

UNION PACIFIC RAILROAD COMPANY
SOUTH-CENTRAL DISTRICT



**CALIFORNIA DIVISION
TIME-TABLE No. 43**

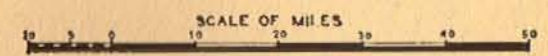
**Effective Sunday,
March 3, 1974**

at 12:01 A.M. Pacific Time

**STAY ON THE
RIGHT TRACK . . .
. . . WORK SAFELY!**



SOUTH CENTRAL DISTRICT
CALIFORNIA DIVISION
CORRECTED TO MAY 1, 1972



FOR EMPLOYEES ONLY

RADIO PROCEDURES

The following radio procedure must be followed:

(1) To restore a track to service prior to expiration of the protecting order, or:

(2) Prior to authorizing a train to proceed through the limits of a Form Y Order.

(Between employe in charge and subordinates in charge of elements of the work force.)

"U.P. General Foreman A. B. Smith calling Foreman Robert Jones."
 "Robert Jones to Smith—go ahead."
 "Jones advise when men and machines are clear of westward main track."
 "Jones to Smith—men and machines are clear of westward main track."
 "Smith to Jones—Keep men and machines clear. I will release westward main track for service immediately. Do you understand?"
 "Jones to Smith—Acknowledged. I understand."

(Procedure to be repeated to each employe responsible for any element of work force) **TRACK MUST NOT BE RELEASED FOR SERVICE UNTIL ALL RESPONSIBLE PERSONS HAVE CONFIRMED THEIR UNDERSTANDING.**

The following radio procedure must be followed when authorizing a train to proceed through the limits of a Form Y Order:

(Between employe in charge, named in the Form Y Order, and the engineer)

"U.P. General Foreman A. B. Smith calling Engineer U.P. Extra 3900 West."
 "Engineer U.P. Extra 3900 West to Smith. Go ahead."
 "General Foreman Smith to Engineer U.P. Extra 3900 West. I am in charge of work between M.P. 107 and M.P. 109 Train Order No. 45. Men and machines are clear. You may proceed through the limits of Order No. 45 at (___ MPH repeat ___ MPH) (Normal Speed) Acknowledge."
 "Engineer Extra 3900 West. I may proceed through limits of Order No. 45 at (___ MPH) (Normal Speed). Acknowledged. Extra 3900 West Out."

R. L. RICHMOND General Manager		J. BOWEN General Superintendent Transportation		Time per Mile	Mile per Hour	Time per Mile	Mile per Hour	Time per Mile	Mile per Hour
L. B. MASKILL, Superintendent	Los Angeles, Calif.	30"	120.	52"	69.2	1'15"	48.		
G. R. TROUTMAN, Terminal Superintendent	Los Angeles, Calif.	31"	116.1	53"	67.9	1'20"	45.		
M. L. RAWLINSON, Terminal Superintendent	Las Vegas, Nev.	32"	112.5	54"	66.6	1'25"	42.3		
H. B. CROWE, Asst. Terminal Supt.	Los Angeles, Calif.	33"	109.1	55"	65.4	1'30"	40.		
A. E. FROST, Terminal Trainmaster	Los Angeles, Calif.	34"	105.9	56"	64.2	1'35"	37.9		
D. E. BERGERON, Terminal Trainmaster	Los Angeles, Calif.	35"	102.9	57"	63.1	1'40"	36.		
J. R. BANKALUK, Terminal Trainmaster	Los Angeles, Calif.	36"	100.	58"	62.	1'45"	34.3		
R. C. KLEPPER, Terminal Trainmaster	Los Angeles, Calif.	37"	97.3	59"	61.	1'50"	32.7		
E. C. BERNEY, Terminal Trainmaster	Las Vegas, Nev.	38"	94.7	1'	60.	1'55"	31.3		
J. I. STROSNIDER, Trainmaster	Los Angeles, Calif.	39"	92.3	1' 1"	59.	2'	30.		
M. D. DECKER, Trainmaster	Las Vegas, Nev.	40"	90.	1' 2"	58.	2'15"	26.6		
A. W. CAMPBELL, Mechanical Supt.—West	Salt Lake City, Utah	41"	87.8	1' 3"	57.1	2'30"	24.		
W. E. RAYMOND Road Foreman—Assistant Trainmaster	Los Angeles, Calif.	42"	85.7	1' 4"	56.2	2'45"	21.8		
W. T. SANDLIN Road Foreman—Assistant Trainmaster	Los Angeles, Calif.	43"	83.7	1' 5"	55.3	3'	20.		
L. F. LOVE Road Foreman—Assistant Trainmaster	Las Vegas, Nev.	44"	81.8	1' 6"	54.5	3'30"	17.1		
F. D. WENGERT, Division Engineer	Los Angeles, Calif.	45"	81.8	1' 7"	53.7	4'	15.		
W. F. GRIFFIN, Superintendent of Safety	Los Angeles, Calif.	46"	80.	1' 8"	52.9	5'	12.		
R. D. BRINK, Division Chief Dispatcher	Salt Lake City, Utah	47"	78.3	1' 9"	52.1	6'	10.		
R. C. ALLYN, Chief Train Dispatcher	Salt Lake City, Utah	48"	76.6	1'10"	51.4	7'	8.6		
		49"	75.	1'11"	50.7	8'	7.5		
		50"	73.5	1'12"	50.	10'	6.		
		51"	70.6						

Assistant Chief Train Dispatchers

W. A. McCALL	Salt Lake City, Utah
G. J. WILDE	Salt Lake City, Utah
J. T. HOLYOAK	Salt Lake City, Utah
W. S. COX	Los Angeles, Calif.
J. E. MUNCEY	Los Angeles, Calif.
L. J. HILL	Los Angeles, Calif.

MILEAGE

Main Line	338.5
Branches	69.5
Total	408.0

6. The following letters, placed before the time in a schedule, indicate:

- s—regular stop;
- f—flag stop to receive or discharge traffic;
- A—arrive.

6 (A). The following letters, placed in column with station name, in time-table indicate:

- D—day operator;
- N—night operator;
- R—train register;
- YL—yard limits.

Time per Mile	Mile per Hour	Time per Mile	Mile per Hour	Time per Mile	Mile per Hour
30"	120.	52"	69.2	1'15"	48.
31"	116.1	53"	67.9	1'20"	45.
32"	112.5	54"	66.6	1'25"	42.3
33"	109.1	55"	65.4	1'30"	40.
34"	105.9	56"	64.2	1'35"	37.9
35"	102.9	57"	63.1	1'40"	36.
36"	100.	58"	62.	1'45"	34.3
37"	97.3	59"	61.	1'50"	32.7
38"	94.7	1'	60.	1'55"	31.3
39"	92.3	1' 1"	59.	2'	30.
40"	90.	1' 2"	58.	2'15"	26.6
41"	87.8	1' 3"	57.1	2'30"	24.
42"	85.7	1' 4"	56.2	2'45"	21.8
43"	83.7	1' 5"	55.3	3'	20.
44"	81.8	1' 6"	54.5	3'30"	17.1
45"	81.8	1' 7"	53.7	4'	15.
46"	80.	1' 8"	52.9	5'	12.
47"	78.3	1' 9"	52.1	6'	10.
48"	76.6	1'10"	51.4	7'	8.6
49"	75.	1'11"	50.7	8'	7.5
50"	73.5	1'12"	50.	10'	6.
51"	70.6				

LOCATION OF STANDARD CLOCKS

Las Vegas	Freight Enginemen's Locker Room
Las Vegas	Conductor's Register Room
Las Vegas	Telegraph Office
Las Vegas	Yard Office
Yermo	Telegraph Office
East Yard	Switchmen's Locker Room
East Yard	Enginemen's Locker Room
East Yard	Register Room
East Yard	Dispatcher's Office
East Los Angeles	Telegraph Office
Los Angeles	Union Station Enginemen's Locker Room

6 (B). The following letters, placed in column provided in the time-table, indicate:

- A—automatic interlocking;
- F—fueling station;
- I—manual interlocking;
- P—dispatcher's telephone;
- T—turntable;
- X—cross-over;
- Y—wye.

SPEEDS SHOWN BELOW ARE MAXIMUM SPEEDS PERMITTED AND MUST NOT BE EXCEEDED

Designation "Psgr." — Train with Diesel locomotive and all passenger train equipment.

Designation "Frt." — Train with freight cars; train with caboose only; locomotive without cars; locomotive with cars, other than train movement.

