

# UNION PACIFIC RAILROAD COMPANY South-Central District



## Los Angeles Division Special Rules No. 6

### Effective Friday, November 15, 1946

Superseding Special Rules No. 5

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

F. C. PAULSEN,  
General Manager

E. MARKSHEFFEL,  
General Superintendent

V. W. SMITH,  
Superintendent

2 (R). Operating Rules 2, 2 (A) and 2 (B) are cancelled.

Employes listed below and other employes as may be designated 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 Agents	Flagmen
Trainmasters	Firemen
Assistant Trainmasters	Hostlers
Traveling Conductors	Outside Hostler Helpers
Road Foremen of Engines	Yardmasters
Traveling Firemen	Assistant Yardmasters
†Station Agents	Engine Foremen
†Operators	Switchtenders
Conductors	Engine Herders
Engineers	Such other employes as may be designated
Brakemen	

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

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

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

6 (R). Water from water columns at East Yard, Ontario, Pomona, San Bernardino, Yermo, Kelso, Desert, Las Vegas, Moapa, Rox and Carp must not be used to fill water cars nor outfit tenders nor used for drinking or culinary purposes.

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

Proceed signals as well as stop signals given by switch tenders must be answered.

10 (S). Last paragraph of Rule 10 (H) is changed to read:

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

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, and then extinguish white headlight.

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

When head end protection is required, engineer will immediately display red headlight. When occupying main track in meeting an opposing train, red headlight will be displayed until opposing train dims its headlight in accordance with 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 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). Rule 17 (C) is cancelled.

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

19 (R). The following will govern use of oscillating red rear end light:

When standing at terminals and red rear end light is not required, it should be extinguished.

Leaving terminals, unless red rear end light is necessary to protect rear

19 (R). Continued.

of train, trainman must see that red rear end light switch is set for automatic operation, with light extinguished.

When train is stopped with less than total 20 pounds automatic brake pipe reduction, engineer must immediately make a 20-pound reduction; or, when stopped with less than total 30 pounds electro-pneumatic brake application, engineer must immediately make a 30-pound brake application.

Red rear end light must always be displayed when rear end protection is required. When red light is not displayed automatically, trainman must immediately display it manually.

When red rear end light has been displayed either automatically or manually, and necessity for protection no longer exists, trainman must extinguish it.

When train is moving under circumstances in which it may be overtaken by another train, if light is not displayed automatically, trainman must immediately display it by manual operation.

When train is clear of main track and rear end protection is no longer required, trainman must place switch in OFF position to definitely insure light will remain extinguished. When movement to main track is started, trainman will display light by manual operation. When normal speed is resumed, he will return switch to automatic position, with light extinguished.

Engineer of train observing red rear end light displayed by train ahead must take immediate action to stop short of such train.

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

19 (S). Rule 19 (B) will apply in use of markers between Las Vegas and Daggett, Riverside Jct. and Los Angeles, and on branches on First and Second Subdivisions.

21 (R). On Second and Third Subdivisions and branches, when a train is equipped with indicators, white flags will not be displayed by extra trains.

27 (R). Switch lights will not be used on branch lines except San Pedro 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.

30 (R). Within the corporate limits of towns and cities named below, the engine bell must be rung continuously while the train or engine is moving:

Riverside	Ontario	Pomona	Los Angeles
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83 (R). First-class trains are not required to register at East Yard. Operator will register for such trains, obtaining the information from train dispatcher.

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

83 (T). Trains moving between Los Angeles Union Station and Downey Road must identify trains between those stations. Trains displaying signals must sound one long and two short blasts of engine whistle to all trains and engines on both tracks between those stations.

89 (R). At Bly, westward trains holding main track with orders to meet or wait for eastward trains, must stop to clear west cross-over switch near M.P. 48, and eastward trains holding main track with orders to meet or wait for westward trains, must stop to clear east switch of the east storage track at Signal 484.

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

93 (S). Arlington yard limits includes track between Arlington and Camp Anza;

Crestmore, includes tracks to Ormand and Bly quarries and to Bly;

Whittier Jct., includes Whittier;

Hynes, includes Douglas Jct.;

Los Angeles yard limits includes Glendale and Pasadena Branches and to M.P. 8.3 on San Pedro Branch.

96 (R). Clearance must be received as follows:

- At Kelso —all trains;
- At Daggett —all eastward trains;
- At Riverside —all westward trains.

Trains are not required to receive a clearance per Rule 96 at initial stations which are not train order offices.

When a clearance is received at Riverside by the only section of a westward regular train, it will confer the same authority as when received at its initial station.

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

Location	Railroad Crossed or Junction With	Trains Which Have Precedence	How Governed
Ontario (M.P. 38.1)	S. P.	U. P.	S. P. trains and engines stop.
Soto St. Jct. (M.P. 2.2)	U. P.		Special Rule 509(T).
Bridge Jct.	U. P.		Special Rule 98(S).
Redondo Jct.	A. T. & S. F.		Interlocking.
Violet Alley, Los Angeles (100 ft. east of Santa Fe Ave.)	U. P.-S. P.	U. P.	Flagman must protect when crossing U. P. old main track.
Violet Alley, Los Angeles (North leg of Wye)	A. T. & S. F.	A. T. & S. F.	Flagman must protect when crossing Santa Fe lead track.
Santa Fe Ave., Los Angeles	L. A. Ry.	U. P.	L. A. Ry. cars stop and flagman protect crossing.
Santa Fe Ave., Los Angeles	A. T. & S. F.	A. T. & S. F.	U.P. trains and engines stop. Flagmen protect two crossings unless given proceed signal by switch-tender.
15th St., Los Angeles	A. T. & S. F.	U. P. R. R.	A.T.S.F. engines stop and flagmen protect crossings.
<b>San Pedro Branch:</b>			
L. A. Jct. Ry. Crossing (M.P. 3.6)	L.A. Jct. Ry.	U. P.	Special Rule 98(W).
(M.P. 4.6-C)	L.A. Jct. Ry.	U. P.	L.A. Jct. Ry. engines stop and flagmen protect crossings.
(M.P. 4.8-C)			
Douglas Jct.	U. P.		Stop sign.

98 (R). Continued.

