

UNION PACIFIC RAILROAD COMPANY
SOUTH-CENTRAL DISTRICT

Utah Division

Special Rules
No. 11

Effective Saturday,
March 1, 1952

Superseding Special Rules No. 10

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

D. F. WENGERT,
 General Superintendent

W. B. GROOME,
 Superintendent

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them while on duty.

D. F. WENBERT
A. G. HANSON
W. E. GEORGE

Railroad Watches

2 (R). Operating Rules 2, 2(A) and 2(B) are cancelled.
Employees listed below must, while on duty, have a reliable railroad grade watch* which must not vary more than 30 seconds from correct time.

(*A railroad grade watch is one equipped with a lever set.)

Safety Representatives	Flagmen
Trainmasters	Firemen
Assistant Trainmasters	Hostlers
Traveling Conductors	Outside Hostlers Helpers
Road Foreman of Engines	Yardmasters
Traveling Firemen	Assistant Yardmasters
†Station Agents	Engine Foremen
†Operators	Switchtenders
Conductors	Engine Herders
Engineers	Such other employes as
Brakemen	may be designated

(†Except when assigned in offices where standard clock is located.)

2 (S). Officers and employes must not make solicitation in connection with the sale of watches.

2 (T). Employees must present their watches to officers and supervisors upon request.

3 (R). Salt Lake City yard will be operated under Mountain Standard Time, except that watches of yard crews making movements on train order authority outside of yard limits on Provo Subdivision must be set to Pacific Standard Time.

Signals

7 (R). Conductors and engineers of trains or engines which operate in territory where they are governed by the rules of another railroad must know that they have equipment necessary to enable them to fully comply with such rules.

7 (S). When starting trains with Diesel-electric helper on rear end of train, trainmen will be stationed in a position to relay signals to start from head end to crew on helper engine.

When it is not possible to relay signals, the following method will be used:

When ready to move, engineer on head end will make a 15-pound automatic brake pipe reduction, return brake valve to running position and wait three minutes. Engineer on helper engine will start three minutes after his gauge shows brake pipe pressure being restored.

8 (R). Yellow flags by day and yellow lights by night will be used by switchtenders and herders.

Proceed signals as well as stop signals given by switchtenders must be answered.

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

Reduce and Resume Speed Signs

10 (R). Operating Rule 10 (H) is changed to read:
"Reduce Speed sign showing by figures the maximum speed permitted, placed on engineer's side of track, indicates that the track 2500 feet distant is in condition for a speed of not more than indicated by the sign. Example: 60-40-25 will indicate maximum speed of 60 MPH for streamline trains, 40 MPH for DE-Psgr. and Psgr. trains, 25 MPH for freight trains.

Resume Speed sign placed on engineer's side of track, indicates that the Reduce Speed location has been passed.

The entire train must pass over the designated location at the specified speed.

Such speed restrictions will also be shown in time-table or superintendent's bulletin."

10 (S). Operating Rule 10 (G) is changed as follows:
Yellow signals will be placed one and one-fourth miles instead of one mile from the beginning of the slow track.

Headlights

17 (R). The following will govern use of oscillating red headlight:

When train becomes disabled or makes sudden stop due to unusual occurrence, or when an adjacent track is obstructed or there is possibility of it being obstructed, if red headlight is not set in motion automatically, engineer must immediately set it in motion by manual operation.

A train on adjacent track must stop before passing headlight and be governed by Operating Rule 102.

When head end protection is required, engineer will immediately display red headlight. When occupying main track in meeting an opposing train, except in CTC territory, red headlight will be displayed until opposing train dims its headlight in accordance with Operating Rule 17 (B), after which, if switch is lined to permit opposing train to enter siding, red headlight will be extinguished.

Engineer finding red headlight displayed by opposing train, must stop before passing headlight, ascertain the cause and be governed by conditions.

Display of red headlight does not relieve enginemen nor trainmen from protecting front of train in accordance with Operating Rule 99, when required.

If red headlight has been set in motion automatically and necessity no longer exists, engineer must extinguish it.

When standing at terminals and red headlight is not required it must be extinguished.

17 (S). Operating Rule 17 (C) is cancelled.

First sentence of Operating Rule 17 is changed to read: "Headlight must be displayed, burning bright, to the front of every train by day and night."

17 (T). Operating Rule 17 (D) is changed to read:

"At night, when an engine is backing up without cars or backing up pulling cars, a white light must be displayed on rear of engine.

When a road engine without cars is standing or moving about yards at night under conditions not requiring the display of markers, a light must be displayed on rear of engine. A red light must be used when engine is so equipped."

17 (U). At night, oscillating white headlight must be set in motion passing through cities and towns and approaching and passing over public crossings at grade.

Markers and Rear End Lights

19 (R). Oscillating red rear end light on passenger trains will be used as a night signal in accordance with Operating Rule 9 and must be displayed from sunset to sunrise and when day signals cannot be seen due to weather or other conditions. Also at any time train is moving under circumstances in which it may be overtaken by another train.

Red rear end light must be extinguished when train is clear of main track and rear end protection is not required.

The displaying and extinguishing of red rear end light must be done by trainman.

Display of red rear end light does not relieve trainmen nor enginemen from complying with Operating Rule 99 nor any other rule.

19 (S). Operating Rule 19 (C) is cancelled.

When the rear car in a train is not equipped to display prescribed markers, a red flag by day and a red light by night must be displayed on rear end of rear car, except that when a red light is not available, a marker lamp displaying red light to rear must be wired or otherwise securely fastened to rear end of rear car.

19 (T). Between Salt Lake City and Las Vegas, markers displaying yellow instead of green lights as prescribed in Operating Rule 19 (B) will be used.

Classification Signals

21 (R). When a train is equipped with indicators, white flags will not be displayed by extra trains.

Indicators

24 (R). Referring to Operating Rule 24: On subdivisions where Centralized Traffic Control operation is in effect, helper engines added to or cut off trains between terminals will display engine number instead of train number in indicators.

Switch Lights

27 (R). At stations where reflectorized type switch lamps are in use, in case of headlight failure, or engine backing up, trains and engines must approach facing point switches at restricted speed.

