

SPEED TABLE

TIME PER MILE	MILES PER HOUR	TIME PER MILE	MILES PER HOUR
41"	87.8	1'11"	50.7
42"	85.7	1'12"	50
43"	83.7	1'13"	49.3
44"	81.8	1'14"	48.6
45"	80	1'15"	48
46"	78.3	1'16"	47.4
47"	76.6	1'17"	46.8
48"	75	1'18"	46.2
49"	73.5	1'19"	45.6
50"	72	1'20"	45
51"	70.6	1'25"	42.4
52"	69.2	1'30"	40
53"	67.9	1'35"	37.9
54"	66.7	1'40"	36
55"	65.5	1'45"	34.3
56"	64.3	1'50"	32.7
57"	63.2	1'55"	31.3
58"	62.1	2'00"	30
59"	61	2'15"	26.7
1'00"	60	2'30"	24
1'01"	59	2'45"	21.8
1'02"	58.1	3'00"	20
1'03"	57.1	3'30"	17.1
1'04"	56.2	4'00"	15
1'05"	55.4	5'00"	12
1'06"	54.5	6'00"	10
1'07"	53.7	7'00"	8.6
1'08"	52.9	7'30"	8
1'09"	52.2	8'00"	7.5
1'10"	51.4	10'00"	6

SOUTHERN PACIFIC COMPANY



SAN JOAQUIN DIVISION SPECIAL INSTRUCTIONS

NO. 16

EFFECTIVE JANUARY 1, 1969

AT 12:01 A.M.,

PACIFIC STANDARD TIME

THESE INSTRUCTIONS CONSTITUTE A PART
OF THE TIMETABLE CURRENTLY IN
EFFECT

M. A. McINTYRE,
General Manager.

S. B. BURTON,
R. L. KING,
Assistant General Managers.

J. J. WILLIS,
General Superintendent of
Transportation.

O. D. GOODWILL,
Superintendent of Transportation.

W. C. MORRIS,
Superintendent.

SPECIAL INSTRUCTIONS — ALL SUBDIVISIONS

RULE A. Employes must know they have in their possession copy of Rules and Regulations of the Transportation Department effective January 1, 1969.

RULE 10-H. On all branches except the Exeter Branch and between MP-380.47 and MP-422.00 on the Lone Pine Branch, and between MP-112.12 and MP-125.46 and between MP-127.12 and MP-131.14 on the Ione Branch, when a yellow signal is required it will be displayed to the right of track in direction of approach one-half mile instead of two miles from structure or track over which speed of trains must be restricted.

RULES 10-G, 10-H and 10-I. When unattended red flags or red lights, yellow signals, red CONDITIONAL STOP signs and yellow PROCEED PREPARED TO STOP signs are displayed between siding switches, they must be duplicated to right of track in direction of approach. If clearance between siding and main track does not permit display of these signals to right of track in direction of approach, signals may be displayed to left of track in direction of approach. Display of these signals to the left of track in direction of approach must be respected as though they were displayed in accordance with these rules.

RULE 10-J. Speed signs prescribing an increase in speed will not be installed on branches. Speed Restriction tables will indicate permissible speeds between mile post locations named.

RULE 15. On all branches except the Exeter Branch, and between MP-380.47 and MP-422.00 on the Lone Pine Branch, and between MP-112.12 and MP-125.46 and between MP-127.12 and MP-131.14 on the Ione Branch when a torpedo is exploded in the vicinity of a yellow signal displayed in accordance with Rule 10-H, train must proceed expecting to find an unattended red signal that may be displayed one-half mile instead of two miles beyond the torpedo and the yellow signal.

RULE 19. AT&SFRy trains will use markers with yellow lens instead of green lens and yellow aspect will be considered the same as green aspect.

RULE 26. On diesel fueling tracks, a blue light will not be attached to reflectorized blue "Men At Work" signs when displayed at night.

RULE S-72. Westward trains are superior to trains of the same class in the opposite direction, except Train No. 52 is superior to Train No. 54, Tracy Depot to beginning CTC.

RULE 105. Sidings designated "E" are assigned for use by eastward trains, those designated "W" are assigned for use by westward trains.

Capacity of sidings column indicates length of train in feet that can be accommodated between fouling points.

RULE 221. Light will not be displayed in train-order signals on all branches, except when train-order operator is on duty.

RULE 286. Distant signals govern movement on controlled sidings. When such signals display yellow aspect, train may proceed on siding at restricted speed, expecting to find siding occupied by preceding train.

RULE 505. AUTOMATIC BLOCK SIGNAL SYSTEM

PUSH BUTTONS

Where signal protection is provided for movements from an adjacent track to main track, push buttons and lights are installed in box near each of the two signals, with time-release feature, to clear signals on one track when the control circuit on the other track is occupied.

Train on main track to let train on siding pass may clear signal on siding by pressing button bearing number of signal on siding until light appears. Train on siding to let train on main track pass should not pass Approach Circuit sign, but when necessary to do so, may clear signal on main track by pressing button bearing number of signal on main track. Further instructions posted inside push button box.

ELECTRIC AND MECHANICAL SWITCH LOCKS

Instruction for operation of electric or mechanical switch locks are posted in telephone booths or inside of door or on housing of electric or mechanical switch locks.

RULE 605. INTERLOCKING

Trains and engines must not enter main track within interlocking limits where no signal governs such movement until permission has been obtained from signal operator, and must then run with caution not exceeding 12 MPH to the next signal.

RULE 705. HOT BOX DETECTORS

Instructions follow for operation of hot box detector boxes when stopped by illuminated letter or flashing white light actuated by hot box detector device. These instructions are also posted inside detector boxes.

Hot box detector scanner sites have a white light continuously displayed on track side of instrument house, except when a hot bearing is detected, at which time light will start flashing. Crew members must keep a vigilant lookout for light and, when flashing, conductor and engineer must immediately orally compare observation when means of communication is available. Absence of white light must be promptly reported to Train Dispatcher:

When letter "H" is illuminated or it is known a hot bearing has been detected by crew member observing the flashing white light at scanner site, speed of train must be reduced to not exceeding 15 MPH until stop is made at location of readout indicator.

When letter "W" is illuminated train must stop and wait until indicator is extinguished or permission is obtained from train dispatcher to proceed. Telephone located near "W" indicator.

Numerals displayed by indicator inside of box indicate location of car with hot bearing in train. Top row indicates hot bearing on right side of train and lower row on left side of train in direction of movement. Numbers displayed on top row or bottom row indicate number of axles between hot bearing and rear of train. Indicator will display a maximum of four hot bearings on each side of train. All journals of car indicated by detector as well as each adjoining car must be inspected.

When H indicator indicates a hot journal on train and there is no count shown on hot bearing detector and red light below readout marked "Locator out of Service" is illuminated, all journals on train must be inspected.

After inspection has been completed train dispatcher must be notified of condition found. When it is safe to proceed, member of crew must push button below indicator panel to cancel numbers on the indicator. Case door must be closed and secured with switch lock.

When hot box detectors actuated, following information is to be reported at next terminal in telegraph message form addressed jointly to Superintendent, Division Engineer, Signal Supervisor, and Chief Dispatcher identified by symbol H.B.

1. Date and time stopped, and M.P. location.
2. Train identification.
3. Car number and location in train.
4. Box location (1, 2, 3 or 4 from trailing end of car in direction of movement, right or left side).
5. Disposition of car. (If set out, state where. If inspection shows that it was not necessary to set out even though journal was warm enough to activate the detector, advise what corrective action was taken to permit movement of car. If roller bearing equipped, so state.)
6. Report all cases where train passes over the detector without an indication having been displayed, but developing a hot box between detector and a point 20 miles beyond detector.

RULE 781. White light which may appear on side of relay housing is maintainer's call light, but when train has been stopped by an absolute signal and white light is observed burning, members of crew will communicate with train dispatcher even though another train may be seen approaching.

GENERAL REGULATIONS

RULE 825. Rail skids are hung on posts at locations listed under sub-divisions. When using rail skid it must be placed on rail and leading wheel of first car in descending direction run onto rail skid and hand brakes set if brakes are operative before engine is detached. Train crews picking up cars from these locations must remove rail skid and return to proper location and locked where locks are provided.

RULE 827. Engines running light on descending grade without dynamic brake in operation must stop a sufficient length of time to permit wheel heat radiation if there is indication of overheating.

Dragging equipment detector mounted on post adjacent to detector will display revolving red light when detector is actuated. Crew members must keep vigilant look-out when passing and if revolving red light observed, train will be stopped promptly and inspection made of train and track notifying dispatcher of condition found.

RULE 883. Engineman before leaving locomotive must apply hand brakes on all units, place generator field switch in "off" position, isolate diesel engines on all units except when relieved of this responsibility by an engineman. Blocking chains are required at all locations except within the confines of Fresno and Bakersfield diesel facilities.

When light engines are left on descending grade without an employe in charge at any point on San Joaquin Division, engine must be placed on a track affording derail protection or on a track that will be protected by an inside switch to prevent movement to main track. In the event the above protection cannot be afforded, engine must not be left unattended.

AIR BRAKE RULES

RULE 2-A. On departure from locomotive maintenance facility, enginemen must determine by making running air brake test that the independent and automatic brakes are operating effectively.

RULE 2-B. Dynamic brake on head end of freight and mixed trains must not exceed three 8-axle units, four 6-axle units, six 4-axle units, or any combination thereof, which totals 24 axles, except dynamic brake on EF415A & B and EP415A & B classes is limited to five units.

Dynamic brake must not be used when operating in multiple with engines other than SP or SSW units unless equipped with dynamic brake interlock.

RULE 3. A full independent brake application on road locomotive classes EP636, GF628, GF630, GF633, EF623, EF630, EF636, EF850B, results in a brake cylinder pressure of 72 psi. This brake cylinder pressure must be maintained to provide required braking power at very low speeds or when stopped. Under no circumstances must self-lapping portion of independent brake valve be changed except to obtain brake cylinder pressure of 72 psi from a full independent brake application.

Enginemen when taking charge of switcher class locomotive must observe brake cylinder pressure obtained with a full independent brake application. Brake cylinder pressure so obtained should correspond with maximum pressure authorized for independent application as shown on metal tag on Engineman's control panel.

Reducing valve or self-lapping portion of independent brake valve on switcher class locomotive must not be changed except to obtain brake cylinder pressure authorized for full independent brake application.

RULE 11. Cars equipped with brake cylinder release valve may have one or two operating release rods. Operating rods connected to brake cylinder release valve may be identified by stencil reading "Br.Cyl.Rel." or by a diamond shaped stencil or by noting that ends of release rod form a small closed circle. Air brakes can be released on cars equipped with brake cylinder release valve by a hard momentary pull on release rod after brake pipe pressure has been depleted.

RULE 17. If at any time in engineer's judgment use of retaining valves is required, stop will be made and retaining valves turned up in accordance with his request.

RULE 23. The following series of cars are equipped with ABEL brake system which has automatic changeover feature to provide proper brake function when car is loaded and when empty:

SSW 75700 —75799	Gondolas
SSW 78500 —78599	Hoppers (Open Top)
SP 333500—334399	Gondolas
SP 337500—337599	Gondolas
SP 345000—345669	Gondolas
SP 354000—354399	Gondolas
SP 463500—463999	Hoppers (Open Top)
SP 467500—467549	Hoppers (Open Top)
SP 480000—480193	Hoppers (Open Top)
SP 491000—491059	Hoppers (Covered)
SP 492000—492039	Hoppers (Covered)
SP 500604	Flat Car
SP 590000—590099	Flat Cars

TRAIN HANDLING

RULE 60. On descending grades train air brakes must be used in conjunction with dynamic brakes unless air brake application would cause train to either stop or retard speed excessively below that which is authorized.

MISCELLANEOUS

5. Helper service:

- When helper engine is placed behind caboose, not more than 2 operating units nor more than 4 000 operative horsepower will be used.
- When helper engine is placed immediately ahead of caboose a combination of not more than 18 axles will be used.
- Helper engines consisting of more than 12 axles must not be placed directly behind 80 foot or longer trailer flat cars.
- When helper engine is placed directly ahead of caboose, additional helper must not be coupled behind caboose. Helper engines must be separated by at least 20 cars.
- Air will be cut in on all helper engines, and engine must not be coupled or uncoupled while train is in motion.
- When helper engine is shoving on ascending grade, throttle must be reduced as train speed reduces, then throttle regulated so that amperage will be approximately the same as indicated before train speed reduction.

6. Unless otherwise authorized, trains handling passenger cars with flat spots on wheels in excess of $3\frac{1}{4}$ inches in length must not exceed 10 MPH. When flat spots are not in excess of $3\frac{1}{4}$ inches long such cars may be operated at maximum authorized speeds.

7. Not more than ten diesel units in operation may be used on head end of any freight train.

8. Forward brakeman on freight trains will ride the lead unit unless otherwise instructed by conductor or engineer.

SPECIAL INSTRUCTIONS — ALL SUBDIVISIONS

30. DODX cars, series 38016 through 38665, and DODX and USAX cars, series 39095 through 39199 must be entrained on rear end of train **only**. When helper engines used they must be cut in **ahead** of such cars.

SPEED RESTRICTIONS FOR ENGINES: Maximum speed shown below is subject to further restrictions applicable to certain territories as shown in Speed Restrictions for Trains.

Nominal classifications are descriptive of the engines as follows:

1st letter..... Builder: A—Alco; B—BLH; E—EMD; F—Fairbanks-Morse; G—G.E.; K—Krauss-Maffi.

2nd letter..... Type of service: F—Freight, P—Passenger, S—Switcher.

1st number..... Number of axles.

2nd and 3rd numbers.. Horsepower (100).

Last letter..... Style of unit: A—Car body type with control cab. B—No control cab. No letter indicates road switcher type.

MAXIMUM SPEED FOR ENGINES

LENGTH OF DIESEL UNITS

(Between Pulling Face of Couplers)

Classification	Maximum Speed Except (#)	LENGTH (feet)
AF420-1.....	70	57
AF624C-1.....	75	67
AF624-1.....	70	67
AF628-1, 2.....	70	69
AF630-1.....	70	69
AF640-1.....	70	59
EF415C-1.....	70	56
EF415A-4 to 9, 11.....	70	51
EF415AC-1, 2, 3.....	70	51
EF415BC-1, 2, 3.....	70	50
EF415B-4 to 7, 9, 11, 13.....	70	50
EF418A-1.....	70	51
EF418B-1.....	70	50
EF418-1 to 9.....	70	56
EF418C-1, 2.....	70	56
EF618-1 to 5.....	70	61
EF420C-1.....	75	56
EF420C-1, 2.....	70	56
EF420-1, 2.....	70	56
EF423C-1.....	70	56
EF423-1.....	70	56
EF425C-1, 2, 3.....	70	56
EF425-1, 2, 3, 4.....	70	56
EF625-1.....	70	61
EF430C-1.....	70	59
EF623-1.....	70	66
EF630-1, 2.....	70	66
EF636-1, 2, 3, 4.....	70	66
EF636C-1, 2.....	70	66
EF850B-1.....	70	88
GF425-1, 2, 3.....	70	60
GF428-1.....	70	60
GF628-1.....	70	67
GF630-1.....	70	67
GF850-1.....	70	84
ES410C-1, 2.....	65	44
ES410-1.....	60	44
ES410-2.....	65	44
ES412C-1 to 5.....	65	44
ES 412-1 to 5.....	65	44
ES415-1, 2.....	65	45
ES415C-1, 2.....	65	45
ES615-1, 4.....	55	61
KF636A-1.....	70	66
KF636-1.....	70	68

Classification	Maximum Speed Except (#)	LENGTH (feet)
EP415A-1 to 4.....	79	51
EP415A-5.....	79	55
EP415AC-1.....	70	55
EP415B-1, 2, 3.....	79	50
EP418-1 to 4.....	79	56
EP418-5.....	70	56
EP620B-1, 2.....	79	70
EP620A-2.....	79	72
EP624A-1.....	79	70
EP636-1.....	70	71
FP624-1, 2.....	70	66
AS407-1.....	60	44
AS409-1 to 5.....	60	45
AS410-2 to 5.....	60	45
AS410-6.....	60	46
AS415-1.....	65	54
AS416C-1, 2, 3.....	75	56
AS416C-4, 5.....	65	56
AS616-1, 2.....	65	56
AS616-3, 4.....	65	56
AS616-5.....	65	56
AS616C-1.....	65	56
AS418-1 to 6.....	70	57
AS618-1.....	70	58
BS410-2.....	60	49
BS410-4.....	60	46
BS412-1 to 4.....	60	46
BS615B-1.....	35*	58
BS615-2 to 5.....	35*	58
BS616-2, 3.....	35*	58
BS616-5, 6.....	35*	58
ES406-2, 3.....	45	44
ES408-1 to 4.....	65	44
ES408B-1.....	65	44
ES409-1, 2.....	65	44
ES615-1 to 4.....	70	61
FS412-1, 2, 3.....	60	49
FS 412-4, 5.....	60	46
GS407-1, 6.....	55	37
RDC.....	79	
Any Locomotive not listed.....	35	

#When operated in multiple unit control, on head end of train or running light and engineer is in other than the leading control cab in direction of movement, speed must not exceed 30 mph. 'A' type units (indicated by letter 'A' following classification numerals) operating in reverse as lead unit in direction of movement must not exceed 30 mph.

*Speed must not exceed 25 mph on less than 90-lb. rail.

Nominal Classification	Maximum Speed	Maximum Speed Running Backward with Train or Light
AT&SF Ry: 11 to 90, 300 to 314, 325 to 344.....	79	45
AT&SF Ry: 100 to 289, 401 to 430, 700 to 751, 2650 to 2893.....	65	45
AT&SF Ry: 2310 to 2399.....	45	30

Light engines are authorized to operate at column 1 speeds, except on descending grade without dynamic brake in operation must not exceed column 2 speeds.

Maximum speed of trains handling dead diesel engines must not exceed the speed shown for the same engine running forward light.

Dead diesel locomotives weighing 100,000 pounds or more will be placed first behind locomotive handling train; locomotive weighing less than 100,000 pounds must be placed near rear of train.

Dead or disabled engines, and equipment listed in timetable which requires movement at reduced speed must first be reported as ready to move to the chief train dispatcher, who will designate the train in which the engine or equipment is to be moved. Any such engine must not be handled in train until train-order designating maximum speed is issued.

Engines handled dead must not exceed speed shown in table.

MAXIMUM SPEED PERMITTED WITH CERTAIN EQUIPMENT	MPH MAIN TRACKS OTHER THAN BRANCHES	MPH MAIN TRACKS ON BRANCHES
Double or triple loads.....	..	25
Scale test cars, except:.....	40	30
SPMW 2024.....	65	49
Steel pile-drivers, except:.....	40*	30*
SPMW 4088 (locomotive crane pile-driver)	45*	35*
Relief outfits with steam derrick, except:....	45	25*
Nos. 7007 and 7034.....	35*	25*
Between Fresno and Famoso via Porterville	25	..
Relief outfits weighing in excess of 120 tons		
must not be operated on any branch, except		
Lone Pine and Oak Creek Branches.)		
Nos. 7000 and 7010 must not operate between		
Edwin and Ione on Ione Branch unless autho-		
rized by Superintendent. If movement		
authorized, speed of 15 MPH must not be		
exceeded.		
K&J, Pedestal or center-hinged air-dump cars		
(except SPMW 5100 to 5289 loaded or empty)	35*	25*
Locomotive cranes:		
With boom disconnected, heavy end forward	35*	20*
With boom disconnected, light end forward.	20*	15
With boom in place, either end forward.....	25*	15

*These speeds must not be exceeded, and on curves where authorized speed is more than 15 MPH speed must be reduced to 5 MPH less than shown in timetable and on speed signs.

