

RULE 10-I

Oral authorization and acknowledgments between Foremen and Engineers for trains to pass "Red Conditional Stop" signs must be worded in the following forms:

Foreman's Response

"THIS IS S.P. FOREMAN IN CHARGE OF THE WORK BETWEEN MP ____ AND MP ____ S.P. TRAIN ORDER NO. ____ . WE ARE IN THE CLEAR AND YOU MAY PROCEED PAST THE RED CONDITIONAL STOP SIGN AND THROUGH THE LIMITS OF THE ORDER AT ____ M.P.H."

Engineer's Response

"THIS IS ENGINEER S.P. TRAIN ____ . I MAY PROCEED PAST THE RED CONDITIONAL STOP SIGN AND THROUGH THE LIMITS OF ORDER NO. ____ BETWEEN MP ____ AND MP ____ AT (Speed). REPEAT (Speed) MILES PER HOUR."

FOREMAN MUST ACKNOWLEDGE ENGINEER'S RESPONSE AS FOLLOWS:
S.P. TRAIN NO. ____ OK ON ORDER NO. ____ M.P.H

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"	76.9	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



WESTERN DIVISION SPECIAL INSTRUCTIONS

No. 2

EFFECTIVE SUNDAY, APRIL 24, 1966
AT 12:01 A.M.,
PACIFIC STANDARD TIME

THESE INSTRUCTIONS CONSTITUTE A PART
OF THE TIMETABLE CURRENTLY IN EFFECT

M. A. McINTYRE,
General Manager.

R. D. SPENCE,
S. B. BURTON,
Assistant General Managers.

J. P. GRIFFIN,
General Superintendent of
Transportation.

J. J. WILLIS
Superintendent of Transportation.

R. L. KING,
Superintendent.

SOUTHERN PACIFIC MEMORIAL HOSPITAL, INC.

Table with 6 columns: LOCATION, NAME, TITLE, LOCATION, NAME, TITLE. Lists medical staff across various locations like San Francisco, Oakland, Berkeley, etc.

NOTE.—Emergency Surgeons should only be summoned for temporary treatment when prompt attention is required and when patients cannot be sent to, or await arrival of, Division or District Surgeon.

HOSPITALS

Table listing hospital locations: GENERAL HOSPITAL SAN FRANCISCO, EMERGENCY HOSPITAL SACRAMENTO, EMERGENCY HOSPITAL WEST OAKLAND.

WATCH INSPECTORS

Table listing watch inspectors and their locations, including K. I. Dunlap, Mgr. of Time Service, and various jewelers and watchmakers.

RULE A. Employes must have copy of Rules and Regulations of the Transportation Department effective July 1, 1960, with page revisions as listed on page 1 revised April 1, 1961.

RULE M. Employes are warned that it is dangerous to ride on top or side of cars while passing points where impaired clearance exists, and that they must protect themselves from injury. See list of impaired clearances on main track and siding.

There are numerous other structures with impaired clearance on yard and station tracks on the division, and employes must be familiar with their location and avoid personal injury.

Employes are prohibited from riding or walking on the roof of any moving car.

(Exception: Employes may ride on the roof of cars when necessary during switching operations, but must not cross from the roof of one car to another while in motion.)

RULE 1. Form prescribed for recording variations of standard clock with time signal has been discontinued.

RULE 7-B. Yardmen must use green flag by day and green light by night in giving proceed signals for movement of trains and engines entering or leaving yard tracks and for movement of engines on engine tracks San Francisco, Bayshore, San Jose, Watsonville Jct., San Luis Obispo, and Oakland, except trains departing in either direction from main tracks 1 and 2 will be governed by signal indication.

RULE 10-H and RULE 15. On all Branch Lines, yellow signals will be displayed one-half mile instead of two miles from point of restriction and when a torpedo is exploded in the vicinity of a yellow signal in accordance with Rule 10-H, the train must proceed expecting to find an unattended red signal that may be displayed one-half mile beyond the torpedo and yellow signal.

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-H, first paragraph, is revised to read: "When a yellow signal is required it will be displayed to the right of track in direction of approach, two miles from structure or track over which speed of trains must be restricted. Where two or more main tracks are affected the signal will be displayed for each track the same as if it were a single track."

RULE 10-H, third paragraph, is revised to read: "Where yellow signals are displayed within limits of a length of track over which a maximum speed is designated in train order or timetable bulletin and no maximum speed is otherwise specified for the particular section of track protected by these yellow signals, trains must not exceed restricted speed thereover. When yellow signals are displayed, and the speed is not specified by train order or timetable bulletin, trains must proceed expecting to find unattended red signal that may be displayed two miles beyond the yellow signal."

RULE 10-I, first paragraph, is revised to read: "When Form Y train order is in effect an unattended red sign reading 'CONDITIONAL STOP' will be displayed 1,000 feet in advance of where main track is obstructed or impassable. Trains must approach prepared to stop short of this sign unless the engineer is orally authorized to proceed beyond the stop sign by foreman in charge of work or a proceed signal with a green flag or light is received. A yellow sign reading 'PROCEED PREPARED TO STOP' will be displayed two miles in advance of the red sign."

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

RULE 15, first paragraph, is revised to read: "The explosion of a torpedo is a signal to proceed with caution for two miles."

RULE 15, second paragraph, is revised to read: "When a torpedo is exploded in 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 two miles beyond the torpedo and yellow signal."

RULE 16(e), is cancelled.

RULE 16(k), when standing—apply or release air brakes.

RULE 19. Last sentence of Item (5) is cancelled.

RULE 26. On diesel fueling tracks at West Oakland diesel shop, Tracy diesel track, Third St. Station, San Francisco, San Jose passenger station and Watsonville, 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.

RULE 84. Passenger trains making station stop where rear end of train cannot be seen from the head end due to curvature of track, foggy or stormy weather, engineer will recall flagman from the rear as prescribed by Rule 14(d) or 14(e), as the case may be. When all passengers on rear of train have been loaded, flagman will sound signal 16(k) which will be answered by the engineer with signal 14(g). Train will not proceed until signal is given by trainman on head end of train.

RULE 98. Cars must not be kicked, dropped or shoved over railroad crossings not protected by interlocking, unless movement is protected.

RULE 102. Should a passenger train break-in-two, or an emergency application of brakes occur while in motion on the grade between Santa Margarita and San Luis Obispo, or between Santa Cruz and Felton, forward brakeman will immediately go toward rear, close angle cock at opening if train has parted, set hand brakes and turn up retaining valves on detached portion. After train is coupled air must be applied from engine before hand brakes and retaining valves are released.

If necessary to leave detached portion on main track, rear truck of detached portion ascending grade, or leading truck of detached portion descending grade, must be chained to rail in such manner as to derail car should there be an uncontrolled movement.

RULE 105. Sidings designated "E" in Capacity of Sidings column are assigned for use by eastward trains; those designated "W" are assigned for use by westward trains. Those designated "M" for middle, may be used by trains in either direction. Those designated "N," "S," "1," "2" or "3" are assigned for use by trains as shown in special instructions for the subdivision on which located.

Capacity of Sidings column indicates the number of cars of average length of 49 feet that siding will hold between fouling points, in addition to one engine and caboose.

When length of train and/or capacity of siding permits, trains taking siding after clearing main track will provide not less than 400 additional feet clearance to fouling points.

RULE 107. Freight trains and engines must avoid passing between stations and loading tracks when passenger trains are closely approaching from opposite direction on double track, and care must be exercised by non-stopping passenger trains when approaching stations at about the same time that other passenger trains are approaching from the opposite direction. When practicable non-stopping trains are to be given preference, but each train must be operated in a manner to avoid confusion and hazard of personal injury.

RULE 220-A is revised as follows: "Train orders relating to track conditions and Form Y train orders, unless annulled, must be respected by conductor and engineer on all trips made during the tour of duty on which such orders are received."

"Other train orders received by a train may be made applicable to an additional trip by issuance of an order reading "RESPECT ORDER NO. . . .," or adding these words to the order creating the train for the additional trip."

FORMS OF TRAIN ORDERS. Form G, last paragraph is revised as follows:

"When an order, Form G, is fulfilled or annulled, other forms of orders held by the extra so created, except Forms K, V, Y, and train orders relating to track conditions, are also made void."

RULE 283. Movements governed by semaphore type diverging route signals displaying "Proceed on Diverging Route," Figs. A and B, must be made with caution.

RULES 281 and 285. Movements against the current of traffic, or to non-signaled track, governed by semaphore type dwarf signals displaying "proceed," Fig. E, Rule 281; or by light type signals displaying "Proceed not Exceeding Medium Speed," Figs. D or G, Rule 285, must be made with caution.

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 pilot 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. 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 SWITCH LOCKS

Where electric switch locks are installed, lock box door must not be opened if movement is to be made into a track leading from main track until engine or car is standing within 150 feet of the switch; or if movement is to be made from such track, or through a crossover to a main track, until block indicator indicates block clear on opposite track. Within CTC limits train dispatcher's permission must also be obtained before lock box door is opened.

After lock box door is opened lock lever cannot be moved to opposite position to release switch for hand throwing until indicator in lock box indicates "unlocked".

Lock lever must not be returned to locked position until all movements over the switch are completed, switch returned to normal position and locked, after which lock box door must be closed and locked. Within CTC limits train dispatcher must also be notified by telephone when completed.

When block indicators indicate "block occupied," instructions posted inside lock box for operation of push button to start time-release must be complied with if movement is to be made to main track while approach circuit is occupied by another train, in addition to providing flag protection when necessary.

Low type electric locks, such as are applied direct to lever of hub type switch stands, function as above except that the removal of the switch lock has the same effect as opening the lock box door. Instead of being equipped with an "unlocked" indicator, these locks have a pilot light that indicates by illumination when the lock is unlocked.

When pilot light will not illuminate to indicate electric lock is unlocked, push button on adjacent cast iron box, protected with cover and locked with switch lock, should be depressed to illuminate green light. After a time interval of from one to seven minutes pilot light on electric lock will be illuminated, indicating lock is unlocked.

Emergency lock release to be used only in case of electrical or mechanical failure, as indicated by failure of time-release to function after several minutes. When necessary to break seal on emergency lock release, train dispatcher must be notified immediately, and movement made only after flag protection provided on both tracks.

MECHANICAL SWITCH LOCKS

Lock box door must not be opened unless block indicators indicate block clear in both directions.

After lock box door is opened lock lever may be moved upward against stop. After a time interval of from one to seven

minutes indicator will show UNLOCKED and lever may be moved to reverse position "R". Switch may then be operated in usual manner.

Lock lever must not be returned to normal position "N" until all movements over the switch are completed, switch returned to normal position and locked.

Emergency lock release to be used only in case of mechanical failure, as indicated by failure of time release to function after several minutes. When necessary to break seal on emergency release, train dispatcher must be notified immediately and movement made only after necessary flag protection is provided.

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.

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). (INTERLOCKING)

Signal Operator at
TRACY SAN JOSE
FRUITVALE MARTINEZ
NILES DAVIS
NEWARK BAYSHORE

Signal operator (or dispatcher where applicable) 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.

CENTRALIZED TRAFFIC CONTROL

RULE 765. Hand operated switches within A-PB or CTC limits must not be operated without permission from train dispatcher and where main track hand operated switches are not equipped with electric or mechanical switch locks and maximum authorized speed is in excess of 20 MPH, trains and engines using such switches must occupy main track continuously or leave main track switch open while work is being performed. Such tracks must not be used by trains or engines for the meeting or passing of trains.

RULE 769. Certain main track hand operated switches to station tracks and spur tracks are equipped with electric switch locks, and train dispatcher's permission must be obtained before door on high type electric lock is opened or switch padlock removed from keeper of low type electric switch lock. Instructions for operation of electric switch locks are posted in telephone booths or inside of electric lock boxes.

RULE 776. Trains authorized by train dispatcher to pass absolute signal displaying stop indication and to proceed at restricted speed under provisions of this rule, may resume normal speed after rear of train passes next block signal displaying green aspect.

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 808. In case of grade crossing accident, it is permissible for crew members on request of law enforcement officers to furnish their names, occupations and addresses, identification of the train; confirmation that the whistle, bell and headlight or headlights were operating; and direction of the vehicle. Signed statements are not to be given. Should police officers desire any additional information, they should be courteously referred to Claims Department representative.

RULE 836. When necessary to shove cars ahead of engine between stations on descending grade, cars must be chained to the engine unless air brakes are operative on all cars and air cut in.

RULE 872. Enginemen taking charge of engines at West Oakland Diesel Shop, Tracy, 7th St. Diesel Terminal, Bayshore, San Jose, Watsonville Junction and San Luis Obispo, will consider engines as having been amply supplied with water, fuel, sand, prescribed signals, tools, supplies and flagging equipment in serviceable condition.

RULE 873. Sanders must not be operated between absolute or interlocking signals governing movements over dual control, power operated or spring switches.

AIR BRAKE RULES

RULE 2-B. FREIGHT TRAINS.

Dynamic brake on head end of freight trains must not exceed four 6-axle units, six 4-axle units or any combination of both which totals 24-axles of dynamic braking except, dynamic brake on EF415A, EP415A, EF415B and EP415B classes is limited to five units.

RULE 2-C. Enginemen must assure themselves that safety control valve (deadman control) is fully cut in when handling cars with train brakes cut in.

RULE 3. Standard brake pipe pressure for freight and mixed trains is 90-lbs.

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 14. When dynamic brakes are used on both road and helper locomotives, while moving on descending grades, additional tonnage on the same ration per unit as specified for road locomotives may be handled without retaining valves.

RULE 17. If at any time in engineer's judgement retaining valves are required on any train, stop will be made and retaining valves turned up in accordance with his directions.

RULE 22. Trainmen must not couple air hose on outgoing trains at Ozol, Tracy and San Luis Obispo until train is made up and caboose and road engine are on train. Coupling caboose and road engine to train will be considered as an indication that train is made up and switchmen have completed their work. Switchmen must not perform switching on or couple other cars to a train on which the road engine and caboose have been attached without instructions from the yardmaster, who will see that members of the crew are notified in advance.

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

SP 345000 — 345669	Gondolas
SP 463500 — 463999	Hoppers (open top)
SP 467500 — 467549	Hoppers (open top)
SP 491000 — 491059	Hoppers (covered)
SP 492000 — 492039	Hoppers (covered)
SP 500604	Flat Car

Before leaving a station or point where such cars have been added to the consist, engineer must actuate the automatic change-over feature by reducing brake pipe pressure to below 20 pounds whether cars are loaded or empty.

RULE 24-B. San Luis Obispo, Watsonville Jct., San Jose, Oakland, Davis and Tracy: When engine crew is changed, but consist remains intact, incoming engineer after completing stop will make full service brake application leaving brakes applied. Outgoing engineer will release brakes and proceed without making prescribed test.

RULE 33. When gross tonnage of freight train handling cars with single capacity brakes exceeds 80 tons per operative brake, maximum speed of train must not exceed 45 MPH.

RULE 38-A. Will not apply at Sacramento except incoming engineer after completing stop will make a full service brake application, leaving brakes applied. Running test in compliance with Rule 39 must be made as soon as speed permits after train departs terminal.

MISCELLANEOUS

1. Helper service:

(a) When helper engine is placed behind caboose, not more than 4 operating units or 8000 operative horsepower will be used.

(b) Helper engines consisting of not more than four units may be placed immediately ahead of caboose.

Air will be cut in on all helper engines, and engine must not be cut off when train is in motion.

2. Unless otherwise authorized, trains handling passenger cars with flat spots on wheels in excess of 3¼ inches in length must not exceed 10 MPH. When flat spots are not in excess of 3¼ inches long such cars may be operated at maximum authorized speeds.

3. Should a passenger train be stopped in a tunnel, air conditioned cars within the tunnel must immediately have the air conditioning systems, including ice engines and engine generators, shut off, fresh air intake shutters closed, and blower fans shut off.

Should a train be stopped with the engine in a tunnel and it is found that, in the case of a passenger train it cannot be moved within five minutes after stopping, and in case of a freight train it cannot be moved within a reasonable length of time, trainmen and enginemen must take necessary precautions to prevent movement. Independent brake and sufficient hand brakes must be immediately applied. Engine wheels must be secured by blocks and chains, and power plants and steam generators, if any, on engine shut down.

4. F and P class engines operated with engineer in other than the lead unit in direction of movement, must not exceed 20 MPH when approaching highway or street crossings at grade, subject to further restriction imposed by local conditions.

5. **SPEED RESTRICTIONS FOR ENGINES AND TABLE OF COMPARISON:** Maximum speed shown in the table on the following page is subject to further restrictions applicable to certain territories as shown in Speed Restrictions for Trains. Engines are being reclassified and renumbered, to extent shown in table. The table also indicates the relationship of old number series and nominal classifications to revised number and classifications. Table is to be used to resolve applicability of references to engines with current instructions, restrictions and authorities.

Engines handled dead must not exceed speed shown in table, except GS-404 restricted to 30 MPH.

New 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.

