

# **SOUTHERN PACIFIC TRANSPORTATION COMPANY**



## **SAN JOAQUIN DIVISION SPECIAL INSTRUCTIONS NO. 1**

**EFFECTIVE MARCH 18, 1973**

**AT 12:01 A.M.,**

**PACIFIC STANDARD TIME**

---

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

---

R. L. KING,  
General Manager.

W. J. LACY,  
Assistant General Manager.

J. J. WILLIS,  
General Superintendent of  
Transportation.

O. D. GOODWILL,  
Asst. Gen. Superintendent of  
Transportation.

W. C. MORRIS,  
Superintendent.

## SPECIAL INSTRUCTIONS — ALL SUBDIVISIONS

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

### DEFINITIONS.

List of holidays under definition of HOLIDAYS on Page 10 of The Rules and Regulations Of The Transportation Department are revised to read:

New Year's Day, January 1,  
Washington's Birthday, Third Monday in February,  
Decoration Day, Last Monday in May,  
Independence Day, July 4,  
Labor Day, First Monday in September,  
Thanksgiving Day, Fourth Thursday in November,  
Christmas Day, December 25.

Definition for "Restricted Speed" on Page 11 of the Rules and Regulations of the Transportation Department is revised to read:

"Restricted Speed. Proceed prepared to stop short of train, obstruction, stop signal or switch not properly lined and look out for broken rail, not exceeding twenty miles per hour."

**RULE M.** Fourth paragraph is revised to read as follows:

"Employees are prohibited from getting on top of box or other house cars not equipped with roof running board or when not equipped with side ladders extending to the roof of the car except when necessary to make repairs."

**RULE 2.** Brakeman, firemen and switchmen with less than ninety days service are not required to carry, while on duty, a reliable railroad grade watch and watch certificate.

**RULE 10-H.** On all branches, when a yellow signal is required it will be displayed to the right of track in direction of approach one-half mile instead of two miles from structure or track over which speed of trains must be restricted.

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

**RULE 10-J.** Second and fourth paragraph is revised to read as follows:

"Speed signs that prescribe reduction in speed will be located two miles from initial point of restriction, and where used to authorize increase in speed will be located at point where higher speed commences. Speed may be increased as soon as rear of train has passed speed sign. Where such signs are not used to authorize an increase in speed, limit of restriction will be shown in timetable.

Certain speed signs have the word "SIGNAL" above the figures. Such signs in advance of signal indicate the speed that must not be exceeded while engine is passing signal two miles beyond the speed sign, unless signal can plainly be seen to be displaying green aspect."

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

**RULE 14.** Where there are multiple public crossings not more than one-fourth mile apart, sign bearing letter "X" located one-fourth mile in advance of first crossing will display a figure which represents the number of crossings involved.

Whistle signal under provisions of Rule 14(1) must be sounded until engine has passed over last crossing.

**RULE 15.** On all branches when a torpedo is exploded in the vicinity of a yellow flag displayed in accordance with Rule 10-H, train must proceed expecting to find an unattended red flag that may be displayed one-half mile instead of two miles beyond the torpedo and the yellow flag.

**RULE 21.** First paragraph is revised to read as follows:

Trains must be identified by engine number on lead unit when practicable. Only the number designated for identification will be continuously illuminated when engine is so equipped.

When helper is coupled ahead of road engine over part of a subdivision, helper engine will not display numbers. Train will be identified by engine number displayed on road engine.

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

**RULE S-72.** Westward trains are superior to trains of the same class in the opposite direction.

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

At Interlocked Railroad Crossings at grade, cars or engines must not be cut off nor left within the interlocking limits in such a way as to foul any part of the crossing frogs.

**RULE 101.** If any member of crew has reason to believe train has passed over defect in track or roadbed, train must be stopped immediately and inspection of train made to insure safe to proceed. Train dispatcher and opposing or following trains must be immediately notified of condition encountered from first available means of communication. If means of communication not immediately available, or if train dispatcher cannot afford protection, train involved must afford protection.

**RULE 102.** At any time a train in motion has emergency application of air brakes for any cause, before proceeding an inspection of train must be made on both sides to determine all wheels are on rail and no damage or defects in track exist which will interfere with safe movement of train.

