## Southern Pacific Company <br> (PACIFIC SYSTEM.)



For the government and information of employes only, and not intended for the use of the public
F. L. BURCKHALTER,

Assistant General Manager.
G. F. RICHARDSON, Superintendent of Transportation.
R. L. RUBY

Assistant Superintendent of Transportation.








See pages 6, 7 and 9 for additional trains between Benicia and Sacramento.



Westward trains are superior to trains of the same class in the opposite direction (see Rule 72). Exception-No. 120 is Superior to No. 123. ADDITIONAL STOPS ON SIGNAL: $\begin{gathered}\text { No. } 50 \text {-Any station to receive pascengers for points east of Tracy. } \\ \star \text { No. } 124-\text { Due Bay Point Ship Yards } 8.05 \text { am. }\end{gathered}$


Westward trains are superior to trains of the same class in the opposite direction (see Rule 72). Exception-No. 120 is Superior to No. 123.
ADDITIONAL 8TOP8-No. 109 any atation to discharge passengera from points
east of Los Angoles, inclusive.

* No. 125 leaves Bay Point shipyard 5.00 pm .




On single track westward trains are superior to trains of the same class in the opposite direction. (See Rule 72.)
See pages 12,13 and 15 for additional trains between Oakland Pier, West Oakland and Elmhurst.



Westward trains are superior to trains of the same class in the opposite direction (see Rule 72).
Schedule time, time in train orders or meeting points made under any form of order will apply at the end of double track at Redwood Junction
Trains between Redwood Jct. and San Francisco be governed by Coast Division Time Table.




Westward trains are superior to trains of the same class in the opposite direction. (See Rule 72.




Westward trains are superior to trains of the same class in the opposite direction. (See Rule 72.)


1. EXTRA TRAINS MAY PASS OR RUN AHEAD OF THIRD AND FOURTH CLASS TRAINS WITHOUT AN ORDER TO DO SO.


When a helper engine is to be coupled into a train, copies of all orders affecting When a helper engine is to be coupled into a train, copies of all orders affecting
movement of the train at or beyond ooint from which helper is to be used, must be
delivered to each helper engine crew before leaving the point at which coupled into

If h
If helper engine is picked up at a closed or non-telegraph office a copy of orders affecting movement of train at or beyond that station-and copy of clearance cardmust be delivered to conductor of train at a preceding open telegraph office for de-
livery to the helper engineer before leaving station at which cut in. All trains must obtain Clearance (Form 2643) before leaving Niles, Newark, and All trains must obtain Clearance (Form 2643) before leaving Niles, Newark, and
eefore leaving Napa Junction when an operator is on duty, and Port Costa except
east ward trains via Benicia. Eastward traing via Renicia must obtain Clearance at eastward t
Benicia.

On DOUBLE TRACK trains may run extra without running orders, but must Sacramento, westward extras at Port Costa and eastward extras at Benicia. Engineman will accept check of train register (Form 2529) from Conductor at Enginemen will Register and compare time with standard clock before leaving
Roundhouse at West Oakland. Extras originating on double track at Suisun-Falrfield and Davis must obtain earance (Form 2643), also at Elmira when an operator is on duty
Rule 83 (A) will not apply at initial stations which are not telegraph stations,

## TRAIN REGISTER EXCEPTIONS.

Dispatchers must not authorise green signals to be taken down by any westward
隹 of the schedule If signals are to be displayed at Elmhurst by an eastward train ollowing inferior trains must be notified

Westward trains will register by ticket at Elmhurst
Eastward trains will register by ticket and need not check the register at Elm-
urst against any schedule that has heen fulfilled as shown on the registers at Oak hurst against any schedule th
land Pier and West Oakland
At Redwood Junction Western Division crews on westward trains will register artrains arrival on Coast Divisison reyister, departing on Western Division register

College Park is register station for trains to and from West San Jose only.
Davis Martinez, Bay Point and Livermore are register stations only for trains
that originate or terminate at those points
Avon is register station only for tr ins that originate or terminate at Avon Trains will register at Ramal on Monday only
At registering stations on single track or at the end of double track when passing
om singl to double track where trains are permitted to register by ticket as
from singl to double track where trains are permitted to register by ticket as per
Rule $8:-\mathrm{B}$ conductors and telegraphers or telephone operators must comply with
Rule 96 , the same as at non-registering stations.

## 7.

 TRAIN AND AIR INSPECTION.Westward trains must make the running air brake test one (1) mile east of Benicia Air brakes on all trains and communicating signal on passenger trains must be
ted from rear end of train at Napa Junction and Cordelia (except freight trains tested from rear end of train at Napa Junction and Cordelia (except freight trains
that do not stop at Cordelia) before ascending grade, and at the summit Al Altamont
and Creston as per Rule 16 and 17. Passenger trains that do not stop will make the and Creston as per Rurelelia) and before ascending grade, and at the summit of Altamont
running test as per Rule 16. Passenger trains that do not stop will make the running test as per Rule 16.
Crews of all trains must.
Crews of all trains must, whenever the Brake Pipe has been broken from any
cause, assure themselves that the air brakes are working through the entire train cause, assure themselves that the air brikes are working through the entire train
before starting by making the tests provided in Rule 17. In passenger service brake
valve must remain on lap until notified to valve must remain on lap until notified to release brakes as per Rule 16 (e). When testing the air whistle signal, six seconds must be allowed for charging
each car cut in before testing the air whistle signal, and then hold valve open one
second, wait four seconds each car cut in betore testing the air
second, wait four seconds and repeat.
In handling passenger equipment between West Oakland and Oakland Pier or
Oakland Pier and West Oakland, a tail hose must be attached to land air test made before moving. After attaining speed not exceeding leading car and air test made before moving. After attaining speed not exceeding eight miles per
hour running test must be made by yardman on leading car. When engine is pulling cars running test must be made per Rule 16 .
Passenger trains in picking up or setting out cars must have air on each car con-
nected with the engine.
After a continuous run of thirty (30) miles freight trains must be stopped and in-
spection made of running gear wheels, etc., as per Rule 820 .
Except on grades engines on freight trains of over 20 cars must be cut off at water stopa.

## Additional Commanicating Signals:

(j) 000000 When running increase train heat.
(k) When running look back for hand signals.
8. USE OF 19 FORM TRAIN ORDER FOR RESTRICTING TRAINS WITHIN AUTOMATIC BLOCK SIGNAL LIMITS.
Within automatic block signal limits between Oakland Pier and Sacramento,
Oakland Pier and Tracy via Altamont, Niles and San Jose, Port Costa and Tracy, the Oakland Pier and Tracy via Altamont, Niles
note under Rule 211 is modified as follows:
Form " "9"' train order may be issued to restrict the superiority of a train, except
that Form ' 31 " must be used:
(1) When orders are delivered at a non-telegraph or closed telegraph station.
(2) When necessary to restrict a train which has been cleared or the engine
of which has passed train order signal. (See Rule 219.)
of which has passed train order signal. (See Rule 219.)
(3) When issuing an order Form "G," Example
(4) When giving any train right over all trains.
(5) When reducing a time order where necessary that dispatcher have signature of superior trains before completing order to an inferior train Operator will fill out clearance, designating thereon numbers of orders, repeat
o dispatcher train and order numbers as they appear on clearance and obtain O . K . with time and superintendent's initials, writing same before delivery in blank space following "Signal is out for," Operator will retain carbon copp of clearance. This
Dispatcher must write train and order numbers in his train order
mitted by operator from clearance, and must designate time clearance was made 0 K , not transmitting O K . uncess operator repeats numbers of all orders to be
delivered to the train to which clearance is addressed.
elivered to the train to which clearance is addressed
When a " 19 " order restricting superiority is issued at a station where
restricted, train must be stopped by operator before delivery of order
Conductor's and engineer's attention is called to the importance of approaching at a moderate rate of speed, telegraph offices where orders are to be received. Also
to the necessity of carefully checking clearance to ascertain positively that elearance to the necessity of carefully checking clearance to ascertain positively that clearan
is properly addressed and that orders received are those called for by clearance.