SPECIAL INSTRUCTIONS—ALL SUBDIVISIONS

MAXIMUM SPEED FOR ENGINES AND TABLE OF COMPARISON

OLD NOMINAL CLASS	NEW NOMINAL CLASS	OLD ENGINE NUMBER SERIES	NEW ENGINE NUMBER SERIES	MAXIMUM SPEED
DP-6, 8-11	AP620A	6011, 6015, 6020-6045.....	(Same)	#79
DP-4	EP620A	6000-6004, 6017.....	(Same)	#79
DP-7	EP623A	6018.....	(Same)	#79
DP-12	EP624A	6046-6054.....	(Same)	#79
DP-6	AP620B	5921, 5924.....	(Same)	79
DP-3, 4	EP620B	5900-5917.....	(Same)	79
DF-500, 501	FP624	4800-4815.....	3020-3035.....	#70
DS-201, 204, 205	GS404	3, 4, 1652.....	(Same)	35
DS-1, 4, 5	ES406	1000-1016.....	(Same)	45
DS-8	AS407	1023-1032.....	(Same)	60
DS-600, 602-604	ES408	4600-4623, 12-16.....	1100-1128.....	#65
DS-601	ES408B	4700-4703.....	1150-1153.....	65
DS-605, 606	ES409	4624-4633.....	1170-1179.....	#65
DS-9-12	AS409	1033-1090.....	1200-1257.....	60
DS-607	AS409	4634-4645.....	1270-1281.....	#60
DS-100, 104-105, 111, 115, 119	AS410	32-71, 89-104, 1300, 1330-1370, 1386-1392, 1426-1440, 1464-1485, 1514-1528, 1551-1567.....	1700-1845.....	60
DS-103, 106-108	BS410	1327, 1372-1382, 1393-1402, SSW1022-1027.....	SSW1850-1854; 1855-1869.....	60
DS-101	ES410	1310-1319.....	1904-1913.....	60
DS-109	ES410	72-88, 1403-1425, SSW1050-1053.....	SSW1900-1903; 1914-1953.....	65
DS-110, 112, 114, 118	BS412	105-107, 121-122, 1442-1463, 1492-1513, 1539-1550.....	2100-2157.....	60
DS-123-126, 400-402	ES412	108-118, 123-127, 1597-1623, SSW1054-1073.....	{SSW2200-2207, SSW2250-2261; 2208-2223, 2262-2288. 2350-2394.....	#65
DS-113, 117, 120-122	FS412	1486-1491, 1529-1538, 1568-1596.....	(Same)	#60
DS-500-506	GS407	5100-5120.....	(Same)	#55
DF-1-13, 15	EF415A EP415A	351-379, 6138-6470, SSW925-975 odd nos. only, except:..... with 61:16 gear ratio trucks..... with 60:17 gear ratio trucks.....	(Same) (Same)	#70 #75 #79
DF-1-13, 15	EF415B EP415B	535-551, 8022-8303, SSW926-958 even nos. only, except:..... with 61:16 gear ratio trucks..... with 60:17 gear ratio trucks.....	(Same)	70 75 79
DF-14	EF418A	600-637.....	(Same)	#70
DF-14	EF418B	700-725.....	(Same)	70
DF-627	EF415	SSW304.....	(Same)	#70
DF-100	BS615	5200-5202.....	(Same)	#65
DF-101-107, 300-301	BS615	187-190, 5205-5222, 5224-5226, 5243, 5245.....	(Same)	#35
DF-105	BS615B	4900.....	(Same)	35
DF-114, 117	ES615	5279-5293, 5309-5315, except:..... with 65:12 gear ratio trucks.....	2700-2714, 2716-2722.....	#65 #55
DF-116, 118	ES615	5308, 5316-5335.....	2715, 2723-2742.....	#70
DF-104	BS616	177-184, 5223, 5228-5278.....	(Same)	#35
DF-110, 111	BS616B	4901-4905.....	(Same)	35
DF-628-631	AS416	SSW308-314, SSW350-360.....	SSW2800-2816.....	#65
DF-115, 119, 123, 126	AS616	155-176, 185-186, 5448, 5494-5507, SSW270-272.....	SSW2888-2890; 2850-2887.....	#70
DF-120-122, 124-126	EF618	5339-5371, 5372-5444, 5449-5493..... 240-249, 400-453, SSW820-831, 5604-5621, 5626-5719, 5730-5844, 5872-5893, except:..... with 60:16 gear ratio trucks.....	3800-3830, 3850-3966..... 3400-3640..... SSW3641-3652; 3653-3727.....	#70 #75 #70
DF-600-602, 604-607, 611-612, 616	EF418	5600-5603, 5622-5625, 5894-5895.....	3000-3009.....	#79
DF-602-603, 606	EP418	5720-5729, 5845-5871.....	2900-2936.....	#70
DF-608-610, 613-615	AS418	7000-7020.....	2950-2970.....	#65
DF-127	AS618	7300-7309.....	4000-4009.....	#75
DF-618	AF420	7200-7237, SSW800-819.....	SSW4030-4049; 4050-4087.....	#75
DF-617, 620	EF420	7400-7407, SSW750-759.....	SSW5000-5009; 5010-5017.....	#75
DF-621	EF423	250-252, SSW850-859.....	SSW5150-5159; 5160-5162.....	#70
DF-502	AF624	7408-7484, 7700-7784, SSW760-779.....	SSW6500-6519; 6520-6681.....	#75
DF-623-626	EF425	4816-4844.....	6900-6928.....	#75
DF-503	EF625	7500-7567.....	6700-6767.....	#75
DF-619, 622, 624	GF425	4845-4873.....	7100-7128.....	#75
DF-504, 505	AF628	9000-9002, 9021-9023.....	9100-9105.....	#70
DF-800	KF636A	9003-9017.....	9106-9120.....	#70
DF-801	KF636	9018-9020.....	9150-9152.....	#75
DF-802	AF640	8400-8402.....	9500-9502.....	75
DF-700	EF850B	8500-8502.....	9500-9552.....	#75
DF-701	GF850A	10.....	(Same)	#79
RDC	RDC			35
Any engine not listed, except:				#65
SP&S Ry DE Units No. 60 to 84, 90 to 98, 150 to 155, 200 to 213, 850 to 869, 300 to 306, 310 to 317.....				#65
WP RR D-239, 701 to 713, 725 to 732, 801-A, 801-D, 802-A, 913 to 924.....				#65
GN Ry GP-7, GP-9, RS-5, A-F-A, A-F-B, SD-9, SW-7, RS-4.....				#65

#When on head end of train or running light and engineer is in other than a leading control cab in direction of movement, must not exceed 30 MPH.

##When operated in multiple unit control on head end of train or running light and engineer is in other than lead unit in direction of movement, must not exceed 30 MPH.

SPECIAL INSTRUCTIONS—ALL SUBDIVISIONS

Maximum speed of trains handling dead diesel engines must not exceed the speed shown for same engine running forward light, except GS404 class must have traction motor brushes removed and speed restricted to 30 MPH.

Dead diesel engines hauled in train and weighing 100,000 pounds or more must be placed first behind engine handling the train. If weight is less than 100,000 pounds dead diesel engines must be placed near rear of train.

Dead or disabled engines, which require 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 is to be moved and location in train in which it is to be placed. Any such engine must not be handled in train until train order designating maximum speed is issued.

Movement of foreign line engines, in service or dead in train, must not be authorized until provisions of current Line Clearance Circular have been complied with.

SNRY engines will not exceed speed restrictions for engines shown in SNRY timetable and maximum speed is subject to further restrictions applicable to certain territories as shown in speed restrictions for trains.

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.....	40	30
except SPMW-2024.....	65	49
Cars with arch bar trucks.....	40	30
Steel pile drivers, except:.....	40*	30*
SPMW 4088 and 5479.....	45*	35*
(locomotive crane pile drivers)		
Relief outfits with steam derrick, except:.....	45*	25*
Nos. 7000 and 7010 on San Ramon Branch..	..	10
Nos. 7000 and 7010 must not operate between Larkmead and Calistoga on Calistoga Branch.		
7007-7033-7034.....	35*	25*
Nos. 7014 and 7025 must not operate on any branch except Schellville Branch; Calistoga Branch between Napa Jct. and Napa River bridge 69.62 at Napa; and on Valjejo Branch between Napa Jct. and MP 68.40.		
Vasona Branch and between Castroville and Monterey.		
Locomotive cranes:		
With boom disconnected, heavy end forward, except SPMW-4020, 743 and 4049.....	45	25*
With boom disconnected, light end forward	35*	25*
With boom in place, either end forward....	20*	15
Rotary snow plows:	25*	15
Steam.....	25	15
Electrified.....	35	15

All SPMW cars are restricted to movement in work trains or freight trains not exceeding 20 cars except:

- (1) Assigned SPMW mounted on wheel cars.
 - (2) Assigned specially equipped SPMW engine cars.
 - (3) All SPMW snow fighting equipment including spreaders, flangers, rotaries, etc.
 - (4) Relief outfits and SPMW cars specifically assigned for relief outfit operations.
 - (5) Rail detector cars including dormitory and crew cars.
 - (6) Ribbon rail cars.
 - (7) K&J Major and Western SPMW air dump cars.
 - (8) SPMW rail welding equipment cars.
 - (9) SPMW rail pusher cars.
 - (10) Dynamometer cars.
 - (11) Scale test cars.
- Cars SPMW 598, 4480, 5885, 6215, 6216, 6219, 6256, 6257, 6258, 646, 4520, 1572, 6217, 6218 assigned to rail service are also exempt from blanket restrictions.
- Cars SPMW 4088, 5476, 4492, 1082 SP 541729, 118024, SPMW 4449, 4495, 5479, 4566, 1322, 5499 and 5497 also exempt from blanket restrictions.

*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.

SPMW 4088, Crane Pile Driver restricted to 45 MPH and must be placed on rear of train.

SPMW 5479, 5499 and 5497 are restricted to 45 MPH.

OTHER MAXIMUM SPEEDS	MPH PASSENGER 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 running forward light.		
Logs loaded on flat or logging cars, except:...	..	35
On curves.....	..	25
Through truss bridges, tunnels and passing stations.....	..	15
Engine, flanger and caboose only, except:.....	..	40
On curves.....	..	30

Maximum speed of trains handling open top loads of petroleum coke is restricted to 40 MPH in territories where maximum authorized speed is in excess of 40 MPH.

When necessary to handle other shipments, including those in closed cars, such traffic will be entrained ahead of open top shipments of petroleum coke.

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.

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. Unless proceed signal received, or it is known that warning devices are operating, such trains and engines must stop approaching road crossings where automatic warning devices are installed, and may proceed after member of crew protects crossing.

Public Utilities Commission of California Decision No. 66278 effective Nov. 5, 1963, provides blanket authorization for movement of high-cube box cars over the following routes in the State of California:

Between Bakersfield and Melrose via Goshen Junction, Fresno, Los Banos

High-cube box cars that move via the above routes, under this blanket authorization as well as high-cube box cars handled over other parts of our line within the State of California under special authorizations obtained from the Calif. Public Utilities Commission may be handled only under the following conditions:

1. If train length permits, such cars shall be trained at least five cars distant from caboose.
2. The crew of each train containing freight cars herein authorized to be operated shall be informed by an appropriate train order that the consist of the train includes freight cars of such excess height and that members of the train crew are forbidden to ride on top of any such cars.
3. Any yard crew required to handle freight cars herein authorized to be operated shall be notified by its supervising officials of the presence of such cars in said yard.
4. Instructions to be issued to all road and yard crews forbidding them to ride on the tops of the cars herein authorized to be operated.

Advance notice must be furnished by Superintendents to connecting divisions advising them of movements of such cars in order that the above requirements may be complied with.

SPECIAL INSTRUCTIONS—SAN FRANCISCO SUBDIVISION

RULES 10-H and 10-J. Between San Francisco and San Jose, speed signs may be displayed on a post below a yellow signal to indicate the maximum speed permitted two miles beyond the yellow signal.

When speed signs are so displayed and the maximum speed indicated by the speed sign is in excess of that permitted by train order or timetable bulletin be governed by the train order or timetable bulletin.

A green metal sign at the limit of the restriction will be displayed in accordance with Rule 10-H.

RULE 10-J. Westward speed sign reading 60-40 at MP 9.10 located on signal bridge one mile instead of three-fourths mile from restriction.

Westward speed sign at MP 45.86 reading 60-55 is to right of track with two tracks intervening.

Westward speed sign at MP 93.90 reading "Spring Switch 25" is 0.93 mile instead of three-fourths mile from restriction.

Speed signs to left of track:

Table with 2 columns: Westward, Reading. Rows: MP 45.91 (25), MP 92.97 (35)

RULE 14(l). Trains approaching Logan between 6:00 AM and 3:00 PM must sound whistle to warn carmen who may be working next to main track.

RULE 14(m). That portion requiring whistle to be sounded one mile before reaching stations will not apply between San Francisco and San Jose.

RULE 21-C. Engines of passenger trains may display indicators between Seventh St. engine storage track and Third St. station, San Francisco; and from San Jose passenger station to roundhouse but must be removed immediately on arrival at roundhouse.

Watsonville Jct.: Engines may display indicators from train yard to roundhouse and from roundhouse to train yard.

RULE 26. At Third St. Station, San Francisco, and at San Jose passenger station, blue sign may be displayed on either side of engine cab.

RULE 82-A. Trains originating Sunnyvale must obtain a clearance before departing, when operator on duty.

Freight trains turning at Redwood Jct. must obtain clearance before leaving Redwood Jct.

Westward trains, except those having received clearance at San Jose, must obtain clearance at Santa Clara.

Westward extra trains originating San Jose Yard will obtain clearance at Santa Clara.

Trains destined San Jose Yard need not obtain clearance at San Jose.

Nos. 98, 126, 372, 374 and 76 must obtain clearance at San Jose.

RULE 83. Identification may be made at San Jose, or between Lick and Coyote; Corporal and Gilroy; 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.

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

Table listing stations: Bayshore, Sunnyvale, Redwood City, Santa Clara, San Jose, Gilroy. Describes train types: Trains originating or terminating at San Jose Yard, All trains except third class and extras which originate or terminate at San Jose Yard, Trains originating or terminating.

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

Table listing stations: Bayshore, Redwood Jct., Santa Clara, San Jose, Watsonville Jct. with train numbers and descriptions: Trains originating or terminating, Trains to or from Niles Subdivision, Nos. 371, No. 373 and trains terminating at San Jose Yard, Nos. 98, 372, 126, 374, 76, 371, 373, 75, 141, 99, and westward trains terminating San Jose, Nos. 98, 372, 126, 374, 76, 371, 373, 75, 141 and 99.

RULE 93. First class trains enter and leave San Francisco passenger station on yard tracks within Fourth St. interlocking limits.

First class trains enter and leave San Jose passenger station on yard tracks between MP 45.91 and MP 47.29.

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

Table with 2 columns: West MP, East MP. Lists stations from West to East: San Francisco, Redwood Jct., San Jose, Gilroy, Watsonville Jct. with mileposts.

Watsonville Jct.: Eastward freight trains, except Nos. 372 and 374 must not pass Signal 984 unless proceed signal received from yardman, green flag by day, green light by night.

Westward freight trains, except Nos. 371 and 373 must not pass Signal 1001 unless proceed signal received from yardman, green flag by day, green light by night.

RULE D-97-A. Will apply between San Francisco and San Jose; between Lick and Coyote; between Gilroy and Corporal; and between Logan and Watsonville Jct.

RULE 98. Ninth and Division Streets—San Francisco: WPRR crossing of SP tracks is not protected by interlocking. Trains and engines must stop before crossing WPRR and not proceed over crossing until it has been ascertained there are no trains or engines closely approaching the crossing from either direction. SP trains and engines have precedence over WPRR trains and engines when using this crossing.

SAN JOSE: WPRR crossing of the SP tracks on the Vasona Branch at San Jose is not protected by automatic interlocking. Trains and engines must STOP before crossing WPRR and not proceed over crossing until it has been ascertained there are no trains or engines closely approaching the crossing from either direction. SP trains and engines have precedence over WPRR trains and engines when using this crossing.

"STOP" signs installed on WPRR and SP tracks in approach to this crossing.

Sign reading "RAILROAD CROSSING 2000 FT." is located at MP 47.4 for westward trains and sign reading: "RAILROAD CROSSING 2400 FT." is located at MP 48.6 for eastward trains.

American Can Spur at Western Pacific 5th Street Lead:

All movements must be stopped short of crossing and not proceed until member of crew has ascertained that there is no approaching movement on conflicting route. Western Pacific Railroad movement has precedence.

SPECIAL INSTRUCTIONS—SAN FRANCISCO SUBDIVISION

Western Pacific Railroad Company switching lead crossing at Western Pacific-Southern Pacific Joint Drill Track, South Seventh Street, San Jose:

All movements must be stopped within 50 feet of crossing and not proceed until member of crew has ascertained that there is no approaching movement on conflicting route. Movements on Western Pacific-Southern Pacific Joint Drill have precedence.

RULE 99. Granite Rock Co. will do switching at Logan. When necessary for SP crews to enter tracks jointly operated they must provide adequate protection to avoid collision.

RULE 99-C. Will apply on Vasona and Hollister.

RULE 103-A. Automatic crossing gates: Following crossings protected by gates that will operate for against current of traffic movements but such movements must not exceed 25 MPH approaching these crossings:

Table with 3 columns: Station, Location, Mile Post. Lists crossings from San Francisco to Sunnyvale with mileposts.

Table with 3 columns: Station, Location, Mile Post. Lists crossings from College Park to West of Eaton with mileposts.

**May be operated for eastward movements from house track by operating key release on side of instrument case. Switch key may be removed but circuit must be occupied within one minute or gates will rise.

Following crossings protected by gates, with control circuits located within short distance of crossings.

Crews of trains or engines making stop, reverse movements, movements against current of traffic or movements from yard tracks over crossings, must know gates are down before entering crossings.

Table with 3 columns: Station, Location, Mile Post. Lists crossing at Gilroy: Leavesly Rd. 79.6

At the following stations there are crossings protected by gates which are not actuated when trains are stopping at station to receive or discharge traffic until train starts to move toward crossing, and speed of 10 MPH must not be exceeded until gates are down:

Table with 4 columns: Station, Location, Direction, Mile Post. Lists crossings from So. San Francisco to Sunnyvale with directions and mileposts.

*Equipped with unit for display of flashing white light. Display of flashing white light indicates gates are down. Trains or engines approaching these crossings after making station stop, entering main track from spurs or station tracks or moving at reduced speed must not enter crossing until flashing white light is displayed or it is known gates are down.

**Sound detector microphone located adjacent to track just west of Grand Avenue for eastward movement. Trains stopped at station to receive or discharge traffic must sound whistle to actuate gates.

**Sound detector microphones are located adjacent to the track. Trains stopped to receive or discharge traffic must sound whistle to actuate gates and crossing must not be entered until gates are down, as indicated by flashing white light.

Locations at which trains must stop to avoid unnecessary operation at crossing gates while trains are switching or receiving and discharging traffic:

Table with 3 columns: Station, Location, Direction. Lists various stations like South San Francisco, Burlingame, Belmont, etc., with their locations and directions.

†Applies only to trains loading or unloading mail baggage and express.

**Applies to trains switching Harbor spur when necessary to leave part of train east of Harbor Blvd.

***Applies to trains switching house track when necessary to leave part of train west of Holly St.

At crossings protected by gates, wigwags or other automatic warning devices controlling circuits on tracks other than main tracks, generally, are not actuated except when trains or engines are within short distances of or on the crossing.

Public Utilities Commission orders require that trains and engines must stop, and member of crew must protect traffic on the following street or highway crossings before movement is made:

- Millbrae—Crossing Rollins Road on tracks Nos. 15, 23 and 77. Broderick Rd. Tracks 103 and 105. Guittard Rd. Track 105. David Rd. Track 15. San Carlos—Old Country Road crossing E-23.4-C.

Before movement is made by trains or engines over crossing, a member of train crew must protect traffic on the following street crossing:

- California Avenue—Park Blvd. on east leg of wye.

RULE 104. The normal position of rigid switches at junctions is as follows:

- San Jose.....Vasona Branch, for Gilroy line main track, Permanente.....Permanente Corp., for track No. 1. Lick.....Lick Branch, for eastward main track, Carnadero.....Hollister Branch, for westward main track, Watsonville Jct.. Santa Cruz Branch, for west leg of wye, Santa Cruz....Davenport Branch, for Santa Cruz Branch.

Derailed on main track:

Olympia at MP 129.23. Derailed must be left lined in derailed position when cars are stored on main track east of derail.

RULE 107. Station train indicators are provided in approach to following stations:

Table with 2 columns: Eastward, Westward. Lists stations like South San Francisco, San Bruno, Millbrae, etc., with their corresponding indicators.

When illuminated these indicators will convey the following information:

TRAIN—Train at platform on opposite track.

CLEAR—Indicator in service.

When neither TRAIN or CLEAR is illuminated, indicator is out of service and report must be made to chief train dispatcher as soon as practicable.

In the morning all eastward passenger trains will favor westward commute trains. In evening all westward passenger trains will favor eastward commute trains.

Particular care must be exercised at such stations as Bayshore, Millbrae, Hillsdale, Belmont and Santa Clara where view of station is limited in both directions, also at 23rd St., Paul Ave. and Butler Rd., where passengers may attempt to cross tracks closely behind westward trains.

RULE D-151. San Francisco: End of double track is at King St., east limit of Fourth St. interlocking.

San Jose: End of double track is at MP 45.91, College Park at east end of crossover just west of West Taylor St. subway.

Gilroy: End of double track: Westward trains leaving end of double track from eastward main track will be governed by Signal 805.

