

SOUTHERN PACIFIC COMPANY



WESTERN DIVISION SPECIAL INSTRUCTIONS

No. 3

**EFFECTIVE SATURDAY, DECEMBER 1, 1951
AT 12:01 A. M.,
PACIFIC STANDARD TIME
SUPERSEDING SPECIAL INSTRUCTIONS No. 2**

**THESE INSTRUCTIONS CONSTITUTE A PART
OF THE TIMETABLE CURRENTLY IN
EFFECT**

**R. E. HALLAWELL,
General Manager.**

**E. D. MOODY,
W. D. LAMPRECHT,
Assistant General Managers.**

**C. H. GRANT,
General Superintendent of
Transportation.**

**V. E. ANDERSON,
Superintendent of Transportation.**

**A. S. McCANN,
Superintendent.**

SPECIAL INSTRUCTIONS—ALL SUBDIVISIONS

RULE M. Employees 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 employees must be familiar with their location and avoid personal injury.

RULE 28. In double track territory signals will be placed to right of track according to direction of movement of train to be flagged. Trains in opposite direction will not be required to observe signals so placed.

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

RULE 99-C. Will apply on Berenda, Chowchilla, Ione, Lodi, Oakdale and Winters Branches; on Calistoga Branch between Napa and Calistoga, and on San Ramon Branch.

RULE 102. Yard engines must have two red flags and two red lamps for use in complying with this rule. If taken from engine they must be replaced after use.

RULE 103-A. No train, engine, motor or car shall be operated over any crossing where special signs appear, reading:
STOP—FLAG HIGHWAY TRAFFIC, or
CAUTION—FLAG HIGHWAY TRAFFIC
unless same be first brought to a stop or caution observed (as indicated by sign) and traffic on crossing protected by member of train crew or other competent employe acting as flagman.

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 211. Form N train order may be issued to authorize lowering of train-order signal arm twice and its return to stop position as a calling-on signal, at stations where letter type indicator for display of letter "M" is not installed, and such operation of the signal will be an indication to an approaching train that orders are to be delivered which will authorize movement to the next station at least, against and ahead of, all superior trains. Engineer must acknowledge this calling-on signal by sounding signal 14(b), and will proceed on main track to receive orders.

If train is delayed between the time of acknowledging the calling-on signal and receipt of train orders, protection by flagman against any superior train must be provided.

Operation of the signal in above manner is prohibited unless operator has received Form N train order, and provided time limit named in the order has not expired.

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 governed by semaphore type dwarf signals displaying "Proceed", Fig. E, Rule 281; or by light type dwarf signals displaying "Proceed not Exceeding Medium Speed.", Fig. G, Rule 285, must be made with caution and position of switches observed.

RULE 505. AUTOMATIC BLOCK SIGNAL SYSTEM

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 switch indicator indicates block clear on opposite track. Within CTC limits 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 dispatcher must also be notified by telephone when completed.

When switch 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, dispatcher must be notified immediately, and movement made only after flag protection provided on both tracks.

MECHANICAL SWITCH LOCKS

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, dispatcher must be notified immediately and movement made only after necessary flag protection is provided.

RULE 535. SPRING SWITCHES

Maximum speed for trailing movement when the spring is to be actuated, and maximum speed for facing movement with switch points in normal position, as indicated in speed restrictions tables must not be exceeded.

SPECIAL INSTRUCTIONS—ALL SUBDIVISIONS

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 short-arm or dwarf signals must be made with caution and position of switches observed, as such signals govern movements for various routes.

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

GENERAL REGULATIONS

RULE 821. Speed of equipment over inundated tracks must not exceed 3 MPH, and the depth of water above top of rail must not be more than the following:

Diesel engines	3 inches
Passenger cars and steam engines equipped with roller bearings	6 inches
Other passenger cars and steam engines	12 inches

RULE 851. When necessary to discharge passengers on left side of train on double track, trainmen must caution passengers that trains may approach on opposite track, and use precaution to avoid injury.

AIR BRAKE RULES

RULE 22. Terminal test outlined in this rule, after having been made at originating terminal on through freight trains, will not be made at intermediate terminals West Oakland and Tracy, except when cars are added to the consist. Instead, test will be made as outlined in Air Brake Rule 25—Rear End test. Changing crews, caboose, and/or engine, will not necessitate terminal test outlined under Air Brake Rule 22.

RULE 25. Terminal test outlined in Air Brake Rule 22 has been made at originating terminals Rear End test outlined in Air Brake Rule 25 will be made at intermediate terminals West Oakland and Tracy on freight trains moving through without cars being added to the consist or on which only crews, caboose, and/or engines may be changed. Under these conditions, rolling inspection by carmen will be made on freight trains arriving and leaving the intermediate terminal.

MISCELLANEOUS

4. Pushing trains out of yards:
 - (a) Engines must not be placed behind a wooden underframe caboose or other wooden underframe equipment.
 - (b) Engines weighing more than 330,000 lbs. on the drivers must not be placed behind steel underframe cabooses.
 - (c) Air must not be coupled through the pusher engine.
 - (d) Knuckle must not be removed, or closed, or cutting lever temporarily fastened in release position on a pusher engine, as means of preventing coupling being made.
5. Helper service:
 - (a) Helper engines must not be placed behind wooden underframe cars or wooden underframe cabooses.
 - (b) Engines weighing more than 330,000 lbs. on the drivers must not be placed behind steel underframe cabooses.
 - (c) Not more than one helper engine will be placed behind steel underframe cabooses.

Except as provided below, one helper may be placed on head-end, except that not more than one AC class engine, nor more than two engines of other classes may be placed on head-end of any freight train. When additional helpers are required, they will be placed back in train and cut in ahead of any cars of wooden frame construction, and when practicable should be placed behind a loaded car.

Helper or doubleheader engines must not be placed on head-end of freight trains powered by DF-1 to 7 class engines.

Westward between Tracy and Niles if train consists of more than 49 cars, and eastward if train consists of more than 75 cars when only one helper is required it will be placed on rear ahead of caboose and any wooden frame cars, and when practicable should be placed behind a loaded car.

Where coupling of engines is not permitted, such engines must be separated by at least ten cars.

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

When used as helpers, AC or MM class engines must not be coupled together, nor may more than two F, Mt, or heavier class be coupled together. When coupled in rear of train, larger engines must be placed ahead of smaller engines. If tonnage requires more power, additional helpers of not to exceed two coupled in each case, must be separated by at least four cars.

Helpers must not be operated backing except in emergency, and in such case engines should not push through a backing engine if it can be avoided.

Helper engines coupled in middle or rear of train must be cut off from forward portion before taking water. On grades, road engine and helper must not be cut off from train at the same time without hand brakes being securely set.

27. Should a passenger train, irrespective of the type of power being used, 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 the movement of a diesel-powered train be stopped with the diesel engine in the following tunnels:

Altamont tunnel—between Altamont and Cayley and it is found that in the case of a passenger train it cannot be moved within five minutes after stopping, and in the case of a freight train it cannot be moved within a reasonable length of time, the train must be immediately secured by sufficient hand brakes, front and rear wheels of engine must be secured by blocks or chains, after which power plants and steam generator, if any, must be shut off.

SPECIAL INSTRUCTIONS—ALL SUBDIVISIONS

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

NOMINAL CLASS	RUNNING FORWARD		RUNNING BACKWARD WITH TRAIN OR LIGHT
	WITH TRAIN	LIGHT	
A.....	70	50	30
AC.....	60	40	25
C.....	40	35	30
DF-1 (6122 to 6137).....	65	50	30
DF-1 to 7 (6138 to 6377).....	55	50	30
DP.....	79	70	30
DF-100 to 112.....	50	40	40
DF-200 to 204.....	40	40	40
DF-300.....	40	40	40
DS-1 to 8, 100 to 111.....	40	40	40
DS-200, 201.....	30	30	30
F.....	50	40	30
GS.....	75	50	30
M.....	50	35	25
Mk-2, 4.....	40	30	30
Mk-5, 6, 7, 8, 9.....	50	40	30
Mk-10, 11.....	35	30	30
MM.....	35	30	25
Mt.....	75	50	30
P-1, 3, 4, 5, 6.....	65	50	30
P-7, 8, 10, 12.....	75	50	30
S, SE.....	20	20	20
SP.....	50	35	30
T-1, 23, 28, 31.....	50	35	30
T-26, 32, 37, 40.....	60	40	30
TW.....	40	40	30
Any engine not listed.....	35	35	25

Steam engines operated in backward motion, and DF and DP class engines operated with engineer in other than the lead unit in direction of movement, must not exceed 30 MPH on all curves and 20 MPH when approaching highway or street crossings at grade.

Steam engines coupled tender to tender must not exceed speed permitted same engines running light backward.

Maximum speed of engines under following conditions, running under own steam, or hauled in train:

- When all weight has been removed from any one pair of drivers..... 20 MPH
- When all weight has been removed from only one wheel of any pair of drivers..... 30 MPH
- When engine truck is removed..... 20 MPH
- When main rod only is removed..... 30 MPH
- When side rod only is removed..... 30 MPH
- When both main and side rods are removed... 20 MPH
- When hauled in train with all rods on..... 30 MPH

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

Maximum speed of trains handling dead engines of S or SE class 20 MPH; other steam engines 30 MPH; and diesel engines the speed shown for same engine running forward light.

When a diesel locomotive is derailed, attempt to rerail it must not be made unless an officer or supervisor of the Mechanical Department (or in their absence other qualified officer) is present.

Dead locomotives, either steam or diesel, hauled in train and weighing 150,000 lbs. or more on the drivers should be placed not less than 8 cars behind road locomotive. If weight on drivers is less than 150,000 lbs., dead locomotive should be placed near rear of train. Dead road locomotives should be headed in direction of movement when possible.

Unless otherwise restricted, two dead road locomotives may be coupled together for movement. When necessary to separate them, or when an S or SE class and a road locomotive are moved dead in train, a steel underframe freight car must be placed between them, and S or SE class locomotive entrained with tender ahead.

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.

When train order is received indicating that main track is out of service and that trains are to be detoured through a siding or other track, or over a shoofly, necessitating a reduction in normal train speed, signal 16(f) must be sounded on passenger trains one mile before reaching point where train must reduce speed, which must be acknowledged by whistle signal 14(g).

SPECIAL INSTRUCTIONS—ALL SUBDIVISIONS

MAXIMUM SPEED PERMITTED WITH CERTAIN EQUIPMENT	MPH MAIN TRACKS OTHER THAN BRANCHES	MPH MAIN TRACKS ON BRANCHES
	Cars and loads with height, width or weight greater than maximum shown in Line Clearance Circular (when movement is authorized)	40	25
Twin or multiple loads.....	40	25
Scale test cars.....	40	30
Cars with arch bar trucks.....	40	30
Steel pile-drivers.....	40*	30*
Wooden pile-drivers.....	35*	25*
Relief outfits with steam derrick, except:....	35*	25*
Nos. 7000 and 7010 on San Ramon Branch...		10
Nos. 7000 and 7010 must not operate between Larkmead and Calistoga on Calistoga Branch.		
Nos. 7000 and 7010 must not operate between Edwin and Ione on Ione Branch unless authorized by Superintendent. If movement authorized, speed of 15 MPH must not be exceeded.		
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 Vallejo Branch between Napa Jct. and MP 68.40.		
Power shovel on own wheels.....	35*	25*
Ditchers on own wheels, except:.....	35*	25*
SPMW-4044.....	25*	25*
Car-top ditchers, if blocking and tie-down cables are removed.....	35*	25*
K&J, Western, and Oliver, pedestal or center-hinged air-dump cars.....	35*	25*
Locomotive cranes:		
With boom disconnected, heavy end forward	35*	25*
With boom disconnected, light end forward.	20*	15
With boom in place, either end forward....	25*	15
Rotary snow plows.....	25	15

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

OTHER MAXIMUM SPEEDS	MPH PASSENGER TRAINS	MPH FREIGHT AND MIXED TRAINS
Baggage-express cars SP-5810 to 5874, incl. ...	60	50
Foreign steel-wheel cars not equipped with high speed trucks.....	60	50
Trains handling not more than three wooden underframe passenger carrying cars.....	50*	50*
Trains handling more than three wooden underframe passenger carrying cars.....	40*	40*
Trains of deadhead equipment, with caboose...	50	..
Passenger trains, with caboose.....	50	..
Engine and caboose only, except:.....	..	50
must not exceed speed for same engine running forward light.		
Engine, flanger and caboose only, except:....	..	40
On curves.....	..	30

*Wooden underframe passenger carrying cars must not be handled in regular passenger trains. When handled in other than regular passenger trains they must be kept together and handled on the rear.

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.

When foreign steel-tired or all-steel wheel cars are picked up at points where no car inspectors are on duty, conductor must contact train dispatcher to determine applicable speed restriction for the movement.

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

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

When moving against current of traffic, or when movement is not protected by block signals, speed of passenger trains must not exceed 50 MPH, and speed of freight trains and light engines must not exceed 40 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.

SPECIAL INSTRUCTIONS—MARTINEZ SUBDIVISION

RULE 10-J. Round yellow speed signs apply to stream-lined CITY OF SAN FRANCISCO, SHASTA DAYLIGHT and CASCADE with DP class engines only.

RULE 11-A. Lighted fusees must not be left burning on Suisun Bay bridge.

RULE 14(d). As specified below, — — — o will be indication that flagman may return from west: Martinez.....Trains on Tracy line.

RULE 14(e). As specified below, — — — — will be indication that flagman may return from east: Martinez.....Trains on Tracy line, Napa Jct.....Trains on Schellville line, Suisun-Fairfield.....Trains on Napa Jct. line, Davis.....Trains on Woodland line.

RULE 14(l). Whistle must be sounded on westward trains immediately on emerging from Tunnel 2 at Selby and Tunnel 1 at Oleum.

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

RULES 17 and 17-C. Headlights of engines standing at end of wharf at Oakland Pier must be extinguished when steamers are entering slip. Headlights of eastward trains must be extinguished while standing at Oakland Pier and dimmed until Oakland Pier Tower has been passed.

RULE 21-C. Engines to handle trains from Oakland Pier and from Desert unit West Oakland, may display indicators before leaving West Oakland roundhouse. Indicators of engines on trains arriving Oakland Pier and Desert Unit West Oakland, may be displayed until engine reaches roundhouse at 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 93. When freight cars are moved from one point to another on main track within Oakland yard limits at night, a red light must be displayed on rear of rear car.

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

Table with 2 columns: West MP, East MP. Lists yard limits for various locations including Oakland, Port Costa, Suisun-Fairfield, Davis, Sacramento, Avon, Port Chicago, Pittsburg, Brentwood, Tracy, Napa Jct., Napa, Calistoga, Schellville, Vallejo, and Winters.

RULE 98. Railroad crossings at grade not interlocked: Trains and engines must approach with caution, and may move over the following crossings without stopping, if crossing clear and no movement approaching on intersecting line:

Benicia: Government Ry., crossing of Benicia spur near Benicia arsenal. If Signal 340 or 341 displays stop indication, flag protection must be provided on intersecting track before movement made over crossing.