Rule 251 is amended as follows:
In sending and repeating train orders by telephone or telegraphone they will be Second No. 25 Eng. 3205 wait at Newhall until Nine-Fifty 950 P.M. for extra 0
The order should appear as quoted above when ready for delivery
The manner of sending or repeating the order is as follows:
First pronounce the word "Second" and then spell it thus: "S-e-c-o-n-d;" pronounce
he word Number which will be abbreviated by "No." pronounce the figures $2-5$ and
follow by spelling each digit; thus "T-w-o fi-i-v-e;" pronounce the word "Engine"
which may be abbreviated in the order as "Eng." pronounce the engine number in which may be abbreviated in the order as "Eng." pronounce the engine number in
figures as " $3-2-2-5.5$ " then follow by spelling each figure as "t-hre-e-twwo n-a-u-ght f-i-v-e:", pronounce the words "wait at" then pronounce the station name and follow
by pronouncing each letter of the station name; as "N-e-w-h-a-l-1-;" pronounce the

 You will note that the words "Number," "Wait at," "for," "Extra" and "East"
are merely pronounced and should not be spelled.

## AUTOMATIC SIGNALS

9. Rule 504 is amended as follows:

When a train is stopped by a block signal, it may proceed when the signal indicates proceed
On SINGLE TRACK. Send a flagman in advance immediately, wait at least five minutes after the flagman has started, and then follow the flagman to the next distant or home block signal, in proceed position, or if the next distant or home block signal in advance is in plain view and in proceed position and track ahead is seen to be clear,
proceed under control, not exceeding six miles per hour. Flagman need precede train only to a point where the track ahead is seen to be clear to the next distant or home block signal in proceed position, but train will not exceed six miles per hour to such block signal.

On DOUBLE TRACK. A train may proceed immediately, running under control not exceeding six miles per hour, to the next distant or home block signal in advance, except that a hagman must precede the train when view is obscured by weather conditions, tunnels, or other obstructions.
10. Between Buchli and Ramal train must wait ten minutes before following flagman 11. A train must be preceded by a flagman over a drawbridge when stopped by a block signal which governs movement over it.
12. No automatic signals governing movements on westward track No. 1 between San Pablo and Shellmound tower and on eastward track No. 4 between Shellmound tower and Richmond.
13. On DOUBLE TRACK when using cross-overs, trainmen must comply with Rule hrough cross-over unles automatic block signal in each direction can be been moving stop position, not less than one-half mile distant
15. A train stopped at home signal on account of opposing train which can be seen taking siding, may immediately proceed at speed not exceeding six miles per hour, to
fouling point, provided track is seen to be clear to the fouling point. 16. When a train which is to take siding is stopped by home signal at meeting point
at which opposing train is standing on the main track, it may proceed immediately, under control, not exceeding six miles per hour to the entering switch, provided track is seen to be clear to that switeh.
17. When a train which is to take siding at meeting or passing point or is to enter
terminal yard finds home signal other than interlocking signal in stop position on account of train to be met or p-ssed standing on the main track or on account of switch being lined up for receiving track it may pass the home signal without proceed signal to indicate that switch is open and may enter sidig ond giving proceed signal to indicate that switch is open, and may enter siding or receiving
track at speed not exceeding six miles per hour. provided switch is seen to be open
and track clear to fouling pisint of switch and track clear to fouling point of switeh
18. When the number plate of a home hlock signal is reversed, showing "yellow,"
and signal indicates "Stop," train may pass without stopping, but, unless "therwise and signal indicates "Stop," train may pass without stopping, but, unless other
directed by train order or bulletin, will proceed with caution, to the next signal
19. When light is not burning in a distant or home block signal, speed must be reduced
sufficiently to enable engineman to be governed by the position of the signal blade sufficiently to enable engineman to be governed by the position of the signal blade,
and to observe the number of the signal, which will be reported as having light not and to observe the number of the signal, which will be reported as having light not
burning from first train order office from which report can be made without delay to train.
20. Flagman preceding a train stopped by a block signal will watch carefully for broken rails or other defects of track, and when trains are authorized to proceed at
six miles per hour without Яagman in advance, both engineman and fireman will watch six miles per hour without
carefully for such defects.
21. Within block signal limits that portion of rules 86 and D- 86 reading "but must be clear at the time a first-clas train in the same direction is due to leave the next
station in the rear where time is shown' is cancelled.

## SPECIAL INSTRUCTIONS-Continued.

## overlaps.

22. Westward trains-Avon and 2000 feet east of Ramal.
23. Eastward trains-Martinez, Bay Point and Dumbarton
24. Overlap posts are painted white at the top and black at the base, and stand about six feet high.
25. Trains holding main track against opposing trains at overlap stations must not pass overlap post, and switch must not be opened for opposing train unless such train has passed the signal at opposite end of block.

Before entering automatic block signal limits at Buchli, trains via BuchliUnion line must set junction switch for that line. If no obstruction in the block, signal will indicate "proceed."

Before entering automatic block signal limits at Ramal, trains from the Wingo line must set junction switch for that line. If no obstruction in the block, signal will indicate "proceed."
26.

SPEED TABLE.

| Speed per Hou | $\begin{array}{\|c} 1 \text { Mule } \\ \text { in } \\ \text { Min. Sec. } \end{array}$ | Speed per Hour | $\begin{array}{\|c\|} \hline 1 \text { Mile } \\ \text { in } \\ \text { Min. Sec. } \end{array}$ | Speed <br> per <br> Hour | $\begin{array}{\|c} 1 \text { Mille } \\ \text { in } \\ \text { Min. Sec. } \end{array}$ | Speed <br> per <br> Hour | $\begin{gathered} 1 \text { Mile } \\ \text { in } \\ \text { Min. Sec. } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 6 | 10 | 21 | 2.51 | 31 | 1.56 | 41 | 1.27 |
| 8 | 7.30 | 22 | 2.43 | 32 | 1.52 | 42 | 1.25 |
| 10 | ${ }_{5}^{6}$ | 23 |  | ${ }_{34}^{33}$ | 1.49 | $\stackrel{43}{4}$ | 1.23 |
| 12 | 4 | $\stackrel{24}{25}$ | 2.30 2.24 | 34 35 | 1.45 1.42 | $\stackrel{44}{45}$ | 1.21 1.20 |
| 15 |  | 25 | 2.24 | ${ }_{36}^{35}$ | 1.42 | 45 | 1.20 |
| 16 | ${ }_{3}^{3.45}$ | ${ }_{27}^{26}$ | 2.13 | ${ }_{37}^{36}$ | 1.40 | 47 | 1.18 |
| ${ }_{18}^{17}$ | 3.31 3.20 3 |  | ${ }_{2.8}$ | 38 | ${ }_{1.34}$ | 48 | 1.15 |
| 18 | ${ }_{3}^{3.20}$ | ${ }_{29}^{28}$ | 2.4 | 38 | 1.34 1.33 | 49 | ${ }_{1.13}^{1.15}$ |
| ${ }_{20}^{19}$ | 3 | 30 | 2. | 40 | 1.30 | 50 | 1.12 |

27 MAXIMUM SPEEDS FOR WHICH LOCOMOTIVES ARE COUNTERBALANCED

All locomotives, with the following exceptions, are counterbalanced for a speed in miles per hour equal to the number of inches in diameter of driving wheels:

| Class of Locomotive | Engine Numbers | Maximum <br> Speed in <br> Miles per <br> Hour | Maximum Wheel Pressure |
| :---: | :---: | :---: | :---: |
| T-6. |  | 50 | 22740 lbs . |
| T-6 |  | 45 | 24110 |
| T-28. |  | 54 | 46220 |
| TW-2. |  | ${ }_{44}^{43}$ | ${ }_{2} 25860$ |
| TW-4. |  | 44 | 26000 |

Note.-Maximum speed in miles per hour is based on vertical disturbing force of counterbalance not exceeding $75 \%$ of static wheel load, and maximum wheel pressures shown obtain at speeds indicated.