Location	Railroad Crossed or Junction With	Trains Which Have Precedence	How Governed
Anaheim Team Track No. 85 (M.P. 22.36-C)	U. P.		Stop sign. Flagman protect crossing.
Anaheim Team Tracks No. 85 and No. 87 (M.P. 22.66-C)	A. T. & S. F.	A. T. & S. F.	U.P. engines stop at Stop sign. Flagman protect crossing.
Henry Ford Boulevard (M.P. 23.2)	Drawbridge		Interlocking. (Westward home signal located on south side of track.)
Permanente Co. Spur (M.P. 23.52)	U. P.		Stop sign. Flagman protect crossing.
Columbia Construction Co. Spur (M.P. 23.52)	U. P.		Engines stop. Flagman protect crossing.
<b>Pasadena Branch:</b>			
Main St. (M.P. 1.4) Ave. 20 (M.P. 2.1)	L. A. Ry. L. A. Ry.	U. P. U. P.	L. A. Ry. cars stop and flagman protect crossing.
Ave. 33 (M.P. 2.7) Highland Park (M.P. 5.4)	A. T. & S. F. A. T. & S. F.	A. T. & S. F. A. T. & S. F.	U. P. trains and engines stop, throw target and wait 3 minutes before moving over crossing.
Fair Oaks Ave. (M.P. 9.0)	P. E.	U. P.	U. P. trains and engines stop and flagman protect crossing.
<b>Glendale Branch:</b>			
Broadway, Glendale	P. E.	U. P.	U. P. trains and engines stop and flagman protect crossing.
<b>Anaheim Branch:</b>			
M.P. 6.9	P. E.	U. P.	P. E. trains stop and flagman protect crossing. U. P. trains and engines approach prepared to stop unless crossing is clear.
P.E. Crossing (M.P. 10.5)	P. E.	P. E.	U. P. trains and engines stop and flagman protect crossing.

Location	Railroad Crossed or Junction With	Trains Which Have Precedence	How Governed
Sunny Hills Spur (M.P. 13.8)	A. T. & S. F. P. E.	A. T. & S. F. P. E.	U. P. trains and engines stop and flagman protect crossing.
Anaheim Sugar Spur (M.P. 19.0)	A. T. & S. F.	U. P.	A. T. & S. F. trains and engines stop and flagman protect crossing. U. P. trains and engines approach prepared to stop unless crossing is clear.

98 (S). Eastward trains and engines moving from Santa Fe Ave. to Ninth St. Jct. must be governed by hand signals from switchtender at Bridge Jct.

98 (T). At Glendale Jct., trainmen of trains moving from Pasadena Branch must communicate with signalman at Mission Tower, who will release electric lock on switch; after lock has been released, trainman must operate switches and be governed by indication of signals. Trainmen of trains moving to Pasadena Branch must operate switch at east end of cross-over.

98 (U). Trainmen of engines entering or leaving spur track at North Main Street, Los Angeles, must communicate with signalman at Mission Tower, who will release electric lock on derail.

98 (V). For movement of U. P. trains and engines to and from Glendale Branch at Arroyo Jct., S. P. switchtender must be notified to handle switch.

98 (W). All trains and engines entering main track from Vernon Lead or from south leg of L. A. Jct. Ry. wye, located west of crossing, must proceed westward and clear eastward home signal, west of crossing, before making reverse movement.

All trains and engines entering main track from L. A. Jct. Ry., north leg of wye, located east of crossing, must proceed eastward and clear westward home signal, before making reverse movement.

All trains and engines entering main track from Flood Control track east of crossing, or from General Motors track west of crossing, must send flagman to crossing and protect movement.

98 (X). All trains and engines entering main track at 44th Street Spur, located 25 feet west of L. A. Jct. Ry. crossing, must be preceded over L. A. Jct. Ry. crossing by flagman to protect movement.

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

Anaheim Branch	St. Thomas Branch
Crestmore Branch	Boulder City Branch

99 (S). Except where protected by interlocking, trains and engines entering, leaving or occupying main track between Downey Road and Alhambra Avenue must be protected by flagman, and when such movements make it necessary to cross over on double track such movements must be protected in both directions. When stop is made, flagman must go back immediately a sufficient distance to insure full protection. Exception: At Downey Road, if signals indicate proceed, trains and engines may move through cross-over without flagging in either direction.

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

Lincoln Avenue, Pasadena;  
Colorado Boulevard, Pasadena;  
Fletcher Drive, Los Angeles;  
San Fernando Road, Los Angeles;  
Sepulveda Boulevard, in Manuel Hold Yard;  
State Street, in Manuel Hold Yard;  
Van Buren Avenue, Camp Anza Spur;  
Arlington Avenue, Camp Anza Spur;  
Highway 91, McCarran Spur;  
Highway 91, Arrolime Spur.

At Ontario, when an eastward train stops west of Euclid Avenue, it must be preceded by a flagman over crossing.

At Pasadena, all crossings north of Colorado Boulevard, all trains and engines must stop and be preceded by a flagman over crossings.

103 (S). All trains and engines must approach and pass over Santa Fe Avenue, Los Angeles, very carefully, keeping a sharp lookout for street traffic.

At Fullerton, M.P. 17.3, South Spadra Road, trains must be prepared to stop.

103 (T). Yardmen or trainmen need not ride on leading footboard of engine as follows:

At Los Angeles, on main tracks between Downey Road and Glendale Junction;

On main track, San Pedro Branch, between Hobart Tower and Firestone Blvd.;

At Mead Transfer, from east yard limit sign to west leg of wye at Terminal Island;

Over Anaheim team tracks and running lead to Pier A, Wilmington.

104 (R). Spring switches are located at:

Carp	—stem of wye;
Yermo	—east and west end of passenger siding;
Kelso	—stem of wye;
Riverside	—west end of double track;
Telegraph Road	—main track switch;
Soto St. Jct.	—eastward main track;
Soto St. Jct.	—west end of Alameda freight terminal lead;
Glendale Jct.	—west end of cross-over.

Spring point details are located as follows:

Cima, west end of caboose run-around track;  
M.P. 21.1 Boulder City Branch.

104 (S). In order to provide derail protection, switch at west end of run-around track near highway crossing, McCarran Field, must be left lined for run-around track.

104 (T). At Kelso, after eastward freight train has stopped into clear, caboose may be cut off and permitted to roll back for purpose of cutting in helper, providing cross-over switch is lined from No. 1 to No. 2 track so that derail protection will be afforded the caboose. Caboose should not be permitted to roll free at this location unless this derail protection is provided.

D-151 (R). At Riverside, trains and engines may move against current of traffic within yard limits without being preceded by a flagman, except when a first-class train is due or when view is obscured.

251 (R). Between Downey Road and Alhambra Avenue, trains and engines will run with reference to other trains in the same direction by block signals whose indications will supersede the superiority of trains. In making such movements care must be exercised to avoid delay to first-class trains.

300 (R). Staff system is in effect between Santa Fe Avenue and Bridge Jct. Possession of staff is authority for a train or engine to proceed to the next staff station, complying with Rule 93 and the indications of interlocking signals at Redondo Tower.

300 (R). Continued.

If staff cannot be removed from machine, member of crew must communicate with switchtenders at Bridge Jct. and Santa Fe Avenue; after which, a flagman must be sent ahead and after a wait of five minutes after departure of flagman, train or engine may follow at a safe distance through the block.

Between Bridge Jct. and east derail at Redondo Tower and between Santa Fe Avenue and west derail at Redondo Tower, movements may be made without possession of staff, complying with Rule 93.

402 (R). CTC starting signals are located as follows:

Caliente	Signal 4593;
Las Vegas	Signals 3344, 3346 and 3348;
Las Vegas	Signals 3339 and 3341;
Kelso	Signal 2353 and Signal 2358.