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.

Las Juntas: SNRy, crossing of San Ramon Branch.

RULE 103-A. When any of the crossovers are used in vicinity of MP 11, switches must not be left open longer than necessary to complete move, as automatic crossing gates at Buchanan St., Albany, will remain down as long as one of these switches is open.

Automatic crossing gates at 47th St., Stege with control circuit extending 500 feet from crossing. Speed on No. 1 yard track restricted to 10 MPH within control circuit. Gates will raise after train or engine on eastward main track, or No. 1 or No. 4 yard track stops, unless control circuit is occupied. If stop made beyond control circuit limits gates will raise within 40 seconds, and crossing must be approached slowly until certain that gates have lowered again. Control circuits must not be occupied unnecessarily. Reverse movement must not be made onto crossing until it is known that gates have lowered.

Automatic crossing gates at crossings at Dixon will raise after 40 seconds and will lower again shortly after train starts. After making station stop, water stop, switching, etc., crossings must not be fouled until gates have lowered. Gates will not operate for reverse movement, and Rule 103-A requiring flag protection at crossing must be complied with.

Suisun-Fairfield: When necessary for freight trains to make stop blocking crossings east of passenger station, they must be opened with least possible delay.

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

Davis: To avoid excessive blocking of Cemetery Ave. crossing MP 76.2 Gerber line, air hose connections have been installed 110 feet each side of crossing to permit charging of train line prior to coupling up for departure. Air hoses for making connections are stored in boxes each side of crossing, and must be locked in these boxes when not in use.

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,
Thomann..... Crossing highway on Napa Valley Cooperative Winery spur,
Vacaville..... Crossing on Standard Oil spur,
Davis..... Crossing County road on University spur.
Port Chicago..... Crossing County road on leads to Naval Supply Base.
Pittsburg..... Crossings on industry spurs.
Brentwood..... Crossing highway on Irrigated Farms spur.

SPECIAL INSTRUCTIONS—MARTINEZ SUBDIVISION

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 westward siding,
Napa Jct..... Schellville line, for Calistoga-Vallejo line at MP 61.65,

Trains or engines using wye at Napa Jct. must approach from Suisun-Fairfield line and go around via Napa line,

Napa Jct..... Suisun-Fairfield line, for Vallejo line, at MP 61.75,

Union..... Crossover switch near west end siding, for West Napa line,

Schellville..... Napa Jct. line, for NWPRR main track,

Tracy..... Niles line, for Martinez line,

Tracy..... End double track, for eastward track,

Tracy..... Los Banos line, for Niles line.

Napa Jct.: Track known as big balloon is Schellville line main track. Wye connection between Suisun-Fairfield line and Calistoga line is not main track, and switches at each end of this wye track must be left lined for the respective main track movements.

RULE 107. Station train indicators east of Richmond, and west of Crockett, Martinez and Suisun-Fairfield displaying the illuminated word "Train", indicate a passenger train on opposite track at station.

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 locking signals are listed as "P-I" or "P-SA".

Table with 3 columns: Eastward Signal, Protection, Westward Signal. Lists signals P-356, P-358, P-I, P-470, P-510, P-616.

RULE 505. AUTOMATIC BLOCK SIGNAL SYSTEM

Tracy: Eastward movements governed by dwarf light Signals 710, 712, 714. Signals in east end of Tracy are numbered as automatic and are under control of switch tender. When "Stop" is indicated, trains must stop and not proceed until "proceed" is indicated or proceed signal is given with green flag or green light by switch tender.

Mococo: Rule 509(b) does not apply when stopped by Signal P-356 or P-358 at Mococo. If view of track clear to Signal 364 and Signal 364 displays proceed indication, spring switch must be tried and then opened and train may proceed at restricted speed. If Signal 364 displays stop indication, wait 5 mins. before opening spring switch, then send flagman ahead immediately, and follow keeping at least one-fourth mile behind him until flagman reaches Signal 364.

RULE 516. Overlap posts: Port Chicago..... Eastward trains, Nichols (150 feet east of west switch)..... Eastward trains, 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:

Table with 2 columns: Location, Normal Position. Row: Mococo..... End double track..... Westward track

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

Table with 2 columns: Location, Normal Position. Row: Martinez..... Junction switch..... Bridge line, Napa Jct..... West end big balloon..... Suisun-Fairfield main track

Oakland Pier: West end of tracks 4, 5 and 6 must be lined in direction of movement for diesel engines arriving on trains to avoid any possibility of diesel engines being derailed.

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.

Oakland Pier: Limits extend eastward to automatic Signal 40 on eastward main track and to home signal 450 feet east of Signal 40 on westward main track on Martinez line, and to automatic Signal 42 on both main tracks on Niles line, and on yard tracks 9 and 10 to Signal 44; and on yard tracks 11, 12 and 13 to home signal 175 feet east of Maritime overpass.

When siren whistle is sounded, all movement must stop and await proper signal.

The last signal governing movement into any track except tracks 17, 18, 19 and 20 is a two-arm dwarf signal. When home signal displays proceed indication, and approach signal displays yellow aspect, it indicates that movement is to be made into a track occupied by engines or cars. Responsibility for collision will rest with train or engine entering.

Oakland, 16th St.: Limits extend from eastward signal 1500 feet west of 14th St., to Signal Bridge 204.

Whistle signals:

- To West Oakland yard, o — —,
From AT&SFRy interchange to Oakland Pier, —,
To AT&SFRy interchange, o — o.

Telephone to Sixteenth St. Tower and West Oakland Tower are on lattice pole 1733, 250 feet east of Signal Bridge 200, and on signal case 30 feet west of junction of freight tracks 1 and 2, to be used when necessary to obtain permission to pass signals as prescribed by Rule 663 (b).

Shellmound: Limits extend from Signal Bridge 205 to Signal Bridge 206.

Whistle signal:

- To West Oakland yard from freight track 2, o — —.

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. Crossover switches west of station building, and switches leading from spurs to westward main track within these limits are not interlocked, and permission of signal operator must be obtained before fouling westward main track at any of these switches.

Whistle signals:

- To Bridge line, o — —,
To Tracy line, — o —.

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.

East end zone limits extend on eastward track only, from semi-automatic signal near upper crossover to westward dwarf signal at Benicia line connection.

Signal operator's permission must be obtained before moving from Benicia line to eastward main track; then if switch indicator indicates block clear, derail and junction switch may be thrown and movement governed by dwarf signal.

Upper crossover is not interlocked, but movement must not be made through crossover without signal operator's permission, unless switch indicator indicates block clear. Signal 345 will govern movement through crossover.

Davis: Limits on eastward and westward main tracks extend from home signal 2200 feet west of tower to signal bridge 1700 feet east of tower, and on Woodland line to signal bridge 1200 feet east of tower.

Whistle signals:

To or from Sacramento from or to Woodland line, o — —, Western Division eastward trains to enter siding, — o —.

SNRy Crossing, MP 86.90: Signal operator on duty 8:30 AM to 5:30 PM, less meal hour, daily except Sunday and holidays. During other hours signals and derails lined for SP movement.

Sacramento River Drawbridge: Eastward trains failing to receive green aspect in approach Signal 878 must stop west of city limit sign, 1030 feet east of Signal 878, unless semi-automatic signal indicates "proceed"

Brazos Drawbridge over Napa River: Signal operators on duty 6:00 AM to 10:00 PM. No movement over bridge permitted during other hours unless signal operator on duty. Derails in main track within interlocking limits east and west of draw span.

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 Pinole, Elmira, Dixon, and Davis signals.

GENERAL REGULATIONS

RULE 824. Tracy: When train stops on yard track on Martinez line, not less than four hand brakes must be set on west end of train before engine is detached.

RULE 825. Tracy: Train crews must not release brakes on outbound trains until engine is coupled and brake pipe is charged.

RULE 827. Passenger trains operating between Oakland Pier and Gerber, except Streamlined SHASTA DAY-LIGHT and CASCADE, making station stop at Davis, must approach at not to exceed 8 MPH to allow forward brakeman to detrain on station side where rear of train will stop.

Cars of rock, sand or gravel in westward trains must be given inspection at Danville.

AIR BRAKE RULES

RULE 2. Running test must be made on engines immediately after being detached from trains arriving Oakland Pier.

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

One retainer for every 80 tons in train, San Ramon to Walnut Creek.

With 20 or more cars and tonnage averaging over 75 tons per operative brake, use 10 retainers on head end of train, or more if requested by engineer, Creston to Napa Jct., and Creston to Cordelia.

FREIGHT TRAINS

RULE 22. Trainmen must not couple air hose on outgoing trains at Port Costa and Suisun-Fairfield until train is made up.

RULE 25. Rear end test must be made immediately prior to departure from:

- Napa Jct. Trains via Cordelia, Cordelia. Eastward trains that stop, Creston. Trains that stop.

Freight trains may pass Creston without stopping for rear end test if proceed signals are given by trainmen after complying with Air Brake Rule 4. Speed must be reduced to 8 MPH. Helper engineers will reduce working steam sufficiently in advance so that lead engineer may control speed by gravity.

PASSENGER TRAINS

RULE 39. Running test must be made as follows: Equipment being handled between Oakland Pier and West Oakland, in either direction, as soon as practicable after starting.

Eastward and westward trains at Creston. On streamlined trains where electro-pneumatic brake is employed, running test will be made with electric brake valve whenever running test is required.

MISCELLANEOUS

1. Emergency water supply only, at Pittsburg. Eastward freight trains take water at Davis in preference to Swanston.

Take water at Vallejo, Napa or Cordelia instead of at Napa Jct., if practicable.

4. When eastward freight train is to pick up pusher engine at Port Costa, train brakes must be applied on arrival, and must not be released until pusher engine has coupled in.

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

Table with columns: Class of Engine, Restricted Tracks. Lists engine classes like AC, F-3, 4, 5, GS, MM, Mt, P-8, 10, 12, SP, T-40 and their restricted tracks such as Cordelia-Winery spur, Napa Jct.-Calistoga line wye, etc.

Load limit (car and contents):

Table listing load limits for various locations: Oakland-Sacramento (251,000 lbs), Martinez-Tracy (251,000 lbs), Suisun-Fairfield-Schellville (210,000 lbs), Napa Jct.-Larkmead (210,000 lbs), etc.

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

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

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

15. Trains must not pass switchtenders' stations at Sixth and Seventh Streets, Sacramento, without receiving signal from switchtender to proceed (green flag by day and green light by night) and must move with caution between Sacramento River bridge and Seventh Street.

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

Table with columns: Mile Post, At or Near, Description. Lists locations like Oakland Pier, Emeryville, Richmond, San Pablo, Pinole, Hercules, etc., and their respective structures and clearances.

Windows of occupied passenger cars must be kept closed, and passengers warned of close clearance when passing over Napa River drawbridge at Brazos.

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 4 of Special Instructions for All Subdivisions.

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 for Territory, Streamlined City of San Francisco, Shasta Daylight Cascade, Other Passenger Trains, Freight and Mixed, Light Engines (Running Forward/Backward), and Westward Sacramento to Oakland Pier, Westward Tracy to Martinez.

★Regulated by City ordinance. ★★Regulated by PUC order. *See Rule 536. Streamlined CITY OF SAN FRANCISCO, SHASTA DAYLIGHT and CASCADE when handled by steam power and consisting of stream-lined equipment, may run not to exceed 75 MPH where 70 MPH is authorized in Column 1.

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 4 of Special Instructions for All Subdivisions.

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 for Territory, Passenger Trains, Freight and Mixed, Light Engines (Running Forward/Backward), and Eastward Avon to Radum, Eastward Suisun-Fairfield to Schellville, Eastward Napa Jct. to Calistoga, Eastward Napa Jct. to Vallejo, Eastward Napa Jct. to Union, Eastward Elmira to Esparto, Westward Radum to Avon, Westward Schellville to Suisun-Fairfield, Westward Calistoga to Napa Jct., Westward Vallejo to Napa Jct., Westward Union to West Napa, Westward Esparto to Elmira.

★Regulated by City ordinance.

Table with columns for Speed Restrictions for Other Than Main Tracks and With Caution Not Exceeding MPH. Rows include Through sidings, yard and other tracks, wyes, balloon tracks, crossovers and turnouts, Through slip switches, Through turnouts on other than sidings, On branches, Through all sidings, yard tracks and other tracks with engine running backward.

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
DP-3	6017	3750	2675	3750	3750	3750
DP-4, 7	6000 to 6004, 6018	3750	3450	3750	3750	3750
DP-5, 6	6005 to 6016	9000	3300	6700	6325	9250
DP-8, 9	6019 to 6027	9250	4075	8675	7775	9250
DF-1	6122 to 6137	.....	.....	.....	.....	.....
DF-1 to 7	6138 to 6377	.....	.....	.....	.....	.....
DF-100	5200 to 5202	5000	.....	4600	4100	5000
DF-101 to 108, 112	5203 to 5249, 5253 to 5278	.....	.....	.....	.....	.....
DF-109	5250 to 5252	.....	.....	.....	.....	.....
DF-200 to 204	5100 to 5118	.....	.....	.....	.....	.....
DF-300	4600 to 4603	.....	.....	.....	.....	.....
DS-1 to 8	1000 to 1032	1625	660	1425	1275	1625
DS-100 to 109, 111	1300 to 1441, 1464 to 1485	2450	1025	2650	1925	2450
DS-110	1442 to 1463	3200	1400	2775	2475	3200
DS-200, 201	1900 to 1903	.....	.....	.....	.....	.....
M-4	1617 to 1713	2225	950	1950	1850	2225
M-6, 8	1721 to 1803, 1824, 1825	2625	1125	2775	2175	2625
M-9	1804 to 1822, 1826 to 1830, 1836	2750	1200	2425	2300	2750
M-11	1832 to 1835	2850	1250	2500	2400	2850
T-1	2248, 2252	1900	825	1650	1575	1900
T-23	2301 to 2310	2750	1175	2400	2275	2750
T-26	2296	2400	1000	2100	1950	2400
T-28, 31	2312 to 2362	3000	1300	2625	2500	3000
T-32	2363 to 2370, 2372 to 2384	3075	1300	2675	2500	3075
T-40	2371	3075	1300	2675	2500	3075
T-37	2105	2725	1175	2400	2300	2725
P-1, 3, 5	2404, 2408, 2411, 2428 to 2433, 2439 to 2452, 2459	2475	1025	2150	2000	2475
P-1	2407	2475	1075	2150	2000	2475
P-4	2402, 2409, 2410, 2414, 2419, 2436	2725	1200	2375	2200	2725
P-6	2453, 2454, 2458	3050	1275	2675	2475	3050
P-7	2476, 2477	3250	1400	2850	2725	3250
P-8, 10	2461 to 2474, 2478 to 2483	3400	1425	2950	2775	3400
P-8, 10	2475, 2484 to 2491	3400	1525	2950	2775	3400
P-12	3122 to 3127	3450	1450	3000	2875	3450
C-5, 8, 9, 10, 26 to 29	2513 to 2599, 2625 to 2860, 3440 to 3469	3300	1450	2875	2775	3300
C-18	3400 to 3409	3025	1325	2650	2550	3025
C-19	3410 to 3426	3150	1375	2775	2650	3150
TW-2, 3	2937 to 2952	2025	875	1775	1700	2025
TW-8	2914 to 2923	2775	1225	2450	2325	2775
A-3	3025	1950	825	1700	1525	1950
A-6	3002	2400	1050	2075	1875	2400
Mk-2, 4	3201 to 3240	3825	1675	3350	3200	3825
Mk-5, 6	3241 to 3277	4225	1825	3675	3500	4225
Mk-7, 8, 9	3300 to 3324	4600	2025	4025	3875	4600
Mk-10	3295	3550	1550	3100	2975	3550
Mk-11	3297, 3298	3400	1500	2975	2850	3400
F-1	3611 to 3652	4800	2100	4200	4025	4800
F-3, 4, 5	3653 to 3769	5950	2450	5200	4675	5950
MM-3	3930	6400	2800	5600	5350	6400
AC-4, 5	4100 to 4125	8650	3825	7550	7250	8650
AC-6 to 12	3800 to 3811, 4126 to 4294	9150	4025	8000	7650	9150
Mt-1, 3, 4, 5	4300 to 4376	4500	2025	3925	3700	4500
Mt-2	4385 to 4389	4875	2100	4250	4075	4875
GS-1, 2	4401 to 4415	4800	2150	4200	3950	4800
GS-3, 4, 5, 6	4416 to 4469	5100	2200	4450	4250	5100
SP-1, 2, 3	5000 to 5048	6475	2850	5675	5425	6475