RULE D-152. Crossovers between San Francisco and San Jose are located as follows:

West end Tunnel No. 3; MP 3.16; between Tunnels Nos. 3 and 4 San Francisco; South San Francisco; San Bruno; Millbrae; Burlingame; Belmont; San Carlos; Redwood Jct.; Menlo Park; California Ave.; Mountain View; Sunnyvale and MP 41.18.

RULE 221. Train-order office Santa Clara is located in tower.

Bayshore, Redwood Jct. and Sunnyvale are train-order offices for trains originating only.

RULE D-251. Applies on both tracks between San Francisco and San Jose, except when inferior trains moving on main track are delayed in this territory, they must clear time of following first-class schedules in accordance with Rule 86 (b).

Applies between Watsonville Jct. and Logan; between Corporal and Gilroy; and between Coyote and Lick.

RULE 285. When dwarf signals for entrance to station tracks Nos. 1 to 14 incl., San Francisco, display indication as shown in Figs. F or G, movement must be made with caution.

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

Table with 3 columns: Eastward Signal, Protection, Westward Signal. Lists signals like P-172, P-514, P-660, etc., with their protection types.

RULE 505. AUTOMATIC BLOCK SIGNAL SYSTEM.

San Jose: Main track signal from 50 feet west of spring switch on wye to Signal 467 on Milpitas line not protected by block signals.

When Signals 463, 463.5, 464, 465, 466 or 467 display stop indication, trains and engines, after stopping, may proceed at restricted speed, provided proceed signal is received from yardman at The Alameda, green flag by day, green light by night, except No. 75 and No. 99 may pass Signal 463 displaying stop indication without stopping at restricted speed, provided proceed signal is received from yardman at The Alameda, green flag by day, green light by night, but must stop to clear crossover between station tracks Nos. 4 and 5 just west of The Alameda.

Signal 464 on Signal Bridge 466 is a diverging route signal governing entrance into station tracks Nos. 1, 2, 3, and 4 from station track No. 4. Lower unit on Signal 466 governs entrance into these tracks through crossover from station track No. 5. When Signal 464 or lower unit of Signal 466 displays yellow aspect, movement into tracks Nos. 1, 2, 3 and 4 must not be made until proceed signal is received from yardman at The Alameda, green flag by day, green light by night, and then movement must not exceed 10 MPH. No signal protection beyond fouling point on these tracks.

When Signals 468.5, 470 or 473 display stop indication, trains and engines may proceed at restricted speed, provided proceed signal received from yardman at Park Ave., green flag by day, green light by night.

Station track No. 5 between Signal Bridge 466 and west limit of San Jose-Lick interlocking west of San Carlos St. overpass is not within interlocking limits, but signal indication will authorize movement of trains and engines between these points on this track. This includes movement to station track No. 5 governed by lower unit on Signal 473 on station track No. 4.

Signal 463.5 governs westward movements from station tracks Nos. 6 to 11 inclusive.

Starting indicators for westward trains on station tracks Nos. 1, 2 and 3 are controlled by yardman at The Alameda, and when displaying red aspect must not be passed unless proceed signal received from yardman, green flag by day, green light by night, and when displaying yellow aspect permit movement with caution to Signal 465.

RULE 513. Bayshore: Before making movement out of spur to San Francisco Union Stock Yards district, lineup must be obtained from signal operator.

RULE 535. SPRING SWITCHES

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

Table with 2 columns: Location, Normal Position. Lists locations like San Jose, East end station Track 5, etc.

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

Table with 2 columns: Location, Normal Position. Lists locations like Lick, Coyote, Perry, etc., with their normal positions.

RULE 605. INTERLOCKING

One sound of siren or air whistle requires that trains and engines within limits of interlocking must stop.

Fourth Street—San Francisco: Limits extend from dwarf signals on station tracks Nos. 1 to 14 near Fourth St. to westward interlocking signal on signal bridge governing movements on main tracks near Sixth Street.

Leaving signals on station tracks Nos. 1, 2, 3, 13 and 14 San Francisco, are so arranged that signal operator may clear the signals temporarily, even though portion of train is beyond the signal. Before starting, call for signal. The signals on tracks Nos. 1, 2, 3, 13 and 14 are searchlight type, and necessary that trainman or yardman relay signal indication to engineman when they are cleared.

If signal cannot be cleared, movement may be made under Rules 628 and 670. Signal operator will give proceed signal with yellow flag by day and yellow light by night from the tower to authorize movement to the next interlocking signal.

Bayshore: Limits extend from signal 350 feet west of west portal of Tunnel No. 1 to signal 650 feet east of east portal of Tunnel No. 1 on westward main track and from signal 500 feet west of west portal of Tunnel No. 1 to signal at the west portal of Tunnel No. 1 on eastward main track and from signal 150 feet west of west portal Tunnel No. 4 on eastward main track to signal 1850 feet east of east portal Tunnel No. 4 on westward main track and from Signal Bridge, MP 6.74 to signal at MP 6.95 on westward main track, and from Signal Bridge MP 6.74 to signal at MP 7.07 on eastward main track.

All interlocking signals and switches are under the control of Signal Operator at Bayshore.

On double track between Mission Bay and Bayshore signal operator at Bayshore may move trains and engines against the current of traffic. Before moving trains or engines against current of traffic signal operator must know that track to be used is clear of opposing trains and engines.

Dual control switches are equipped with selector lever and hand-throw lever or cranks. When necessary to hand throw switches, permission must be obtained from Signal Operator, Bayshore, and be governed by Rule 772.

Redwood Jct.: Limits extend from signal bridge 740 feet west of tower to signal 700 feet east of tower on San Francisco Subdivision, and to signal 950 feet east of tower on Niles Subdivision.

Santa Clara: Limits extend from signal 2150 feet east of tower on San Francisco Subdivision westward main track to signal 1675 feet west of tower on San Francisco Subdivision eastward main track, and on Newark line to signal 1650 west of tower.

College Park: Limits extend from signal 1200 feet west of tower to Signal Bridge 466, and on main track to Signal Bridge 465; and from dwarf signal located 800 feet east of Newhall St. to West Taylor St. subway on No. 1 lead; and from Signal Bridge 466 to signal just west of spring switch at the junction of Milpitas line main track and Milpitas wye.

Electric switch locks on derails and crossover switches within these limits are under control of signal operator. Permission must be obtained to unlock derail or switch. Derail must be thrown first, then switch may be thrown.

Engines to move from roundhouse engine track to San Jose passenger station must not foul No. 1 lead until interlocking signal at inside crossover switch displays indication as shown in Rule 283, Fig. D, or Rule 288, Fig. C for eastward movement to station tracks Nos. 4 or 5.

Bell cord communicating signal between San Jose roundhouse and signal operator to be used in lieu of telephone when requesting authority to make movement from roundhouse to station tracks Nos. 4 or 5. Following code of signals to be used:

- Roundhouse to passenger station. One pull of cord
Roundhouse to College Park. Two pulls of cord
For movements in roundhouse yard, when necessary to pass eastward interlocking signal. Three pulls of cord

On double track within San Jose Yard limits signal operator may arrange to move trains from one tower to another against current of traffic, after having understanding for each movement. Before moving trains against current of traffic signal operator must know that track to be used is clear of opposing trains and engines.

San Jose-Lick: Limits extend on main track from Signal Bridge 464, to light signal 700 feet east of end of double track at Lick on westward track, and to light signal 500 feet east of double track at Lick on eastward track; and on station tracks 4 and 5 from dwarf signal opposite Signal 473 to their connection with main track east of passenger station; and on Lick Branch to dwarf signal at fouling point; and on Vasona Branch from junction with main track to westward signal located 30 feet west of crossover.

From Vasona Branch movement governed by interlocking signal located 30 feet west of crossover between main track and Vasona Branch. Upper unit governs to station tracks, and lower unit governs to main track. When both units display stop indication and it is desired to use connecting link to spur (California Packing Corporation), after stopping if crossover switches are lined normally and the track is seen to be clear to westward Signal 474.5 located at fouling point 250 feet west of interlocking signal, train or engine may proceed without obtaining permission from signal operator.

Westward Signal 471.5 at Park Ave. subway normally dark until line up is made. After permission received from operator, crossover switches may be lined, and if signal displays proceed indication movement may be made.

Movement to Vasona Branch from station track No. 5 governed by lower unit of Signal 470 located east of station, and from main track governed by lower unit of signal located 400 feet west of junction switch.

RULE 680. AUTOMATIC INTERLOCKING

San Jose-Lick Line (WPRR Crossing): Limits extend from signal located 700 feet west of crossing to signal 700 feet east of crossing.

When semi-automatic signals indicate "stop," Rule 663(c) and 509(b) will govern.

RULE 705. LETTER TYPE INDICATORS

Indicators located as follows:

Table with 3 columns: Illum. Letter, On Signal, Authorizes and requires movement as follows. Includes entries for Redwood Jct. and Santa Clara.

RULE 760. CENTRALIZED TRAFFIC CONTROL
Limits extend from MP 86.4 Corporal to MP 93.2 Logan.

GENERAL REGULATIONS

RULE 825. Cars must not be stored within 150 feet of all crossings of 9th Street at Gilroy, except spur track No. 125 serving Filice Warehouse.

Cars must not be stored within 150 feet of crossings of Salinas Road at Watsonville Jct.

When freight trains stop on receiving track in Watsonville Jct. yard, and road engine is detached, trainmen will set sufficient hand brakes on the rear of westward trains, and on the head end of eastward trains to secure trains.

RULE 826. Watsonville Jct.: Indicator lights above each end of tracks leading to Union Ice Co. dock governing movements on those tracks as follows:

- Green: Tracks may be used for train or switching movements.
Yellow: Tracks may be entered 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 830. Redwood City: Passenger trains, stopping at passenger station, should stop to clear Broadway crossing.

Westward passenger trains stop at Belmont to clear Ralston Rd. crossing.

Eastward passenger trains stop at Broadway to clear Broadway crossing.

Millbrae: Eastward passenger trains stop to clear Millbrae Ave.

Westward freight trains on Vasona Branch must not leave cars between Approach Circuit sign and El Camino Real while switching.

RULE 836. Cars must not be shoved ahead of engine on descending grade Permanente to Simla.

AIR BRAKE RULES

RULE 17. On passenger trains, between Olympia and MP 127.60 and between MP 124.40 and MP 121.80, three retaining valves for six cars; four retaining valves for eight cars; five retaining valves for ten cars; and seven retaining valves for twelve cars must be turned up on head end of the train.

All retaining valves must be turned up in freight trains Felton to Santa Cruz. Retaining valves on loads must be placed in high pressure position.

All retaining valves must be turned in high pressure position on loaded cars and in low pressure position on empty cars, Permanente to Simla unless dynamic brake is in operation.

FREIGHT TRAINS

RULE 33. Maximum tonnage per operative brake between Permanente and Simla is 90 tons and speed must not exceed 10 MPH.

Not more than 40 cars will be handled in train, Permanente to Simla.

The maximum tonnage per operative brake between Olympia and Santa Cruz is 90 tons.

Speed of freight trains, when tonnage per operative brake exceeds 60 tons, must not exceed 12 MPH, Olympia (MP 129.72) to Felton (MP 127.40), and MP 124.40 to MP 121.80.

When gross tonnage of freight train handling cars with single capacity brakes exceeds 80 tons per operative brake, maximum speed of train must not exceed 45 MPH, except when gross tonnage exceeds 85 tons per operative brake, maximum speed must not exceed 25 MPH on descending grades of 1.2% to 1.5% and 20 MPH on descending grades in excess of 1.5%.

Weight of units not using their dynamic brakes in road engines must be added to weight of cars and summation thereof divided by the number of cars having operative brakes to determine the tons per operative brake in train.

Watsonville to Santa Cruz: When gross tonnage of freight train handling cars exceeds 85 tons per operative brake, speed must not exceed 20 MPH.

Grades where such restrictions apply are designated below:

Watsonville Jct. to Olympia (San Francisco Subdivision)

Table with 3 columns: Direction, MP, Grade. Lists grades for Eastward and Westward MP between Watsonville Jct. and Olympia.

PASSENGER TRAINS

RULE 39. Running test must be made on westward trains before reaching spring switch at end double track, Lick.

MISCELLANEOUS

1. Freight trains or engines with freight cars must not operate over station tracks Nos. 2, 3, 4 or 5 in San Jose Passenger station unless authorized by yardmaster or his representative.

Engines listed must not operate on tracks shown below:

Table with 2 columns: Class of Engine, Restricted Tracks. Lists engine models and their restricted track locations.

All Engines. Santa Cruz. Cowell spur beyond street crossing. To spot cars beyond street crossing use reach.
Logan. Granite Rock Co. bunker loading tracks; scale track; stock pile tracks and beyond engine restriction sign at west end of empty set-out tracks Nos. 1, 2 and 3.

2. Load limit (car and contents):

Table with 2 columns: Location, Load Limit. Lists load limits for various locations like San Francisco-Watsonville Jct., San Bruno-Daly City, etc.

*Trains containing cars with truck centers of not less than 22-ft. having gross weight of car and lading in excess of 220,000-lbs. but not exceeding 230,000-lbs. must not be operated in excess of 5 MPH over structures at MP 112.57 and MP 112.93, near Aptos.

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

3. LOCATION OF STOCK YARDS

Table with 2 columns: Station, Capacity in cars. Lists capacity for Gilroy, Watsonville Jct., and Hollister.

SPECIAL INSTRUCTIONS—SAN FRANCISCO SUBDIVISION

4. Warning light has been installed on face of building of Prefomed Lime Products, California Ave. No movements will be permitted into building until green aspect is displayed on this warning light, which indicates that moveable overhead crane has been retracted to lawful clearance.

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

MP	Location	Description
0.00	San Francisco	Station umbrella sheds..... Side
0.24	"	4th St. interlocking tower..... Side
0.00-1.30	"	Dwarf signals..... Side
1.28	"	Mariposa St. bridge..... Overhead
1.29	"	AT&SFRy bridge..... Overhead
1.34-1.68	"	Tunnel No. 1..... Overhead and side
1.73	"	22nd Street bridge..... Overhead
1.91	"	23rd Street bridge..... Overhead
1.93-2.14	"	Tunnel No. 2..... Overhead and side
3.15	"	Oakdale Avenue bridge..... Overhead and side
3.19-3.65	"	Tunnel No. 3..... Overhead and side
4.15	"	Paul Ave. bridge..... Overhead and side
4.26-4.95	Bayshore	Tunnel No. 4..... Overhead and side
9.07	South San Francisco	Signal bridge..... Overhead
25.58	Redwood City	Signal bridge..... Overhead
26.10	"	Signal bridge..... Overhead
29.69	Palo Alto	San Francisco Creek bridge..... Overhead and side
45.99	San Jose	Signal bridge..... Overhead
46.90	"	Station umbrella sheds..... Side
119.70	Santa Cruz	San Lorenzo River bridge..... Side
121.45 to 121.68	Eblis	Tunnel No. 6..... Overhead and side
125.60 to 125.66	Big Trees	Tunnel No. 5..... Overhead and side
126.35	Big Trees	San Lorenzo River bridge..... Side
126.43	Big Trees	Redwood tree..... Side
126.70	Big Trees	Redwood tree..... Side
126.72	Big Trees	Redwood tree..... Side

6. 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:.....	15
*Through slip switches.....	10
*Through turnouts on other than sidings....	10
On branches.....	10
On Redwood Harbor spur.....	10
On Moffett Field spur.....	10
On Permanente spur.....	15
San Jose, passenger trains on station track No. 5: Eastward, end of double track to Signal Bridge 464.....	45
Eastward, Signal Bridge 464 to passenger station.....	30
Westward, passenger station to end double track.....	20
San Jose, passenger trains on station track No. 4: Westward, passenger station to Signal Bridge 464.....	30
Westward, Signal Bridge 464 to end of double track.....	45
Eastward, end of double track to passenger station.....	20
San Jose, freight trains on station tracks Nos. 4 and 5: Between end of double track and crossover at Julian St.....	20
San Jose, passenger trains on station tracks Nos. 4 and 5: In either direction between passenger station and connection with main track east of station.....	30
Through all sidings, yard tracks and other tracks with engine running backward.....	10
*Passenger trains with commute equipment...	15

SPECIAL INSTRUCTIONS—SAN FRANCISCO 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 page 6, and MAXIMUM SPEED PERMITTED WITH CERTAIN EQUIPMENT and OTHER MAXIMUM SPEEDS appearing on page 7 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, SAN FRANCISCO TO WATSONVILLE JCT.:					WESTWARD, WATSONVILLE JCT. TO SAN FRANCISCO:				
0.00 to 0.62.....			20	20	100.40 to 100.00.....			35	35
0.62 to 1.80.....			25	25	100.00 to 98.00.....			45	45
1.80 to 3.10.....			50	40	98.00 to 94.38.....			70	60
3.10 to 8.10.....			60	40	94.38 to 92.99.....			55	55
8.10 to 11.01.....			60	50	92.99 to 92.97 (spring switch).....			25	25
11.01 to 19.00.....			70	55	92.97 to 92.05.....			35	35
19.00 to 24.52.....			79	55	92.05 to 88.94.....			45	45
*24.52 to 26.40 (Redwood City).....			45	45	88.94 to 87.94.....			35	35
26.40 to 29.70.....			79	55	87.94 to 86.49.....			50	50
29.70 to 30.64.....			70	55	86.49 to 83.41.....			65	60
30.64 to 44.00.....			79	55	83.41 to 81.00.....			60	60
44.00 to 45.91 (end of double track).....			60	55	*81.00 to 79.50 (GILROY).....			25	25
45.91 to 46.90.....			15	15					
46.90 to 47.29 (spring switch).....			15	15	79.50 to 73.96.....			79	60
47.29 to 47.53 (power switch).....			30	30	73.96 to 73.78.....			60	60
47.53 to 49.00.....			50	50	73.78 to 55.70 (51.81).....			79	60
49.00 to 51.50.....			75	60	51.81 to 51.32.....			65	60
51.50 to 51.81 (55.70).....			65	60	51.32 to 51.30 (spring switch).....			35	35
55.70 to 63.21.....			79	60	51.30 to 49.00.....			75	60
63.21 to 63.23 (spring switch).....			25	25	49.00 to 47.53.....			50	50
63.23 to 73.78.....			79	60	47.53 to 47.29 (spring switch).....			30	30
73.78 to 73.96.....			60	60	48.29 to 46.90.....			15	15
73.96 to 79.50.....			79	60	46.90 to 45.91 (end of double track).....			15	15
*79.50 to 81.00 (Gilroy).....			25	25	45.91 to 45.86.....			25	25
81.00 to 83.41.....			60	60	45.86 to 44.00.....			60	55
83.41 to 86.47.....			65	60	44.00 to 26.40.....			79	55
86.47 to 86.49 (spring switch).....			25	25	*26.40 to 24.52 (Redwood City).....			45	45
86.49 to 87.94.....			50	50	24.52 to 19.00.....			79	55
87.94 to 88.94.....			35	35	19.00 to 11.01.....			70	55
88.94 to 92.05.....			45	45	11.01 to 8.10.....			60	50
92.05 to 92.97.....			35	35	8.10 to 3.10.....			60	40
92.97 to 92.99 (spring switch).....			25	25	3.10 to 1.80.....			50	40
92.99 to 94.38.....			55	55	1.80 to 0.62.....			25	25
94.38 to 98.00.....			70	60	0.62 to 0.00.....			20	20
98.00 to 100.00.....			45	45					
100.00 to 100.40.....			35	35					

*Regulated by City ordinance. Speed may be resumed after engine of eastward train has passed Ninth St. crossing MP 80.90 and after engine of westward train has passed Leavesly Road crossing MP 79.58.