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 CTC clearance.

At Yermo, when dwarf signal at east or west end of passenger siding displays Stop indication, stop must be made, and after stopping, flagman must be sent ahead to next signal and movement made at restricted speed without receipt of CTC clearance.

At Cima, CTC clearance required by Rule 402 need not be received by light engine leaving Cima, but such movements must be governed by signal indication.

CTC clearance will not be required by trains entering CTC territory from Boulder City Branch, Blue Diamond Spur or Sloan Quarry tracks, but the movement will be governed by signal indication and instructions from train dispatcher.

CTC telephone is located at clearance point of house track at west end of Cima.

405 (R). Trains and engines moving from track 1 at Yermo through cross-over to westward main track must communicate with CTC Operator before occupying main track. CTC telephone is located directly opposite switches to west cross-over.

Trains and engines moving from siding to main track at Kelso through east or west cross-overs must communicate with train dispatcher before occupying main track.

Trains and engines and yard engines moving from yard tracks to main track at Las Vegas must communicate with train dispatcher before occupying main track.

Eastward freight trains leaving Las Vegas will, unless otherwise instructed, use new drill track and leave the yard at extreme east switch, being governed by signal indication at that point. Westward freight trains arriving Las Vegas will be governed by signal indication at east switch.

At Caliente, main track switch at west end of yard, and cross-over switch at west end of drill track, are power-operated and controlled by train dispatcher at Las Vegas. Dwarf signal governs movement to main track.

Trains and engines moving to main track must stop at Stop sign 200 feet east of dwarf signal. When illuminated "S" is displayed on signal unit located on top of signal case near cross-over switch, member of crew must operate push button on east side of signal case to cause switches to line for cross-over movement and dwarf signal to display Proceed indication.

Trains and engines moving from St. Thomas Branch to siding at Moapa, or engines moving from house track at Cima, must communicate with train dispatcher before occupying siding at either point.

509 (R). Home signal at east end Los Angeles River Bridge governs movements over A. T. & S. F. spur track crossing at west end of bridge.

Color light dwarf signal at west end of Los Angeles River Bridge governs movements over A. T. & S. F. Crossing at Redondo Tower.

509 (S). At Whittier Jct., switch leading from Anaheim Branch is equipped with electric lock. Instructions for operation of switch are posted at the switch.

509 (T). At Soto St. Jct., when a train or engine is stopped by Signals 20, 22 or B-23, a flagman must be sent ahead and train or engine must follow flagman at restricted speed to the next signal.

509 (U). Block signals are in service between Manuel and Thenard interlocking on the San Pedro Branch.

Approach signal located at M.P. 20.7 and Home signal 215 located at M.P. 21.5 governs westward movements.

Dwarf signal located 150 feet east of main track switch at Willow Junction governs westward movements from Manuel Hold Yard to San Pedro Branch main track.

Trains and engines moving from Manuel Hold Yard to San Pedro Branch main track must communicate with signalman at Thenard Tower, who will release electric lock on switch. After lock has been released, trainman must operate main track switch and be governed by signal indications.

When signalman at Thenard Tower is unable to release electric lock, trainman will, on instructions from signalman, operate time release, which, after three-minute interval, will release lock; switch can then be operated.

After main track switch has been opened, if dwarf signal does not display Proceed indication, Rule 509 will govern.

To release electric lock to enter Manuel Hold Yard, trains or engines must occupy the 66-foot unlocked section of track immediately west of Willow Junction main track switch.

605 (R). The following whistle signals will be used to indicate route:

WO. Tower for siding..... ———○

Riverside Jct.:

From A. T. & S. F. westward main track to U. P. eastward main track..... ———○

From U. P. westward main track to A. T. & S. F. eastward main track..... ———○

From U. P. westward main track to A. T. & S. F. westward main track..... ———○○○○

To transfer track..... ○○○——

Downey Road:

For main track..... ———

For San Pedro Branch..... ———○

For Bridge Jct..... ○——○

For middle track..... ○○○——

Hobart:

For siding..... ———○

For east wye..... ———○———

From San Pedro main track to A. T. & S. F. siding..... ———○

From A. T. & S. F. siding to San Pedro main track..... ○——

From U. P. transfer to A. T. & S. F. siding.... ○○○——

From A. T. & S. F. siding to U. P. transfer.... ○○○——

Pasadena Jct., passing microphone at First St.:

For Union Station..... ○——

To and from Glendale Jct..... ———

For Alhambra S. P. coach yard or to turn equipment or engine..... ○○○——○

For S. P. coach yard..... ○○○○———

Ninth St. Jct., passing microphone between Fourth and Sixth Streets:

For main track..... ———

For Bridge Jct..... ———○

Mission Tower, one long sound of Towerman's emergency whistle is a signal for all movements within interlocking limits to stop at once and not move until proper signal or definite information is received from signalman.

609 (R). At Cota and Thenard, when a train or engine is stopped by an interlocking signal displaying Stop indication, a member of crew must communicate with signalman and be governed by instructions posted in box.

609 (S). When a train or engine is stopped by a Stop indication of an interlocking signal at Signal Bridges 3, 4, or 6, and signal does not change to Proceed indication, a member of the crew must communicate with the signalman at Dayton Avenue or Mission Tower.

609 (T). When a train or engine is stopped by a Stop indication of an interlocking signal at Ninth St. Jct., and signal does not change to Proceed indication, a member of the crew must communicate with switchtender, and if instructed by switchtender, switches may be operated by hand and a member of the crew must precede the movement and give proceed signal from the crossing when safe to proceed.

Switches at Ninth St. Jct. are equipped with two levers and switch locks. To operate switch by hand, selector lever must be moved to reverse position. Lever must be returned to normal position when movement is completed.

609 (U). Trains moving to Chamberlin Spur must communicate with switchtender at Bridge Jct., and be governed by signal indication.

Trains moving from Chamberlin Spur or from Griffith Spur to Soto St. Jct. must communicate with switchtender at Bridge Jct., and movement must be made through cross-over between Ninth St. Viaduct and Ninth St. Jct.

609 (V). At Bell, in performing switching between the home and approach signals, cars must not be left standing on clearing section of track located between 350 feet west of the eastward home signal and 330 feet east of the westward home signal. Switching movements may be made between these points and the approach signals without interfering with operation of the P. E. Ry.

At Bell, when making movements from siding or Bethlehem Steel Corporation spur to main track, trainmen must be governed by switch indicator. If switch indicator displays Proceed indication, switch may be thrown and when dwarf signal displays Proceed indication, movement will be made at restricted speed. When performing switching at those points, flag protection must be provided for cars left on main track between the home signals.

When making movements to and from Bethlehem Steel Corporation spur to siding, the switch nearest train must be thrown first to make contact for the governing signal.

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.

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.

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.