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 to Napa Jct.	Napa Jct. to Suisun-Fairfield	Napa Jct. and Larkmead Union and West Napa	Larkmead and Calistoga	Napa Jct. to Schellville Napa Jct. to Vallejo	Schellville to Napa Jct.
DF-100	5200 to 5202	1575	2100	④3825	.....	⑤5000	5000
DF-101 to 108, 112	5203 to 5249, 5253 to 5278	.....	.....	.....	.....	.....	.....
DF-109	5250 to 5252	.....	.....	.....	.....	.....	.....
DF-200 to 204	5100 to 5118	.....	.....	.....	.....	.....	.....
DF-300	4600 to 4603	.....	.....	.....	.....	.....	.....
DS-1 to 8	1000 to 1032	.....	.....	.....	.....	.....	.....
DS-100 to 109, 111	1300 to 1441, 1464 to 1485	.....	.....	.....	.....	.....	.....
DS-110	1442 to 1463	.....	.....	.....	.....	.....	.....
DS-200, 201	1900 to 1903	.....	.....	.....	.....	.....	.....
M-4	1617 to 1713	550	750	900	900	2650	1550
M-6, 8	1721 to 1803, 1824, 1825	650	900	1050	.....	3100	1825
M-9	1804 to 1822, 1826 to 1830, 1836	700	950	1125	.....	3275	1900
M-11	1832 to 1835	725	1000	1150	.....	3410	2000
T-1	2248, 2252	475	650	750	750	2250	1300
T-23	2301 to 2310	675	950	1100	.....	3250	1900
T-26	2296	575	800	950	.....	2865	1625
T-28, 31	2312 to 2362	750	1050	1225	.....	3585	2100
T-32	2363 to 2370, 2372 to 2384	750	1050	1250	.....	3650	2075
T-40	2371	.....	.....	.....	.....	.....	.....
T-37	2105	675	950	1100	.....	3250	1850
P-1, 3, 5	2404, 2408, 2411, 2428 to 2433, 2439 to 2452, 2459	575	800	③1350	.....	2950	1675
P-1	2407	600	850	③1700	.....	3100	2100
P-4	2402, 2409, 2410, 2414, 2419, 2436	675	950	③1475	.....	3205	1825
P-6	2453, 2454, 2458	750	1050	③1675	.....	3650	2075
P-7	2476, 2477	800	1125	③1775	.....	3850	2200
P-8, 10	2461 to 2474, 2478 to 2483	.....	.....	.....	.....	.....	.....
P-8, 10	2475, 2484 to 2491	.....	.....	.....	.....	.....	.....
P-12	3122 to 3127	.....	.....	.....	.....	.....	.....
C-5, 8, 9, 10, 26 to 29	2513 to 2599, 2625 to 2860, 3440 to 3469	850	1150	1325	.....	3900	2325
C-18	3400 to 3409	775	1075	1250	.....	3615	2150
C-19	3410 to 3426	825	1100	1300	.....	3765	2250
TW-2, 3	2937 to 2952	500	700	800	.....	2400	1425
TW-8	2914 to 2923	700	975	1125	.....	3325	2000
A-3	3025	455	650	③1375	.....	2450	1700
A-6	3002	575	825	③1625	.....	2850	2000
Mk-2, 4	3201 to 3240	950	1325	①2125	.....	①4400	2625
Mk-5, 6	3241 to 3277	1075	1450	①2375	.....	①5000	2925
Mk-7, 8, 9	3300 to 3324	1200	1625	②2650	.....	②5375	3275
Mk-10	3295	925	1250	③2050	.....	4225	2525
Mk-11	3297, 3298	875	1205	③1850	.....	4050	2275
F-1	3611 to 3652	1275	1750	②2725	.....	②5650	3375
F-3, 4, 5	3653 to 3769	.....	.....	.....	.....	.....	.....
MM-3	3930	.....	.....	.....	.....	.....	.....
AC-4, 5	4100 to 4125	.....	.....	.....	.....	.....	.....
AC-6 to 12	3800 to 3811, 4126 to 4294	.....	.....	.....	.....	.....	.....
Mt-1, 3, 4, 5	4300 to 4376	.....	.....	.....	.....	.....	.....
Mt-2	4385 to 4389	.....	.....	.....	.....	.....	.....
GS-1, 2	4401 to 4415	.....	.....	.....	.....	.....	.....
GS-3, 4, 5, 6	4416 to 4469	.....	.....	.....	.....	.....	.....
SP-1, 2, 3	5000 to 5048	.....	.....	.....	.....	.....	.....

①Applies to engines 3201, 3203 to 3206, 3213, 3224, 3227, 3229, 3236, 3237, 3241, 3247, 3251, 3253, 3255, 3259, 3266 and 3272 only between Napa Jct. and Larkmead, and Union and West Napa. Other Mk-2, 4, 5, 6 class engines not permitted to operate beyond Napa River Bridge 69.62 nor between MP 66 and Vallejo.

②F-1 and Mk-7, 8, 9 class engines not permitted to operate beyond Napa River Bridge 69.62 nor between MP 66 and Vallejo, nor on Calistoga line wye at Napa Jct.

③P-1, 3, 4, 5, 6, 7, A-3, 6 and Mk-10, 11 class engines not permitted to operate beyond Yountville, nor between Union and West Napa.

④Not permitted to operate between Yountville and Larkmead, nor between Union and West Napa.

⑤Not permitted to operate between MP 66 and Vallejo.

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	Vallejo to Napa Jct. Elmira to Winters	Winters to Elmira	Winters and Esparto	Radium to San Ramon	San Ramon to Radium	Avon to San Ramon	San Ramon to Avon
DF-100	5200 to 5202	⑤3725	...	...	...	...	...	...
DF-101 to 108, 112	5203 to 5249, 5253 to 5278		...	...	...	...	...	...
DF-109	5250 to 5252		...	...	...	...	...	...
DF-200 to 204	5100 to 5118		...	...	...	...	...	...
DF-300	4600 to 4603		...	...	...	...	...	...
DS-1 to 8	1000 to 1032	...	...	...	...	...	...
DS-100 to 109, 111	1300 to 1441, 1464 to 1485	...	...	...	...	...	...
DS-110	1442 to 1463	...	...	...	...	...	...
DS-200, 201	1900 to 1903	...	...	...	...	...	...
M-4	1617 to 1713	1020	1150	2475	1250	2650	975	2650
M-6, 8	1721 to 1803, 1824, 1825	1200	1350	...	1485	3100	③1125	③3100
M-9	1804 to 1822, 1826 to 1830, 1836	1275	1435	...	1550	3275	③1200	③3275
M-11	1832 to 1835	1330	1490	...	1625	3410	③1250	③3400
T-1	2248, 2252	875	980	2150	1075	2250	800	2250
T-23	2301 to 2310	1260	1415	...	1550	3250	...	...
T-26	2296	1100	1235	...	1360	2865	...	...
T-28, 31	2312 to 2362	1395	1565	...	1715	3585	...	...
T-32	2363 to 2370, 2372 to 2384	1415	1595	...	1750	3650	...	...
T-40	2371	...	...	...	...	...	...	...
T-37	2105	1265	1420	...	1550	3250	...	...
P-1, 3, 5	2404, 2408, 2411, 2428 to 2433, 2439 to 2452, 2459,	1120	1260	...	1390	2950	...	...
P-1	2407	1175	1325	...	1455	3100	...	...
P-4	2402, 2409, 2410, 2414, 2419, 2436	1230	1385	...	1525	3205	...	...
P-6	2453, 2454, 2458	1425	1675	...	1730	3650	...	...
P-7	2476, 2477	1525	1775	...	1845	3850	...	...
P-8, 10	2461 to 2474, 2478 to 2483	...	...	...	...	...	...	...
P-8, 10	2475, 2484 to 2491	...	...	...	...	...	...	...
P-12	3122 to 3127	...	...	...	...	...	...	...
C-5, 8, 9, 10, 26 to 29	2513 to 2599, 2625 to 2860, 3440 to 3469	1525	1710	3700	1875	3900	③1475	③3900
C-18	3400 to 3409	1415	1590	3425	1740	3615	③1350	③3625
C-19	3410 to 3426	1475	1650	3550	1810	3765	③1425	③3775
TW-2, 3	2937 to 2952	940	1050	2275	1155	2400	...	...
TW-8	2914 to 2923	1295	1450	3150	1590	3325	...	...
A-3	3025	915	1035	...	1145	2450	...	...
A-6	3002	1075	1215	...	1335	2850	...	...
Mk-2, 4	3201 to 3240	①1715	①1925	...	②4550	②4550	...	...
Mk-5, 6	3241 to 3277	①1950	①2185	...	②5075	②5075	...	...
Mk-7, 8, 9	3300 to 3324	①2090	...	...	②5650	②5650	...	...
Mk-10	3295	1660	1850	...	2030	4225	...	...
Mk-11	3297, 3298	1595	1785	...	1950	4050	...	...
F-1	3611 to 3652	①2325	...	...	...	...	...	...
F-3, 4, 5	3653 to 3769	...	...	...	...	...	...	...
MM-3	3930	...	...	...	...	...	...	...
AC-4, 5	4100 to 4125	...	...	...	④9250	④9250	...	...
AC-6 to 12	3800 to 3811, 4126 to 4294	...	...	...	...	...	...	...

①F-1 class, and Mk class engines, except engines 3201, 3203 to 3206, 3213, 3224, 3227, 3229, 3236, 3237, 3241, 3247, 3251, 3253, 3255, 3259, 3266 and 3272, are not permitted to operate between MP 66 and Vallejo, nor between Elmira and Winters.
 ②Mk-2, 4, 5, 6, 7, 8 and 9 class engines not permitted to operate between Dougherty and San Ramon.
 ③When notified that false bents are not in place on bridge 56.99, C class and M-6, 8, 9 and 11 class not permitted to operate.
 ④AC-4, 5 class engines not permitted to operate between Asco and San Ramon.
 ⑤Not permitted to operate between MP 66 and Vallejo.

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—LOS BANOS SUBDIVISION

RULE 14(d). As specified below, — — — — o will be indication that flagman may return from west:

Fresno.....Trains on Pratton line,
 Biola Jct.....Trains on Biola line.

RULE 14(e). As specified below, — — — — o will be indication that flagman may return from east:

Tracy.....Trains on Los Banos line,
 Kerman.....Trains on Biola line,
 Ingle.....Trains on Riverdale line.

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

West MP	East MP
80.70	Tracy (Martinez-Los Banos line)..... 85.64
69.19	" (Niles-Lathrop line)..... 74.37
139.61	Los Banos..... 142.01
164.94	Firebaugh..... 166.98
192.46	Kerman..... 194.53
	" (Biola line)..... 194.65
206.32	Fresno (Pratton-Tulare line)..... 210.79
208.44	" (Biola-Porterville line)..... 208.15
199.07	" (Merced-Clovis line)..... 209.60

Fresno: Trains or engines will not move against current of traffic on double track, except on authority of yardmaster. When making movements against current of traffic, trains or engines must be preceded by flagman over railway and street crossings at grade where wigwags installed, protecting crossings during movements, except where crossing watchman located.

Trains must receive proceed signal from yardman (green flag by day, green light by night) between Kern St. (east of passenger station) and Merced St. (west of passenger station).

Westward trains via Pratton line must receive signal from yardman at Divisadero St. (green flag by day, green light by night).

When Signal 2046 on Pratton line, or Signal 2042 on eastward track displays stop indication train must stop, and after proceed signal received from yardman (green flag by day, green light by night) may then proceed as prescribed by Rules 509 and 513.

Eastward trains via Pratton line to Fresno Yard must receive proceed signal from yardman (green flag by day, green light by night) before fouling eastward or westward main track.

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

RULE 103-A. House track at Newman must not be switched between Merced and Fresno Sts. from five minutes before arrival to five minutes after departure of passenger trains.

While switching over Fourth St., Los Banos, on back track and west middle, a member of crew must protect the 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:

- Vernalis..... Crossing on Associated Dehydrators spur,
- West of Vanormer Highway crossing on H&N Farms spur,
- Los Banos..... Crossing 2nd and 4th Sts., on drill and crossovers,
- Firebaugh..... Crossing 12th and 13th Sts., on drill and spur tracks,
- Cromir..... Crossing Shaw Ave. on team track.

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

- Tracy..... Niles line, for Martinez line,
- Tracy..... End double track, for eastward track,
- Tracy..... Los Banos line, for Niles line,
- Kerman..... Riverdale line, for siding,
- Fresno Yard..... End double track, for westward track,
- Fresno..... Pratton line, for eastward main track.

RULE 505. AUTOMATIC BLOCK SIGNAL SYSTEM

Tracy: Signals in east end Tracy are numbered as automatic and are under control of switch tender. When "stop" is indicated, trains must stop and not proceed until "proceed" is indicated or proceed signal is given with green flag or green light by switch tender.

Eastward movements governed by dwarf light Signals 710, 712, 714.

Westward movement from Los Banos Subdivision governed by Signal 823, located 300 feet east of junction switch, top arm governs movement on main track and lower arm governs movement to hill or local yard.

Signal 709 displays green aspect for movements to Martinez line, and yellow aspect for movements to Niles line.