27 (S). 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.

Stopping Trains at Stations

28 (R). A green and white signal will be used to stop designated trains at conditional stops shown in time-table.

28 (S). When necessary to stop a train at a station for any cause other than for flag or conditional stop, a lighted red fusee must be used.

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). Information required by Operating Rule S-83 need not be obtained by trains entering CTC territory.

83 (S). 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 (T). 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 (U). 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 by registering ticket. 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). Where Operating Rule 251 is in effect, Operating Rule 86 is modified as follows:

When instructed by train dispatcher to clear a train or trains, the following will govern:

The time of Nos. 103 and 104 must be cleared not less than five minutes by first-class trains and not less than fifteen minutes by second-class, extra trains and yard engines; the time of other first-class trains must be cleared not less than ten minutes by second-class, extra trains and yard engines, except westward second-class and extra trains must clear the time of first-class trains 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, 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. Caboose of 3700 and 3800 class must not be moved under umbrella sheds on track 9.

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

93 (T). While using D. & R. G. W. tracks, employees 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 4-D: 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 4-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 (U). At Garfield, American Smelter & Refining Company yard commences at a point 250 feet west of first switch leading into smelter from Union Pacific highline extending from Lake Point. Trains and engines using these tracks will be governed by D. & R. G. W. Rule 93.

93 (V). 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 otherwise provided, all trains must receive clearance at: Ogden Brigham City Cache Jct. Provo Caliente

96 (S). 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. (M.P. 36.5, Freight Line)	D. & R.G.W.	U.P.	U.P. trains do not stop. D. & R.G.W. trains stop and flag crossing.
Salt Lake City. (First South and Tenth West Streets, Fisher Brewery track)	W.P.	W.P.	Special Rule 98 (V).
Salt Lake City. (Between South Temple and First South Street on Fourth West Street)	D. & R.G.W.		Operating Rule 609.
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)	D. & R.G.W.	U.P.	Cabin 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.	2 tracks	Automatic interlocking with movable point frogs. Special Rule 98 (W).
Ironton. (M.P. 0.67)	D. & R.G.W.		Interlocking. Special Rule 98 (X) and Operating Rule 609.
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 signalman at Ninth South Street 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. Signalman must be notified when work has been completed.

On Fisher Brewery Spur, crews will be governed by Operating Rule 98 (A), and in addition, during foggy and stormy weather flag protection must be provided in both directions on the W. 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 electric 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.

98 (X). At Ironton, interlocking signal governing movements from Columbia Steel Plant is located on left side of track. Upper arm governs movements to U. P. yard at Provo; lower arm governs movements to D. & R. G. W. westward main track.

One long sound of engine whistle must be used by U. P. engines when calling for signal.

Flag Protection

99 (R). Flagman, in placing torpedoes as required by Operating Rule 99, must place second set of torpedoes one and one-half miles instead of one and one-fourth miles from rear of train.

Last paragraph of Operating Rule 99 is changed to read: "Night signals—A white light, not less than ten torpedoes and six red fusees."

At night and during foggy and stormy weather, a lighted red fusee will be used for hand signals required by Operating Rule 99.

99 (S). Operating, M. of W. and Signal Rule 99 (F) is changed as follows:

Employee alone, who finds track or bridge unsafe for trains at normal speed, in placing torpedoes as required by Rule 99 (F), must place second set of torpedoes one and one-half miles instead of one and one-fourth miles from red flag or red light.

99 (T). 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
Fairfield	Mead Lake
Fillmore	

99 (U). On Fairfield, 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 tracks 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 (V). There must be a trainman at rear of train while standing at Crestline.

Dead Steam Engines

101 (R). In handling dead Steam engine, it must be placed 12 cars behind the road engine, and if a second dead engine is in the train, the second dead engine should be 25 cars behind the road engine. In handling three dead engines in train, 15 cars must be placed between each engine.

Cars or Train Left Behind

102 (R). In complying with Operating Rule 102 (B), if no light is available to be placed on front end of cars left behind, a trainman must remain at front end of such cars to signal engineer when returning.

Riding on Ends of Engines

103 (R). When Diesel-electric locomotive is used, a yardman or trainman may ride on side steps or platform in direction locomotive is moving instead of on leading footboard.

103 (S). Where reference is made in rules to rear of tender of engines, this requirement will also apply to rear end of Diesel-electric locomotives.

103 (T). 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.

Public Crossings

103 (U). At public crossing protected by crossing watchman and crossing gates, yard crews must know gates are down and crossing protected before making movement over the crossing with engine or car; otherwise crossing must be protected by member of crew.

103 (V). The following instructions apply at public crossings protected by automatic crossing signals or automatic crossing gates where a crossing watchman is not on duty:

When the rear of a train, engine or yard movement has passed over such crossing and a back-up movement onto or over the crossing is then to be made, or, when a switching or engine movement is to be made against the current of traffic over such crossing, the crossing must be protected by a member of the crew as provided in Operating Rule 103 (B) or 103 (C).

103 (W). 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 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 recoupled until switchtender at Cecil Jct. advises train may enter yard and Signal 18 or 16 permits train to proceed to Cecil Jct.

103 (X). All trains and engines must stop and be preceded by flagman over the following public crossings:

- | | |
|------------------------|---|
| Corinne | —Main highway crossing on hole track; |
| Bushnell Hospital Spur | —Highway 91; |
| Fairfield Branch | —Main highway crossing just west of Cutler; |
| Lehi | —Main highway crossing on Sugar Factory spur; |
| Pleasant Grove | —Main highway crossing on Wasatch Oil spur; |
| Hardy | —Main highway crossing on beet spur; |
| Bunker | —Main highway crossing on spur track; |
| Nephi | —Main street on Plaster Mill spur; |
| Eureka | —Highway 6; |
| Arrolime Spur | —Highway 91; |
| Nellis Spur | —Highway 91. |

Switches

104 (R). No. 14 turnouts are installed at all power operated switches in CTC territory.