OTHER MAXIMUM SPEEDS	MPH PASSEN- GER TRAINS	MPH FREIGHT AND MIXED TRAINS
Trains of deadhead equipment, with caboose..	65	..
Passenger trains, with caboose.....	65	..
Engine and caboose only, except:.....	..	65
must not exceed speed for same engine run-		
ning forward light.		

All cars handled in passenger trains must be equipped with steel-tired or all-steel wheels. Cars not so equipped must move in freight trains, passengers if any, to move on passenger trains.

Passenger carrying cars, baggage, express and other head-end cars, unless equipped with steel center sills and steel platforms must not be handled in passenger trains except on authority of Superintendent.

Freight cars must not be handled behind occupied passenger carrying cars, except in mixed trains in military or naval movements.

Baggage, express, mail, refrigerator or other head-end cars must not be handled on rear of passenger trains unless trainmen can pass through them.

When moving against current of traffic, or when movement is not protected by block signals, speed of passenger trains and light engines must not exceed 59 MPH, and speed of freight trains must not exceed 49 MPH, nor may speed exceed that applying to normal operation.

RULE 5. Time of arrival Tracy for first-class trains from Lathrop Line will apply at Signal 721. Trains must not pass this point ahead of designated time.

Time for freight trains at Tracy to and from Lathrop Line will apply at clearance point to crossover west of Banta Road Crossing MP 73.5.

Freight trains arriving Tracy from Western division must be clear of main track in advance of these times as prescribed by Rule 86.

RULES 10-G, 10-H and 10-I. When unattended red flags or red lights, yellow signals, red **CONDITIONAL STOP** signs and yellow **PROCEED PREPARED TO STOP** signs are displayed between El Pinal and Akers on westward main track for eastward movement, or on eastward track for westward movement, they will be displayed to left of track in direction of movement.

RULE 10-J. Speed signs to left of track.

Eastward	Reading
MP-72.25	70—60

RULE 26-A.

Fresno: Indicator lights located above tracks at each end of PFE icing decks and additional set of lights located 1400 feet west of west end of icing platform govern movement on those tracks as follows:

- Green:** Tracks may be used for train or switching movements.
- Yellow:** Tracks may be entered, switched, and engines, cars or cabooses added or detached.
- 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.

RULE 82-A. Trains to San Joaquin Division at Polk, originating at Sacramento, Roseville or Antelope, must obtain two clearances, one endorsed Sacramento Division, the other endorsed San Joaquin Division. Train orders addressed to such trains at Sacramento, Roseville or Antelope will apply the same as if addressed to them at Polk.

First-class trains to or from San Joaquin Division at Polk will assume the corresponding number and schedule at Polk without clearance.

RIVERDALE BRANCH. Trains operating on Riverdale Branch will move only by train order authority except at San Joaquin between MP-190.00 and MP-193.00.

OAKDALE BRANCH. Extra trains originating at Stockton and operating on Oakdale Branch will display numbers as an extra train on entire trip as indicated by the engine number of the lead unit leaving Stockton and are authorized to operate as extra trains without obtaining a clearance.

Extra trains operating on Oakdale Branch in addition to information required by train register located at Stockton, must register destination of trip (turning point) and date of departure in the Column captioned "Signals." When trip has been completed, date of arrival at Stockton must also be entered in Column captioned "Signals". Extra trains en route into this territory must not leave Stockton until it has been ascertained from the train register that all preceding extra trains via the route to be used have completed their trip and registered time and date of arrival at Stockton accordingly.

KENTUCKY HOUSE BRANCH. Extra trains originating at Lodi and operating on Kentucky House Branch will display numbers as an extra train on entire trip as indicated by the engine number of the lead unit leaving Lodi and are authorized to operate as extra trains without obtaining a clearance.

Extra trains operating beyond Victor, MP-107.50 on Kentucky House Branch in addition to information required by train register located at Victor, must register destination of trip (turning point) and date of departure in the Column captioned "Signals". When trip has been completed, date of arrival at Victor must also be entered in Column captioned "Signals". Extra trains en route into this territory must not leave Victor, MP-107.50, until it has been ascertained from the train register that all preceding extra trains via the route to be used have completed their trip and registered time and date of arrival at Victor accordingly.

IONE BRANCH. Extra trains originating at Lodi and operating beyond Galt on Ione Branch will display numbers as an extra train on entire trip as indicated by the engine number of the lead unit leaving Galt and are authorized to operate as extra trains on Ione Branch without obtaining a clearance at Lodi.

Extra trains operating on Ione Branch in addition to information required by train register located at Galt, must register destination of trip (turning point) and date of departure in the Column captioned "Signals". When the trip has been completed, date of arrival at Galt must also be entered in Column captioned "Signals". Extra trains en route into this territory must not leave Galt until it has been ascertained from the train register that all preceding extra trains via the route to be used have completed their trip and registered time and date of arrival at Galt accordingly.

BIOLA BRANCH. Extra trains operating beyond Biola Junction on Biola Branch will display numbers as an extra train on entire trip as indicated by the engine number of the lead unit leaving Biola Junction and are authorized to operate as extra trains on Biola Branch without obtaining a clearance.

Extra trains operating on Biola Branch in addition to information required by train register located at Biola Junction, must register destination of trip (turning point) and date of departure in the Column captioned "Signals". When trip has been completed, date of arrival at Biola Junction must also be entered in Column captioned "Signals". Extra trains en route into this territory must not leave Biola Junction until it has been ascertained from the train register that all preceding trains via the route to be used have completed their trip and registered time and date of arrival at Biola Junction accordingly.

RULE 83-A. At the following stations only trains indicated will register:

- Sacramento Trains originating or terminating
- Stockton Trains originating.
- Stockton Trains via Oakdale Branch.
- Victor Trains beyond Victor via Kentucky House Branch.
- Galt Trains via Ione Branch originating or terminating.
- Modesto Trains originating or terminating.
- Merced Trains originating or terminating.
- Turlock Trains originating or terminating.
- Biola Jct. Trains via Biola Branch originating or terminating.
- Ingle Trains required by train order. Trains via Riverdale Branch originating or terminating.
- Fresno Yard Trains originating and terminating.

At Stockton trainmen and enginemen should be on the lookout for messages to be picked up if light is showing in Train-Order stand.

RULE 83-B. At open train-order offices trains may register by tickets as follows:

- Tracy No. 51 and 52.

RULE 93. Yard limits in which the provisions of Rule 93 will apply, except within CTC limits, are established at the following points:

West MP		East MP
78.50	Tracy (Martinez-Pratton Line)	85.64
66.50	" (Niles-Polk Line)	74.37
99.10	Westley	101.10
105.85	Patterson	108.62
112.00	Crows Landing	114.50
117.95	Newman	121.04
122.50	Gustine	124.60
134.20	Los Banos	142.01
152.20	Dos Palos	155.00
164.94	Firebaugh-Mendota	178.50
181.10	Ingle	182.50
	" (Riverdale Branch)	End of track
192.46	Kerman	194.53
203.00	Fresno (Pratton-Tulare Line)	209.00
208.44	" (Biola-Porterville Line)	208.15
199.34	" (Merced-Clovis Line)	209.60
85.09	Stockton	92.17
	" (Oakdale Branch)	94.40
103.53	Lodi (Kentucky House Branch)	107.50
103.51	" (Woodbridge Branch)	End of track
131.60	Sacramento (Polk Line)	136.33

Tracy. Trains moving on main track in either direction will move between junction switch MP-70.62 and west switch of train yard by block signals whose indications will supersede the superiority of trains.

Westward freight trains entering Tracy Yard must not pass Signal No. 735 unless proceed signal received from a yardman or engineer is orally authorized. Movement into yard tracks should not exceed 8 MPH so as to allow verification of train.

At Fresno Yard trains or engines will operate between MP 199.32 and MP 201.80 on signal indication, which indication will supersede superiority of trains between these points.

Fresno: Eastward trains via Pratton line to Fresno Yard may pass Signal 2068 on Pratton line displaying stop indication without stopping at restricted speed to enter west leg of wye if wye switch is properly set, but must receive proceed signal from switchman or oral authorization before fouling eastward or westward main track, proceeding as prescribed by Rules 507 and/or 513.

When Signal 2046 on Pratton line displays stop indication train must stop, and after proceed signal received from switchman or oral authorization, may proceed as prescribed by Rules 507 and/or 513.

Trains from Fresno Yard to operate via Pratton line may pass Signal 2036 displaying stop indication without stopping at restricted speed to enter west leg of wye if wye switch is properly set and proceed signal received from switchman or oral authorization is given.

Fresno Yard: Trains entering or leaving yard tracks must receive proceed signal from switchman (green flag by day, green light by night), except within limits of diverging route signals, or engineer is orally authorized.

Oakdale: Trains and engines must move with caution between F and G Sts. expecting to find main track occupied by Sierra Ry. trains or engines.

RULE 97. Westward extra trains originating Fresno Yard to operate via Merced line need not obtain train order authority but must obtain a clearance.

RULE D-97-A. Will apply between MP 81.24 and MP 92.2, and between Fresno Yard and Calwa Tower.

RULE 98. Railroad crossings at grade not interlocked:

Trains and engines must approach with caution, and may move over the following crossings without stopping, if crossing clear and no movement approaching on intersecting line:
Stockton... CCTCo., crossing of Oakdale Branch near MP 92.0,

Stop clear of the following crossings, then proceed if no movement approaching on intersecting line:
Brandywine. CCTCo. crossing of Kentucky House Branch, Oakdale... AT&SFRy, crossing of Oakdale Branch, MP 116.7 on Ione Branch... CCTCo., crossing of Ione Branch.
Modesto... MET Company Crossing at "B" Street.

Stockton: AT&SFRy. crossing on connection to SPB-Ry. at Church and Edison Streets:

Stop not less than 10 feet nor more than 50 feet from crossing, then proceed (if no movement approaching on intersecting line). During fog, inclement weather or obscured visibility member of crew must flag through crossing after ascertaining there is no movement on conflicting route.

RULE 99. Rule 99 will not apply in following areas:

- Oakdale Branch... Between MP-94.40 and end of branch.
- Kentucky House Branch... Between MP-107.50 and end of branch.
- Ione Branch... Between Galt and end of branch.
- Biola Branch... Between MP-208.44 and end of branch.

RULE 99-A. Third paragraph does not apply to Trains 54 and 53 when standing between opposing absolute signals at Lathrop Station.

RULE 103-A. Automatic crossing gates:

Station	Location	MP
Modesto	*K Street	112.8
"	*I Street	113.0
Turlock	*Main Street	126.1
"	*Marshall Street	126.2

*Trains stopped at station to receive or discharge traffic must sound whistle to actuate the gates immediately prior to starting train and crossing must not be entered until it is known that gates are down.

Public Utilities Commission orders prohibit operation of train, engine, motor or car over the following crossings unless first brought to a stop and traffic on the highway protected by a member of the crew:

- Lodi... Crossing Oak St. D-103.25 and Pine St. (D-103.3 on yard tracks,
- Tomspur... Crossing on Tri-Valley Co. spur, D-98.1,
- Woodbridge... Crossing Woodbridge Road on General Mills spur, DE-105.3-C,
- Carbondale... Crossing County road when on industry track, DG-132.1,
- Modesto... Tully Ave., on Grange Co. spur, B-112.25-C,
- Modesto... B St. on Shoemaker spur, B-113.55-C,
- Chowchilla... Highway crossing and Robertson St., on Standard Oil Co. spur, B-168.11-C.

- *Madera.....Sunset Avenue, BBD-183.9C
- Vernalis.....Crossing on Associated Dehydrators spur, BA-93.0,
- Los Banos...Crossing 2nd and 4th Sts., on drill cross-overs and storage tracks, BA-140.1, BA-140.2,
- Firebaugh...Crossing 12th and 13th Sts., on drill and spur tracks, BA-166.2, BS-166.4-C,
- Cromir.....Crossing Shaw Ave. on team track, BA-170.2,
- Helm.....County road crossing on Holly Sugar Co. track, BAO-199.1.

*Crossing protection installed at crossing and are controlled by single track circuit with "Stop" signs installed at control limits. Crews should assure themselves that crossing protection is operating before entering crossing or street protected by a member of crew.

Modesto: Trains or engines making westward movement on No. 2 Siding or Storage Track must stop before entering Kansas Avenue and must know that gates are down before entering crossing.

"STOP" signs installed east of Kansas Avenue.

Turlock: Switching must not be done over Main and Olive Street crossings between hours of 12 Noon and 1:00 PM.

No switching to be performed over Marshall Street except for spotting or removing of cars to or from industries served by these tracks.

At the following locations, trains moving under the provisions of Rules 771 and 776 must not enter the crossing until protection for vehicular traffic has been afforded by a member of the crew, or it is known that automatic warning devices are operating:

Station	Location	MP
Lathrop.....	Lathrop Road.....	82.1
Modesto.....	Butchertown Spur.....	114.7
Turlock.....	Fulkerth Road.....	124.9
Arena.....	West Siding Switch (Arena Way).....	139.0
Merced.....	"D" Street.....	151.3
Chowchilla.....	West Siding Switch (King St.).....	168.0
Chowchilla.....	West Siding Switch (Robertson Blvd.).....	168.1
Biola Jct.....	Biola Branch (Old Highway 99).....	208.5
Lodi.....	Woodbridge Rd.....	105.1
Lodi.....	Lodi Ave.....	102.1

Eastward passenger trains making station stop at Fresno and freight trains changing crews at Depot, must stop to clear insulated joints located just west of Tulare Street unless otherwise instructed by yardmaster or his representative.

RULE 104. The normal position of rigid switches at the end of double track and at junctions, is as follows:

- Ingle.....Riverdale Branch, for Branch.
- Fresno Yard...End double track, for westward track.
- Fresno.....Pratton line, for eastward main track.
- Fresno.....Stem of Wye for West Leg Wye.
- Lodi.....Woodbridge Branch, for Lathrop line.
- Lodi.....Yard track for Kentucky House Branch.

RULE 104-A. Tracy:

Westward freight trains approaching east end Tracy Yard must run expecting to find main track switch lined for movement into yard tracks.

RULE 104-F. Between El Pinal and Polk at locations where entrance to main track is governed by automatic block signals, Rule 778 will apply.

RULE 105. Lathrop:

Manteca Track No. 1 extends from MP 96.73 to MP 97.72.

Calla siding extends from MP 97.74 to MP 99.44, is CTC controlled siding, capacity 171 cars. Crossover at west end Calla siding is equipped with dual control switch machines.

Westward absolute siding signal at west end Calla siding is three unit signal.

Top unit governs movements to Manteca Track No. 1.
Center unit governs movement to main track.
Lower unit, when displaying lunar aspect, governs movements to Manteca Track No. 1 per Rule 289.

RULE 221.

Fresno Yard is a train-order office only for trains originating.

Fresno is train-order office for Trains Nos. 51 and 52 only.

RULE D-251. Will apply as follows:

On eastward track: Lathrop to MP 92.2.

On westward track: MP 92.2 to MP 81.24.

On both tracks between Fresno Yard and Calwa Tower.

RULE 291. Lathrop: Flashing yellow aspect governs movements to east or west leg of wye at Fresno end of wye.

Flashing yellow aspect on eastward signal at west junction switch and westward signals at west junction switch on Fresno Line and Westward Main.

El Pinal: FLASHING YELLOW aspect on eastward absolute signals west of WP RR crossing on eastward track governs switching movements to eastward or westward main track.

FLASHING YELLOW aspect on westward absolute signal 1000 feet east of WP RR crossing on westward track governs switching movements to westward track.

RULE 306. The following block signals equipped with triangular plate bearing the letter "P" have included in their control limits some special protective device. Absolute signals are listed as "P-A", "P-SA" or "P-I".

Eastward Signal	Protection	Westward Signal
TRACY-FRESNO (PRATTON LINE)		
P-2046	Barricade detector, MP-204.60, Fresno.....	P-2051
P-710	Spring switch, junction to Pratton Line, Tracy.....	P-829
	Spring switch to yard, Tracy.....	
P-1164	Flood detector at MP-116.60, Newman.....	P-1179
P-1372	Flood detector, MP-137.80, Volta.....	P-1387

TRACY-POLK LINE

- Spring switch to Freight Lead, MP-75.9 (Polk Line).....P-SA
- Spring switch, Stockton wye.....P-I

MERCED LINE

- P-1972 Spring switch, Crossover Biola Jct.....P-A

RULE 505. AUTOMATIC BLOCK SIGNAL SYSTEM

Tracy: Top unit of Signal P-710 governs movements toward Lathrop. Bottom unit governs movement toward Los Banos.

Signals 713, 825 and 827 are approach clearing. Signal 713 will revert to stop position when 600-ft. track circuit in front of station building is occupied for approximately four minutes. A second approach circuit is located 185 feet east of MacArthur Blvd. to clear Signal 713 for movements to continue.

Approach circuit to Signal 825 on Track No. 1 begins 185 feet east of MacArthur Blvd.

Approach circuit sign is north of main track 185 feet east of MacArthur Blvd.

Top unit of Signal P-829 governs movements on main track. Bottom unit governs movements to yard.

Signals 716 and 723 on Track No. 1 at crossover near MP 72 govern movements over crossovers to enter main track only. These signals will not be lighted when crossovers are lined normal. Time circuits are provided to cut out west control of Signal 716, 2 minutes and 40 seconds after crossover is lined; east control of Signal 723, 6 minutes and 10 seconds after crossover is lined; and west control of 736, 5 minutes and 20 seconds after crossover is lined. If signals fail to clear at expiration of time interval, Rule 507 will govern.

Top unit of Signal 735 governs movements on main track. Bottom unit governs movements into yard over crossover.

Top unit of Signal 736 on Track No. 1 governs movements to the freight lead. The center unit governs movements to the main track. The bottom unit, when displaying a lunar light governs movements to the Freight Lead per Rule 289.

Eastward trains moving on main track must not pass Signal 734 and eastward trains entering main track through crossover MP 73.5 must not pass Signal 736 until signal governing movement displays proceed indication or permission obtained from Train Dispatcher. When Signal 734 displays proceed indications, eastward trains on main track may proceed to Centralized Traffic Control limits MP 75.81, and when Signal 736 displays proceed indication, eastward trains entering main track through crossover are authorized to enter main track and proceed to Centralized Traffic Control limits MP 75.81, without timetable or train order authority and regardless of superiority of trains.

When westward P-SA Signal at MP 75.9 displays proceed indication, westward trains are authorized to proceed on main track to Signal 735, Tracy Yard, without timetable or train order authority and regardless of superiority of trains.