Trains and engines stopped by Signal 709 may then proceed with caution if proceed signal received from yardman.

RULE 516. Overlap posts:
 Floyd (1500 feet east of west switch) . . . Eastward trains.

RULE 605. INTERLOCKING

Lyoth: WPRR crossing. Whistle signal:
 To enter or leave storage track, o — o.

Biola Jct.: Limits extend on Merced line from 675 feet west of junction switch, and on Biola line from 575 feet west of junction switch, to 930 feet east of junction switch on Merced line, and to dwarf signal 290 feet east of junction switch on No. 1 drill track.

Trains and engines stopped by signals will call signal operator at train-order office Muscatel by telephone and be governed by his instructions. Telephones and instructions for hand operation of dual control switches are located in battery house at junction switch and at derail on Biola line.

Two unit dwarf signal on No. 1 drill track. Upper unit governs movement to Merced line; lower unit to Biola line.

GENERAL REGULATIONS

RULE 824. Tracy: When train stops on yard track in Hill yard not less than three hand brakes must be set on cut west of C St., and four hand brakes must be set on east end of train before engine is detached.

When train stops on yard track on Martinez line, not less than four hand brakes must be set on west end of train before engine is detached.

RULE 825. Cars must not be left within 250 feet of highway crossing at Floyd.

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

RULE 827. Passenger trains making station stop at Los Banos must approach at not to exceed 8 MPH to allow forward brakeman to detrain on station side where rear of train will stop. He will then make rolling inspection of train, then walk length of train on opposite side making standing inspection, giving careful attention to running gear and journal boxes and entrain on station side.

RULE 829. Los Banos: City ordinance provides that highways or streets within city limits shall not be obstructed for longer than 10 minutes.

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

Mile Post	At or Near	Description
140.2	Los Banos	Warehouse opposite east leg of wye . . . Side

SPECIAL INSTRUCTIONS—LOS BANOS SUBDIVISION

MISCELLANEOUS

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

Class of Engine	Restricted Tracks
AC, F, GS, MM, Mk, Mt, P, SP, T-40	Tracy—Brewery spur, Holly Sugar spur.
"	Patterson — Patterson Ranch spur, Frozen Food spur.
"	Crows Landing—Yancy Lbr. spur.
"	Newman—Golden State spur, Lumber Co. spur.
"	Gustine—California Milk spur, Carnation loading spur.
"	Los Banos—Builders Lbr. spur, Union Oil spur.
"	Pratton—Naman & Krum Winery spur.
"	Crayold—Brick Yard spur.
"	Fresno (MP 206.6)—Peerless Pump spur.

AC, F, GS, MM, Mt-2, SP, T-40..... Los Banos—Wye.

Load limit (car and contents):
 Tracy-Fresno.....251,000 pounds
 Unless authorized by Superintendent, heavier loads must not be handled.

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
Through all sidings, yard tracks and other tracks with engine running backward.....	10

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 4 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		LIGHT ENGINES		TERRITORY	PASSENGER TRAINS		LIGHT ENGINES	
	↑FREIGHT AND MIXED	↓	↑RUNNING FORWARD	↓RUNNING BACKWARD		↑FREIGHT AND MIXED	↓	↑RUNNING FORWARD	↓RUNNING BACKWARD
Column:	1	2	3	4	Column:	1	2	3	4
EASTWARD, TRACY TO FRESNO: MP MP					WESTWARD, FRESNO TO TRACY: MP MP				
82.62 to 83.00.....	10	10	10	10	★208.40 to 207.36.....	20	20	15	10
83.00 to 85.16.....	45	30	30	30	207.36 to 206.87 (junction switch).....	15	15	15	15
85.16 to 85.17 (WPRR crossing).....	45	30	30	30	206.87 to 141.30.....	60	50	50	30
85.17 to 140.10.....	60	50	50	30	141.30 to 140.10 (Los Banos).....	20	20	20	10
140.10 to 141.30 (Los Banos).....	20	20	20	10	140.10 to 85.17.....	60	50	50	30
141.30 to 206.87.....	60	50	50	30	85.17 to 85.16 (WPRR crossing).....	45	30	30	30
206.87 to 207.36 (junction switch).....	15	15	15	15	85.16 to 83.00.....	45	30	30	30
★207.36 to 208.40 (Fresno).....	20	20	15	10	83.00 to 82.62 (junction Niles line).....	10	10	10	10
EASTWARD, KERMAN TO BIOLA JCT.:					WESTWARD, BIOLA JCT. TO KERMAN:				
194.09 to 194.11 (junction switch).....	15	15	15	15	Thru jct. switch & crossover, Biola Jct....	25	25	25	20
194.11 to 208.60.....	30	30	30	30	208.60 to 194.11.....	30	30	30	30
Thru jct. switch & crossover, Biola Jct....	25	25	25	20	194.11 to 194.09 (junction switch).....	15	15	15	15

★Regulated by City ordinance.
 †RESTRICTED CARS are listed on page 5 under "Maximum Speed Permitted with Certain Equipment", and trains handling must not exceed maximum speed of 40 MPH.

SPECIAL INSTRUCTIONS—LOS BANOS SUBDIVISION

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

NOMINAL CLASS	ENGINE NUMBERS	Tracy and Fresno Kerman and Biola Jct
DP-3	6017.....	3750
DP-4, 7	6000 to 6004, 6018.....	3750
DP-5, 6	6005 to 6016.....	.....
DP-8, 9	6019 to 6027.....	9250
DF-1	6122 to 6137.....	.....
DF-1 to 7	6138 to 6377.....	.....
DF-100	5200 to 5202.....	.....
DF-101 to 108, 112	5203 to 5249, 5253 to 5278.....	5000
DF-109	5250 to 5252.....	5000
DF-200 to 204	5100 to 5118.....	.....
DF-300	4600 to 4603.....	.....
DS-1 to 8	1000 to 1032.....	1625
DS-100 to 109, 111	1300 to 1441, 1464 to 1485.....	2450
DS-110	1442 to 1463.....	3200
DS-200, 201	1900 to 1903.....	.....
M-4	1617 to 1713.....	2375
M-6, 8	1721 to 1803, 1824, 1825.....	2800
M-9	1804 to 1822, 1826 to 1830, 1836.....	2925
M-11	1832 to 1835.....	3075
T-1	2248, 2252.....	2025
T-23	2301 to 2310.....	2925
T-26	2296.....	2525
T-28, 31	2312 to 2362.....	3225
T-32	2363 to 2370, 2372 to 2384.....	3200
T-40	2371.....	3200
T-37	2105.....	2850
P-1, 3, 5	2404, 2408, 2411, 2428 to 2433, 2439 to 2452, 2459.....	2575
P-1	2407.....	2575
P-4	2402, 2409, 2410, 2414, 2419, 2436.....	2825
P-6	2453, 2454, 2458.....	3200
P-7	2476, 2477.....	3400
P-8, 10	2461 to 2474, 2478 to 2483.....	3800
P-8, 10	2475, 2484 to 2491.....	3800
P-12	3122 to 3127.....	3725
C-5, 8, 9, 10, 26 to 29	2513 to 2599, 2625 to 2860, 3440 to 3469.....	3550
C-18	3400 to 3409.....	3275
C-19	3410 to 3426.....	3425
TW-2, 3	2937 to 2952.....	2200
TW-8	2914 to 2923.....	3075
A-3	3025.....	2000
A-6	3002.....	2450
Mk-2, 4	3201 to 3240.....	4025
Mk-5, 6	3241 to 3277.....	4500
Mk-7, 8, 9	3300 to 3324.....	5025
Mk-10	3295.....	3875
Mk-11	3297, 3298.....	3475
F-1	3611 to 3652.....	5175
F-3, 4, 5	3653 to 3769.....	5950
MM-3	3930.....	6750
AC-4, 5	4100 to 4125.....	9350
AC-6 to 12	3800 to 3811, 4126 to 4294.....	9900
Mt-1, 3, 4, 5	4300 to 4376.....	4775
Mt-2	4385 to 4389.....	5150
GS-1, 2	4401 to 4415.....	5125
GS-3, 4, 5, 6	4416 to 4469.....	5350
SP-1, 2, 3	5000 to 5048.....	6975

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(e). As specified below, — — — — — will be indication that flagman may return from east:

- Galt.....Trains on Ione line,
- Lodi.....Trains on Valley Spring and Woodbridge lines,
- Stockton...Trains on Oakdale line,
- Lathrop...Trains on Merced line,
- Tracy.....Trains on Los Banos line.

RULE 14(k). Will not apply in CTC limits.

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

West MP	East MP
80.70	Tracy (Martinez-Los Banos line)..... 85.64
69.19	" (Niles-Lathrop line)..... 74.37
80.56	Lathrop (Tracy-Stockton line)..... 83.04
	" (Merced line)..... 94.02
85.07	Stockton..... 93.72
	" (Oakdale line)..... 94.41
120.23	Oakdale..... 122.92
101.57	Lodi..... 104.25
	" (Victor line)..... 104.64
	" (Woodbridge line)..... End track
111.10	Galt..... 113.21
	" (Ione line)..... 112.91
85.51	Sacramento..... 95.35
131.60	" (Stockton line)..... 136.33
129.04	Valley Spring..... 130.50
141.94	Kentucky House..... End track
138.28	Ione..... End track

RULE 98. Railroad crossings at grade not interlocked: Trains and engines must approach with caution, and may move over the following crossings without stopping, if crossing clear and no movement approaching on intersecting line:

Stockton... CCTCo., crossing of Oakdale Branch near MP 92.0,

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

- Roma..... CCTCo., crossing of Valley Spring line,
- Oakdale... AT&SFRy, crossing of Oakdale Branch, MP 116.7 on
- Ione Branch. CCTCo., crossing of Ione Branch.

Drawbridge not interlocked:

Stockton: Drawbridge over San Joaquin River, on spur connecting with SPBRy. Drawbridge normally closed. SP movement must stop. Sound whistle Signal 14(j) when necessary for bridge to be lined.

RULE 103-A. Stockton: When making movements eastward on Scotts Avenue, before crossing El Dorado Street, following will govern:

- With engine ahead pulling cars, stop and proceed,
- With cars being pushed, stop and proceed with yardman protecting movement over El Dorado Street.

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

- Lodi..... Crossing Oak St. and Pine St. on yard tracks,
- Tomspur.... Crossing on Hershel Canning Co. spur,
- Woodbridge.. Crossing Woodbridge road on General Mills spur,
- Carbondale... Crossing county road when on industry track.

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

- Tracy..... Niles line, for Martinez line,
- Tracy..... End double track, for eastward track,
- Tracy..... Los Banos line, for Niles line,
- Lodi..... Woodbridge line, for Lathrop line,
- Lodi..... Yard track for Valley Spring line,
- Galt..... West leg of wye for Ione line,
- Galt..... East leg of wye for straight leg of wye.

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

Eastward Signal	Protection	Westward Signal
P-A	Collision detector, highway underpass, MP 104.16 (Lodi).....	P-1043

RULE 505. AUTOMATIC BLOCK SIGNAL SYSTEM

Tracy: Signals in east end of Tracy are numbered as automatic and are under control of switch tender. When "stop" is indicated, trains must stop and not proceed until "proceed" is indicated or proceed signal is given with green flag or green light by switch tender.

Eastward movements governed by dwarf light Signals 710, 712, 714.

Westward movements from Lathrop Subdivision governed by Signal 713, the top light governs movement on main track and the lower light governs movement to hill or local yard, and dwarf light Signal 715 located on right of eastward track governs movement to all routes.

Westward freight trains stopped by Signal 717, located east of overhead crossing east of Tracy, use telephone located on this signal, call switch tender and be governed by his instructions.

Signal 709 displays green aspect for movements to Martinez line, and yellow aspect for movements to Niles line.

Trains and engines stopped by Signal 709 may then proceed with caution if proceed signal received from yardman.

Lathrop: Trains and engines stopped by Signal 828 may apply Rule 509 only after obtaining permission of train-order operator.

RULE 535. SPRING SWITCHES

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

Location	Normal Position
Stockton East leg of wye to Oakdale Branch..	Drill track

RULE 605. INTERLOCKING

San Joaquin River Drawbridge: Derails in eastward main track 892 feet west of lift span, and in westward main track 1208 feet east of lift span. Normally no signal operator on duty and signals and derails will be left lined for trains. A train stopped by interlocking signals may flag through interlocking limits at once, if derails and drawbridge in position for train movement.

Lathrop: East zone: Limits extend from SA signal 575 feet west of west switch of crossover to SA signal 65 feet east of east switch of crossover.

West zone: Limits extend from 360 feet west of junction switch to 340 feet east of junction switch.

Switch leading from house track, within these limits is hand throw, but the derail is equipped with electric switch lock. Instructions for operation is posted inside lock box door. Permission of signal operator must be obtained before fouling main track.

South zone: Limits extend from 225 feet west of junction switch to 65 feet east of junction switch.

WP zone: Limits extend between semi-automatic signals either side of WPRR crossing.

Telephones at interlocking signals governing entrance to East, West and South zones, and in door of concrete shelter at WPRR crossing.

French Camp Tower: TSRy crossing 1.6 miles east of French Camp: Signal operator on duty 6:00 PM to 10:00 PM and 11:00 PM to 3:00 AM daily except Saturdays, Sundays and holidays. Signals will be left in proceed position and switch and derail to stock yard spur will be left for normal handling by trainmen when signal operator not on duty. During hours signal operator on duty, this switch will be electrically locked and controlled by signal operator.

Trains entering this track must restore switch and derail and lock same. Before leaving this track, permission must be obtained from signal operator, when on duty, and will be given in accordance with Rule 628; Whistle signal, — — — o may be used.

Engineers will sound whistle Signal 14 (m) when they wish to enter or pass through this plant when signal operator on duty.

Stockton Tower No. 2: AT&SFRy crossing, Sacramento and Taylor Streets, Stockton: Sound whistle signals as follows for:

- Westward main track, o o — —,
- Eastward main track, — o —,
- Middle track, o — —,
- Old siding, — — o o,
- Gauns track, o — o,
- Houser-Haines track, o o — o.

One short sound of tower siren (o) will be signal for all train movements to stop.

Two short sounds repeated several times (oo oo oo) will be signal for yard and train crews to clear the plant at once.

Stockton Tower No. 3: WPRR crossing Weber Avenue and Union St., Stockton.

Stockton Tower No. 4: WPRR crossing MP 92.3. Limits on eastward main track extend from signal 660 feet west of crossing to absolute signal at beginning of CTC 900 feet east of crossing; and on westward main track from signal at end of CTC 900 feet east of crossing to dwarf signal 200 feet west of crossing.

Switches and derails on Gulf Red Cedar spur and Gilmore Oil spur are hand-throw and equipped with electric lock controlled by signal operator.

- Whistle signal:
- For crossover, — o —.