**RULE 103-A.** Trains moving under conditions that may require them to stop must, where possible, stop to clear public grade crossings. When not possible to stop clear of such crossings and train cannot proceed immediately crews on other than passenger trains must cut these crossings within ten minutes unless no vehicles are waiting at or closely approaching the crossing. Public crossings must be left open until it is known that trains are ready to depart. Crews required to pick up, set out or perform switching operations must, when track room exists, stop their trains back a sufficient distance to avoid blocking public crossings when coupling trains and while charging train lines. When recoupling at public crossings, trains shall be moved promptly consistent with safety.

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

Cars or locomotives must not be left standing nor switches left open when the controlling circuits of automatic gate protection devices unless time-out features are provided to allow the gate arms to rise.

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

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

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

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

**RULE 290-A.** Indication, revised to read as follows:

"Indication: PROCEED WITHOUT STOPPING NOT EXCEEDING RESTRICTED SPEED PREPARED TO STOP SHORT OF NEXT HOME SIGNAL."

### RULE 505. AUTOMATIC BLOCK SIGNAL SYSTEM PUSH BUTTONS

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

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

**RULE 507.** Add: On single track within yard limits, when an automatic block signal displays stop indication, engines, after stopping, may proceed at restricted speed under the following conditions:

- (1) When preceding train is seen in the block and intervening track is seen to be clear.
- (2) When view of track is clear to end of block.
- (3) After waiting five minutes and no train or engine is seen or heard approaching.

**ELECTRIC AND MECHANICAL SWITCH LOCKS**

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

**RULE 605. INTERLOCKING**

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

**RULE 705. HOT BOX DETECTORS**

If means of communication is available, engineer must inform conductor and helper engineer, if any, when approaching hot box detector. Crews on helper engine and on rear end of train must acknowledge and advise engineer of indications displayed in addition to taking appropriate action in accordance with applicable rules and special instructions.

When letter "H" is illuminated or it is known hot bearing has been detected by crew member observing the flashing white light at scanner site, train must be brought to immediate stop and inspection made to determine that it is safe to proceed. Where possible, inspection must be made before passing over switches or structures. After inspection train must not exceed 15 MPH from point of inspection until stop is made at location of readout indicator unless readout has been checked and cancelled at first inspection.

Instructions follow for operations of hot box detectors when stopped by illuminated letter, flashing white light, or rotating red beacon actuated by hot box.

**TYPE A. Letter "H" Indicator with Digital Readout**

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

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

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

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

When hot box detector is activated, member of crew must make a physical count of axles from rear of train to axle indicated by digital readout and when hot bearing is not located then all journals of car indicated by detector as well as five cars on either side of the car involved must be inspected.

When H indicator indicates a hot journal on train and there is no count shown on hot bearing detector and/or red light below readout marked "Locator Out of Service" is illuminated or when digital readout indicator displays a false indication such as a duplication of numbers or the numbers displayed exceed the number of axles in train, then all journals of train must be inspected.

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

**TYPE B. Light Indicator Array.**

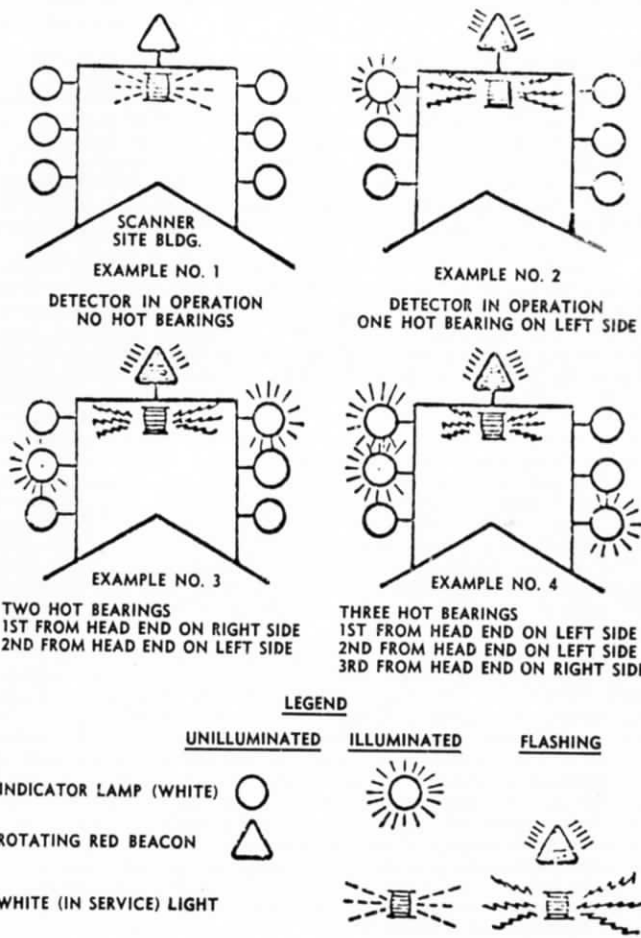
Detector instrument house is equipped with indicator array consisting of white lights and revolving red beacon as shown in diagram.