GENERAL

Location	Miles Per Hour		Location	Miles Per Hour	
	Psgr.	Frt.		Psgr.	Frt.
When using No. 20 turn-outs, unless a different speed is specified.	40	40	Trains handling wrecking derricks: American Hoist derricks 903045, 903046, 903047.	60	
When using No. 14 turnouts located on: Straight track Curves	30 20	30 20	Other derricks with 6-wheel trucks. Derricks with 4-wheel trucks. For first five miles after leaving initial terminal with derricks not equipped with roller bearings. (All slower speeds applying to freight trains on curves and other restricted locations must be complied with.)	40 35	
When using other turn-outs.	15	15		20	
Facing point movement over spring switches not protected by signals unless advised by train order that switch has been spiked.	20	20	Trains handling scale test cars, wedge plows or company roadway machines on their own wheels (except wrecking derricks): On main lines—tangent track. On main lines—curves. On branch lines.	35 25 25	
On tracks, other than main tracks, unless a different speed is specified.	15	15	Self-propelled cranes, pile drivers, weed burners and similar equipment moving under own power (Slower speed must be observed where conditions require.)	35	
Sidings in CTC territory.	20	20	Jordan spreaders and other machines of spreader type, when in operation with wings extended.	15	
Within yard limits protected by continuous block signal system.	35	35	Trains handling continuous welded rail or continuous lengths of jointed rail. On unrestricted track. On restricted track or curves, 20 MPH LESS than published speed, except when published speed is 30 MPH or less, must not exceed 10 MPH. Through cross-overs or turn-outs.	40 10	
Within yard limits not protected by continuous block signal system, unless a different speed is specified.	20	20	Trains handling diesel units dead in train. Yard switch units of any type. Foreign line, government, export or commercial diesel units other than yard switch type. Union Pacific road-switch units of Alco type.	35 45 45	
Road freight locomotives GP-7 units Nos. 100-129 inclusive.	65	65	Trains handling ore cars UP 26000-26499 inclusive, loaded or empty.	40	
Other road freight locomotives.	75		Trains handling specially equipped cars for company wheels and axles. UP 99000-99014 inclusive and UP 99500-99962.	50	
Yard switch locomotives in road service: 1000-1100 class. 1800 class.	35 50	35 50	Trains handling MCPX and MONX 23000 series tank cars loaded with phosphorus.	50	
Car body type unit backing up light or backing up as leading unit at front of train.	30	30	Trains handling open top hopper cars U.P. 85000 to 88999: Loaded; When loaded with ballast.	50 35	
When multiple unit engine is controlled from other than leading unit.	30	30	Trains handling empty bulkhead flat cars, except those equipped with special Toyota racks.	50	
Wye tracks, except those portions used as main track or siding.	6	6			
Diesel locomotive running light, on descending grade in excess of 1 per cent, when necessary to use engine brake to control speed.		25			
Freight trains averaging in excess of 75 tons per operative brake.		40			
Trains with retaining valves in use.		20			

FIRST SUBDIVISION

WESTWARD ↓	TIME-TABLE NO. 43 MARCH 3, 1974		↑ EASTWARD		SPEED RESTRICTIONS		
	CARS	FEET	MILE POST	RULE 6(B)	Location		Miles Per Hour
LENGTH OF SIDINGS		STATIONS			Psgr.	Frt.	
		DN-R LAS VEGAS VG	334.2	FPY	Maximum speed.		
92	5876	4.9 BRACKEN	329.3	P	79	60	
50	3403	2.3 BOULDER JCT.	327.0	PY	Yermo Between M.P. 162.0 and 163.8.		
108	6480	4.5 ARDEN	322.5	P	60	60	
81	5212	7.5 SLOAN	315.0	P	Field to Dunn Between M.P. 186.1 and 187.1.		
89	5690	5.7 ERIE	309.3	P	70	60	
89	5730	8.2 JEAN	301.1	P	Dunn to Basin Between M.P. 188.4 and 191.6. Between M.P. 191.8 and 194.1. Between M.P. 194.4 and 196.2.		
90	5791	4.8 BORAX	296.3	P	55	45	
96	6116	9.1 CALADA	287.2	P	50	40	
90	5774	9.7 NIPTON	277.5	P	55	45	
90	5769	5.4 MOORE	272.1	P	Flynn Between M.P. 230.9 and 231.2. See Note.		
90	5761	4.6 IVANPAH	267.5	P	70	60	
90	5760	4.6 BRANT	262.9	P	Cima to Kelso Passenger trains handled by Diesel locomotive with dynamic brake in operation; Diesel locomotive running light with dynamic brake in operation.		
81	5226	4.9 JOSHUA	258.0	P	45	45	
78	5088	3.8 CIMA	254.2	PY	Kelso to Cima Between M.P. 246.5 and 246.7. Between M.P. 251.3 and 254.4.		
82	5272	4.0 CHASE	250.2	P	45	45	
88	5667	3.1 ELORA	247.1	P	Cima to Kelso Westward freight trains not required to use retainers per Special Rule 1042(S).		
89	5723	3.7 DAWES	243.4	P	70	60	
90	5781	4.3 HAYDEN	239.1	P	45	35	
90	5788	3.6 KELSO	235.5	PY	Erie Between M.P. 309.3 and 309.8. See Note. Between M.P. 311.7 and 312.5.		
157	9827	4.9 FLYNN	230.6	P	40	30	
87	5602	4.7 KERENS	225.9	P	40	30	
90	5757	8.3 SANDS	217.6	P	65	50	
81	5223	5.7 BALCH	211.9	P	Sloan Between M.P. 314.6 and 317.1. See Note. Between M.P. 318.5 and 319.7. Between M.P. 320.6 and 321.1.		
90	5758	7.6 CRUCERO	204.3	P	Las Vegas Between M.P. 333.0 and 335.8. Between M.P. 335.8 and 336.1.		
97	6198	7.4 BASIN	196.9	P	20	20	
96	6116	9.6 DUNN	187.3	P	60	50	
89	5718	4.9 FIELD	182.4	P	Blue Diamond Spur Between M.P. 0.02 and 0.10. Between M.P. 1.4 and 1.6. Between M.P. 3.5 and 4.3. Between M.P. 5.1 and 5.2. Between M.P. 6.3 and 6.6. Between M.P. 8.7 and 9.0. Between M.P. 9.8 and 10.7.		
90	5771	4.6 MANIX	177.8	P	Note.—Reduce Speed or Resume Speed signs placed to left of track:		
88	5686	9.5 TOOMEY	168.3	P	Westward	Eastward	
		5.1 YERMO 8N	163.2	FPY	M.P. 187.5	M.P. 230.5	
		171.0			M.P. 314.6	M.P. 308.8	
						M.P. 309.8	

Note 1 to Rule 99 is in effect on First Subdivision.

Clearance Requirements
Trains to or from Boulder City Branch need not receive clearance at Boulder Jct.

SET OUT TRACKS

Location	Mile Post	Car Capacity	Switch Connection	Location	Mile Post	Car Capacity	Switch Connection
First Subdivision				First Subdivision (Continued)			
Bracken	329.3	11	Both	Kerens	225.8	17	Both
Sloan	315.2	29	Both	Sands	217.4	10	Both
Erie	309.1	11	Both	Balch	212.0	12	Both
Jean	301.0	15	Both	Crucero	204.1	22	West
Borax	296.9	12	Both	Afton	191.8	8	East
Calada	287.1	12	Both	Dunn	187.1	28	Both
Nipton	277.7	11	Both	Field	182.4	15	Both
Moore	271.9	7	Both	Manix	177.6	33	East
Ivanpah	267.5	14	Both	Toomey	168.5	3	East
Brant	262.8	6	Both	Second Subdivision			
Joshua	258.0	11	Both	Pedley	48.3	86	Both
Cima	254.2	8	Both	Mira Loma	45.0	90	Both
Chase	250.3	10	Both	Spadra	29.5	9	Both
Elora	246.8	8	Both	Walnut	24.4	9	Both
Dawes	243.4	15	Both	City of Industry	17.0	28	Both
Hayden	238.9	9	Both	Pico	10.3	24	Both
Flynn	230.8	14	Both	Montebello	8.5	28	Both

SPECIAL RULES—ALL SUBDIVISIONS

GENERAL RULES

M-1. Fifth and Sixth paragraphs of General Rule M are cancelled. The following applies:

Train and engine service employes must not occupy the roof of any freight car or caboose under any circumstances. Other employes whose duties require them to occupy the roof of a car or caboose may do so only when equipment is standing.

STANDARD TIME

2(R). Wrist watches approved for use under Rule 2 are:

- Ball "Official Railroad Standard";
- Ball "Automatic Trainmaster" model;
- Bulova "Accutron-Railroad Approved" model, including Calendar model;
- Elgin "B. W. Raymond" model;
- Hamilton electric "Railroad Special";
- Longines Model "T-905" Railroad Watch;
- Longines "Ultra-Chron Railroad Watch."

2(S). Operating Rule 2 is modified by the addition of the following:

EXCEPTION: Employes working in the classification of Yard Helper will not be required to have a railroad grade watch until such employe has accumulated one year's seniority.

MARKERS

19(R). When operating on AT&SF tracks with caboose with cupola mounted marker, such marker must be lighted, day or night.

CLEARANCES

97(R). Within CTC territory, assigned locals, work trains or helper engines, having received Clearance Form 2643 at their starting point, may thereafter move in either direction within CTC territory while on continuous tour of duty being governed by indication of signals or instructions from train dispatcher without receipt of additional Clearance Form 2643.

FLAG PROTECTION

99(R). In CTC territory, protection of train in accordance with Rule 99 is not required between Stop signals at a station.

PUBLIC CROSSINGS

103(R). Within the state of California, trains or engines must comply with the provisions of General Order No. 108 of the Public Utilities Commission which reads:

1. TRAIN MOVEMENTS—Trains moving under conditions that may require them to stop must, where possible, stop to clear public grade crossings. When not possible to stop clear of such crossings and train cannot proceed immediately, crews on other than passenger trains must cut these crossings within 10 minutes unless no vehicles are waiting at or closely approaching the crossing. Public crossings must be left open until it is known that trains are ready to depart. Crews required to pick up, set out or perform switching operations must, when track room exists, stop their trains back a sufficient distance to avoid blocking public crossings when coupling trains and while charging train lines. When recoupling at public crossings, trains shall be moved promptly consistent with safety.

