includes a placarded loaded tank car shall not be cut off until the preceding car or cars clear the ladder track and the draft containing the placarded loaded tank car, or a placarded loaded tank car shall in turn clear the ladder before another car is allowed to follow.

BE 589 (d). (1) In switching operations where hand brakes are used, it shall be determined by trial that a car placarded "Dangerous" or that a car occupied by a rider in a draft containing a car placarded "Dangerous" has its hand brakes in proper working condition before it is cut off.

Placement of Freight Cars Containing Explosives in Yards, on Sidings, or Sidetracks

BE 589 (e). Cars placarded "Explosives" shall be so placed that they will be safe from all probable danger of fire. Freight cars placarded "Explosives" shall not be placed under bridges or overhead highway crossings nor in or along side of passenger sheds or stations except for loading or unloading purposes.

Notice to Crews of Cars Containing Explosives in Freight Trains or Mixed Trains

BE 589 (f). At all terminals or other places where trains are made up by crews other than road crews accompanying the outbound movement of cars, the railroad shall execute a consecutively numbered notice showing the location in the freight train or mixed train of every car placarded "Explosives." A copy of such notice shall be delivered to the train and engine crew and a copy thereof showing delivery to the train and engine crew shall be kept on file by the railroad at each point where such notice is given. At points other than terminals where train or engine crews are changed, the notice shall be transferred from crew to crew.

Continued on Page 8.

Position in Freight Train or Mixed Train of Cars Containing Explosives

BE 589 (g). In a freight train or a mixed train either standing or during transportation thereof, a car placarded "Explosives" shall, when length of train permits, be placed not nearer than the sixteenth car from both the engine or occupied caboose, except:

(1) When the length of freight train or mixed train will not permit it to be so placed, it shall be placed near the middle of the train.

(2) When transported in a freight train made up in "blocks" or classifications, a car placarded "Explosives" shall be placed near the middle of the "block" or classification in which moving, but not nearer than the sixth car from both the engine or occupied caboose.

(3) When transported in a freight train or a mixed train performing pickup and/or set off service, it shall be placed not nearer than the second car from both the engine or occupied caboose, except as provided in paragraph (1) of this section.

Separating Cars Placarded "Explosives" from Other Cars in Train

BE 589 (h). In a freight train or a mixed train either standing or during transportation thereof, a car placarded "Explosives" must not be handled next to:

1. Occupied passenger car, other than car occupied by gas handlers or military personnel accompanying shipments.
2. Occupied combination car, other than car occupied by gas handlers or military personnel accompanying shipments.
3. Any car placarded "Dangerous" or "Dangerous—Class D Poison."
4. Engine.
5. Any car placarded "Poison Gas."
6. Wooden underframe car (except on narrow gauge railroads).
7. Loaded flat car. (Note: Flat cars equipped with permanently attached ends of rigid construction shall be considered as open-top cars. See subparagraph (8) of this paragraph.)
8. Open-top car when any of the lading extends or protrudes above or beyond the ends or sides thereof.
9. Car equipped with automatic refrigeration or any other apparatus utilizing an open flame light or an internal combustion engine in its operation.
10. Car containing lighted heaters, stoves or lanterns.
11. Car loaded with live animals or fowl, occupied by an attendant.
12. Occupied caboose except as provided in paragraph (1) of this section.

Position in Train of Loaded Placarded Tank Car

BE 589 (i). In a freight train or a mixed train, except a train consisting entirely of placarded loaded tank cars and as provided in paragraph (j) of this section, a placarded loaded tank car shall when the length of the train permits, be not nearer than the sixth car from the engine, occupied caboose or passenger car.

BE 589(i). (1) When the length of the freight train or mixed train will not permit it to be so placed, it shall be not nearer than the second car from the engine, occupied caboose or passenger car.

BE 589 (i). (2) When transported in a freight train engaged in "pickup" or "setoff" service, a placarded loaded tank car shall be not nearer than the second car from both engine or occupied caboose.

Separating Loaded Tank Cars Placarded "Dangerous" from Other Cars in Train

BE 589 (j). In a freight train or mixed train either standing or during transportation thereof, a placarded loaded tank car must not be handled next to:

1. Occupied passenger car, other than gas handlers accompanying shipment.

Continued on Opposite Side.

2. Occupied combination car, other than gas handlers accompanying shipment.
3. Any car placarded "Explosives."
4. Engine (except when train consists only of placarded loaded tank cars).
5. Any car placarded "Poison Gas."
6. Wooden underframe car (except on narrow gauge railroads).
7. Loaded flat car. (Note: Flat cars equipped with permanently attached ends of rigid construction shall be considered as open-top cars. See subparagraph (8) of this paragraph.)
8. Open-top car when any of the lading extends or protrudes above or beyond the ends or sides thereof.
9. Car equipped with automatic refrigeration or any other apparatus utilizing an open flame light or an internal combustion engine in its operation.
10. Car containing lighted heaters, stoves or lanterns.
11. Car loaded with live animals or fowl, occupied by an attendant.
12. Occupied caboose (except when train consist only of placarded loaded cars).

Position in Freight Train or Mixed Train of Cars Placarded "Poison Gas" or Containing Poison Liquids Class A

BE 589 (k). In a freight train or mixed train either standing or during transportation thereof, a car placarded "Poison Gas" or containing poison liquids, Class A, shall not be next to other freight cars placarded "Explosives" or cars placarded "Dangerous."