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; |
| Lynnndyl | —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 west leg of wye; |
| Cedar City | —Switch 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. |

Movements Controlled by Switchtenders

104 (T). 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.

Continued on Page 7.

104 (T). Continued.

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 first ascertain from Ninth South towerman that there are no eastward train movements on that track and must receive assurance that all eastward trains will be held at Ninth South Tower until Second South switchtender advises interchange movement is completed.

At Salt Lake City, trains and engines must not foul cross-over 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 (U). 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 head through cross-over near First North Street to Pedro No. 3, stopping on straight track to clear Fourth North Street cross-over, unless proceed signal is received from Fifth North switchtender.

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

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

- | | |
|--|---------|
| Roundhouse to passenger depot | o — |
| Roundhouse to Thirteenth North Street | o o o o |
| Round house to east or west lead, Fifth North Street | — |

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

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

Eastward trains approaching Seventeenth North Street 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 Street may accept proceed signal from switchtender as authority to make this move.

104 (W). 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.

Continued Opposite Side.

105 (R). Continued.

At Cache Jct., westward siding is east of coal chute and eastward siding is west of the coal chute.

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.

Movements Against Current of Traffic

D-151 (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.

Speed Restrictions

152 (R). That part of last paragraph of Operating Rule 93 reading, "(See Special Rule 152-R)" is changed to read, "See speed restrictions in time-table."

Train Order Signals

221 (R). At Iron Springs, when train order signal displays Stop indication for eastward trains, such trains on Iron Mountain Branch or 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). Between S. P. Junction and McCammon, when the last signal leaving a yard displays Stop-and-Proceed indication, train or engine must wait five minutes before proceeding, and then must proceed as required by Operating Rule 240 (B).

240 (S). 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

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 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 Ninth South Street towerman. When authorized by Ninth South Street towerman and CTC signal indication, yard movements may be made into CTC territory without receipt of Form B clearance.

266 (S). CTC starting signals are located as follows:

Lynndyl —Signal 6655;
Milford —Signals 5763, 5765, 5767, 5780, 5782;
Caliente —Signals 4593, 4596 and 4598;
Las Vegas —Signals 3339, 3341, 3344, 3346 and 3348.

When a train or engine is stopped by one of these signals, member of crew must communicate with train dispatcher for instructions. If movement is verbally authorized by train dispatcher, flagman must be sent ahead to next signal and movement made at restricted speed without receipt of clearance Form C.

At Caliente, train stopped on main track or depot passing track by either Signal 4593 or 4598 must remain clear of fouling point of depot passing track until signal displays Approach or Clear indication or until authorized by train dispatcher to proceed when preceded by flagman.

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

267 (S). 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 (T). 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 527, a member of crew must examine points of spring switch and derail before passing over them.

267 (U). Trains or engines must receive permission from train dispatcher before moving—

From Fillmore Branch —to siding, Delta;
From Cedar City Branch —to siding, Lund;
From Mead Lake Branch —to siding, Moapa.

267 (V). 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 (W). 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.

Outfit Cars

720 (R). That part of Operating Rule 720 (C) and M. of W. and Signal Rule 1521 requiring authority from superintendent to permit women and children to remain in outfit cars during movement of such cars is cancelled.

Carbon Monoxide Fumes

733 (R). There is hazard of carbon monoxide fumes from exhaust of Diesel or gasoline engines and precautions must be taken to avoid possibility of accident therefrom.

Exhaust from such engines must not be located in close proximity of fresh air intake of passenger cars and care must be exercised at all times to see that there is sufficient ventilation where such engines are operated.

Trains Stopped in Tunnels

733 (S). Dangerous gases present in exhausts from various types of locomotives, steam generators, or engines of the Waukesha type, may cause incapacitation or fatalities if in sufficient concentration as might result when a train is stopped in a tunnel.

In the event a passenger train, regardless of the type of power being used, is stopped in a tunnel, cars within the tunnel must have air circulating systems, including air conditioning systems, ice machines and engine generators, shut off, fresh air intake shutters closed, and blower fans shut off.

Certain gases are not readily detected by odors and this action must be taken immediately and time not wasted in determining when train may be started. Take safe course and act at once.

When a Diesel-electric locomotive is stopped in a tunnel under conditions preventing prompt movement, Diesel engines must be promptly shut down.

Shutting off Diesel Propulsion Engines

733 (T). When Diesel propulsion engines are shut off, air brakes must be fully applied and, in addition, front and rear of a traction wheel must be blocked and sufficient hand brakes must be applied throughout the train to prevent movement should air brakes leak off.

During freezing weather, when Diesel engines are shut down, cooling water must be drained to winter level and if necessary to prevent damage to engine must be drained completely.

Local conditions must be carefully considered, as there may be situations where the exhaust gases are being carried away from the train by air currents, or where proximity to tunnel opening would make it unnecessary to shut down these engines. Safety of passengers and members of the crew must be the first consideration.

Train dispatcher should be notified immediately so that proper arrangements can be made for protection of persons and equipment.

Power Transmission Wires

734 (R). Power transmission wires carrying 2300 volts are located on top cross-arm of signal pole line.

Diesel-Electric Locomotives

735 (R). Adjustments must not be attempted nor made in high voltage cabinets of Diesel-electric locomotives until engine has first been isolated and stopped and units have come to a stop.

736 (R). When Diesel-electric switch locomotive is to be idle in excess of 30 minutes, main engine must be stopped.

When Diesel-electric road locomotive is to be idle for one hour at initial or intermediate stations, main engines must be stopped.

Exception: In such cases, engines must not be stopped when outside temperature is below 35 degrees.

When Diesel engines are stopped at terminals when a heavy rain is falling, enginemen will call on mechanical forces for covers to be placed over exhaust stacks.

When Diesel engines are stopped, hand brakes must be applied.

Cars Partly Loaded or Unloaded

802 (R). All persons are prohibited from riding in cars while being switched, which are in the process of loading or unloading. Part loads will not be switched unless properly broken down or properly braced to prevent contents falling and being damaged. Before switching with or moving cars which are in the process of loading or unloading, persons working in the car must be notified and trainmen and yardmen should see that cars are not switched with until cars are vacated.