Whenever placards or car certificates become detached or lost in transit, they must be replaced. If both car certificates are missing, proper inspection, insofar as possible, must be made and new car certificates applied. (BE 589-c)

Cars placarded "Explosives" must be placed in through freight trains near the middle of the trains and must be not nearer than the sixteenth car from the engine, or a caboose in service if next to engine, electric locomotive, or motor car, nor the eleventh car from the rear end caboose, if the length of the train will permit. Cars placarded "Explosives" in all cases must be not nearer

802 (S). Continued.

than the second car from engine, electric locomotive, motor car, or caboose. Where helper engines or electric locomotives are employed ahead of caboose, cars placarded "Explosives" must be separated from such helpers by at least one car. (BE 589-g)

Cars placarded "Explosives" may be placed in local freight trains, or mixed trains when authorized herein, not nearer than the second car from the engine, electric locomotive, motor car, or a caboose in service, when placing them near the middle of the train would require additional switching at way stations. (BE 589-h)

Cars placarded "Explosives" must not be placed in through or local trains next to dead engines, placarded tank cars, wooden-frame flat or gondola cars; or carloads of pipe, lumber, poles, iron, steel, or similar lading which by shifting may break through end of car placarded "Explosives" due to rough handling; refrigerator cars equipped with automatic refrigeration of the gas-burning type; nor next to cars containing lighted heaters, stoves, or lanterns; or cars with live stock or poultry occupied by an attendant. (BE 589-i)

Cars placarded "Explosives" must not be placed in through or local trains next to cars which bear "Dangerous" placards, unless the remainder of the train consists only of such cars. (BE 589-j)

Placarded loaded tank cars must not be placed in trains next to cars placarded "Explosives" nor next to cars containing lighted heaters, stoves, or lanterns; nor next to refrigerator cars equipped with automatic refrigeration of the gas-burning type; nor next to flat cars with lading such as logs, lumber, rails, or pipe, or gondola cars with such lading higher than ends, that is liable to shift. In through trains such tank cars must not be placed nearer than the sixth car from the engine, electric locomotive or motor car, or a caboose in service, and in local trains not nearer than the second car from engine, electric locomotive, motor car or a caboose in service, when length of train permits and cars other than loaded tank cars are in the train. (BE 589-k)

When handling cars placarded "Explosives" in yards or on sidings, explosives cars must be coupled to engine, electric locomotive, or motor car, protected by a car between. (BE 589-l)

When necessary to switch a train in which there are cars loaded with explosives, such cars should be set over before switching is commenced, and when switching completed, cars should be picked up and replaced in train. All moves with cars loaded with explosives must be made with air brakes cut in and operative and with hand brakes operative.

Cars containing dangerous explosives, Class A, poison gases or liquids, Class A, and tank cars requiring "Dangerous" placards must not be hauled in a passenger train. If freight train service is not operated such cars may be hauled in mixed trains. (BE 589-v)

In mixed train service or when passengers are carried in a caboose car of a freight train, a car containing a shipment of dangerous explosives, Class A, or poison gases or liquids, Class A, or a tank car placarded "Dangerous" may be hauled but such cars must not be placed next to cars carrying passengers, and whenever it is practicable to do so cars placarded "Explosives" must be placed between cars not bearing "Dangerous" or "Poison Gas" placards. (BE 589-w)

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.

802 (T). U. P. flat cars 55519, 56000, 56052 and 56228 are equipped with gas cylinders (high pressured flasks), to transport compressed gas, and are assigned between Wilmington and Pocatello-Council Bluffs.

This gas is highly inflammable and extreme care must be exercised switching in yards and handling in trains. In case of leakage, no open flame should be permitted in the vicinity of the cars, and cars must be handled in accordance with Bureau of Explosives regulations.

802 (U). Sanders or injectors must not be used over track scales and engines or cars must not stand on dead rail over scale deck or platform of track scales. 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 scale, speed must not exceed two MPH, and four MPH must not be exceeded over scales in any case. Cars on live rail must not be moved by other cars or engines standing 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.

804 (R). Assistant Supervisor Oil-Gas-Electric Mobile Power is responsible for the proper sealing of cut-out cock controlling the safety control feature in air brake equipment of Diesel-electric road locomotives; however, engineer must know that cut-out cock is sealed in proper position when taking over Diesel road locomotive and before departure of train from terminal.

804 (S). At Caliente, if engine is detached from passenger train, sufficient hand brakes must be set on head end of westward trains and on rear end of eastward trains, to secure cars until engine is again attached.

When engine is detached from westward passenger train, enginemen will deliver engine to hostler on adjacent yard track. When engine is detached from eastward passenger train, enginemen will move engine 15 feet from train where hostler will take charge.

804 (T). At Caliente, cars switched into any track must have hand brakes set to secure them. This applies in all cases, whether cars are cut off in a switching movement or shoved into any track.

Trainmen of all freight trains arriving Caliente will set sufficient hand brakes to properly secure train but in no case must there be less than 10 hand brakes set, length of train permitting. All brakes other than the power type must be set with brake club.

When yard crew makes cut in train for helper engine, unless helper engine is cut in immediately, sufficient hand brakes must be set to hold cut, but in no case not less than five hand brakes.

Yard crews will be held responsible for properly securing cars in yard, especially when cars are coupled to other cars already standing. Sufficient hand brakes must be set on all cars standing to hold them if other cars are coupled to them. It is not permissible to kick or drop loads westward nor kick empties westward on a clear track. In no case may empties be permitted to run free over 10 car lengths. In switching house track at Caliente, cars must not be switched to nor left standing on main track.

Track 55 leading from wye track to turntable is descending grade of one per cent toward turntable. This track is equipped with derail, which must be locked in derailing position when not being used. Cars, engines or other equipment must not be stored nor left standing between derail and turntable.

804 (U). Sufficient hand brakes, but not less than six, must be set on east end of all freight trains arriving Yermo and East Yard. Engine foremen working on east lead Yermo and in east end of "A," "B," and "C" yards, East Yard, will be responsible for knowing that sufficient hand brakes are set on east end of cars on all tracks in these yards.

804 (V). At Kelso, if a train is left unattended on any track it must be secured with at least 10 hand brakes, regardless of whether engine is detached from train.

At Kelso, on all eastward freight trains member of train crew must remain at rear of train until helper is cut in.

808 (R). Single helper may be used behind all-steel caboose San Bernardino to Summit, Kelso to Cima, Carp to Caliente, Moapa to Apex and Victorville to Summit when there are no wooden underframe cars, drover cars, scale test cars, cars with emergency drawbars or cars carded to be handled on rear of train ahead of caboose.

When two engines are used on freight train between Kelso and Cima, and Carp and Caliente, one engine must be placed on rear of train when tonnage exceeds rating of road engine, or when more than fifty cars in train.

Between Victorville and Summit, helper engine will be placed on head end when tonnage of train does not exceed 75 percent of the combined tonnage rating of the road and helper engines.

811 (R). In addition to making inspection of train as often as practicable, as per Rule 811, every freight train must stop and be inspected at the following points:

Kelso	—Eastward and westward, remain 10 minutes;
Cima	—Westward;
Chase	—Westward, remain standing 10 minutes;
Dawes	—Westward, remain standing 10 minutes;
Desert	—Eastward and westward;
Rox	—Westward;
Rox or Carp	—Eastward;
M. P. 6, Blue	
Diamond Spur	—Eastward, remain standing 10 minutes.