Position in Freight Train or Mixed Train of Cars Placarded "Explosives" and "Poison Gas" or Containing Poison Liquids when Accompanied by Cars Carrying Gas Handling Crews

BE 589 (l). A car placarded "Poison Gas" or containing poison liquids Class A in drums, tanks or bombs, or a car placarded both "Explosives" and "Poison Gas" shall at all times be next to and ahead of the car occupied by gas handling crews, when accompanying such car.

BE 589 (l). (1) A car or cars placarded "Explosives" shall be next to and ahead of a car occupied by guards accompanying such car, except that when the car occupied by guards is equipped with a heater it shall be the fourth car behind the car or cars placarded "Explosives."

Cars Containing Explosives or Poison Gas and Tank Cars Placarded "Dangerous" in Passenger or Mixed Trains

BE 589 (m). Cars containing explosives, Class A, poison gases or liquids, Class A, and tank cars requiring "Dangerous" placards shall not be transported in a passenger train. Such cars may be transported in mixed trains but only at such times and between such points that freight train service is not in operation.

BE 589 (m). (1) Cars containing explosives, Class A, poison gases or liquids, Class A, and tank cars placarded "Dangerous" shall not be transported next to occupied cabooses or cars carrying passengers in mixed trains except as provided in paragraph (1) of this section.

BE 589 (m). (2) When a car containing explosives, Class B, or dangerous articles other than explosives requiring labels (not including Class A poison gases or liquids) is moved in a mixed train and such car is not occupied by an employe of the carrier, placards must be applied to the car as required by this part.

Position in Train of Cars Containing Class D Poison

BE 589 (n). In a freight train or a mixed train either standing or during transportation thereof, a car placarded "Dangerous-Class-D Poison" must not be handled next to cars placarded "Explosives" or next to carload shipments of undeveloped film.

Empty Tank Cars

Empty tank cars must not be moved from stations unless dome cover and all outlet caps have been replaced and wrenched tight, shipping tags and cards removed from car and "Dangerous" placards removed or replaced by "Dangerous-Empty" placards.

Riding Footboards of Engine

802 (S). A yardman or trainman need not ride on leading footboard of engine, as follows:

Between Salt Lake City and Sandy—main track movements between Fifth North Street and Sandy;

Between North Salt Lake and North Yard—main track movements.

Movements on Yard and Other Tracks

802 (T). Operating Rule 802 (B) applies to all movements made in the roundhouse area as well as all other portions of yards.

All engine movements in roundhouse area must stop before fouling adjacent track or lead until proceed signal is received from employe at the first switch to be used. All switch engine movements will be protected by member of ground crew; all movements made by hostlers will be protected by mechanical department employe; all road engine movements except at North Yard will be protected by member of train crew and all road engine movements at North Yard will be protected by herders.

Proceed signals must not be given for movement unless it can be seen there is no conflicting movement.

802 (U). At Salt Lake City, a red light must be displayed at both ends of a car or cut of cars left standing on Third West Street between sunset and sunrise.

802 (V). At McCammon, cross-over leading to storage track must not be left blocked with cars.

At Iron Springs, the main track must not be used in weighing cars.

At Caliente, in switching house track, cars must not be switched to nor left standing on main track.

802 (W). At Smithfield, in spotting cars between warehouses on California Packing Corporation spur, it must be seen that drawbridge between buildings is raised.

802 (X). At Provo, track located between joint U.P.-Utah Railway yard and turntable, between storehouse and engine-house, is equipped with derail. Cars, engines or other equipment must not be stored nor left standing between derail and turntable.

At Ironton, in making delivery to long interchange track, cars must be shoved into this track instead of pulled to avoid fouling D.&R.G.W. eastward main track at the south end.

Ore Trains

802 (Y). From Iron Mountain to Desert Mound ore trains must not exceed 65 cars when handled with steam locomotive, any 2 unit diesel locomotive or a 3 unit diesel locomotive with dynamic brake inoperative, and must not exceed 90 cars when handled by 3 unit diesel locomotive with dynamic brake in operation, except ore trains handled by two SD-7 road switcher units operating in multiple unit control with dynamic brake operative may handle 90 cars.

From Desert Mound to Iron Springs ore trains must not exceed 65 cars when handled with steam locomotive.

802 (Z). At Comstock, departure track must be left clear after departure of ore trains.

Switching Cars with Air Brakes Cut In

804 (R). Air brakes must be cut in and operative on all cars handled between Provo, Ironton and Geneva yards, and between Lovell and Government Ordnance area.

At Iron Mountain, when ore is handled from upper to lower yard, sufficient air brakes must be used to control movement.

At Desert Mound, when necessary to perform switching, air brakes must be fully charged and operative.

At Comstock, air brakes must be fully charged and operative on all loads switched from load tracks to departure track.

804 (S). At Salt Lake City, all yard movements from Utah Sand and Gravel Plant must have air brakes cut in and operative on all cars.

At Woods Cross, when making movements on Phillips Oil warehouse trackage, air brakes must be cut in and operative on all cars.

At Bauer, when making movements on any track with loads below the engine, air brakes must be cut in and operative or sufficient hand brakes must be set on the low end of cut to control movement of any cars which may become uncoupled.

Use of Hand Brakes

804 (T). At Iron Mountain, Desert Mound, Comstock and Iron Springs, in setting cars on any track, sufficient hand brakes must be set on low end to hold the cars but in no case less than four hand brakes per track on empties, no less than eight hand brakes per track on loads, number of cars permitting.