Handling of Explosives and Inflammables

802 (S). 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.

Continued on Page 9.

802 (S). Continued.

Placards on Cars

BE 589 (b). A car requiring car certificates and "Explosives," or "Dangerous," "Dangerous—Class D Poison," or "Poison Gas" 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 must 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 alongside 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.

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.

Continued Opposite Side.

802 (S). Continued.

(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 setoff 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."
4. Engine.
5. Any car placarded "Poison Gas."
6. Wooden underframe car (except on narrow gauge railroads.)
7. Loaded flat car.
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 of the gas-burning type.
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.
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 cars.
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 of the gas-burning type.
10. Car containing lighted heaters, stoves or lanterns.

Continued on Page 10.

802 (S). Continued.

11. Car loaded with live animals or fowl, occupied by an attendant.
12. Occupied caboose (except when train consists 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 "Inflammable" placards removed or replaced by "Dangerous Empty" placards.

Track Scales

802 (T). Locomotives must not be moved over live rails of track scales and when moved over dead rails of track scales, a speed of 5 MPH must not be exceeded.

Sanders or injectors must not be used over track scales and locomotives or cars must not stand on dead rail over scale deck or platform of track scales.

Cars must be stopped on scales and uncoupled at both ends while being weighed, except on scales equipped with automatic weighing device.

Cars must not be violently stopped by impact, sudden application of brakes or by blocking wheels. After cars are weighed, they must not be moved over live rails if possible to avoid it. When making impact with cars on scales, speed must not exceed 2 MPH and 4 MPH must not be exceeded over scales in any case.

Continued Opposite Side.

802 (T). Continued.

Cars on live rail must not be moved by other cars or engines moving on dead rail, or vice versa. Cars must not be moved over scale with one truck on live rail and other truck on dead rail.

Movements on Yard and Other Tracks

802 (U). Operating Rule 802 (A) 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 (V). 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 (W). 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.

At Desert Mound, tracks 1 and 2 above tipple will not be shoved if either track is out to foul at the lower end.

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

802 (Y). At Provo, track located between joint U. P.-Utah Railway yard and turntable, between storehouse and enginehouse, 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. westward main track at the south end.

Ore Trains

802 (Z). From Iron Mountain to Desert Mound ore trains must not exceed 65 cars when handled with steam locomotive, any 2 unit Diesel-electric locomotive or a 3 unit Diesel-electric locomotive with dynamic brake inoperative, and must not exceed 90 cars when handled by 3 unit Diesel-electric locomotive with dynamic brake in operation.

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

With Diesel-electric locomotive and dynamic brakes in operation all units, there must not be more than 62 C. & N. W. hopper type cars on any full train of 89 loads leaving Iron Mountain. If less than full train, there must be at least two other cars in train to every three of the C. & N. W. cars.

Without dynamic brakes in operation, there must not be more than 38 C. & N. W. hopper type cars on any full train of 64 loads leaving Iron Mountain. If less than full train, there must be at least two other cars in train to every three of the C. & N. W. cars.

Cars with Roller Bearings

804 (R). Cars equipped with roller bearings will start with much less effort than those otherwise equipped. When such cars are set out, either in yards or on line, hand brakes must be set if there is any possibility of their moving.

Switching Cars with Air Brakes Cut In

804 (S). Air must be cut in and automatic brake used when switching passenger train cars and occupied outfit cars; however, independent or straight air brake may be used when making couplings. Engineman must exercise care to avoid rough handling.

804 (T). Air brakes must be cut in and operative on all cars handled between Provo, Ironton and Geneva yards.

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

804 (U). At Salt Lake City, all yard movements into South yard from points south of Fourth South Street and all movements from Utah Sand and Gravel Plant, must have air brakes cut in and operative on all cars being handled.

At Woods Cross, when making movements on north or south cannery tracks, 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 (V). At Iron Mountain and Desert Mound in setting empties on any track, sufficient hand brakes must be set on low end to hold cars and in no case less than four hand brakes per track, 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 Iron Mountain and Desert Mound on loads set on any track, sufficient hand brakes must be set on low end to hold the cars but in no case less than eight hand brakes per track, number of cars permitting.

At Iron Springs, sufficient hand brakes must be set on low end to hold cars on any track, but in no case less than four hand brakes per track, number of cars permitting.

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.

Pushing Streamline Trains

805 (R). Operating Rule 805 is cancelled.

Position of Cars in Trains

807 (R). Open top or flat cars loaded with pipe, rail, lumber, poles or other lading which has tendency to shift, must be handled in head end of train, but must not be entrained immediately behind Diesel-electric locomotive.

Exception: Open top cars containing shipments of creosoted lumber, piling, etc., handled by coal burning locomotive, must be entrained in rear portion of train.

807 (S). Open top or flat cars loaded with glass shipments packed with straw or excelsior, handled by coal burning locomotive, must be entrained next to caboose.

807 (T). Stock cars containing horses may be handled next to Diesel-electric locomotive.

807 (U). Last paragraph of Operating Rule 807 is cancelled.

807 (V). 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 Evona and Malad Branches.

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

807 (X). C. & N. W. "Jeep" type ore cars, loaded or empty, must be handled on rear end of train at all times.

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 train engine.

808 (S). When necessary to use helper on any train handling C. & N. W. "Jeep" type ore cars, helper must be cut in on head end of train, behind road engine.

Running Locomotives Backward

808 (T). Operating Rule 808 (A) is changed to read:

"Steam locomotives and Diesel-electric locomotives other than Diesel road-switch and switch locomotives must not be run backward in road service where wye tracks or turntables are available, except in an emergency. When back-up movement is necessary, engineer must secure authority from train dispatcher."

Inspection of Trains

811 (R). On locomotive, tender and freight car wheels, flat spots two and one-half inches or longer, or if there are two or more adjoining spots each two inches or longer, and on passenger cars including streamline train equipment one inch or longer, are condemnable and when discovered in train, conductor or engineer must immediately report to chief dispatcher and be governed by his instructions.