Speed of 2-10-2 type engines when used in passenger service must not exceed forty (40) miles per hour. Consolidation freight engines, also Mikado engines, must not exceed speed of forty-five (45) miles per hour, when used in passenger service

The above table is for the information of enginemen and must not be construed to in any way authorize exceeding speed restrictions in following table:
28. THE MAXIMUM SPEED OF RESTRICTIONS. EXEED FIFTY ( 50 ) MPESD MER MOUR.
Trains will not exceed the speed in miles per hour shown below:

| BETWEEN | Passenger | Freight | Kunning Backward |
| :---: | :---: | :---: | :---: |
| Through interlocking limits, under control |  |  |  |
| Through Cross-overs and turnouts | 10 | 10 |  |
| Oakland Pier and Krieger, except; | 50 | 35 | 20 |
| Oakland, within city limits. | 10 | 10 |  |
| Berkeley, University Ave. | 10 | 10 | ${ }_{20}^{10}$ |
| Krieger and Port Costa. | 40 | 25 |  |
| Benicia and Army Point... | 45 50 | $\stackrel{25}{25}$ | ${ }_{20}^{20}$ |
| Army Point and Sacramento, except;........ | 50 40 | $\stackrel{35}{35}$ | ${ }_{20}^{20}$ |
| Cygnus drawbridge. | 15 | 15 | 10 |
| Suisun-Fsirfield and Davis Yards | 30 | 20 | 10 |
| Washington, within city limits. | 8 | 8 | 8 |
| Sacramento drawbridge. | 6 | 6 | 6 |
| Sacramento, within city limits | 15 | 15 | 10 |
| Port Costa and Martinez: | 45 | ${ }_{20} 25$ | 20 |
| Martinez, within city limits | 20 | 20 | 20 |
| Martinez and Tracy, except; | 50 | 35 | 20 |
| Avon drawbridge. | 15 | 15 | ${ }_{20}^{10}$ |
| Pittsburg, within city limits. |  |  | 20 |
| Oakland Pier and Niles, except | 50 | ${ }_{22}^{35}$ | 20 |
| Oakland, within city limits. | 22 |  |  |
| Oakland, First and Adeline Oakland, | 10 8 8 | 8 | 8 |
| Halvern to Alvarado. | 10 | 10 | 10 |
| Niles and Sunol, | 40 | 25 | 20 |
| Mayborg curve, M P 33 Fusiers' curve, Mile Post 34 | 30 30 | 25 25 | 10 15 |
| Sunol and Mile Post 52, except; | 50 | 30 | 20 |
| Between city limit signs, Pleasanton and Livermore | 10 | 10 | 10 |
| Mile Post 52 and Midway, except; | 40 |  |  |
| Grecian Bend curve, $1 / 4 \mathrm{mi}$.E. of Mile Post 52 | 30 | 25 | 15 |
| Midway and Tracy... | 50 | 35 | 20 |
| Elmhurst and College Park, except; | 50 |  |  |
| Newark Yard. | 10 | 10 | 15 |
| Alviso, within city limits. | 15 | 15 | 15 |
| Distillery Spur, Agnews. |  |  | ${ }^{6}$ |
| Warm Springs and Coyote drawbridges | 15 | ${ }_{35}^{15}$ | 10 |
| Niles and Redwood City, except | 50 |  |  |
| Remount Spur. | 6 | 6 | ${ }_{8}^{6}$ |
| Ravenswood Spur.. | ${ }_{6}$ | 6 | ${ }_{6}^{6}$ |
| Dumbarton Salt Spur.................... | ${ }^{6}$ |  | 10 |
| Dumbarton and Newark <br> Niles and San Jose................... | 50 | ${ }_{35}$ | 20 |
| San Jose Yard..... | 12 | 12 | 12 |
| Avon and San Ramon. | 30 | 18 | ${ }_{20}$ |
| San Ramon and Radum............ | 40 | ${ }_{25}$ | 20 |
| Elmira and Violet. |  |  | 20 |
| Violet and Rumsey, except. | 10 | 10 | 10 |
| Capay, within city limits | ${ }_{40}$ | 25 | 20 |
| South Vallejo and Napa Jet.. | 50 | 30 | 20 |
| Napa Junction and Napa. | 40 | ${ }_{8}^{25}$ | 8 |
| Napa, within city limits. | 8 | 8 | 8 |
| Napa and Calistoga, except;. | 40 | ${ }^{25}$ | 20 |
| St. Helena, within city limits. | 12 | 12 |  |
| Napa Junction and Santa Rosa, except; | 40 | 25 | 5 |
| Sauta Rosa city limits. | 25 | 15 | 15 |
| Annadel and Santa Rosa $10^{\circ}$ curves | 25 | 15 | 15 |
| Napa River drawbridge........... | 15 | 15 | 10 |
| Ramal and Wingo, | 10 | 10 | 10 |
| Napa Junction and Corde | 40 | 25 | 20 |
| Cordelia and Suisun-Fairfield | 50 | 25 | 20 |
| No. 9 passing Richmond | 12 |  |  |
| Gasoline motor and electric cars | 30 |  | 20 |
| When shoving or backing passenger equipment\| | 15 |  | 15 |

Light Engines


Engine 3600
Pacific Type
Mikado
Pacific Type
Mikado
Eight Whee
Eight Wheler.
Ten Wheelers
Mogul.
Atlantic Type.....
Consolidation
Yard Engines.
Yellow flags and lamps or slow boards will be $\frac{15}{\text { laced one-fourth mile each side }}$
structures or piece of track over which speed of trains must not exceed fifteen miles of structures or piece of track over which speed of trains must not exceed fifte
per hour or rate of speed specified by bulletins, train orders. or slow boards.