In addition, at Desert Mound not less than three hand brakes must be set on upper end of tracks above tipple.

At Salt Lake City, at least four hand brakes must be set on all cuts of cars left in South yard. All brakes other than power type must be set with club.

Cars must not be cut off while in motion at any time in switching on Third West Street, and when cars are left standing on this street, sufficient hand brakes must be set to hold cars.

At Jericho, in setting out cars for ore loading, hand brakes must be set on each car.

Position of Cars in Trains

807 (R). Derricks, pile drivers and rotary snow plows must be separated from the locomotive and from each other by at least three cars of not over 169,000 pounds gross weight over Malad Branch.

807 (S). All empty flat cars moving westward between Crestline and Moapa and eastward Iron Mountain to Iron Springs must be entrained near rear of train.

807 (T). Flat cars loaded with highway trucks or highway trailers must not be handled in train next to locomotive or caboose.

Helper Engines

808 (R). In helping freight train from Caliente, Carp or Lynndyl, helper engines must be placed behind caboose or last car except when train is handling cars listed in Operating Rule 807, in which case helper engine must be placed ahead of road engine.

Inspection of Trains

811 (R). Unless otherwise instructed by conductor, swing brakeman must ride head end of train and when stop is made must commence walking inspection, continuing until meeting member of crew making inspection from rear of train, and if movement starts in meantime must make roll-by inspection. Swing brakeman must thereafter return to head end at first opportunity.

811 (S). In addition to making inspection of train as often as practicable as per Operating Rule 811, freight trains handled with steam engines, or with diesel locomotives with dynamic brakes not in operation, must stop and be inspected at the following points:

Cache Jct.	—Eastward and westward;
Provo	—Eastward and westward;
Nephi	—Eastward, including any train handled by diesel engine;
Starr or Nephi	—Westward, including any train handled by diesel engine;
Faust	—Eastward;
Tintic	—Westward;
Modena or Beryl	—Eastward and westward;
Islen	—Westward;
Rox or Carp	—Eastward and westward.

Moapa turn, when handling sand and rock, must not exceed 30 MPH at any point and must stop at Dry Lake and inspect train.

Location	Track	Heaviest Engine Permitted
Salt Lake City	Spur tracks at north end of freight platform	<i>Ds. Switch Engine</i>
	Spur track on east side of Utah Ice Co. warehouse	<i>Ds. Switch Engine</i>
	Patek Soap Company spur	<i>Ds. Switch Engine</i>
	Cement plant tracks, Ninth South Street	<i>Ds. Switch Engine</i>
	Bennett Oil Company spur	<i>Ds. Switch Engine</i>
	Fisher Brewery tracks	<i>Ds. Switch Engine</i>
	Mountain States Supply Co. spur	<i>Ds. Switch Engine</i>
	Jordan Steam Plant tracks	<i>Ds. Switch Engine</i>
	Barrett Roofing Co. spur	<i>Ds. Switch Engine</i>
	Jones Coal Co. spur	<i>Ds. Switch Engine</i>
	Lundin & May Foundry spur	<i>Ds. Switch Engine</i>
	All gravel pit tracks	<i>Ds. Switch Engine</i>
	Utah Barrel & Cooperage Co. spur	<i>Ds. Switch Engine</i>
	Peerless Coal Co. trestle	None permitted
	Service Coal Co. trestle	None permitted
HiHeat Coal Co. trestle	None permitted	
North Salt Lake	All tracks west of D&RGW main track	<i>Ds. Road Engine</i>
Woods Cross	Oil tracks, all tracks inside gate	<i>Ds. Road Engine</i>
	Cannery tracks	<i>Ds. Road Engine</i>
Kaysville	Mill spur	<i>Ds. Road Engine</i>
	Cannery spur	<i>Ds. Road Engine</i>
Layton	Sugar factory	<i>Ds. Road Engine</i>
Clearfield	Syracuse Branch	<i>Ds. Road Engine</i>
	Cannery spur	<i>Ds. Road Engine</i>
	All spurs off Syracuse Branch, except Naval Depot	<i>Ds. Road Engine</i>
Harrisville	Brick plant tracks	<i>Ds. Road Engine</i>
Bushnell	Hospital spur	<i>Ds. Road Engine</i>
Brigham City	South cannery spur	<i>Ds. Road Engine</i>
	Wye track	<i>Ds. Road Engine</i>
	Gravel spur, Forest Street crossing and east stock track, west of Bridge 21.94	<i>Ds. Road Engine</i>
	Egg house track, Forest Street crossing and east	<i>Ds. Road Engine</i>
	Hoist tracks	<i>Ds. Road Engine</i>
Thorensen	Beet Spur	<i>Ds. Road Engine</i>
Marsh Valley	All tracks	<i>Ds. Road Engine</i>
McCammon	Elevator track west end of yard	<i>Ds. Road Engine</i>
Malad	End of spur where concrete slab is installed on coal spur at Oneida County Grain Growers	None permitted
<i>Bear River Branch</i>	<i>All tracks beyond M.P. 1.50</i>	<i>Ds. Switch Engine</i>
Logan	M. & L. Coal Co. trestle	None permitted
Lewiston	West end lime rock track	None permitted
Whitney	Over dump pit on highline at sugar factory	None permitted

896 (S). Snow plows, Jordan spreaders and other roadway machines must not be moved over any track until it has been definitely determined that there is adequate clearance at guard-rails, switches, bridges, buildings and other structures.