Between San Jose and Watsonville Jct. freight trains and mixed trains containing no restricted cars are authorized to operate at Column 1 speeds not exceeding 65 MPH provided these trains:

- Do not exceed 120 cars and 40 tons per operative brake; or,
- When carrying 90 lbs. brake pipe pressure, do not exceed:

Number of Cars	Tons Per Operative Brake	Number of Cars	Tons Per Operative Brake
70	60	100	54
75	59	105	53
80	58	110	52
85	57	115	51
90	56	120	50
95	55		

Light engines may operate at Column 1 speeds not exceeding 70 MPH, except on descending grades when dynamic brakes are not operating light engines must not exceed Column 2 speeds.

SPECIAL INSTRUCTIONS—SAN FRANCISCO 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 page 6, and MAXIMUM SPEED PERMITTED WITH CERTAIN EQUIPMENT and OTHER MAXIMUM SPEEDS appearing on page 7 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.

Table with columns: TERRITORY, PASSENGER TRAINS, FREIGHT AND MIXED, and sub-columns for MP and Column. It lists various routes like EASTWARD, SAN JOSE TO SIMLA and WESTWARD, SIMLA TO SAN JOSE with corresponding speed restrictions.

★★ICC. Regulation.

① With EP624 class engines, 30 MPH.

① ES410, FS412, BS412 class engines must not exceed 25 MPH, and EF418, EP418 and AS418 class engines must not exceed 30 MPH between Vasona and Simla.

Light engines may operate at Column 2 speeds.

SPECIAL INSTRUCTIONS—SAN FRANCISCO SUBDIVISION

RATING OF ENGINES—In Units of 2000 Lbs. (Tons)

Large table mapping engine classes to engine numbers and their ratings in units of 2000 lbs. for various territories like San Jose to Vasona, Santa Cruz to Olympia, etc.

ON BRANCH LINES, UNLESS AUTHORIZED BY SUPERINTENDENT, ENGINES WILL NOT BE PERMITTED TO OPERATE IN THOSE TERRITORIES WHERE NO RATING IS SHOWN IN ENGINE RATING TABLE.

Gear ratios of diesel engine units Class EF415A, EF415B, EP415A, EP415B, EP418A, EP418B inclusive, are changed from time to time to permit various maximum speeds. As changes are made a metal tag is placed over transition switch in cabs and isolation switch in booster unit specifying maximum speed unit may operate.

SPECIAL INSTRUCTIONS—SALINAS SUBDIVISION

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

Table with 4 columns: Eastward, Reading, Westward, Reading. Lists mileposts and corresponding speed sign readings.

Westward speed sign at MP 106.67 reading 40 is located 1.17 miles instead of three-fourths mile from restriction.

Eastward speed sign at MP 117.30 reading 25 is located 1.07 miles instead of three-fourths mile from restriction.

RULE 21. Identification of superior trains in CTC limits between Santa Margarita and San Luis Obispo must be made and such identification will apply at Santa Margarita or San Luis Obispo.

Identification of superior trains in CTC limits between Watsonville Jct. and Salinas must be made and such identification will apply at Salinas.

RULE 21-C. Watsonville Jct. Engines may display indicators from train yard to roundhouse and from roundhouse to train yard.

San Luis Obispo. Train indicators on trains arriving San Luis Obispo may be displayed until engine reaches roundhouse but must be removed immediately on arrival at roundhouse.

RULE 82-A. Crew ordered for No. 141 may assume schedule at Monterey without clearance.

Trains must obtain clearance Monterey only when operator is on duty.

Trains to Monterey Branch must obtain clearance bearing chief dispatcher's OK before leaving Castroville, only when train order operator on duty.

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

Castroville....Trains to or from Monterey Branch. Salinas,.....Trains originating or terminating.

Registration of eastward light engines, terminating at San Luis Obispo, may be telephoned on arrival at roundhouse to train order operator who must enter same on register and verify by repeating registration.

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

Watsonville Jct.. Nos. 98, 372, 126, 374, 76, 99, 371, 373, 75 and 141. Castroville.....Trains to or from Monterey Branch.

RULE 85. A section must not pass and run ahead of another section of the same schedule in CTC limits, between Watsonville Jct. and Salinas and between San Luis Obispo and Santa Margarita, without first exchanging train orders with the section to be passed, each section to change indicators and display signals if necessary.

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

Table with 2 columns: West MP, East MP. Lists yard limits for various stations like Watsonville Jct., Castroville, Salinas, Soledad, King City, Santa Margarita, San Luis Obispo, Monterey, Pacific Grove.

Watsonville Jct.: Eastward freight trains, except Nos. 372 and 374 must not pass Signal 984 unless proceed signal received from yardman, green flag by day, green light by night.

Westward freight trains, except Nos. 371 and 373 must not pass Signal 1001 unless proceed signal received from yardman, green flag by day, green light by night.

RULE 99. Engines moving between the west yard limit sign Pacific Grove and east yard limit sign Monterey will move as provided by Rule 99 and the first sentence of Rule S-99-B

RULE 99-C. Will apply on Monterey Branch.

RULE 103-A. Automatic crossing gates:

King City: Bitterwater Road crossing MP 163.4. Eastward trains, stopping on main track to do switching must stop 500 feet west of crossing to avoid unnecessary operation of gates. White marker post 500 feet west of crossing.

Paso Robles: Westward trains, stopped at station, blocking 10th Street and westward trains or engines on siding, or trains delayed between 10th and 13th Streets must not exceed 10 MPH between 12th and 13th Streets and must not enter 13th Street until gates are down.

Eastward trains leaving train west of Signal 2158, stop 250 feet west of signal. When train ready to depart, gates must be lowered by member of crew inserting switch key in receptacle located on Signal 2158.

Santa Margarita: Estrada Road, MP 235.2. Trains or engines making stop or reverse movements over crossing must know that gates are down before entering crossing.

San Luis Obispo: Foothill Blvd. crossing MP 250.5. Gates will raise after time expires when trains in siding stop clear of crossing. When train is ready to proceed, gates must be lowered manually by inserting switch key in receptacle located on post on either side of crossing. Turn key one half turn to right. Crossing must be occupied within one minute or gates will raise.

Public Utilities Commission orders require that trains and engines must stop, and member of crew must protect traffic on the following street or highway crossings before movement is made:

- Spreckels Jct.—Airport Blvd. crossing on east end yard track No. 410. Monterey—Hoffman Ave. crossing on Custom House Packing Co. spur. Castroville—Crossing on D'Arrigo Bros. Co. spur. Crossing E-111.2-C, east leg of wye to Monterey Branch. Ord—State Highway crossing on tracks Nos. 2 and 3 at MP 119.50 but must wait until automatic warning device has been operating 20 seconds or more before crossing over highway. Salinas—John St. crossing on tracks Nos. 200, 248 and 250. King City—Bitterwater-Metz Road on tracks not protected by automatic crossing gates.

RULE 104. The normal position of rigid switches at junctions is as follows:

Castroville....Monterey Branch, for Salinas line. Spreckels Jct...Spreckels Branch, for Salinas line.

RULE 105. No. 1 siding at Salinas extends from SA Signal at MP 1164 to crossover just west of Signal 1178. No. 2 siding extends from crossover just east of Signal 1178 to crossover just west of Signal 1186.

Siding at Gonzales extends from west switch to crossover at station building.

Siding on station side of main track at Soledad is designated as No. 2 siding, and siding on opposite side of main track is designated as No. 1 siding.

Siding on ocean side of main track at McKay is designated as No. 2 siding and siding on opposite side of main track is designated as No. 1 siding.

Santa Margarita: Siding extends from the end of CTC MP 236.6 to spring switch MP 232.92, capacity 364 cars, and will be used by westward trains only, unless otherwise directed by train dispatcher. Crossover switches between main track and siding MP 234.2 must not be used unless authorized by train dispatcher.

SPECIAL INSTRUCTIONS—SALINAS SUBDIVISION

RULE 211. Eastward trains receiving an eastward proceed "SA" signal at west end of Salinas, MP 116.4, are authorized to proceed on main track to train order office.

RULE 221. Castroville is train order office for trains via Monterey branch only.

Salinas is train order office for eastward trains and for westward trains originating. Westward trains originating will obtain clearance only when operator on duty.

RULE 292. "A" Signal west end of double track San Luis Obispo: When signal displays stop indication, train after stopping may proceed without calling train dispatcher.

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

Table with 3 columns: Eastward Signal, Protection, Westward Signal. Lists signals like Spring switch, Fire and collision detector, Flood detector, Slip-out detector, Slide detector fence, Fire detector.

RULE 505. AUTOMATIC BLOCK SIGNAL SYSTEM

RULE 516. Overlap posts:

Spreckels Jct.....Westward trains, Santa Margarita.....Eastward trains.

RULE 535. SPRING SWITCHES

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

Table with 2 columns: Location, Normal Position. Lists locations like Watsonville Jct., Castroville, Castroville, Castroville, Salinas, Bradley, Santa Margarita.

RULE 705. Letter type indicators.

Table with 2 columns: Illum. On Letter Signal, Authorizes and Requires Movement as Follows. Lists signal types and their corresponding movements.

RULE 760. CENTRALIZED TRAFFIC CONTROL

Limits extend from end of double track Watsonville Jct. to west switch No. 1 siding Salinas.

Limits extend from east end siding Santa Margarita to end of double track San Luis Obispo.

Lower unit of eastward signal at end double track San Luis Obispo governs only to CTC limit at fouling point on westward track, and trains and engines must not accept proceed indication for diverging route until verbal understanding has been had with yardmaster or his representative that protection had been provided on westward track, except that proceed signal from yardman, green flag by day or green light by night, may be accepted as authority to move from CTC limit to the first switch leading to yard tracks only.

GENERAL REGULATIONS

RULE 825. When freight trains stop on receiving track in Watsonville Jct. yard and road engine is detached, trainmen will set sufficient hand brakes on the rear cars on westward trains to secure trains.

When freight trains stop on receiving track at San Luis Obispo and road engine is detached, trainmen will set sufficient hand brakes on the head end of eastward trains to secure trains.

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

Santa Margarita Cuesta Serrano Chorro Goldtree 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. Train crews picking up cars from these sidings must remove rail skid and return it to proper post and lock it in place with switch lock.

RULE 827. Beet train without dynamic brakes in operation Tunnel No. 6 to San Luis Obispo must stop 10 minutes at Serrano for wheel heat radiation and train inspection.

RULE 830. King City: Through freight trains picking up and/or setting out cars must not block Lonoak road crossing at MP 164.3.

AIR BRAKE RULES

RULE 17. Retaining valves must be used on passenger trains on descending grades as follows:

EASTWARD...Tunnel No. 6 to San Luis Obispo. With three dynamic brakes in operation and handling over 2500 tons, one retaining valve for each 165 tons in train.

With two dynamic brakes in operation and handling over 1700 tons, one retaining valve for each 165 tons in train.

With one dynamic brake or no dynamic brakes in operation, all accessible retaining valves must be turned up but if more than four head-end cars on which retaining valves are not accessible, stop must be made after running test has been completed leaving Santa Margarita and before reaching summit and such retaining valves turned up.

WESTWARD...Tunnel No. 6 to Santa Margarita. No retaining valves unless requested by the engineer.

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

EASTWARD...Goldtree to Camp San Luis Obispo (on spur)

With no dynamic brakes in operation, one retaining valve for each 65 tons in train.

WESTWARD...Tunnel No. 6 to Santa Margarita.

With no dynamic brake in operation and pressure maintaining system of braking not being used, one retaining valve for each 70 tons in train. If gross tonnage exceeds 70 tons per operative brake, retaining valves must be turned up on all cars.

When dynamic brake is in operation and tonnage of train exceeds 1275 tons per four-axle unit or 1900 tons per six-axle unit, one retaining valve for each 125 tons in train;

Except, when dynamic brake is in operation and pressure maintaining system of braking is being used and tonnage of train exceeds 1500 tons per four-axle unit, or 2525 tons per six-axle unit, one retaining valve for each 125 tons in train.

SPECIAL INSTRUCTIONS—SALINAS SUBDIVISION

EASTWARD . . . Tunnel No. 6 to San Luis Obispo.

With no dynamic brake in operation and pressure maintaining system of braking not being used, one retaining valve for each 65 tons in train. If gross tonnage exceeds 65 tons per operative brake, retaining valves must be turned up on all cars.

When dynamic brake is in operation and tonnage of train exceeds 1025 tons per four-axle unit or 1525 tons per six-axle unit, one retaining valve for each 125 tons in train;

Except, when dynamic brake is in operation and pressure maintaining system of braking is being used and tonnage of train exceeds 1525 tons per four-axle unit or 2025 tons per six-axle unit, one retaining valve for each 125 tons in train.

When dynamic brakes are not used on helper engines, tonnage of such engines must be added to that of train in determining the number of retaining valves required.

When majority of cars in freight train consist of loaded beet cars and train exceeds 75 tons per operative brake, all retaining valves must be in low pressure (horizontal) position, from Tunnel No. 6 to San Luis Obispo.

Between San Luis Obispo and Santa Margarita trains handled by EP418, EF418 or AS418 class engines must not use more than four dynamic brakes; with GS407 class engines not more than two dynamic brakes may be used; with two GS407 and two EP418, EF418 or AS418 class engines not more than three dynamic brakes may be used; with one GS407 and three EP418, EF418 or AS418 class engines four dynamic brakes may be used.

Units on which dynamic brakes are not in use must have dynamic brake jumper cable disconnected.

FREIGHT TRAINS

RULE 25. Rear-end test must be made as prescribed in paragraph (b) as follows:

Santa Margarita . . . Eastward trains only when continuity of brake is disturbed.

RULE 33. The maximum tonnage per operative brake Tunnel No. 6 to Santa Margarita is 70 tons, and from Tunnel No. 6 to San Luis Obispo and on spur between Goldtree and Camp San Luis Obispo is 65 tons, or 125 tons per operative brake may be handled as provided for by Air Brake Rule 17; except,

Tunnel No. 6 to San Luis Obispo: Trains handling loaded beet cars must be limited to 95 such loads and must not exceed 95 tons per operative brake and speed of 20 MPH.

When gross tonnage of freight train handling cars with single capacity brakes exceeds 80 tons per operative brake, maximum speed of train must not exceed 45 MPH, except when gross tonnage exceeds 85 tons per operative brake, maximum speed must not exceed 25 MPH on descending grades of 1.2% to 1.5% and 20 MPH on descending grades in excess of 1.5%.

Grades where such restrictions apply are designated below

Castroville to Monterey: When gross tonnage of freight trains handling cars exceeds 85 tons per operative brake, speed must not exceed 20 MPH.

Castroville to Lake Majella (Salinas Subdivision)

Eastward MP	116.5 to 117.0	(Grade in excess of 1.5%)
"	117.9 to 118.1	"
"	119.9 to 120.9	"
"	122.2 to 123.1	"
Westward MP	121.3 to 120.9	"
"	119.9 to 119.1	"
"	117.9 to 117.0	"
"	114.5 to 114.1	(Grade in excess of 1.2%)

PASSENGER TRAINS

RULE 39. Running test must be made immediately after passing summit in Tunnel No. 6 in both directions.

TRAIN HANDLING

RULE 60. Changes in dynamic braking force must be made gradually when practicable. On descending grades, dynamic brake on freight trains must be reduced to one-half of maximum 500 feet before entering and 1500 feet after passing through turnout or crossover and during adjustment of slack following release of train air brakes.

MISCELLANEOUS

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

Class of Engine	Restricted Tracks
AP620A, EP620A, EP623A, EP624A, AP620B, EP620B, EF415A, EP415A, EF415B, EP415B.	Castroville . All industry and spur tracks. Salinas . . . Leads 4, 35, 55, 57, 200, 210, and 250, and all industry spurs; Lead 115 east of girder-rail crossing; also spurs 151 and 153.
"	Lapis Spur.
"	Retreat Spur.
"	Monterey . . House track; team track; and all industry tracks.

2. Load limit (car and contents):

Watsonville Jct.-San Luis Obispo	263,000 pounds
Castroville-Lake Majella	240,000 pounds
Spreckels Jct.-Spreckels	240,000 pounds

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

4. LOCATION OF STOCK YARDS

Station	Capacity in cars
Watsonville Jct.	7 1/2 (Water)
Soledad	7 1/2 (Water)
King City	36 1/2 (Water)
(1 corral 2 1/2 cars no water)	
San Ardo	12 (Water)
Paso Robles	40 (Water)
(1 corral 2 cars no water)	
Santa Margarita	18 1/2 (Water)
San Luis Obispo	27 (Water)

5.

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

MP	Location	Description
155.28-		
155.54	Metz	Tunnel No. 5 1/2 Side
113.46-		
113.60		Salinas River bridge Side
200.55-		
200.67		Salinas River bridge. Overhead and Side
222.03	Templeton	Overhead crossing Side
223.39		Graves Creek bridge Side
239.29-		
239.97	Cuesta	Tunnel No. 6 Overhead and side
240.11-		
240.37	Thyle	Tunnel No. 7 Overhead and side
240.61-		
240.70	"	Tunnel No. 8 Overhead and side
240.86-		
240.97	"	Tunnel No. 9 Overhead and side
242.26	Serrano	Signal bridge Overhead
245.85-		
245.99	Chorro	Tunnel No. 11 Overhead and side
248.26	Goldtree	Signal bridge Overhead
251.16	Hathaway	Overgrade crossing . Overhead and side

SPECIAL INSTRUCTIONS—SALINAS SUBDIVISION

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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, WATSONVILLE JCT. TO SAN LUIS OBISPO:					WESTWARD, SAN LUIS OBISPO TO WATSONVILLE JCT.:				
100.40 to 100.70	100.70 to 100.74	(end double track)	35	35	252.10 to 251.50			25	25
100.74 to 103.80		(spring switch)	25	25	251.50 to 248.30			40	40
103.80 to 105.50			50	50	248.30 to 241.60			25	25
105.50 to 108.21			40	40	241.60 to 241.45			15	15
108.21 to 118.37			50	50	241.45 to 236.75			25	25
★118.37 to 120.75		(Salinas)	79	60	236.75 to 235.10			35	35
120.75 to 125.60			25	25	235.10 to 231.36			60	60
125.60 to 137.20			79	60	231.36 to 229.15			45	45
137.20 to 147.68			65	60	229.15 to 227.46			55	55
147.68 to 149.25			79	60	227.46 to 227.20			50	50
149.25 to 152.83			50	50	227.20 to 220.02			55	55
152.83 to 154.00			55	55	220.02 to 219.15			40	40
			50	50	219.15 to 217.23			60	60
154.00 to 155.53			65	60	217.23 to 216.80			50	50
155.53 to 158.00			70	60	216.80 to 213.93			65	60
158.00 to 163.10			79	60	213.93 to 212.16			60	60
163.10 to 164.00			60	60	212.16 to 211.90			50	50
164.00 to 167.43			79	60	211.90 to 206.00			60	60
167.43 to 168.80			50	50	206.00 to 202.45			70	60
168.80 to 175.58			79	60	202.45 to 200.79			60	60
175.58 to 175.82			70	60	200.79 to 197.80			70	60
175.82 to 185.50			79	60	197.80 to 197.43			60	60
185.50 to 188.17			60	60	197.43 to 194.60			70	60
188.17 to 190.19			55	55	194.60 to 193.92			40	40
190.19 to 192.92			65	60	193.92 to 193.70			30	30
192.92 to 193.70			40	40	193.70 to 192.92			60	60
193.70 to 194.35			30	30	192.92 to 190.19			65	60
194.35 to 197.43			70	60	190.19 to 188.17			55	55
197.43 to 197.80			60	60	188.17 to 185.50			60	60
197.80 to 200.79			70	60	185.50 to 175.82			79	60
200.79 to 202.45			60	60	175.82 to 175.58			70	60
202.45 to 206.00			70	60	175.58 to 168.80			79	60
206.00 to 211.90			60	60	168.80 to 167.43			50	50
211.90 to 212.16			50	50	167.43 to 164.00			79	60
212.16 to 213.93			60	60	164.00 to 163.10			60	60
213.93 to 216.80			65	60	163.10 to 158.00			79	60
216.80 to 217.23			50	50	158.00 to 155.53			70	60
217.23 to 219.15			60	60	155.53 to 154.00			65	60
219.15 to 220.02			40	40	154.00 to 152.83			50	50
220.02 to 227.20			55	55	152.83 to 149.25			55	55
227.20 to 227.46			50	50	149.25 to 147.68			50	50
227.46 to 229.15			55	55	147.68 to 137.20			79	60
229.15 to 231.36			45	45	137.20 to 125.60			65	60
231.36 to 235.10			60	60	125.60 to 120.75			79	60
235.10 to 236.75			35	35	★120.75 to 118.37			25	25
236.75 to 241.45			25	25	118.37 to 108.21			79	60
241.45 to 241.60			15	15	108.21 to 105.50			50	50
241.60 to 248.30			25	25	105.50 to 103.80			40	40
248.30 to 251.50			40	40	103.80 to 100.74			50	50
251.50 to 252.10			25	25	100.74 to 100.40			35	35

(Continued on page 22)

★Regulated by City ordinance.