2. SWITCHING MOVEMENTS—Switching movements over public grade crossings should be avoided whenever possible. If not possible, such crossings must be cleared frequently to allow vehicles to pass and must not be occupied continuously for longer than 10 minutes unless it can be seen that no vehicles are waiting at or closely approaching the crossing.

3. GRADE CROSSING PROTECTION CIRCUITS—Cars or locomotives must not be left standing nor switches left open within the controlling circuits of automatic gate protection devices unless timeout features are provided to allow the gate arms to rise.

SWITCHES

104(R). Except where otherwise specified, No. 14 turnouts are installed at all dual control switches in CTC territory.

BLOCK SIGNAL RULES

516(R). Where Operating Rules and Maintenance of Way Rules 276 (A), 282, 516, 517 and 518 prescribe a wait of three minutes, waiting time under circumstances prescribed is extended to five minutes.

Rules cited above are revised accordingly.

When using facing point cross-over from any track to a main track in Automatic Block Signal territory, switch in track train or engine is on must be lined first, then wait five minutes before lining cross-over switch in main track to be used.

HANDLING HAZARDOUS MATERIAL

713(R). When switching or handling cars containing explosives or other hazardous materials, instructions contained in Bureau of Explosives pamphlets 20-F and 20-G must be complied with.

713(S). When train contains car or cars loaded with Class 'A' explosives, unless advised that inspection under FRA Emergency Order No. 3 is not required, the following will apply:

The car or cars specified and any cars coupled to such cars must be inspected by Mechanical forces, if available, or if no Mechanical forces available, by members of the crew, while train is stopped at each of the following locations:

1. Where the train crews are changed;
2. Immediately before traversing a 1.75 percent or more descending grade of 10 miles in length;
3. The first point practicable after traversing a 1.75 percent or more descending grade of 10 miles or more in length but not more than two miles after descending the grade;
4. The first point practicable after the automatic air brakes have been in continuous application on a moving train for a period of 30 minutes or more; and
5. The first point practicable after an emergency application of the automatic air brakes.

This inspection must be conducted to determine that:

1. The air brakes are released;
2. There is no evidence of fire;
3. There is no evidence of over-heating of brake shoes, wheel rims, wheel treads, or journals; and
4. The car suspension system and draft gear assembly are in a safe and suitable condition for service.

(Continued on Next Page)

If there is evidence of sticking brakes, measures must be taken to assure that air brakes and hand brakes are fully released.

If any evidence of over-heating of any component of a car is discovered, or the suspension system or draft gear assembly of a car are found to be in an unsuitable condition for service, each defective car must be set out from the train, or the train may proceed at a speed of not more than 10 MPH to the nearest point where each defective car can be removed from the train.

CABOOSES

714(R). Doors and windows of cabooses must be locked at all times when caboose is left unattended, either enroute or at terminals.

INSPECTION OF TRAINS

715(R). Referring to Rule 715(B). When practicable, member of crew on the engine must advise crew on rear of train by radio when train is being inspected by other employes.

PASSENGERS ON FREIGHT TRAINS

721(R). The following passengers may be carried on freight trains between stations at which the trains stop:

Employes holding "Identification Certificate—U.P.R.R. Co." and travelling on company business.

SWITCHING CARS

804(R-1). Cabooses, outfit cars, flat cars loaded with trailers or containers, flat cars or multi-level cars loaded with motor vehicles must not be cut off while in motion and allowed to strike other cars, nor may other cars be cut off while in motion and allowed to strike such cars, or a draft containing such cars.

804(R-2). Any movement into spur tracks, inside buildings and at end of spur which ends at building or abutment must first have hand brakes set on lead car or cars of movement and if necessary to couple to cars already on these tracks, hand brakes must be checked on these cars to know properly set before coupling into. Cars must not be permitted to roll free on such tracks. Hand brakes must be set on each end of cut of cars left inside buildings.

804(R-3). When placing cars at rail trailer facilities or outa ramps, cars must be coupled and sufficient hand brakes must be applied on cars on both ends of track to prevent movement.

806(R). Outfit cars converted from passenger train cars contain equipment highly subject to damage from slack action or rough handling.

These cars must be handled with air brakes cut in and operative.

EMPTY TANK CARS

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

CONTINUOUS WELDED RAIL TRAINS

809(R). Equipment for handling continuous welded rail, or continuous lengths of bolted rail, consists of 26 permanently coupled flat cars with buffer at each end and caboose for MofW supervisor. Couplers are blocked against slack and are highly susceptible to damage from rough handling.

This equipment, loaded or empty, must be handled as a unit with air brakes cut in and operative, must not be switched with and must not be humped. These cars must not be cut off while in motion. Other cars must not be cut off while in motion and allowed to couple to these cars or to a draft containing these cars. The following applies:

WHEN LOADED

Maximum speed:

On unrestricted track—40 MPH;

On restricted track—20 MPH less than published speed restriction. Where published speed restriction is 30 MPH or less, maximum speed will be 10 MPH;

Through cross-overs or turnouts—10 MPH.

After entering siding or yard track, train must not proceed until authority is received from MofW supervisor in charge.

Train and engine crews must be alert for any signal or communication from rail train supervisor while train is moving.

This equipment must not be combined with other traffic except that outfit cars, cars containing track material or related items may be handled behind the CWR equipment as directed by the Chief Dispatcher, who will authorize such handling only upon instructions from Chief Engineer. Total consists must not exceed 50 cars.

WHEN EMPTY

CWR equipment may be handled with other traffic but total consist must not exceed 50 cars. CWR equipment must be handled at rear of train. A speed of 50 MPH must not be exceeded.

LOCATION OF CARS IN TRAINS

809(S). DODX flat cars 39095-31199 must be handled in rear end of train only.

Aluminum covered hopper cars SN 5501-5510 do not have complete center sill and must be entrained at rear of train not more than 15 cars from rear.

Instruction and exhibition cars 200-209 must be handled in rear of train only.

809(T). The following tank cars are in service for movement of phosphorus from points in Idaho to various destinations.

MONX 23000 Series, gross weight loaded, 414,000 lbs.

MCPX 23000 Series, gross weight, loaded, 414,000 lbs.

FMLX 19000 Series, gross weight, loaded, 315,000 lbs.

Additional cars of similar capacity and high gross weight may be placed in this service. When being returned to loading points, these cars carry water ballast. The following governs handling:

WHEN LOADED WITH PHOSPHORUS:

MONX 23000 and MCPX 23000 series cars must be separated from the locomotive, from each other, and from any car with gross weight exceeding 220,000 pounds by not less than three cars of a gross weight not exceeding 220,000 pounds. Must be handled at speeds not exceeding 50 MPH.

FMLX 19000 series cars, single or not more than two such cars coupled, must be separated from the locomotive and from any other car exceeding 263,000 pounds gross weight by not less than three cars of a gross weight not exceeding 263,000 pounds.

WHEN LOADED WITH PHOSPHORUS OR WITH WATER BALLAST:

These cars must be coupled carefully, must not be humped and must not be cut off while in motion. In switching operations they must be handled with air brakes cut in and operative.

Except at loading or unloading facilities where derail protection is provided, if necessary to set these cars out or to leave them unattended, they must be coupled to another car of a different type, hand brakes applied on both cars and air reservoirs drained to determine that hand brakes are sufficient to hold the cars.

809(U-1). In freight trains, freight cars 85 feet or more in length must not be coupled to any car 39 feet or less in length.

809(U-2). Rule 809(C) applies to modular housing units on flat cars.

UNITS DEAD IN TRAIN

809(V-1). Foreign line, government, export or commercial diesel units, Union Pacific yard-switcher units of any type or Union Pacific road-switcher units of Alco type, to be moved dead in train must be separated from each other and from the engine by not less than five cars and must be entrained not more than 30 cars behind the control unit. Waybill instructions must be carefully checked and unless otherwise notified in writing must be complied with. In the absence of instructions relative to speed, a speed of 35 MPH must not be exceeded with yard-switcher, or 45 MPH with road-switcher units described above dead in train.

HELPER ENGINES

809(V-2). On freight trains, when helper is to be cut into train, units with combined total of not more than 7500 HP may be cut in ahead of caboose, and must be cut in ahead of cars designated in Rule 809 or cars listed in Special Rule 809(S). If helper engine consists of units, the combined total of which exceeds 7500 HP, helper engine must be cut in ahead of tonnage for all units in excess of 7500 HP. When necessary to cut two helper engines into a train the helper engine with the greatest total horsepower must be cut in nearest head end of train and ahead of the tannage of the rear helper engine.

RIDING ON ENGINES

816(R). If there is a trailing "A" unit in locomotive consist, employes in train or engine service required to deadhead on a freight train may occupy cab of such unit.

Rule 816 is modified accordingly.

EXCEPTION: No deadhead employes may occupy RCS units.