Continued on Opposite Side.

Diesel engines or steam engines heavier than the Consolidation type must not go on any beet trestle, coal trestle, or other industrial trestle.

GP-9 Diesel road engines equipped with Type F interlocking couplers must not push or back up with trains on curves in excess of 13 degrees.

896 (T). At Warner, trains or engines must not go beyond derail on stem of wye, except in emergency. When such movement is necessary, member of crew must communicate with agent at Warner if he is on duty, or with train dispatcher in other cases, who will arrange for U. S. Government yardmaster to supervise the movement.

Close Clearances

900 (S). There are close clearances above and at the side of main tracks as shown below, and in addition thereto, at platform and other structures above and at the side of industry, stock and other tracks:

Train shed and umbrella sheds at Salt Lake City passenger depot will not clear a man on top of car, nor on side of car except when standing on sill step.

Note.—Employees are prohibited from riding on top of freight or passenger cars on passenger yard tracks.

Location	Structure or Obstruction	Clearance of engine or car is close at—
At all stations	Mail Cranes	Side.
FIRST SUBDIVISION.		
Salt Lake City, M.P. 38.12	Overhead steam line	Top.
South Temple Street	Viaduct	Top.
Passenger depot	Train shed and umbrella sheds (See note above.)	Side and top.
North Temple Street	Viaduct	Side and top.
North Salt Lake, M.P. 31.01	Dwarf signal	Side.
M.P. 30.90	Dwarf signal	Side.
Farmington	Water column	Side.
M.P. 11.57	Overhead highway crossing	Side and top.
M.P. 8.73	Overhead highway crossing	Top.
M.P. 1.99	Overhead pipeline	Side and top.
M.P. 1.88	Overhead highway crossing	Top.
M.P. 1.39	Switch stand east end cross-over	Side.
M.P. 1.08	Through plate girder bridge	Side.
Ogden	Union depot sheds (See note above.)	Side.
Ogden	Water column, east slip switch	Side.
Ogden, M.P. 0.14	24th St. viaduct	Side and top.
Hot Springs	Overhead highway crossing	Top.
Brigham City	Water tank spout	Side and top.
Brigham City	Water column	Side.
M.P. 45.20	Tunnel	Side and top.
M.P. 45.30	Rock cut	Side.
M.P. 46.02	Rock cut	Side.
M.P. 46.12	Rock cut	Side.
Cache Jct.	Coal chute	Side and top.
Cache Jct.	Water column	Side.
Clifton	Water column	Side.
Swan Lake	Water tank spout	Side and top.
Downey	Water tank spout	Side and top.
Downey	Water column	Side.
McCammon	Water column	Side.
MALAD BRANCH.		
Garland	Water tank spout	Side and top.
Woodruff	Platform	Side.
Malad	Water tank spout	Side and top.
BEAR RIVER BRANCH.		
M.P. 1.52	Bridge	Side.

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900 (S). Continued.

Location	Structure or Obstruction	Clearance of engine or car is close at—
CACHE VALLEY BRANCH.		
Wellsville	Water tank spout	Side and top.
Logan	Water column	Side.
Logan	Shed, passenger depot platform	Side.
Richmond	Water tank spout	Side and top.
Preston	Water column	Side.
Preston	Stockyard platform	Side.
Preston	Oil Co. pumphouse	Side.
Preston	Beet loading trestles	Side.
Preston	Preston Milling Co.	Side.
SECOND SUBDIVISION.		
Garfield	Overhead highway crossing	Top.
Lake Point	Overhead highway crossing	Top.
Erda	Water column	Side.
M.P. 751.27	Overhead highway crossing	Top.
Warner	W.P. overhead crossing	Top.
Stockton	Water column	Side.
Faust	Water column	Side.
Lofgreen	Water column	Side.
Tintic	Water tank spout	Side and top.
Tintic	Water and oil columns	Side.
Jericho	Water tank spout	Side.
Lynndyl	Two water columns	Side.
Delta	Water column	Side.
M.P. 601.13	Bridge	Side.
Black Rock	Water column	Side.
Milford	Two water columns	Side.
THIRD SUBDIVISION.		
Lund	Water column	Side.
M.P. 527.60	Bridge	Side.
Beryl	Water tank spout	Side.
Modena	Water columns	Side and top.
Acoma	Water column	Side.
Big Springs	Water column	Side and top.
M.P. 471.74	Bridge	Side.
M.P. 471.46	Bridge	Side.
M.P. 471.28	Bridge	Side.
M.P. 470.91	Bridge	Side.
M.P. 469.95	Bridge	Side.
M.P. 469.33	Bridge	Side.
M.P. 469.07	Bridge	Side.
M.P. 468.06	Bridge	Side.
Caliente	Water and oil columns	Side.
M.P. 458.56	Bridge	Side.
M.P. 447.89	Bridge	Side.
M.P. 444.56	Bridge	Side.
Elgin	Water column	Side.
M.P. 437.22	Bridge	Side.
M.P. 433.47	Bridge	Side.
M.P. 431.82	Bridge	Side.
M.P. 430.68	Bridge	Side.
M.P. 419.30	Bridge	Side.
Carp	Water column	Side.
M.P. 414.11	Bridge	Side.
M.P. 409.25	Signal poles	Side.
M.P. 409.16	Bridge	Side.
M.P. 408.97	Bridge	Side.
M.P. 407.09	Bridge	Side.
M.P. 406.55	Bridge	Side.
Rox	Water column	Side.
M.P. 397.32	Bridge	Side.
M.P. 397.04	Bridge	Side.
M.P. 395.42	Bridge	Side.
Moapa	Water column	Side.
Dry Lake	Water column	Side.
PROVO SUBDIVISION.		
Pallas	Water tank spout	Side and top.
Midvale spur	D&RGW overhead crossing	Side and top.
Draper	Water column	Side.
Cutler	Water tank spout	Side and top.
M.P. 754.42	Bridge	Side.