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

RULE 760. CENTRALIZED TRAFFIC CONTROL

Limits extend from east limit of Stockton Tower No. 4 at east crossover, to interlocking signal just west of west switch at Polk eastward and from absolute signal just east of west switch Polk to east interlocking limit at Stockton Tower No. 4 westward.

On double track between end of double track east of Akers and east interlocking limits at Stockton Tower No. 4 movements may be made in either direction on either track being governed by absolute and automatic signals. Rule 509 applicable to single track will apply on both tracks.

RULE 762: Flag protection to rear, as prescribed by Rule 99-A, is required by eastward trains standing, or delayed, on main track with rear of train between Signal 1122 and east switch Galt; and by westward trains standing, or delayed, on main track with rear of train between Signal 1121 and west switch.

GENERAL REGULATIONS

RULE 824. Tracy: When train stops on yard track in Hill yard not less than three hand brakes must be set on cut west of C St., and four hand brakes must be set on east end of train before engine is detached.

When train stops on yard track on Martinez line, not less than four hand brakes must be set on west end of train before engine is detached.

Stockton: When cars are cut off or left on west end of tracks in ice yard, sufficient hand brakes must be set on west end of cut to hold cars.

RULE 825. Train crews must not release brakes on outbound trains at Tracy until engine is coupled and brake pipe charged.

AIR BRAKE RULES

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

- Toyon to 1/2 mile east of
- Valley Spring..... 1 valve for every 75 tons in train.
- Norval to Helisma..... 1 valve for every 75 tons in train.

FREIGHT TRAINS

RULE 25. Rear end test must be made immediately prior to departure from:

- Toyon..... All trains.

SPECIAL INSTRUCTIONS—LATHROP SUBDIVISION

MISCELLANEOUS

1. Engines of Sierra Ry will take water from SP supply at Oakdale, using SP main track. Trains and engines must move with caution between F and G Sts., Oakdale, expecting to find main track occupied.

Emergency water supply only at Lathrop on westward track.

6. Cars must not be left on straight leg of wye, Lathrop, to block tool house or crossover.

Engines will be turned on AT&SFRy wye at Oakdale, operating over Sierra Ry main track from Oakdale to AT&SF Ry junction, being governed by current Sierra Ry timetable (copy may be secured from SP agent), and will procure clearance from Sierra Ry operator when on duty, before leaving Oakdale; and be governed by Special Rule No. 3, Sierra Ry timetable reading as follows:

"All trains will approach yard limits of stations shown with train under full control, expecting to find main track obstructed. This does not give switching engines right over any train."

Sierra Ry switch key in phone box at SP station building, must be replaced after use. Every precaution for safety must be observed, flagging if conditions require.

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

Class of Engine	Restricted Tracks
Mk, Mt, GS, F, SP, MM, AC, P, T-40	Tracy—Brewery; Holly Sugar spur.
Mt-2, GS, F, SP, MM, AC, T-40	Lathrop—Tracks leading to Army Supply Depot.
Mk, Mt, GS, F, SP, MM, AC, P, T-40	Lathrop—Fresno No. 2 Track; beet track; sloop track.
"	Stockton—Tracks 2 and 3 (except to pick up or set out); west end of Tracks 2, 3 and 4 in classification yard.
GS, F, SP, MM, AC	Stockton—Turntable lead.
DP, P, TW-8, A, Mk, F, AC, Mt, GS, SP	Stockton—West leg of Oakdale wye. (May be used by DP, P (except P-6, 7, 12), Mk-2, 4, 5, 6 class in emergency).
Mk, Mt, GS, F, SP, MM, AC, P, T-40	Lodi—Tracks 5 and 6; crossover between tracks 3 and 5; west end of track 5 to Walnut St.
Mt-2, GS, F, SP, MM, AC, T-40	Lodi—Wye (no restriction on west end of wye between siding and oil column).
Mk, Mt, GS, F, SP, MM, AC, P, T-40	Urgon—Spur.
"	Galt—Crossover between controlled siding and oil track; wye.
"	Elk Grove—Elk Grove Winery spur.
"	Florin—Florin Fruit Growers spur.
Mt, GS, F, SP, MM, AC, P, T-40	Polk—Tracks 1 and 2, U S. Army Signal Depot.

Load limit (car and contents):

Tracy-Brighton	251,000 pounds
Stockton-Montpellier	210,000 pounds
Woodbridge-Kentucky House	210,000 pounds
*Galt-Ione	210,000 pounds

*When notified that false bents are not in place on bridges 135.87 and 136.64, load limit between Edwin and Ione will be 169,000 pounds, except that passenger equipment on six axles weighing not over 200,000 pounds may be handled.

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

15. Trains must not pass switchtenders' stations at Sixth and Seventh Sts, Sacramento, without receiving signal from switchtender to proceed (green flag by day, green light by night) and must move with caution between Sacramento River bridge and Seventh Street.

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

Mile Post	At or Near	Description
90.7	Stockton	Water column, westward track.....Side
104.3	Lodi	Mokelumne River bridge.....Side
129.0	Florin	Water tank spout.....Side
110.7	Lockeford	Brick platform at Locke warehouse..Side
132.2	Carbondale	Clay shed.....Side
136.7	Dagon	Sutter Creek bridge....Overhead & side

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
Through all sidings, yard tracks and other tracks with engine running backward.....	10
*On all yard tracks within city limits, Stockton	8
Through controlled sidings in CTC, except:.....	25
With DS class engine backing light.....	15
With other engines backing.....	10

*Regulated by City ordinance.

SPECIAL INSTRUCTIONS—LATHROP 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 4 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	LIGHT ENGINES		TERRITORY	PASSENGER TRAINS	FREIGHT AND MIXED	LIGHT ENGINES	
			RUNNING FORWARD	RUNNING BACKWARD				RUNNING FORWARD	RUNNING BACKWARD
Column:	1	2	3	4	Column:	1	2	3	4
EASTWARD, TRACY TO BRIGHTON:					WESTWARD, BRIGHTON TO TRACY:				
MP MP					MP MP				
70.70 to 71.20	10	10	10	10	133.20 to 104.38, except:.....	70	50	50	30
71.20 to 71.75	45	30	30	30	Over bridge 104.38 with GS, F, AC, Mt-2, SP engines.....	25	25	25	25
71.75 to 77.95	70	50	50	30	104.38 to 104.00.....	70	50	50	30
77.95 to 78.35 (bridge)	40	40	40	20	104.00 to 102.00 (Lodi).....	30	30	30	20
78.35 to 81.39 (Lathrop, jct. Fresno line). Thru switches to Fresno line, West Zone at Lathrop.....	70	50	50	30	102.00 to 92.30.....	70	50	50	30
81.39 to 87.70	25	25	25	25	92.30 to 92.00.....	20	20	20	20
87.70 to 88.70	70	50	50	30	*92.00 to 88.70 (Stockton).....	20	20	20	20
	45	30	30	30	88.70 to 87.70.....	45	30	30	30
*88.70 to 92.00 (Stockton).....	20	20	20	20	87.70 to 81.39 (Lathrop).....	70	50	50	30
92.00 to 92.30.....	20	20	20	20	Thru switches to Fresno line, East Zone at Lathrop.....	25	25	25	25
92.30 to 95.00.....	70	50	50	30	81.39 to 78.35.....	70	50	50	30
95.00 to 95.01 (thru turnout).....	25	25	25	20	78.35 to 77.95 (bridge).....	40	40	40	20
95.01 to 102.00.....	70	50	50	30	77.95 to 71.75.....	70	50	50	30
102.00 to 104.00 (Lodi).....	30	30	30	20	71.75 to 71.20.....	45	30	30	30
104.00 to 104.53, except:.....	70	50	50	30	71.20 to 70.70 (Tracy).....	10	10	10	10
Over bridge 104.38 with GS, F, AC, Mt-2, SP engines.....	25	25	25	25					
104.53 to 131.70.....	70	50	50	30					
131.70 to 133.20 (Brighton).....	65	50	50	30					
EASTWARD, STOCKTON TO MONTPELLIER:					WESTWARD, MONTPELLIER TO STOCKTON:				
*90.95 to 91.40.....	8	8	8	8	140.29 to 103.95.....	30	30	20	20
91.40 to 103.58.....	30	30	20	20	103.95 to 103.58 (Peters).....	20	20	20	20
103.58 to 103.95 (Peters).....	20	20	20	20	103.58 to 91.40.....	30	30	20	20
103.95 to 140.29.....	30	30	20	20	*91.40 to 90.95.....	8	8	8	8
EASTWARD, LODI TO KENTUCKY HOUSE:					WESTWARD, KENTUCKY HOUSE TO LODI:				
103.51 to 121.40.....	25	25	15	15	142.84 to 139.70.....	20	20	15	15
121.40 to 132.30.....	20	20	15	15	139.70 to 132.30.....	15	15	15	15
132.30 to 139.70.....	15	15	15	15	132.30 to 121.40.....	20	20	15	15
139.70 to 142.84.....	20	20	15	15	121.40 to 103.51.....	25	25	15	15
EASTWARD, LODI TO WOODBRIDGE					WESTWARD, WOODBRIDGE TO LODI				
	40	10	10	10		10	10	10	10
EASTWARD, GALT TO IONE:					WESTWARD, IONE TO GALT:				
112.12 to 125.50.....	30	30	20	20	138.99 to 136.66.....	30	30	20	20
125.50 to 127.10.....	25	25	15	15	136.66 to 136.64 (bridge).....	15	15	15	15
127.10 to 135.87.....	30	30	20	20	136.64 to 135.90.....	30	30	20	20
135.87 to 135.90 (bridge).....	15	15	15	15	135.90 to 135.87 (bridge).....	15	15	15	15
135.90 to 136.64.....	30	30	20	20	135.87 to 127.10.....	30	30	20	20
136.64 to 136.66 (bridge).....	15	15	15	15	127.10 to 125.50.....	25	25	15	15
136.66 to 138.99.....	30	30	20	20	125.50 to 112.12.....	30	30	20	20

*Regulated by City ordinance.

Nos. 51 and 52, consisting of streamlined equipment with P-7, 8, 10, 12, GS or Mt class engine may run not to exceed 75 MPH where 70 MPH is authorized in Column 1.

No. 402 (BM) when consist contains no restricted cars, may operate at passenger speeds shown in Column 1, except maximum speed must not exceed 50 MPH.

*RESTRICTED CARS are listed on page 5 under "Maximum Speed Permitted with Certain Equipment", and trains handling must not exceed maximum speed of 40 MPH.

SPECIAL INSTRUCTIONS—LATHROP SUBDIVISION

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

NOMINAL CLASS	ENGINE NUMBERS	Tracy and Brighton	Stockton to Montpelier	Montpelier to Stockton	Lodi to Wallace Toyon to Macnider	Wallace to Toyon Macnider to Kentucky House	Macnider to Toyon	Valley Spring to MP 129
DP-3	6017	3750	.....	.....	.....	.....	.....	.....
DP-4, 7	6000 to 6004, 6018	3750	.....	.....	.....	.....	.....	.....
DP-5, 6	6005 to 6016	.....	.....	.....	.....	.....	.....	.....
DP-8, 9	6019 to 6027	9250	.....	.....	.....	.....	.....	.....
DF-1	6122 to 6137	.....	.....	.....	.....	.....	.....	.....
DF-1 to 7	6138 to 6377	.....	.....	.....	.....	.....	.....	.....
DF-100	5200 to 5202	.....	.....	.....	.....	.....	.....	.....
DF-101 to 108, 112	5203 to 5249, 5253 to 5278	5000	.....	.....	.....	.....	.....	.....
DF-109	5250 to 5252	5000	.....	.....	.....	.....	.....	.....
DF-200 to 204	5100 to 5118	.....	1400	1875	.....	.....	.....	.....
DF-300	4600 to 4603	.....	.....	.....	.....	.....	.....	.....
DS-1 to 8	1000 to 1032	1625	1350	1850	.....	.....	.....	.....
DS-100 to 109, 111	1300 to 1441, 1464 to 1485	2450	2125	2850	.....	.....	.....	.....
DS-110	1442 to 1463	3200	.....	.....	.....	.....	.....	.....
DS-200, 201	1900 to 1903	.....	.....	.....	.....	.....	.....	.....
M-4	1617 to 1713	2375	1525	2200	1725	400	725	1100
M-6, 8	1721 to 1803, 1824, 1825	2800	1800	2575	2025	455	800	1300
M-9	1804 to 1822, 1826 to 1830, 1836	2925	1900	2700	2125	485	850	1375
M-11	1832 to 1835	3075	1975	2825	2225	525	950	1450
T-1	2248, 2252	2025	1300	1850	1475	340	600	950
T-23	2301 to 2310	2525	1875	2700	2125	500	875	1375
T-26	2296	2525	1650	2325	1875	425	775	1200
T-28, 31	2312 to 2362	3225	2075	2975	2325	525	925	1475
T-32	2363 to 2370, 2372 to 2384	3200	2100	2950	2325	525	925	1475
T-40	2371	3200	.....	.....	.....	.....	.....	.....
T-37	2105	2850	1875	2625	2125	500	900	1375
P-1, 3, 5	2404, 2408, 2411, 2428 to 2433, 2439 to 2452, 2459	2575	1675	2375	1925	425	775	1225
P-1	2407	2575	.....	.....	.....	.....	.....	.....
P-4	2402, 2409, 2410, 2414, 2419, 2436	2825	2000	2600	2100	465	850	1350
P-6	2453, 2454, 2458	3200	.....	.....	.....	.....	.....	.....
P-7	2476, 2477	3400	.....	.....	.....	.....	.....	.....
P-8, 10	2461 to 2474, 2478 to 2483	3800	.....	.....	.....	.....	.....	.....
P-8, 10	2475, 2484 to 2491	3800	.....	.....	.....	.....	.....	.....
P-12	3122 to 3127	3725	.....	.....	.....	.....	.....	.....
C-5, 8, 9, 10, 26 to 29	2513 to 2599, 2625 to 2860, 3440 to 3469	3550	2275	3300	2575	625	1100	1675
C-18	3400 to 3409	3275	2100	3025	2375	575	1000	1550
C-19	3410 to 3426	3425	2175	3175	2475	600	1050	1600
TW-2, 3	2937 to 2952	2200	1400	2025	1575	370	650	1025
TW-8	2914 to 2923	3075	1925	2850	2175	525	925	1400
A-3	3025	2000	1450	2425	1575	3300	625	1000
A-6	3002	2450	1775	2850	1850	4000	750	1175
Mk-2, 4	3201 to 3240	4025	2550	3725	2900	675	1275	1900
Mk-5, 6	3241 to 3277	4500	2900	4150	3300	775	1425	2150
Mk-7, 8, 9	3300 to 3324	5025	.....	.....	.....	.....	.....	.....
Mk-10	3295	3875	2450	3575	2800	675	1215	1825
Mk-11	3297, 3298	3475	2350	3200	2675	650	1175	1750
F-1	3611 to 3652	5175	.....	.....	.....	.....	.....	.....
F-3, 4, 5	3653 to 3769	5950	.....	.....	.....	.....	.....	.....
MM-3	3930	6750	.....	.....	.....	.....	.....	.....
AC-4, 5	4100 to 4125	9350	.....	.....	.....	.....	.....	.....
AC-6 to 12	3800 to 3811, 4126 to 4294	9900	.....	.....	.....	.....	.....	.....
Mt-1, 3, 4, 5	4300 to 4376	4775	.....	.....	.....	.....	.....	.....
Mt-2	4385 to 4389	5150	.....	.....	.....	.....	.....	.....
GS-1, 2	4401 to 4415	5125	.....	.....	.....	.....	.....	.....
GS-3, 4, 5, 6	4416 to 4469	5350	.....	.....	.....	.....	.....	.....
SP-1, 2, 3	5000 to 5048	6975	.....	.....	.....	.....	.....	.....