RULE 505. AUTOMATIC BLOCK SIGNAL SYSTEM—PUSH BUTTONS.

Tracy: Push buttons are located on Signal 827 on Pratton line, and instrument case east of MacArthur Blvd. on Lathrop line to clear signals over junction switch.

Push buttons are located on instrument case opposite Signals 828 and 826, Pratton line, west of spring switch to yard.

RULE 535. SPRING SWITCHES

Spring switches equipped with facing point locks are located as follows:

Location	Normal Position
Tracy Junction switch MP-71.16 to Pratton Line	Polk Line
Tracy MP-75.9 Freight Lead to Main Track	Main Track

Spring switches not equipped with facing point locks are located as follows:

Location	Normal Position
Biola Jct. East Switch of Crossover	Freight Lead
Tracy MP-82.98-Pratton Line to yard	Yard Track
*Stockton West Leg of Wye	West Leg of Wye

*Has ground throw switch stand below plate at switch. Not equipped with target bearing letters "SS".

Switch point indicator located at:

Fresno Yard Spring switch leading from Freight Lead to Ice House Lead west of Ashlan Avenue.

RULE 605. INTERLOCKING

Tracy: Limits extend from westward SA Signal at MP 70.68 to eastward SA Signal at MP 70.62 on the Niles line and to eastward SA Signal at MP 82.18 on the Martinez line.

Position of the junction switch between Niles Subdivision MP 70.66 and Martinez Subdivision MP 82.16 controlled by switchman from control panel located at the base of the Yardmaster's tower.

The junction switch between Niles Line MP 70.66 and Martinez Line MP 82.16 is equipped with a dual control machine. When necessary to hand throw this switch, permission must be secured from the Yardmaster and Rules 771 and 772 govern.

Interlocking portion of the SA signal controlled by Tracy Telegraph Operator.

The telegraph operator shall determine that switch has been lined for proper route before clearing a signal.

Stockton: AT&SF Crossing Sacramento and Taylor Streets:

Limits of Stockton Tower have been extended to include that portion of main track, siding, and crossovers on the AT&SF Railway to Commerce Street and signal indications supersede the superiority of train in both directions on both tracks. The movement of trains and engines in this territory under the control of Stockton Tower, who may issue instructions as required and must be advised in advance of any known condition that will delay the train or engine or prevent it from making usual speed.

Speed limit between Stockton Tower and Commerce Street is 20 MPH. Through turnouts and crossovers—12 MPH.

Following fixed signals and indications are effective in above specified territory:

- RED Stop and communicate with Stockton Tower for instructions.
- FLASHING RED Proceed prepared to stop short of train, obstruction or switch not properly lined, but not exceeding 20 MPH.
- RED OVER YELLOW Same as flashing red.

S. P. movements entering AT&SF interlocking limits at Commerce Street may disregard the letter A on signal governing entrance thereto as it applies to WP movements only.

Following fixed signals and indications are effective in territories between Stockton Tower and AT&SF Mormon Yard:

- RED Stop and communicate with Stockton Tower for instructions.
- FLASHING RED Proceed prepared to stop short of train, obstruction, or switch not properly lined, but not exceeding 20 MPH.

Following whistle signal will be observed at Stockton Tower for movements to and from SP and AT&SF Mormon Yard o o o .

Following whistle signals will be observed at Stockton Tower.

- From SP to AT&SF enroute Commerce Street o - o.
- For Middle Track o - .
- For Old Siding - o o.
- For Westward Main Track o o - .
- For Eastward Main Track - o - .

Enginemen of eastward trains that are to make through movement without stopping at Stockton Yard will sound whistle signal --- 0 --- while approaching Signal 876 east of W. P. Railroad crossing French Camp.

Stockton: WPRR crossing Weber Avenue and Union St.: Signals governing movements over WPRR track at MP 91.00 are under control of WPRR train dispatcher. When signals governing movement over crossing display stop indication after approach circuit is occupied or if signal governing movements out of Building Materials Distributors spur does not display proceed indication after switch and derail have been lined, a member of crew must contact WPRR train dispatcher for permission and instructions to operate push button time release.

Eastward trains via Oakdale Branch must not leave yard until authorized by yardmaster or his representative.

Polk: West switch and eastward signals operated by signal operator at Elvas, and their use governed by Sacramento Division special instructions.

Movements governed by dwarf signals must be made with caution and position of switches observed, as such signals govern movements for various routes.

Dual control switches within interlocking limits are under the control of signal operator. When necessary to hand-throw these switches, permission must be obtained from signal operator and be governed by Rules 771 and 772.

At all interlockings, when route lined is not to be used, following engine whistle signal will be sounded: o o — o o.

RULE 663(b). Operator at Tracy may authorize movements under provisions of this rule after it has been ascertained indication lights on control panel are illuminated indicating dual control switches are in proper position and locked for movement without requiring dual control switches to be placed in hand position as required by Rule 772.

When indication lights on control panel are not illuminated movements may be authorized under provisions of this rule; however, before making a facing point or trailing point movement over dual control switches, such switches must be placed in hand position in accordance with Rule 772 and locked until movement over switch has been completed. When movement has been completed, switch must be returned to normal position and selector lever restored to motor position and locked.

RULE 680. AUTOMATIC INTERLOCKING

French Camp, WPRR Crossing MP 87.85: Interlocking limits, interlocking signals 500 feet west of and 430 feet east of WP crossing on eastward main track. Interlocking signals 430 feet east of and 380 feet west of WP crossing on westward main track. Interlocking signals 240 feet west of and 210 feet east of WP crossing on the drill track.

Lyoth: WPRR crossing, MP 85.16. Limits extend from eastward SA Signal 825 feet west of crossing to westward SA Signal 590 feet east of crossing.

Signals are approach clearing, if movement over crossing is not completed within 8 minutes after train enters approach circuit, signals will revert to STOP position.

Approach clearing circuits are provided approximately 1050 feet in advance of eastward SA home signal and 500 feet in advance of westward SA home signal to clear signals for trains desiring to complete movement over crossing after signals have assumed STOP position due to expiration of the 8 minute time interval.

Cars or engines are not to be left standing on these circuits. Push button time release in box marked "SP" and block indicator marked "WP" are installed near crossing.

Instructions for operating time release are posted in box.

If signal indicates STOP for train desiring to make movement over crossing, a member of crew will proceed to crossing to operate time release. If block indicator marked "WP" indicates block clear, press push button until yellow light appears, then release. Approximately 8 minutes later a red light should appear under the button and signal indicate proceed.

If signal does not display proceed indication after time release has been operated, if red indication light on home signal is displayed, train may proceed through interlocking limits.

If home signal indicates STOP and red indicator light is not displayed, train may proceed over crossing as provided in Rule 663(c).

RULE 705. LETTER TYPE INDICATORS

Indicators located as follows:

Illum. Letter	On Signal	Approaching	Authorizes and Requires Movement as Follows:
S.....	Post at east switch	Covell..	West Modesto..... Take siding at West Modesto
S.....	Absolute Signal	MP 114.9	Modesto..... Take siding at West Modesto

RULE 705. HOT BOX DETECTORS

Illum. Letter	On Signal	Approaching	Location of Readout
W.....	1006.....	Ripon	
H.....	1007.....	Calla.....	Westward Absolute Signal W.E. Calla
W.....	1031.....	Calla	
H.....	1058.....	Salida.....	Eastward Absolute Signal E.E. Covell
H.....	1019.....	Westley.....	M.P. 99.5 Westley
W.....	1020.....	Patterson	
W.....	1041.....	Westley	
H.....	1056.....	Patterson..	M.P. 106.8 Patterson
H.....	1177.....	Need.....	M.P. 114.5 Need
W.....	1178.....	Elk Grove	
W.....	1197.....	Need	
H.....	Eastward Absolute	Elk Grove..	M.P. 122.9 Elk Grove
	Signal W.E. Elk Grove		
H.....	Westward Absolute	Ceres.....	Westward Absolute
	Signal E.E. Ceres.....		Signal W.E. Ceres
W.....	1206.....	Turlock	
W.....	1227.....	Ceres	
H.....	1228.....	Turlock....	M.P. 125.0 Turlock
H.....	1595.....	Lingard....	Westward Absolute
			Signal W.E. Lingard
W.....	1596.....	Athlone	
W.....	1617.....	Athlone	
H.....	1640.....	Chowchilla	Eastward Absolute
			Signal E.E. Chowchilla

SCANNER SITE

M.P.	Direction	Location
102.3.....	East and West.....	Calla-Covell
103.6.....	East and West.....	Patterson-Westley
119.5.....	East and West.....	Elk Grove-Need
121.1.....	East and West.....	Ceres-Turlock
161.2.....	East and West.....	Athlone

Refer to Rule 705 All Subdivisions

RULE 760. CENTRALIZED TRAFFIC CONTROL

Limits extend from eastward absolute signals at MP 75.81 on Tracy Line and westward absolute signal at MP 82.15 on Stockton Line, to westward absolute signal MP 199.32 Biola Junction, and are under control of Train Dispatcher at Bakersfield.

Lathrop: Eastward 3 unit signal MP 81.30 (west junction switch) governs movements as follows:

- Top unit..... eastward main track
- Center unit..... Merced Line
- Bottom unit..... westward main track
- Flashing yellow, Rule 291..... westward main track or Merced Line.

Westward 3 unit signal MP 82.15 governs movements as follows:

- Top unit..... westward main track
- Center unit..... Merced Line
- Bottom unit..... eastward main track

Movements across WP RR MP 93.72 under control of SP train dispatcher.

When absolute signals governing movements over crossing display "STOP" indication, member of the train crew must contact train dispatcher by telephone for instructions.

If signal cannot be cleared and there is no train approaching from either direction of WP RR, train dispatcher may authorize member of crew to operate push button time release in box marked "SP" located near the crossing as follows:

Press button until amber light is illuminated, then release. After interval of 5¼ minutes, red light should be illuminated, indicating time release has functioned and WP RR crossing is clear of conflicting trains.

If absolute signal does not then indicate proceed, train may proceed over WP RR crossing under provisions of Rule 776 without providing flag protection on WP RR.

If absolute signal does not display proceed indication and red light is not illuminated in push button box after time release actuated, train may proceed only as provided by Rules 663(c) and 776.

Instructions for operating emergency push buttons are posted in box marked "SP" at the crossing.

Modesto: Movements across TS Ry., MP 114.70, on main track and MP 114.92 on Butchertown spur under control of SP Train Dispatcher.

When absolute signals governing movements over crossing display stop indication, member of train crew must contact Train Dispatcher by telephone for instructions.

Absolute signals on Butchertown spur will not display proceed indication unless main track switch is lined for movement to Butchertown spur.

If signal cannot be cleared for main track or Butchertown movements and there is no train approaching from either direction on TS Ry., Train Dispatcher may authorize member of crew to operate push button time release in box marked "SP" located near the crossing as follows:

Push button time release for movements on main track is in box marked SP located near the crossing.

Pushbutton time release for movements on Butchertown Spur is in box adjacent to switch.

Movements on Main Track

Press push button until amber light is illuminated, then release. After interval of 6 minutes, red light should be illuminated, indicating time release has functioned and TS Ry. crossing is clear of conflicting trains.

If absolute signal does not then indicate proceed, train may proceed over TS Ry. crossing under provisions of Rule 776 without providing flag protection on TS Ry.

If absolute signal does not display proceed indication and red light is not illuminated in push button box after time release actuated, train may proceed only as provided by Rules 663(c) and 776.

Movement to Butchertown Spur

1. Press push button until amber light appears above push button.
2. SP. red light will be displayed immediately and electric lock released.
3. After 3 minutes, TS Ry. red light should be displayed indicating time release has functioned.
4. Reverse switch.
5. If absolute signal does not then indicate proceed on diverging route and red lights for TS Ry. and SP are displayed in push button box, train may proceed over crossing under provisions of Rule 776 without providing flag protection on TS Ry.
6. If absolute signal does not indicate proceed on diverging route and red lights for TS Ry. and SP are not illuminated in push button box after time interval, train may proceed only as provided by Rules 663(c) and 776.

Movement to Main Track

1. Press push button until amber light appears above push button.
2. After 3 minutes, TS Ry. red light should be displayed indicating time release has functioned.
3. SP red light should be displayed immediately or after an interval of 6 minutes indicating SP time release has functioned and electric lock released.
4. Reverse switch.
5. If absolute signal does not then indicate proceed, and red lights for TS Ry. and SP are displayed in push button box, train may proceed over crossing under provisions of Rule 776 without providing flag protection on TS Ry. and SP main track.

6. If absolute signal does not indicate proceed and red lights for TS Ry. and SP are not illuminated in push button box after time interval, train may proceed only as provided by Rules 663(c) and 776.

Instructions for operating emergency push buttons are posted in box adjacent to switch.

Biola Jct.: Westward absolute signal located on lead track governs movements as follows:

- Top unit freight lead extension
- Center unit through crossover to main track
- Bottom unit Biola Branch

When lunar aspect is displayed in lower unit, trains may proceed on freight lead extension without stopping at restricted speed, expecting to find freight lead extension occupied by a preceding train.

Stockton-Polk: Limits extend from signal 650 feet west of WP RR crossing, MP 92.30 to interlocking signal just west of west switch at Polk.

On the double track between west limits of CTC and east end of Akers, movements may be made in either direction on either main track being governed by block signal indication and Rules 509 or 510 as applied to single track will apply to both tracks.

El Pinal: Movements across WP RR MP 92.30 under control of SP train dispatcher at Bakersfield.

When absolute signals governing movements over crossing display "STOP" indication, member of the train crew must contact train dispatcher by telephone for instructions.

If signal cannot be cleared and there is no train approaching from either direction of WP RR, train dispatcher may authorize member of crew to operate push button time release in box marked "SP" located near the crossing as follows:

1. Press button until amber light is illuminated, then release.
2. After interval of 5¼ minutes, red light should be illuminated, indicating time release has functioned and WP RR crossing is clear of conflicting trains.
3. If absolute signal does not then indicate proceed, train may proceed over WP RR crossing under provisions of Rule 776 without providing flag protection on WP RR.
4. If absolute signal does not display proceed indication and red light is not illuminated in push button box after time release actuated, train may proceed only as provided by Rules 663(c) and 776.

Instructions for operating emergency push buttons are posted in box marked "SP" at the crossing.

Crossover switches are dual control switches and when necessary to hand throw these switches, Rules 771 and 772 will apply.

GENERAL REGULATIONS

RULE 825. Tracy: All freight trains entering Tracy Yard will tie no less than three hand brakes on the east end unless instructed otherwise by Yardmaster.

Train crews must not release brakes on outbound trains until engine is coupled and brake pipe charged.

RULE 827. Dragging and/or derailed equipment detector and indicator installed at the following locations:

MP	Location
95.5	Between Lathrop and Manteca
109.3	Between Covell and Modesto
125.4	Between Ceres and Turlock
142.5	Between Arena and Atwater
165.9	Between Lingard and Chowchilla

Indicator mounted on post adjacent to detector will display revolving red light when detector is activated. Crew members must keep vigilant look-out when passing these locations and if revolving red light observed train will be stopped promptly and inspection made of train and track notifying dispatcher of condition found.

RULE 830:

Turlock: City ordinance requires that in event of fire alarm being sounded any train blocking Main St. must clear crossing immediately.

Westward trains picking up will stop to clear "F" Street, MP-126.68. Those setting out on Corral Track may proceed to west end of yard, cutting Canal Drive, MP-125.7 if it appears delay will be excessive.

Eastward trains picking up or setting out will stop to clear Canal Drive, MP-125.7.

Los Banos: Westward freight trains making pick-up or set-out, must stop to clear Place Road which is first crossing east of Main Highway crossing MP 141.3 east of Los Banos.

Eastward freight trains stopping to pick up or set out cars, will leave train west of Second Street crossing.

Dos Palos: Trains picking up, setting out, or performing station switching at Dos Palos must not block road crossing BA 153.1, east of station building.

Westward trains must leave train east of this crossing while performing work.

Madera: Eastward through freight trains when stopping to set out, leave train clear of Central Avenue crossing, and westward through freight trains clear of Olive Avenue crossing.

West Modesto: Trains setting out and picking up must not block Blue Gum Crossing.

Lodi: Through freight trains picking-up or setting out will be governed as follows:

Westward trains must stop at Hill Signal east of yard and detach engine.

Trains with consist in excess of 75 cars and using controlled siding must arrange to immediately cut street crossings.

RULE 872. Enginemen taking charge of engines at Tracy and Fresno will consider engines as having been amply supplied with water, fuel, sand, prescribed signals, tools, supplies and flagging equipment in serviceable condition.

AIR BRAKE RULES

RULE 17. Retaining valves must be used on freight and mixed trains on descending grades as follows:

Toyon to MP-125.5.

Without Dynamic Brake in Operation: One retaining valve for each 80 tons in train. If gross tonnage exceeds 80 tons per operative brake, retaining valves must be used on all cars, and speed must not exceed 15 MPH.

With Dynamic Brake in Operation:

Permissible Tons Per Unit Without Retaining Valves*

Basic Dynamic Brake		Extended Range Dynamic Brake		
4-Axle	6-Axle	4-Axle	6-Axle	8-Axle

With dynamic brake in operation without pressure maintaining system of braking... 525 625 550 950 1250

With Dynamic brake in operation with pressure maintaining system of braking.. 1500 1800 1600 2700 3600

If permissible tonnage is exceeded, one retaining valve must be used for each 150 tons of excess tonnage.

*If any unit having basic dynamic brake is operated with units having extended range dynamic brake, all units in consist must use tonnage authorized for units having basic dynamic brake.

Locomotive classes AF628, AF630, EF425, EF623, EF625, EF 630, EF636, GF425 (except units 6700-6727), GF628, GF630, GF633, EF850-B, and GF850 are equipped with extended range dynamic brake.

FREIGHT TRAINS

RULE 22. Tracy and Stockton: Trainmen must not couple air hose on outgoing trains at Tracy until train is made up. Switchmen must not perform switching on or couple other cars to a train without instructions from the yardmaster, who will see to it that members of the crew are notified in advance.

RULE 24-B.

Tracy and Fresno: Incoming engineer, after completing stop, must make a full service brake application leaving brakes applied. When outgoing crew takes charge of train on arrival or otherwise is assured, upon request, that continuity of brake pipe has not been disturbed, engineer will release brakes and proceed.

RULE 24-E. Will apply at Tracy and Fresno.

RULE 25. Will apply at Toyon.

RULE 33. Toyon to MP-125.5.

Maximum tonnage per operative brake... 80 tons, except with dynamic brake and pressure maintaining system of braking in operation with speed not exceeding 20 MPH..... 80 to 100 tons

Should dynamic brake failure occur while handling in excess of 80 tons per operative brake, train may proceed at speed not exceeding 15 MPH if in judgment of conductor and engineer it is safe to do so, and provided retaining valves are used as prescribed by Air Brake Rule 17.