Continued on Opposite Side.

900 (S). Continued.

Location	Structure or Obstruction	Clearance of engine or car is close at—
Provo	Water tank spout	Side and top.
Payson	Water tank spout	Side and top.
M.P. 735.76	D&RGW overhead crossing	Side and top.
Santaquin	Overhead highway crossing	Top.
Starr	Water tank spout	Side and top.
Mills	Water column	Side.
CEDAR CITY BRANCH.		
Iron Springs	Water tank spout	Side and top.
M.P. 22.51	Kaiser ore tipple	Side and top.
Cedar City	Water column	Side.
IRON MOUNTAIN BRANCH.		
Iron Mountain	All ore tipples	Side and top.
PIOCHE BRANCH.		
M.P. 0.68	Bridge	Side.
PRINCE BRANCH.		
Caseton	All ore tipples	Side and top.
Prince	Ore bin	Side and top.
MEAD LAKE BRANCH.		
M.P. 7.75	Cut	Side.

High and Wide Cars and Loads

900 (U). Chief Engineer's drawing 80300 is posted in yard offices and engineer's rooms.

This drawing provides information with respect to maximum heights and width of eastbound loads that will not clear Aspen Tunnel but can be handled with advance notice to General Superintendent Transportation for routing via McCammon and Granger.

The maximum published width of 12 feet is the maximum width of load that can be handled without restrictions, between above points and is limited by wide loads or equipment on adjacent tracks, based on maximum track centers of 13 feet. Twelve feet 6 inches is the maximum width of load that can be moved with special handling between the limiting heights as given in the tabulations on the drawing. Advance approval of General Superintendent Transportation must be obtained for the movement of any shipment having an effective width in excess of 12 feet in order that protection can be arranged for other shipments exceeding 12 feet in width that may be moving in the same territory.

In all cases the measurements are based on symmetrical loads being exactly centered on car (not over 43 feet center to center of trucks) and it is important to know that loads are so centered. The effective width of an eccentric load is double the maximum extension of the load from the center of the car at any given height above the top of rail.

Air Brakes

1000 (R). Changes have been made in Rules and Instructions Governing Operation of Air Brakes, Forms 7170 and 7172:

Definition—Initial Terminals are terminals at which a train is made up; a terminal at which the locomotive or consist of train is changed, or a terminal at which a train is received from a foreign line.

If the locomotive is equipped with pressure maintaining feature, it is mandatory by AAR-ICC rules that this feature is in operation while terminal test of train brakes is made.

Air brake tests may be made on freight trains when the air brake system is charged to within 10 pounds of standard pressure for that train, as indicated by an accurate gauge connected to brake pipe at rear end of train. All other requirements of Rules 1021, 1025 and 1230 (K) remain unchanged, except as follows:

Rules 1025 and 1230 (K): Procedure for making Initial Terminal Tests of Air Brakes with pressure maintaining cut in, if locomotives is so equipped, will be as follows:

Continued on Page 13.

1000 (R). Continued.

Upon receipt of proper request or signal to apply brakes for test, make a 15-pound brake pipe reduction from pressure indicated by locomotive gauge, then after 8 to 10 seconds make a further reduction of 10 pounds and sound locomotive whistle to indicate brakes are applied for test.

During time inspection of train brakes is being made, equalizing reservoir gauge must be carefully observed to detect any increase in this pressure. If any increase is noted, it must be promptly reduced by momentarily placing handle of brake valve in service position to reduce this pressure to the level of the reduction made. It may be necessary to repeat this movement of brake valve handle a few times to hold the equalizing reservoir pressure constant. During terminal test this is important as any slight increase in equalizing reservoir pressure may cause one or more brakes to release.

When signal is given by inspector to release brakes, "First Service" cutout cock must be placed in "Out" position and brake pipe leakage checked for one minute. If leakage does not exceed 5 pounds, "First Service" cutout cock must be placed in "In" position, then give two long sounds of locomotive whistle and release brakes.

Rule 1026 (A): When a freight train has been tested from a yard charging plant, and after locomotive equipped for pressure maintaining has been attached and air brake systems recharged, procedure for testing brakes will be as follows:

With pressure maintaining cut in, make a 15-pound brake pipe reduction from pressure indicated by locomotive gauge, then after 8 to 10 seconds make a further reduction of 10 pounds and give one long sound of locomotive whistle. Inspectors must see that brakes are applied on each car, and if so, release signal must be given for engineman to release brakes, then each brake must be inspected to see that all have released.