ENGINE SERVICE

876(R). Referring to Rule 876. The fireman, when competent, may handle the locomotive under the close supervision of the engineer, under the following conditions, the engineer being responsible:

In road freight service;

In yard service provided the fireman is a promoted engineer.

The fireman must not be permitted to handle the locomotive in road passenger service except in emergency.

TRACK RESTRICTIONS

899(R). Unless otherwise provided, GE U-28-C units (2800-2809), ALCO DL-630 units (2900-2909), SD-45 units (3600-3649), and units of 5000 HP or more must not be operated on branch lines or on industry tracks without permission from train dispatcher or other officer.

Operation of these units should be restricted to main track, sidings and yard tracks necessary for the movement of trains and the servicing of the units.

899(S). Engines must not go on any industrial trestle.

899(T). Reference Special Rule 899(R), units listed may be used as follows:

Boulder City Branch
Blue Diamond Spur
Cima, loading tracks

HIGH AND WIDE CARS

900(R). California Public Utilities Commission General Order 26-D and Nevada Public Service Commission Order in Case No. 1159 cover the operation of cars of excess height and width and of open top cars containing lading of excess height and width.

In addition to Operating Rules 805 through 805(C), the following applies to the operation of such cars.

Cars of Excess Height

(1) Freight cars of a height exceeding 15' 6" must not be operated, except as indicated below.

Freight cars of a height exceeding 15' 4" but not greater than 15' 6" shall be permanently marked, stenciled or placarded and such marking maintained in a legible condition, reading, "THIS CAR EXCESS HEIGHT."

All such required markings and placarding shall be placed on the side adjacent to the ladder or hand-holds near the floor line of the car at each of the four corners.

Cars of Excess Width

(2) Freight cars of width exceeding 10' 10" must not be operated.

Freight cars of a width not exceeding 10' 10" may be handled without restrictions or placarding.

Cars with Lading of Excess Height or Width

(3) No movement shall be made of open top cars containing lading in excess of 15' 6" above the top of rail or extending laterally in excess of 5' 5" from center line of car except as hereinafter described:

(4) The operation of cars, the lading of which extends laterally in excess of 5' 5" from center line of car, shall be restricted to lading the size or dimensions of which cannot be reduced.

(5) All open top cars with lading extending laterally in excess of 5' 5" from center line of car or in excess of 15' 6" in height above top of rail, shall be placarded on the load itself in a conspicuous place when practicable, and the car shall be marked, stenciled, or placarded at location specified in paragraph (1) of this rule.

(6) On any train, the consist of which includes cars loaded as described in the preceding paragraph of this rule, such cars shall be blocked together in one place in the train and if its length permits, they shall be entrained at least 5 cars distant from both the caboose and the engine, provided, however, that the provisions of this sub-section shall not apply to the transportation of rail open top cars of highway trucks or trailers, either loaded or unloaded.

Notifying Train Employes

(7) A train order shall be delivered to every train containing any car the lading on which extends laterally in excess of 5' 5½" from center line of car or in excess of 15' 6" in height above top

(Continued on Next Page)

of rail, informing the crew of the train that the train includes such car or cars, stating total number thereof, and advising that employees are prohibited from riding on any such cars.

(8) A train order shall be delivered to every train the operation of which may be affected by the presence or movement of a train containing such wide loads, described in the preceding paragraph of this rule, informing the crew of the train of that fact.

Notifying Yard Employees

(9) Yard supervisors shall be given notification sufficiently in advance of the arrival of the cars, the lading on which extends laterally in excess of 5' 5½" from center line of car, to enable them to take necessary precautions to safeguard employees in yard.

Observance of Cars by Employees

(10) Employees 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.

(11) Any employe observing a car of excess height or a car containing lading of excess height or width which is not placarded or stenciled as required by this rule, must notify their supervisors immediately.

(12) Any employe observing a close overhead or side clearance with a car of excess height or a car with lading of excess height or width, must make immediate report so that protection can be given.

The following conditions will govern the handling and movement of High Cube cars of a maximum height of 17 feet from top of rail to top of car in California and Nevada.

1. The crew of each train containing freight cars herein authorized to be operated shall be informed by an appropriate train order that the consist of the train includes freight cars of such excess height and that members of the train crew are forbidden to ride on top of any such cars.

2. Any yard crew required to handle freight cars herein authorized to be operated shall be notified by its supervising officials of the presence of such cars in said yard.

3. Appropriate instructions shall be issued to all road and yard crews forbidding them to ride on the top of the cars herein authorized to be operated.

AIR BRAKE RULES

1001(R). Hostlers must know before moving an engine that adequate air pressure is being maintained and that air brake equipment is functioning properly. Application and release test of independent brake must be made and in addition to noting brake cylinder pressure on gauge, visual inspection must be made to know that brakes apply when independent brake valve is in application position.

Engines must be stopped before moving onto a turn-table, and before entering enginehouse or servicing facilities where elevated tracks or pits are used.

At locations where units are cut into or out of an engine, it must be known that air brake hoses are coupled, that air is cut in and that brakes are operating properly on all units before any movement is made.

At terminals where hostler relieves incoming engineer, brakes must be tested with independent brake valve immediately after engine is detached from train to insure that brakes are operating properly.

Movement of engines at enginehouse, servicing or maintenance facilities must not exceed 5 miles per hour.

100(S). When handling light locomotives, particularly around enginehouses and servicing facilities, the following applies:

1. Safety control feature must be cut in, in all cases.
2. On road freight power, after throttle is initially opened, sufficient time must be allowed for engine and generator to build up sufficient current to move the locomotive.
3. In case of emergency requiring shorter stop than can be made with independent brake, automatic brake valve should be placed in emergency position which will automatically reduce the engine speed to idle.

1030(R). Air Brake Rule 1030(D) is cancelled.

1039(R). Some Union Pacific GP-9 class units and certain foreign line units are not equipped with dynamic brake interlock feature whereby the locomotive air brakes will be released during dynamic braking when train brakes are applied.

When operating with these GP-9 units or with foreign line units in any consist, whether all of one road or mixed with Union Pacific units, arrange to keep locomotive brakes released by actuating brakes off when automatic brake valve is used to apply train brakes during dynamic braking.

1042(R). The following governs use of retaining valves:

When, in the judgment of the conductor or engineer the use of retaining valves is necessary to control the train properly, retaining valves must be used at any point.

A speed of 20 MPH must not be exceeded at any point when retaining valves are in use.

Unless otherwise specified, when use of retaining valves is required, they must be used on all cars in train with retaining valves on all loads in Heavy Holding position.

REMOTE CONTROL RETAINING VALVES

1042(S). On trains which are fully equipped with remote control retaining valve equipment, including caboose with operative retainer line air pressure gauge, remote control retaining valves may be used in lieu of manual retaining valves.

On engines equipped for remote control retaining valve operation, engineer's station is provided with retainer line air pressure gauge, a charging valve equipped with cut-out cock and a globe type release valve. To charge the retainer line, the release valve must be closed and charging valve must be opened.

Caboose equipped for remote control retaining valve operation are provided with a retainer line air pressure gauge, and a cut-out cock at each end of caboose. Cut-out cock at rear of the caboose must be closed before attempting to charge retainer line. Approximately 5 minutes is required to charge retainer line to 45 lbs. pressure, or to deplete retainer line to discontinue operation of retaining valves.

When retaining valves are placed in service by remote control, sufficient time must be allowed to charge retainer line before entering retaining valve territory. When retainer line is charged to at least 45 lbs. pressure as indicated on retainer line caboose gauge, rear trainmen must notify engineer. If engineer does not receive such notification, train must not enter territory where use of retaining valves is required until he is advised caboose gauge indicates required pressure, or retaining valves are manually placed in holding position.

When use of remote control retaining valves is discontinued,

charging valve must be closed and release valve opened on engine.

While remote control retaining valves are in operation, if an emergency application of air brakes occurs from any source, or pressure in retainer line drops below 30 lbs., as indicated on gauge on caboose, train must be stopped and all retaining valves must immediately be placed in Holding position manually before releasing automatic air brakes. Retaining valves must be left in manual operation until point is reached where their use is not required.

When remote control retaining valves are to be used and train is not required to stop, a speed of 8 MPH must not be exceeded over the crest of grade.

PRESSURE MAINTAINING BRAKING

1043(R). Pressure maintaining braking must not be used for extended periods at speeds exceeding 30 MPH. To do so will result in damage to wheels and brake shoes. Application and release method of braking should be used at speeds exceeding 30 MPH, reducing speed sufficiently before release to insure sufficient time for cooling of wheels and recharging brake pipe before it is necessary to again apply brakes.

1043(S). In territory where pressure maintaining braking is being used for extended periods, brake pipe cut-off valve may be placed in passenger position. Position of brake pipe cut-off valve must not be changed except when brake valve is in Release position.

When operating in Passenger position extreme care must be used as any slight movement of brake valve toward Release position will result in complete release of automatic brakes throughout the train.

STANDING ON GRADE

1044(R). That portion of Air Brake Rule 1044 which reads, "When a train is stopped on a grade, air brakes must be released, and air brake system immediately recharged" is cancelled.

1044(S). When a train, not required to use retaining valves, is stopped on descending grade, if train cannot be held with independent brake, automatic brakes must not be released until sufficient retaining valves, but not less than 25, have been placed in holding position on head end of train to permit train to be held with independent brake. Before proceeding it must be known that the air brake system is properly charged.