Restrictive grades are as follows:

KENTUCKY HOUSE BRANCH

Westward

(Station) MP	to (Station) MP	Speed
(End) 142.84	(Kentucky House) 142.53	20 MPH
(Valley Spring) 129.21	(Clements) 124.77	20 MPH

MISCELLANEOUS

11. Load limit (car and contents):

*#Tracy-Polk	315,000 pounds
Stockton-Montpellier	240,000 pounds
Woodbridge-Kentucky House	240,000 pounds
Galt-Ione	240,000 pounds
#Lathrop-Fresno	315,000 pounds
#Tracy-Fresno via Los Banos	315,000 pounds
#Ingle-Helm	315,000 pounds
##Ingle-Helm	263,000 pounds
##Helm-Riverdale	240,000 pounds
Biola Jct.-Biola	315,000 pounds

*Cars SP 463000 through 463499, maximum gross load per car is 260,000 pounds when operated in series.

#Applies to uniformly loaded four axle cars with minimum axle spacing of 6 ft. 0 in. and minimum distance 37 ft. 0 in. center to center of trucks; also, wheels 38 in. or more in diameter.

##Applies to uniformly loaded four axle cars having trucks spaced 23 ft. 0 in. or more center to center.

Trains handling loads weighing in excess of 280,000 pounds must not exceed 20 MPH on the Riverdale Branch between Ingle MP-181.9 and Helm MP-199.00.

Unless authorized by Superintendent, heavier loads must not be handled.

30.

LOCATION OF OVERHEAD AND SIDE STRUCTURES NOT STANDARD CLEARANCE ON MAIN TRACK AND SIDINGS

Mile Post	At or Near	Description
104.3	Lodi	Mokelumne River bridge..... Side

SPECIAL INSTRUCTIONS – STOCKTON SUBDIVISION

SPEED RESTRICTIONS FOR TRAINS: Maximum speed of trains in territory shown below is subject to further restrictions applicable to engines in the train as shown in **SPEED RESTRICTIONS FOR ENGINES** appearing on pages 4 and 5 and **MAXIMUM SPEED PERMITTED WITH CERTAIN EQUIPMENT** and **OTHER MAXIMUM SPEEDS** appearing on page 5 of Special Instructions for All Subdivisions. Speed must be further reduced as prescribed by speed signs, except as specifically authorized by Special Instructions herein, or by timetable bulletin.

All trains must run carefully during and after heavy storms, particularly when the track is apt to be affected. When fog, storms or other conditions obscure track or signals, speed of trains must be so reduced as to permit strict observance of signals and **INSURE SAFETY, REGARDLESS OF TIME.**

TERRITORY			PASSENGER TRAINS	FREIGHT AND MIXED	TERRITORY			PASSENGER TRAINS	FREIGHT AND MIXED
MP	MP	Column:	1	2	MP	MP	Column:	1	2
EASTWARD, LATHROP TO FRESNO:					WESTWARD, FRESNO TO LATHROP:				
			25	25	205.50 to 204.50			20	20
			20	20	204.50 to 199.28			50	50
			30	30	199.28 to 184.50			70	60
			70	60	184.50 to 182.60 (Madera)			45	45
			45	45	182.60 to 151.60			70	60
			70	60	151.60 to 149.70			45	45
			65	60	149.70 to 126.30			70	60
			70	60	126.30 to 126.00 (Turlock)			65	60
			45	45	126.00 to 114.00			70	60
			70	60	114.00 to 112.60			45	45
			45	45	112.60 to 94.75			70	60
			70	60	94.75 to 94.00			70	50
			50	50	94.00 to 93.07			30	30
			25	25	93.07 to 92.80 (switches)			20	20
			50	50	East leg of wye, Lathrop			25	25
			20	20					
EASTWARD, BIOLA TO BIOLA JCT.:					WESTWARD, BIOLA JCT. TO BIOLA:				
			40	40	208.62 to 199.93			40	40
EASTWARD, TRACY TO FRESNO:					WESTWARD, FRESNO TO TRACY:				
			15	15	208.40 to 207.36			20	20
			45	45	207.36 to 206.87 (Jct. Switch)			15	15
			35	35	206.87 to 141.30			45	45
			45	45	141.30 to 140.10			35	35
			15	15	140.10 to 83.00			45	45
			20	20	83.00 to 82.58 (Jct. Niles Lines)			15	15
INGLE TO RIVERDALE:					RIVERDALE TO INGLE:				
			..	35	215.00 to 181.97			..	35
EASTWARD, TRACY TO POLK:					WESTWARD, POLK TO TRACY:				
			35	35	132.00 to 104.40			70	60
			70	60	104.40 to 103.65			70	55
			20	20	103.65 to 102.00			30	30
			70	60	102.00 to 95.01			70	60
			70	45	95.01 to 95.00 (Thru turnout)			60	60
			20	20	95.00 to 91.40			70	60
			70	60	91.40 to 90.40 (Stockton)			20	20
			60	60	90.40 to 81.37			70	60
			70	60	Thru diverging route crossover and switches, Lathrop			25	25
			70	55	81.37 to 72.25			70	60
			30	30	72.25 to 71.16			35	35
			70	60					
EASTWARD, STOCKTON TO MONTPELLIER:					WESTWARD, MONTPELLIER TO STOCKTON:				
			..	12	140.29 to 122.30			..	30
			..	40	122.30 to 122.20			..	10
			..	30	122.20 to 93.10			..	40
			..	30	93.10 to 90.95 (Stockton)			..	12
EASTWARD, LODI TO KENTUCKY HOUSE:					WESTWARD, KENTUCKY HOUSE TO LODI:				
			..	30	142.84 to 139.70			..	25
			..	25	139.70 to 132.30			..	15
			..	15	132.30 to 121.40			..	25
			..	25	121.40 to 103.51			..	30
EASTWARD, LODI TO WOODBRIDGE:					WESTWARD, WOODBRIDGE TO LODI:				
			..	25				..	25
EASTWARD, GALT TO IONE:					WESTWARD, IONE TO GALT:				
			..	49	138.99 to 132.43			..	30
			..	35	132.43 to 131.14			..	35
			..	30	131.14 to 127.12			..	49
			..	49	127.12 to 127.01			..	30
			..	35	127.01 to 125.46			..	35
			..	30	125.46 to 112.12			..	49

SPECIAL INSTRUCTIONS – STOCKTON SUBDIVISION

Do not exceed 15 MPH on main track between east (192.17) and west (191.74) house track switches at San Joaquin.

Freight and mixed trains containing no restricted cars are authorized to operate at Column 1 speeds not exceeding 65 MPH, Fresno to Lathrop, via Merced, and Stockton to Polk; 60 MPH Fresno to Tracy via Los Banos and Tracy to Stockton, provided trains do not exceed:

Number of Cars	Tons Per Operative Brake	Number of Cars	Tons Per Operative Brake
70.....	70	110.....	62
75.....	69	115.....	61
80.....	68	120.....	60
85.....	67	125.....	58
90.....	66	130.....	56
95.....	65	135.....	54
100.....	64	140.....	52
105.....	63	145.....	50

SPEED RESTRICTIONS FOR OTHER THAN MAIN TRACKS

With Caution Not Exceeding MPH

Through sidings, yard and other tracks, wyes, balloon tracks, crossovers and turnouts, except:	10
Through slip switches.....	10
Through turnouts on other than sidings.....	10
On branches.....	10
On all yard tracks within city limits, Stockton.	12
Through controlled sidings in CTC, except:.....	30
Through turnouts of these sidings.....	25
On Winery spur, Madera.....	25
On Spreckels Sugar spur, Manteca.....	10
Freight Lead, Biola Junction.....	30
Freight Lead Tracy from Banta Rd. to MP-75.9..	30

Rule 3. Conductors on eastward AT&SFry trains show on reverse side of register ticket left at Kern Jct. watch comparison made at AT&SFry station Bakersfield, also comparison with engineers.

RULES 10-G, 10-H, and 10-I. When unattended red flags or red lights, yellow signals, red **CONDITIONAL STOP** signs and yellow **PROCEED PREPARED TO STOP** signs are displayed between Mojave and Cameron on eastward main track for westward movement, they will be displayed to left of track in direction of movement.

RULE 10-J. Speed signs to left of track:

<u>Westward</u>	<u>Reading</u>	<u>Eastward</u>	<u>Reading</u>
MP-207.55 (Left of eastward main track)	50	MP-248.46 (Tulare)	35
MP-216.40	45	MP-335.22	25
MP-311.20	50	MP-359.50	25
		MP-361.28	25

Following speed signs to left of track for westward movement on eastward track, Mojave to Cameron:

<u>Westward</u>	<u>Reading</u>
MP-380.06	50-45
MP-377.15	35
MP-373.40	50-45
MP-371.16	25
MP-314.55	15
AT&SF	10

RULE 16(k). Bakersfield and Fresno. When standing—apply or release air brakes.

RULE 26-A. Fresno and Bakersfield: Indicator lights located above tracks at each end of PFE icing decks and additional set of lights located 600 feet east end of icing platform at Bakersfield, and 1400 feet west of west end of icing platform at Fresno govern movement on those tracks as follows:

- Green:** Tracks may be used for train or switching movements.
- Yellow:** Tracks may be entered, switched, and engines, cars or cabooses added or detached.
- 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.

RULE 82-A. Eastward trains originating and westward trains terminating Fresno Yard are not required to obtain clearance at Fresno.

Westward extra trains originating Bakersfield will obtain clearance OK'd by Chief Train Dispatcher which will be issued at Bakersfield and delivered in red container by tube to Yard Office at Bakersfield.

Trains originating Fresno en route Fresno Interurban Railway must first obtain AT&SF clearance at Fresno Yard.

Sunset Railway Company trains operating on Sunset Railway Company tracks east of MP 0.0 (Zero), Gosford, will move only by train order authority except between Garintee, MP-6.0, and Millux, MP-14.6.

EXETER BRANCH. Crew departing Porterville on No. 600 may leave without obtaining clearance except when Train Order Operator is on duty.

Crew arriving Ducor on No. 600 may assume schedule of No. 601 without obtaining clearance except when Train Order Operator is on duty.

COALINGA BRANCH. Trains operating on Coalinga Branch east of MP-243.00 will move only by train order authority except:

- Hanford, between MP-251.88 and MP-253.28
- Between Lemoore MP-260.30 and Rossi MP-264.00
- Between Westhaven MP-272.00 and Huron MP-282.00
- Coalinga, between MP-294.50 and end of branch.

VISALIA BRANCH. Trains operating on Visalia Branch will move only by train order authority except:

- Goshen Jct., between MP-245.30 and MP-247.50,
- Exeter, between MP-263.20 and MP-260.00.

Bakersfield: Eastward Southern Pacific trains, except first-class, originating Bakersfield will obtain clearance OK'd by Chief Train Dispatcher which will be issued at Bakersfield and delivered in blue container by tube to Yard Office, Bakersfield.

STRATFORD BRANCH. Extra trains operating on Stratford Branch in addition to information required by train register located at Rossi must register destination of trip (turning point) and date of departure in the Column captioned "Signals." When trip has been completed, date of arrival at Rossi must also be entered in Column captioned "Signals." Extra trains en route into this territory must not leave Rossi until it has been ascertained from the train register that all preceding extra trains via the route to be used have completed their trip and registered time and date of arrival at Rossi accordingly.

BUTTONWILLOW BRANCH. Extra trains operating beyond Gosford on Buttonwillow Branch in addition to information required by train register located at Gosford, must register destination of trip (turning point) and date of departure in the Column captioned "Signals." When trip has been completed, date of arrival at Gosford must also be entered in Column captioned "Signals." Extra trains en route into this territory must not leave Gosford until it has been ascertained from the train register that all preceding extra trains via the route to be used have completed their trip and registered time and date of arrival at Gosford accordingly.

RULE 83. Where train orders are received prior to departing CTC limits, identification may be made against approaching trains to be applied at end of CTC. Rule 14(k) applies.

RULE 83-A. At the following stations only the trains indicated will register:

- Fresno Yard..... } Trains originating or terminating.
- Fresno..... } Trains required by train order.
- Goshen Junction..... } First class trains, eastward and westward freight trains terminating.
- Bakersfield..... } AT&SFry trains.
- Kern Jct..... }

RULE 83-B. At open train-order offices trains may register by ticket as follows:

- Bakersfield..... All trains.
- Kern Jct..... AT&SFry trains
- Mojave..... All trains.

Conductors of eastward and westward freight trains and engines from Arvin Branch terminating at Bakersfield will leave train register ticket with waybills and yardmaster will arrange for delivery to operator at Bakersfield who will enter registration.

RULE 93. Yard limits in which the provisions of Rule 93 will apply are established at the following stations:

West MP		East MP
203.00	Fresno (Pratton-Tulare Line)	209.00
208.44	“ (Biola-Porterville Line)	208.15
199.34	“ (Merced-Clovis Line)	209.60
310.87	Bakersfield	321.09
	“ (Buttonwillow Branch)	315.67
	“ (Arvin Branch)	317.02
360.65	Tehachapi	362.62
364.00	Monolith	366.00
378.87	Mojave	382.59
	“ (Lone Pine Branch)	381.60
219.01	Sanger	221.50
228.73	Reedley	230.78
234.31	Dinuba	235.72
248.90	Ivanhoe	249.90
256.33	Exeter	257.96
262.09	“ (Visalia Branch)	
263.40	Lindsay	265.00
267.90	Strathmore	269.00
272.00	Porterville	275.72
286.00	Richgrove	308.66
	“ (Richgrove Branch)	End of Track
239.86	Goshen Jct. (Coalinga Branch)	243.00
251.88	Hanford	253.28
255.43	Armona	256.83
260.30	Lemoore	264.00
	“ (Stratford Branch)	263.48
272.00	Huron	282.00
294.82	Coalinga	End of Track
246.01	Visalia Branch	262.09
308.74	Oil City Branch	End of Track
315.67	Buttonwillow Branch	322.80
317.02	Arvin Branch	End of Track

Within yard limits between Porterville and Famoso, work extras are not required to afford flag protection against work extras or extra trains. Work extras and extra trains operating within yard limits between Porterville and Famoso must move expecting to find main track occupied.

Fresno: Eastward trains via Pratton line to Fresno Yard may pass Signal 2068 on Pratton line displaying stop indication without stopping at restricted speed to enter west leg of wye if wye switch is properly set, but must receive proceed signal from switchman or oral authorization before fouling eastward or westward main track, proceeding as prescribed by Rules 507 and/or 513.

When Signal 2046 on Pratton line displays stop indication train must stop, and after proceed signal received from switchman or oral authorization, may proceed as prescribed by Rules 507 and/or 513.

Trains from Fresno Yard to operate via Pratton line may pass Signal 2036 displaying stop indication without stopping at restricted speed to enter west leg of wye if wye switch is properly set and proceed signal received from switchman or oral authorization is given.

Fresno Yard: Trains entering or leaving yard tracks must receive proceed signal from switchman, green flag by day, green light by night, except within limits of diverging route signals, or engineer is orally authorized.

Trains or engines will operate between MP-199.32 and MP-201.80 on signal indication which indication will supersede the superiority of trains between these points.

Bakersfield: Trains or engines will operate between MP 312.9 and MP 313.2 on signal indication, which indication will supersede the superiority of trains between these points.

Trains entering or leaving yard tracks must receive proceed signal from switchman, green flag by day, green light by night, except within limits of diverging route signals, or engineer is orally authorized.

Eastward trains may pass Signal 3132 displaying stop indication without stopping to enter yard tracks if flashing white light is displayed. If flashing white light not displayed, trains must receive proceed signal from switchman, green flag by day, green light by night, or engineer is orally authorized.

Westward SP freight trains entering Bakersfield Yard tracks through crossover west of signal bridge 3151 may pass signal 3151 displaying stop indication without stopping to enter yard tracks if flashing white light is displayed. If flashing white light not displayed, trains must receive proceed signal from switchmen, green flag by day, green light by night, or engineer is orally authorized, and will sound whistle signal 14(j) approaching Bakersfield.

East yard limit sign for Bakersfield on the Arvin Branch at MP-317.02 is located on left hand side of track.

On the Sunset Railway, yard limits are established between Gosford and end of branch at Taft.

Mojave: Eastward trains entering Mojave yard tracks must not pass Signal 3802 displaying stop indication unless proceed signal received from switchman, green flag by day, green light by night, or engineer is orally authorized.

Trains leaving yard tracks west end of Mojave must receive proceed signal from switchman, green flag by day, green light by night, or engineer is orally authorized.

Westward trains to operate on eastward track from Mojave to Cameron may pass Signal No. 3803 displaying stop indication without stopping at restricted speed, provided switches are set for crossover movement and proceed signal is received from switchman, green flag by day, green light by night, or engineer is orally authorized.

RULE 97. Westward extra trains originating Bakersfield and eastward extra trains originating Fresno yard to operate via Tulare line need not obtain train order authority but must obtain a clearance.

RULE D-97-A. Applies on both main tracks between Fresno Yard and Calwa Tower.

Applies on both main tracks, Bakersfield, between MP 310.86 and MP 312.90.

Applies on both main tracks between Kern Jct. and Sandcut; and between Tehachapi and Mojave.

RULE 98. Railroad crossings at grade not interlocked: AT&SFRy, MP 228.04 east of Lacjac. STOP.

AT&SFRy, MP 243.61 west of Ivanhoe. STOP.

AT&SFRy, Visalia. STOP and send flagman ahead who must ascertain that no movement is approaching on intersecting line before giving signal to proceed.

AT&SFRy, Porterville. STOP.

FIRy, MP 213.23 east of Las Palmas. STOP. Stop sign located to left of main track governing westward trains.

Yellow reflectorized One Mile signs and red reflectorized Stop signs approaching above crossings do not require application of Rules 10-G or 10-H.

RULE 99. BUTTONWILLOW BRANCH. Rule 99 will not apply between Gosford and Buttonwillow.

STRATFORD BRANCH. Rule 99 will not apply between Rossi and Stratford.

RULE 99-A. Bakersfield: Trains and engines, except those carrying passengers moving with current of traffic, are not required to provide flag protection to the rear between MP 314.7 and MP 312.9. All trains and engines moving on main track between MP 314.7 and MP 312.9 proceed expecting to find main track occupied by other trains or engines without protection of flagman.

RULE 103-A. Trains and engines must stop and member of crew must protect traffic while moving over following streets and highways:

Fresno.....Clovis Branch, crossing on Cherry Ave., while switching.

Calwa.....North Ave., on drill track leading into Producers Compress, while switching.

Flood lights over Old Highway U.S. 99 across Cotton Compress spur, Calwa, are operated from switches located in box on power pole on main track side of highway. When these crossings are to be used trainman must close floodlight switch before cars foul the highway, and open the switch after completing use of the track.

Fresno: Eastward passenger trains making station stop at Fresno and freight trains changing crews at Depot must stop to clear insulated joints located just west of Tulare Street unless otherwise instructed by yardmaster or his representative. Sound detector microphones are located on the west end of the Depot building and adjacent to the eastbound main track just west of Kern Street. Eastward trains stopped to clear Tulare or Kern Streets must sound whistle to actuate the gates and crossing must not be entered until gates are known to be down.

Crossing gates at Tulare Street, MP-205.56, and Kern Street, MP-205.65, may be operated by operating key release on instrument case. Insert key and turn to operate gates.