811 (S). When a train with Diesel-electric locomotive is passing, trainmen, enginemen, yardmen and others should observe wheels under power units to see if wheels are turning. In event locked wheels are noticed, stop signal must be given to crew of passing train and proper precautions taken to prevent damage to equipment.

811 (T). When trains stop in sidings or other intermediate locations, such walking inspections of train must be made as time will permit. Walking inspections from rear will proceed until entire train is inspected, or until movement starts and in which event engineman must comply with Operating Rule 811 (A) to afford slow roll-by inspection and pick up crew on rear.

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

When train is stopped to be met or passed by another train, crew of standing train will make thorough inspection of passing train. When safe to do so, head brakeman will cross track and inspect passing train from the farther side and rear brakeman will inspect the passing train from side nearest his own train. Crew on passing train will be in position to receive signals and take immediate action when necessary.

811 (U). 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-electric 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;
Sharp or Nephi	—Eastward, including any train handled by Diesel-electric locomotive;
Starr or Nephi	—Westward, including any train handled by Diesel-electric locomotive;

Boulter, Lofgreen	
or 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.

811 (V). In addition to making inspection of train as often as practicable as per Operating Rule 811, freight trains handling military impedimenta exclusively must stop and be inspected at the following points:

Cache Jct.	—Eastward and westward;
Tintic	—Eastward and westward;
Delta	—Eastward and westward;
Modena	—Eastward and westward;
Carp	—Eastward and westward.

Military trains consisting of passenger equipment only must stop and be inspected at:

Lynndyl	—Eastward and westward;
Caliente	—Eastward and westward.

811 (W). In addition to making inspection of train as often as practicable as per Operating Rule 811, freight trains handling 5 or more cars of ore from Cedar City Branch must stop at following points for inspection:

Black Rock
Islen, when use of retaining valves is required.

Hot Boxes

826 (R). When a hot box is detected on a train between stations, in addition to Operating Rules 810 and 826 the following will govern:

As quickly as hot box is detected train must be stopped, hot box inspected and no attempt made to run to next station until it has been ascertained it is safe to do so.

When car is set out account hot box, packing must be removed, fire extinguished and dirt, gravel or snow placed on top of box at back end over top of dust guard opening, after which lid on journal box must be closed. Thorough inspection must be made of car after attending to hot box to insure no fire on car body, and in all such cases, two members of crew must make this inspection, one of whom must be the conductor.

Closing Doors on Freight Cars

855 (R). Referring to Operating Rule 855:

Conductors will be held responsible for knowing that doors on cars in their train are properly closed. When necessary to close doors found open, hasps and locking mechanisms must be operated to keep secured. When doors of cars in train, or on cars to be picked up, cannot be closed by trainmen the car must be considered as bad order and set out. Wire report of such occurrence must be made to superintendent, chief dispatcher and car foreman.

Duties of Engine Men

866 (R). The Mechanical Department will be charged with responsibility, and enginemen relieved, of complying with the following Operating Rules and portions thereof:

- Rule 816;
- Rule 869, first paragraph;
- Rule 869 (A), first paragraph;
- Rule 884, first sentence;
- Rule 885, first sentence.

Engine crew will leave from roundhouse or designated point promptly when engine is available for service.

869 (R). Last sentence of first paragraph of Operating Rule 869 is changed to read: "Engineer must know that engine is supplied with 12 torpedoes, 6 fusees, a red flag and equipment for train signals."

870 (R). Last sentence of Operating Rule 870 is cancelled.

Movement of Diesel Locomotives

872 (R). When a Diesel-electric locomotive consisting of two "A" units operated rear end to rear end, with or without "B" unit or units, is to be moved by hostlers in yards or around enginehouses, locomotive must be operated from lead "A" unit according to direction in which movement is to be made.

Duties of Employes on Diesel Locomotives

874 (R). Second paragraph of Operating Rule 874 is cancelled.

On Diesel-electric locomotives in road service, not more than five men may ride in control cab.

The following instructions will govern firemen and head brakemen in performing their duties on Diesel-electric locomotives in road service, and will supersede and cancel all previous instructions, either written or oral, not consistent therewith.

Firemen will patrol engine rooms and make inspection of engine, temperatures, steam heat facilities and other parts, and give such attention as may be required. Any unusual condition

Continued Opposite Side.

874 (R). Continued.

or irregularity detected must be reported to engineer, and fireman will be governed by engineer's instructions.

On multiple-unit Diesel-electric locomotives on high-speed, streamlined, or main line through passenger trains, a fireman shall be in control cab at all times when the train is in motion.

This applies to the following trains:

Nos.	Between
1- 2	Ogden and Las Vegas
9- 10	Ogden and Las Vegas
37- 38	Ogden and Las Vegas
103-104	Ogden and Las Vegas

This rule shall be strictly observed and firemen who violate it shall be subject to discipline.

When a fireman is required by this rule to remain in control cab at all times while train is in motion, his patrol of engine rooms will be made at initial stations and at other stops when time will permit. At points where firemen change, incoming fireman will assist outgoing fireman in making patrol.

On other trains, fireman will patrol engine rooms at initial stations and at other stops. When time between stops is 30 minutes or more, and at such other times as may be directed by engineer, fireman will patrol engine rooms while train is in motion.

On freight trains, head brakeman must ride in control cab except while performing duties requiring him to be elsewhere, as specifically provided by rules. When necessary to ride elsewhere in freight locomotive, he will immediately return to control cab on signal from engineer. When fireman is patrolling engine rooms while train is in motion, head brakeman must remain in control cab during fireman's absence and must observe signals and other conditions prescribed by Operating Rule 810.

When necessary for trainmen to ride in cab of trailing unit, they must not occupy engineer's seat and must not tamper with or manipulate any of the switches or valves nor place feet on dashboard or windshield.

Unauthorized persons, including deadhead trainmen and enginemen must not occupy cab of trailing unit of Diesel-electric locomotive on any train.

Oil-Burning Engines

875 (R). Adequate spot fire to provide near maximum steam pressure must be maintained on oil-burning engines when not working steam to avoid fire box leakage.