Air brake Rule 1044 is modified accordingly.

DOUBLEHEADING AND HELPER SERVICE

1048(R). When more than one locomotive is attached to a train, the engineman of the leading locomotive shall operate the brakes. On all other motive power units in the train, or connected to the train, brake pipe must be connected, angle cocks opened and the brake pipe cut out cock to the brake valve must be closed, and the brake valve handles kept in the prescribed position.

This Rule does not modify Air Brake Rule 1048 thru 1048(E) in any way.

SEPARATING TRAIN OR CARS

1066(R). When locomotive is to be detached, or when a train, or cut of cars being handled with air brakes is to be separated, angle cock at point of separation must not be closed until engineer has made 20-pound brake pipe reduction and has sounded one long sound of engine whistle. In all cases, angle cock must be left open on portion of train or cars left standing.

Those portions of Air Brake Rule 1066 relative to handling angle cocks are modified accordingly.

This does not modify the requirements of Air Brake Rules 1030(B) or 1044(B).

MECHANICAL INSTRUCTIONS

1090(R). If diesel unit is not loading or not making transition, high voltage cabinet contactors must not under any circumstances be manually operated.

To determine if the contactors are picking up as they should, the diesel engine should be isolated, then restarted to power.

Proper report must be made to the next maintenance terminal.

1090(S). Ground relay protection knife switches are applied for use by electrical forces in making tests of equipment. Under no circumstances may the seal on ground relay knife switch be broken, or knife switch be opened. When seal on ground relay knife switch is broken or is found broken or missing, such information must be included on work report.

1090(T). A locomotive must not be operated at speeds in excess of that prescribed for the unit having the lowest maximum speed as shown on a chart in unit.

When applying continuous or short-time ratings as shown on the chart, the unit consist must not be operated lower than the highest minimum speed for any unit and unit consist must not be operated higher than the lowest amperage for any unit.

When operating close to continuous rating under full power, "Minimum Continuous Speed" or "Maximum Amperage," whichever occurs first, is controlling.

Attention is directed to the fact that short time ratings may not be used consecutively; that is, a unit cannot be operated for 15 minutes at the ¼-hour rating, then for 30 minutes at the ½-hour rating, etc.

If unable to proceed within the limits prescribed, train must be stopped, facts reported to train dispatcher who will instruct as to reducing tonnage or providing additional power.

CARS OR LOADS OF EXCESS DIMENSION

For all cars (both loads and empties) which have over-all dimensions exceeding published clearances or whose movement is subject to regulation by State Public Service Commissions, maximum over-all dimensions will be furnished from the Office of General Superintendent of Transportation to District Superintendents of Transportation, General Managers and Superintendents, along with the applicable coded standard operating procedures for certain specific measurements and conditions which are common to most of such cars. The codes involve the use of a number and a letter in co-ordinated sequence, i.e., 1-A, 2-B, 3-C, etc., and are self-policing against error and are enumerated below with the restrictions and protective requirements indicated.

- 1A. Protect against other loads over 12 ft. wide, also all loads and equipment having a width over 12 ft. due to track curvature and through turnouts, by arranging definite meeting and passing points where track centers will provide safe clearance.
- 2B. This load must not pass or be passed on parallel, tangent or curved tracks except at arranged meeting and passing points where track centers will provide safe clearances.
- 3C. This load must not pass or be passed on curved tracks except at arranged meeting and passing points where track centers will provide safe clearance.

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- 4D. See that loads and equipment are back of fouling points to clear extreme width of this shipment.
- 5E. Separate this load from locomotive or any other heavy load exceeding 177,000 lbs. gross weight, by at least three cars not exceeding 177,000 lbs. gross weight each.
- 6F. Load must be placed on carrying car so that all axles are equally loaded.
- 7G. Account too large to move direct via Aspen Tunnel must route east from Ogden over westbound main track through the Altamont Tunnel between Ogden and Granger.
- 8H. Cannot be handled direct to Spokane and must move via Hooper Junction and Colfax or Thornton to Spokane.
- 9I. Route via the westbound main track No. 5 through the Spokane passenger terminal.
- 10J. Do not detour via team tracks No.'s. 1 and 5 under James Street Railway Viaduct at Kansas City.
- 11K. Deleted.

- 12L. Deleted.
- 13M. Cars are of standard dimensions in the State of Utah but high and/or wide in states of California and Nevada.
- 14N. Cars are of standard dimensions for the State of Idaho but high and/or wide in states of Oregon and Washington.

Detailed instructions will be issued to provide proper protection for any conditions not specifically provided for in codes 1-A through 14-N.

It must be fully understood that there is to be no change in the present method of issuing train orders for these excess dimension cars.

MAINTENANCE OF WAY RULES

99(S). Maintenance of Way Rule 99(J) is in effect on all branch lines except the San Pedro Branch.

SPECIAL RULES—FIRST SUBDIVISION

BOULDER CITY BRANCH

MOVEMENTS ON YARD AND OTHER TRACKS

93(R). At Yerma, trains yarded on old main track must stop to clear No. 1 track. Trains yarded on No. 1 track must stop to clear old main track.

Target on west switch displays red indication when switch is lined for old main track.

SWITCHES AND DERAILS

104(S-1). Referring to Special Rule 104(R).

No. 10 turnouts are installed at: Yermo—West switch, old main track.

104(S-2). On Boulder City Branch, eastward trains must stop at Stop sign, M.P. 21.76, and line spring point derail before proceeding. After being used derail must be restored to derailing position.

104(S-3). At Arden, normal position of switch at tail track is for west leg of wye and must be left in this position after being used.

104(S-4). At Blue Diamond, switch to runaway track must be kept lined and locked for runaway track and all switching movements made toward this track.

104(S-5). At Kelso, switches at east and west end of track 5 must be left lined and locked for track 4 when not in use.

Normal position of switch at Tail Track Kelso is for east leg of wye and must be left lined and locked in that position after being used.

Cars must not be set out or left stored on west leg of wye at Kelso.

At Kelso, switch from west leg of wye must be lined for Pit track except when changed for immediate movement. Pit track must be left clear.

104(S-6). At Henderson, normal position of switch from Boulder City Branch main track to BMI lead is for BMI lead. Switch target will continue to show red when switch is lined for lead.

104(S-7). At Las Vegas, rail clamps are used at trailer ramp facility. Engine foreman must know rail clamps are removed before attempting to pull or spot cars at this location.

CENTRALIZED TRAFFIC CONTROL

268(R). At Yermo operating rule 268 applies between M.P. 162.8 and M.P. 163.1. Trains or engines must not clear main track at wye switches unless switch is left open.

At Las Vegas operating rule 268 applies between M.P. 334.7 and M.P. 335.2. Trains or engines must not clear main track at unit 200 or unit 400 unless switch is left open.

269(R). At Las Vegas, when westward dwarf signal at west end of passenger platform or westward high signal just west of west passenger siding switch displays Stop aspect, freight train may pass signal to enter icehouse track without stopping, provided the switches are properly lined for movement and proper hand signal is received from trainman or yardman, but movement

must be made at restricted speed. Trainman or yardman must receive permission from dispatcher before lining switch for ice-house track.

POWER OPERATED DERAIL

275(R). At east end of Las Vegas yard, power operated derail on drill track operates in conjunction with main track switch. When necessary to hand operate main track switch or place selector lever in hand position, as provided in Operating Rule 275 or 276, derail switch and selector lever on derail switch must also be hand operated.

SWITCHING CARS WITH AIR BRAKES CUT IN

806(S-1). At Las Vegas, when switching on lead, main track, or old main track at east end of yard, not over 15 cars consisting of ore, coal, sand, fuel oil or other heavy commodities may be pulled out of yard tracks to be switched, unless air brakes are cut in and operative on the 10 cars next to engine.

806(S-2). At Blue Diamond, terminal test of air brakes as prescribed in Air Brake Rule 1025 must be made before departure. If necessary to move to main track when making up train, air brakes must be cut in and operative on all cars being handled and air brake test prescribed in Rule 1025 must be made on such cars before moving to main track.

When making up ore trains originating at Cima, air brakes must be cut in and operative on all cars. Terminal test of air brakes as required by Air Brake Rule 1025 must be made on each cut before leaving loading track and on entire train before leaving Cima.

806(S-3). At Las Vegas, when switching DeLuca Importing (Zone 4 Track 7) the following instructions govern:

Track will hold three 60-foot cars inside building. Air brakes must be cut in and operative. Electrically operated overhead door is controlled by Key Switch located to the left of the door. Key is kept in small metal box secured with switch lock. If door is found closed, it must again be closed before leaving, returning key to box.

USE OF HAND BRAKES

806(T). In complying with provisions of Rule 806(A), the following minimum requirements apply:

Location	Minimum Requirements
Las Vegas	Not less than three hand brakes must be applied on east end of trains or cuts of cars left standing on any track.
Kelso	Not less than ten hand brakes must be applied on west end of train left unattended on any track, with or without engine attached.
Yermo	Not less than three hand brakes must be applied on east end of freight trains on arrival unless outgoing crew or yard crew take charge of train. In such case, if engine is detached, outgoing crew or yard crew must apply required hand brakes.
Yermo	Not less than three hand brakes must be applied on east end of cuts of cars left standing on any track, including Lend-Lease tracks.