- *Tulare Street.....205.5
- *Kern Street.....205.6
- **Mono Street.....205.8
- **Ventura Street.....205.9

*Eastward trains stopped at station to receive or discharge traffic must sound whistle to actuate the gates immediately prior to starting train and crossing must not be entered until it is known that gates are down.

Crossing gates at Tulare Street, MP-205.5, and Kern Street, MP-205.6, may be operated by push button in box located on signal case adjacent to main line and also may be operated by operating key release on relay shelter near signal pole line. Insert key and turn to operate gates.

**Crossing gates at Mono Street, MP-205.8 and Ventura Street, MP-205.9, may be operated by push button in box located on signal case near main line.

Calwa: Signs reading "STOP" have been installed on the Pittsburgh Plate Glass Spur 50 feet each side of Muscat Avenue, and each side of Willow Avenue. Before entering either crossing trains or engines must stop prior to passing "STOP" sign, but not over 100 feet from crossing.

Kingsburg: Sierra Street.....Roma Wine Company Spur, Crossing No. B-225.2.

Stop sign governing westward movement over this crossing is located to left of Roma Wine Company Spur and applies to this track only.

Delano: Fourth Street crossing is protected by flasher lights, and controlling circuits on tracks other than main track are not actuated except when trains or engines are within a short distance of or on the crossing. Crossings must not be entered until flasher lights are operating or flashing white light on instrument case is displayed.

Westward trains stopped in the vicinity of the Delano Depot must proceed slowly to permit gates to lower on 11th Avenue before crossing is entered.

Bakersfield: Automatic crossing gates in service at following street crossing:

Baker Street.....MP-312.9

Gates will operate for movement in either direction on main track and Track No. 1.

Westward passenger trains making station stop at Bakersfield must stop to clear insulated joints located just east of Baker Street unless otherwise instructed by Yardmaster or his representative. Sound detector microphone is located adjacent to point where engines will stop and enginemen must sound whistle to actuate the gates and crossing must not be entered until gates are known to be down.

Crossing gates at 24th Street, MP 312.2, and Union Avenue, MP 312.3, may be operated by operating key release on relay shelters. Insert key and turn to operate gates.

"STOP" signs located 30 feet each side of crossing, B-312.0-C, 24th Street. Crossing gates may be actuated with key release on "STOP" sign posts by inserting key and turning.

Wible Orchard-Gosford: Trains and engines must stop and member of crew protect traffic while moving over District Boulevard Crossing No. BT-321.4-C, Stockdale Development Drill Track.

Edison: At Pepper Drive, MP-319.5, "STOP" signs are located on drill track 25 feet each side of crossing.

Monolith: Eastward trains stopping to set out or pick up cars must not exceed 10 MPH approaching State Highway 58, crossing MP-365.2, until crossing gates are down.

Mojave: Automatic crossing gates, Oak Creek Road, MP 380.2.

Gates will also operate for against-the-current-of-traffic movements on eastward and westward main tracks, but such movements must not exceed 20 MPH approaching the above street crossing.

Unit for the display of flashing white light installed on relay case on south side of eastward main track. This unit will display flashing white light which will indicate that gates are down protecting vehicular traffic.

Public Utilities Commission orders prohibit operation of train, engine, motor or car over the following crossings unless first brought to a stop and traffic on the highway protected by a member of the crew:

Selma.....Highway US 99, on P.C.A. spur,
On spur from

Goldleap...Peach Ave., and Butler Ave.,
Kingsburg.

Sierra St....Roma Wine Company Spur, Crossing No. B-225.2.

Armona.....Lake St., MP 256.5, while switching,

Bakersfield...30th St. on McCarthy Tank spur,

Bakersfield...Highway US 99, on freight station spur.

Crossing must be cleared as quickly as possible. If flashing light signals are not operating, member of crew must push button marked "START" in box on mast of crossing signal north side highway for southward movement, or in box on instrument case on south side highway for northward movement. If movement over highway is not to be made after signals start operating, signals can be stopped by pushing button marked "STOP". If flashing light signals fail to operate, movement over crossing must be protected by member of crew.

Public Utilities Commission orders also require the following protection for traffic:

Tulare.....If train, engine or cars stand on siding within 200 feet of county road crossing at Prosperity Ave., MP 248.7, member of crew must protect traffic against movements on main track,

Arvin: Widmer Road, MP-332.60, while switching.

RULE 104. The normal position of rigid switches at the end of double track and at junctions is as follows:

Fresno Yard....End double track, for westward track,

Fresno.....Pratton line, for eastward track,

Fresno.....Stem of Wye for West Leg Wye,

Fresno.....Drill track, for Exeter Branch,

Goshen Jct....Visalia Branch, for Tulare line,

Goshen Jct....Coalinga Branch, for west leg of wye,

Oil Jct.....Oil City Branch, for spur track,

Oil Jct.....AT&SFRy, for tail track,

Rossi.....Stratford Branch, for branch,

Exeter.....VERy, for Exeter Branch,

Ducor.....AT&SFRy, for siding,

Richgrove....Richgrove Branch, for siding,

Gosford....Buttonwillow Branch, for Sunset Ry.

Magunden....Arvin Branch, for eastward track,

Mojave.....Lone Pine Branch, for westward track.

Derails in main track:

Goshen Jct....On Visalia Branch, 250 feet east of junction switch,

Coalinga.....MP 295.70.

Monolith: Trains entering east end of storage track located between main tracks, must line switches in the following order: Main track switch first; inside switch next; then derail. After train is in storage track, switches must be lined in the following order: Main track switch first; derail next; then inside switch.

RULE 105. Traver: When length of train permits, westward trains taking siding after clearing main track will provide not less than 500 feet clearance to westward fouling point.

RULE 221.

Fresno Yard is a train order office for trains originating only.

Fresno is train order office for Trains Nos. 51 and 52 only.

Exeter is train-order office for trains originating only.

Huron is train order office between the hours of 8:00 AM and 12:00 Noon and 1:00 PM and 5:00 PM, daily except Saturdays, Sundays and holidays.

Coalinga is train order office between the hours of 8:00 AM and 12:00 Noon and 1:00 PM and 5:00 PM, daily except Saturdays, Sundays and holidays.

RULE D-251.

Will apply on both tracks between Fresno Yard and Calwa Tower.

Applies on both main tracks, Bakersfield, between MP 310.86 and MP 312.90; both main tracks between Kern Jct. and Sandcut, and between Tehachapi and Mojave.

RULE 306.

The following block signals equipped with triangular plate displaying the letter "P" have included in their control limits some special protective device. Interlocking signals are listed as P-I; absolute signals as P-A.

Eastward Signal	Protection	Westward Signal
P-1972	Spring switch, Crossover Biola Jct.	P-A
P-2042	Barricade detector, MP-204.6, Fresno	P-2051
	Spring switch, east end station track, Famoso	P-2937
	Spring switch, junction switch Exeter Branch, Famoso siding	P-A
P-3124	Spring switch, west end yard Track 22, Bakersfield	
	Spring switch, east end double track, Bakersfield	P-3129
P-3438	Slide detector fence between Tunnels 7 and 8	P-3445
P-3556	Slide detector fence between Tunnels 14 and 15	P-A
P-I	Spring switch west crossover switch MP-370.40	
	Spring switch east crossover switch MP-370.40	P-SA

Famoso: When switch point indicators display green aspect westward trains may proceed without inspecting or throwing switch by hand.

RULE 505. AUTOMATIC BLOCK SIGNAL SYSTEM

Goshen Junction: Westward absolute signals located on siding and on Coalinga Branch in advance of crossover Goshen Junction, MP 238.7, govern movements as follows:

Top unit governs westward movement on siding;
Middle unit governs movement through crossover to main track;

Lower unit will display lunar aspect only.

Eastward absolute signals located on siding in advance of crossover Goshen Junction, MP 238.6, govern movements as follows:

Top unit governs eastward movement on siding;
Middle unit governs movement to Coalinga Branch;
Lower unit will display lunar aspect only.

When lunar aspect is displayed in these units, trains may proceed on siding without stopping, at restricted speed, expecting to find siding occupied by a preceding train.

Eastward absolute signals located on main track in advance of crossover Goshen Junction, MP 238.6, govern movements as follows:

Top unit governs eastward movement on main track;
Middle unit governs movement to siding;
Lower unit governs movement to Coalinga Branch.

Westward Signal D-2399 located at MP 239.9 on Coalinga Branch will display aspect as per Rule 286, Figure "B".

Bakersfield: Eastward passenger trains may pass Signal 3132 displaying stop indication without stopping when necessary to clear Baker St. crossing but movements must be made with caution.

Eastward Signal P-3124 is a two-unit signal; top unit governs movement on eastward track, bottom unit governs eastward movement through crossovers to yard tracks. Westward Signal 3127 governs westward movements from yard Track 1 to westward Track.

Push buttons installed on instrument case opposite Signal 3127 and on Signals 3128 and 3129.

Summit Switch. Top unit of two-unit Signal 3621 at clear point of west siding switch may display indication per Rule 285, Figure "G"; or Rule 290, Figure "I" and governs movement to eastward main track.

Lower unit may display indication per Rule 281, Figure "G"; Rule 285, Figure "G"; or Rule 290, Figure "I" and governs movement through crossover to westward main track.

"M" indicator on top of two-unit Signal 3621, when illuminated, authorizes westward movement on eastward main track to beginning of CTC, Tehachapi. When "M" indicator not illuminated, member of crew will contact dispatcher by phone for instructions.

Rule 507 applicable to single track will apply on eastward main track between Tehachapi and Summit Switch.

RULE 535. SPRING SWITCHES

Spring switch equipped with facing point lock is located as follows:

Location	Normal Position
Famoso	East end station track
	Main Track

Spring switches not equipped with facing point locks are located as follows:

Location	Normal Position
Biola Jct.	East Switch of Crossover
Fresno	Junction switch, Clovis Branch
Goshen Jct.	Stem of Wye
Famoso	Junction switch, Exeter Branch
Bakersfield	East end double track
Bakersfield	West end yard, Track 1
Caliente	West end westward siding
Caliente	East end eastward siding
Marcel	West end westward siding
Marcel	East end eastward siding
Summit	East end siding
Cameron	West end crossover
Cameron	East end crossover

Switch-point indicators located at:

- Fresno Yard... Spring switch leading from No. 1 drill track to Ice House Lead west of Ashlan Ave.
- Fresno... Spring switch, junction switch, Clovis Branch.
- Bakersfield... Spring switch leading from back lead to inbound engine track.
- Goshen Jct.... Spring switch leading from Coalinga main track to west leg of wye.
- Famoso... Spring switch siding junction switch.
- Famoso... Spring switch east end station track.
- Bakersfield... Spring switch leading from back lead to inbound engine track.
- Summit Switch... Spring switch from east end siding to eastward main track.

Indicator does not indicate track occupancy. When indicator displays red aspect, or is not lighted, careful examination of switch must be made before passing over in facing point direction.

RULE 605. INTERLOCKING

Fresno and AT&SF Rwy. Crossing MP-207.0: AT&SF Railway crossings. Interlocking is part of AT&SF Ry CTC system and operation over crossings is under control of AT&SF Ry train dispatcher. Telephones located in door of relay shelters at these crossings and at interlocking signals. Trains stopped by signals at crossings must immediately contact AT&SF Ry train dispatcher and inform him of arrival and desired movement.

Hanford: AT&SFRy crossing. Interlocking is part of AT&SFRy CTC system and operation over crossing is under control of AT&SFRy train dispatcher, Fresno. Telephone located in box at signals governing movement over crossing. Train stopped by signals at crossing must immediately contact AT&SFRy train dispatcher and inform him of arrival and desired movement.

Kern Jct. Tower: When semaphore or light type dwarf signal governing movement through interlocking on Buttonwillow Branch main track displays indication per Rule 281, Figure "E", or Rule 285, Figure "G", movement must be made with caution.

AT&SFRy junction switch, Buttonwillow Branch junction switch, and end of double track. Whistle signals:

- For main track, —,
- To or from Buttonwillow Branch, — o —,
- From SP to AT&SFRy main track, o — —,
- Between main track and transfer track, o — o,
- To or from No. 1 track, o o — o.

Westward signals at end of double track display green aspect for movement to SP single track, and yellow aspect for movement to AT&SFRy westward track, or to SP No. 1 track.

Westward trains receiving proceed signal as per Rule 281, Figure "G", authorizing movement from double track to SP single track must proceed prepared to stop short of Signal 3135.

Eastward signal at west interlocking limit displays green aspect for movement to eastward track, and yellow aspect for movement against current of traffic to westward track.

When semaphore or light type dwarf signal governing movement through interlocking on Buttonwillow Branch main track displays indication per Rule 281, Figure "E", or Rule 285, Figure "G", movement must be made with caution.

Cameron-Mojave: Limits extend, on eastward track, from eastward interlocking signal MP-370.37, to westward interlocking signal MP-380.15; and on westward track between eastward interlocking Signal MP-370.37 and westward SA signal MP-370.41, and are under control of operator Mojave. Telephone is located in box on pole adjacent to crossover switches Cameron.

Block signals are provided on eastward track within these limits for movement of trains in either direction being governed by indications of interlocking and automatic block signals. When automatic block signals within these limits display stop indication, Rule 507 will apply.

RULE 705. LETTER TYPE INDICATORS

Indicators located as follows:

Illumn. Letter	On Signal	Approaching	Authorizes and requires movement as follows
S.....	P-2937	Famoso	Enter station track at east switch.
S.....	A.....	Caliente	Electric switch lock east end house track unlocked and westward train after stopping for absolute signal may enter house track without obtaining permission from train dispatcher.
S.....	3612	Summit Switch	Enter siding and remain in siding until letter "M" is displayed.
M.....	3630	Summit Switch	Enter eastward track and proceed under provisions of Rule D-251.

Famoso: Eastward absolute signal located at east end of siding is a two-unit signal. Top unit governs movement to, but does not indicate track occupancy of station track. Lower unit governs movement through crossover to main track.

Eastward absolute signal located on Porterville Line at fouling point of junction to Famoso siding, and on station track at fouling point east end.

Bakersfield: Letter type indicators under control of train dispatcher at MP 312.91 just east of Baker Street and when illuminated will display the word "WAIT." Indicator applicable to westward movement on main track located on separate mast to right of main track and indicator applicable to westward movement on Yard Track 22 is dwarf type located to right of Track 1.

Westward trains or engines will approach these indicators prepared to stop short of indicator and not proceed until light is extinguished or verbal authority to proceed is received from the train dispatcher.

HOT BOX DETECTORS

Illum. Letter	On Signal	Approaching	Location of Readout
H*	M.P. 233.5	Traver	Westward Absolute Signal, W.E. Traver
W	2338	Goshen Jct.	
W	2361	Traver	
H*	M.P. 236.6	Goshen Jct.	M.P. 238.6 Goshen Jct.
H	2645	Tipton	Westward Absolute Signal W.E. Tipton
W	2670	Earlimart	
W	Westward Absolute	Pixley	Signal M.P. 269.4
H	Eastward Absolute	Earlimart	M.P. 271.7 Earlimart Signal M.P. 269.4

*Displays flashing white light when "H" is illuminated.

SCANNER SITE

M.P.	Direction	Location
235.1	East and West	Traver-Goshen Jct.
267.5	East and West	Pixley-Earlimart

Refer to Rule 705 All Subdivisions

For westward trains at MP-233.6 and for eastward trains at MP-236.6, upper unit is H indicator, lower unit is flashing white light.

RULE 760. CENTRALIZED TRAFFIC CONTROL

Limits extend from end of double track, Calwa Tower, MP-208.95 to beginning of double track Bakersfield, MP-310.8, and from westerly crossover Sandcut to end of double track Tehachapi.

Westward absolute signal located on lead track governing movements over crossover or to Biola Jct. freight lead extension is a three-unit signal.

Top unit governs movement on freight lead extension.

Middle unit governs movement through crossover to main track.

Lower unit governs movement to Biola Branch

When lunar aspect is displayed in lower unit, trains may proceed on freight lead extension without stopping at restricted speed, expecting to find freight lead extension occupied by a preceding train.

Movements across AT&SF Railway track, MP-209.1, Calwa Tower, under control of Southern Pacific train dispatcher. When eastward absolute signal or westward SA signal governing movements over AT&SF Railway track display stop indication, a member of crew must call Southern Pacific

train dispatcher at Bakersfield and after ascertaining that signals on AT&SF Railway track in both directions are displaying stop indication and no train approaching from either direction on AT&SF Railway track, train dispatcher may authorize movement over crossing.

Sound detector microphone is located 240 feet east of Signal 2058 and adjacent to eastward main track. Eastward trains destined beyond Malaga must sound whistle from Signal 2058 to sound detector microphone to notify Southern Pacific train dispatcher, which will be request for eastward absolute signal Calwa.

Movements across AT&SF Ry Track MP 249.70, Tulare, under control of SP train dispatcher. When absolute signals governing movement over crossing display stop indication member of crew must call train dispatcher and after ascertaining that derails on AT&SF Ry Track in both directions are set to derail and no train approaching from either direction on AT&SF Ry Track, train dispatcher may authorize movement over the crossing.

On tracks Nos. 1 and 2 between Sandcut and Bena, train movements may be made in either direction on either track, being governed by absolute and automatic signals. Rule 507 applicable to single track will apply on both tracks. Westward absolute signal at end of double track Bena, MP-328.1, will authorize movement on either track. Westward absolute signal at east end of Caliente has call-on unit which may display flashing yellow light authorizing train to pass signal when making switching moves into house track after electric lock has been released and switches properly lined.

Westward two-unit absolute signal, located in advance of crossover on siding, Bealville, MP-339.6, governs movements on siding. Lower unit will display lunar aspect only.

Eastward three-unit absolute signal located in advance of crossover on siding, Bealville, MP-339.5, governs movements as follows:

Top unit governs eastward movement on siding,

Middle unit governs movement through crossover to main track,

Lower unit will display lunar aspect only.

When lunar aspect is displayed in these units, trains may proceed on siding, without stopping, at restricted speed expecting to find siding occupied by a preceding train.

Eastward absolute signal at west end of Cable, MP-356.4, has two units. Upper unit governs eastward movement on No. 2 track. Lower unit governs eastward movements on No. 1 track.

Eastward automatic home Signal 3574 is on No. 2 track and westward automatic home Signal 3575 is on No. 1 Track at MP-357.5.

Eastward absolute signal is on No. 2 Track west of crossover at MP-358.5.

Two unit eastward absolute signal is on No. 1 Track west of crossover at MP-358.5. Upper unit governs eastward movements on No. 1 Track. Lower unit governs eastward movements through crossover to No. 2 Track.

Two unit westward absolute signal is on No. 2 Track east of crossover at MP-358.5. Upper unit governs westward movements on No. 2 Track. Lower unit governs westward movements through crossover to No. 1 Track.

Westward absolute signal on No. 1 Track east of crossover at MP-358.5 governs westward movements on No. 1 Track.

Eastward SA Signal at east end of No. 1 Track at MP-360.4 is two unit signal. Upper unit displays red aspect only. Lower unit governs movements through crossover from No. 1 Track to eastward main track.