Moapa Turn, when handling sand and rock must not exceed 30 MPH at any point between Moapa and Las Vegas, stopping at Dry Lake for inspection of train.

811 (S). 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 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.

874 (R). Duties of firemen on multiple unit Diesel-electric road locomotives:

At initial terminals, before departure, fireman will go through engine rooms and make careful inspection of gauge indications, oil levels, engine temperatures, shutter controls and will operate the steam separator blow-down valves and soot blower valves of steam generating units, first blowing down steam separator, after which soot blower will be operated. Any unusual condition detected or irregularity found must be reported to engineer.

At all intermediate stations or stops, when time permits, fireman will make same observations in engine rooms as outlined above.

At points where firemen change, incoming fireman will assist outgoing fireman in inspecting gauges, blowing boilers and other required duties.

At stations where locomotive is to be detached, fireman will close main valve to train heat line.

When locomotive is coupled to train at initial or intermediate station, or where cars are cut in or cut out of train, fireman, on request or proper signal, will open main valve to train heat line. Unless locomotive equipped with remote control valve, opening or closing of main valve to train heat must be done while train is standing.

Warning lights located in cab on left side of panel board indicate:

1. Low oil pressure;
2. Hot engine;
3. Fire out in steam heat generator.

Warning bell located in cab will ring when any of the above indications are displayed. If necessary, train must be stopped for inspection and necessary attention.

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.

At Kelso, on westward trains, an engineman must be in charge of engine at all times.

876 (R). Firemen with less than one year's experience as fireman must not be permitted to operate engine at any time in yard or road service.

879 (R). On account of both sludge removers on Engines 4020 to 4024 inclusive, 3930 to 3949 inclusive and 835 to 844 inclusive, discharging on right side, left sludge remover must not be used by fireman on these engines except when instructed to do so by engineer.

879 (S). On engines equipped with Elesco exhaust steam injectors, when standing or moving around yards, engineers will use right high pressure injector instead of left exhaust injector, to avoid excessive waste of water from the left injector which causes a serious condition around switches and yard tracks.

896 (R). Engines of any class must not go on the following tracks:

- Mira Loma —Any tracks within Government enclosure;
- Boulder City —Machine Shop track No. 7;
- Chase —Water track over unloading flume;
- Baxter —Trestle on Lime Quarry spur track;
- Crestmore —Track over trestle in plant yard of R. P. C. Company;
- Riverside —Mission spur track serving A. F. G. Company yard. Diesel engines must not go beyond east end of packing house;
- Whittier —Whittier Citrus Association spur track;
- Murphy Packing House spur, not beyond point 220 ft. from switch;
- South Gate —Three Fibreboard Products Company spurs except 4200 and 4400 class yard engines and Diesel engines.

2200 class and heavier engines must not go on the following tracks:

- Henderson— —Industrial trackage beyond former interchange track;
- Basic Yard
- St. Thomas Branch —All tracks west of M.P. 0.2;
- Arden —Blue Diamond Spur;
- Jean —Yellow Pine Mining Company spur;
- Colton —Both legs of wye except 2200 and 2700 class engines;
- Crestmore Branch —All tracks;
- Crestmore Spur —All tracks, except 2200 and 2700 class engines may operate between Bly and Ormand Quarry;
- Ontario —Cucamonga Co-operative Winery spur at M.P. 39.0, not beyond point 75 feet east of frog except 2200 and 2700 class engines;
- Pomona —250 feet easterly of Pomona Fruit Growers Exchange track on east side of Exchange Growers Building;
- Anaheim Branch —All tracks;
- Glendale Branch —All tracks;
- Pasadena Branch —All tracks, except 2200 and 2700 class engines;
- Clearwater —Macco Lumber Company spur;
- Hynes —Southern California Edison Company spur;
- Rioco —Two Richfield Oil Company spurs.

7000 class and heavier engines must not go on the following tracks:

- Riverside —City of Riverside oil spur track;
- Magnolia Avenue spur track;
- Ontario —Cutler-Lobinger Packing Company spur track;
- Packing House spur track at Cypress Avenue;
- General Electric Co. tracks;
- Fallon —Spur track;
- Hudson —Spur track;
- Clayton —Spur track;
- Bell —Storage track.

7000 class and heavier engines must not go beyond main track switch at Douglas Junction on Douglas Spur.

3500, 3800 and 3900 class engines must not go on Dixon Spur at Mira Loma.

Trains and engines using Farrier Pit track must not go beyond loading ramp with box cars, caboose nor engine, account close clearance for any type of equipment except ballast and flat cars.

900 (R). 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:

900 (R). Continued.

Location	Structure or obstruction	Clearance of engine or car is close at—
At all stations.....	Mail cranes .....	Side.
<b>First Subdivision.</b>		
Los Angeles Union Station..	Umbrella sheds .....	Top (800, 3800 and 3900 engines ventilators open)
Los Angeles River.....	Bridge .....	Side.
M.P. 1.89 (Butte St.).....	Bridge .....	Side.
Soto St. ....	Signal 24 .....	Side.
M.P. 8.90 .....	Highway bridge .....	Top.
M.P. 10.80 .....	Bridge .....	Top and side.
M.P. 11.1 .....	Highway bridge .....	Top.
M.P. 15.05 .....	Bridge .....	Top and side.
M.P. 15.39 .....	Bridge .....	Top and side.
M.P. 15.72 .....	Bridge .....	Top and side.
M.P. 30.65 .....	Telegraph poles .....	Side.
M.P. 31.95 (Thomas St.)....	Iron post barricade .....	Side.
Pomona .....	Signal 319 .....	Side.
Pomona .....	Signal 320 .....	Side.
Pomona .....	Signal 320 (Case) .....	Side.
W. O. Tower.....	Lever rod for train order signal .....	Side.
M.P. 33.0 to 34.2 .....	Telegraph poles .....	Side.
Bly, west cross-over switch..	Switch indicator .....	Side.
M.P. 50.7 .....	Relay box .....	Side.
M.P. 52.40 .....	Bridge .....	Side.
M.P. 55.74 .....	Canal syphon wall .....	Side.
M.P. 55.90 .....	Highway bridge .....	Side.
M.P. 56.2 .....	Relay box .....	Side.
M.P. 57.1 .....	Relay box .....	Side.
<b>Second Subdivision:</b>		
M.P. 192.34 .....	Tunnel No. 1.....	Top.
M.P. 243.96 .....	Bridge .....	Side.
Chase .....	Water tank spout .....	Top and side.
M.P. 250.69 .....	Bridge .....	Side.
M.P. 267.25 .....	Bridge .....	Side.
Ivanpah .....	Water column .....	Side.
<b>Third Subdivision:</b>		
Moapa .....	Water column .....	Side when on siding.
M.P. 395.42 .....	Bridge .....	Side.
M.P. 397.04 .....	Bridge .....	Side.
M.P. 397.32 .....	Bridge .....	Side.
M.P. 406.55 .....	Bridge .....	Side.
M.P. 407.09 .....	Bridge .....	Side.
M.P. 408.24 .....	Bridge .....	Side.
M.P. 408.97 .....	Bridge .....	Side.
M.P. 409.16 .....	Bridge .....	Side.
M.P. 409.25 .....	Signal poles .....	Side.
M.P. 419.30 .....	Bridge .....	Side.
M.P. 430.68 .....	Bridge .....	Side.
M.P. 431.82 .....	Bridge .....	Side.
M.P. 433.47 .....	Bridge .....	Side.
M.P. 437.22 .....	Bridge .....	Side.
M.P. 444.56 .....	Bridge .....	Side.
M.P. 447.89 .....	Bridge .....	Side.
M.P. 452.03 .....	Bridge .....	Side.
M.P. 458.56 .....	Bridge .....	Side.