White light at top center of indicator array will be continuously displayed except when a hot bearing has been detected at which time light will start flashing. Absence of white light must be promptly reported to train dispatcher.

Revolving red beacon at top center of indicator array will be normally dark except when a hot bearing has been detected, beacon will be actuated.

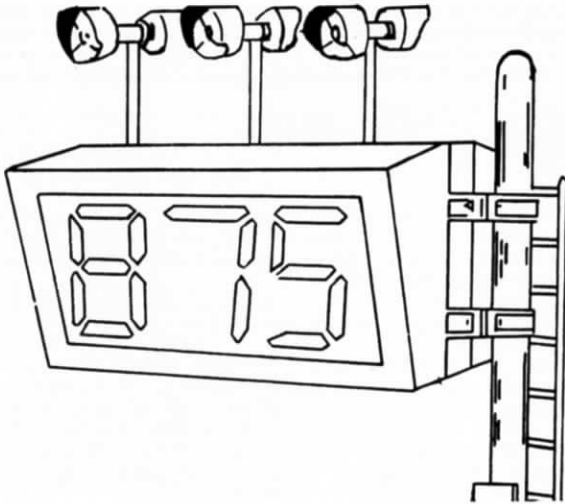
Three vertical white lights are located on each side of indicator array. Lights on right side will be displayed for hot bearings on right side of train, and lights on left side will indicate hot bearings on left side of train, in direction of movement. Top light indicates first hot bearing, second light indicates second hot bearing, and third light indicates third hot bearing. Lights will indicate a maximum of three hot bearings on each train.

**HOT BOX BEARING DETECTOR INDICATOR ARRAY**



Crew members must keep vigilant look-out when passing these locations, and if hot bearing is detected, train will be stopped promptly, and inspection made to locate car with hot bearing. In addition, truck of car with hot bearing will be sprayed with fluorescent dye marker for identification. All journals on car marked, as well as car ahead, must be inspected.

When indicator array indicates hot bearing on train, and no dye marker is observed, all journals of train must be inspected.



#### TYPE C. Monitor Display Board with Indicator Lights.

A Monitor Display Board and hot box indicator lights, as shown in diagram, are mounted on a signal mast at side of track. As the train passes the detector, the right or left hot box indicator light on top of the board starts to flash immediately upon detection of a hot journal, indicating the side of the train having the overheated journal. Two seconds after the train passes the detector, the display board will display numerals indicating the accumulated axle count from the hot box to the rear of the train.

A flashing indicator light in the center indicates that another hot box (or hot boxes) was detected subsequent to the hot box which is numerically indicated on the display board. Flashing lights, both left and right but not in the center, indicate two hot boxes, same axle, numerals displayed indicating axle count from that axle to the rear of the train. Flashing center light, together with either the left or right light only, indicates the hot boxes detected were all on the same side of the train. All three indicator lights flashing signify the indicated hot box may be on either side and that one of the subsequent boxes was on the opposite side.

The indicator lights are normally dark and illuminate, displaying flashing white aspect on top of Monitor Display Board, only when hot box is detected. The display board is illuminated as train passes and will display zeroes in the absence of a hot box.