Westward two unit absolute signal is on westward main track at easterly limits of CTC, MP-360.65. Upper unit governs westward movements to No. 1 Track. Lower unit governs westward movements through crossover to No. 2 track.

Westward dwarf absolute signal on Eastward Main Track at easterly limits of CTC, MP-360.65 is replaced with two unit dwarf absolute signal.

Upper unit governs westward movements on No. 2 track. Lower unit governs westward movement through crossover to No. 1 Track.

Signal line between MP 325.20 and MP 340.50 carries 2300 volts, and if blown down or knocked down must not be touched, and train dispatcher must be notified immediately.

GENERAL REGULATIONS

RULE 825. INSTRUCTIONS FOR SETTING HAND BRAKES:

Mojave. Through freight trains left standing without crew when consist is not to be disturbed will set hand brakes on cars in train as follows:

Ten brakes on east end and ten brakes on west end unless conductor has reached understanding that engineer will remain on engine at all times and control train by use of air brakes.

Other freight trains or cuts of cars left standing will have hand brakes set as follows:

25 cars or less 10 brakes on east end
26 to 50 cars 15 brakes on east end
Over 50 cars 20 brakes on east end

Any employe releasing any of these brakes must set an equal number to replace them.

Staff brakes must be set with the assistance of a brake club after train has stopped.

Portable rail skids are hung on posts at west end of sidings at:

Ilmon	Bealville Crossover	Woodford	Cable
Caliente	Cliff	Walong	Tehachapi
Bealville	Rowen	Marcel	Summit
			Switch

When necessary to leave cars on any of these sidings permission must first be obtained from chief train dispatcher, after which rail skid must be placed on rail and leading wheel of first car in descending direction run onto the rail skid, and hand brakes set if brakes are operative, before engine is detached. Trains picking up cars from these sidings must remove rail skid and return it to proper post.

Portable rail skid is hung on "Advan" sign Bakersfield team track east of old Highway 99.

RULE 827. When necessary to use retaining valves as prescribed by Rule 17, freight trains using dynamic brakes need not stop, if in the judgment of conductor and engineer wheels are not overheating. When dynamic brakes are inoperative stops must be made as follows:

Freight trains may make continuous run Tehachapi to Woodford, where stop of 10 mins. must be made. If stop made at Cable, Marcel or Walong for 10 mins., succeeding run may be made to Cliff, where stop of 10 mins. must be made. After 10 min. stop at Woodford, Rowen or Cliff, succeeding run may be made to Bena.

RULE 872. Enginemen taking charge of engines at Bakersfield and Fresno will consider engines as having been amply supplied with water, fuel, sand, prescribed signals, tools, supplies and flagging equipment in serviceable condition.

RULE 883. Between Bakersfield and Mojave, ATSF engines left unattended must be protected with blocking chain when so equipped or otherwise must be protected with a block provided therefor. Cab doors must be locked when engine is equipped with locks.

AIR BRAKE RULES

RULE 14. Coupling of trains together for the purpose of moving in one unit between Mojave and Ilmon is forbidden, unless authorized by Chief Train Dispatcher.

RULE 17. Retaining valves must be used as follows:

PASSENGER TRAINS

EASTWARD—Cameron to Mojave
 With no dynamic brake in operation, all retaining valves. Retaining valves may be turned up at Tehachapi.
WESTWARD—Tehachapi to MP 337.10
 With no dynamic brake in operation, all retaining valves. Retaining valves may be turned up at Mojave.

FREIGHT AND MIXED TRAINS

Retaining valves must be used on freight and mixed trains on descending grades as follows:
 Cameron to Mojave and Tehachapi to Caliente.

Without Dynamic Brake in Operation: One retaining valve for each 80 tons in train. If gross tonnage exceeds 80 tons per operative brake, retaining valves must be used on all cars, and speed must not exceed 15 MPH.

With Dynamic Brake in Operation:

Permissible Tons Per Unit Without Retaining Valves*

	Basic Dynamic Brake		Extended Range Dynamic Brake		
	4-Axle	6-Axle	4-Axle	6-Axle	8-Axle
With Dynamic brake in operation without pressure maintaining system of braking..	525	625	550	950	1250
With Dynamic brake in operation with pressure maintaining system of braking..	1500	1800	1600	2700	3600

If permissible tonnage is exceeded, one retaining valve must be used for each 150 tons of excess tonnage.

*If any unit having basic dynamic brake is operated with units having extended range dynamic brake, all units in consist must use tonnage authorized for units having basic dynamic brake.

Locomotive classes AF628, AF630, EF425, EF623, EF625, EF630, EF636, GF425 (except units 6700-6727), GF628, GF630, GF633, EF850-B, and GF850 are equipped with extended range dynamic brake.

Westward trains may turn up retaining valves at west end of Tehachapi if not required to stop before entering CTC. Retaining valves may be turned down at Ilmon or Bena instead of Caliente. If retaining valves not turned down before reaching Bena, speed must not exceed 25 MPH, Ilmon to Bena.

Conductor must advise train dispatcher when retaining valves are to be used.

FREIGHT TRAINS

RULE 22. Trainmen must not couple air hose on outgoing trains at Mojave until notified by yardmaster or his representative that train is made up. Switchmen must not perform switching on, or couple other cars to a train without instructions from the Yardmaster who will see that members of crew are notified in advance.

RULE 24-B.

Bakersfield and Fresno: Incoming engineer, after completing stop, must make a full service brake application leaving brakes applied. When outgoing crew takes charge of train on arrival or otherwise is assured, upon request, that continuity of brake pipe has not been disturbed, engineer will release brakes and proceed.

RULE 24-E. Will apply at Bakersfield and Fresno.

RULE 25. Will apply for trains stopping at Summit Switch.

Trains not stopping at Summit Switch will make running air test by applying train air brakes with sufficient force to insure that air brakes are operating properly and to give assurance by observation of air gauge on caboose that there has been a brake pipe reduction made. After receiving this assurance trainmen will inform engineer when brake pipe pressure is being restored.

RULE 33.

Tehachapi to MP-332.62, and Cameron to Mojave:

Maximum tonnage per operative brake... 80 tons, except With dynamic brake and pressure maintaining system of braking in operation; with not more than 100 cars and speed not exceeding 20 MPH. 100 tons

Should dynamic brake failure occur while handling in excess of 80 tons per operative brake, train may proceed at speed not exceeding 15 MPH if in judgment of conductor and engineer it is safe to do so, and provided retaining valves are used as prescribed by Air Brake Rule 17.

Restrictive grades are as follows:

Eastward			Westward		
(Station) to (Station) MP	(Station) to (Station) MP	Speed	(Station) to (Station) MP	(Station) to (Station) MP	Speed
(Sandcut) 325.72	(Bena) 326.72	25 MPH	(Caliente) 334.10	(Ilmon) 332.51	20 MPH
(Monolith) 368.59	(Cameron) 369.27	20 MPH	(Sandcut) 324.04	(Edison) 322.18	25 MPH

PASSENGER TRAINS

RULE 39. Will apply at Summit Switch.

MISCELLANEOUS

On Oil City Branch between MP-312.00 to MP-314.21 maximum speed must not be exceeded when handled by following engines subject to further restrictions shown in Speed Restrictions for Trains:

AS 410; ES 406; AS 407; ES 408; ES 408B, ES 409; AS 409; AS 410; BS 410; ES 410; BS 412; ES 412; FS 412.

10. Engines listed must not operate on tracks shown below:

Class of Engine	Restricted Tracks
All, except: ES 406; AS 407; ES 408; ES 408B; ES 409; AS 409; AS 410; BS 410; ES 410; BS 412; ES 412; FS 412	Fresno—Bekins spur; Drill track serving Calif. Fig Growers; Sun-maid Raisin Plants; Stewart-Nuss spur; Pearl spur east of "M" St.
All, except: BS 615, EF 618; ES 406; AS 407; ES 408; ES 408B; ES 409; AS 409; AS 410; BS 410; BS 412; ES 412; FS 412	Fresno—Drill track serving Pacific Crate; Roma Wine and Container Corp.; Drill track serving Levi Iron & Metal; Fresno-Vendolator Co. tracks; Carskadon Distr. spur; Bacon spur; Producers Cotton Oil tracks; Central Empire spur; PCA canal track.
All, except: AP 620-A; ES 406; AS 407; ES 408; ES 408B; ES 409; AS 409; AS 410; BS 410; ES 410; BS 412; ES 412; FS 412	Fresno Yard-Wye track at Diesel Facilities.

SPECIAL INSTRUCTIONS — BAKERSFIELD SUBDIVISION

Class of Engine	Restricted Tracks
All, except: BS 615; AS 616; ES 406; AS 407, ES 408; ES 408B; ES 409; AS 409; AS 410; BS 410; ES 410; BS 412; ES 412; FS 412	Bakersfield—McCarthy Tank & Steel spur.
All, except: BS 615; AS 616; EF 418; ES 406; AS 407; ES 408; ES 408B; ES 409; AS 409; AS 410; BS 410; ES 410; BS 412; ES 412; FS 412	Bakersfield—Lead tracks to Freight House, Montgomery Ward Co. :
All, except: BS 615; AS 616; ES 406; AS 407; ES 408; ES 408B; ES 409; AS 409; AS 410; BS 410; ES 410; BS 412; ES 412; FS 412	Lindsay—Tracks serving Shell Oil Co.; Independent Growers; California Spry Chemical Co.
All, except: ES 406; AS 407; ES 408; ES 408B; ES 409; AS 409; AS 410; BS 410; ES 410; BS 412; ES 412; FS 412	Rector—Southern Calif. Edison Co. spur beyond fouling point.

Cars must not be stored or left standing between MP 213.2 (FIRy crossing) Clovis Branch and a point 1200 feet east.

11. Load limit (car and contents):

Fresno-Bakersfield	263,000 pounds
Fresno-Famoso via Porterville	251,000 pounds
Richgrove-Jovista	240,000 pounds
Goshen Jct.-Exeter	240,000 pounds
Rossi-Stratford	240,000 pounds
Goshen Jct.-Coalinga	240,000 pounds

Fresno-Rockfield	240,000 pounds
Kern Jct.-Buttonwillow	240,000 pounds
Oil Jct.-Oil City	240,000 pounds
Bakersfield-Mojave	263,000 pounds
Magunden-Arvin	240,000 pounds
#Fresno-Mojave	315,000 pounds

Unless authorized by Superintendent, heavier loads must not be handled.

To the extent possible Maintenance of Way Locks are applied to spiked switches to preclude attempt to throw same.

#Applies to uniformly loaded four axle cars with minimum axle spacing of 6 ft. 0 in. and minimum distance 37 ft. 0 in. center to center of trucks; also, wheels 38 ins. or more in diameter.

30. LOCATION OF OVERHEAD AND SIDE STRUCTURES NOT STANDARD CLEARANCES ON MAIN TRACKS AND SIDINGS

MP	Location	Description
253.50	West of Lort	Kaweah River bridge Side
332.60	East of Ilmon	Tunnel ½ Overhead & side
336.90	East of Caliente	Tunnel 1 Overhead & side
337.80	East of Caliente	Tunnel 2 Overhead & side
340.80	East of Bealville	Tunnel 3 Overhead & side
341.50	East of Bealville	Tunnel 5 Overhead & side
343.70	East of Cliff	Tunnel 7 Overhead & side
344.20	East of Cliff	Tunnel 8 Overhead & side
351.00	East of Woodford	Tunnel 9 Overhead & side
352.30	East of Walong	Tunnel 10 Overhead & side
355.14	East of Marcel	Tunnel 14 Overhead & side
355.80	East of Marcel	Tunnel 15 Overhead & side
355.90	East of Marcel	Tunnel 16 Overhead & side
356.00	East of Marcel	Tunnel 17 Overhead & side
359.20	East of Cable	Overhead highway crossing Overhead

SPECIAL INSTRUCTIONS — BAKERSFIELD SUBDIVISION

SPEED RESTRICTIONS FOR TRAINS: Maximum speed of trains in territory shown below is subject to further restrictions applicable to engines in the train as shown in **SPEED RESTRICTIONS FOR ENGINES** appearing on pages 4 and 5 and **MAXIMUM SPEED PERMITTED WITH CERTAIN EQUIPMENT** and **OTHER MAXIMUM SPEEDS** appearing on page 5 of Special Instructions for All Subdivisions. Speed must be further reduced as prescribed by speed signs, except as specifically authorized by Special Instructions herein, or by timetable bulletin.

All trains must run carefully during and after heavy storms, particularly when the track is apt to be affected. When fog, storms or other conditions obscure track or signals, speed of trains must be so reduced as to permit strict observance of signals and **INSURE SAFETY, REGARDLESS OF TIME.**

TERRITORY			PASSENGER TRAINS	FREIGHT AND MIXED	TERRITORY			PASSENGER TRAINS	FREIGHT AND MIXED
MP	MP	Column:	1	2	MP	MP	Column:	1	2
EASTWARD, FRESNO YARD TO MOJAVE:					WESTWARD, MOJAVE TO FRESNO YARD:				
201.89 to 201.93 (through turnout).....			25	25	380.70 to 376.40.....			50	45
201.93 to 204.50.....			50	50	376.40 to 373.40.....			35	35
204.50 to 205.93 (Fresno).....			20	20	373.40 to 368.74.....			50	50
205.93 to 206.80.....			50	50	368.74 to 366.44.....			70	60
206.80 to 209.14.....			60	60	366.44 to 360.61.....			70	60
209.14 to 214.48.....			70	60	360.61 to 338.00.....			25	20
214.48 to 215.65 (Fowler).....			45	45	338.00 to 332.10.....			25	25
215.65 to 220.04.....			70	60	332.10 to 329.76.....			55	55
220.04 to 221.30 (Selma, 5 AM to 11 PM).....			45	45	329.76 to 325.93.....			60	60
220.04 to 221.30 (Selma, 11 PM to 5 AM).....			70	60	325.93 to 325.60.....			50	50
221.30 to 225.17.....			70	60	325.60 to 313.80.....			70	60
225.17 to 225.98 (Kingsburg, 6 AM to 9 PM).....			45	45	313.80 to 313.60 (Kern Jct.) except:.....			15	15
225.17 to 225.98 (Kingsburg, 9 PM to 6 AM).....			70	60	AT&SF Ry. trains.....			10	10
225.98 to 249.21.....			70	60	313.60 to 312.90.....			35	20
249.21 to 250.73 (Tulare).....			35	35	312.90 to 312.80.....			35	35
250.73 to 279.16.....			70	60	312.80 to 310.07.....			60	60
279.16 to 281.45 (Delano).....			40	40	310.07 to 281.45.....			70	60
281.45 to 310.07.....			70	60	281.45 to 279.16 (Delano).....			40	40
310.07 to 312.80.....			60	60	279.16 to 250.73.....			70	60
312.80 to 312.90.....			35	35	250.73 to 249.21 (Tulare).....			35	35
312.90 to 313.80 (Kern Jct.) except:.....			35	20	249.21 to 225.98.....			70	60
AT&SF Ry. trains.....			10	10	225.98 to 225.17 (Kingsburg, 6 AM to 9 PM).....			45	45
313.80 to 325.60.....			70	60	225.98 to 225.17 (Kingsburg, 9 PM to 6 AM).....			70	60
325.60 to 325.93.....			50	50	225.17 to 221.30.....			70	60
325.93 to 329.76.....			60	60	221.30 to 220.04 (Selma, 5 AM to 11 PM).....			45	45
329.76 to 332.10.....			55	55	221.30 to 220.04 (Selma, 11 PM to 5 AM).....			70	60
332.10 to 335.97.....			30	30	220.04 to 215.65.....			70	60
335.97 to 359.50.....			25	25	215.65 to 214.48 (Fowler).....			45	45
359.50 to 360.65 (via No. 2 track).....			70	60	214.48 to 209.14.....			70	60
359.50 to 360.65 (via No. 1 Track).....			25	25	209.14 to 206.80.....			60	60
360.65 to 368.74.....			70	60	206.80 to 205.93.....			50	50
366.44 to 368.74.....			70	60	205.93 to 204.50 (Fresno).....			20	20
368.74 to 370.37.....			50	45	204.50 to 201.89.....			50	50
370.37 to 370.41 (spring switch).....			35	35	WESTWARD, ON EASTWARD MAIN TRACK:				
370.41 to 371.40.....			50	45	380.18 to 376.40.....			50	45
371.40 to 374.00.....			45	30	376.40 to 373.40.....			45	35
374.00 to 380.70.....			45	25	373.40 to 370.41.....			50	45
					370.41 to 370.30 (Through crossover).....			25	25

At Fowler, Selma, Kingsburg, Tulare, Delano and Bakersfield, speed may be resumed after engine has passed last crossing within city limits in direction train is moving.

Freight and mixed trains containing no restricted cars are authorized to operate at Column 1 speeds, not exceeding 65 MPH between Fresno and Bakersfield via Tulare and between Bakersfield and MP-368.74 except through cities where speeds are regulated by City Ordinance provided trains do not exceed:

Number of Cars	Tons Per Operative Brake	Number of Cars	Tons Per Operative Brake
70.....	70	110.....	62
75.....	69	115.....	61
80.....	68	120.....	60
85.....	67	125.....	58
90.....	66	130.....	56
95.....	65	135.....	54
100.....	64	140.....	52
105.....	63	145.....	50

SPECIAL INSTRUCTIONS — BAKERSFIELD SUBDIVISION

Signs reading "CITY ORDINANCE" are in place 0.75 mile in advance of the City Limits at the following cities having variable speed restrictions depending upon time of day:

City	City Limits		Sign Locations	
	West	East	Eastward	Westward
MAIN LINE				
Fowler.....	MP-214.48	MP-215.65	MP-213.73	MP-216.40
Selma.....	MP-220.04	MP-221.30	MP-219.29	MP-222.05
Kingsburg.....	MP-225.17	MP-225.98	MP-224.42	MP-226.73
EXETER BRANCH				
Reedley.....	MP-229.16	MP-230.66	MP-228.41	MP-231.41
Exeter.....	MP-256.49	MP-257.89	MP-255.74	MP-258.64
Lindsay.....	MP-263.42	MP-264.84	MP-262.67	MP-265.59

SPEED RESTRICTIONS FOR TRAINS: Maximum speed of trains in territory shown below is subject to further restrictions applicable to engines in the train as shown in **SPEED RESTRICTIONS FOR ENGINES** appearing on pages 4 and 5 and **MAXIMUM SPEED PERMITTED WITH CERTAIN EQUIPMENT AND OTHER MAXIMUM SPEEDS** appearing on page 5 of Special Instructions for All Subdivisions. Speed must be further reduced as prescribed by speed signs, except as specifically authorized by Special Instructions herein, or by timetable bulletin.