Location	Structure or obstruction	Clearance of engine or car is close at—
<b>St. Thomas Branch:</b>		
M.P. 5.49 .....	Cut .....	Side.
M.P. 5.52 .....	Cut .....	Side.
M.P. 5.61 .....	Cut .....	Side.
M.P. 5.73 .....	Cut .....	Side.
M.P. 6.05 .....	Cut .....	Side.
M.P. 6.34 .....	Cut .....	Side.
M.P. 6.61 .....	Cut .....	Side.
M.P. 7.09 to 7.13 .....	Cut .....	Side.
M.P. 7.40 .....	Cut .....	Side.
M.P. 7.75 .....	Cut .....	Side.
<b>Pasadena Branch:</b>		
Ave. 21 to Ave. 22 .....	Brick building, pipe and eaves .....	Side.
M.P. 5.24 .....	Retaining wall .....	Side.
M.P. 6.1 .....	Fence, concrete railing, lights at bridge .....	Side.
M.P. 6.2 .....	Guy wire .....	Side.
M.P. 8.7 .....	Retaining wall .....	Side.
M.P. 8.09 .....	Highway bridge .....	Top.
M.P. 8.09 .....	Cross-arms .....	Side.
M.P. 8.16 .....	Highway bridge .....	Top.
<b>Glendale Branch:</b>		
Forest Lawn Cemetery M.P. 6.3 .....	Gates .....	Side.
<b>San Pedro Branch:</b>		
M.P. 5.10 Randolph St. ....	Trolley wires .....	Top.
M.P. 8.52 .....	Bridge .....	Side.
Clearwater—PE Crossing ..	Trolley wire .....	Top.
Thenard .....	Trolley wire .....	Top.
<b>Crestmore Branch:</b>		
M.P. 1.01 .....	Bridge .....	Side.

900 (S). Framed copies of Chief Engineer's drawings Nos. 53663, 53664, 54313 and 54398 are posted in yard offices and engineers' rooms.

C. E. drawing 53663 provides information with respect to the maximum widths and heights of loads that can be handled between Los Angeles and Council Bluffs or Kansas City, either via Denver or North Platte, and through Aspen Tunnel.

The permissible maximum load line as shown on the drawing above a point four feet above the top of rail is the limit for loads that can be moved between above points and through the tunnel. The maximum load line shown on the drawing below a point 4 feet above the top of rail is due to signals, switch stands, platforms and other structures along the balance of the route; the permissible maximum load line below four feet above the top of rail does not refer to the tunnel.

Special attention is called to the table appearing at right of diagram showing various heights above top of rail, and opposite each height the maximum width of load that can be handled at that height when loaded on a car the length of which does not exceed 43 feet from center to center of trucks.

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. 12 ft. 6 inches is the maximum width of load that can be moved with special handling between the limiting heights as given in the table at the right hand side of the drawing. Advance approval of the General Superintendent of 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 the car, and it is important to know that loads are so centered. The effective width of eccentric loads is double the maximum extension of the load from the center of the car at any given height above top of rail.

See C. E. Drawing 53664 for dimensions of loads that can be handled between Los Angeles and Council Bluffs through Bear River Tunnel via McCammon and Granger.

See C. E. drawing 54313 for dimensions of loads that can be handled between Los Angeles and Kansas City, through Bear River tunnel via McCammon, Granger and North Platte.

See C. E. Drawing 54398 for dimensions of loads that can be handled between Los Angeles and Kansas City through Bear River Tunnel via McCammon, Granger and Denver.

900 (T). AT&SF 6450 to 6459 inclusive, specially constructed high, wide cars, are in service.

These cars as well as U.P. 961000 and 561000 series, over-size wing cars, can move between McCammon and Ogden through Bear River Tunnel but not through Aspen Tunnel between Granger and Ogden.

The above over-oversized wing cars must not be handled on tracks equipped with umbrella sheds.

900 (U.) California Railroad Commission Decision No. 39472 covers the operation of cars exceeding a maximum height of 15' 1" from the top of the rail to the top of the running board; cars exceeding 10' 8" but not greater than 10' 11" in width, and open top cars containing lading extending in excess of 15' 6" in height above the top of the rail or extending laterally in excess of 5' 5" from the center line of the car.

Cars exceeding 15' 1" in height but not greater than 15' 6" from the top of the rail to the top of the running board and cars exceeding 10' 8" in width but not greater than 10' 11" may be moved without restrictions of any kind except that cars exceeding 15' 4" in height but not greater than 15' 6" in height and cars exceeding 10' 10" in width shall be permanently marked if company owned, or placarded or stenciled if foreign owned, indicating that such cars are of excess height or width, or both.

The markings on such cars shall be placed on the side adjacent to the ladder or handholds near the floor line of the car at each of the four corners.

Cars having a height in excess of 15' 6" but not greater than 17' 1" from the top of the rail to the top of the running board and open top cars having a lading in excess of 15' 6" in height or extending laterally in excess of 5' 5" from the center line of the car may be operated under the following conditions:

Closed cars shall be stenciled if company owned, or placarded if foreign cars, on the side adjacent to the ladder or handholds at each of the four corners; open top cars shall be placarded on the load, if practical, and on the car;

On any train, the consist of which includes such cars, the cars shall be blocked in a single unit and if the length of the train permits, so located as to be at least five cars distant from both the caboose and the engine;

Each member of the crew of each train containing cars, the lading of which extends laterally in excess of 5' 5½" from the center line of the car or in excess of 15' 6" in height, or cars in excess of 15' 6" in height, shall be informed by appropriate train order that the consist of the train includes such cars. The information transmitted shall also specify the total number of such cars and advice that no member of the train crew is required to ride on any such car of excess lading or on the top of any such cars in excess of 15' 6" in height;

Each member of the crew of trains whose operations may be affected by the presence or operation of other trains having lading in excess of 5' 5½" from the center line of the car, shall be informed by appropriate train order, advising them of that condition. Yard Supervisors will be given notification sufficiently in advance of the arrival of cars having such lading to enable them to take necessary precautions to safeguard employes in yards;

900 (U). Continued.