Leaving Locomotives Unattended

875 (S). Operating Rule 875 is cancelled and the following will govern:

Locomotive must not be left without a man in charge, except at designated places and under authorized conditions. Locomotives must not be left standing so they will block or foul adjacent tracks.

When locomotive coupled to cars is left unattended, hand brakes must be set on not less than ten cars, or on all cars in case locomotive is coupled to only ten cars or less.

Engineer must see that air compressors are running, throttle closed, latched and safety pin inserted, cylinder cocks opened, independent or straight air brakes applied in full application position and brake cylinder pressure noted before leaving locomotive. Driver and tender brake cut-out cocks must be cut in, reverse lever latched in center position when on level track, and when on a grade, the reverse lever must be placed in the corner position in ascending grade direction.

When a Diesel-electric locomotive is left unattended, reverse handle must be placed in neutral position and handle removed, independent brake set in full application position, field generator switch pulled and hand brake set on each unit.

875 (T). Where engine crews with 3800 and 3900 class locomotives eat at intermediate stations, one member of crew must stay with engine at all times.

875 (U). Train or engine crews, desiring to eat at Caliente must notify dispatcher as much before arrival Caliente as practicable, but not later than at Caliente initial switch.

While crew is eating, engine must be left on train and air coupled, and in addition a member of crew must remain on engine at all times.

Crew of westward through train must leave train on east drill track while eating unless advised otherwise by train dispatcher.

Fireman Handling Locomotive

876 (R). Operating Rule 876 is cancelled.

Engineers must not permit any unauthorized person to handle the locomotive. The fireman, when competent, may handle the locomotive when in road freight and yard service under the supervision of the engineer, the engineer being responsible. The fireman must not be permitted to handle the locomotive when in road passenger service, except in emergency.

Blow-Off Cocks and Sludge Removers

879 (R). Blow-off cocks or sludge removers must not be used immediately adjacent to nor passing through tunnels.

Diesel Motors Cut Out

883 (R). When Diesel units are operating with less than full complement of motors or when it is necessary to cut out one or more of the motors at any time enroute, train dispatcher must be notified immediately.

Speedometers

883 (S). On locomotive equipped with speedometer, engineer must verify accuracy of speedometer not less than twice during each trip, by using watch to make time check between mile posts.

First check will be made at first opportunity after departure from point where engineer takes charge of locomotive. Care should be exercised to make check while speed is constant between mile posts, and, when possible, speed should be 30 MPH or over.

When check indicates speedometer is not registering correctly, wire report must be made to train dispatcher promptly as possible, giving miles per hour that speedometer is slow or fast.

Inspecting Locomotives

883 (T). When standing at inspection points, and when stopped in yards and at points between terminals where time will permit, engineers must get on ground and inspect both sides of their locomotive. This applies to both passenger and freight trains, and to any type of locomotive.

800 Class Locomotives

889 (R). 800 class locomotives must not be worked with less than 33% cut-off to avoid hot main pins.

Movements Around Fueling Stations, Etc.

890 (R). Before moving an engine and during movement of an engine in the vicinity of fueling stations and servicing tracks, engineers and hostlers must sound whistle to warn men working about such tracks.

Track Restrictions

896 (R). Engines heavier than indicated below must not go on the tracks named:

Exceptions: Tracks which may be used by 0-6-0 type or heavier engines may be used by Diesel switch engines.

Single-unit Diesel-electric road switchers with 6-wheel trucks may be operated on all branch main tracks and may be operated on any track not restricted for Consolidation engines.

Tracks where heaviest engine permitted is 2-10-2, may also be used by 800, 3800 and 3900 class or Mallet type engines of 3500 and 3600 class unless otherwise specifically restricted.

Tracks where heaviest engine permitted is Consolidation type, must not be used by heavy Pacific type engines.

Diesel-electric road locomotives may be operated on any track not restricted for heavy MacArthur type in territory between Salt Lake City and Las Vegas.

Continued Opposite Side.

896 (R). Continued.

Location	Track	Heaviest Engine Permitted
Draper	Sand spur	Heavy MacArthur
M.P. 781.26	Mellen Sand spur to point 540 feet west of switch Beyond point 540 feet west of switch	Heavy MacArthur None permitted
Cutler	Emsco spur, frame trestle Emsco spur	None permitted 2-10-2
Fairfield Branch	All tracks	Consolidation
American Fork	Chipman's spur	Heavy MacArthur
Pleasant Grove	Cannery spur Wasatch Oil Co. spur United Concrete Conduit spur, beyond second street crossing	Heavy MacArthur Heavy MacArthur None permitted
Hardy	Loading track	Heavy MacArthur (No engine may go beyond 700 feet east of switch)
Provo	Texas Oil Spur Wye Pipe Company highline	0-6-0 Consolidation None permitted
Ironton	All tracks in the Kaiser Plant area	No steam engines permitted
Payson	Sugar factory spurs Stock track	Heavy MacArthur Heavy MacArthur
Nephi	Plaster mill spur and loading track East leg of wye Team track West leg of wye Mill and oil spur Thermoid pit on track 1	Heavy MacArthur Consolidation Consolidation Heavy MacArthur Consolidation None permitted
Small Arms Spur	Coal unloading bin at heating plant building No. 15	None permitted
Lake Point	A. S. & R. spur	Heavy MacArthur
Bauer	Combined Metals Co. trestle All mill spurs	None permitted Heavy MacArthur
Tintic	Track 2 adjacent Eureka Branch	Heavy MacArthur
Delta	Hal Oil spur, to point 380 feet from switch	Consolidation
Fillmore Branch	All tracks west of Alfalfa Mill spur	Heavy MacArthur
Millford	Old Frisco Branch Jefferson Coal Spur, inside of gate	Consolidation None permitted
Cedar City Branch	M.P. 23 to Cedar City	Heavy MacArthur
Ploche Branch	Bridge 0.94 and all tracks west thereof	Consolidation or all diesels
Caliente	Dike track	Heavy MacArthur
Mead Lake Branch	Bridge 1.47 and all tracks west thereof	Consolidation or all diesels
Midvale	Tracks 1, 2 and 3 All other tracks	Consolidation 0-6-0
Atwood	U. S. Smelter spur Beet spur	Consolidation Consolidation

Continued on Page 14.