NOTES:

- ① Applies to Engines 3201, 3203 to 3206, 3213, 3224, 3227, 3229, 3236 and 3237 only.
- ② Applies to Engines 3241, 3247, 3251, 3253, 3255, 3259, 3266 and 3272 only.
- ③ A-3, 6 class engines not permitted to operate between Macnider and Kentucky House.

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—LATHROP SUBDIVISION

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

NOMINAL CLASS	ENGINE NUMBERS	Kentucky House to Macnider Toyon to Valley Spring MP 128 to Lodi	Lodi and Woodbridge	Galt to Edwin	Edwin to Ione	Ione to Edwin	Edwin to Galt
DF-100	5200 to 5202	.....	.....	.....	.....	.....	.....
DF-101 to 108, 112	5203 to 5249, 5253 to 5278	.....	.....	.....	.....	.....	.....
DF-109	5250 to 5252	.....	.....	.....	.....	.....	.....
DF-200 to 204	5100 to 5118	.....	.....	.....	.....	.....	.....
DF-300	4600 to 4603	.....	.....	.....	.....	.....	.....
DS-1 to 8	1000 to 1032	.....	.....	775	⑤1725	⑤4000	4000
DS-100 to 109, 111	1300 to 1441, 1464 to 1485	.....	.....	1250	⑤1250	⑤4000	4000
DS-110	1442 to 1463	.....	.....	1675	⑤1675	⑤4000	4000
DS-200, 201	1900 to 1903	.....	.....	.....	.....	.....	.....
M-4	1617 to 1713	2225	2500	810	810	2650	2650
M-6, 8	1721 to 1803, 1824, 1825	2625	2925	950	⑤950	⑤3100	3100
M-9	1804 to 1822, 1826 to 1830, 1836	2750	3100	1020	⑤1020	⑤3275	3275
M-11	1832 to 1835	2875	3225	1060	⑤1060	⑤3410	3410
T-1	2248, 2252	1900	2100	692	692	2250	2250
T-23	2301 to 2310	2750	3075	1000	⑤1000	⑤3250	3250
T-26	2296	2425	2700	870	⑤870	⑤2865	2865
T-28, 31	2312 to 2362	3000	3400	1110	⑤1110	⑤3585	3585
T-32	2363 to 2370, 2372 to 2384	3075	3450	1130	⑤1130	⑤3650	3650
T-40	2371	.....	.....	.....	.....	.....	.....
T-37	2105	2750	3050	1000	⑤1000	⑤3250	3250
P-1, 3, 5	2404, 2408, 2411, 2428 to 2433, 2439 to 2452, 2459	2475	.....	.....	.....	.....	.....
P-1	2407	.....	.....	.....	.....	.....	.....
P-4	2402, 2409, 2410, 2414, 2419, 2436	2725	.....	.....	.....	.....	.....
P-6	2453, 2454, 2458	.....	.....	.....	.....	.....	.....
P-7	2476, 2477	.....	.....	.....	.....	.....	.....
P-8, 10	2461 to 2474, 2478 to 2483	.....	.....	.....	.....	.....	.....
P-8, 10	2475, 2484 to 2491	.....	.....	.....	.....	.....	.....
P-12	3122 to 3127	.....	.....	.....	.....	.....	.....
C-5, 8, 9, 10, 26 to 29	2513 to 2599, 2625 to 2860, 3440 to 3469	3300	3700	1215	⑤1215	⑤3900	3900
C-18	3400 to 3409	3050	3425	1135	⑤1135	⑤3615	3615
C-19	3410 to 3426	3175	3550	1180	⑤1180	⑤3765	3765
TW-2, 3	2937 to 2952	2050	2300	750	750	2400	2400
TW-8	2914 to 2923	2800	3150	1030	⑤1030	⑤3325	3325
A-3	3025	③2075	.....	.....	.....	.....	.....
A-6	3002	③2400	.....	.....	.....	.....	.....
Mk-2, 4	3201 to 3240	①3750	①4200	①1360	①⑤1360	①⑤4400	①4400
Mk-5, 6	3241 to 3277	②4200	②4725	②1550	②⑤1550	②⑤4400	②5000
Mk-7, 8, 9	3300 to 3324	.....	.....	.....	.....	.....	.....
Mk-10	3295	3550	4000	1325	⑤1325	⑤4225	4225
Mk-11	3297, 3298	3400	3825	1275	⑤1275	⑤4050	4050

- ① Applies to Engines 3201, 3203 to 3206, 3213, 3224, 3227, 3229, 3236 and 3237 only.
- ② Applies to Engines 3241, 3247, 3251, 3253, 3255, 3259, 3266 and 3272 only.
- ③ A-3, 6 class engines not permitted to operate between Macnider and Kentucky House.
- ⑤ Not permitted to operate between Edwin and Ione when notified false bents are not in place on bridges 135.87 and 136.64.

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(d). As specified below, — — — — o will be indication that flagman may return from west: Fresno.....Trains on Pratton line, Biola Jct.....Trains on Biola line.

RULE 14(e). As specified below, — — — — — will be indication that flagman may return from east: Lathrop.....Trains on Merced line, Berenda.....Trains on Daulton line.

Table with 2 columns: West MP, East MP. Rows include Lathrop (Tracy-Stockton line), Modesto, Turlock, Merced, Chowchilla (Chowchilla Branch), Madera, Fresno (Pratton-Tulare line), Biola-Porterville line, Merced-Clovis line.

Fresno: When making movements against current of traffic, trains or engines must be preceded by flagman over railway and street crossings at grade where wigwags installed, protecting crossings during movement, except where crossing watchman located.

Trains must receive proceed signal from yardman (green flag by day, green light by night) between Kern St. (east of passenger station) and Merced St. (west of passenger station).

When Signal 2046 on Pratton line, or Signal 2042 on eastward track displays stop indication train must stop, and after proceed signal received from yardman (green flag by day, green light by night) may then proceed as prescribed by Rules 509 and 513.

Eastward trains via Pratton line to Fresno Yard must receive proceed signal from yardman (green flag by day, green light by night) before fouling eastward or westward main track.

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

RULE 103-A. Turlock: Switching must not be done over Main and Olive Street crossings between hours of 12 Noon and 1:00 PM.

Madera: Automatic crossing signals at Yosemite Ave. and Sixth St., do not apply to back track which serves Valley Feed & Fuel Co.

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:

- Salida.....Broadway St. crossing for any movement that does not operate wigwag, ModestoTully Ave., on Grange Co. spur, ModestoB St. on Shoemake spur, Chowchilla...Highway crossing and Robertson St., on Cardwell Co. spur. Herndon.....Crossing Judson Ave. on SJL&P spur.

RULE 104. The normal position of rigid switches at the end of double track and at junctions, is as follows: BerendaDaulton line, for house track, Chowchilla...Dairyland line, for house track, Fresno Yard...End double track, for westward track, Fresno.....Pratton line, for eastward main track.

RULE 505. AUTOMATIC BLOCK SIGNAL SYSTEM Lathrop: Trains and engines stopped by Signal 828 may apply Rule 509 only after obtaining permission of train-order operator.

RULE 516. Overlap posts: Manteca (2300 ft. east of west switch) . Eastward trains.

RULE 605. INTERLOCKING Lathrop: East zone: Limits extend from 575 feet west of west switch of crossover to 65 feet east of east switch of crossover.

West zone: Limits extend from 360 feet west of junction switch to 340 feet east of junction switch. Switch leading from house track, within these limits is hand throw, but the derail is equipped with electric switch lock. Instructions for operation is posted inside lock box door. Permission of signal operator must be obtained before fouling main track.

South zone: Limits extend from 225 feet west of junction switch to 65 feet east of junction switch.

WP zone: Limits extend between semi-automatic signals either side of WPRR crossing. Telephones at interlocking signals governing entrance to East, West, and South zones, and in door of concrete shelter at WPRR crossing.

Kismet Tower: AT&SFRy crossing.

Biola Jct. Limits extend on Merced line from 675 feet west of junction switch, and on Biola line from 575 feet west of junction switch, to 930 feet east of junction switch on Merced line, and to dwarf signal 290 feet east of junction switch on No. 1 drill track.

Trains and engines stopped by signals will call signal operator at train-order office Muscatel by telephone and be governed by his instructions. Telephones and instructions for hand operation of dual control switches are located in battery house at junction switch and at derail on Biola line.

Two unit dwarf signal on No. 1 drill track. Upper unit governs movement to Merced line; lower unit to Biola line.

AUTOMATIC INTERLOCKING

Modesto Tower: TSry crossing, MP 114.7. When trains are stopped by signals governing the use of automatic interlocking, flagman must be sent to crossing to operate clockwork time release enclosed in box marked "SPCo" and locked with switch lock.

Release must not be operated when trains are within interlocking limits or seen or heard approaching, on intersecting line.

Two minutes after release has been operated, a red indication light will be displayed over release and home signal should display proceed indication. If, for some reason, signal cannot display proceed indication, red indication light on home signal will be displayed and this will be authority to proceed through interlocking limits.

If home signal displays stop indication and red indication light on home signal is not displayed, train may proceed over crossing as provided by Rule 663.

Instructions for operating time release are posted inside of box.

GENERAL REGULATIONS

RULE 827. All passenger trains, except Nos. 51 and 52, and all other trains of passenger equipment must approach station at Modesto, and Nos. 51 and 52 must approach station at Merced, at speed not exceeding 8 MPH to allow forward brakeman to detrain on station side where rear of train will stop. He will then make rolling inspection of train, then walk length of train on opposite side making standing inspection, giving careful attention to running gear and journal boxes and entrain on station side.

RULE 829. Turlock: City ordinance requires that in event of fire alarm being sounded any train blocking Main St. must clear crossing immediately.

MISCELLANEOUS

1. When stopping to take water at Modesto, eastward freight trains leave train clear of L St. (second street west of passenger station), and westward trains clear of G St. (third street east of passenger station).

When stopping to take water at Merced, westward freight trains between 7:00 AM and 6:00 PM leave train east of crossing just east of freight station building.

Emergency water supply only at Lathrop on westward track.

6. Cars must not be left on straight leg of wye, Lathrop, to block tool house or crossover.

During cotton season, cars will be spotted on main track at Pierce Road crossing, one mile west of Plains, Chowchilla Branch.

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

Table with 2 columns: Class of Engine, Restricted Tracks. Rows include AC, F, GS, MM, Mt-2, P, SP, T-40; AC, F, GS, Mk, MM, Mt, P, SP, T-40; AC, F, GS, Mk, MM, Mt, P, SP, T-40; Engines over 305,000 pounds on drivers; AC, F, GS, Mk, MM, Mt, P, SP, T-40; Engs. 2404, 2407, AC, F, GS, MM, Mt, P-6, 7, 8, 10, 12, SP, T-40 and Mk over 210,000 pounds on drivers; AC, F, GS, MM, Mt, P-8, 10, 12, T-40, SP.

Table with 2 columns: Location, Load limit (car and contents). Rows include Lathrop-Fresno (251,000 pounds), Chowchilla-MP 172.5 (210,000 pounds), *MP 172.5-Dairyland (169,000 pounds), Berenda-Daulton (210,000 pounds), *Exception: Passenger equipment on six axles weighing not over 200,000 pounds may be handled. Unless authorized by Superintendent, heavier loads must not be handled.

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

Table with 3 columns: Mile Post, At or Near, Description. Row 134.8: Livingston. Merced River bridge. Overhead and side Sugar beet dump at Spreckels Sugar Beet Factory, Manteca, uncovered and care should be exercised by trainmen while working thereon.

Table with 2 columns: Description, With Caution Not Exceeding MPH. Rows include Through sidings, yard and other tracks, wyes, balloon tracks, crossovers and turnouts, except: 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), On Spreckels Sugar spur, Manteca (10), On Winery spur, Madera (20).

SPECIAL INSTRUCTIONS—MERCED 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 4 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	LIGHT ENGINES		TERRITORY	PASSENGER TRAINS	FREIGHT AND MIXED	LIGHT ENGINES	
			RUNNING FORWARD	RUNNING BACKWARD				RUNNING FORWARD	RUNNING BACKWARD
Column:	1	2	3	4	Column:	1	2	3	4
EASTWARD, LATHROP TO FRESNO: MP MP Thru switches, East and West Zones, at Lathrop.....	25	25	25	25	WESTWARD, FRESNO TO LATHROP: MP MP ★205.50 to 204.50 (Fresno).....	20	20	20	20
On east leg of wye, Lathrop.....	15	15	15	15	204.50 to 203.19.....	50	30	30	30
92.83 to 93.07 (switches).....	15	15	15	15	★203.19 to 202.73 (Fresno).....	20	20	20	20
93.07 to 94.00.....	30	30	20	20	202.73 to 199.28 (Biola Jct.).....	50	30	30	30
94.00 to 112.60.....	70	50	50	30	199.28 to 184.75.....	70	50	50	30
112.60 to 113.60 (Modesto).....	45	30	30	20	184.75 to 183.16 (Madera).....	45	30	30	20
113.60 to 114.69.....	70	50	50	30	183.16 to 151.60.....	70	50	50	30
114.69 to 114.70 (TSRy. crossing).....	40	40	40	30	151.60 to 149.70 (Merced).....	45	30	30	20
114.70 to 125.20.....	70	50	50	30	149.70 to 134.88.....	70	50	50	30
125.20 to 126.00.....	45	30	30	30	134.88 to 134.64 (bridge), except: with GS, F, AC, Mt-2 or SP engines ①.....	50	35	35	30
★126.00 to 126.30 (Turlock).....	30	30	30	20	134.64 to 126.30.....	70	50	50	30
126.30 to 134.64.....	70	50	50	30	★126.30 to 126.00 (Turlock).....	30	30	30	20
134.64 to 134.88 (bridge), except: with GS, F, AC, Mt-2 or SP engines ①.....	50	35	35	30	126.00 to 125.20.....	45	30	30	30
134.88 to 149.70.....	75	50	50	30	125.20 to 114.70.....	70	50	50	30
149.70 to 151.60 (Merced).....	45	30	30	20	114.70 to 114.69 (TSRy. crossing).....	40	40	40	30
151.60 to 183.16.....	70	50	50	30	114.69 to 113.60.....	70	50	50	30
183.16 to 184.75 (Madera).....	45	30	30	20	113.60 to 112.60 (Modesto).....	45	30	30	20
184.75 to 199.28 (Biola Jct.).....	70	50	50	30	112.60 to 94.00.....	70	50	50	30
199.28 to 201.89 (Fresno Yard).....	50	30	30	30	94.00 to 93.07.....	30	30	20	20
201.89 to 201.93 (thru turnout).....	25	25	25	25	93.07 to 92.83 (switches).....	15	15	15	15
201.93 to 202.73.....	50	30	30	30	On east leg of wye, Lathrop.....	15	15	15	15
★202.73 to 203.19 (Fresno).....	20	20	20	20	Thru switches, East and West Zones, at Lathrop.....	25	25	25	25
203.19 to 204.50.....	50	30	30	30					
★204.50 to 205.50 (Fresno).....	20	20	20	20					
EASTWARD, BERENDA TO DAULTON: 176.63 to 188.36.....	20	20	15	15	WESTWARD, DAULTON TO BERENDA: 188.36 to 176.63.....	20	20	15	15
EASTWARD, CHOWCHILLA TO DAIRYLAND 168.15 to 172.71.....	15	15	15	15	WESTWARD, DAIRYLAND TO CHOWCHILLA: 178.38 to 172.71.....	10	10	10	10
172.71 to 178.38.....	10	10	10	10	172.71 to 168.15.....	15	15	15	15

★Regulated by City ordinance.