Cars on which the lading exceeds 15' 6" in height and the nature of which precludes the passing over by employes, may be handled without any restrictions except blocking in single units five cars distant from the caboose and the engine;

Yard crews required to handle closed cars of a height in excess of 15' 6" shall be notified by an appropriate supervisor of the presence of such cars in said yard unless all vertical clearances in said yard exceed 24' above the top of the rail;

No employe shall be required to ride on the top of cars in excess of 15' 6" on yard or lead tracks where vertical clearances are less than 24' above top of rail;

When closed cars in excess of 15' 6" in height are interchanged between carriers in the State of California, the delivering carrier shall give sufficient advance notice to the receiving carrier that such excess height cars are to be placed on the interchange track as will enable the receiving carrier to comply with the conditions in Decision No. 39472.

Below are shown where a number of close clearances exist, and every possible precaution must be taken in the movement of these cars over the railroad and close attention given the cars in yards, and on passing tracks when meeting trains, to know positively there is sufficient clearance on opposite track to clear loads, stopping trains, or yard movements on opposite tracks if necessary, to know positively there is clearance.

Excess width loads must not be moved over main and passing tracks at same time at Riverside, WO Tower, Pomona, Rowland, Montebello, Fruitland and Hynes.

Excess width loads must not be stored on or moved over yard tracks at same time in yards at Las Vegas, Yermo and East Yard, unless there is an intervening track between excess width loads.

Account close clearance, 800, 3800 and 3900 class engines must not be moved at the same time with cars with excess width loads over main track and passing tracks at Hynes, Fruitland, Montebello, Rowland, WO Tower, Pomona and Riverside. This close clearance also applies on all yard tracks at East Yard; between tracks 1, 2, 3, 4, 5 and 6 in Yermo Yard; between tracks 1, 2, 3, 4, 5 and 6 on north side of old main track and between tracks 1 and 2 on south side of old main track at Las Vegas.

Any employe noting a close side or overhead clearance with one of the wide loads, or one of the high cars, should make immediate report so that protection can be given.

Excess width loads must not be stored on or moved over yard tracks in yards where clearance is insufficient, unless there is an intervening track between trains or cars containing excess width loads.

Employes in yards and elsewhere must keep close lookout for wide loads in trains and in switch movements, being on the alert when such movements are passing to avoid hazard of injury from such excess width loads, or damage to equipment. When employes have been informed of a load of excess width in a train, they must inspect their own train for swinging doors or anything projecting beyond normal clearance, and if any excess width loads in their train, must obtain meeting or passing order at stations where there is sufficient clearance.

Employes observing cars of excess height or width, or cars containing loads of excess height or width, should notify their supervisor in the event such cars are not placarded or stenciled as required by this rule.

900 (V). Ore dock at Lovell is equipped with apron that cannot be raised nor lowered to normal position alongside of dock when high cars are spotted at dock. It is necessary that apron be lifted before high cars are spotted under it, and if no one is there to lift apron, cars should be left clear of apron. When there are cars to be set in or taken out of dock, it must be known that apron will clear cars. Apron in raised position over track will not clear engines, nor high cars.

900 (W). In moving cars on tracks under overhead trolley wires, employes 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.

900 (W). Continued.

Connections with electrically operated railways at following locations:  
 Los Angeles—Butte St. and Santa Fe Ave.  
 Riverside—Market Street.  
 Mead Transfer.  
 La Habra.

TRACKS NOT SHOWN ON TIME-TABLE

Location	Miles from Los Angeles	Car Capacity	Switch Connections
<b>First Subdivision:</b>			
St. Helens spur .....	11.1	16	West
Hudson .....	17.9	6	East
Fallon .....	21.7	9	West
Industrial spur .....	27.0		East
San Antonio Meat Co. ....	34.1	22	East
Cucamonga Co-operative Winery spur.....	39.1	12	West
Ballou .....	40.5	41	Both
Champagne .....	43.5	35	Both
Dixon Spur, Mira Loma .....	45.8	267	East
Riverside (Magnolia Ave.) .....	55.2	13	East
<b>Second Subdivision:</b>			
New Dunn .....	188.5	20	East
Baxter Quarry spur .....	196.9	117	West
Baxter Gravel Pit tracks} .....			East
Chase Water track .....	251.2	15	Both
Blue Diamond .....	321.8		West
<b>Third Subdivision:</b>			
McCarran Airport spur .....	342.6		West
Lovell .....	344.5	18	Both
Arrolime .....	353.8	31	Both
Farrier Gravel Pit spur .....	391.9	100	East
Hoya Gravel Pit .....	401.5	73	Both
<b>Boulder City Branch:</b>			
	Miles from Boulder Jet.		
Magnesium .....	10.5	20	Both
<b>St. Thomas Branch:</b>			
	Miles from Moapa		
Standard Oil Co. spur .....	3.1	1	East
Arrowhead .....	3.3	18	West
Amber .....	9.5	4	East
Glassand .....	13.7	9	West
<b>San Pedro Branch:</b>			
Bell Foundry spur .....	8.5	3	East
Vernon Foundry Co. ....	10.2	6	West
Hollydale spur .....	10.4	18	West
Macco Construction Co. ....	11.5	15	West
Export Petroleum spur .....	13.5	20	West
Richfield Oil Co. ....	13.8	36	East
Export Petroleum spur .....	14.1	20	East
Champion Gasoline Co. ....	14.4	19	West
<b>North Long Beach:</b>			
Siding, Industrial spur and wye .....	16.5		Both
Montana Ranch spur .....	17.1	98	West
City of Long Beach .....	17.1	8	East
Cherry Ave. Team track .....	17.1	17	East
Hancock Refining Co. ....	17.2	26	East

TRACKS NOT SHOWN ON TIME-TABLE (Continued)				
Location	Miles from Los Angeles	Car Capacity	Switch Connections	
<b>Pasadena Branch:</b>				
Baker spur .....	5.3	5	West	
Team track .....	5.4	1	East	
Crown Fence and Supply Co. ....	8.6	3	East	
Standard Bakeries Corp. ....	9.4	5	East	
<b>Glendale Branch:</b>				
Dohrmann-Walker spur .....	5.4	2	East	
Clifford spur .....	5.5	9	East	
<b>Anaheim Branch:</b>				
	Miles from Whittier Jct.			
Gladding McBean spur .....	0.1	6	West	
Sunny Hills spur .....	13.8	118	East	
Fullerton Industrial Lead .....	15.4		West	
California Juice, Inc. ....	19.1	13	West	
So. California Citrus .....	19.2	16	West	
<b>Crestmore Spur Tracks:</b>				
	Miles from Bly			
Setout track .....	0.2	49	Both	
Ennis .....	3.1	15	Both	
Ormand .....	3.9	14	West	
Ormand Quarry track .....	3.9		East	
Crestmore .....	6.9		Yard	