Rules 1230 (D) and 1230 (F): Streamline trains at Cheyenne, Green River, Ogden, Pocatello, Ellis and Las Vegas, test of train air brakes must be made as prescribed by currently effective Rule 1230 (D). At all other terminals, except initial terminals where engine crew or train crew only is changed, test of train air brakes must be made as prescribed by revised Rule 1230 (F) as follows:

After train has stopped, incoming engineman must make a 20-pound brake application as indicated by brake cylinder gauge if electro-pneumatic brakes are being used, or a 20-pound brake pipe reduction if automatic brakes are being used. Inspection of brakes must then be made starting from rear end of train to determine if brakes are applied on each car, and if so, upon reaching head end of train, inspector must inform outbound engineman who will then release brakes. Upon proceeding, roll-by inspection must be made by inspector to determine that all brakes have released. All other requirements of present Rule 1230 (F) not conflicting with the above remain unchanged. Standing inspection must be expedited all possible while crews are being changed to avoid unnecessary delay.

1006 (R). Standard brake pipe pressure for freight and mixed trains is 90 pounds.

1030 (R). Where Sperry rail-detector car is working when temperature is below freezing, trains, engines and track cars must be operated at a safe speed, using sand where necessary to overcome slippery condition caused by calcium chloride solution by rail car.

1035 (R). On passenger trains, running air test as required by Air Brake Rules 1035 and 1235 must be made at the following point:

Crestline—Eastward and westward.

1036 (R). To prevent undesired emergency brake applications, engineers should be governed by the following in making the initial brake pipe reduction of 6 to 8 pounds when braking conventional passenger trains in accordance with Air Brake Rules 1036, 1036 (A), 1036 (B) and 1036 (C) when handled by steam locomotives, and Air Brake Rules 1239 (B) and 1239 (C) when handled by diesel locomotives:

"When applying brakes for making ordinary slow-downs or stops, the air gauge must be observed for

Continued on Opposite Side.

1036 (R). Continued.

measuring reductions and the initial reduction should be 6 from 70, 7 from 90 and 8 from 110 pounds as indicated by equalizing reservoir gauge."

1041 (R). Where helper engine is cut out of rear of train, brake pipe test as required by Air Brake Rule 1041 must be made before leaving station where helper engine was cut out.

1041 (S). Unless otherwise provided, air brake test as required by Air Brake Rule 1041 must be made by all freight trains at following points:

Mount
Boulter
Tintic

Eastward and westward when angle cock has been turned or air hose separated.

Crestline —Westward when angle cock has been turned or air hose separated.

1042 (R). Between Crestline and Leith, westward freight trains handled with steam engine or diesel locomotive with dynamic brake not in operation will use retaining valves as follows:

Trains averaging 65 tons or more per brake will use one-half of retaining valves, alternating on cars throughout the train between Crestline and Islen, and between Etna and Leith, and must stop at Acoma and Elgin for inspection and cooling wheels, and will use all retaining valves Islen to Minto.

Trains averaging 51 tons or more per brake will use not less than 25 retaining valves on head end Islen to Minto.

Trains averaging 50 tons or less per brake will use not less than 25 retaining valves on head end, Islen to Minto, if in judgment of conductor and engineer their use is necessary.

1042 (S). Between Crestline and Minto, westward freight trains handled with diesel locomotive, consisting of 3 or more power units with dynamic brake in operation, may be handled without using retaining valves under the following conditions:

- Dynamic brake must be placed in service and tested for proper operation between M.P. 493.6 and M.P. 492.
- During dynamic brake operation fireman must make frequent inspections to determine if dynamic brake is properly operating on each power unit and report results of each inspection to engineer.
- Retaining valves will be used when in the judgment of the engineer or conductor use thereof is necessary.
- If dynamic brake is inoperative on any one power unit of locomotive, dynamic brake must not be used and retaining valves must be used as prescribed by Special Rule 1042 (R).
- If while using dynamic brake it becomes inoperative on one or more power units of locomotive, train must be immediately stopped and retaining valves placed in use as prescribed by Special Rule 1042 (R) before proceeding.
- Conductor must advise engineer number of cars, total tonnage, average tons per operative brake and location of loads and empties in train.

Westward freight trains handled with diesel locomotive consisting of less than 3 power units must use retaining valves as prescribed by Special Rule 1042 (R) except trains handled by two SD-7 type road switcher units with dynamic brake operative.

1042 (T). Retaining valves must be used on all trains as required by Air Brake Rule 1042 (B), as follows:

- Pioche to M.P. 30;
- M.P. 27 to M.P. 22, Pioche Branch;
- Prince to Prince Junction;
- Silver City to Tintic;
- Eureka to Tintic;
- Mammoth Mine to Tintic;

Iron Mountain to Iron Springs—Duplex retaining valves must be placed in full retaining position on loads and in light holding position on empties. Retaining valves must not be

Continued on Page 14.

1042 (T). Continued.

turned down until train reaches extension track at Iron Springs. Trains handling empties from Iron Mountain to Comstock must use retainers in light holding position.

EXCEPTION: Desert Mound to Iron Springs — 50% of retaining valves in train must be placed in full retaining position, same to be used on head end.

On other grades, conductor and engineer will see that as many retaining valves are used as necessary to control train.

When retaining valves are in use, speed of 20 MPH must not be exceeded.

1043 (R). The following will govern in the handling of trains on descending grades from Mammoth Mine, Eureka, Mammoth Junction and Silver City to Tintic:

Before descending grades, retaining valves on cars must be tested as prescribed by Air Brake Rule 1042 (A), and brake cylinder piston travel must be adjusted if necessary as prescribed by Air Brake Rule 1023.