Light engines may operate at Column 1 speeds not exceeding 70 MPH, except on descending grades when dynamic brakes are not operating light engines must not exceed Column 2 speeds.

Freight and mixed trains containing no restricted cars are authorized to operate at Column 1 speeds not exceeding 60 MPH, except 65 MPH authorized between Watsonville Jct. and Santa Margarita, consistent with local restrictions account grade and other conditions, provided trains:

- Do not exceed 120 cars and 40 tons per operative brake; or
- When carrying 90 lbs. brake pipe pressure, do not exceed:

Number of Cars	Tons Per Operative Brake	Number of Cars	Tons Per Operative Brake
70	60	100	54
75	59	105	53
80	58	110	52
85	57	115	51
90	56	120	50
95	55		

SPECIAL INSTRUCTIONS—SALINAS 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 page 6, and **MAXIMUM SPEED PERMITTED WITH CERTAIN EQUIPMENT** and **OTHER MAXIMUM SPEEDS** appearing on page 7 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:	
EASTWARD, CASTROVILLE TO LAKE MAJELLA:				WESTWARD, LAKE MAJELLA TO CASTROVILLE:				
110.10 to 110.70			15	15	130.23 to 127.30		15	
110.70 to 111.40			35	20	127.30 to 125.70		25	
111.40 to 113.90			35	35	125.70 to 122.38		35	
113.90 to 114.73			35	30	122.38 to 121.23		25	
114.73 to 114.91			30	25	121.23 to 120.00		35	
114.91 to 119.70			35	25	120.00 to 119.70		30	
119.70 to 120.00			30	20	119.70 to 114.91		35	
120.00 to 121.23			35	25	114.91 to 114.73		30	
121.23 to 122.38			25	20	114.73 to 113.90		35	
122.38 to 125.70			35	25	113.90 to 111.40		35	
125.70 to 127.30			25	20	111.40 to 110.70		35	
127.30 to 130.23			15	15	110.70 to 110.10		15	
EASTWARD, SPRECKELS JCT. TO SPRECKELS				15	WESTWARD, SPRECKELS TO SPRECKELS JCT.			

Light engines may operate at Column 1 speed.

SPEED RESTRICTIONS FOR OTHER THAN MAIN TRACKS	With Caution Not Exceeding MPH
Through sidings, yard and other tracks, wyes, ballon tracks, crossovers and turnouts, except:	15
Through slip switches	10
Through turnouts on other than sidings	10
On branches	10
Through all sidings, yard tracks and other tracks with engine running backward	10
Castroville wye	5
East leg of wye Spreckels Jct.	5

SPECIAL INSTRUCTIONS—SALINAS SUBDIVISION

RATING OF ENGINES—In Units of 2000 Lbs. (Tons)

NOMINAL CLASS	ENGINE NUMBERS	Watsonville Jct. to King City	King City to Santa Margarita	Santa Margarita to San Luis Obispo	King City to Watsonville Jct.	San Luis Obispo to Santa Margarita	Castroville to Ord	Monterey and Lake Majella	Ord to Castroville	Monterey and Ord
		EP620A, EP623A, EP620B AP620A, AP620B EP624A FP624 EP418	6000-6004, 6017, 6018, 5900-5917 6011, 6015, 6020-6045, 5921-5924 6046-6054 3020-3035 3000-3009	2425 2450 2425 6975 4450	1925 1925 1925 5000 3275	625 625 625 1575 1025	2425 2450 2425 10000 8000	625 625 625 1575 1025	1525	1575
EF415A, EP415A, EF415B, EP415B, EF418A, EF-418B	351-379, 6138-6470, SSW925-975, 535-551, 8022-8303, 600-637, 700-725, with 62/15 gear ratio, with 61/16 gear ratio	3500 4450	2600 3275	825 1025	7975 8000	825 1025				
EF415 EF618 EF418	SSW304 3800-3830, 3850-3966 3400-3640, 3653-3727, SSW3641-3652	5475 4450	4025 3275	1325 1025	8000 8000	1325 1025	1525	1575	2150	1400
AF420	4000-4009	4750	3500	1100	8000	1100	1600	1650	2300	1475
EF420 EF423 AF624 EF425 EF625 GF-425 AF628 KF636A, KF636 AF640 EF850B GF850A GS404	SSW4030-4049, 4050-4087 SSW5000-5009, 5010-5017 SSW5150-5159, 5160-5162 SSW6500-6519, 6520-6681 6900-6928 6700-6767 7100-7128 9100-9120 9150-9152 9500-9502 9550-9552 3, 4, 1652	5000 4650 5150 5675 6725 8000 10725 11275 1025	3700 3450 3800 4075 4900 6150 8250 8675 725	1175 1025 1150 1200 1425 1825 2300 2575 250	8000 8000 7975 10000 12000 12000 12000 12000 925	1175 1025 1150 1200 1425 1825 2300 2575 250	300	350	300	250
ES406, AS407	1000-1016, 1023-1032	1550	1100	350	1550	350	450	525	500	350
ES408, ES408B ES409 AS409 AS409	1100-1128, 1150-1153 1170-1179 1200-1257 1270-1281	3050 3375 2600 3450	2175 2475 1900 2500	750 825 625 850	3100 4750 2575 3500	750 825 625 850	1100	1200	1250	875
AS410, BS410, ES410	1700-1845, SSW1850-1854, 1855-1869, 1904-1913, SSW1900-1903, 1914-1953	2725	1975	650	2750	650	850	925	1000	650
BS412	2100-2157	2850	2125	675	3125	675	925	975	1150	750
ES412	SSW2200-2207, SSW2250-2261, 2208-2223, 2262-2288									
FS412	2350-2394	3175	2350	750	3650	750	1050	1100	1250	875
GS407	5100-5120	1800	1275	425	1725	425	550	600	550	425
BS615 BS615, BS615B, BS616	5200-5202 187-190, 5205-5222, 5224-5226, 5243, 5245, 4900, 177-184, 5223, 5228-5278	4350 4900	3225 3675	1050 1200	8000 8000	1050 1200	1600	1725	2225	1425
ES615 BS615B AS416 AS616	2700-2714, 2716-2722, 2715, 2723-2742 4901-4905 SSW2800-2816 SSW2888-2890, 2850-2887	4575 4925 5225	3375 3700 4175	1125 1200 1475	8000 8000 5225	1125 1200 1475	2600		5375	2600
AS618 AS418	2950-2970 2900-2936	5350 4275	3975 3150	1300 1000	8000 8000	1300 1000	1475	1525	2075	1325

Gear ratios of diesel engine units Class EF415A, EF415B, EP415A, EP415B, EP418A, EP418B inclusive, are changed from time to time to permit various maximum speeds.

As changes are made a metal tag is placed over transition switch in cabs and isolation switch in booster unit specifying maximum speed unit may be operated.

ON BRANCH LINES, UNLESS AUTHORIZED BY SUPERINTENDENT, ENGINES WILL NOT BE PERMITTED TO OPERATE IN THOSE TERRITORIES WHERE NO RATING IS SHOWN IN ENGINE RATING TABLE.

RULE 14(1). Whistle signal must be sounded and bell kept ringing when entering or leaving the Sugar Co.'s yard at Alvarado or approaching their road crossing.

RULE 82-A. Trains to Niles Subdivision receiving clearance at San Jose may leave Santa Clara without clearance.

RULE 83. Identification may be made by eastward trains between Magnolia Tower and Elmhurst to be applied at end of double track. Reduce speed sufficiently to permit identification and comply with Rule 14(k).

Identification may be made by eastward trains between Redwood Jct. and Belle Haven to be applied at end of double track. Reduce speed sufficiently to permit identification.

Train register check of superior trains obtained at West Oakland may be applied at end of double track, Elmhurst, outside of D-251 limits between Sacramento and West Oakland and end of double track Martinez on Tracy line provided superior trains moving in the same direction are not passed in interlocking limits or territory where Rule D-251 is applicable.

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

Table listing stations: West Oakland, Newark, Niles, Livermore. Trains originating or terminating.

Extra trains will register at Niles Tower.

Trains originating or terminating San Jose Yard will register at Santa Clara.

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

Table listing stations: Niles Tower, Redwood Jct., Santa Clara. All trains.

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

Table with columns West MP and East MP, listing yard limits for various stations like Oakland, Mulford, Hayward, Alvarado, etc.

Niles: Unless otherwise instructed, eastward trains operating via Decoto enroute to Livermore line at Niles Junction, must take siding at Niles.

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.

RULE D-97-A. Will apply as follows: Between West Oakland and Elmhurst; Redwood Jct. and Belle Haven.

RULE 103-A. Automatic crossing gates:

Following crossings protected by gates, with control circuits located within short distance of crossings.

Crews of trains or engines making stop, reverse movements, movements against the current of traffic or movements from yard tracks over crossings, must know that gates are down before entering crossings.

Table with columns Station, Location, MP, listing stations like Magnolia Tower, Oakland, San Leandro, etc.

Oakland: When moving against current of traffic flagman must protect crossing before movement is made over Grove, Broadway, Franklin and Webster Streets and 29th Avenue.

Alviso: Eastward trains passing signal 382 per Rules 509 or 510 will not exceed 10 MPH approaching Sunnyvale Road M.P. 39.8.

Westward trains passing signal 403 per Rules 509 or 510 will not exceed 10 MPH approaching Elizabeth Street M.P. 39.1.

Trains which stop or are delayed between MP 34.1 and MP 39.8 shall not exceed 10 MPH approaching crossings MP 39.1 or MP 39.8 and not enter the crossing until it is known crossing signals are operating.

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.

Table listing crossings: Oakland - Market St., Mulford - Crossing Maitland Drive on Airport drill.

Shinn: Trainmen must protect Ford Lane Underpass when switching on Blue Diamond Lead.

RULE 105. Hayward: Siding extends from MP 18.74 to MP 19.77.

Newark: Siding on Tracy-Redwood Jct. line is west of Elmhurst-Santa Clara line crossing extending from MP 37.27 to MP 36.19.

Siding on Elmhurst-Santa Clara line is east of Tracy-Redwood Jct. line crossing extending from MP 31.00 to MP 32.22.

East Pleasanton: Siding is first track north of main track extending from MP 42.91 to MP 44.02.

RULE 221. West Oakland is a train-order office only for trains originating.

Light type train order signal, not equipped with semaphore arms, installed on the west side of the Fruitvale Tower Building.

Mulford, Niles and East Pleasanton are train-order offices only for trains originating when operator is on duty.

Warm Springs is train-order office for originating or terminating trains only.

Eastward trains to San Francisco Subdivision may leave Santa Clara without clearance.

Trains from Niles Subdivision must obtain clearance before leaving Redwood Jct.

RULE D-251. Will apply as follows: Between West Oakland and Elmhurst.

RULE 291-A. Flashing yellow lamp unit on mast of eastward interlocking signal on Coach Yard lead is displayed in both eastward and westward directions. Illumination of this flashing light observed from either direction will authorize and eastward reverse move toward 16th St. or Bays following a westward move into Coach Yard which does not clear the interlocking plant.

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

Table with columns Eastward Signals, Protection, Westward Signals, listing signals like P-SA Elmhurst, P-290, P-710.

RULE 505. AUTOMATIC BLOCK SIGNAL SYSTEM

Niles: Signal 291 governs movements, through junction switch, from Tracy line. Signal 293 governs movements, through junction switch, from San Jose line.

Top unit of Signal P-290 governs movements to Tracy line and lower unit governs movements to San Jose line.

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.

Signals 716 and 723 on Track No. 1 at crossovers 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 Signal 736, 5 minutes and 20 seconds after crossover is lined. If signals fail to clear at expiration of time interval, Rules 509 and 510 will govern.

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

RULE 516. Overlap posts:

Table listing overlap posts: Hayward (1200 feet west of Signal 199), San Leandro (515 feet east of Davis Street).

RULE 535. SPRING SWITCHES

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

Table with columns Location, Normal Position, listing Redwood Jct., San Jose, Milpitas Wye, San Jose Yard MP 46.80.

*Equipped with switch point indicator.

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

Table with columns Location, Normal Position, listing West Oakland, Elmhurst, Shinn, Niles.

RULE 605. INTERLOCKING

On double track within Oakland yard limits signal operator may arrange to move trains from one tower to another against the current of traffic, after having an understanding for each movement. Before moving trains against current of traffic signal operator must know that track to be used is clear of opposing engines and trains.

West Oakland (First and Cedar Sts.): Limits extend from signals at Cedar Street on Niles line to signals 427 feet east of MP 5 on Martinez line.

Eastward signals on First Street lead 227 feet west of First Street freight lead crossing, eastward signal on washer track 144 feet west of freight lead, eastward signals on 16th Street lead at clear point, 187 feet west of freight lead switch, westward signals on diesel tracks, coach lead and yards lead 40, 50 and 60.

A flashing yellow lamp unit installed on the mast of the eastward interlocking signal on the Coach Yard lead track and will be displayed in both eastward and westward directions. Illumination of this flashing yellow light observed from either direction will authorize an eastward reverse move toward 16th Street or Bays following a westward move into the Coach Yard which does not clear the interlocking plant.

Trains and engines moving out westward limits, West Oakland interlocker toward Bays are operating on yard tracks.

Magnolia Tower (First and Chestnut Sts.): Limits extend on eastward main track from signal 1600 feet west of WPRR crossing to dwarf signal 500 feet east of WPRR crossing, and on westward main track from signal 500 feet east of WPRR crossing to dwarf signal 480 feet west of crossing.

When necessary to perform switching within the interlocking limits, signal operator must designate work limits and clock time limit that must not be exceeded and must immediately actuate signal levers to display proceed indication in interlocking signals governing such movements and place red tags on signal levers controlling such movements. The tags must not be removed or attempt made to change position of power operated switches within such limits until yardmaster or member of crew has orally reported switching completed and clear of work limits.

Employee requesting work limits and clock time limit must state his name, occupation, location and train or engine number. Work and clock time limits granted must be repeated to signal operator and if correct, response "OK" will be given by signal operator.

RULE 292-B. When flashing white light is displayed on dwarf interlocking signals located at Adeline Street overpass Magnolia Interlocking controlling eastward movements from work lead, 50 lead, 70 lead crossover and 70 lead; yard engines are authorized to pass dwarf interlocking signal displaying stop indication after stopping and may continue reverse or forward movements past these signals until flashing white light is extinguished or orally instructed by yardmaster or his representative to clear interlocking limit.

Fruitvale: Limits on main track extend from Signal Bridge 123 to Signal Bridge 126 at Fruitvale Avenue.

Melrose: Limits extend between interlocking signals on old electric line and on the drill track between interlocking signal on west side of San Leandro Blvd. and interlocking signal on east side of WPRR crossing and is under the control of WPRR train dispatcher.

When signals do not display proceed indication after approach circuit is occupied, a member of crew must contact WPRR train dispatcher by telephone for instructions and permission to operate push button time release.

When necessary to perform switching within the interlocking limits, a member of crew must obtain clock time limit from WPRR train dispatcher and be governed by signal indication. When Klaxon horn is sounded, SP movements must immediately clear interlocking limits.

Cars or engines must not be left on approach circuits located in advance of interlocking signals.

Telephones, push buttons and instructions for operation of push button time release and dual control switches located in boxes on interlocking signal governing eastward movements on old electric line, on side of Instrument House and on instrument case adjacent to crossing of drill track and WPRR track.

Elmhurst: Interlocking limits extend either side of Junction switches between eastward SA signals on eastward and westward tracks and westward SA signal on Stonehurst Line, westward SA signals on Niles and Santa Clara Lines. The Junction switch of Niles Line and Santa Clara Line MP 13.47, is power operated, dual control switch controlled by Signal Operator at Fruitvale.

When necessary to hand throw dual control switch or when extensive switching is to be performed over the power switch permission must be secured from Signal Operator at Fruitvale and Rules 771 and 772 will govern.

Interlocking portion of SA signals controlled by Signal Operator at Fruitvale Tower.

Trains and engines desiring to make an eastward movement from the Westward Track over the crossover, will receive permission from the Signal Operator to hand operate the spring switch. Member of crew, after throwing the switch, will notify Signal Operator the switch is over and points in position before Operator will clear the Signal (4R) for such movements.

When movement is completed switch must be returned to normal position.

Niles Tower: Limits extend from dwarf interlocking signal on Niles line and interlocking signal on Tracy line, 1685 feet west of WPRR crossing to Signal 298 on Milpitas line and to Signal 425 on Centerville line.

Eastward interlocking signal 650 feet west of WPRR crossing governs movements as follows:

Top unit governs movements to Milpitas line.

Lower unit governs movements to Centerville line.

When Signal 420 or Signal 422 display stop indication, train or engine must stop and not proceed until signal displays proceed indication or permission obtained from signal operator.

Junction switches are dual control switches and are under 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. Instructions for operation of dual control switch machines are posted in telephone booths.

Derail near east end of yard Track No. 1 at Niles is electrically locked and under control of signal operator at Niles Tower. Instructions for operation by hand when authorized by signal operator are posted inside of lock box.

- Whistle signals:
To San Jose, o — —,
To Centerville, — o —,
To Niles, o — o,
To Tracy, — o — o.

Newark: Limits extend from signal 50 feet east of wye switch on Centerville line to signal 1150 feet east of wye switch on Santa Clara line, and to signal 650 feet west of wye switch on Elmhurst line, and to dwarf signals on Redwood Jct. line near Newark station building.

West Zone: Main track limits extend from eastward SA signal at MP 30.06 to westward dwarf signal at MP 30.43.