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LOCATION OF CARS IN TRAIN

809(W). On westward trains between Cima and Kelso, all empty flat cars must be entrained near rear of train.

INSPECTION OF TRAINS

811(R). When a westward freight train stops at any station between Cima and Kelso, trainmen from front and rear of train must make such walking inspection of train as time will permit, but must be at engine or cabaose when train is ready to proceed. Rule 811(A) will not apply.

LOCATION OF HOT BOX DETECTORS

- M.P. 175.3 between Toomey and Manix
 - M.P. 209.1 between Crucero and Balch
 - M.P. 233.5 between Flynn and Kelso
 - M.P. 255.9 between Cima and Joshua
 - M.P. 273.2 between Moore and Nipton
 - M.P. 292.7 between Colada and Barax
 - M.P. 323.3 between Arden and Boulder Jct.
- All read-outs at train dispatcher's office, Salt Lake City.

ENGINE SERVICE

871(R). Train or engine crews desiring to eat at Kelso must notify dispatcher as much before arrival as practicable, but not later than at Kelsa initial switch.

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

TRACK RESTRICTIONS

899(U-1). Reference Special Rule 899(R), units listed may be operated on Boulder City Branch and on loading tracks at Cima.

No engines are permitted to operate on the following tracks:

- Boulder City—Machine Shop track 7.
- Blue Diamond—In building at board plant, track 2.

899(U-2). Diesel units with 8-wheel trucks must not be operated through turnouts as follows:

- Dunn—Western Talc track No. 7.
- Dunn—Mineral Materials Co. spur A-13.
- Basin—Cleaning track.
- Sloan—Hi-line track.
- Arden—Cleaning tracks A-39 and A-41.
- Bracken—Cinderlite track.
- Boulder City Branch—Industrial Asphalt Spur.

CLOSE CLEARANCES

900(S-1). There are close clearances above and at the side of main tracks as shown below and in addition thereto at plat-forms and other structures above and at the side of industry, stock and other tracks:

Location	Structure or Obstruction	Clearance of engine or car is close at
FIRST SUBDIVISION		
M.P. 267.25	Bridge	Side.
M.P. 250.69	Bridge	Side.
M.P. 243.96	Bridge	Side.

900(S-2). At Kelso, when contilever ore ramp located about middle of track 5 is in loading position it will not clear box or other high type car and will not clear man on side or top of car. Switching must not be done on track 5 when ramp is down in loading position. A support six feet wide is located between tracks 4 and 5 and care should be exercised when passing.

900(S-3). At Blue Diamond, movable bridge is in service at Flintkote Ca. across Track 3 near Door 12.

A red signal on light near switch to Track 4 indicates bridge is lowered across track. When this indication is displayed no movement may be made beyond the light, nor may cars on track 3 be coupled to or moved. When bridge is clear of track a green light will be displayed.

AIR BRAKE RULES

1029(R). Running air test as required by Air Brake Rule 1029 must be made by passenger trains at:

Cima—Eastward and westward.

1042(T). Maximum permissible tonnage per operative brake from Cima to Kelso is 90 tons, except on unit trains.

Retaining valves must be used as follows:

Blue Diamond to Arden—all trains.

Cima to Kelso:

1. All passenger trains. Retaining valves must not be turned down until train has passed M.P. 236.5.
2. All trains exceeding 75 tons per operative brake.
3. Any train with less than one horsepower effective dynamic brake per trailing ton. Such trains must not exceed 15 MPH Cima to Kelsa and must stop and remain standing 10 minutes at Dowes to cool wheels.
4. On any train being handled without pressure maintaining.
5. Dynamic brake must be tested between M.P. 309 and M.P. 292.
6. Conductor must advise engineer number of cars in train, total tonnage, and tons per operative brake.

From Cima to Kelso, a train not required to use retaining valves and with not less than TWO horsepower of effective dynamic brake per trailing ton, may operate at a speed not to exceed 25 MPH provided speed can be controlled with brake pipe reduction of not more than 10 pounds. If brake pipe reduction of more than 10 pounds is required to control speed, a speed of 20 MPH must not be exceeded.

Maximum speed of westward trains over crest of grade at Cima must be 10 MPH less than maximum authorized speed Cima to Kelsa.

Between Kelso and Sands, westward trains exceeding 75 tons per operative brake and which do not have at least one horsepower effective dynamic brake per trailing ton, must not exceed 30 MPH at any point.

**SPECIAL RULES—SECOND SUBDIVISION
ANAHEIM, LAKEWOOD, SAN PEDRO,
PASADENA AND GLENDALE BRANCHES**

WHISTLE SIGNALS

14(R). Engine whistle signal 14(L) must be sounded before entering Abex yard at Pomona.

CLASSIFICATION SIGNALS

21(R). Southern Pacific extra trains need not display white classification lights between Bartolo and Puente Junction.

USE OF ENGINE BELL

30(R). Within corporate limits of cities named below, engine bell must be rung continuously when engine is moving:

- Riverside Pomona Ontario Los Angeles

The use of engine whistle and bell must be minimized while moving through cities on the Anaheim, and San Pedro Branches.

MOVEMENTS ON YARD AND OTHER TRACKS

93(S-1). At Yerma, trains yarded on old main track must stop to clear No. 1 track. Trains yarded on No. 1 track must stop to clear old main track.

Target on west switch displays red indication when switch is lined for old main track.

93(S-2). Trains or engines enroute to bulk loader, San Pedro, must obtain authority from UP train dispatcher before entering SP trackage M.P. 21.6 San Pedro Branch. Switch must be restored to normal position after movement is completed. A speed of 5 MPH must not be exceeded through turnout to SP.

Trains or engines returning to UP tracks at this location must obtain authority from train dispatcher before re-entering UP tracks.

93(S-3). Before starting yard movement in either direction between Santa Fe Avenue and Olympic Boulevard, member of crew must ascertain from yardmaster at west end of yard or tower yardmaster that there are no conflicting movements in the area.

Yard movements on two parallel tracks between Santa Fe Avenue and cross-over between 14th and 15th Streets must use track to the right in direction of movement. Cars must not be left standing on these tracks when to do so would interfere with normal yard movements.

Eastward movements must stop at Stop sign at Santa Fe Avenue near dividing switch in red and green side and ascertain that there are no conflicting movements in or out of Butte Street yard before proceeding.

93(S-4). At L. A. Junction yard, before fouling lead or adjacent tracks, member of crew must receive authority from L. A. Junction yardmaster.

93(S-5). Southern Pacific and Union Pacific operate jointly over Anaheim branch between Colima and Fullerton, under provisions of Rule 93.

Between Fullerton Jct. and Fullerton, assigned hours of operation are as follows:

- SP crews—12:01 A.M. to 11:59 A.M.
- UP crews—12:01 P.M. to 11:59 P.M.

If necessary to use main track between Fullerton Jct. and Fullerton outside of assigned hours, movements must be protected as prescribed by Rule 99.

93(S-6). Export unit trains will operate over San Pedro Branch to Southern Pacific connection at M.P. 21.7 then over Southern Pacific trackage to bulk unloader, San Pedro.

Before crossing to Southern Pacific trackage at M.P. 21.7 authority must be secured from Union Pacific Dispatcher.

Trains must not exceed 6 MPH over turnout to Southern Pacific trackage.

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
Ontario (M.P. 38.1)	S.P.		Automatic Interlocking and C.T.C. Special Rule 98(S).
M.P. 33.0	S.P.		C.T.C. Signals.
Puente Jct. (M.P. 17.8)	S.P.		C.T.C. Signals.
Bartolo (M.P. 11.2)	S.P.		C.T.C. Signals.
Mission Tower	A.T.&S.F.		Interlocking. Rule 609.
Redondo Jct.	A.T.&S.F.		Interlocking. Rule 609.
Violet Alley, Los Angeles (100 ft. east of Santa Fe Ave.)	A.T.&S.F.	U.P.	Member of crew must protect crossing U.P. old main track.
Violet Alley, Los Angeles (North leg of wye)	A.T.&S.F.	A.T.&S.F.	Member of crew must protect crossing Santa Fe lead track.
Santa Fe Ave., Los Angeles	A.T.&S.F.	A.T.&S.F.	U.P. trains and engines stop. Member of crew protect two crossings.
15th St., Los Angeles	A.T.&S.F.		Stop signs.

SAN PEDRO BRANCH

Hobart (M.P. 3.1)	A.T.&S.F.	A.T.&S.F.	Interlocking. Rule 609.
M.P. 3.6 M.P. 4.6-C M.P. 4.8-C	L.A. Jct. Ry.	U.P.	Semi-automatic Interlocking. L.A. Jct. Ry. engines stop and member of crew protect crossings.
South Industry Joint U.P.-S.P. Lead	Bethlehem Steel	U.P.-S.P.	Stop sign. U.P.-S.P. engines stop and if crossing is clear and derails on Bethlehem track are in place, movement may be made over crossing. Bethlehem engines stop and member of crew protect crossing.
Between Bethlehem Steel and Lipsett	Bethlehem Steel	U.P.	Stop signs. Member of crew protect crossing.
M.P. 5.1	S.P.		Automatic Interlocking. Rule 612.