Also upon detection of a hot journal white light which is continuously lit on equipment house adjacent to Monitor Display Board, will start to flash. Absence of white light must be promptly reported to train dispatcher.

Crew members must keep a vigilant lookout for display board and flashing light(s) and, when flashing, conductor and engineer must immediately orally compare observation when means of communication is available. Absence of any numerical display after passage of a train must be promptly reported to Train Dispatcher.

When any indicator light displays flashing white aspect, train will be stopped and inspected. If only one flashing aspect is indicated, the axle number from rear of train shall be inspected plus all journals of car indicated by detector as well as each adjoining car. If center light displays flashing white aspect, all journals from count indicated to rear of train shall be inspected on side or sides as indicated by left or right flashing white light. Lights and illuminated numerals will automatically cancel out ninety (90) seconds after entire train passes detector.

#### TYPE D. Remote Readout by Recorder at Terminal.

Readout is by Recorder located in Yardmaster's Tower at nearby terminal.

Hot box detector scanner sites have a white light continuously displayed on track side of instrument house, except when a hot bearing is detected, at which time light will start flashing. Absence of white light must be promptly reported to Train Dispatchers.

Crew members must keep a vigilant lookout for light and, when flashing, conductor and engineer must immediately orally compare observation when means of communication is available. Train must be stopped, and when means of communications is available, crew

member must contact yardmaster at location of recorder to determine location of hot bearing. If location of hot bearing cannot be determined inspection must be made of all journals.

#### REPORTING OF HOT BOXES.

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

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

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

#### GENERAL REGULATIONS

**RULE 804.** Employees are, unless authorized by an officer of the Company, forbidden to have in their possession while on the property firearms, concealed or otherwise, or any other weapon considered dangerous.

**RULE 822.** When train is starting, stopping or moving slowly, employees on train must maintain a secure position to avoid personal injury from possible slack action.

**RULE 824.** Any time an angle cock is closed in the train where the brake pipe pressure is lower than it is elsewhere, the resultant equalization will raise the brake pipe pressure at that point sufficient to release the AB or ABD valve. Equalizing the air in the brake pipe will cause release of brakes throughout the cars, therefore, it is imperative that when cars are set out, regardless of the air brake equipment, a sufficient number of hand brakes must be applied and brake pipe pressure completely depleted by opening angle cock and leaving the angle cock in open position.

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

**RULES 825 and 883.** Cars with short wheel base, less than 30 feet inside length as stencilled on side of car, should not be left standing on main track in automatic block signal territory, or within CTC limits nor on CTC sidings unless coupled to another car to prevent possibility of short wheel base car occupying dead section of track.

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

If means of communication is available, engineer must inform conductor and helper engineer, if any, when approaching dragging equipment detector. Crews on helper engine and on rear end of train must acknowledge and advise engineer of indications displayed in addition to taking appropriate action in accordance with applicable rules and special instructions.

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

**RULE 829.** If means of communication is available, engineer must inform conductor and helper engineer, if any, when approaching hot box detector, dragging equipment detector, excess dimension load detector or person making rolling inspection of his train. Crews on helper engine and on rear end of train must acknowledge and advise engineer of indications displayed in addition to taking appropriate action in accordance with applicable rules and special instructions.

**RULE 830.** At interlocked railroad crossings at grade, cars or engines must not be cut off nor left within interlocking limits in such a way as to foul any part of the crossing frogs.

**RULE 883.** The first sentence in first paragraph of Rule 883 is revised to read as follows:

"When an engine is left without an employe in charge, it must, when practicable, be placed on track affording protection against entry to main track; hand brakes must be fully applied, wheel secured with blocking chain or if not available other suitable blocking material, reverse lever removed from control stand, generator field switch OFF, engine isolated and cab doors locked."

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

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

#### RADIO OPERATING RULES.

**RULE 958.** First paragraph is revised as follows:

"Employes shall identify the radio station from which they are calling by prefacing their call with the railroad name, for example: "SP Caboose Train Second 802 calling SP Engine Second 802, over," and to answer a call, announce, for example: "This is SP Caboose Train Second 802, over."