Location	Track	Heaviest Engine Permitted
Pallas	Short 1 Utah Ore Sampler, all tracks	Consolidation Consolidation
Murray	Cannery spur House track Team track Diamond Coal & Feed spur Murray Elevator spur Phillips Coal Spur	Consolidation Consolidation Consolidation Consolidation Heavy MacArthur Heavy MacArthur from main track to beginning of trestle
	Brookfield Oil spur Morrison-Merrill spur Old stock track	Consolidation Consolidation Consolidation
Huslers	Huslers Mill spur	Consolidation
Burton	Shell Oil spur Coal yard spur Bennett spur	Consolidation Consolidation Heavy MacArthur
Fire Clay	Utah Fire Clay Co. tracks Woolen Mill spur	Consolidation Consolidation
Walton	Walton Coal Co. spur	Consolidation
Officer	Egg House Allen Steel Co. spur W. H. Prince Co. coal spur W. H. Prince Co. gravel spur Utah Fire Clay Co. tracks W. H. Prince Coal Co. trestle	0-6-0 0-6-0 Consolidation Consolidation Consolidation None permitted
Salt Lake City	Business car tracks Salt Lake Hardware Co. spur Freight house tracks Morrison-Merrill Co. tracks All coach yard tracks Storehouse and foundry tracks Material yard tracks, east of scrap dock Scrap dock spur Tank car wash tracks Bamberger interchange tracks Utah Oil tracks South leg of wye	Consolidation Consolidation Consolidation Consolidation Heavy MacArthur Consolidation Consolidation Consolidation Consolidation Heavy MacArthur Heavy MacArthur 2-10-2 (MacArthur type engines with two-point suspension engine trucks, 2-10-2 and 800 class engines must be accompanied by road officer)
	Garden tracks 2, 3 and 4 Load shifter spur Pepper Junk spur	Consolidation 2-10-2 Heavy MacArthur, from Second Subdivision main track switch to junk yard gate. 0-6-0 class engines inside junk yard
	All industry tracks Third West Street between Ninth South and South Temple Streets Ford Motor Company spur Gantry Crane tracks Utah Light & Traction Co. spur All spur tracks off north leg of wye Depot heating plant spur Spur tracks at north end of freight platform Spur track on east side of Utah Ice Co. warehouse Patek Soap Company spur	0-6-0 0-6-0 0-6-0 0-6-0 0-6-0 0-6-0 0-6-0 0-6-0 0-6-0

Continued Opposite Side.

Location	Track	Heaviest Engine Permitted
Salt Lake City (continued.)	Cement plant tracks, Ninth South Street Bennett Oil Company spur Fisher Brewery tracks Mountain States Supply Co. spur Jordan Steam Plant tracks Barrett Roofing Co. spur Jones Coal Co. spur Lundin & May Foundry spur Depressed cinder pit track Scale shop spur Wheel shop track All gravel pit tracks Garbage track Utah Barrel & Cooperage Co. spur Peerless Coal Co. trestle Service Coal Co. trestle HiHeat Coal Co. trestle	0-6-0 0-6-0 0-6-0 0-6-0 0-6-0 0-6-0 0-6-0 0-6-0 0-6-0 0-6-0 0-6-0 0-6-0 None permitted None permitted None permitted
North Salt Lake	All tracks west of D&RGW main track	Heavy MacArthur
Woods Cross	Oil tracks, all tracks inside gate Cannery tracks	Heavy MacArthur Consolidation
Farmington	Team track	Consolidation
Kaysville	Mill spur Cannery spur	Consolidation Consolidation
Layton	Sugar factory Sugar factory pulp silo track	Heavy MacArthur Consolidation
Clearfield	Syracuse Branch, west of Naval Depot connection near D. & R. G. W. crossing Syracuse Branch, between Clearfield and Naval Depot classification yard via Navy connection near D. & R. G. W. crossing Naval Depot wye House track Cannery spur All spurs off Syracuse Branch, except Naval Depot	Heavy MacArthur 2-10-2 2-10-2 Heavy MacArthur Consolidation Consolidation
Roy	East cannery	Heavy MacArthur
Harrisville	Brick plant tracks	Consolidation
Bushnell	Hospital spur	2-10-2
Brigham City	South cannery spur Wye track Gravel spur, Forest Street crossing and east Stock track, west of Bridge 21.94 All sugar factory tracks Egg house track, Forest Street crossing and east Hoist tracks	Consolidation 2-10-2 Heavy MacArthur Consolidation Consolidation Consolidation
Cache Jct.	All enginehouse and mechanical spurs leading off Cache Valley Branch main track, except enginehouse track 1 Enginehouse track 1 Old beet spur Mill spur Stock track Coal chute tracks Branch sidings 1 and 2	Consolidation 2-10-2 Consolidation Consolidation Consolidation Heavy MacArthur, except 3800 and 3900 class may use from east switch to point 500 feet west
Tranton	Stock track, east of depot	Heavy MacArthur
Thorensen	Spur	Heavy MacArthur

Continued on Page 15.

Location	Track	Heaviest Engine Permitted
Oxford	Mill spur	Consolidation
Marsh Valley	All tracks	Heavy MacArthur
McCammon	Elevator track west end of yard	Heavy MacArthur
Malad Branch	All tracks outside of Brigham City yard limits	Consolidation
Malad	End of spur where concrete slab is installed on coal spur at Oneida County Grain Growers	None permitted
Cache Valley Branch	All tracks Cache Jct. yard limits to M.P. 42 M.P. 42 to Preston	Consolidation or all diesels. Consolidation
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 guardrails, switches, bridges, buildings and other structures.

MacArthur type or heavier engines must not go on any beet trestle or industrial trestle.

Hart convertible cars must not be moved over trestle at coal chutes at Salt Lake City or Cache Jct.

Snow plows, pile drivers and railroad mounted guns must not be moved on Syracuse Branch.