South Zone: Main track limits extend from eastward dwarf SA signal at MP 36.99 to westward dwarf SA signal at MP 37.01.

Interlocking limits on Oakland Wye extend from eastward SA signal at MP 30.36 in West Zone to eastward SA signal at MP 36.99 in South Zone.

Crossover from Santa Clara main track to Santa Clara siding is equipped with dual control switch machines under control of signal operator.

When necessary to hand throw these switches, permission MUST be obtained from the signal operator and be governed by Rules 771 and 772.

San Francisco Bay drawbridge, MP 32.53 on Redwood Jct. line:

Tracy: Limits extend from westward SA Signal at MP 70.68 to eastward SA Signal at MP 70.64 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 yardman 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 will be controlled by Tracy Telegraph Operator.

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

RULE 680. AUTOMATIC INTERLOCKING

East Oakland, WPRR Crossing yard tracks, MP 7.70: Limits extend between interlocking signals in approach to both sides of crossing.

Derails within interlocking limits equipped with electric locks and after locks have been released derails may be operated by hand throwing lever on switch stand located at crossing.

Fruitvale Ave. Bridge MP 9.8. Interlocking limits extend between interlocking signals in approach to both ends of the bridge.

WPRR Crossing (Stonehurst Branch), MP 13.80: Limits extend between interlocking signals in approach to both sides of crossing.

Radum, WPRR crossing MP 67.8 (San Ramon Branch): Limits extend between eastward SA signals just west of WPRR crossing and westward interlocking signals just east of WPRR crossing on both legs of wye track.

Signal clearing circuit located 100 feet in advance of eastward interlocking signal on east leg of wye and when occupied will clear signal for trains completing movement over crossing after signal has changed to stop indication account expiration of four minute time interval.

After signal clearing circuit is occupied if signal does not display proceed indication, a member of crew must actuate time release. (Wait four minutes in inclement weather or other conditions before actuating time release.) After time release is actuated signal does not display proceed indication in six minutes, but red indicator on signal mast is illuminated movement may be made through interlocking. If red indicator light is not illuminated and signal displays stop indication, movement must be made under provisions of Rule 663(c).

Signals governing movement from San Ramon Branch to main track will not display proceed indication until junction switch on main track is lined for movement.

RULE 705. LETTER TYPE INDICATORS

Indicators located as follows:

Table with columns: Illum. Letter, On Signal, Approaching, Authorizes and Requires Movement as Follows. Rows include Oakland (5th Avenue), Redwood Jct., 7 ft. mast MP 44.20 Santa Clara.

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 hand brakes on outbound trains until engine is coupled and brake pipe is charged.

RULE 826. Mulford: Elevated walkway constructed across Tracks 2 and 3, opposite Door 9, of the Kaiser Aluminum and Chemical Company, Mulford. When red light is displayed above entrance to tracks movements must not be made beyond Door 8. When red light is not displayed elevated walkway is clear and movements may be made the entire length of the tracks.

RULE 830. Milpitas: Westward trains not exceeding 75 cars making pick-up or set-out at Milpitas will stop their train with rear end west of Curtis Way, DA 41.1, crossing.

Westward trains exceeding 75 cars making set-out or meeting eastward trains will stop their train east of Capitol Avenue and wait until eastward train is into clear before proceeding.

Eastward trains having set-out or pick-up at Milpitas will leave their train west of the Battery Box located 400 feet west of the State Highway crossing at MP 40.0 while making set-out or pick-up.

Eastward trains must not exceed 75 cars after set-out or pick-up is made when meeting an opposing train exceeding 75 cars.

AIR BRAKE RULES

RULE 2. Enginemen taking charge of engines for freight and passenger service at West Oakland diesel shop and Tracy diesel shop consider that condensation has been drained from reservoirs, and from moisture and dirt collectors; that sanders are operating properly; that there are no flat spots on wheels.

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

- WESTWARD Altamont to MP-52
EASTWARD Altamont to MP-63

With no dynamic brake in operation and pressure maintaining system of braking not being used, one retaining valve for each 75 tons in train. If gross tonnage exceeds 75 tons per operative brake, retaining valves must be turned up on all cars.

RULE 22. Warm Springs: Trainmen must not couple air hoses on pick-ups at Warm Springs until it is ascertained that all cars to be picked up are in the track, and trainmen on Warm Springs Switcher crew must not perform switching on, or couple other cars onto the pick-ups without instructions from officer in charge who will see to it that members of pick-up crew are notified in advance.

1. MISCELLANEOUS

Look out for impaired clearance and bad footing from MP 39 to MP 39.80, Alviso, account levee constructed to hold back high tides.

Engines listed must not operate on tracks shown below:

Table with columns: Class of Engine, Restricted Tracks. Rows include Henderson Bay Road Salvage spur beyond a point 400 feet from switch, Alvarado Holly Sugar beyond east switch of interchange track from high line 150 feet west of beet unloading pit.

2. Load limit (car and contents):

- Redwood Jct.-Tracy 263,000 pounds
Oakland-San Jose via Niles 263,000 pounds
Elmhurst-Santa Clara 263,000 pounds

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

3. LOCATION OF STOCK YARDS

Table with columns: Station, Capacity in cars. Rows include Milpitas 10 (Water), Newark 5 (Water), Livermore 12 (Water).

4.

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

Table with columns: Mile Post, Location, Description. Rows include Magnolia Tower, Adeline Street overpass, Henderson Highway underpass, San Francisco Bay drawbridge, Dumbarton Newark Slough drawbridge, Niles Jct Highway underpass, Dresser Alameda Creek bridge, Farwell Alameda Creek bridge, Pleasanton WPRR overhead bridge, Altamont Highway overhead bridge, Altamont Tunnel, San Lorenzo San Lorenzo Creek bridge, Decoto WPRR overhead bridge, Niles Highway underpass, Drawbridge Warm Springs Slough bridge, Niles Tower Street underpass, Warm Springs General Motors Buildings Tracks 2, 5, 6 and 7.

All movements must stop and trainmen detrain before entering General Motors Buildings. Trainmen must not ride on top of cars while switching movements are being made into and out of the above noted buildings.

SPECIAL INSTRUCTIONS—NILES 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 page 6 and **MAXIMUM SPEED PERMITTED WITH CERTAIN EQUIPMENT**, and **OTHER MAXIMUM SPEEDS** appearing on page 7 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, REDWOOD JUNCTION TO TRACY:					WESTWARD, TRACY TO REDWOOD JUNCTION:				
26.23 to 26.25 (jct. switch).....			20	20	71.16 to 70.66 (jct. Los Banos line).....			35	35
26.25 to 28.35.....			35	35	70.66 to 63.00.....			50	50
28.35 to 28.41 (end double track).....			25	25	63.00 to 52.00.....			25	25
28.41 to 31.51.....			60	60	52.00 to 47.48.....			50	50
31.51 to 33.00 (bridge).....			30	30	★47.48 to 46.66 (Livermore).....			30	30
33.00 to 37.00.....			60	60	46.66 to 41.43.....			45	45
37.00 to 37.51 (Newark).....			15	15	★41.43 to 40.57 (Pleasanton).....			25	25
37.51 to 42.23.....			50	50	40.57 to 37.10.....			35	35
42.23 to 42.40.....			15	15	37.10 to 29.60 (43.00) (Niles jct.).....			25	25
★42.40 to 42.78.....			15	15	43.00 to 42.78.....			15	15
42.78 to 43.00 (29.60) (Niles Jct.).....			15	15	★42.78 to 42.40.....			15	15
29.60 to 37.10.....			25	25	42.40 to 42.23.....			15	15
37.10 to 40.57.....			35	35	42.23 to 37.51, except:.....			50	50
★40.57 to 41.43 (Pleasanton).....			25	25	over spring switch east end Shinn.....			35	35
41.43 to 46.66.....			45	45	37.51 to 37.00.....			15	15
★46.66 to 47.48 (Livermore).....			30	30	37.00 to 33.00.....			60	60
47.48 to 52.00.....			50	50	33.00 to 31.51 (bridge).....			30	30
52.00 to 63.00.....			25	25	31.51 to 28.41.....			60	60
63.00 to 70.66.....			50	50	28.41 to 26.25.....			35	35
70.66 to 71.16 (jct. Los Banos).....			35	35	26.25 to 26.23 (jct. switch).....			20	20
NILES TO SAN JOSE YARD:					SAN JOSE YARD TO NILES:				
29.00 to 29.43.....			15	15	47.39 to 43.55.....			15	15
★29.43 to 29.81.....			15	15	43.55 to 29.81.....			60	60
29.81 to 43.55.....			60	60	★29.81 to 29.43.....			15	15
43.55 to 47.39.....			15	15	29.43 to 29.00.....			15	15
WEST OAKLAND TO SANTA CLARA:					SANTA CLARA TO WEST OAKLAND:				
4.40 to 5.00.....			15	15	44.59 to 44.48.....			15	15
5.00 to 5.93.....			30	30	44.48 to 43.73.....			40	35
5.93 to 5.94 (WP crossing).....			20	20	43.73 to 40.10.....			60	60
5.94 to 6.20.....			30	30	40.10 to 39.00.....			25	25
★6.20 to 7.20 (Market St. to Oak St.).....			15	15	39.00 to 31.00.....			60	60
7.20 to 10.50.....			30	30	31.00 to 28.79.....			35	35
10.50 to 13.43.....			40	40	28.79 to 13.70.....			60	60
13.43 to 13.50 (jct. switch and crossover).....			15	15	13.70 to 13.50.....			30	30
13.50 to 13.70.....			30	30	13.50 to 13.43 (jct. switch).....			15	15
13.70 to 28.79.....			60	60	13.43 to 10.50.....			40	40
28.79 to 31.00 (Newark).....			35	35	10.50 to 7.20.....			30	30
31.00 to 39.00.....			60	60	★7.20 to 6.20 (Oak St. to Market St.).....			15	15
39.00 to 40.10.....			25	25	6.20 to 5.94.....			30	30
40.10 to 43.73.....			60	60	5.94 to 5.93 (WP crossing).....			20	20
43.73 to 44.48.....			40	35	5.93 to 5.00.....			30	30
44.48 to 44.59.....			15	15	5.00 to 4.40.....			15	15

Trains must not exceed 20 MPH when passing trains being serviced between Cedar and Kirkham Sts., Oakland.

★Regulated by City ordinance. ★★ICC Regulations.

Light engines may make Column 1 speed.

Freight and mixed trains containing no restricted cars are authorized to operate at Column 1 speeds not exceeding 60 MPH (65 MPH when specifically authorized) consistent with local restrictions account grade and other conditions, provided trains:

1. Do not exceed 120 cars and 40 tons per operative brake; or,
2. When carrying 90 lbs. brake pipe pressure, do not exceed:

Number of Cars	Tons Per Operative Brake
70	60
75	59
80	58
85	57
90	56
95	55
100	54
105	53
110	52
115	51
120	50

SPEED RESTRICTIONS FOR OTHER THAN MAIN TRACKS..... See Page 29

SPECIAL INSTRUCTIONS—NILES 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 page 6 and **MAXIMUM SPEED PERMITTED WITH CERTAIN EQUIPMENT**, and **OTHER MAXIMUM SPEEDS** appearing on page 7 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, AGAINST CURRENT OF TRAFFIC:					WESTWARD, AGAINST CURRENT OF TRAFFIC:				
West Oakland to Elmhurst, except:.....					Elmhurst to West Oakland.....				
(subject to lesser speeds on westward track)					(subject to lesser speeds on eastward track), except:				
★5.65 to 6.05.....			20	20	★10.13 to 9.53.....			20	20
★9.55 to 10.13.....			20	20	★6.05 to 5.65.....			20	20
ELMHURST TO NILES JUNCTION:					NILES JUNCTION TO ELMHURST:				
13.43 to 13.50 (jct. switch).....			15	15	29.60 to 29.00.....			25	25
13.50 to 29.00.....			50	50	29.00 to 13.50.....			50	50
29.00 to 29.60.....			25	25	Thru Jct. Switch MP 13.43.....			15	15

★★ICC. Regulation.

Light engines may make Column 1 speed.

Freight and mixed trains containing no restricted cars are authorized to operate at Column 1 speeds not exceeding 60 MPH (65 MPH when specifically authorized) consistent with local restrictions account grade and other conditions, provided trains:

1. Do not exceed 120 cars and 40 tons per operative brake; or,
2. When carrying 90 lbs. brake pipe pressure, do not exceed:

Number of Cars	Tons Per Operative Brake
70	60
75	59
80	58
85	57
90	56
95	55
100	54
105	53
110	52
115	51
120	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:.....	15
Through slip switches.....	10
Through turnouts on other than sidings.....	10
On branches.....	10
Ravenswood, on spur.....	10

SPECIAL INSTRUCTIONS—NILES SUBDIVISION

RATING OF ENGINES—In Units of 2000 Lbs. (Tons)

NOMINAL CLASS	ENGINE NUMBERS	Oakland to Niles	Niles to Oakland	Niles to San Jose	San Jose to Niles	Elmhurst and Santa Clara	Niles to Livermore	Livermore to Altamont	Tracy to Altamont	Altamont to Tracy	Niles and Redwood City
EP620A, EP623A, EP620B AP620A, AP620B EP624A FP624 EP418	6000-6004, 6017, 6018, 5900-5917 6011, 6015, 6020-6045, 5921-5924 6046-6054 3020-3035 3000-3009	2650 2625 2650 6500 3350	2650 2625 2650 5075 4225	2650 2625 2650 10075 5925	2650 2625 2650 12000 5200	3400 3375 3400 12000 8000 1400 3700 2350 1100 2775 1875 1100 2675 1800 5525 10000 8000	3725 3700 4360 8000
EF415A, EP415A, EF415B, EP415B, EF418A, EF418B	351-379, 6138-6470, SSW925-975, 535-551, 8022-8303, 600-637, 700-725, with 62/15 gear ratio with 61/16 gear ratio	2625 3350	3275 4150	4725 5925	3500 8000	6750 8000	1825 2375	1450 1875	1375 1775	6050	4100
EF415 EF618 EF418 AF420 EF420 EF423 AF624 EF425 EF625 GF425 AF628 KF636A, KF636 AF640 EF850B GF850A	SSW304 3800-3830, 3850-3966 3400-3640, 3653-3727, SSW3641-3652 4000-4009 SSW4030-4049, 4050-4087 SSW5000-5009, 5010-5017 SSW5150-5159, 5160-5162 SSW6500-6519, 6520-6681 6900-6928 6700-6767 7100-7128 9100-9120 9150-9152 9500-9502 9550-9552	4150 3350 3650 3750 3600 5050 4250 5150 7925 10625 11175	5200 4225 4500 4750 4425 3975 5425 6475 7025 9425 9900	7275 5925 6275 6650 6050 6725 7500 8575 10150 12000 12000	8000 5200 8000 8000 8000 7925 9250 11375 11950 12000 12000	8000 8000 8000 8000 8000 7925 9425 11600 11950 12000 12000	2900 2350 2550 2675 2525 2850 3050 3675 5150 7175 7950	2350 1875 1975 2100 1850 2050 2200 2625 3250 4200 4725	2250 1800 1900 2025 1775 1975 2125 2450 3100 4000 4525 4360 8540	
GS404 ES406, AS407 ES408, ES408B ES409 AS409 AS409 AS410, BS410, ES410	3-4, 1652 1000-1016, 1023-1032 1100-1128, 1150-1153 1170-1179 1200-1257 1270-1281 1700-1845, SSW1850-1854, 1855-1869, 1904, 1913, SSW1900-1903, 1914-1953	775 1175 2325 2575 1975 2600 2050	975 1475 2775 3150 2400 3225 2550	1025 1750 3850 4350 3300 4300 3500	800 1425 2775 3075 2450 3025 2575	1200 2075 4600 5075 3800 5000 4300	550 800 1575 1750 1350 1825 1400	400 575 1225 1375 1025 1400 1075	400 575 1225 1350 1025 1375 1075	4000 4000 4000 4000 4000 4000 1775 3500 4000 3575
BS412 ES412	2100-2157 SSW2200-2207, SSW2250-2261, 2208-2223, 2262-2288	2125 2400	2625 2950	3775 4250	2800 3075	4800 5550	1475 1650	1125 700	1100 700 5000 5000
FS412 GS407 BS615 BS615, BS615B, BS616	2350-2394 5100-5120 5200-5202 187-190, 5205-5222, 5224-5226, 5243, 5245, 4900, 177-184, 5223, 5228, 5278	1325 3250 3750	1650 4000 4550	1975 5800 6525	1650 8000 8000	2350 8000 8000	950 2300 2600	700 1825 1200	700 1725 2000	3000	2200
ES615	2700-2714, 2716-2722, 2715, 2723-2742	3500	4300	6025	8000	8000	2400	1950	1875	10000	6750
BS616B AS416 AS616 AS618 AS418	4901-4905 SSW2800-2816 SSW2888-2890, 2850-2887 2950-2970 2900-2936	3725 6225 4025 3225	4700 6225 5100 4075	6225 4850 7000 5800	8000 4850 8000 8000	8000 6225 8000 8000	2600 2575 2825 2300	2100 2200 2300 1800	2000 2050 2175 1700	5000 10000 10000 10000	5000 6850 4500

Gear ratios of diesel locomotive units Class EF415A, EF415B, EP415A, EP415B, EP418A, EP418B inclusive, are changed from time to time to permit various maximum speeds.

As changes are made a metal tag is placed over transition switch in cabs and isolation switch in booster unit specifying maximum speed unit may be operated.

ON BRANCH LINES, UNLESS AUTHORIZED BY SUPERINTENDENT, ENGINES WILL NOT BE PERMITTED TO OPERATE IN THOSE TERRITORIES WHERE NO RATING IS SHOWN IN ENGINE RATING TABLE.

SPECIAL INSTRUCTIONS—MARTINEZ SUBDIVISION

RULE 5. Time at stations between Oakland (16th Street) and Sacramento applies at station sign, except time for eastward first class trains at Davis via Gerber line applies at east switch north siding.

RULE 14(1). Whistle must be sounded on westward trains immediately on emerging from Tunnel No. 1 at Oleum.

RULE 14(m). Whistle will not be sounded one mile before reaching stations between Oakland 16th Street and San Pablo.

RULE 21-C. Engines to handle trains from Desert Unit West Oakland, may display indicators before leaving West Oakland. Indicators of engines on trains arriving Desert Unit West Oakland, may be displayed until engine reaches West Oakland and must be removed immediately on arrival at delivery track.

RULE 30. Between the hours of 9:00 PM and 6:00 AM engine bell must not be rung, except in emergency, in city limits of Napa.

RULE 82-A. Trains terminating at Bays will register at West Oakland.

Trains originating Desert Unit, West Oakland will obtain train orders and clearance at West Oakland.

Trains to Western Division at Sacramento originating at Antelope must obtain two clearances, one endorsed Sacramento Division, the other endorsed Western Division. Train orders addressed to such trains at Antelope will apply the same as if addressed to them at Sacramento and may leave Sacramento without clearance.

No. 378 and extra trains, except trains of passenger equipment, from Western Division passing Sacramento will not obtain clearance at Sacramento.

Sacramento Northern trains originating at Sacramento 19th & B Streets, or Sacramento-Yolo Port District connection to Western Division will obtain clearance at Sacramento.

RULE 83. Identification of westward first-class trains between Bahia and Suisun-Fairfield may be made by eastward trains enroute Schellville Branch to be applied at Suisun-Fairfield for crossover movements. Reduce speed sufficiently to permit identification and comply with Rule 14(k).