29
29. LOCATION OF OVERHEAD AND SIDE STRUCTURES NOT

23

| Mile Post | EASt or | description |
| :---: | :---: | :---: |
|  | OAKLAND PIER-TRACY VIA PORT COSTA. |  |
|  | Oakland Pier | $\mid$ Long Wharf depresesed trakke-side. |
| ${ }_{6}^{5.6}$ | Oakland, 10th St....: | Structures of Pacifio Coast Canning Co.- iide.Btructures on track No. 6 between signal bridgea 204 and 205-side. Structures on track No. 6 between si Tmbrella Sheds-side. |
| 0.6. 0.6 | Emerryvili..........: |  |
| ¢i.8 | Emerrvilie........ | Structures on Judson siding-side. <br> mbrella sheds-side. <br> Machine shops Judson Iron Works-overhead and side. |
| 7.5 | Stook Yards......... | Mentine shops Judaon Iron Worke orerheed and sid |
| 13.1 | ${ }_{\text {Stege }}$....... |  |
| ${ }_{1}^{13.1}$ | Stege............. |  |
| 14.5 | Riacmond.: |  |
|  | Riehmond Transier |  |
| ${ }^{19.5}$ | Giant..............: |  |
| 20.5 | Oioum...: |  |
| ${ }^{27.7}$ | Tormey.. | Leading rackes, Union Oil Co-mide. |
| ${ }_{29.0}^{29.0}$ | Crooketi.. | Cal-Haw. A. R. Co.opverthead. |
| 30.1 | Eobley.: |  Buildings Bankers, CaliffWagon Bridge-overhead. |
| 31.1 | Port Costa. |  |
| ${ }_{81.8}$ | Nevada Dook |  |
| - ${ }_{88}^{88.7}$ | Martinas.......... | Wrarehouse, Anderson CO.Coverhead and side, cars to be left outalde, |
|  | Nichors.: |  |
| ${ }_{43.2}^{43.2}$ | Niobols.....: |  |
|  |  | port costa-sacramento. |
| 31.2 | Port Costa <br> Stmr. Contra Coota <br> Stmr. Solano | Wagon Bridge-overhead. Overbead and side. Overhead and side. Overhead and side. <br> Apron shods and t |
| $\begin{gathered} 32.4 \\ 32.4 \\ 48.9 \end{gathered}$ | Benicia............ |  |
|  | Buenician-Wairibield. |  |
|  |  | oakland pier-tracy via imles. |
| 4.8 | West Oakkand | Buildings and platiorms at Creosote Works-overhead and sidde. Freight platforms and tracke, Kirkbham St. Treight yardo-mido. Water tank on Wyo-overhead and side. |
|  |  |  |
| 7.0 | Oakland. 18 st St | Water tank on Wyo-overhead and side. <br> traek, Howard Co.-side |
|  | ${ }_{\text {23rdand }}$ A | Buidings Sunset Lumber Co.-overhead and sida |
|  | 233 d Avenue | California Cotton Mills-overhead and घido. |
| 9.0 | ${ }^{233 \mathrm{r}}$ A Avenu . |  |
| ${ }_{20}^{10.6}$ | Hayward. | Ster |
| 29.2 | Niles..... | Now Bunkers, Calif. Bldy Mat' Co.-overheed and wido. |
|  | Pleamainioi |  |
| 42.4 | Remillard | Platorm and Sthed-Remillard Brick Co.-aide. |
|  | Livermore | Livermore Brick Co., shed and loading piatform over high line trackoverhead and side. |
| 46.9 |  |  |
| 41.7 | Agbom............... ${ }^{\text {\| Track leading into diratilery-aide }}$ |  |
|  |  | avoi-radum. |
| 4.4 .8 | Nacres | Bridge-overhead and side <br> Trolley wire-Interchange Track-overhead. |
|  | Ias Juntar. |  |
| ${ }_{48.8}^{47.5}$ | Wainut Creok....... | Bridge-overberd and side. |
| ${ }_{66.4}^{87.0}$ |  |  |
|  | Sutsun-farrield and sotth vallejo-santa rosa-calistoga. |  |
| 37.3 | Napa Jot............. | Sheds over platiorms on tho two northerly spura of Portland Con |
|  | Thoman | Fenco-Sutter Home Winery-side |
|  | Winters. ...............\| 1 Fruit shed-overhead and side. |  |
| 7.0 |  |  |  |

All employes are warned that it is dangerous to ride on top or sides of cars at above mentioned points.
Employes must guard against coming in contact with overhead wires or their connections.
Steam shovels must not be transported over the road unless the "A" frames are
lowered
30.

## JUNCTION SWITCHES.

The east end of double track at Elmhurst is the east switch of cross-over west of junction switch for Elmhurst-College Park Line. The normal position of double track junction switch is for the eastward track. Switchtender is on duty from 6 A.M.
to 12 Midnight. The west cross-over in westward track leading from junction switch will be set for westward trains.

## JUNCTION SWITCHES-Continued.

Normal position of the East Wye Switch at Avon is for the siding.
The normal position of Wye switch on Dumbarton and Centerville Line at
ewark is for Dumbarton and Centerville Line. The normal position of ye switch on Dur
Newark is for Dumbarton and Centerville Line.
Normal position of the West Wye wit Normal position of the West Wye switch at Newark is for the siding
Normal position of the junction switch for the Elmira-Rum Elmira is for that line. Normal that line of junction switches at Napa Junction is for the Calistoga Line.
Normal position of junction switches at Buchli and Ramal is for Santa Rosa Line. Normal position of junction switch at Wingo is for N. W. P. R. R. Enginemen n Southern Pacific trains approaching junction at Wingo will give two long and
hree short sounds of the whistle as call to switchtender to set switch for Southern three short sounds of the whistle as call to switchtender
Pacific line. Switchtender on duty during the day time.


NOTE.-Emergency Surgeons should only be summoned for temporary treatment
en prompt attention is required and when pattents cannot be sent to or await arrival When prompt attention is require.
of Division or District Surgeon.

|  | Location of | STRETCHERS. |  |
| :---: | :---: | :---: | :---: |
| WEST OAKLAND | Pleasanton. | CONCORD. | SUISUN-FAIR- |
| EAST OAKLAND. | LIVERMORE. | TRACY | FIELD. |
| Fruitvale. | SANTA CLARA. | SANTA ROSA. | VACAVILLE. |
| ALAMEDA. | SAN JOSE | CALISTOGA. | WINTERS. |
| BERKELEY. | PORT COSTA. | NAPA. | DIXON. |
| RICHMOND. NILES. | MARTINEZ. | SOUTH VALLEJO. | DAVIS. | HOSPITALS.



## miscellaneous.

Suburban Trains have preference over Main Line Trains at Oakland Pler and Fruitrale.
33 Rules 93 and D-93 are revised as follows:
trains
"ALL TRAINS MUST APPROACH YARD LIMITS AND PASS THROUGH
YARDS UNDER CONTROL."