All trains must run carefully during and after heavy storms, particularly when the track is apt to be affected. When fog, storms or other conditions obscure track or signals, speed of trains must be so reduced as to permit strict observance of signals and **INSURE SAFETY, REGARDLESS OF TIME.**

TERRITORY			FREIGHT AND MIXED	LIGHT ENGINES	TERRITORY			FREIGHT AND MIXED	LIGHT ENGINES
MP	MP	Column:	1	2	MP	MP	Column:	1	2
EASTWARD, FRESNO TO FAMOSO VIA PORTERVILLE:					WESTWARD, FAMOSO TO FRESNO VIA PORTERVILLE:				
206.11 to 207.50 (Fresno).....			20	20	310.06 to 308.67 (Famoso).....			20	20
207.50 to 208.55.....			40	40	308.67 to 289.80.....			49	49
208.55 to 218.49.....			49	49	289.80 to 289.62 (Curve).....			40	40
218.49 to 220.30 (Sanger).....			35	35	289.62 to 275.00.....			49	49
220.30 to 228.00.....			49	49	275.00 to 272.70 (Porterville).....			35	35
228.00 to 229.16.....			35	35	272.70 to 264.84.....			49	49
229.16 to 230.66 (Reedley, 5 AM to 11 PM).....			20	20	264.84 to 263.42 (Lindsay, 5 AM to 11 PM).....			20	20
229.16 to 230.66 (Reedley, 11 PM to 5 AM).....			35	35	264.84 to 263.42 (Lindsay, 11 PM to 5 AM).....			35	35
230.66 to 247.00.....			35	35	263.42 to 257.89.....			49	49
247.00 to 256.49.....			49	49	257.89 to 256.49 (Exeter, 5 AM to 11 PM).....			20	20
256.49 to 257.89 (Exeter, 5 AM to 11 PM).....			20	20	257.89 to 256.49 (Exeter, 11 PM to 5 AM).....			49	49
256.49 to 257.89 (Exeter, 11 PM to 5 AM).....			49	49	256.49 to 247.00.....			49	49
257.89 to 263.42.....			49	49	247.00 to 230.66.....			35	35
263.42 to 264.84 (Lindsay, 5 AM to 11 PM).....			20	20	230.66 to 229.16 (Reedley, 5 AM to 11 PM).....			20	20
263.42 to 264.84 (Lindsay, 11 PM to 5 AM).....			35	35	230.66 to 229.16 (Reedley, 11 PM to 5 AM).....			35	35
264.84 to 272.70.....			49	49	229.16 to 228.00.....			35	35
272.70 to 275.00 (Porterville).....			35	35	228.00 to 220.30.....			49	49
275.00 to 275.05 (Orange Ave. Crossing).....			15	15	220.30 to 218.49 (Sanger).....			35	35
275.05 to 289.62.....			49	49	218.49 to 208.55.....			49	49
289.62 to 289.80 (Curve).....			40	40	208.55 to 207.50.....			40	40
289.80 to 308.67.....			49	49	207.50 to 206.11 (Fresno).....			20	20
308.67 to 310.06 (Famoso).....			20	20					
EASTWARD, RICHGROVE TO JOVISTA:.....			20	20	WESTWARD, JOVISTA TO RICHGROVE:.....			20	20
EASTWARD, GOSHEN JCT. TO EXETER:					WESTWARD, EXETER TO GOSHEN JCT.:				
245.96 to 251.87.....			30	30	262.72 to 260.60.....			20	20
251.87 to 253.92 (Visalia).....			15	15	260.60 to 253.92.....			30	30
253.92 to 260.60.....			30	30	253.92 to 251.87 (Visalia).....			15	15
260.60 to 262.72.....			20	20	251.87 to 245.96.....			30	30

At Reedley, Exeter and Lindsay, speed may be resumed after engine has passed last crossing within city limits in direction train is moving.

At Sanger eastward trains may resume speed after engine has passed street crossing MP-220.24.

On Exeter Branch, MP-228.00 to MP-247.05, and MP-266.00 to MP-295.52, maximum speed of trains as shown below must not be exceeded when handled by following engines subject to further restrictions shown in Speed Restrictions for Trains table above:

BS-615.....	35 MPH
EF-415B, EP-415B, AS-418.....	45 MPH

On Exeter Branch, between MP-287.10 and MP-295.52, maximum speed of trains as shown below must not be exceeded when handled by following AT&SF Ry. engines subject to further restrictions shown in Speed Restrictions for Trains table above:

Diesels 99, 2650 to 2893.....	30 MPH
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On Visalia Branch maximum speed of trains as shown below must not be exceeded when handled by following engines, subject to further restrictions shown in Speed Restrictions for Trains table above:

BS 615.....	25 MPH
AS 410.....	25 MPH
EF 415B, EP 415B.....	20 MPH
ES 410, AS 410.....	20 MPH
EF 415B, EP 415B.....	15 MPH

On the Sunset Railway:

Between Gosford, MP 0.0 (Zero) and Pentland, MP 27.7.....	30 MPH
Between Pentland, MP 0.0 (Zero) and Taft, MP 8.8 (Taft Branch).....	15 MPH

Maximum speeds permitted account locomotive weight on the Taft Branch, Pentland, MP-0.0 to Taft MP 8.8, Sunset Railway, are as follows:

AS-410; BS-410; ES-410; BS-412; FS-412; EF-618-1 to EF-618-5, inclusive.....	15 MPH
EF-418-1 to EF-418-9, inclusive.....	10 MPH

SPECIAL INSTRUCTIONS — BAKERSFIELD SUBDIVISION

SPEED RESTRICTIONS FOR TRAINS: Maximum speed of trains in territory shown below is subject to further restrictions applicable to engines in the train as shown in **SPEED RESTRICTIONS FOR ENGINES** appearing on pages 4 and 5 and **MAXIMUM SPEED PERMITTED WITH CERTAIN EQUIPMENT** and **OTHER MAXIMUM SPEEDS** appearing on page 5 of Special Instructions for All Subdivisions. Speed must be further reduced as prescribed by speed signs, except as specifically authorized by Special Instructions herein, or by timetable bulletin.

All trains must run carefully during and after heavy storms, particularly when the track is apt to be affected. When fog, storms or other conditions obscure track or signals, speed of trains must be so reduced as to permit strict observance of signals and **INSURE SAFETY, REGARDLESS OF TIME.**

TERRITORY			ALL TRAINS	TERRITORY			ALL TRAINS
MP	MP	Column:	1	MP	MP	Column:	1
EASTWARD, GOSHEN JCT. TO COALINGA:				WESTWARD, COALINGA TO GOSHEN JCT.:			
239.53 to 240.13 (Wye)			15	296.39 to 280.00			30
240.13 to 251.65			40	280.00 to 265.51			40
251.65 to 253.40 (Hanford)			30	265.51 to 265.07			20
253.40 to 256.48			40	265.07 to 264.99			10
256.48 to 256.49 (Lake St. Armona)			20	264.99 to 261.25			40
256.49 to 260.25			40	261.25 to 260.25 (Lemoore)			30
260.25 to 261.25 (Lemoore)			30	260.25 to 256.49			40
261.25 to 264.99			40	256.49 to 256.48 (Lake St. Armona)			20
264.99 to 265.07			10	256.48 to 253.40			40
265.07 to 265.51			20	253.40 to 251.65 (Hanford)			30
265.51 to 280.00			40	251.65 to 240.13			40
280.00 to 296.39			30	240.13 to 239.53 (Wye)			15
EASTWARD, ROSSI TO STRATFORD:.....				WESTWARD, STRATFORD TO ROSSI:.....			
EASTWARD, FRESNO TO ROCKFIELD:				WESTWARD, ROCKFIELD TO FRESNO:			
206.15 to 209.80			15	225.77 to 223.15			20
209.80 to 214.30			20	223.15 to 214.30			30
214.30 to 223.15			30	214.30 to 209.80			20
223.15 to 225.77			20	209.80 to 206.15			15
EASTWARD, KERN JCT. TO BUTTONWILLOW:				WESTWARD, BUTTONWILLOW TO KERN JCT.:			
313.44 to 314.15 (street crossings)			15	347.00 to 316.65			30
314.15 to 316.62			25	316.65 to 316.62 (US Highway 99)			15
316.62 to 316.65 (US Highway 99)			15	316.62 to 314.15			25
316.65 to 347.00			30	314.15 to 313.44 (street crossings)			15
EASTWARD, OIL JCT. TO OIL CITY:.....				WESTWARD, OIL CITY TO OIL JCT.:.....			
EASTWARD, MAGUNDEN TO ARVIN:				WESTWARD, ARVIN TO MAGUNDEN:			
316.66 to 317.06			10	333.54 to 329.95			25
317.06 to 329.76			25	329.95 to 329.76			10
329.76 to 329.95			10	329.76 to 317.06			25
329.95 to 333.54			25	317.06 to 316.66			10

On Coalinga Branch, maximum speed of trains as shown below must not be exceeded when handled by following engines, subject to further restrictions shown in Speed Restrictions for Trains table above:

EF 415B	45 MPH
ES 406; AS 407; ES 408; ES 408B; ES 409; AS 409; AS 410; BS 410; ES 410; BS 412; ES 412; FS 412	35 MPH

SPEED RESTRICTIONS FOR OTHER THAN MAIN TRACKS With Caution
Not Exceeding
MPH

Through sidings, yard and other tracks, wyes, balloon tracks, crossovers and turnouts, except:.....	10
Through sidings, Goble, Sun-Maid, Traver, Goshen Jet., Tulare, Tipton, Earlimart, Delfar, Famoso, Cawelo and Saco, except:.....	30
Through turnouts these sidings.....	25
On wye and packing house tracks at Locans.....	10
On spur leading from Pinedale.....	20
Through crossover Sandcut and through siding and turnouts Summit Switch.....	20
Through sidings and turnouts between Ilmon and Tehachapi, inclusive; except:.....	25
Through turnout at east end of short siding Woodford, MP-349.06.....	20
Through turnouts on other than sidings.....	10
On Branches.....	10

SPECIAL INSTRUCTIONS—MOJAVE SUBDIVISION

RULE 10-J. Speed signs to left of track.

Westward	Reading	Eastward	Reading	
MP-438.92	30-25	MP-380.55	25	Diverging Route
MP-461.80	60	MP-413.59	35	
		MP-414.01	50	
		MP-458.94	60-35	

RULE 82-A. Trains to San Joaquin Division originating at Los Angeles or Los Angeles Yard must obtain San Joaquin Division clearance, and need not obtain clearance at Burbank Jct., if cleared by train-order signal.

Train No. 51 is authorized to operate Los Angeles to Burbank Junction without obtaining clearance.

Lancaster is train order office for trains originating and terminating only between the hours of 7:30 AM and 4:30 PM.

Lone Pine: Crew arriving Lone Pine on No. 700 may assume schedule of No. 701 without obtaining clearance.

RULE 83. OAK CREEK BRANCH. Extra trains operating between Mojave and Creal, in addition to information required by train register located at Mojave, must register destination of trip (turning point) and date of departure in the column captioned "Signals." When trip has been completed, date of arrival at Mojave must also be entered in column captioned "Signals." An extra train en route Creal must not leave Mojave until it has been ascertained from the train register that all preceding extra trains via the route to be used have completed their trip and registered time and date of arrival at Mojave accordingly.

Identification may be made between Burbank Junction and Glendale to be applied at end of double track. Trains approaching each other between these stations must reduce speed sufficiently to permit identification and Rule 14(k) will apply.

Vincent: Time will apply for westward trains at end of double track MP-419.98 and for eastward trains at end of double track MP-421.33.

Trains may be identified on double track at Vincent.

RULE 83-A. At the following stations, only the trains indicated will register:

- Palmdale.....Trains originating or terminating.
- Saugus.....Trains originating or terminating.

RULE 83-B. At open train-order offices trains may register by ticket as follows:

- Mojave.....All trains.

When a regular train or section of schedule is checked on register at Los Angeles it will not be necessary to obtain check of the same train at Burbank Jct.

RULE 93. Yard limits in which the provisions of Rule 93 will apply are established at the following stations:

West MP		East MP
378.87	Mojave.....	386.00
	" (Lone Pine Branch).....	381.60
	" (Oak Creek Branch).....	380.96
393.00	Rosamond.....	396.50
404.12	Lancaster.....	407.53
408.20	Palmdale.....	416.80
	Palmdale (Colton Subdivision).....	419.07
419.73	Vincent.....	421.52
449.37	Saugus.....	451.64
448.17	" (Santa Paula Branch).....	
460.87	San Fernando.....	468.50
427.68	Searles.....	430.03
517.5	Lone Pine.....	End of track

Eastward Yard Limit Sign Burbank:
Jct. located at MP-471.20.

Mojave: Unless proceed signal is received from switchman, green flag by day, green light by night, trains and engines from Lone Pine Branch must stop at stop sign located 500 feet east of highway crossing MP-380.34 and obtain instructions from yardmaster by telephone as to track to be used.

Trains leaving yard tracks west end of Mojave must receive proceed signal from switchman, green flag by day, green light by night, unless engineer is orally authorized to proceed.

RULE 99. Extra trains originating at Mojave and operating between Mojave and Creal will display indicators as an Extra train on entire trip as indicated by the engine number of the lead unit leaving Mojave and are authorized to operate as Extra trains between Mojave and Creal without obtaining a clearance. Rule 99 will not apply between Mojave and Creal.

RULE 103-A.

Summit Switch: Flood lights on east and west legs of wye crossing, B-362.4, with highway U.S. 58 are track circuit controlled with "Stop" signs installed at control limits. Crews should assure themselves that flood lights are illuminated before fouling crossing.

Mojave: Sound detector microphones are located adjacent to track near eastward interlocking signals MP-381.30 and MP-381.35 East Mojave.

Eastward trains occupying back track within 200 feet on 2 or 3 tracks within 500 feet in approach to these signals should blow whistle to notify Mojave operator when they are ready to leave East Mojave.

Operator will keep switches lined for tail track until train whistle has been sounded or otherwise notified when train is ready to depart Mojave Yard.

Palmdale: Drill track 4820 feet in length diverging from main track at MP-412.2 serves Palmdale Irrigation District. Trainmen must stop at Crossings B-412.53-C and B-412.78-C and not enter crossing until it is known that automatic flashing light signals are operating. Stop signs are in place.

Pacoima: Automatic crossing gates Van Nuys Boulevard crossing MP-463.34. Gates will remain lowered if engines or cars occupy tracks 50 feet either side of crossing.

Sun Valley: Cars or engines must not be left standing on main track or siding within 100 feet of either side of Sunland Blvd. crossing, MP 467.8. When switching over Sunland Blvd., engines or cars must stop within 50 feet of crossing and not enter crossing until traffic signals on both sides of crossing are synchronized with the automatic warning devices.

No train, engine, motor or car shall be operated over following crossing unless said train, engine, motor or car shall first be brought to stop and traffic on the highway protected by a member of the train crew or other competent employe acting as flagman:

- Newhall-Sylmar.....2 spur tracks at grade across San Fernando Road Crossing No. B-457.83-C, serving Los Angeles Department of Water and Power.

RULE 104. The normal position of switches at the end of double track and at junctions is as follows:

- Mojave.....Lone Pine Branch, for westward track,
- Saugus.....Santa Paula Branch, for westward siding,
- Searles.....Trona Ry, for track No. 1.
- Vincent.....West end.....Eastward main track.
- Vincent.....East end.....Westward main track.

RULE 105. Saugus. Westward siding is first track south of main track extending from MP-451.50 to MP-450.40. Eastward siding is first track north of main track extending from MP-449.40 to MP 450.50.

Trains or engines must not foul westward siding from east end of Bunnell storage track until permission is received from train-order operator.

San Fernando. Siding is for use only by passenger trains, light engines and local freight trains.

RULE 208.

This rule will not apply to westward trains at Burbank Jct. when train to which restricting order is addressed is entering siding.

RULE 211.

Palmdale: To enable Train Dispatcher to advance a westward train beyond junction switch Palmdale-Colton Cut-Off, Operator after receiving verbal authority from Train Dispatcher will clear westward interlocking signal, Palmdale-Colton Cut-Off, for movement on main track which will be an indication to an approaching train that train orders have been issued authorizing movement to the next station at least, against and ahead of all superior trains, and will not require the issuance of Form "N" train order or the lowering of train order signal several times.

Saugus. Will apply when letter "M" is illuminated in letter-type indicator as follows:

On Signal	Approaching
4486	Saugus

Letter "M", when illuminated, authorizes and requires eastward trains to proceed on main track to east end eastward siding.

Westward interlocking signal at east switch, westward siding, displaying proceed indication authorizes and requires westward trains to proceed on main track to train order office.

To enable Train Dispatcher to advance a westward train beyond Burbank Junction where it is restricted for an opposing or a following train, Operator after receiving verbal authority from Train Dispatcher, will clear interlocking signal at west end of double track east of Burbank Junction for movement on main track on route desired which will be an indication to an approaching train that orders have been issued authorizing movement to the next station at least, against and ahead of all superior trains and will not require the issuance of Form N Train Order or the lowering of Train Order signal several times.

RULE 221.

Burbank Jct. is train-order office only for westward trains. Unit for display of flashing light installed at following location:

Station	Location	Direction
Palmdale	On train-order signal mast	Eastward

Display of flashing white light indicates that train-order signal is displaying proceed indication or that operator has train orders ready for delivery, that such train orders do not restrict train at that station, and that train, provided it is not restricted by timetable or train orders previously received, may pass fouling point of switch at which an opposing train may enter siding or place where time applies if there is no siding.

Lone Pine is train-order office only between 6:30 AM and 3:30 PM, daily, except Saturdays, Sundays and Holidays.

RULE D-251. Will apply as follows: Both main tracks between west interlocking limits East Mojave and Mojave.

RULE 306. The following block signals equipped with triangular plate displaying the letter "P" have included in their control limits some special protective device:

Eastward Signal	Protection	Westward Signal
P-3894	Spring switch, west end siding, Ansel	
	Spring switch, east end siding, Ansel	P-3911
P-3992	Spring switch, west end siding, Oban	
	Spring switch, east end siding, Oban	P-4009
P-3992	Barricade detector, MP-400.00, Oban	P-4009
P-4008		
P-4010	Barricade detector, MP-402.00	P-4021
P-4046	Spring switch, west end siding, Lancaster	
	Spring switch, east end siding, Lancaster	P-4057
P-4092	Spring switch, west end siding, Denis	
	Spring switch, east end siding, Denis	P-4109
P-4156	Spring switch, west end siding, Harold	
	Spring switch, east end siding, Harold	P-4167
	Spring switch, east end siding, Palmdale #2	P-4181
P-4200	Spring switch, west end Vincent	
	Spring switch, east end Vincent	P-4213
P-4248	Spring switch, west end siding, Paris	
	Spring switch, east end siding, Paris	P-4257
P-4284	Spring switch, west end siding, Ravenna	
	Spring switch, east end siding, Ravenna	P-4297

Eastward Signal	Protection	Westward Signal
P-4338	Spring switch, west end siding, and slide detector fence middle of siding, Russ	
P-4346	Slide detector fence at MP 435	
P-4348		
	Spring switch, east end siding, and slide detector fence middle of siding, Russ	P-4347
	Slide detector fence at MP 435	P-4357
P-4382	Spring switch, west end siding, Lang	
	Spring switch, east end siding, Lang	P-4393
P-4426	Spring switch, west end siding, Humphreys	
	Spring switch, east end siding, Humphreys	P-4435
P-4466	Spring switch, west end siding, Honby	
	Spring switch, east end siding, Honby	P-4475
	Spring switch, east end eastward siding, Saugus	P-4505
P-4504	Spring switch, west end westward siding, Saugus	
"A" Signals	High Water Detector	
MP-451.46	Saugus-Newhall MP-451.92	P-4523
	Spring switch, east end siding, Newhall	P-4541
P-4566	Barricade Detector MP-451.60	P-4581
		P-4588
P-4580	Spring switch, west end siding, Sylmar and Barricade Detector MP-458.80	
	Spring switch, east end siding, Sylmar, and Barricade Detector MP-458.80	P-4593
P-4610	Spring switch, west end siding, San Fernando	
P-4622	Barricade Detector MP-462.60	P-4631
P-4630	Barricade Detector MP-463.30	P-4635

RULE 505. Denis: When Signal 4108 or 4110 at east end of Denis displays stop indication, eastward trains may proceed after receiving oral authority from Operator at Palmdale but must comply with Rule 507. This authority does not supersede any train order restrictions that may be held by train stopped by these signals.