①An engine of GS, F, AC, Mt-2 or SP class must not be operated coupled with any other engine over Merced River Bridge, MP 134.88.

Nos. 51 and 52, consisting of streamlined equipment with P-7, 8, 10, 12, GS or Mt class engine may run not to exceed 75 MPH where 70 MPH is authorized in Column 1.

No. 402 (BM) when consist contains no restricted cars, may operate at passenger speeds shown in Column 1, except maximum speed must not exceed 50 MPH.

⚡RESTRICTED CARS are listed on page 5 under "Maximum Speed Permitted with Certain Equipment", and trains handling must not exceed maximum speed of 40 MPH.

SPECIAL INSTRUCTIONS—MERCED SUBDIVISION

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

NOMINAL CLASS	ENGINE NUMBERS	Lathrop and Fresno	Chowchilla and Dairyland	Berenda to Daulton	Daulton to Berenda
DF-1 DF-1 to 7 DF-100 DF-101 to 108, 112 DF-109 DF-200 to 204 DF-300	6122 to 6137..... 6138 to 6377..... 5200 to 5202..... 5203 to 5249, 5253 to 5278..... 5250 to 5252..... 5100 to 5118..... 4600 to 4603.....	..... ..... 5000 5000...............	...................................	...................................	...................................
DS-1 to 8 DS-100 to 109, 111 DS-110 DS-200, 201 M-4 M-6, 8 M-9 M-11	1000 to 1032..... 1300 to 1441, 1464 to 1485..... 1442 to 1463..... 1900 to 1903..... 1617 to 1713..... 1721 to 1803, 1824, 1825..... 1804 to 1822, 1826 to 1830, 1836..... 1832 to 1835.....	1625 2450 3200 2375 2800 2925 3075	..... ..... ..... ..... 2625 3050 3175 ③3375	..... ..... ..... ..... 1020 1200 1275 1325	..... ..... ..... ..... 2650 3100 3275 3410
T-1 T-23 T-26 T-28, 31 T-32 T-40 T-37	2248, 2252..... 2301 to 2310..... 2296..... 2312 to 2362..... 2363 to 2370, 2372 to 2384..... 2371..... 2105.....	2025 2925 2525 3225 3200 3200 2850	2225 ③3225 ③2825 ③3550 ③3600 ③3225	875 1260 1100 1395 1415 1265	2250 3250 2865 3585 3650 3250
P-1, 3, 5 P-1 P-4 P-6 P-7 P-8, 10 P-8, 10 P-12	2404, 2408, 2411, 2428 to 2433, 2439 to 2452, 2459..... 2407..... 2402, 2409, 2410, 2414, 2419, 2436..... 2453, 2454, 2458..... 2476, 2477..... 2461 to 2474, 2478 to 2483..... 2475, 2484 to 2491..... 3122 to 3127.....	2575 2575 2325 3200 3400 3800 3800 3725	④2925 ③3200.........................	........................................	........................................
C-5, 8, 9, 10, 26 to 29 C-18 C-19 TW-2, 3 TW-8	2513 to 2599, 2625 to 2860, 3440 to 3469..... 3400 to 3409..... 3410 to 3426..... 2937 to 2952..... 2914 to 2923.....	3550 3275 3425 2200 3075	3875 3590 3740 2375 3300	1525 1415 1475 940 1295	3900 3615 3765 2400 3325
A-3 A-6 Mk-2, 4 Mk-5, 6 Mk-7, 8, 9 Mk-10 Mk-11	3025..... 3002..... 3201 to 3240..... 3241 to 3277..... 3300 to 3324..... 3295..... 3297, 3298.....	2000 2450 4025 4500 5025 3875 3475	③2300 ③2825 ③4400 ③4950 ③5650 ③4175 ③4000	..... ..... ①1715 ②1950 1660 1595	..... ..... ①4400 ②5000 4225 4050
F-1 F-3, 4, 5 MM-3 AC-4, 5 AC-6 to 12	3611 to 3652..... 3653 to 3769..... 3930..... 4100 to 4125..... 3800 to 3811, 4126 to 4294.....	5175 5950 6750 9350 9900	③5825 ③6700...............	.........................	.........................
Mt-1, 3, 4, 5 Mt-2 GS-1, 2 GS-3, 4, 5, 6 SP-1, 2, 3	4300 to 4376..... 4385 to 4389..... 4401 to 4415..... 4416 to 4469..... 5000 to 5048.....	4775 5150 5125 5350 6975	.........................	.........................	.........................

NOTES:

- ①Applies to Engines 3201, 3203 to 3206, 3213, 3224, 3227, 3229, 3236 and 3237 only.
- ②Applies to Engines 3241, 3247, 3251, 3253, 3255, 3259, 3266 and 3272 only.
- ③Not permitted between Ash and Dairyland.
- ④P-1, 3 not permitted between Ash and Dairyland.

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(d). As specified below, — — — — o will be indication that flagman may return from west:

Newark and Santa Clara. Trains on Elmhurst-Santa Clara line,
Niles.....Trains on Elmhurst-San Jose line.

RULE 14(e). As specified below, — — — — will be indication that flagman may return from east:

Elmhurst-Newark-Santa Clara.....Trains on Elmhurst-Santa Clara line.
Niles.....Trains on Milpitas line.

RULE 14(l). 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 14(m). Whistle will not be sounded one mile before reaching stations between:

Oakland Pier and Elmhurst.

RULES 17 and 17-C. Headlights of engines standing at end of wharf at Oakland Pier must be extinguished when steamers are entering slip. Headlights of eastward trains must be extinguished while standing at Oakland Pier and dimmed until Oakland Pier Tower has been passed.

RULE 21-C. Passenger engines to handle trains from Oakland Pier may display indicators before leaving West Oakland.

Indicators of engines on trains arriving Oakland Pier may be displayed until engine reaches roundhouse at West Oakland, and must be removed immediately on arrival at delivery track.

RULE 93. When freight cars are moved from one point to another on main track within Oakland yard limits at night, a red light must be displayed on rear of rear car.

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
14.02	Mulford..... 16.39
17.75	Hayward..... 21.69
80.70	Tracy (Martinez-Los Banos line)..... 85.64
69.19	“ (Niles-Lathrop line)..... 74.37
24.44	Redwood Jct. (San Mateo-Newark line)..... 28.22
	“ (Palo Alto line)..... 27.17
35.20	Newark (Centerville-Redwood Jct. line)..... 38.51
28.79	“ (Alvarado-Santa Clara line)..... 32.25
41.29	Niles (Tracy-Redwood Jct. line)..... 30.67
26.60	“ (Hayward-Milpitas line)..... 30.95
41.70	Eliot..... 45.40
63.25	“ (San Ramon line)..... 48.66
45.89	Livermore..... 55.64
54.03	Altamont..... 56.00
43.47	San Jose (Palo Alto-Coyote line)..... 44.85
44.85	“ (Milpitas line)..... 43.74
43.74	“ (Alviso line).....

Tracy: Eastward trains from Niles line must receive proceed signal from yardman before passing Signal 704.

RULE 103-A. Oakland: When moving against current of traffic flagman must protect crossing before moving over 5th, 29th Aves., and High St.

Member of crew must protect traffic over Winton Ave. crossings on drill track and corral track, Hayward, before movement is made.

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.

Mulford..... Crossing Maitland Drive on Airport drill.

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

Elmhurst... End of double track, for eastward track;
Alvarado line, for Niles line;
Stonehurst line, for house track extension.

Switches handled by operator for trains.

Whistle signals:

For Alvarado line, o — —,
For Niles line, — o —.

Niles..... Niles Tower line, for Elmhurst-Livermore line.

Tracy..... Niles line, for Martinez line.

Tracy..... End double track, for eastward track.

Tracy..... Los Banos line, for Niles line.

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

Eastward Signals	Protection	Westward Signals
	Spring switch, Shinn.....	P-423
P-526	Rock slide detector fence, MP 53.5.....	P-543
P-386	Collision detector, bridges 39.26 and 39.44 (Alviso).....	P-393
	Collision detector, bridge 39.26 (Alviso).....	P-413
	Collision detector, bridge 39.44 (Alviso).....	

RULE 505. AUTOMATIC BLOCK SIGNAL SYSTEM

Elmhurst: Signals are numbered as automatic and are under control of train-order operator. When signals display stop indication, trains must stop, and not proceed until signal displays proceed indication, or proceed signal is given by operator with yellow flag by day or yellow light by night.

Tracy: Signals in east end of Tracy are numbered as automatic and are under control of switch tender. When "stop" is indicated, trains must stop and not proceed until "proceed" is indicated or proceed signal is given with green flag or green light by switch tender.

Niles: Westward trains from Niles Tower line intending to use junction switch west of station building must not pass Signal 293 until switch has been lined, then be governed by indication of Signal 293.

RULE 516. Overlap posts:
Livermore (1275 feet east of Signal 473) . Westward trains.
Livermore (850 feet west of Signal 470) . Eastward trains.

RULE 535. SPRING SWITCHES

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

Location	Normal Position
Redwood Jct.....	End double track..... Westward track
Shinn.....	East end siding..... Main track

Oakland Pier: West end of tracks 4, 5 and 6 must be lined in direction of movement for Diesel engines arriving on trains to avoid any possibility of Diesel engines being derailed.

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.

Oakland Pier: Limits extend eastward to automatic Signal 40 on eastward main track and to home signal 450 feet east of Signal 40 on westward main track on Martinez line, and to automatic Signal 42 on both main tracks on Niles line, and on yard tracks 9 and 10 to Signal 44; and on yard tracks 11, 12 and 13 to home signal 175 feet east of Maritime overpass.

When siren whistle is sounded, all movement must stop and await proper signal.

The last signal governing movement into any track except tracks 17, 18, 19 and 20 is a two-arm dwarf signal. When home signal displays proceed indication, and approach signal displays yellow aspect, it indicates that movement is to be made into a track occupied by engines or cars. Responsibility for collision will rest with train or engine entering.

Niles Tower: Limits extend from dwarf signal on Niles line and signal on Tracy line 1685 feet from WPRR crossing, to Signal 300 on Milpitas line and to Signal P-423 on Centerville line, and also includes Milpitas-Centerville leg of wye.

When eastward interlocking signal just east of east switch Shinn displays stop indication, trains must stop to clear fouling point of east switch Shinn siding and call signal operator for instructions.

Junction switch at Niles Jct. is remotely controlled by signal operator at Niles Tower. When necessary to hand-throw this switch permission must be obtained from signal operator and switch must be cranked over. Instructions for operation posted on crank box opposite switch.

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,
Engines from trains to Niles for water, 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.

Switches and derails at west end of extension of Santa Clara line siding and east end of house track are equipped with electric switch lock. Instructions for operation is posted inside of lock box door. Permission of signal operator must be obtained before fouling main track.

Whistle signals:

To Santa Clara, o — —,
To Santa Clara line siding, o — — o,
To Santa Clara line siding extension, — o,
To Redwood Jct., — o — o,
To Dumbarton line siding, — o — o o,
To Centerville, — o —,
To Elmhurst, o — o.

San Francisco Bay drawbridge, MP 32.53 on Redwood Jct. line: Derails in main track within interlocking limits east and west of draw span.

West Oakland (First and Cedar Sts.): Limits on Niles line extend from Signal Bridge 110 to Signal Bridge 112. Limits on eastward main track on Martinez line extend from signal 500 feet west of freight lead crossing to 1700 feet east of freight lead crossing. Limits on westward main track on Martinez line extend from 1600 feet east of freight lead crossing to 450 feet east of Signal 40. Limits on eastward and westward freight leads extend from westward signals 2000 feet east of Martinez line main track crossing to Signal Bridge 112 on Niles line, and to westward signals on passenger yard leads 40, 50 and 60.

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.

Fruitvale: Limits on main track extend from Signal Bridge 123 to Signal Bridge 127 on westward track, and to westward dwarf signal 680 feet west of Signal Bridge 127 on eastward track.

Radum: Limits on main tracks extend from home signal at west wye switch to home signal at east wye switch on Niles-Tracy line, and to home signal at wye switch on Radum-San Ramon line.

Interlocking signals for Niles-Tracy line and for WPRR main track will normally display proceed indication for both directions.

If a train on Niles-Tracy line is stopped by interlocking signal when no signal operator on duty, train may flag through interlocking limits.

GENERAL REGULATIONS

RULE 824. Tracy: When train stops on yard track in Hill yard not less than three hand brakes must be set on cut west of C St., and four hand brakes must be set on east end of train before engine is detached.

RULE 825. Train crews must not release hand brakes on outbound trains at Tracy until engine is coupled and brake pipe is charged.

RULE 827. Cars of rock, sand or gravel in westward trains must be given inspection at Farwell, and in eastward trains must be given inspection at Cayley.

SPECIAL INSTRUCTIONS—NILES SUBDIVISION

AIR BRAKE RULES

RULE 2. Running test must be made on engines immediately after being detached from trains arriving Oakland Pier.

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

With 20 or more cars, and tonnage averaging over 75 tons per operative brake, use 10 retainers on head end of train, or more if requested by engineer, Altamont to Midway.

FREIGHT TRAINS

RULE 25. Rear end test must be made immediately prior to departure from:

Altamont..... Trains that stop.
Freight trains may pass Altamont without stopping for rear end test if proceed signals are given by trainmen after complying with Air Brake Rule 4. Speed must be reduced to 8 MPH. Helper engineers will reduce working steam sufficiently in advance so that lead engineer may control speed.