## 4 Yards are established at thard.

Iollowing stations
Suisun-Fairfield Davis South Vallejo Napa Jct. Nert Newark
35 WEST OAKLAND YARD-Extends from Oakland Pier, Long Wharf, to yard
limit signs east of Elmhurst on Elmhurst-Tracy and Elmhurst-College Park Lines; limit signs east of Elmhurst on Elmhurst-Tracy and Elmhurst-College Park Lines;
Stonehurst; San Pablo, including Richmond Transfer and Richmond Belt Railway; also on Electric Lines from Alameda Pier to all points on lines in Alameda and
Berkeley; 14th and Franklin Streets, $\begin{aligned} & \text { Oakland, and to Trolley Pole No. 2799, east } \\ & \text { of Parker Avenue on Melrose extension of Seventh Street Line }\end{aligned}$ of Parker Avenue on Melrose extension of Seventh Street Line.
36 When one torpedo is exploded train will come to a stop as per Rule 15. If no tation or block signal as hereinafter provided: (a). If view is obscured by curres, fog or storm, flagman must be sent ahead and
train may follow, under control, in the manner prescribed by Rule 504 . (b). If track is seen to be clear or within automatic block signal limits, if signal
indicates "Proceed," train may proceed, but will run under control, not exceeding
six miles per hour, for a distance of one-half mile, before resuming speed. 7 On double track lines, when a train finds a fusee burning red, train must be brought to a stop and may then proceed cautiously, not exceeding six miles per hour, to the
obstruction, or until clear signal is reached, or until track is known to be clear. 38 On lines of more than two main tracks when a train finds a fusee burning red on or near the track it occupies, train must be brought to a stop and may then proceed cautiously, not exceeding six miles per hour, to the obstruction, or until clear
signal is reached, or until track is known to be clear. When traing are running on signal is reached, or until track is known to be clear. When trains are runing on
adjacent tracks and a fusee is found between these two tracks, movement of trains on oth such tracks to be restricted as above; a fusee between the rails of an adjoining
39 When a red flagor lamp is displayed and no person attendingsignal, train must be
brought to a stop and be preceded by a flagman for a distance of a t least one-half mile. 40 That part of third paragraph of Rule 221-A of Transportation Department readg
41 Westward first-class trains via Santa Clara having passed beyoud the easterly limits of San Jose interlocking plant, and eastward first-class trains standing at
San Jose passenger station, need not protect. Trains must approach and move San Jose passenger station, need not protect. Trains must approach and move
within these limits expecting to find track occupied by other trains. This does not
affeet observance of Coast Division Special Rule relative Signal 464. affeet observance of Coast Division Special Rule relative Signal 464.
42 First-class trains via Niles within the limits of San Jose interlocking plant or
standing at San Jose passenger station need not protect. Trains must approach and standing at San Jose passenger station need not protect. Trains must approach and
move within these limits expecting to find track occupied by other traius. 43 Western Division trains holding orders to display signals to College Park Will continue to do so on Coast Division, College Park to San Jose, and will display sig-
nals from San Jose when holding orders to display signals on Western Division from ollege Park.
44 Trains standing on freight tracks Nos. 1 and 2 west of signal bridge 201 within limits of Sixteenth street inter-lopking plant need not protect. Trains must app
and move within these limits expecting to find tracks occupied by other trains
45 A yard engine must be protected before crossing Western Pacific on Stonehurst
Line and at Third and Fallon Streets; San Francisco \& Oakland Terminal, Ward treet on Shattuck Avenue Line and Parker Street on Ninth Street Line.
46 At Newark, Santa Clara and College Park, trains on the Elmhurst-College Park
Line when ealling in flagman from the west, will give four long and one short sounds of the whistle; when calling in flagman from the east, will give six long sounds of the vhistle.
47 At Napa Junction, trains on the Santa Rosa Line, when calling in flagman from
the east, will give six long sounds of the whistle. 48 At Davis, trains via Woolland on Davis-Gerber Line, when calling in flagman
from the east will give six long sounds of the whistle. 49 Trains on Track No. 1 between San Pablo and 16th Street Station, when calling
in flagman from the east, will give six long sounds of the whistle. 51 Trains on Track No. 2, between 16th Street Station and Shellmound Tower, and
on Track No. 4, between Shellmound Tower and Richmond when calling in on Track No. 4, between Shellmound Tower and Richmond, when calling in flagman
from the west will give four long and one short sound of the whistle.

52 Trains using the working track between Port Costa and Vallejo Junction, when
calling in flagman from the east will give six long sounds of the whistle. 53 When doubling engine runing for war for ant
necessary to leave a portion of a train on the main track, a red flag by day and a red
no light by night must be placed on the head car of the standing cut of cars, and in
addition two torpedoes placed not less than one-fourth mile in advance thereof. addition two torpedoes placed not less than one-fourth mile in advance thereof.
Enginemen must know the location of cars thus left standing, and must use extreme Enginemen must know the location of cars
care in returning for rear portion of train.
54 Two yardmen must be with engine when handling two cars or more at Oakland
Pier, In no instance must both yardmen ride on the same platiorm. 55 The time-table authority of schedule trains originating or ending at any inter-
mediate station is hereby extended to include main track between nediate station is hereby extended to include main track between switches of siding
ten minutes before leaving and ten minutes after arriving time of such trains, but

Rule 99 must be complied with
56 First paragraph, Rule 92 will not apply at Oakland Pier.
57 Trains may move between Oakland Pier and Elmhurst irrespective of time table superiority, except that freight trains must endeavor to avoid delaying passenger
trains. Freight trains or Yard Engines must not leave West Oakland unless they have five minutes or more to clear a first class train moving in the same direction. 58 But one train should occupy Broadway Station or tracks between Washington
and Franklin Streets at the same time. II necessary for two trains to occupy this territory, but one train at a time should be moving. Passenger trains must be given preference.
59 The Schedule time and timetable authority of first-class trains originating or
terminating at Newark is hereby extended to include the main track to the station building. Trains must approach Newark expecting to find the main track occupied by first-class trains without protection.
Responsibility for collision will rest with the approaching train. If the view is
bscured all trains must be protected as per Rule 99. obscured all trains must be protected as per Rule 99 .
First-class trains moving from Centerville to College Park via Newark, will use First-class trains moving from College Park to Centerville, via Newark, will pull
in on east leg of wye at Newark and back up to station building via west leg the then 60 Trains and light engines must run through Sacramento yard under control, and of Sacramento River bridge without receiving signal to procee streets and east end 61 Engines or trains using the wye at Napa Junction must approach it from the
Suisun-Fairfield Line and go around via the Calistoga Line. Conductors will furnish engineers with copy of check of train register Form 2529 for all enginemen in trains departing from Tracy. That part of Rule 815 reading
"Compare time with their enginemen before starting on run, and with their brakemen flagmen and baggagemen as soon thereafter as practicable.; Must be complied with.
( Trains entering Tracy yard and occupying Tracks 7, $8,9,11,12$ and 13 in Port
Costa side, trainmen on westward trains will set sufficient number of hand brakes on head end of trainmen and trainmestward on eastward trains suifill set sumber of hand brakes on head end or train, and trainmen on eastward trains will set sufficien
Trains entering Tracy yard and occupying Tracks 14, 15, 16, 17 and 18 in Niles train, and trainmen on eastward trains will set sufficient number of hand brakes on head end of train to insure against train running out east end. 62 On freight trains between Niles and Pleasanton, Altamont and Medal, Cordelia
and Napa Junction, brakemen must ride on top of cars, head brakeman near engine, and rear brakeman near caboose.
63 The siding for eastward trains at Bay Point is the frst track on Bay side of main
track. For westward trains the first track on the station side of main track. 64 Spur track Mile Post 15, Elmhurst-College Park Line, can be used as far as
road crossing west of beet loading racks and will hold 50 cars.
65 The'short track opposite the passenger station building at Santa Clarais the siding. 66 The siding of the Elmhurst-College Park Line at Newark is located east of station. 67 The siding of the Dumbarton and Centerville Line at Newark is west of the
Elmhurst-College Park Line. 68 The working track between Port Costa and Vallejo Junction may be used by
westward freight trains not exceeding 15 miles per hour, displaying markers as per Reste D-19, same as though rumning against current of traffic. 69 Eastward passenger trains approaching Tracy via Niles will have right to the main
track to the west switch of passenger siding, west switch being located 200 feet west of C. track to the west switith of passsenger siding, wests switch being located
Street crossing Tracy and be governed by Rule 800 from that point. 70 Eastward passenger trains approaching Tracy via Port Costa will have right to main
track to signal No. 820 looated just west of C Street crossing, Tracy and be governed by
Rule 800 from that point. Rule 800 from that point.
71 Derall in westward mat
71 Derail in westward main track just west of Benicia station bullding, normal posi-
tion "open."