896 (T). At Warner, trains or engines must not go beyond derailed 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 platforms and other structures above and at the side of industry, stock and other tracks:

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

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. 30.96	Trolley wire on B. R. R. crossing	Top.
M.P. 31.01	Dwarf signal	Side.
M.P. 30.90	Dwarf signal	Side.
Farmington M.P. 11.57	Water column	Side.
M.P. 8.73	Overhead highway crossing	Side and top.
M.P. 1.99	Overhead highway crossing	Top.
M.P. 1.88	Overhead pipeline	Side and top.
	Overhead highway crossing	Top.

Continued Opposite Side.

Location	Structure or Obstruction	Clearance of engine or car is close at—
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.
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	Highway overhead crossing	Top.
Lake Point	Highway overhead crossing	Top.
Erda	Water column	Side.
M.P. 751.27	Highway overhead 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	Two water columns	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.

Continued on Page 16.

Location	Structure or Obstruction	Clearance of engine or car is close at—
M.P. 468.06	Bridge	Side.
Callente	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. & R. G. W. overhead crossing	Side and top.
Draper	Water column	Side.
Cutler	Water tank spout	Side and top.
M.P. 754.42	Bridge	Side.
Provo	Water tank spout	Side and top.
Payson	Water tank spout	Side and top.
M.P. 735.76	D. & R. G. W. crossing	Side and top.
Santaquin	Overhead highway crossing	Top.
Starr	Water tank spout	Side and top.
Nephi	Plaster Mill platform	Side.
Mills	Water column	Side.
FAIRFIELD BRANCH.		
M.P. 1.60	D. & R. G. W. crossing	Top.
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.		
Castleton	All ore tipples	Side and top.
Prince	Ore bin	Side and top.
MEAD LAKE BRANCH.		
M.P. 7.75	Cut	Side.

900 (T). In moving cars on tracks under overhead trolley wires, employees are warned that overhead clearances to such wires and side clearances to supporting trolley poles are close. Trolley wires must not be touched and careful lookout must be kept for low and broken wires.

Connections with electrically operated railways at Salt Lake City:

South Temple Street, Salt Lake City Gravel Pit
B.R.R. interchange 13th South Street

High and Wide Cars and Loads

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

Continued Opposite Side.

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 minimum 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

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.

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	} Eastward and westward when angle cock has been turned or air hose separated.
Boulter	
Tintic	
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-electric 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-electric 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

Continued on Page 17.

locomotive, dynamic brake must not be used and retaining valves must be used as prescribed by Special Rule 1042 (R).

(e) 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.

(f) 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-electric locomotive consisting of less than 3 power units must use retaining valves as prescribed by Special Rule 1042 (R).

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;
- Grand Central Mine to Tintic;

Iron Mountain to Iron Springs—Duplex retaining valves must be placed in full retaining position. Retaining valves must not be turned down until train reaches Cedar City Branch main track at Iron Springs.

Exception: Desert Mound to Iron Springs—50% of retaining valves in train must be placed in 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 Grand Central or 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 maximum retaining position.

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

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

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

RATING OF DIESEL-ELECTRIC 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 McCommon	McCommon to Ogden	Ogden to Salt Lake City	Numbers (Inclusive)	H.P.	Type
EMD	1000-1095	Yd. SW 1000	1	1400	1050	1500	1400	1000-1095	YdSw	EMD
ALCO	1100-1153	Yd. SW 1000	1	2100	1500	1500	2100	1100-1153	1000	ALCO
FM	1800-1804	Yd. SW 1000	1	2540	1880	1880	2540	1800-1804	1000	FM
Baldwin	1200-1210	Yd. SW 1000	1	2200	1580	1580	2200	1200-1210	1000	Baldwin
ALCO	1180-1190	Rd. SW 1500	1	2530	1800	1800	2530	1180-1190	1500	ALCO
ALCO	1191-1195	Rd. SW 1500	1	2500	1680	1680	2500	1191-1195	1500	ALCO
FM	1825-1829	Rd. SW 1500	1	2200	1580	1580	2200	1825-1829	1500	FM
FM	1860-1870	Rd. SW 2000	1	2530	1800	1800	2530	1860-1870	2000	FM
EMD	1400-1477	Frt. 4500	3	6300	5010	5010	6300	1400-1477	4500	EMD
ALCO	1600-1643	Frt. 4500	3	7500	6000	6000	7500	1600-1643	4500	ALCO
EMD	1400-1477	Frt. 6000	4	8400	6680	6680	8400	1400-1477	6000	EMD
ALCO	1600-1643	Frt. 6000	4	10000	8000	8000	10000	1600-1643	6000	ALCO

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

TOTAL LOADED WEIGHT ON DRIVERS
 220,000 to 237,000 pounds
 Nos. 1400 to 1477
 1550 to 1563
 235,000 to 243,000 pounds
 Nos. 1600 to 1643

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 McCommon	McCommon to Ogden	Ogden to Salt Lake City
C 57	22 190 30 191	201 to 358 560 to 622	2610	2060	2610
MacA 57	23 206 30 210	1900 to 1949 2000 to 2034	3000	2400	3000
MacA 63	26 214 28 216	2504 to 2532	3200	2525	3200
MacA 63	26 220 30 220	2535 to 2554	3300	2600	3300
MacA 63	26 228 28 228	2555 to 2564	3230	2550	3230
SA-C 59	23-23 475D 30 475D	3500 to 3569	5000	4740	5000
CSA 69	22-22 400 32 394 407	3800 to 3809 3810 to 3814 3815 to 3839	5000	4600	5000
4-6-6-4 69	3 21-21 404 4 407 5 406	3930 to 3949 3950 to 3969 3975 to 3999	5000	4600	5000
TTT 63	29 290 30 311	5000 to 5089 5300 to 5318 5400 to 5414 5500 to 5529	4250	3350	4250
UP 67	27 368 31-32 372	9000 to 9087	5000	4600	5000

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 30-inch stroke and weighing 191,000 pounds on drivers.

22
 C 57 — 191
 30