Train register check of superior trains obtained at West Oakland may be applied at end of double track, Elmhurst, outside of D-251 limits between Sacramento and West Oakland and end of double track Martinez on Tracy line provided superior trains moving in the same direction are not passed in interlocking limits or territory where Rule D-251 is applicable.

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

- West Oakland
 - Suisun-Fairfield
 - Davis
 - Avon
 - Port Chicago
 - Pittsburg
- } Trains originating or terminating

Sacramento: Trains originating or terminating, except No. 378 and extra trains passing Sacramento to or from Western Division.

Extra trains will register at Lombard.

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

- Suisun-Fairfield. All trains from Sacramento line to Schellville Branch.
- Davis. All trains from Schellville Branch to Sacramento line.
- Lombard. All trains from Schellville to Suisun-Fairfield.
- Tracy. No. 51 and No. 52.

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

West MP	East MP
Oakland (Martinez line)	17.35
" (Niles line)	15.82
" (Alvarado line)	14.01
27.97 Port Costa	39.24
" (Benicia spur)	End of track
" (Tracy line)	37.08
47.05 Suisun-Fairfield	52.45
" (Schellville Branch)	51.25
74.20 Davis	77.37
" (Tehama line)	77.39
37.50 Avon-Port Chicago	42.93
(San Ramon Branch)	58.00
46.31 Pittsburg	51.68
61.00 Brentwood	62.70
78.50 Tracy (Martinez-Los Banos line)	85.64
66.50 " (Niles-Lathrop line)	74.37
59.85 Napa Jct. (Creston-Schellville line)	64.56
" (Calistoga line)	End of track
" (Vallejo line)	End of track
71.72 Schellville (Lombard-Ignacio line)	NWP 38.93
" (Sonoma line)	NWP 41.70
58.00 Elmira	61.00
" (Winters Branch)	End of track

Martinez: No. 12 may make reverse movements against the current of traffic on Eastward Track between Martinez and Signals 340 and 342, Ozol, without providing flag protection for such movements and without obtaining permission from Signal Operator. Signal Operator must not clear Signals 340 or 342 or authorize eastward trains to pass these signals until No. 12 has completed reverse movement against the current of traffic and departed station.

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.

RULE D-97-A. Will apply as follows: Between Oakland (16th Street) and Sacramento; Martinez and Mococo.

RULE 98. Railroad crossings at grade not interlocked.

Trains and engines must approach with caution, and may move over the following crossing without stopping, if crossing clear and no movement approaching on intersecting line:

Napa Jct.: Big balloon track crossing of Calistoga-Vallejo main track. Schellville line trains using big balloon track need not stop.

Stop clear of the following crossings, then proceed if no movement approaching on intersecting line:

Napa Jct.: Calistoga-Vallejo main track crossing of big balloon track. Calistoga-Vallejo line trains must stop.

Nitro: Narrow gauge crossings of spur tracks serving Atlas Powder Company.

RULE 103-A. Automatic crossing gates:

Following crossings protected by gates, with control circuits located within short distance of crossings.

Crews of trains or engines making stop, reverse movements, movements against current of traffic or movements from yard tracks over crossings, must know gates are down before entering crossings.

Station	Location	MP
*Emeryville	Powell Street	7.2
*Emeryville	65th Street	7.7
*Emeryville	66th Street	7.8
*Emeryville	67th Street	7.9
*Berkeley	Bancroft Way	8.9
**Berkeley	Virginia Street	9.6
*Berkeley	Gilman Street	10.1
*Richmond	Central Avenue	11.6
*Richmond	47th Street (Stege)	13.1
*Richmond	Cutting Blvd	13.8
*Richmond	23rd Street	14.5
*Richmond	Barrett Avenue	15.1
*Richmond	Roosevelt Avenue	15.3
*Richmond	Pennsylvania Ave	15.4
*Richmond	Kearney Street	15.6
*San Pablo	Chesley Avenue	16.3
*San Pablo	Market Street	16.6
*San Pablo	County Road No. 17	17.1
*San Pablo	County Road No. 20	17.2
*Tormey	Private Road	27.1
**Martinez	Ferry Street	34.7
*Suisun-Fairfield	Cordelia Road	48.3
*Suisun-Fairfield	Union Avenue	49.0
*Suisun-Fairfield	Rio Vista Road	49.1
*Tolenas	Peabody Road	53.7
*Tolenas	Tolenas Road	54.1
*Sucro	Pedrick Road	69.4
**Dixon (West)	"A" Street	67.4
**Dixon (East)	First Street	67.6
Davis	5th Street	75.8
Vallejo	Georgia Street	67.6
**Port Chicago	Main Street	41.2
Las Juntas	Las Juntas Way	45.8
Los Medanos	County Road	50.8
Byron	Marsh Creek Rd.	64.6
Tracy	U. S. Highway 50	81.1
Buchli	Skaggs Island Rd.	68.5

*Do not operate for against current of traffic movements at territory speeds and Rule 103-A will apply.

*Gates are not actuated when trains are stopping at station to receive or discharge traffic until train starts to move toward crossing, and speed of 10 MPH must not be exceeded until gates are down.

Berkeley: Westward passenger trains making station stop must stop with rear of train clear of Virginia Street.

Richmond: Eastward passenger trains stopping at Richmond Station will stop clear of impulse circuit 300 feet west of Barrett Avenue (which is designated by sign reading "Spot") to permit crossing gates to raise for vehicular traffic. When train starts, proceed slowly to permit gates to lower after passing impulse circuit.

Westward passenger trains making station stop must stop with rear of train clear of Barrett Avenue.

Martinez: Crossing Gate Key Control installed at Ferry Street to actuate gates when backup movements made to clear junction switch.

Suisun-Fairfield: Eastward passenger trains stopping at station will stop clear of crossing circuit 80 feet west of Union Avenue designated by sign reading "Spot" on instrument case.

Sound Detector microphone is located at instrument case. When ready to proceed, enginemen will sound whistle to activate the crossing gates and proceed slowly to permit gates to be down before train enters the crossing.

Lombard: Westward trains and engines stopping at Lombard Station will stop clear of impulse circuit 200 feet east of State Highway 29 designated by sign reading "SPOT". When train starts, proceed slowly to permit vehicular traffic to clear crossing.

Napa: When switching on or across any street crossing city ordinance requires that member of crew must protect crossing.

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:

- Suisun-Fairfield..Crossing Union Ave. when moving against current of traffic, A-49-0,
- Thomann.....Crossing highway on Napa Valley Cooperative Winery spur, AB-86.0-C,
- Vacaville.....Crossing on Standard Oil spur, AD-63.15-C,
- Davis.....Crossing County road on University spur, A-75.7-C,
- Port Chicago....Crossing County road on leads to Naval Supply Base, B-40.8-C, B-41.0-C,
- Pittsburg.....Crossings on industry spurs, B-47.8-C, B-48.1-C,
- Brentwood.....Crossing highway on Irrigated Farms spur, B-62.6-C.

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

- Avon.....San Ramon line, for siding.
- Suisun-Fairfield, Napa Jct. line for west leg of wye to Oakland.
- Napa Jct.....Suisun-Fairfield line, for Schellville line, at MP 61.60.
- Schellville.....Schellville Branch, for NWPRR main track.

Napa Jct.: Track known as big balloon is Schellville line main track.

RULE 105. Suisun-Fairfield: Westward siding is first track north of westward main track extending from MP 48.65 to MP 48.10.

Westward trains entering siding, if length of train permits, must stop with rear of train clear of Union Avenue crossing.

North siding is first track north of main track on Schellville Branch extending from MP 48.94 to MP 49.95, to be used by trains from Schellville Branch to Sacramento line. May be used by other trains only when instructed by dispatcher.

Davis: Eastward siding is first track south of eastward main track extending from MP 75.88 to MP 76.71

Westward siding is first track north of westward main track extending from MP 77.03 to MP 75.73.

North siding is first track west of main track on Gerber line extending from MP 75.79 to MP 76.52.

RULE 107. Station train indicators are provided in approach to following stations:

Eastward	Westward
Berkeley (2)	Richmond
Crockett	
Martinez	
Suisun-Fairfield	

When illuminated these indicators will convey the following information:

TRAIN—Train at platform on opposite track.

CLEAR—Indicator in service.

When neither TRAIN or CLEAR is illuminated, indicator is out of service and report must be made to chief train dispatcher as soon as practicable.

RULE 221. West Oakland, Rodeo and Avon are train-order offices only for trains originating.

RULE D-251. Will apply as follows: On westward track between Sacramento and Oakland (16th Street). On eastward track between Oakland (16th Street) and Sacramento.

RULE 291-A. Flashing yellow lamp unit installed on the mast of the eastward interlocking signal on the Coach Yard lead track and is displayed in both eastward and westward directions. Illumination of this flashing yellow light observed from either direction will authorize an eastward reverse move toward 16th Street or Bays following a westward move into the Coach Yard which does not clear the interlocking plant.

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

Eastward Signal	Protection	Westward Signal
P-I	Collision detector, highway underpass west end of wye, Davis	P-I
P-510	Spring switch, end double track, Mococo.	P-359
P-710	Collision detector, highway underpass, MP 50.97 (Los Medanos)	P-519
P-SA	Spring switch, junction to Los Banos line, Tracy	P-829
	Spring switch to yard, Tracy	P-347
	Dragging equipment detector, MP 34.8	
	Dragging equipment detector, MP 35.9	

A 2-indication, light type indicator installed just below interlocking signal P-SA located 550 feet west of draw span, and a 2-indication, light type indicator attached to the mast of signal P-347, are designated as dragging equipment indicators.

They will display red aspect with signal at "STOP" when actuated by dragging equipment detector, and lunar white aspect when not actuated by dragging equipment detector.

Crews of trains stopped by signals P-SA or P-347 with the red indicator light illuminated, will inspect their train for dragging equipment.

Signal may be cleared and indicator light changed to lunar white by pressing push button located on signals P-SA and P-347 after first complying with Rule 306.

RULE 505. AUTOMATIC BLOCK SIGNAL SYSTEM

Giant: Crossover between main tracks at west end of trackage for Bethlehem Steel plant MP 20 equipped with electric locks.

Cannon: Electric locks installed on crossover switches and on switch for Sacramento Northern connection to the eastward track.

Ozol. When Signals 340 and 342 display stop indication, eastward train or engine must stop and not proceed until signal displays proceed indication or permission to proceed obtained from Signal Operator at Martinez.

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 crossovers 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, Rules 509 and 510 will govern.

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

RULE 512. Block indicators adjacent to east switch of crossover and switch to Sacramento Northern connection, Cannon apply to the eastward main track only.

RULE 513. Westward trains before making cross-over movement at Cannon, permission must be received from signal operator, Davis.

Sacramento Northern trains on eastward trip before entering Main Track at Cannon, permission must be received from signal operator, Davis.

RULE 516. Overlap posts. Los Medanos (250 feet west of Signal 509)..... Westward trains.

RULE 535. SPRING SWITCHES

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

Location	Normal Position
Mococo.....	End double track..... Westward track
Tracy.....	Junction switch MP 71.16 to Los Banos line.... Lathrop Sub-division

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

- *West Oakland.....1st and 16th St. line... 16th St. line
- *Stege.....Seaver wye..... East leg of wye
- *Ozol.....East end siding..... Main track
- *Ozol.....West end siding..... Main track
- Martinez.....Junction switch..... Bridge line
- *Suisun-Fairfield...East end north siding... Main track
- *Lombard.....East end siding..... Main track
- *Lombard.....West end siding..... Main track
- Tracy.....MP 82.98 Los Banos main to yard..... Yard Track

*Equipped with switch-point indicator.

RULE 605. INTERLOCKING

On double track within Oakland yard limits signal operator may arrange to move trains from one tower to another against the current of traffic, after having an understanding by telephone for each movement. Before moving trains against current of traffic signal operator must know that track to be used is clear of opposing engines and trains.

Trains and engines moving out westward limits, West Oakland interlocker toward Bays are operated on yard tracks.

Oakland, 16th St.: Limits extend from signals 427 feet east of MP 5 on the Martinez line to signals at MP 6.55.

West Oakland (First and Cedar Sts.): Limits extend from signals at Cedar Street on Niles line to signals 427 feet east of MP 5 on Martinez line.

Eastward signals on First Street lead 227 feet west of First Street freight lead crossing, eastward signal on washer track 144 feet west of freight lead, eastward signals on 16th Street lead at clear point, 187 feet west of freight lead switch, westward signals on diesel tracks, coach lead and yard leads 40, 50 and 60.

A flashing yellow lamp unit, Rule 291-A, installed on the mast of the eastward interlocking signal on the Coach Yard lead track will and be displayed in both eastward and westward directions. Illumination of this flashing yellow light observed from either direction will authorize an eastward reverse move toward 16th Street or Bays following a westward move into the Coach Yard which does not clear the interlocking plant.

Martinez: Limits extend on eastward main track from home signal 600 feet east of station building to westward dwarf signals 938 feet east of station building on Tracy line and on Suisun Bay bridge line.

Limits extend on westward main track from signals 2350 feet east of station building on Tracy line and on Suisun Bay bridge line, to interlocking signal 50 feet west of junction switch. Signal operator's permission must be obtained before fouling westward main track at crossover and switches from spurs to westward main track between Martinez and Ozol.

Suisun Bay Bridge, Martinez: Bridge zone limits extend on both tracks from home signals 800 feet east of draw span to home signals 550 feet west of draw span.

Davis: Limits extend on eastward and westward main tracks from interlocking signals at MP 75.25 to interlocking signal on signal bridge at MP 75.98 on westward main, interlocking signals 325 feet west of MP 75.98 on eastward main and east pass, interlocking signal at MP 75.97 on the west pass and to westward interlocking signal at MP 75.55 on the Gerber line.

The switch to the University spur is hand throw. Member of crew will operate hand throw switch after receiving permission of signal operator. Dwarf signal at clear point is an interlocking signal.

Cranks for hand operating power switches are mounted on signal instrument case on south side of track at west end of street underpass on the west end, on instrument case on south side of track opposite P.G.&E. switch on the Sacramento end, and on instrument case between 3rd Street and 4th Street on the Woodland end.

When necessary to hand operate power switches, permission must be obtained from the signal operator and be governed by Rules 771 and 772.

Instructions for hand operating power switches are mounted on cases above crank holders.

Sacramento River Drawbridge: Eastward trains stopped by interlocking signal at MP 87.94 must contact Sacramento Yardmaster and if authorized to enter yard, must then contact signal operator, Sacramento River Drawbridge, and be governed by Rules 662 and 663.

Brazos Drawbridge over Napa River: Movement over bridge not permitted unless signal operator on duty.

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 yardman 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.

RULE 680. AUTOMATIC INTERLOCKING

SNRy Crossing, MP 86.90: Limits extend between interlocking signals in approach to both sides of crossing.

Westward signal D-877 located 500 feet west of MP 88 governs westward movements on eastward main track.

Westward interlocking signal located 600 feet east of Sacramento Northern Railway crossing, MP 86.90, governs movement on eastward main track, displays aspects per Rule 285 Fig. G and Rule 290 Fig. 1.

RULE 705. LETTER TYPE INDICATORS

Indicators located as follows:

Table with 4 columns: Illum. Letter, On Signal, Approaching, Authorizes and Requires Movement as Follows

W. 77. Oakland (16th St.).. Stop east of 67th St. Emeryville and wait until Signal 77 displays proceed indication.

Table with 4 columns: Illum. Letter, On Signal, Approaching, Authorizes and Requires Movement as Follows

W. 672. Dixon. Eastward train must stop and not proceed until indicator is extinguished except trains may proceed not exceeding restricted speed to the next home signal after receiving verbal authority from the train dispatcher. A telephone is located at Signal 672.

H. 702. Tremont. ... Eastward trains must stop west of road crossing A-71.6 at Tremont and member of crew open small door on track side of Hot Box Locator, located west of crossing A-71.6. Numerals displayed by indicators inside the box indicate location of hot bearings in relation to rear axle of train. Top row indicates hot bearings on right side of train, lower row on left side of train in direction of movement. Indicators will display a maximum of four hot bearings on each side of train. All journals of car indicated must be inspected as well as all journals of each adjoining car.

After hot bearing has been located from information furnished by indicators, press black push button to cancel numbers on the indicator. Door must be closed and secured with switch lock.

When Red "Locator Out of Service" light below the Hot Box Locator is illuminated all journals on the train must be inspected.

A phone is located at Crossing A-71.6 for giving information to train dispatcher.

S. 783. Davis. Enter westward siding (applies to freight trains only).

Display of letter "M" does not relieve conductors or engineers of compliance with Rule 513.

When necessary to use siding and letter "S" is not displayed, permission must be obtained from train dispatcher.

RULE 715. Automatic Train Stop eastward track from Martinez to westward dwarf signal 300 feet east of draw span.

When Signal 328 displays yellow aspect, trains must not exceed 15 MPH from this signal to track magnet located 550 feet west of semi-automatic signal, opposite white concrete marker block.

Automatic Train Stop westward track from 100 feet east of Signal 357 to Martinez.

When Signal 347 displays yellow aspect, trains must not exceed 15 MPH from this signal to track magnet located 1250 feet east of semi-automatic signal, opposite white mark on bridge.

GENERAL REGULATIONS

RULE 825. Elmira: Not less than three hand brakes must be set on east end of cars left standing except with less than three hand brakes all brakes must be set.

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

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

RULE 830. Schellville: Trains arriving and departing and when switching movements are being made over Highway Crossing No. 12, Schellville crossing will be cleared after each move is made to allow vehicular traffic to pass.

RULE 858. Between Oakland (16th Street) and San Francisco passengers and hand baggage will be transported by bus; checked baggage, mail and express by truck.

AIR BRAKE RULES

RULE 2. Enginemen taking charge of engines for freight and passenger service at West Oakland diesel shop and Tracy diesel shop will consider that condensation has been drained from reservoirs, and from moisture and dirt collectors; that sanders are operating properly; that there are no flat spots on wheels.

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

WESTWARD. Napa Jct. to MP-58 EASTWARD. Cordelia to MP-58

With no dynamic brake in operation and pressure maintaining system of braking not being used, one retaining valve for each 60 tons in train. If gross tonnage exceeds 60 tons per operative brake, retaining valves must be turned up on all cars.

When dynamic brake is in operation and tonnage of train exceeds 2000 tons per four-axle unit or 3000 tons per six-axle unit, one retaining valve for each 125 tons in train.

Except, when dynamic brake is in operation and pressure maintaining system of braking is being used and tonnage of train exceeds 2500 tons per four-axle unit or 3500 tons per six-axle unit, one retaining valve for each 125 tons in train.

FREIGHT TRAINS

RULE 33. When gross tonnage of freight train handling cars with single capacity brakes exceeds 80 tons per operative brake, maximum speed of train must not exceed 45 MPH, except when gross tonnage exceeds 85 tons per operative brake, maximum speed must not exceed 25 MPH on descending grades of 1.2% to 1.5% and 20 MPH on descending grades in excess of 1.5%. Grades where such restrictions apply will be:

OAKLAND TO SACRAMENTO

Maximum speed of freight trains must not exceed 20 MPH on descending grade between the following milepost locations when gross tonnage exceeds 85 tons per operative brake:

Eastward MP 33.8 to MP 36.0 (Eastbound main)

SCHELLVILLE BRANCH

Westward

MP 55.0 to MP 58.0

Maximum speed of freight trains must not exceed 25 MPH on descending grade between the following milepost locations when gross tonnage exceeds 85 tons per operative brake:

Eastward

MP 58.0 to MP 62.8

CALISTOGA BRANCH

Westward

MP 77.0 to MP 79.0

RULE 38-A. Will not apply at Sacramento except incoming engineer after completing stop will make a full service brake application, leaving brakes applied. Running test in compliance with Rule 39 must be made as soon as speed permits after train departs terminal.