PASSENGER TRAINS

RULE 39. Running test must be made as follows:
Westward trains for Oakland Pier, immediately after passing Magnolia Tower.

Equipment being handled between West Oakland and Oakland Pier, as soon as practicable after starting.
Eastward and westward trains at Altamont.

MISCELLANEOUS

1. Emergency water supply located on Airport drill, Mulford.

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

Class of Engine	Restricted Tracks
Mk, Mt, GS, F, SP, MM, AC, P, T-40.....	Ravenswood—Spurs. Newark—Hillard, Leslie and Morton Salt spurs; West Vaco Chemical tracks.
Mk-7, 8, 9, Mt, GS, F, SP, MM, AC, P, T-40.....	Alvarado—Beyond trestle 25.70 at gate to Holly Sugar plant.
"	Sunol—Corral track.
"	Pleasanton—Hall Warehouse track.
"	Mulford—Oakland Airport spur.
Engines over 300,000 pounds on drivers.....	Radum—Tracks 1, 2, 3, 4 in Kaiser yard.
All engines and cars.....	Eliot—Tracks serving Concrete Material Co. beyond gravel loading chute.
Mk, Mt, GS, F, SP, MM, AC, P, T-40.....	Alviso—Cannery spur; Shell spur. Agnew—Distillery spur.

Load limit (car and contents):
Redwood Jct.-Tracy.....251,000 pounds
Oakland-San Jose via Niles.....251,000 pounds
Elmhurst-Santa Clara.....251,000 pounds
Unless authorized by Superintendent, heavier loads must not be handled.

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

Mile Post	At or Near	Description
28.9	Henderson...	Highway underpass..... Side
32.5	Dumbarton...	San Francisco Bay drawbridge..... Side
34.5	Dumbarton...	Newark Slough drawbridge..... Side
42.9	Niles Jct.....	Highway underpass..... Side
30.8	Dresser.....	Alameda Creek bridge..... Side
31.5	Farwell.....	Alameda Creek bridge..... Side
38.3	Pleasanton...	WPRR overhead bridge..... Overhead
55.4	Altamont.....	Highway overhead bridge..... Overhead and side
57.9	Altamont.....	Tunnel..... Side
18.2	Lorenzo.....	San Lorenzo Creek bridge..... Overhead and side
24.2	Decoto.....	WPRR overhead bridge..... Overhead
29.4	Niles.....	Highway underpass..... Side
3.5	Oakland Pier	Posts supporting trainshed..... Side
36.2	Drawbridge...	Warm Springs Slough bridge..... Side
36.8	Drawbridge...	Coyote Creek bridge..... Side
32.8	Irvington...	Gravel chute over house track..... Overhead
29.4	Niles Tower ..	Street underpass..... Side

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
Through all sidings, yard tracks and other tracks with engine running backward.....	10
Ravenswood, on spur.....	8

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 4 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	LIGHT ENGINES		TERRITORY	PASSENGER TRAINS	FREIGHT AND MIXED	LIGHT ENGINES					
			RUNNING FORWARD	RUNNING BACKWARD				RUNNING FORWARD	RUNNING BACKWARD				
MP	MP	Column:	1	2	3	4	MP	MP	Column:	1	2	3	4
EASTWARD, REDWOOD JCT. TO TRACY:					WESTWARD, TRACY TO REDWOOD JCT.:								
26.23 to 26.25 (junction switch).....	20	20	20	15	71.20 to 70.70.....	10	10	10	10				
26.25 to 27.45.....	35	35	35	30	70.70 to 63.00.....	40	40	40	20				
27.45 to 27.50 (end double track).....	15	15	15	10	63.00 to 52.00.....	25	25	25	20				
27.50 to 27.59.....	35	35	35	30	52.00 to 47.60.....	40	40	40	20				
27.59 to 35.20.....	50	40	40	20	*47.60 to 46.10 (Livermore).....	25	20	20	20				
35.20 to 37.00.....	40	25	25	20	46.10 to 45.40.....	35	35	35	20				
37.00 to 37.51 (Newark).....	15	15	15	15	45.40 to 41.70 (Radum).....	25	25	25	20				
37.51 to 38.51.....	40	25	25	15	41.70 to 37.10.....	35	35	35	20				
38.51 to 42.23.....	50	40	40	20	37.10 to 29.60-43.00 (Niles Jct.) ①.....	25	25	25	20				
42.23 to 43.00-29.60 (Niles Jct.).....	15	15	15	15	43.00 to 42.23.....	15	15	15	15				
29.60 to 37.10 ①.....	25	25	25	20	42.23 to 38.51, except:.....	50	40	40	20				
37.10 to 41.70.....	35	35	35	20	over spring switch east end Shinn.....	35	35	35	20				
41.70 to 45.40 (Eliot).....	25	25	25	20	38.51 to 37.51.....	40	25	25	15				
45.40 to 46.10.....	35	35	35	20	37.51 to 37.00 (Newark).....	15	15	15	15				
*46.10 to 47.60 (Livermore).....	25	20	20	20	37.00 to 35.20.....	40	25	25	20				
47.60 to 52.00.....	40	40	40	20	35.20 to 27.59.....	50	40	40	20				
52.00 to 63.00.....	25	25	25	20	27.59 to 26.25.....	35	35	35	30				
63.00 to 70.70.....	40	40	40	20	26.25 to 26.23 (junction switch).....	20	20	20	15				
70.70 to 71.20 (jct. Los Banos line).....	10	10	10	10	WESTWARD, SAN JOSE YARD TO NILES:								
EASTWARD, NILES TO SAN JOSE YARD:					WESTWARD, SAN JOSE YARD TO NILES:								
29.20 to 29.75.....	15	15	15	15	47.39 to 45.17.....	15	15	15	15				
29.75 to 44.85, except:.....	40	25	25	20	45.17 to 29.75, except:.....	40	25	25	20				
with GS, F, AC, Mt, SP class engines...	15	15	15	15	with GS, F, AC, Mt, SP class engines...	15	15	15	15				
44.85 to 47.39 (San Jose Yard).....	15	15	15	15	29.75 to 29.20 (Niles).....	15	15	15	15				
EASTWARD, OAKLAND PIER TO SANTA CLARA:					WESTWARD, SANTA CLARA TO OAKLAND PIER:								
3.50 to 4.80.....	15	15	15	15	45.01 to 44.48.....	15	15	15	10				
4.80 to 5.93.....	30	30	30	30	44.48 to 43.73.....	40	35	35	30				
5.93 to 5.94 (WPRR crossing).....	20	20	20	20	43.73 to 40.10.....	60	40	40	30				
5.94 to 6.20.....	30	30	30	30	40.10 to 39.00.....	40	35	35	30				
*6.20 to 7.20 (Market St. to Oak St.).....	15	15	15	15	39.00 to 36.87.....	60	40	40	30				
7.20 to 10.50.....	30	30	30	30	36.87 to 36.00 (bridges).....	25	25	25	25				
10.50 to 13.45.....	40	40	40	25	36.00 to 32.30.....	60	40	40	30				
13.45 to 13.47 (junction switch).....	15	15	15	15	32.30 to 28.79 (Newark).....	40	25	25	15				
13.47 to 13.70.....	35	25	25	25	28.79 to 14.58.....	60	40	40	30				
13.70 to 14.58.....	55	35	35	30	14.58 to 13.70.....	55	35	35	30				
14.58 to 28.79.....	60	40	40	30	13.70 to 13.47.....	35	25	25	25				
28.79 to 32.30 (Newark).....	40	25	25	15	13.47 to 13.45 (junction switch).....	15	15	15	15				
32.30 to 36.00.....	60	40	40	30	13.45 to 10.50.....	40	40	40	25				
36.00 to 36.87 (bridges).....	25	25	25	25	10.50 to 7.20.....	30	30	30	30				
36.87 to 39.00.....	60	40	40	30	*7.20 to 6.20 (Oak St. to Market St.).....	15	15	15	15				
39.00 to 41.10.....	40	35	35	30	6.20 to 5.94.....	30	30	30	30				
40.10 to 43.73.....	60	40	40	30	5.94 to 5.93 (WPRR crossing).....	20	20	20	20				
43.73 to 44.48.....	40	35	35	30	5.93 to 4.80.....	30	30	30	30				
44.48 to 45.01.....	15	15	15	10	4.80 to 3.50 (Oakland Pier).....	15	15	15	15				
EASTWARD, ELMHURST TO NILES JCT.:					WESTWARD, NILES JCT. TO ELMHURST:								
13.45 to 13.47 (junction switch).....	15	15	15	15	29.60 to 29.10.....	25	25	25	25				
13.47 to 29.10 ①.....	40	40	40	25	29.10 to 13.47 ①.....	40	40	40	25				
29.10 to 29.60 (Niles Jct.).....	25	25	25	25	Thru junction switch, MP 13.47.....	15	15	15	15				

*Regulated by City ordinance.

①An engine of GS, F, AC, Mt-2 or SP class must not be operated coupled with any other engine over Alameda Creek Bridge 31.56 west of Farwell nor over San Lorenzo Creek Bridge 18.16 east of Lorenzo.

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

No. 335 (CMW) and No. 336 (CME) may operate at passenger speed shown in Column 1, except maximum speed must not exceed 60 MPH; and No. 444 (CCM) and No. 402 (BM) when consist contains no restricted cars, may operate at passenger speeds shown in Column 1, except maximum speed must not exceed 50 MPH.

SPECIAL INSTRUCTIONS—NILES SUBDIVISION

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

NOMINAL CLASS	ENGINE NUMBERS	Oakland and Santa Clara	Oakland and San Jose Yard via Niles	Niles and Redwood Jct.	Tracy to Allamont	Livermore to Allamont	Niles to Livermore	Allamont to Niles Allamont to Tracy
DP-3	6017.....	3750	3750	3750	.....	.....	.....	.....
DP-4, 7	6000 to 6004, 6018.....	3750	3750	3750	.....	.....	.....	.....
DP-5, 6	6005 to 6016.....	.....	.....	.....	.....	.....	.....	.....
DP-8, 9	6019 to 6027.....	9250	7725	9250	.....	.....	.....	.....
DF-1	6122 to 6137.....	.....	.....	.....	.....	.....	.....	.....
DF-1 to 7	6138 to 6377.....	.....	.....	.....	.....	.....	.....	.....
DF-100	5200 to 5202.....	.....	.....	.....	.....	.....	.....	.....
DF-101 to 108, 112	5203 to 5249, 5253 to 5278.....	5000	4075	5000	1675	1775	2150	5000
DF-109	5250 to 5252.....	5000	5000	5000	2525	2650	3150	5000
DF-200 to 204	5100 to 5118.....	.....	.....	.....	.....	.....	.....	.....
DF-300	4600 to 4603.....	.....	.....	.....	.....	.....	.....	.....
DS-1 to 8	1000 to 1032.....	1625	1275	1775	520	550	660	4000
DS-100 to 109, 111	1300 to 1441, 1464 to 1485.....	2450	1925	2700	800	850	1025	4000
DS-110	1442 to 1463.....	3200	2675	3575	1025	1175	1400	4000
DS-200, 201	1900 to 1903.....	.....	.....	.....	.....	.....	.....	.....
M-4	1617 to 1713.....	2225	1725	2625	700	750	975	3250
M-6, 8	1721 to 1803, 1824, 1825.....	2625	2050	3075	825	875	1125	3750
M-9	1804 to 1822, 1826 to 1830, 1836.....	2750	2150	3250	875	925	1200	4000
M-11	1832 to 1835.....	2850	2225	3400	900	950	1250	4300
T-1	2248, 2252.....	1900	1475	2250	575	625	825	2850
T-23	2301 to 2310.....	2750	2150	3225	875	925	1200	4100
T-26	2296.....	2400	1875	2775	750	800	1025	3600
T-28, 31	2312 to 2362.....	3000	2350	3550	950	1000	1325	4500
T-32	2363 to 2370, 2372 to 2384.....	3075	2400	3550	975	1025	1300	4500
T-40	2371.....	3075	2400	3550	975	1025	1300	4500
T-37	2105.....	2725	2125	3250	850	900	1175	4100
P-1, 3, 5	2404, 2408, 2411, 2428 to 2433, 2439 to 2452, 2459.....	2475	1925	2850	750	800	1025	3500
P-1	2407.....	2475	2075	2850	750	800	1025	3900
P-4	2402, 2409, 2410, 2414, 2419, 2436.....	2725	2275	3125	825	875	1125	4000
P-6	2453, 2454, 2458.....	3050	2375	3525	950	1000	1275	4500
P-7	2476, 2477.....	3250	2525	3875	1025	1075	1375	4500
P-8, 10	2461 to 2474, 2478 to 2483.....	3400	2650	3975	1025	1100	1525	5000
P-8, 10	2475, 2484 to 2491.....	3400	2850	3975	1025	1100	1525	5000
P-12	3122 to 3127.....	3450	2675	4050	1050	1100	1500	5000
C-5, 8, 9, 10, 26 to 29	2513 to 2599, 2625 to 2860, 3440 to 3469.....	3300	2575	3925	1050	1325	1475	5000
C-18	3400 to 3409.....	3025	2375	3600	975	1225	1350	4550
C-19	3410 to 3426.....	3150	2475	3750	1000	1275	1400	4750
TW-2, 3	2937 to 2952.....	2025	1575	2400	625	675	900	3050
TW-8	2914 to 2923.....	2775	2175	3300	875	925	1275	4500
A-3	3025.....	1950	1650	2200	575	600	775	3000
A-6	3002.....	2400	2025	2700	725	775	975	3600
Mk-2, 4	3201 to 3240.....	3825	2975	4550	1200	1500	1675	5000
Mk-5, 6	3241 to 3277.....	4225	3300	4975	1350	1625	1850	6000
Mk-7, 8, 9	3300 to 3324.....	4600	3600	5450	1475	1775	2050	6000
Mk-10	3295.....	3550	2775	4225	1150	1200	1575	5300
Mk-11	3297, 3298.....	3400	2650	4025	1100	1150	1425	5100
F-1	3611 to 3652.....	4800	3750	5700	1525	1875	2125	6000
F-3, 4, 5	3653 to 3769.....	5950	4650	6550	1775	2175	2475	6550
MM-3	3930.....	6400	5000	7600	1975	2150	2800	8000
AC-4, 5	4100 to 4125.....	8650	6750	9250	2800	3250	3875	9250
AC-6 to 12	3800 to 3811, 4126 to 4294.....	9150	7150	9250	2950	3375	4075	9250
Mt-1, 3, 4, 5	4300 to 4376.....	4500	3725	5275	1400	1750	1975	6000
Mt-2	4385 to 4389.....	4875	3800	5750	1525	1900	2100	6000
GS-1, 2	4401 to 4415.....	4800	3900	5625	1500	1875	2050	6000
GS-3, 4, 5, 6	4416 to 4469.....	5100	4000	6000	1550	1925	2125	6000
SP-1, 2, 3	5000 to 5048.....	6475	5075	7675	2075	2575	2875	7675

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