Palmdale-Colton Cut-Off: Westward signal 4165 installed at west end of siding Palmdale No. 2. When signal display is red indication, trains must stop and contact Palmdale operator.

RULE 516. Overlap post:
Pacoima Westward trains, MP 463.30.

RULE 535. SPRING SWITCHES

Spring switches equipped with facing point locks are located as follows:

Location	Normal Position
Ansel	West end siding Main track
Ansel	East end siding Main track
Oban	West end siding Main track
Oban	East end siding Main track
Lancaster	West end siding Main track
Lancaster	East end siding Main track
Denis	West end siding Main track
Denis	East end siding Main track
Palmdale #2	East end siding Main track
Harold	West end siding Main track
Harold	East end siding Main track
Paris	West end siding Main track
Paris	East end siding Main track
Ravenna	West end siding Main track
Ravenna	East end siding Main track
Russ	West end siding Main track
Russ	East end siding Main track
Lang	West end siding Main track
Lang	East end siding Main track
Humphreys	West end siding Main track
Humphreys	East end siding Main track
Honby	West end siding Main track
Honby	East end siding Main track
Saugus	East end eastward siding Main track
Saugus	West end westward siding Main track
Sylmar	East end siding Main track
Sylmar	West end siding Main track
Newhall	East end siding Main track
San Fernando	West end siding Main track

SPECIAL INSTRUCTIONS — MOJAVE SUBDIVISION

Spring switches not equipped with facing point locks are located as follows:

Location	Normal Position
Vincent..... West end	Eastward main track
Vincent..... East end	Westward main track

Switch-point indicators located at:

Mojave.....Spring switches at east end tracks Nos. 2, 3 and 4.

Indicator does not indicate track occupancy. When indicator displays red aspect, or is not lighted, careful examination of switch must be made before passing over in westward direction.

RULE 538.

Lone Pine. Spring derail installed in main track MP-517.9.

RULE 605. INTERLOCKING

East Mojave: Limits extend from eastward interlocking signals on main track at MP 381.30 and eastward interlocking signal at clear point of east end yard lead to westward interlocking signal at MP 381.50 on SP main track and MP 816.50 on AT&SFRy main track and to westward signal on tail track and interlocking is under control of operator Mojave.

Eastward signal at MP 381.30 governs movements as follows:

- Top unit to SP main track,
- Middle unit to AT&SF Ry main track,
- Bottom unit to tail track.

Eastward signal (for eastward movements against current of traffic) at MP 381.30 governs movements as follows:

- Top unit to SP main track,
- Bottom unit to AT&SFRy main track.

Westward signals on SP and AT&SFRy main tracks at MP 381.50 and AT&SFRy MP 816.50 govern movements as follows:

- Top units to westward SP main track,
- Bottom units to westward interlocking limits on eastward main track or to clear point of east end yard lead.

Signal at clear point on tail track governs movements to westward interlocking limits on eastward main track or to clear point of east end yard lead.

Telephones located on telephone pole at MP 381.30 and in booth at east interlocking limits.

Palmdale: Limits extend from eastward interlocking Signal MP-414.42 to westward interlocking signal MP-414.50 Mojave-Saugus line and fouling point on Palmdale-Colton Cut-Off.

Palmdale-Colton Cut-Off: Limits extend from MP-414.50 to MP-416.62.

Junction switch is dual control and instructions governing operations are posted in telephone box adjacent to the switch.

After train order Form "N" has been issued to operator at Palmdale, train operating eastward to Palmdale No. 2, Palmdale-Colton cut-off, upon receipt of "calling on" signal from operator Palmdale, are authorized to proceed on main track from west switch Palmdale No. 1 to interlocking signal Junction switch Palmdale-Colton cut-off, MP-414.42.

Saugus-Newhall: Limits extend from 265 feet west of east switch of westward siding Saugus to 265 feet east of west switch of siding Newhall.

Burbank Jct.: Whistle signals:

To Mojave Subdivision, or to Los Angeles, —,
To siding, o o o o o.

RULE 663(b).

Operators at Mojave and Palmdale No. 1 may authorize movements under provisions of this rule after it has been ascertained indication lights on control panel are illuminated indicating dual control switches are in proper position and locked for movement without requiring dual control switches to be placed in hand position as required by Rule 772.

When indication lights on control panel are not illuminated movements may be authorized under provisions of this rule; however, before making a facing point or trailing point movement over dual control switches, such switches must be placed in hand position in accordance with Rule 772 and locked until movement over switch has been completed. When movement has been completed, switch must be returned to normal position and selector lever restored to motor position and locked.

RULE 705. LETTER TYPE INDICATORS. Indicators located as follows:

Illum. Letter	On Signal	Approach- ing	Authorizes and requires movement as follows
M.....	4080	Denis.....	Proceed on main track to signal 4108 east end Denis siding, and be governed by that signal for movement to junction switch.
S.....	4080	Denis.....	Enter siding Denis and remain until letter 'M' is displayed.
M.....	4119	Denis.....	Proceed on main track to west end of siding.
S.....	4119	Denis.....	Enter Denis siding.
M.....	4110	At east end Denis.....	Enter main track and proceed to junction switch.
M.....	4486	Saugus.....	Proceed on main track to east end eastward siding.

HOT BOX DETECTORS

Illum. Letter	On Signal	Approach- ing	Location of Readout
H.....	3945	Ansel.....	M.P. 389.5 Ansel
W.....	3946	Oban	
W.....	3979	Ansel	
H.....	3978	Oban.....	M.P. 400.8 Oban

SCANNER SITE

M.P.	Direction	Location
396.0.....	East and West.....	Ansel-Oban

Refer to Rule 705 All Subdivisions.

GENERAL REGULATIONS

RULE 825. Instructions for setting hand brakes:

Mojave: Through freight trains left standing without crew when consist is not to be disturbed will set hand brakes on cars in train as follows:

Ten brakes on east end and ten brakes on west end unless conductor has reached understanding that engineer will remain on engine at all times and control train by use of air brakes.

Other freight trains or cuts of cars left standing will have hand brakes set as follows:

- 25 cars or less.....10 brakes on east end
- 26 to 50 cars.....15 brakes on east end
- Over 50 cars.....20 brakes on east end

Any employe releasing any of these brakes must set an equal number to replace them.

Staff brakes must be set with the assistance of a brake club after train has stopped.

Portable rail skids are hung on posts at lower end of sidings at:

Ansel	Paris (West End)
Oban	Paris (East End)
Denis	Ravenna
Harold	Russ
	Lang
	Newhall

When necessary to leave cars on these sidings they must be left clear of the Approach Circuit Board.

Portable rail skids are hung on posts at:

- Vincent.....Team Track
- Vincent.....Setout Spur Track

When necessary to leave cars on any of these sidings permission must first be obtained from chief train dispatcher, after which rail skid must be placed on rail and leading wheel of first car in descending direction run onto the rail skid, and hand brakes set if brakes are operative, before engine is detached. Trains picking up cars from these sidings must remove rail skid and return it to proper post.

AIR BRAKE RULES

RULE 17. Retaining valves must be used on freight and mixed trains on descending grades as follows:

Vincent to Lang, Sylmar to Burbank Jct., Searles to MP-412 and Creal to Mojave.

Without Dynamic Brake in Operation:

One retaining valve for each 80 tons in train. If gross tonnage exceeds 80 tons per operative brake, retaining valves must be used on all cars and speed must not exceed 15 MPH.

With Dynamic Brake in Operation:

Permissible Tons Per Unit Without Retaining Valves*

Basic Dynamic Brake		Extended Range Dynamic Brake		
4-Axle	6-Axle	4-Axle	6-Axle	8-Axle

With Dynamic brake in operation without pressure maintaining system of braking . . . 525 625 550 950 1250

With dynamic brake in operation with pressure maintaining system of braking . . . 1500 1800 1600 2700 3600

If permissible tonnage is exceeded, one retaining valve must be used for each 150 tons of excess tonnage.

*If any unit having basic dynamic brake is operated with units having extended range dynamic brake, all units in consist must use tonnage authorized for units having basic dynamic brake.

Locomotive classes AF628, AF630, EF425, EF623, EF625, EF630, EF636, GF425 (except units 6700-6727), GF628, GF630, GF633, EF850B and GF850 are equipped with extended range dynamic brake.

FREIGHT TRAINS

RULE 22. Trainmen must not couple air hose on outgoing trains at Mojave until notified by yardmaster or his representative that train is made up. Switchmen must not perform switching on, or couple other cars to a train without instructions from the yardmaster who will see that members of crew are notified in advance.

RULE 24-B. Palmdale: Incoming engineer, after completing stop, must make a full service brake application leaving brakes applied. When outgoing crew takes charge of train on arrival or otherwise is assured, upon request, that continuity of brake pipe has not been disturbed, engineer will release brakes and proceed.

RULE 25. Will apply for eastward and westward trains stopping at Vincent and to westward trains stopping at Searles.

Eastward and westward trains not stopping at Vincent and westward trains not stopping at Searles, will make running air test by applying train air brakes with sufficient force to insure that air brakes are operating properly and to give assurance by observation of air gauge on caboose that there has been a brake pipe reduction made. After receiving this assurance, trainmen will inform engineer when brake pipe pressure is being restored.

RULE 33. Creal to Mojave, Searles to MP-412.00 and Vincent to Lang:

Maximum tonnage per operative brake . . . 80 tons, except With dynamic brake and pressure maintaining system of braking in operation with speed not exceeding 20 MPH 80 to 100 tons

Without dynamic brake in operation, maximum tonnage per operative brake Vincent to Lang is 80 tons and speed must not exceed 15 MPH Vincent to Paris and 20 MPH Paris to Lang. Retaining valves must be used as prescribed by Air Brake Rule 17.

One hundred tons per operative brake may be handled with trains of 6,000 tons or less having dynamic brake in use running at reduced speed not to exceed 20 MPH Vincent to Paris.

Should dynamic brake failure occur while handling in excess of 80 tons per operative brake train may proceed at speed not exceeding 15 MPH if in judgment of conductor and engineer it is safe to do so and provided retaining valves are used as prescribed by Air Brake Rule 17.

Restrictive grades are as follows:

Eastward			
(Station) MP	to	(Station) MP	Speed
(Ansel) 392.74		(Rosamond) 393.84	25 MPH
(Newhall) 456.25		(Sylmar) 457.69	20 MPH
(Sylmar) 458.97		(San Fernando) 461.17	25 MPH
(Pacoima) 463.97		(Sun Valley) 464.89	25 MPH
(Sun Valley) 468.22		(Burbank Jct.) 470.34	25 MPH

Westward			
(Station) MP	to	(Station) MP	Speed
(Sylmar) 454.94		(Newhall) 453.02	20 MPH
(Coso) 470.43		LONE PINE BRANCH (Inyokern) 461.53	20 MPH

PASSENGER TRAINS

RULE 39. Will apply at Vincent and Westward trains at Sylmar.

MISCELLANEOUS

10. Engines listed must not operate on tracks shown below:

Class of Engine	Restricted Tracks
All Engines	Sun Valley—Consolidated Rock tracks: Track No. 1—Beyond 150 feet west of derail 200 feet from PS No. 2515. Track No. 2—Beyond 100 feet west of PS No. 2515. Track No. 5—Beyond 400 feet from PS No. 2517 or 670 feet west of derail.
All engines	Inyokern—Must not go beyond 200 feet west of east interchange track.

Boxes, secured with switch locks, at east portal of Tunnel 25, MP-459.40 contain two knuckles, two air hoses and a wrench for emergency use.

Switches controlling lights in Tunnel 25 are located at each portal. Lights must be extinguished when not in use.

11. Load limit (car and contents):

Mojave-Burbank Jct.	263,000 pounds
Mojave-Searles	315,000 pounds
Searles-Lone Pine	251,000 pounds
Mojave-Creal	251,000 pounds
#Mojave-Burbank Jct.	315,000 pounds

#Applies to uniformly loaded four axle cars with minimum axle spacing of 6 ft. 0 in. and minimum distance of 37 ft. 0 in. center to center of trucks; also, wheels 38 in. or more in diameter.

Unless authorized by Superintendent, heavier loads must not be handled.

29. Operation between MP 449.78 Saugus, and Burbank Jct., under the jurisdiction of Los Angeles Division. Train dispatching between Saugus and Burbank Jct. is under the jurisdiction of San Joaquin Division.

Employees operating in and out of Los Angeles LAUPT are required to have a copy of, and be conversant with current book of rules of LAUPT.

30.

**LOCATION OF OVERHEAD AND SIDE STRUCTURES
NOT STANDARD CLEARANCE ON MAIN
TRACK AND SIDINGS**

MP	Location	Description
435.80	East of Russ.....	Overhead highway crossing..... Overhead
436.80	East of Russ.....	Tunnel 18..... Overhead & side
437.30	East of Russ.....	Tunnel 19..... Overhead & side
459.40	West of Sylmar.....	Tunnel 25..... Overhead & side
426.80	West of Searles.....	Tunnel 29..... Overhead

SPECIAL INSTRUCTIONS – MOJAVE SUBDIVISION

SPEED RESTRICTIONS FOR TRAINS: Maximum speed of trains in territory shown below is subject to further restrictions applicable to engines in the train as shown in **SPEED RESTRICTIONS FOR ENGINES** appearing on pages 4 and 5 and **MAXIMUM SPEED PERMITTED WITH CERTAIN EQUIPMENT AND OTHER MAXIMUM SPEEDS** appearing on page 5 of Special Instructions for All Subdivisions. Speed must be further reduced as prescribed by speed signs, except as specifically authorized by Special Instructions herein, or by timetable bulletin.

All trains must run carefully during and after heavy storms, particularly when the track is apt to be affected. When fog, storms or other conditions obscure track or signals, speed of trains must be so reduced as to permit strict observance of signals and **INSURE SAFETY, REGARDLESS OF TIME.**

TERRITORY			PASSENGER TRAINS	FREIGHT AND MIXED	TERRITORY			PASSENGER TRAINS	FREIGHT AND MIXED
MP	MP	Column:	1	2	MP	MP	Column:	1	2
EASTWARD, MOJAVE TO BURBANK JCT.:					WESTWARD, BURBANK JCT. TO MOJAVE:				
380.70 to 381.30			45	25	471.49 to 461.90			60	60
381.30 to 381.40 (through turnouts)			25	25	461.90 to 461.80 (street crossings)			60	60
381.40 to 414.76			70	60	461.80 to 458.04 (Sylmar)			60	60
414.76 to 417.36			50	50	458.04 to 457.25			40	40
417.36 to 420.00			30	25	457.25 to 456.25			30	30
420.00 to 422.00			30	25	456.25 to 454.81			25	25
422.00 to 426.33			45	25	454.81 to 453.00			40	25
426.33 to 435.19			30	25	453.00 to 448.60			40	40
435.19 to 436.74			35	25	448.60 to 448.23			30	30
436.74 to 438.17			30	25	448.23 to 446.22			45	45
438.17 to 439.41			40	35	446.22 to 442.13			30	30
439.41 to 442.13			45	35	442.13 to 439.41			45	45
442.13 to 446.22			30	30	439.41 to 438.17			40	40
446.22 to 448.23			45	35	438.17 to 436.74			30	25
448.23 to 448.60			30	30	436.74 to 435.19			35	35
448.60 to 454.81			40	40	435.19 to 426.33			30	25
454.81 to 456.25			25	25	426.33 to 422.00			45	45
456.25 to 457.25			30	25	422.00 to 420.00			30	30
457.25 to 458.94			40	25	420.00 to 414.76			30	25
458.94 to 461.80 (Sylmar)			60	35	414.76 to 381.40			70	60
461.80 to 461.90 (street crossings)			60	35	381.40 to 380.70			50	45
461.90 to 471.49 (Burbank Jct.), except thru crossover west of tower			60	45					
			35	35					
EASTWARD, MOJAVE TO LONE PINE:					WESTWARD, LONE PINE TO MOJAVE:				
380.09 to 380.47			15	15	518.00 to 428.80			30	30
380.47 to 401.00			49	49	428.80 to 428.20			15	15
401.00 to 422.00			49	49	428.20 to 412.90			30	30
422.00 to 428.20			30	30	412.90 to 401.00			49	49
428.20 to 428.80			15	15	401.00 to 380.47			49	49
428.80 to 518.00			30	30	380.47 to 380.09			15	15
EASTWARD, MOJAVE TO CREAL:					WESTWARD, CREAL TO MOJAVE:				
380.70 to 386.75			30	30				20	20
386.75 to 389.90			25	25					

Freight and mixed trains containing no restricted cars are authorized to operate at Column 1 speeds not exceeding 60 MPH provided trains do not exceed:

Number of Cars	Tons Per Operative Brake	Number of Cars	Tons Per Operative Brake
70	70	110	62
75	69	115	61
80	68	120	60
85	67	125	58
90	66	130	56
95	65	135	54
100	64	140	52
105	63	145	50

except as follows:

EASTWARD	
MP-381.40 to MP-414.21	65 MPH
MP-420.50 to MP-426.33	25 MPH
WESTWARD	
MP-420.50 to MP-417.36	25 MPH
MP-417.36 to MP-414.21	45 MPH
MP-414.21 to MP-381.40	65 MPH

SPEED RESTRICTIONS FOR OTHER THAN MAIN TRACKS

	With Caution Not Exceeding MPH
Through yard and other tracks, wyes, balloon tracks, crossovers and turnouts except:	10
Through sidings Ansel, Oban and Denis, except:	30
Through turnouts these sidings:	25
Through all other sidings, except:	20
Through turnout at east end Ravenna and through sidings and turnouts Saugus, Newhall, San Fernando, Pacoima, Sun Valley and Burbank Jct.	15
Through turnouts on other than sidings	10
On branches	10

On Lone Pine Branch between MP-428.87 and MP-493.51, maximum speed of trains as shown below must not be exceeded when handled by following engines, subject to further restrictions shown in Speed Restrictions for Trains table above:

BS 615	25 MPH
AS 409, 410	25 MPH
EF 415A, EP 415A, EF 418	20 MPH
ES 410, FS 412	20 MPH
EF 415B, EP 415B	15 MPH