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Location	Railroad Crossed or Junction With	Trains Which Have Precedence	How Governed
M.P. 7.4	S.P.		Automatic Interlocking. Rule 612.
M.P. 11.2	S.P.		Automatic Interlocking. Rule 612.
M.P. 17.4	S.P.		Stop signs. Rule 98(A).
M.P. 21.7	S.P.		Stop Signs. Special Rule 98(T).
Henry Ford Boulevard (M.P. 23.2)	Drawbridge		Interlocking.
Permanente Co. Spur (M.P. 23.52)	U.P.		Stop sign. Member of crew protect crossing.

ANAHEIM BRANCH

M.P. 0.1	S.P.		G.T.C. Signal's.
M.P. 15.5	A.T.&S.F.	A.T.&S.F.	Interlocking. See instructions in phone box near derails.
Anaheim Sugar Spur (M.P. 19.0)	A.T.&S.F.	U.P.	A.T.&S.F. trains and engines stop and member of crew protect crossing. U.P. trains and engines approach prepared to stop unless crossing is clear.

98(S). For movement over S.P. crossing, M.P. 38.1, the following will govern:

When an eastward train or engine is stopped by semi-automatic interlocking signal, Operating Rule 613 will govern.

When a westward train or engine is stopped at CTC signal located 1550 feet east of crossing, in addition to receiving clearance Form C, Operating Rule 613 will govern.

98(T). For movement over S.P. Crossing, M.P. 21.7, San Pedro Branch, the following will govern:

When fog or inclement weather conditions exist, impairing vision, a lighted red fusee must be placed not less than 100 ft. each side of crossing before movement is made over crossing. Southern Pacific and Santa Fe trains and engines have precedence over Union Pacific trains and engines when using this crossing and will proceed at 10 MPH without stopping.

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.

PUBLIC CROSSINGS

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

Manuel Lead —Sepulveda Boulevard;

103(T). Automatic crossing gates are in service, Turnbull Canyon Road, M.P. 17.2, between switches City of Industry.

If necessary for train stopped in siding to cut crossing, cut will be made clearing aluminum stripes on rails each side of crossing. Crew member can raise gates by operating switch key control box located on instrument house west of crossing. Gates will

again lower when switch key is removed. Black switch key control box keyed for Union Pacific and Southern Pacific switch key.

103(U). On Anaheim Branch, all trains and engines must be prepared to stop at Harbor Blvd. near Fullerton, M.P. 17.3.

103(V). Stop signs have been installed each side of Broadway Street crossing, Anaheim.

Trains or engines must stop before passing stop sign. During daylight hours, trainman must precede train or engine over crossing. During night time hours, trainman must place a lighted fusee on each side of track and precede train or engine over crossing with lighted lantern.

103(W). The city of Los Angeles has placed the following restrictions on trains and engine movements over Olympic Blvd. and Leman Sts. in vicinity of Alameda Freight Terminal:

(1) 7:00 A.M. to 8:00 A.M., one locomotive in each direction and one drag one way of not in excess of 10 cars.

(2) 8:01 A.M. to 9:30 A.M., one locomotive in each direction and one drag one way of not in excess of 15 cars.

(3) 4:45 P.M. to 5:45 P.M. (Not to use crossing at all.)

(4) 3:30 P.M. to 4:44 P.M.; also 5:46 P.M. to 6:00 P.M., a total of one locomotive in each direction and one drag in each direction of not in excess of 15 cars each.

(5) 6:30 A.M. to 6:30 P.M., no movements may block the crossing for a total period of time in excess of 6 minutes out of any 15 minute interval.

Yardmasters as well as crews must see that these restrictions are complied with.

103(X). At North Main Street, Los Angeles, between Pasadena Jct. and Dayton Ave. tower, marker posts indicate the limits of time-out crossing signal circuits. When stop is to be made approaching Main Street, train or engine must stop before passing marker posts. If necessary to stop after crossing Main Street, stop must be made beyond marker posts in order to release automatic gates. After stop has been made, any further movement toward the crossing must be made in compliance with Rule 103(E).

103(Y). When shoving cars into North, South or Center Drott tracks, all movements must stop before passing west side of freeway bridge and a member of crew must protect movement over road crossing leading to Trailer Dock Office.

103(Z-1). All trains or engines must stop at stop sign at Bandini Blvd. crossing. Before moving over crossing it must be known that gates are down.

103(Z-2). At Manuel, train crossing Sepulveda Blvd. on Manuel lead must stop clear of Sepulveda Blvd. to open gates at the Veteran's Administration grounds. Gates must be closed and locked after movement is completed.

103(Z-3). On Glendale Branch, all trains and engines must approach and pass over San Fernando Road and Fletcher Drive very carefully, keeping sharp lookout for street traffic.

SWITCHES AND DERAILS

104(T-1). Referring to Special Rule 104(R):

No. 10 turnouts are installed on dual controlled switches as follows:

Yermo —West switch, old main track.

M.P. 160.27 —West switch, Lend-Lease Yard.

Riverside —East and west switches to siding.

Whittier Jct. —Anaheim Branch switch.

M.P. 3.75 —Cross-over and switch from No. 2 main track to yard lead.

M.P. 3.47 —Switch, west end of "A" Yard, from No. 2 main track to yard lead.

Downey Road—M.P. 2.82—From No. 3 auxiliary track to Hobart lead.

Downey Road—M.P. 2.75—Cross-over from No. 2 main track to No. 3 auxiliary track.

9th St. Jct. —No. 1 main track diverging switch to Butte Street Yard.

7th St. Yard —No. 1 main track—Dual control switches, east and west end of yard at Olympic Blvd. and 1st Streets.

104(T-2). On Glendale Branch, derail located on main track just below run around switch at Glendale.

104(T-3). At Crestmore, before switching cars into Track 1 and Track 2 at Riverside Cement Corporation, a member of crew must ascertain that derails on these tracks are in derailing position. If derails are not in derailing position, a member of crew must contact Packhouse foreman or lead man.

NORMAL POSITION OF SWITCHES

104(T-4). Switches will be set normally at:

Santa Fe Ave.—Old U.P. main line switch—for Butte Street yards.

Calima Jct.—For S.P. Yorba Linda branch.

Fullerton Jct.—For U.P. Anaheim branch.

104(T-5). Normal position of switch to AT&SF yard, west end inbound lead at Hobart is far inbound lead.

Normal position of switch to east leg of wye at Hobart is for straight track.

104(T-6). Switch to South Drott track in vicinity old trailer dack must be left lined and locked far South Drott track after being used.

104(T-7). At Mead Transfer, main track switch to west leg of wye and main track switch to Mead Yard may be left lined as last used. All trains and engines must approach these switches prepared to stop unless switch is properly lined.

TRACKS OTHER THAN MAIN TRACKS

105(R). Between CTC Stop signals vicinity M.P. 3.8 and CTC Stop signals vicinity M.P. 7.7 there is no main track. Rule 105 governs.

Maximum authorized speed between these locations is 20 MPH.

Before leaving departure yard, eastward trains or engines must receive authority from Crest Tower Yardmaster.

MOVEMENT ON SIGNAL INDICATION

240(R). Eastward trains departing East Yard on Track 3, (known as Rubber Lead) will be governed by signal indications.

A speed of 40 MPH must not be exceeded between Atlantic Blvd., (MP 5.72) and Voil Avenue, (MP 7.7).

Trains or engines must not enter this track at any hand operated switch between MP 5.72 and MP 7.7 without authority from Crest Yardmaster, who must in turn receive authority from Train Dispatcher.

Rule 516 and Special Rule 516(R) applies at all hand operated switches between MP 5.72 and MP 7.7.

CENTRALIZED TRAFFIC CONTROL

268(R). At Yermo operating rule 268 applies between M.P. 162.8 and M.P. 163.1. Trains or engines must not clear main track at wye switches unless switch is left open.

INTERLOCKING

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

Riverside Jct.:

From A.T.&S.F. westward main track to U.P. siding	0
From U.P. main track to A.T.&S.F. eastward main track	0
From U.P. main track to A.T.&S.F. westward main track	0 0 0
To transfer track	0 0 0

Habart:

For east wye	0
From San Pedro main track to A.T.&S.F. siding	0
From A.T.&S.F. siding to San Pedro main track	0
From U.P. transfer to A.T.&S.F. siding	0 0 0
From A.T.&S.F. siding to U.P. transfer	0 0 0

At Los Angeles, microphone is installed on signal bridge at Fourth Street for westward movements on both main tracks and an Stop signal on yard lead at First Street for movements leaving Seventh Street Yard.

Following whistle signals will be used to indicate route:

Far Union Station	0
To and from Glendale Jct.	
To turn equipment or engine	0 0

At 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). When a train or engine is stopped by an interlocking signal at Signal Bridges 3, 4, or 6, between Dayton Avenue and Mission Tower and signal does not change to proceed indication, a member of crew must communicate with signalman at Doyton Avenue or Mission Tower.

609(S). At Bell, in performing switching between home and approach signals, cars must not be left standing on clearance

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section of track located between 350 feet west of eastward home signal and 330 feet east of westward home signal. Switching movements may be made between these points and approach signals without interfering with operation of Southern Pacific.

At Bell, when making movements from siding or Bethlehem Steel Corporation spur to main track, trainmen must be governed by track occupancy indicator. If track occupancy indicator displays Unoccupied 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 home signals.