It must be known before descending grades that brakes on all cars are properly operating and that retaining valves on all cars are in full retaining position.

Speed on descending grades must not exceed 6 MPH at any point.

Maximum number of cars per train to be handled on descending grades must not exceed the following:

From	To	No. Cars
Mammoth Mine	Mammoth	3
Mammoth	Mammoth Jct.	10
Eureka, Mammoth Jct. and Silver City	Tintic	16

1044 (R). Air Brake Rule 1044 is changed as follows:

When an emergency exists and it is necessary to use engine whistle to call for brakes to be applied on moving train or cars or when necessary to use engine whistle to signal some other movement to stop, a succession of short sounds must be used.

- (1) Conductor must advise engineer number of cars, total tonnage, average tons per operative brake and location of loads and empties in train.
- (2) While using dynamic brake it becomes imperative on one or more power units of locomotive train must be fully retarding and retaining valves placed in the position prescribed by Special Rule 1042 (R) before proceeding.
- (3) Retaining valves will be used when in the judgment of the engineer or conductor are desired if necessary.
- (4) If dynamic brake is inoperative on any one power unit of locomotive, dynamic brake must not be used and retaining valves must be used as prescribed by Special Rule 1042 (R).
- (5) Retaining valves will be used when in the judgment of the engineer or conductor are desired if necessary.

Westward freight trains handled with diesel locomotive consisting of less than 3 power units must use retaining valves as prescribed by Special Rule 1042 (R) except trains handled by two SD-7 type road switcher units with dynamic brake equipped.

1042 (T). Retaining valves must be used on all trains as required by Air Brake Rule 1042 (E), as follows:

- Phoenix to M.P. 30;
- M.P. 37 to M.P. 52, Phoenix Branch;
- Phoenix to Paines Junction;
- Silver City to Tintic;
- Eureka to Tintic;
- Mammoth Mine to Tintic;
- Iron Mountain to Iron Springs—When retaining valves must be placed in full retaining position on loads and in light holding position on empties—Retaining valves must not be used on empty cars.

Continued on Page 14.

1042 (R). Continued.

Upon receipt of proper request or signal to apply brakes for full service, a 15 pound brake pipe reduction from pressure indicated by locomotive gauge, then after 2 to 10 seconds make a further reduction of 10 pounds and sound locomotive whistle to indicate full service to be applied for full service.

During the application of train brakes, the engineer must observe the position of the pistons in the cylinders of the cars. If any pistons are noted to be in the light holding position, the engineer must immediately apply full service brakes. It may be necessary to repeat this movement of the pistons a few times to hold the expanding reservoir pressure constant. During this time it is important to note that increase in expanding reservoir pressure may cause the pistons to return to the light holding position.

When signal is given by inspector to release brakes, "Service" whistle must be blown in "Out" position and brake pipe leakage checked for one minute. If leakage does not exceed 2 pounds, "Full Service" must not be placed in "In" position. If leakage exceeds 2 pounds, the long sounds of locomotive whistle must be sounded.

1042 (A). When a freight train has been tested from a yard manager plant or other locomotive equipped for pressure maintaining, the following procedure will be followed:

With pressure maintaining out, make a 15-pound brake pipe reduction from pressure indicated by locomotive gauge. Then after 2 to 10 seconds make a further reduction of 10 pounds and give one long sound of locomotive whistle. Inspectors must see that pistons are in light holding position and that valves are closed for expansion to release brakes. When each piston is inspected to see that all are released, the 15-pound brake pipe reduction must be made.

At all other terminals except initial terminals where engine or train crew only is changed, test of train brakes must be made as prescribed by Special Rule 1042 (R) as follows:

1. If train has stopped, engineer must make a 15-pound brake pipe reduction from pressure indicated by brake cylinder gauge. If active-pressure brakes are being used, or a 30-pound brake pipe reduction if automatic brakes are being used, inspection of pistons must be made starting from rear end of train to determine if pistons are closed on each car, and if so, expansion must be held for 10 minutes. If inspection and holding expansion are not held, then release brakes. Upon proceeding, full service must be made by locomotive to determine that full service is obtained. All other requirements of Special Rule 1042 (R) not conflicting with the above remain unchanged.

1042 (H). Standard brake pipe pressure for freight and mixed trains is 90 pounds.

1030 (E). Where heavy rail detector car is working when temperature is below freezing, train, engine and truck cars must be operated at a safe speed being said where necessary to overcome slippery condition caused by certain chloride solution by rail cars.

1025 (E). When passenger trains running west as required by Air Brake Rule 1025 and 1026 must be made at the following points: Eastward and westward, Phoenix and Silver City.

1026 (R). To prevent undetected emergency brake application, engineers should be governed by the following in making the initial brake pipe reduction of 6 to 8 pounds when handling conventional passenger trains in accordance with Air Brake Rules 1026 (A), 1026 (B) and 1026 (C) when handled by steam locomotives, and Air Brake Rules 1026 (B) and 1026 (C) when handled by diesel locomotives.

When applying brakes for making ordinary slow down or stop, the air gauge must be observed for

Continued on Opposite Side.

RATING OF DIESEL LOCOMOTIVES IN FREIGHT SERVICE IN TONS OF 2,000 POUNDS

Total weight of trains, exclusive of locomotives, which the different classes of locomotives will haul in each direction between stations named, under favorable weather conditions.