SET OUT TRACKS				
Location	MILE POST	CAR CAPACITY	SWITCH CONNECTIONS	GRADE DESCENDING
<b>Second Subdivision:</b>				
Toomey .....	168.5	5	East	East
Harvard .....	173.3	16	Both	East
Manix .....	177.6	19	East	East
Field .....	182.4	16	Both	Level
Afton .....	191.6	17	West	East
Crucero .....	204.1	23	West	East
Balch .....	212.0	14	Both	West
Sands .....	217.4	12	Both	Level
Glasgow .....	222.0	16	Both	West
Kerens .....	225.8	18	Both	West
Flynn .....	230.8	15	Both	West
Hayden .....	238.9	11	Both	West
Dawes .....	243.4	16	Both	West
Elora .....	246.8	11	Both	West
Chase .....	250.3	12	Both	West
Cima .....	254.2	20	Both	East
Joshua .....	258.0	12	Both	East
Brant .....	262.8	7	Both	East
Ivanpah .....	267.2	12	Both	East
Moore .....	271.9	8	Both	East
Nipton .....	277.7	12	Both	East
Desert .....	282.2	12	Both	Level
Calada .....	287.1	14	Both	Level
Roach .....	291.5	11	Both	East
Borax .....	296.9	14	Both	West
Jean .....	300.8	10	East	West
Sutor .....	305.4	17	East	West

SET OUT TRACKS (Continued)				
Location	MILE POST	CAR CAPACITY	SWITCH CONNECTIONS	GRADE DESCENDING
Erie .....	309.1	12	Both	West
Sloan .....	315.2	15	West	East
Arden .....	322.6	9	East	East
Bracken .....	328.2	12	Both	East
<b>Third Subdivision:</b>				
Wann .....	338.8	16	Both	Level
Valley .....	342.6	13	Both	West
Dike .....	347.3	8	East	West
Apex .....	352.0	8	Both	East
Garnet .....	357.3	6	West	East
Dry Lake .....	362.8	21	Both	West
Crystal .....	368.8	16	East	Level
Byron .....	377.9	13	West	East
Rox .....	397.5	19	West	West
Hoya .....	402.7	7	East	West
Galt .....	408.8	20	Both	West
Vigo .....	413.6	12	Both	West
Carp .....	418.9	16	East	Level
Leith .....	428.9	12	Both	West
Elgin .....	438.5	22	Both	West
Boyd .....	445.0	12	Both	West
Stine .....	449.5	13	East	West
Etna .....	454.3	18	East	West

1006 (R). Standard brake pipe pressure for main line passenger trains is 110 pounds.

Standard brake pipe pressure for freight trains between Caliente and Los Angeles is 90 pounds.

1035 (R). Westward passenger trains must make running air test between "S" sign east of Cima and east switch.

1041 (R). Air brake test as required by Air Brake Rule 1041 must be made by all eastward and westward freight trains at Cima.

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

Cima to Kelso;

On Blue Diamond Spur (Arden), from end of track to Arden.

On other grades, conductor and engineer must have understanding as to number of retaining valves to be used.

On passenger trains, retaining valves must not be turned down until train passes mile board east of Kelso.

When possible, the use of retaining valves on live poultry cars must be avoided.

From Kelso to Sands, westward freight trains averaging 55 tons or more per operative brake, must not exceed 30 MPH.

Between Stine and Leith and Kelso and Sands, where tonnage of westward freight trains exceeds 65 tons per operative brake, retaining valves must be used on every other load throughout train. Speed must not exceed 20 MPH and stop of 10 minutes must be made at Elgin and Kerens for inspection of train.

Maximum tonnage per operative brake in freight service, Cima to Kelso, is 65 tons.

1093 (R). Following has been added to Air Brake Rule 1093 (I): If rear end of rear car is not equipped with inside operating lever to steam train line end valve, or if for any reason inside operating lever cannot be operated, trainman must fully open steam train line end valve from ground immediately after train is stopped.

### RATING OF ENGINES IN FREIGHT SERVICE IN TONS OF 2,000 POUNDS

Total weight of trains, exclusive of engine and tender, which the different classes of engines 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 Engine	Numbers (Inclusive)	Los Angeles to Riverside	Riverside to San Bernardino	San Bernardino to Summit	Sands to Kelso	Kelso to Cima	Cima to Leith	Leith to Caliente	Moapa to Las Vegas	Las Vegas to Yermo	Yermo to Victorville	Victorville to Summit	San Bernardino to Los Angeles
P 77	$\frac{25}{28}$ 165	2885 to 2887 3128 to 3133 3176 to 3181	1220	1170	500	1170	500	1170	780	1170	1170	720	1350
C 57	$\frac{22}{30}$ 198	6010 to 6085	1700	1450	575	1350	575	1450	900	1450	1450	1780	2000
MacA 63	$\frac{26}{28}$ 212 214 218	2700 to 2715 2726 to 2735	2000	1800	700	1600	700	1720	1150	1720	1720	2000	2300
MacA 63	$\frac{26}{28}$ 212 214	2200 to 2253, 2261, 2264 2293	2000	1800	735	1650	735	1800	1210	1800	1800	2050	2400
MT 73	$\frac{29}{28}$ 230	7018 to 7024 7850 to 7869	2050	1850	800	1690	800	1850	1240	1850	1850	2050	2450
TTT 63	$\frac{29\frac{1}{2}}{30}$ 287 290 291 298	5000 to 5026 5070, 5316, 5317 5500 to 5529	2520	2520	1000	2520	1000	2520	1600	2520	2450	2520	2800
FTT 63	$\frac{27}{32}$ 307	5090 to 5099	2600	2600	1050	2600	1050	2550	1680	2600	2500	2600	2900
SA-C-59	$\frac{23-23}{30}$ 471	3500 to 3563	3600	3500	1650	3500	1650	3460	2450	3460	3500	3500	4200
CSA-69	$\frac{22-22}{32}$ 400 394 407	3800 to 3809 3810 to 3814 3815 to 3839	3490	3350	1500	3070	1500	3350	2380	3350	3350	3350	3880
CSA-69	$\frac{21-21}{32}$ 407	3975 to 3980	3490	3350	1500	3070	1500	3350	2380	3350	3350	3350	3880

Note: Rating, Caliente to Moapa, Summit to San Bernardino, Summit to Sands, and Los Angeles to East San Pedro, car limit.

Note: Rating, 6010 to 6085 class engines East San Pedro to Rioco 3000 tons, Rioco to Los Angeles 3500 tons.

Note: Rating Diesel 1000 Class engines 3000 tons East San Pedro to Los Angeles.

**EXPLANATION:**

P—Pacific Type  
C—Consolidation  
MacA—MacArthur  
TTT—2-10-2

MT—Mountain Type  
FTT—4-10-2  
SA-C—Simple Articulated-Consolidation  
CSA—Challenger Simple Articulated

Example:—Consolidation engine having 57 inch drivers, cylinders 22 inch diameter and 30 inch stroke, and weighing 198,000 pounds on drivers:

$\frac{22}{30}$  198  
**C-57**