Second paragraph is revised as follows:

"Radio station must be identified at the end of each transmission which exceeds three minutes, except that, in event of continued exchange of communications, identification shall be made at the end of each 15-minute period if the exchange continues without substantial interruption."

**RULE 961.** Except for emergency situations, train and engine crews must avoid using radio transmitter when within 500 feet from or beyond Hot Box Detector scanner site.

**RULE 962.** First sentence is revised to read as follows:

"Radio communication system may be used in lieu of hand, flag or lamp signals prescribed by Rule 12."

#### AIR BRAKE RULES

**RULE 2:** Dead engines and live engines not equipped with control cables for multiple operation must not be picked up by light engines. If necessary to pick up such engines, they will be picked up only by freight trains or locals.

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

**RULE 2-B.** First sentence in second paragraph is revised as follows:

"When going from power to dynamic braking proceed as follows:

- (1) Assure that throttle is in idle position.
- (2) Move selector lever to "OFF" position.
- (3) Pause 10 seconds.
- (4) Move selector lever to "B" or braking position.
- (5) Use throttle to control strength of dynamic braking as needed."

Dynamic brake on head end of freight trains must not exceed three 8-axle units, four 6-axle units, six 4-axle units, or any combi-

nation thereof which totals 24 axles, except dynamic brake on EF 415A, EP 415A, EF 415B, and EP 415B Classes is limited to five units.

If the maximum 24-axle limit cannot be adhered to due to units in the consist not having dynamic brake cut-out switches, then such units must be isolated prior to using dynamic brake.

When dynamic brake and automatic air brake are used together, the independent brake valve handle must be depressed and held in release position a sufficient time to ensure engine brakes are released.

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

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

**RULE 12.** Rules require that when cars are set out and a sufficient number of hand brakes are applied brake pipe pressure must be depleted by opening angle cock. This method of securing cars is applicable to cars equipped with AB air brake equipment or cars equipped with the latest type of air brake equipment, the ABD valve.

**RULE 13:** Second paragraph is revised to read:

"In case the trouble cannot be corrected or complete air failure occurs from any cause, train must not be moved. Train dispatcher must be promptly notified."

Sixth paragraph is revised to read:

"Should the compressor or main reservoir on the lead engine fail the train must be stopped, automatic brakes left applied, dead-engine feature cut in and control of the brakes transferred to the second engine. The train must not be moved beyond the next point where an engine with suitable air equipment can be placed in the lead."

Seventh paragraph is cancelled in its entirety.

**RULE 14.** In helper service with engine cut in train or helper on point of road unit(s), engine with engineer in other than lead unit must have brake pipe cut-off valve cut out. 26-C automatic brake valve handle must be placed in "Handle Off" position. Handle must be left in this position to be available for emergency application, if necessary. Independent brake valve must be cut in and handle placed in release position.

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

**RULE 22.** When two or more trains or engines are working at locations where Mechanical Department forces are not on duty, employes must not couple air hoses or go in, under or between cars for the purpose of making repairs until a member of the crew has notified employes on other trains or engines in the immediate vicinity and yardmaster, where assigned, that work is about to be performed and complete understanding had to prevent movement on the affected track.

First paragraph of Rule 22 is revised to read as follows:

All trains, except for run-through and unit run-through trains covered in Rule 22-B, must be given inspection and test as specified in this rule at points: (1) Where a train is originally made up (Initial Terminal); (2) Where train consist is changed other than by adding or removing a solid block of cars and train brake system remains charged; and (3) Where train is received in interchange.

**RULE 22-B.** Air Brake Tests on Run-Through and Unit Run-Through Trains.

Each run-through train must be given inspection and test as prescribed by Rule 22 at points: (1) Where train is originally made

up (Initial Terminal); (2) Where train consist is changed other than by adding or removing a solid block of cars and train brake system remains charged.

Each unit run-through train must be given inspection and test as prescribed by Rule 22 at points: (1) Where train is originally made up and where it is reassembled after being broken up; (2) and once during each round-trip cycle at designated points.