Type	Numbers (Inclusive)	H.P.	No. Units	Salt Lake City to Ogden	Ogden to McCammon	McCammon to Ogden	Ogden to Salt Lake City	Salt Lake City to Lake Point	Lake Point to Tintic	Tintic to Lynndyl	Lynndyl to Milford	Milford to Lund	Lund to Uvada	Uvada to Crestline	Crestline to Moapa	Moapa to Las Vegas	Salt Lake City to Mount	Mount to Payson	Payson to Sharp	Sharp to Lynndyl
EMD	1000-1095	Yd. Sw 1000	1	1400	1050	1050	1400	2200	1050	2200	1600	1800	1800	890	1500	890	890	1150	890	1150
ALCO	1180-1190	Rd. Sw 1500	1	2100	1500	1500	2100	2600	1775	2700	2000	2500	1800	1475	1800	1475	1475	1800	1475	1800
EMD GP-7	100-129	Rd. Sw 1500	1	2500	2200	2200	2500	3410	1985	4100	2500	2900	2400	1675	3600	1675	1675	2000	1675	2000
EMD SD-7	775-784	Rd. Sw 1500 (6 motors)	1	3810	3300	3300	3810	4500	3100	5500	3900	4450	4350	2560	4500	2560	2560	3000	2560	3000
EMD GP-9	180-209	Rd. Sw 1750	1	3050	2785	2785	3050	4010	2225	4700	2875	3335	2760	1875	4250	1875	1875	2300	1875	2300
EMD	1400-1497	Frts. 1500	1	2500	2200	2200	2500	3410	1935	4100	2500	2900	2400	1675	3600	1675	1675	2000	1675	2000
EMD	1870-1877	Rd. Sw 2400	2	4720	3800	3800	4720	6220	3270	7300	4290	4920	4620	2810	6590	2890	2890	3050	2890	3050

Note: Diesel switch locomotives and single unit diesel locomotives with one air compressor are restricted in road service to a maximum of 45 cars on descending grades of one percent and over.

Note: Rating of 1870-1877 class between Provo and Geneva is 7000 tons.

Type	Numbers (Inclusive)	H.P.	No. Units	Las Vegas to Leith	Leith to Caliente	Caliente to Islen	Islen to Crestline	Crestline to Milford	Milford to Lynndyl	Lynndyl to Boulter	Boulter to Bauer	Bauer to Salt Lake City	Lynndyl to York	York to Cutler	Cutler to Mount	Mount to Salt Lake City
EMD	1000-1095	Yd. Sw 1000	1	890	800	525	850	2200	1200	1050	1600	2000	975	1150	900	1170
ALCO	1180-1190	Yd. Sw 1500	1	1475	1100	775	1200	2700	2000	1775	2500	2500	1650	1800	1750	1900
EMD GP-7	100-129	Rd. Sw 1500	1	1675	1150	850	1200	4500	2500	1935	2500	3600	2125	2400	1500	2500
EMD SD-7	775-784	Rd. Sw 1500 (6 motors)	1	2560	2100	1350	2200	6000	3900	3100	4050	5000	3000	3600	2850	3900
EMD GP-9	180-209	Rd. Sw 1750	1	1875	1320	975	1380	5175	2875	2225	2875	4250	2300	2760	1725	2875
EMD	1400-1497	Frts. 1500	1	1675	1150	850	1200	4500	2500	1935	2500	3600	2125	2400	1500	2500
EMD	1870-1877	Rd. Sw 2400	2	2890	2220	1430	2370	6110	4290	3270	4280	6590	3050	3800	3080	4650

Note: Rating shown is for single unit. If more than one unit, rating of combined units will govern.

RATING OF STEAM LOCOMOTIVES IN FREIGHT SERVICE IN TONS OF 2,000 POUNDS

Total weight of trains, exclusive of locomotive and tender, which the different classes of locomotives will haul in each direction between stations named, under favorable weather conditions. A deduction of ten per cent may be made for fast trains.

Type of Locomotive		Numbers (Inclusive)	Salt Lake City to Ogden	Ogden to McCammon	McCammon to Ogden	Ogden to Salt Lake City
C 57	22	190	2610	2060	2060	2610
	30	191				
MacA 57	28 1/2	206	3000	2400	2400	3000
	30	210				
MacA 63	26	214	3200	2525	2525	3200
	28	216				
MacA 63	26	220	3300	2600	2600	3300
	30	220				
MacA 63	26	228	3230	2550	2550	3230
	28	228				
SA-C 59	23-23	475D	5000	4740	4740	5000
	30	475D				
CSA 69	22-22	400	5000	4600	4600	5000
	32	394				
	32	407				
4-6-6-4 69	3	21-21	5000	4600	4600	5000
	4	404				
	5	406				
TTT 63	29 1/2	290	4250	3850	3350	4250
	30	311				
UP 67	27	368	5000	4600	4600	5000
	31-32	372				

EXPLANATION
 C Consolidation
 MacA MacArthur
 TTT 2-10-2
 UP 4-12-2
 C-SA Challenger
 SA-C Mallet SA
 UP 4-6-6-4
 FEF 4-8-4

EXAMPLE: Consolidation locomotive having 57-inch drivers, cylinders 22-inch diameter and 80-inch stroke and weighing 191,000 pounds on drivers.

22
 C 57 — 191
 30