RULE 39. Running test must be made as follows: Eastward and westward trains at Creston.

MISCELLANEOUS

1. Westward passenger trains except No. 101 making station stop at Martinez, will stop with units clear of Ferry Street Crossing, and if train is of sufficient length after head end work completed, second stop will be made to detrain passengers.

Eastward passenger trains making station stop at Martinez, except No. 12, will make normal station stop blocking Ferry Street, but not to exceed ten minutes.

No. 12 must be routed via Mococo Line and will pull rear end to clear Ferry Street. After head end work completed and passengers entrained, train will make reverse movement, head end to clear junction switch as follows:

Before making reverse movement against current of traffic over Ferry Street on eastward track, a member of crew will lower the crossing gates by operating switch key control located on the east side of the crossing gate adjacent to station building, turning switch key to RIGHT to lower crossing gates, and remove key before commencing movement. If reverse movement is delayed after crossing gates are lowered, the gates may be raised by use of key control; turn key to LEFT to raise crossing gates.

Before reverse movement is made from Mococo Line, operator at Martinez will operate toggle switch on the control machine, holding Signals 340 and 342 in stop position until backup movement is completed, after which toggle switch must be returned to normal position.

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

Table with 2 columns: Class of Engine, Restricted Tracks

- 3. Load limit (car and contents): Oakland-Sacramento. 263,000 pounds ***Martinez-Tracy. 263,000 pounds Suisun-Fairfield-Schellville. 240,000 pounds Napa Jct.-Larkmead. 240,000 pounds *Larkmead-Calistoga. 169,000 pounds Napa Jct.-Vallejo. 240,000 pounds Elmira-Winters. 240,000 pounds *Winters-Esparto. 210,000 pounds **Avon-San Ramon. 210,000 pounds San Ramon-Radum. 240,000 pounds

*Exception: Passenger equipment on six axles weighing not over 200,000 pounds may be handled.

**When notified that false bents are not in place on bridge 56.99 load limit between Avon and Radum will be 169,000 pounds.

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

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

4. LOCATION OF STOCK YARDS

Table with 3 columns: Station, Capacity in cars

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

Table with 4 columns: Mile Post, Location, Description

SPECIAL INSTRUCTIONS—MARTINEZ 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 page 6 and **MAXIMUM SPEED PERMITTED WITH CERTAIN EQUIPMENT**, and **OTHER MAXIMUM SPEEDS** appearing on page 7 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, WEST OAKLAND TO SACRAMENTO:					WESTWARD, SACRAMENTO TO WEST OAKLAND:				
4.9 to 4.25			15	15	89.00 to 88.54			10	10
4.25 to 4.81 (crossing)			20	20	88.54 to 76.00			70	60
4.81 to 7.75			45	45	76.00 to 75.20, except:			45	45
7.75 to 16.31			60	60	★75.60 to 75.36 (West leg wye and jet switch)			20	20
16.31 to 21.50			70	60	75.20 to 49.00			70	60
21.50 to 34.40			45	45	49.00 to 48.38			55	55
★34.40 to 34.70 (Martinez)			30	30	48.38 to 35.50			70	60
34.70 to 35.50			45	45	35.50 to 34.70			45	45
35.50 to 48.38			70	60	★34.70 to 34.40 (Martinez)				
48.38 to 49.00			55	55	34.40 to 21.50			45	45
49.00 to 75.20			70	60	21.50 to 16.31			70	60
75.20 to 76.00, except:			45	45	16.31 to 7.75			60	60
★75.25 to 75.60 (crossover and west leg wye to Gerber line)			20	20	7.75 to 4.81			45	45
76.00 to 87.79			70	60	4.81 to 4.25 (crossing)			20	20
87.79 to 88.54 (Spring Switch)			35	35	4.25 to 4.9			15	15
87.79 to 88.54 (SN Ry. crossing)			45	45	WESTWARD, AGAINST CURRENT OF TRAFFIC:				
88.54 to 89.00			10	10	Sacramento to West Oakland				
EASTWARD, AGAINST CURRENT OF TRAFFIC:					Sacramento to West Oakland				
West Oakland to Sacramento					(Subject to lesser speeds on eastward track), except:				
(Subject to lesser speeds on westward track), except:					34.21 to 34.20 (Ozol)				
31.10 to 31.11 (Ozol)					31.11 to 31.10 (Ozol)				
34.20 to 34.21 (Ozol)					76.00 to 75.20				
75.20 to 76.00					WESTWARD, TRACY TO MARTINEZ:				
EASTWARD, MARTINEZ TO TRACY:					82.58 to 82.24 (jet. Los Banos line)				
34.70 to 35.88					82.24 to 81.83 (jet. Niles line)				
35.88 to 35.91					81.83 to 80.70				
35.91 to 48.15					80.70 to 53.60				
48.15 to 48.90					★53.60 to 53.30 (Antioch)				
★48.90 to 48.95 (Pittsburg)					53.30 to 49.70				
48.95 to 53.30					49.70 to 48.95				
★53.30 to 53.60 (Antioch)					★48.95 to 48.90 (Pittsburg)				
53.60 to 80.70					48.90 to 35.91				
80.70 to 81.83					35.91 to 34.70				
81.83 to 82.24 (jet. Niles line)									
82.24 to 82.58 (jet. Los Banos line)									

★Regulated by City ordinance. ★★ICC Regulation. ★★★Regulated by PUC order.

Light engines may make Column 1 speed not exceeding 70 MPH.

Freight and mixed trains containing no restricted cars are authorized to operate at Column 1 speeds not exceeding 60 MPH (65 MPH between Martinez and Tracy) consistent with local restrictions account grade and other conditions, provided trains:

1. Do not exceed 120 cars and 40 tons per operative brake; or,
2. When carrying 90 lbs. brake pipe pressure, do not exceed:

Number of Cars	Tons Per Operative Brake
70	60
75	59
80	58
85	57
90	56
95	55
100	54
105	53
110	52
115	51
120	50

SPECIAL INSTRUCTIONS—MARTINEZ SUBDIVISION

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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	TERRITORY			FREIGHT AND MIXED
MP	MP	Column:	1	MP	MP	Column:	1
EASTWARD, AVON TO RADUM:				WESTWARD, RADUM TO AVON:			
38.10 to 44.64			25	67.80 to 57.02			25
44.64 to 44.67 (bridge)			15	57.02 to 56.99 (bridge)			15
44.67 to 49.22			25	56.99 to 49.25			25
49.22 to 49.25 (bridge)			15	49.25 to 49.22			15
49.25 to 56.99			25	49.22 to 44.67			25
56.99 to 57.02 (bridge)			15	44.67 to 44.64 (bridge)			15
57.02 to 67.80			25	44.64 to 38.10			25
EASTWARD, ELMIRA TO ESPARTO:				WESTWARD, ESPARTO TO ELMIRA:			
59.60 to 76.00			25	90.35 to 76.00			15
76.00 to 90.35			15	76.00 to 59.60			25
EASTWARD, SUISUN-FAIRFIELD TO SCHELLVILLE:				WESTWARD, SCHELLVILLE TO SUISUN-FAIRFIELD:			
48.93 to 49.30			15	NWPRR. on wye to 72.60			10
49.30 to 61.47			35	72.60 to 65.25			35
61.47 to 61.77 (Napa Jct.)			15	65.25 to 64.15 (drawbridge)			15
61.77 to 64.15			35	64.15 to 61.77			35
64.15 to 65.25 (drawbridge)			15	61.77 to 61.47			15
65.25 to 72.60			35	61.47 to 49.30			35
72.60 to NWPRR. (on wye)			10	49.30 to 48.93			15
EASTWARD, NAPA JUNCTION TO VALLEJO:				WESTWARD, VALLEJO TO NAPA JUNCTION:			
61.60 to 61.75			15	69.00 to 66.65			15
61.75 to 66.65			25	66.65 to 61.75			25
66.65 to 69.00			15	61.75 to 61.60			15
EASTWARD, NAPA JUNCTION TO CALISTOGA:				WESTWARD, CALISTOGA TO NAPA JUNCTION:			
61.25 to 61.30			15	95.78 to 87.70			25
61.30 to 69.20, except:			35	★87.70 to 87.00 (St. Helena)			20
Thru turnouts at MP 65.86 and 66.40			15	87.00 to 79.50			25
★69.20 to 71.10 (Napa)			25	79.50 to 71.78			35
71.10 to 71.60			35	71.78 to 71.60 (highway crossing)			15
71.60 to 71.78 (highway crossing)			15	71.60 to 71.10			35
71.78 to 79.50			35	★71.10 to 69.20 (Napa)			25
79.50 to 87.00			25	69.20 to 61.30, except:			35
★87.00 to 87.70 (St. Helena)			20	Thru turnouts at MP 66.40 and MP 65.86			15
87.70 to 95.78			25	61.30 to 61.25			15

★Regulated by City ordinance.

On Calistoga Branch between locations shown below, maximum speed must not be exceeded when handled by following engines subject to further restrictions shown in **SPEED RESTRICTIONS FOR TRAINS TABLE** above:

MP 78.56 to MP 92.30

EF415A, EF415B, EP415A, EP415B, EF418, EF423, AS418	10 MPH
ES410, BS412, ES412	15 MPH
BS616, BS616B, FP624	15 MPH
AS409, AS410, BS410	20 MPH
AF624	20 MPH

MP 92.30 to MP 95.78

AS409, AS410, BS410	10 MPH
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On Winters Branch between MP 76.34 to 90.08 maximum speed must not be exceeded when handled by following engines subject to further restrictions shown in **SPEED RESTRICTIONS FOR TRAINS TABLE** above:

ES406	10 MPH
KF636A	10 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:	15
Through slip switches	10
Through turnouts on other than sidings	10
On branches	10

SPECIAL INSTRUCTIONS—MARTINEZ SUBDIVISION

RATING OF ENGINES—In Units of 2000 Lbs. (Tons)

NOMINAL CLASS	ENGINE NUMBERS	Oakland and Martinez	Martinez to Bridge Summit	Bridge Summit to Sacramento	Sacramento to Martinez	Martinez and Tracy
EP620A, EP623A, EP620B AP620A, AP620B EP624A FP624 EP418	6000-6004, 6017, 6018, 5900-5917 6011, 6015, 6020-6045, 5921-5924 6046-6054 3020-3035 3000-3009	3400 3425 3400 6400 3950	1400 1400 1400 3350 2225	2975 2975 2975 9325 5200	2650 2650 2650 6400 4275	3400 3425 3425 6400 3950
EF415A, EP415A, EF415B, EP415B, EF418A, EF418B	351-379, 6138-6470, SSW925-975, 535-551, 8022-8303, 600-637, 700-725, with 62/15 gear ratio with 61/16 gear ratio	3750 3000	1800 2225	4100 5175	3400 4250	3750 3000
EF415 EF618 EF418 AF420 EF420 EF423 AF624 EF425 EF625 GF425 AF628 KF636A, KF636 AF640 EF850B GF850A	SSW304 3800-3830, 3850-3966 3400-3640, 3653-3227, SSW3641-3652 4000-4009 SSW4030-4049, 4050-4087 SSW5000-5009, 5010-5017 SSW5150-5159, 5160-5162 SSW6500-6519, 6520-6681 6900-6928 6700-6767 7100-7128 9100-9120 9150-9152 9500-9502 9550-9552	3950 3950 4475 4800 4300 4700 5000 7625 7625 9675 10175	2875 2225 2375 2525 2250 2525 2675 3150 4000 5250 5925	6400 5200 6025 6075 5950 7275 7875 7950 10925 12000 12000	5425 4275 4475 4775 4300 4700 5000 5900 7225 9675 10175	3950 3950 4475 4800 4300 4700 5000 7625 7625 9675 10175
GS404 ES406, AS407 ES408, ES408B ES409 AS409 AS409 AS410, BS410, ES410	3, 4, 1652 1000-1016, 1023-1032 1100-1128, 1150-1153 1170-1179 1200-1257 1270-1281 1700-1845, SSW1850-1854, 1855-1869, 1904, 1913, SSW1900-1903, 1914-1953	1050 1625 3250 3600 2625 3450	550 800 1600 1775 1350 1800	1100 1700 3350 3725 2800 3700	1050 1550 3050 3425 2625 3450	1050 1625 3250 3600 2625 3450
BS412 ES412	2100-2157 SSW2200-2207, SSW2250-2261, 2208-2223, 2262-2288	3200	1475	3150	2850	3200
FS412 GS407 BS615 BS615, BS615B, BS616	2350-2394 5100-5120 5200-5202 187-190, 5205-5222, 5224-5226, 5243, 5245, 4900, 177-184, 5223, 5228, 5278	3175 2000 4250 5000	1650 950 2225 2600	3550 1925 5075 5575	3175 1800 4250 4925	3175 2000 4250 5000
ES615 BS616B AS416 AS616 AS618 AS418	2700-2714, 2716-2722, 2715, 2723-2742 4901-4905 SSW2800-2816 SSW2888-2890, 2850-2887 2950-2970 2900-2936	6100 5000 5375 4050	2400 2600 2800 2200	5200 5550 6200 5175	4575 4950 5375 4125	6100 5000 5375 4050

① Will not apply to Sacramento to Northern Engines.

Gear ratios of diesel locomotive units Class EF415A, EF415B, EP415A, EP415B, EP418A, EP418B inclusive, are changed from time to time to permit various maximum speeds.

As changes are made a metal tag is placed over transition switch in cabs and isolation switch in booster unit specifying maximum speed unit may be operated.

ON BRANCH LINES, UNLESS AUTHORIZED BY SUPERINTENDENT, ENGINES WILL NOT BE PERMITTED TO OPERATE IN THOSE TERRITORIES WHERE NO RATING IS SHOWN IN ENGINE RATING TABLE.

SPECIAL INSTRUCTIONS—MARTINEZ SUBDIVISION

RATING OF ENGINES—In Units of 2000 Lbs. (Tons)

NOMINAL CLASS	ENGINE NUMBERS	Suisun-Fairfield	Napa Jct. to Suisun-Fairfield	Napa Jct. to Scheffville	Scheffville to Napa Jct.	Napa Jct. to Larkmead	Larkmead to Napa Jct.	Larkmead to Galistoga	Napa Jct. to Vallejo	Vallejo to Napa Jct.	Elmira to Elmira	Winters and Esparto	San Ramon to San Ramon	San Ramon to San Ramon	San Ramon to Avon	Avon to San Ramon	
EF415A, EP415A, EF415B, EP415B, EF418A, EF418B	351-379, 6138-6470, SSW925-975, 535-551, 8022-8303, 600-637, 700-725, with 62/15 gear ratio With 61/16 gear ratio	1025 1325	1400 1750	6050 6050	2400 3000	3725 3000	3725 3000	375 700	6050 2000	5175 3800	725 1100 2150	3075	725 1275 2150 2425 2425	1625 2925 5900 7600 7225	800 1350 1650	1000 1750 1800	
EF415 EF618 EF618	SSW304 3800-3830, 3850-3966 3400-3640, 3653-3727, SSW3641-3652	1650 1300	2250 1750	3725 3000	3725 3000	3725 3000	2750 2775	375 700	6050 2000	5175 3800	725 1100 2150	3075	725 1275 2150 2425 2425	1625 2925 5900 7600 7225	800 1350 1650	1000 1750 1800	
AF420 EF420 EF423 AF624 EF425 EF625 GF425 AF628 KF636A, KF636 AF640 EF850B GF850A	4000-4009 SSW4030-4049, 4050-4087 SSW5000-5009, 5010-5017 SSW5150-5159, 5160-5162 SSW6500-6519, 6520-6681 6900-6928 6700-6767 7100-7128 9100-9120 9150-9152 9500-9502 9550-9552	300 425 900 1000 1025 775 850	400 625 1250 1375 750 1400	625 4000 4000 4000 4000 4000 4000	625 1000 2000 2225 1700 2250 1750 1950	375 750 1300 2250 1750 1950	375 750 1300 2250 1750 1950	375 700 1225	600 1025 1825 1650 4000	600 1025 1825 1650 4000	650 1000 1975 1650	3075	725 1275 2150 2425 2425	1625 2925 5900 7600 7225	800 1350 1650	1000 1750 1800	
GS404 ES406, AS407 ES408, ES408B ES409 AS409 AS409 AS410, BS410, ES410	3, 4, 1652 1000-1016, 1023-1032 1100-1128, 1150-1153 1170-1179 1200-1257 1270-1281 1700-1845, SSW1850-1854, 1855-1869, 1904, 1913, SSW1900-1903, 1914-1953	300 425 900 1000 1025 775 850	400 625 1250 1375 750 1400	625 4000 4000 4000 4000 4000 4000	625 1000 2000 2225 1700 2250 1750 1950	375 750 1300 2250 1750 1950	375 750 1300 2250 1750 1950	375 700 1225	600 1025 1825 1650 4000	600 1025 1825 1650 4000	650 1000 1975 1650	3075	725 1275 2150 2425 2425	1625 2925 5900 7600 7225	800 1350 1650	1000 1750 1800	
BS412 ES412	2100-2157 SSW2200-2207, SSW2250-2261, 2208-2223, 2262-2288	1475	1900 2025	5000 10000 5000 3300	5000 10000 5000 3300	5000 10000 5000 3300	2050	725	2325 3000 5000	2325 3000 5000	2250 1125 1250	3275	2250 2250 3025 3475	7275 10300 10650	1750 950 1125	2000 1125	
FS412 GS407 BS615 BS615, BS615B, BS616	2350-2394 5100-5120 5200-5202 187-190, 5205-5222, 5224-5226, 5243, 5245, 4900, 177-184, 5223, 5228, 5278	1375 1500	1900 2025	5000 10000 5000 3300	5000 10000 5000 3300	5000 10000 5000 3300	2050	725	2325 3000 5000	2325 3000 5000	2250 1125 1250	3275	2250 2250 3025 3475	7275 10300 10650	1750 950 1125	2000 1125	
ES615 BS616B AS416 AS616 AS618 AS418	2700-2714, 2716-2722, 2715, 2723-2742 4901-4905 SSW2800-2816 SSW2888-2890, 2850-2887 2950-2970 2900-2936	1275	1700	10000 5000 3300	10000 5000 3300	10000 5000 3300	2975		10000 5000 3300	10000 5000 3300	3275		2975	9700			

Following nominal class engines not permitted to operate between Yountville and Larkmead: EF418, EP418.

Gear ratios of diesel locomotive units Class EF415A, EF415B, EP415A, EP415B, EP418A, EP418B inclusive, are changed from time to time to permit various maximum speeds. As changes are made a metal tag is placed over transition switch in cabs and isolation switch in booster unit specifying maximum speed unit may be operated.

ON BRANCH LINES, UNLESS AUTHORIZED BY SUPERINTENDENT, ENGINES WILL NOT BE PERMITTED TO OPERATE IN THOSE TERRITORIES WHERE NO RATING IS SHOWN IN ENGINE RATING TABLE.