At these designated points inspection and tests must be made to determine the piston travel of a body-mounted 10-inch brake cylinder does not exceed 10 inches; and piston travel on all other brakes must not exceed the nominal travel specified by more than 2 inches or exceed the maximum travel specified by the badge plate or stencil on the car.

At a point where a block of one or more cars is added to a run-through train or a unit run-through train after the train is originally made up, cars must be inspected and tested as prescribed by Rule 22. At a point other than a terminal where a block is added inspection and tests must be made as prescribed by Rule 24-C.

Inspection and tests made under Rule 22 must be recorded at the time they are performed by completing FRA Form F-6180-48 in duplicate. This form must be signed by employe responsible for the inspection and tests. One copy of the form shall be kept in the cab of the engine until the train arrives at its final terminal. In the event of change of head-end power between terminals, engineer must insure that this form accompanies train.

At locations where the crew of one carrier takes over control and operation of a run-through train or unit run-through train from the crew of another carrier, the receiving carrier shall inspect and test the train to determine that:

- (1) The cab of the engine contains a completed FRA Form F-6180-48.
- (2) Brake pipe leakage does not exceed 5 pounds per minute.
- (3) Brakes apply and release on the rear car from a 20-pound service brake pipe pressure reduction.

If the cab of the engine does not contain a completed Form F-6180-48, the train must be inspected and tested as prescribed by Rule 22 before it proceeds.

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

SSW 75700 -75799	Gondolas
SSW 78500 -78599	Hoppers (Open Top)
SP 333500-334339	Gondolas
SP 337500-337599	Gondolas
SP 345000-345669	Gondolas
SP 354000-354399	Gondolas
SP 463500-464999	Hoppers (Open Top)
SP 467500-467549	Hoppers (Open Top)
SP 480000-480193	Hoppers (Open Top)
SP 491000-491059	Hoppers (Covered)
SP 492000-492039	Hoppers (Covered)
SP 500604	Flat Car
SP 590000-590099	Flat Cars

**RULE 33.** When average weights of cars in trains other than locals or switchers is more than 60 tons per car, do not handle any cars which weigh less than 50 tons within 5 cars of engine.

**TRAIN HANDLING**

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

**MISCELLANEOUS**

**1. Helper service:**

- (a) When helper engine is placed behind caboose, not more than 2 operating units nor more than 4000 operative horsepower will be used.
- (b) When helper engine is placed immediately ahead of caboose a combination of not more than 18 axles nor more than 7500 operative horsepower will be used.
- (c) Helper engines consisting of more than 12 axles must not be placed directly behind 80 foot or longer trailer flat cars.

- (d) When helper engine is placed directly ahead of caboose, additional helper must not be coupled behind caboose. Helper engines must be separated by at least 20 cars.
- (e) Air will be cut in on all helper engines, and engine must not be coupled or uncoupled while train is in motion.
- (f) When helper engine is shoving on ascending grade, throttle must be reduced as train speed reduces, then throttle regulated so that amperage will be approximately the same as indicated before train speed reduction.

**2.** Unless otherwise authorized, trains handling passenger cars with flat spots on wheels in excess of 3/4 inches in length must not exceed 10 MPH. When flat spots are not in excess of 3/4 inches long such cars may be operated at maximum authorized speeds.

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

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

**5.** Empty 85-foot long or longer equipment must be entrained 10 or more cars behind road engine and 10 or more cars ahead of helper engine in territories where grade is 1.8 percent or over and curvature is 10 degrees or more.

A flat car with one van or one container either loaded or empty will be considered as an empty.

These instructions will not apply to Trains 365/366; 373/374, 375/376, TFC Special, Advance FMS or BAX.

Locations where above instructions apply are listed below:

Line	Location	MP Limits
Kentucky House Branch	Helisma	MP-126.0
	to Toyon	to MP-135.0
	Primary	MP-332.6
Main	Ilmon	to MP-332.6
	Tehachapi	MP-358.8
Oak Creek Branch	Mojave	MP-386.7
	to Creal	to MP-387.4
Primary Main	Russ	MP-434.0
	to Paris	to MP-427.4

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

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

- (a) Engines handled dead must not exceed speed shown in table.
- (b) Light engines are authorized to operate at Column 1 speeds except on descending grade without dynamic brake in operation must not exceed Column 2 speeds.
- (c) Dead diesel locomotives weighing 100,000 pounds or more will be placed first behind locomotive handling train; locomotive weighing less than 100,000 pounds must be placed near rear of train.