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

609(T). Home signal at east end Los Angeles River bridge at Redondo Tower governs westward 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 westward movements over A.T.&S.F. main track crossing at Redondo Tower.

COLTON YARD

803(R). Union Pacific crews working in Colton Yard will work under the supervision and instructions of Colton Yardmaster. Following Southern Pacific rules apply:

S.P. Rule 826—Colton: Indicator lights located at each end of icing platform on PFE tracks Nos. 5, 6 and 7, and at switch to PFE spur, govern movement of those tracks as follows:

Green: Tracks may be used for train or switching movements.

Red: Tracks may be entered but cars on tracks must not be coupled to or moved. Trains made up on these tracks must not depart until it has been ascertained indicator displays green aspect.

Not Lighted: Must be considered as displaying most restrictive indication and icing platform foreman must be contacted for instructions before cars are coupled to or moved.

S.P. Rule 825—Colton: When trains or cars are left standing in Colton Yard, a sufficient number of hand brakes must be set on the east end to properly secure cars.

Not less than six hand brakes must be set on the east end when trains or cars are left standing except when less than six cars, all hand brakes must be set. Such brakes must be securely applied using standard brake club to set staff brakes.

When necessary to release hand brakes to move portion of the cars the same number of brakes must be set on remaining cars. This also applies to cars set out at 9th Street Interchange.

All movements on yard tracks Colton must be made with caution, not exceeding 15 MPH.

SWITCHING ON KENOSHA AUTO TRANSPORT TRACKAGE, MONTEBELLO

804(S). Tracks at Kenosha Auto Transport facilities have capacity of five 85-foot cars each to clear gate. There is heavy descending grade from main track to gate. Before attempting to

place cars at this location, movement must stop on main track and must remain standing on main track until gate is opened.

Due to close clearance created by curvature and long cars, west track (right hand track entering from main track) must, when practicable, be spotted first.

SWITCHING MOVEMENTS

804(T). At Tube Sales Co., East Los Angeles, all movements must stop before entering building.

804(U). Los Angeles Terminal area has a great number of curves in excess of 16°, and before switching freight cars 85 feet or more in length into industry tracks, it must be known that the curvature is less than 16°.

804(V). At Pomona, within the confines of General Dynamics property, cars must not be cut off while in motion.

USE OF HAND BRAKES

806(V). In complying with provisions of Rule 806(A), the following minimum requirements apply:

Location	Minimum Requirement
Yermo	Not less than three hand brakes must be applied on east end of freight trains on arrival unless outgoing crew or yard crew take charge of train. In such case, if engine is detached, outgoing crew or yard crew must apply required hand brakes.
Yermo	Not less than three hand brakes must be applied on east end of cuts of cars left standing on any track, including Lend-Lease tracks.
Riverside	Not less than one hand brake must be applied on west end of cars left standing on any track.
East Yard	Not less than six hand brakes must be applied on west end of all trains or cuts of cars stopped east of Atlantic Blvd.
East Yard	Not less than six hand brakes must be applied on east end of trains or cuts of cars stopped west of Atlantic Blvd. East Yard—not less than 3 hand brakes must be applied on west end of trains or cuts of cars left on north or south drill tracks.
Butte Street Yard	Not less than three hand brakes must be applied on Alameda Street end of cuts of cars delivered to S.P.

SWITCHING CARS WITH AIR BRAKES

806(W). Air brakes must be cut in and operative on all cars being handled at following locations:

- East Yard —Trailer romp; Drott tracks.
- Rioco —Oil loading platform.

LOCATION OF CARS IN TRAIN

809(X). On westward trains between Summit and San Bernardino, all empty flat cars must be entrained near rear of train.

LOCATION OF HOT BOX DETECTORS

Hot box detector is in service at M.P. 42.4 between S.P. Crossing and Mira Loma. Read-out dispatcher's office, Los Angeles.

TRACK RESTRICTIONS

899(V). Reference Special Rule 899(R), units listed may be used on San Pedro Branch and an S.P. connection to bulk unloader.

899(W). No engines are permitted to operate on following tracks:

San Pedro Branch —M.P. 10.20 over trestle Dayton Foundry Co. spur;

Anaheim Branch —M.P. 2.6 over trestle on Old Sunkist Packing Co. spur.

899(X). Diesel units with 8-wheel trucks must not be operated through turnouts as follows:

Pica Rivera—House track No. 2.

City of Industry—House track No. 6.

Walnut—Packing house track No. 4.

Pomona—Freight house tracks A-34 and A-36.

Pedley—East leg of wye.

Riverside—Ice house track.

CLOSE CLEARANCES

900(T-1). 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:

Location	Structure or Obstruction	Clearance of engines or car is close at
SECOND SUBDIVISION		
M.P. 55.9	Highway bridge	Side.
M.P. 55.7	Canal syphon wall	Side.
M.P. 52.4	Bridge	Side.
M.P. 31.9 (Thomas Street)	Iron post barricade	Side.
M.P. 11.1	Highway bridge	Top.
M.P. 10.80	Bridge	Side and top.
M.P. 8.90	Highway bridge	Top.
M.P. 1.89 (Butte Street)	Bridge	Side.
Los Angeles River	Bridge	Side.
Los Angeles Union Station	Umbrella sheds	Top. (See note.)
SAN PEDRO BRANCH		
Anaheim Boulevard	Highway Viaduct	Top.
M.P. 8.52	Bridge	Side.

Note—Umbrella sheds in LAUPT passenger yard will not clear a man on top of car, nor on side of car except when standing on sill step.

All trains and engines must stop before passing under Anaheim Street Viaduct at M.P. 22, San Pedro Branch, and all persons are prohibited from riding on top of cars while passing under viaduct.

900(T-2). Sign reading "Trains Must Not Operate Beyond This Sign" is located 877 feet west of switch to Novak Scrap Yard, Champagne Spur; no train or engine movement may be made beyond this sign. All cars must be left east of sign.

900(T-3). At Sears Roebuck, 5525 So. Soto Street, moveable bridges are in service at warehouse doors 8 and 11, which may extend over warehouse track and foul lead track. Bridges are equipped with oscillating red lights when extended.

Two indication signal is located on warehouse platform roof inside gate at Sata Street. When red indication is displayed, tracks are fouled, and all movements must stop until bridges have been retracted and green signal is displayed.

900(T-4). At UniRoyal Company, 5675 Telegraph Road moveable bridge may extend over track serving receiving dock. Two indication signal is located on face of building. A red signal indicates bridge is extended over track, and when this indication is displayed, movements must stop before passing the red signal and must not proceed until bridge has been retracted and green signal is displayed.

900(T-5). At Continental Can, 5556 Grace Place portable loading dock has been installed. Sign reading "DANGER—Portable Dock Must Be Removed Before Moving Train." Red light indicates dock is in place. Green light indicates dock has been removed.

900(T-6). At Walnut, Benton Feed Yard has portable barrier with sign reading "DO NOT PASS BEYOND THIS POINT—EMPLOYEES WORKING."

If necessary to switch beyond this location, employe of Benton Feed Yard must be requested to remove barrier.

**UNION PACIFIC RAILROAD EMPLOYES HOSPITAL
ASSOCIATION PHYSICIANS AND SURGEONS:**

NAME	TITLE	PLACE
H. Schwarm II,	District Surgeon	Los Angeles
S. Cryst,	Asst. Dist. Surgeon	Los Angeles
J. M. Farris,	Chf. Surgeon	Los Angeles
D. J. Romeo,	Asst. Dist. Surgeon	Las Vegas
H. L. Finsten,	Surgeon	Alhambra
D. P. Nebeker,	Surgeon	Arcadia
C. J. Taylor,	Surgeon	Barstow
C. S. Muller,	Surgeon	Bell
A. L. Kobal,	Surgeon	Covina
W. W. Meier,	Surgeon	East Los Angeles
C. R. Brown,	Surgeon	El Monte
J. G. Slayback,	Physician	Eagle Rock
C. V. Wall,	Physician	Fullerton & Anaheim
E. D. Acker,	Surgeon	Glendale
M. Beugelmons,	Surgeon	Inglewood
N. A. Lorusso,	Surgeon	Las Vegas
S. B. Ginsburg,	Surgeon	Long Beach
T. E. McCloy,	Physician	Long Beach
H. D. Miller,	Surgeon	Las Vegas
D. L. Hartleip,	Urologist	Los Angeles
H. C. Youngreen,	Physician	Los Angeles
M. Glazier,	Urologist	Los Angeles
P. H. L. Sargent,	Physician	Los Angeles
G. A. Nicola,	Surgeon	Los Angeles
R. R. Hare,	Surgeon	Los Angeles
A. C. Hurt III,	Oculist	Los Angeles
E. M. F. Weaver,	Oculist & Aurist	Los Angeles
W. F. Stucky,	Surgeon	Los Angeles
	Surgeon	Los Angeles East Yard
E. E. Wunderlich,	Surgeon	Los Angeles-Palos Verdes
	Surgeon	Montebello
J. T. Lanier,	Surgeon	Riverside
S. B. Hughes,	Surgeon	San Bernardino
H. D. Orr,	Surgeon	Victorville
	Surgeon	Whittier
	Surgeon	Wilmington