75 ALL TRAINS ENTERING SIDINGS WILL DO SO UNDER CONTROL, REonsibility for collision is placed with entering train. 76 When a train or a portion of a train takes the siding it must not stop foul of the
main track to allow the brakeman to get on after closing the switch but first pull 77 Headlights on engines standing at the end of pier at Oakland Pier must be 78 when
78 Road engines when moving between roundhouse and train, at night or in foggy
or storny weather, must display a white and a red light on the rear of tank over or stormy weal
center of track.
79 City ordinance within City limits of Richmond prohibits the unnecessary use of
whistle or bell.
80 Between the hours of 9 P . M. and 6 A . M. engine bells must not be rung except
in emergency while passing through or switching in city limits of Napa. 81 It is unlawful to switch a car or engine on or across any public highway in the
city of Napa unless a flagman is stationed at the crossing, and he must remain there city of Napa unless a flagman
until switching is completed.
82
and bell kept ringing 0 , when entering or leaving Alvarado Sugar Company's Yard and approaching their road crossing which crosses S. P. Co. tracks.

84 TRAINS LOADING ON FERRY STEAMERS OR UNLOADING AT PORT
COSTA OR BENICIA WILL BE GOVERNED
BY THE FOLLOWING REGULATIONS:
When loading or unloading boats at Port Costa, or Benicis all engines with or cars or engine commence moving on apron and when unloading not to be exceeded until cars or engine are clear of apron.
Trains to or from new slip at Port Costa will be handled through work track
No. 8), north side of station building, when conditions are such that they cannot be (No. 8), north side of station building, when conditions are such that they cannot b
handled via main tracks. Eastward trains will approach crossover west of statio building under control, prepared to take either route to slip, as directed by yardmen.
Track No. 8 must be kept clear and properly lined up for such movement.

Locomotives standing at end of apron awaiting transfer on steamer must have
adights covered whenever reflection from same would be directly over apron into slip.
Road or Yard Engines, whether attached to cars or not, must have wheels
blocked.

## PASSENGER TRAINS

Head brakeman must ride rear end of first cut onto steamer and set brakes.
Yardmeneman must ride head end of second cut onto steamer and set brakes. set brakes

Whes.
While on the steamer trainmen must keep restibule doors and traps open, opening
ame as soon as the train comes to a stop on the steamer. Passengers must be causame as soon as the train comes to a stop on the steamer. Passengers must be cau-
tioned not to lean out of the windows or vestibule doors, as there is danger of beeing
ttruck by iron rods or bars of boat, and must be kept off platform when backing struck by iron rods or bars of boat, and must be kept off thatform danger of being
coaches on steamer. Vestibule tail gates must be in proper position. coaches on steamer. Vestibule tail gates must be in proper position.
Before passenger trains are moved on or off the boat at Port Costa and Benicia
air test must be made as follows: When yard engine couples onto second, third or fourth cuts of passenger trains to
shove on boat, tail hose must be properly atitached to leading car and a reduction of air must immediately be made through tail hose-enginemen to observe reduction
of air before pumping off brakes. Rear end test not neeessary for head portion of of air before pumping of brakes. Rear end test not necessary for head portion of
passenger train handled on and off boat by road engine. In moving off the bat, rear
end test must be made on portions of train pulled off by yard engine end test must be made on portions of train pulled off by yard engine. Not necessary
to make rear end test on portions of train pulled off by road engine or shoved off by to make engear.
Passenger trains to and from ferry steamer will make station stops at Port Costa
for exchange of passengers, baggage, mail and express.

## FREIGHT TRAINS

engine by air. Bhoving a cut of cars onto steamer each car must be connected with the entire cut air. Yars beforen mhost assure themselves that air brakes are working through
Rule 17, Air Brake Rules. Yard encine Rules.
Yard engine when shoving cut of cars onto steamer must stop the forward end
cut two car lengths from the extreme end of steamer when yardman must apply pilot hose They will fhem then the extreme end of steamer when yardman must apply
so he can apply the air should an anessary, so he can apply the air should an emergency arise. A pilot hose will be placed on
each end of the steamer for this purpose. The brakemen must assist deck hands in setting hand brakes when loading the
steamer and when unloading the steamer will see that hand brakes are released. Yardmen will not set hand brakes
85. MaIN tracks.

Main tracks between Oakland Pier and Bay. Street (West Oakland) numbering
from the north, are designated as $1,2,3,4,5,6,7,8,9$, and 10 , and used as follows: the north, are designated as $1,2,3,4,5,6,7,8,9$, and 10 , and used as follows:
No. 1-Westward Trains, via Oakland (Sixtenth Street).
 - Eastward Westward Trains, viaias, Oakland Seventh Street
Eastward Trains, vireet)
Westward 9-Westward running track from passenger yarr
10-Eastward running track to passenger yard (First Street).
Main tracks between Oakland to passenger yard (First Street). from the Bay, are designated as 1,2, 3, 4, 5, and 6, and used as follows: e Bay are designated as 1, 2, 3,
1-Westward Freight Trains.
2-EEstward Fright Trains.
3-Westward Passenger Trains. 4-Westward Passenger Trains,
4-Westward Passenger Trains.
5-Westward Electric Traing. 6-Westward Electric Trains.
Main trackss between Shellmmound Tower and Richmond numbering from the Bay,
designated as $1,2,3$, and 4, and used as follows: are designated as $1,2,3$, and 4, and used as follows: Track No. 1 is the first track from the Bay to the east end of San Pablo yard and may be used by westward freight trains not exceeding 15 miles per hour. Track No. 2 is the second track from the Bay, and extends from Shellmound
Tower to Port Costa and will be used by westward trains.
Track No. 3 is the third track from the Bay, and extends from Shellmound Tower Tower track No. 3 is the third track from the Bay, and extends from Shellmound Tower
to Port Costa and will be used by eastward trains. to Port Costa and will be used by eastward trains.
Track, No.4 is the fourth track from the Bay, axd extends from Shellmound
Tower to Richmond, and may be used by eastward freight trains not exceeding 20 miles per hour. Trains using track No. 1 between San Pablo and Shellmound and track No. 4
between Shellmound and Richmond display markers as per Rule D-19 the same as though running against the current of traffic. and Sather will be designated as $1,2,3$, and 4 and used as follows:
No. 1 WWestward Electric Trains.
2-Eastward Electric Trains. 2-Eastward Electric Trains.
3-Westward Stemm Trins.
4-Eastward Steam Trains.
86 Rules 14-k and D 14-k apply at interlocking towers.
interlocking signals.
Interlocking signals govern only through interlocking limits.
Interlocking signals govern only through interlocking limits.
Siganas on signal bridges are eplaced on post on top or suspended underneath signal
bridges over track on which trains approach. Movements governed by short-arm or dwarf signals must be made under control
and position of switches observed, as such signals govern movements for various
routes. routes. On double track within the limits of Oakland yard towermen may arrange to move trainding by telephone with each other for EACH movement. Before moving
understand understanding by telephone with each other for EACH movement. Before moving
trains againt the current of traffic they must know that track to be used is clear of
opposing engines and trains. opp
88 Movements through interlocking plants on a hand signal from the towerman
must be preceded by a flagman. 89
89. OAKLAND PIER TOWER

Westward trains to Oakland Pier on track No. 1 governed by home signal on
signal bridge No. 102, the first signal bridge east祭m poast at Long Wharf cross-over; three-arm post about half way between Long
 The suspended home signal on track No. 7 governs movemsent through cross-over Wwitestward traing to Oakland Pier on track No. 9 governed by home signal on signal bridge No. 105 .
Starting signal for eastward movements from any track in station governed by Starting signal for eastward movements from any track in station governed by
dwarf signal
Eastrard trains on track No. 2 to 16th Street governed by upper arm on three-arm post just west of Long Wharf cross sover. governe
Other movements governed by short-arm or dwarf signals.