Nominal classifications are descriptive of the engines as follows:

- 1st letter ..... Builder: A - Alco; B - BLH; E - EMD; F - Fairbanks-Morse; G - G.E.
- 2nd letter ..... Type of service: F - Freight, P - Passenger, S - Switcher.
- 1st number ..... Number of axles.
- 2nd and 3rd numbers... Horsepower (100).
- Last letter..... Style of unit: A - Car body type with control cab. B - No control cab. No letter indicates road switcher type.

# SPECIAL INSTRUCTIONS—ALL SUBDIVISIONS

## MAXIMUM SPEED FOR ENGINES LENGTH OF DIESEL UNITS (Between Pulling Face of Couplers)

CLASSIFICATION	ENGINE NUMBERS	MAXIMUM SPEED EXCEPT #	LENGTH (FEET)
EF415C	304	70	56
EF418B	724	70	50
EF415A	6349, 6392, 6430, 6432, 6440	70	51
EP415A	355, 6389, 6446-6461	79	51
EP415B	8295	70	50
EP415B	8106, 8109, 8122, 8127, 8128, 8290, 8291, 8294, 8296, 8303	79	50
EP415AC	6462	70	55
ES406	1004-1016	45	44
AS407	1024-1031	60	44
ES408	1100-1128	65	44
ES408B	1150-1153	65	44
ES409	1170-1179	65	44
AS409	1200-1281	60	45
ES410E	1300-1319	65	44
AS410	1703-1845	60	45
BS410	1856-1869	60	46
ES410	1904-1953	60	44
BS412	2100-2157	60	46
ES412C	2200-2207, 2250-2261, 2289-2293	65	44
ES412	2208-2223, 2262-2288	65	44
FS412	2350-2394	60	46
AS415	2400-2409	65	54
ES415	2450-2480, 2493-2510, 2523-2578, 2591-2679	65	45
ES415C	2481-2492, 2511-2522, 2579-2590	65	45
ES615	2700, 2702-2703, 2716, 2722	55	61
ES615	2701, 2704-2715, 2717-2721, 2723-2742	70	61
AS418	2900-2936	70	57
AS418	2950-2970	70	58
EP418	3000-3010	79	56
FP624	3020-3035	70	66
EP636	3200-3209	70	71
EF418E	3300-3345	70	56
EF418	3400-3640, 3653-3730	70	56
EF418C	3641-3652	70	56
EF618	3800-3966	70	61
AF420	4000-4009	70	57
EF420C	4030-4049	70	56
EF420	4050-4087	70	56
EF618E	4300-4351	70	61
EF423C	5000-5009	70	56
EF423	5010-5017	70	56
GS407	5100-5120	55	37
AF624C	5150-5159	70	67
AF624	5160-5162	70	67
EF623	5300-5325	70	66
EF425C	6500-6519, 6680-6681	70	56
EF425	6520-6679	70	56
GF425	6700-6767	70	60
EF625	6900-6928	70	61
GF428	7025-7028	70	60
AF628	7100-7128	70	69
GF628	7150-7159	70	67
EF430C	7600-7607	70	59
AF630	7800-7814	70	69
GF630	7900-7929	70	67
EF630	8400-8488	70	66
GF633	8600-8767	70	67
EF636	8800-8963	70	66
EF636C	8964-8981	70	66
EF636	8982-9051	70	66
EF636C	9052-9068	70	66
EF636	9069-9151, 9166-9260	70	66
EF636C	9152-9165	70	66
EF642	9500-9502	70	71
AF640	9800-9802	70	59
EF850B	9900-9902	70	88
GF850	9950-9952	70	84
Any Locomotive not listed		35	