Wher movements governed by short-arm or dwart signals.
Whistle on Oakland Pier tower is sounded all engines and trains moving within district controlled by this tower must stop and await proper signal. The last signal which a train may reeeive entering any track at Oakland Pier position and distant signolat at caution it indicates train is entering on track occupied
by cars. Responsibility for collision will be placed on train entering.
90. SIXTEENTH STREET TOWER.-Near 16th Street Station, Oakland
by home signal on signal bridge No. 201, the frack signal bridge east of 16 th Streed
station and upper station and upper arm on three-arm post, 550 feet east of freight track crossing. governed by suspended home signal on signal bridge No. 201 to the first signal bridg eaverned of suspended home signal on signal bridge No. 201, the first signal bridge
east of crossing of passenger to track No. 1 and upper arm on two-arm post 550 feet
eas Nos. 1 and 2 , to Cedar Street (single track). east of crossing of passenger tracks Nos. 1 and upper arm to tedar Stroo-arm post (single track). feet
Westward trains to 16 Sth Street
tower on track No. 1 , to West Oakland yard Westward trains to 16 th Street tower on track No. 1, to West Oakland yard,
governed by home signal on siganal bridge No. 201 , the rirst signal bridge esst of
16 th Street station, and upper arm on two-arm post 550 feet east of crossing of passenger tracks Nos. 1 and 2 to Cedar Street (single track);
Eastward trains to 16 th Street tower from Oakland Pier on track No. 2 governe by home signal on signal bridge No. 200,600 feet west of treight track crossing and
home signal on post 1200 feet east of freight track home signal on post 1200 feet east of freight track crossing to track No. 4.
Eastward trains leaving 16 th Street station on track No. 4 governed by uppe arm on three-arm post near tower. Eastward trains from West Oakland Yard through Cedar Street (single track)
to 16 Sth Street Tower to freight track No. 2 governed by home signal on signal bridge The suspended home signal on signal bridge governs movement across passenge tracks Nos. 1 and 2 to track No. 1 or track leading to Pacific Coast Canning Co.

Other movements governed by short-arm or dwarf signals.
Yard engines must obtain permission from 16 th Street tower before doing work on Cedar Street.

At Sixtle signal for continuous movement to West Oakland yard:- - . hand signal from tower window to move against fixed signals. Movement through interlocking plant on hand signal from towerman must be
preceded by a flagman. 91. SHELLMOUND TOWER-Emeryville.

Westward trains to Shellmound tower on track No. 2 governed by signals on signal
bridge No. 206, the first signal bridge east of tower, home signal on post governs movement to track No. 3. The suspended home signal on track No. 2 governs movenent through cross-over
switches to track No. 1 or 2 , west of Shellmound tower. Westward trains to Shellmound tower on track No. 1 governed by home signal
on post on signal bridge No. 206 ,the first signal bridge east of tower, and upper arm on two-arm post near over-head wago f Shellmound practicable all westward freight trains will use tracks No. 1 and 2 between Whistle siggal for westwawd trains approaching Shellmound tower on track
No. 2 , for West Oakland yard: tor
0 No. 2, for West Oakland yard: Eastward trains to Shellmound tower on track No. 4 governed by signals on signal bridge No. 205, the forst signal bridge west of tower; homerned by signals on signal
movement to track No. 3, east of Shellmound tower. movement to track No. 3, east of Shellmound tower,
The suspended home signal on track No. 4 governs movement through cross-over The suspended home signal on track No. 4 governs movement through cross-over
switches to track No. 4 , east of Shellmound tower.
Eastward trains to Shellmound tower on track No. 2 governed by signals on signal bridge No. 205, the firss signal bridge west of tower; home signal on post gov-
erns movement through cross-over switches to track Now erns movement through cross-over switches to track No. 4, east of Shellmound tower.
The suspended home signal on track No. 2 governs movement through cross-over switches to track No. 3 , east of Shellmound tower.
Other movements governed by short-arm or dwarf signals.
92. WEST OAKLAND TOWER-First and Cedar Streets, West Oakland, Westward trains to West Oakland tower on First Street track governed by
home signal on post on signal bridge No. 112 , 500 feet east of Cedar Street crossing home signal on post on signal brigge No. $11,1,500$ feet east of Cedar Street crossing
and home signal on post on signal bridge No. 111,825 feet west of Cedar Street crossing to track No. 7 . .ans post on West Oakland tower on track No. 8 governed by signals on Eastward trains to West Uakland tower on track No. 8 governed by signals on
signal bridge No. 11,825 feet west or Cedar Street crossing; home sigaal on post govsignal bridge No. .1, First Street track. $\begin{aligned} & \text { trar } \\ & \text { erns movement } \\ & \text { The suspended home signal on track No. } 8 \text { governs movement through cross-over }\end{aligned}$ switches to passenger yard.
Westward trains to West by two-arm post at Goss and Cedar Streets, 500 feet east of crossing of Seventh Stree tracke upper arm governs movement to freight yard, lower or short-arm govern Eastward trains to West Oakland tower from freight yard to Cedar Street (single
track) governed by upper arm on two-arm post near junction of freight and passenger
yard tracks. yard tracks.
Eastard trains to West Oakland tower from passenger yard to Cedar Street
(single track) governed by upper arm on two-arm post near junction of freight and passenger yard tracks. Wat Uakland tower an passenger yard suspended home signal on signal bridge No. 122,500 feet east of Cedar Street crossing
and suspename siganal on signal bridge No. 111,825 feet west of Cedar Street crossing.
and
Westmard Westward trains to West Oakland tower on track No. 12 governed by two-arm
post 500 feet east of Cedar Street crossing and home signal on sigaal bridge No. 111, 825 feet west of Cedar Street crossing:
Eastward trains to West Oakland erned by upper arm on two-arm post near Roundhouse and two-arm post 500 feet erned by upper arm on two-ar
west of Cedar Street crossing.

## 92.-Continued

WEST OAKLAND TOWER-First and Cedar Streets, West Oakland Lower arm on two-arm post near Roundhouse on track No. 10 governs movement to Roundhouse track.

Other movernents governed by short-arm or dwari sigaals.
Cedar Street single track is controlled by West Oakiand and 16th Street towers Trains will use this track against opposing trains on receiving signal.
93. MAGNOLIA STREET TOWER-Crossing of Western Pacific and First Street line. First and Chestrut Streets, Oakland.
Westward trains to Magnolia Street tower on First Street track toward Oakland Pier governed by home signal on post 500 feet east of Western Pacific crossing.

Westward trains to Magnolia Street tower on First Street track to freight yard governed by short-arm signal on post 500 feet east of Western Pacific crossing and Esstward trains to Marnolia Street tower on First Street track g
me signal on post 1600 feet west of Western Pacific crossing and home signal on post 500 feet west of crossing.

Other movements governed by short arm or dwarf signals.
94. FIRST AND WEBSTER STREET TOWER-Crossing of First and Webster Street lines, First and Webster Streets, Oakland.
Westward trains to First and Webster Street tower on First Street track gorerned by home signal on post on signal bridge No. 118, 1200 feet east of tower and ome signal on post on signal bridge No. 117, 600 feet east of tower. Eastward trains to First and Webster Street tower on eastwal bridge No. 115, 700 feet west of tower and upper arm on two-arm post on signal bridge No. 116, 400 feet west of tower-lower arm governs movement toward Alameda.
Other movements governed by short-arm or dwarf signals. Dwarf signal which soverns movement from meat spur is located on left side of track.

95 fruitvale tower-Fruitvale
Westward trains to Fruitvale tower on westward track governed by home signal on post on signal bridge No. 127, 1400 feet east of tower and home signal on post on signal bridge No. 126, 150 feet east of tower.

Eastward trains to Fruitvale tower on eastward track governed by home signal on post on signal bridge No. 123,1200 feet west
ignal bridge No. 126,150 feet east of tower

Other movements governed by short-arm or dwarf signals.
96. PORT COSTA TOWER-Junction of double track, east of Port Costa

Westward trains to Port Costa tower on single track to westward track govorned by upper arm on two-arm post 50 feet east of double-track junction switch; ower or short arm governs movement against current of traffic on eastward track. Eastward trains to Port Costa tower on eastward track governed by home
gnal on post 600 feet west of tower. al on post 600 feet west of tower.
Other movements governed by dwarf signals
97. DAVIS TOWER-Davis

Westward trains to Davis tower on westward main track toward Benicia govrned by home signal on post Westward traint of tower
Westward trains to Davis tower on westward main track, then around the east
leg of the wye toward Woodland, governed by suspended home signal on signal bridge 1,700 feet east of tower and dwarf signal 400 feet north of tower.

Westward trains to Davis tower on northern single main track toward Benieia governed by home signal on post on signal bridge 1,200 feet north of tower and dwarf signal 400 feet west of tower.
Westward trains to Davis tower on northern single main track, then around the east leg of the wye toward Sacramento, governed by suspended home signal on signal bridge 1,200 feet north of tower and dwarf signal 400 feet east of tower.
Eastward trains to Davis tower on eastward main track toward Sacramento governed by home signal on post 1,200 feet west of tower and home signal on post 700 feet east of tower.

Eastward trains to Davis tower on eastward main track toward Woodland gov400 feet north of tower

Other movements governed by short arm, or dwarf signals
Whistle signal for northern single track, or from northern single track to Sacramento,
98.-MIKON TOWER-Crossing of Southern Pacific and Sacramento-Northern Rail-
way, east of Mikon.
Westward trains to Mikon tower, on westward track, governed by home signal on post 500 feet east of crossing.
Eastward trains to Mikon tower, on eastward track governed by home signal on post 500 feet west of crossing.

Movement over crossing against the current of traffic governed by dwarf signal
99. RADUM TOWER-Junction of Niles-Tracy line and Radum-Avon line.

Westward trains to Radum tower from Livermore to Pleasanton governed by upper arm on three-arm post at east junction switch and home signal on post 1700 eet west of east junction switch

Eastward trains to Radum tower from Pleasanton to Livermore governed by upper arm on three-arm post at west junction switch and home signal on post 1700 feet of west junction switch
on three-arm post at to the Radum-Avon Line governed by lower or short Trains from Pleasanton to the Radum-Avon Line governed by lower or short arm on three-arm post at west junction switch.

Trains from the Avon-Radum Line to Livermore or Pleasanton governed by one-arm post 1100 feet from junction switches.

Whistle signal for Radum-Avon Line:
100 NILES TOWER-Crossing of Western Pacific Ry. and San Jose Line, near Niles. Trains to Niles tower moving to San Jose Line governed by home signal on post 1000 feet west of Western Pacific crossing and upper arm on two-arm post near crossing; lower arm governs movement toward Dumbarton-Centerville Line
Trains to Niles tower from San Jose Line to Niles governed by upper arm on two-arm post at wye switch; lower arm governs movement toward DumbartonCenterville Line
Trains to Niles tower from Dumbarton-Centerville Line to Niles governed by Jose Line.

Whistle signals:
For San Jose, - 0
For Centerville - 0
For Niles, $0-0$.
101. SAN JOSE TOWER-Junction of San Jose-Niles Line and Coast Division, San Jose Trains to San Jose tower from San Jose-Niles Line governed by upper arm on two-arm post at Third Street and dwarf signal west of tower.

Westward trains to San Jose tower moving to San Jose-Niles Line governed by $\underset{\text { Wharf signals. }}{\text { dwis }}$

To San Jose freight yard: ——o

## 102 COLLEGE PARK TOWER-College Park.

Westward trains to College Park tower on westward track to College ParkElmhurst Line governed by middle arm on three-arm post about 700 feet east of tower.
Westward trains to College Park tower from West San Jose to College ParkElmhurst Line governed by middle arm on three-arm post about 500 feet east of tower.
Eastward trains to College Park tower on College Park-Elmhurst Line to San Eastward trains to College Park tower on College Park-Elmhurst Line to San and upper arm on two-arm stub bracket post about 250 feet east of tower.

Eastward trains to College Park tower on the College Park-Elmhurst Line to West San Jose governed by upper arm on two-arm post on signal bridge 1200 feet west of tower and lower arm on two-arm stub bracket post 250 feet east of tower. Trains from San Jose freight yard governed by dwarf signal 250 feet east of tower. Other movement
Whistle signals:
Whistle signals:
For West San Jose or the College Park-Elmhurst Line: $000-00$
For San Jose freight yard:
For Santa Clara drill track. - o
103. ELMHURST.

Eastward trains approaching Elmhurst to indicate route they desire to take
will give whistle signals as follows:
One long and one short (- o) to Elmhurst-College Park Line.
One long, one short, one long $(-0-$ Elmhurst-Tracy Line.
105. DRAWBRIDGES INTERLOCKED WITH SEMAPHORE SIGNALS:

Sacramento River, Sacramento.
Cygnus, Cordelia Slough.
Avon, Pacheco Slough.
Newark Slough, near Dumbarton.
Warm Springs Creek
$\left.\begin{array}{l}\text { Warm Springs Creek } \\ \text { Coyote Creek }\end{array}\right\}$ between Albrae and Alviso.
Napa River, at Brazos.
106. DRAWBRIDGES NOT INTERLOCKED:

Napa River, 700 feet east of Napa Station, Calistoga Line.
Steamboat Slough, about 1000 feet west of Wingo Junction switch.
107. RAILROAD CROSSINGS NOT INTERLOCKED

All trains must stop except at crossings protected by flagmen, give two short sounds of whistle and proceed if crossing is clear.
Sacramento Northern Railway, at Suisun-Fairfield trains will approach crossing prepared to stop and be governed by signals from crossing flagman.
Napa Valley Railway, 1900 feet east of Napa Junction on Santa Rosa Line, stop. Napa Valley Railway, 3600 feet east of Napa Junction on Calistoga Line, stop. N. W. Pac. Railway, 2200 feet west of Schellville, stop. N. W. Pac. Railway, 1000 feet west of Yulupa, stop.

Napa Valley Railway, 3200 feet west of Union, on Union Line, stop.
Oakland \& Antioch Railway, 4000 feet east of Hookston on Avon-Radum Line, etop. Western Pacifc Railway, between Elmhurst and Stonehurst, stop.


TRAINMASTERS.
G. D. WRIGHT
.Suisun, Cal.
H. R. GERNREICH

Oakland, Cal.
F. E. YOAKUM. $\qquad$ Oakland, Cal.
C. E. NORTON, Chief Train Dispatcher.
D. BLAKE, Asst. Chief Train Dispatcher.
. C. Davison, Asst. Chief Train Dispatcher CHAS. W. PERKINS, Examiner.

SUPERINTENDENT'S OFFICE-OAKLAND PIER, CAL.
F. E. GORDON, Train Dispatcher.
J. P. GALLAGHER,"
J. A. SHOCKEY
J. H. RHORER
J. C. DELMORE, Train Dispatcher.
T. R. GRIMSHAW.
H. A. SUTHERLAND" " "
M. T. ROUSE,
T. F. ROWLANDS,
W. H. NORTON

Assistant Superintendent,
(O. A \& B. Lines.)
B. A. CAMPBELL

Assistant Superintendent.