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

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

1. When only AS415, AF420, ES412 and ES415 units are used in engine consist, not more than two units may be on the line when making a reverse movement with cars or train and must be located adjacent to the train.
2. When operating with mixed engine consist, where dynamic brake is required, not more than two AS415, AF420 and ES415 units will be used.
  - A. If one unit is used, it will be placed as the second unit.
  - B. If two units are used, units must be placed as the second and third units in consist.
  - C. A road unit must be coupled against the train.
  - D. If necessary to make a reverse move with cars or train, lead unit must be isolated.
3. ES412 class unit will not be used in mixed consist per Item 2 account not equipped with #24 MU wire.
4. If necessary to operate with more than two AS415, AF420, ES412 and ES415 class units in consist (including pick up of units from outlying points), these units must be placed in the lead. Under these conditions, if reverse move is made with cars or train, all units ahead of the two rear units in these classes will be isolated.
5. AS415, AF420, ES412 and ES415 class units must not be used in swing or cut-in helper service. No more than two of these units can be used as helper on rear end of train behind or immediately ahead of caboose.
6. Extreme caution must be used during dynamic braking or when making reverse moves to prevent jackknifing and track damage.
7. 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 PERMITTED WITH CERTAIN EQUIPMENT	MPH MAIN TRACKS OTHER THAN BRANCHES	MAIN TRACKS ON BRANCHES
Double or triple loads	...	25
Scale test cars, except:	40	30
SPMW 2024	65	49
Relief outfits with steam derrick, except:	45	25*
Nos. 7007 and 7034	35*	25*
Between Fresno and Famoso via Porterville	25	
Relief outfits weighing in excess of 120 tons must not be operated on any branch, except Lone Pine and Oak Creek Branches.		
Nos. 7000 and 7010 must not operate between Edwin and Ione on Ione Branch unless authorized by Superintendent. If movement authorized, speed of 15 MPH must not be exceeded.		
K&J, Pedestal or center-hinged air-dump cars (except SPMW 5100 to 5289 loaded or empty)	35*	

## SPECIAL INSTRUCTIONS—ALL SUBDIVISIONS

MAXIMUM SPEED PERMITTED WITH CERTAIN EQUIPMENT	MPH	
	MAIN TRACKS OTHER THAN BRANCHES	MAIN TRACKS ON BRANCHES
Locomotive cranes: (SPMW 4027, 4080, 4088, 4091, 4542, 4543, 5479, 5595, 5849, 6601 and 6602)		
With Boom disconnected and counterweight forward, except.....	45	25*
SPMW 5595.....	40	25*
With Boom disconnected and light end for- ward.....	20*	15
With Boom in place, either end forward.....	25*	15
Steam Pile Drivers: (SPMW 3402)		
With leads removed and secured.....	45	25*
(SPMW 4052 and 4053).....	35	25*

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

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

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



# SPECIAL INSTRUCTIONS — STOCKTON SUBDIVISION

**RULES 10-G, 10-H and 10-I.** When unattended red flags or red lights, yellow signals, red CONDITIONAL STOP signs and yellow PROCEED PREPARED TO STOP signs are displayed between El Pinal and Akers on Track No. 1 for eastward movement, or on Track No. 2 for westward movement, they will be displayed to left of track in direction of movement.

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

Eastward	Reading
MP-72.25 .....	70-60
MP-110.60 .....	65-60
MP-147.70 .....	45
Westward	Reading
MP-199.28 .....	70-60

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

**RULES 82-A, 83 and 83-A.** Extra trains operating on designated Branch Lines and originating as follows will display numbers as extra trains on entire trips as indicated by number of lead unit leaving originating point, and are authorized to operate as extra trains on those Branch Lines without obtaining clearances:

Branch Line	Originating Point
Oakdale .....	Stockton
Kentucky House .....	Lodi
Ione .....	Lodi
Biola .....	Fresno Yard

Extra trains operating on designated Branch Lines, in addition to information required by Train Register at specified locations, must register destination of trip (turning point) and date of departure in column captioned "Signals Displayed." When trip has been completed, date of arrival at register location must also be entered in column captioned "Signals Displayed." Extra trains enroute into these territories must not leave train register locations until it has been ascertained from Train Register that all preceding extra trains via the route to be used have completed their trips and registered their times and dates of arrival at train register locations. Flag protection is not required for trains operating on these Branch Lines beyond the train register locations.

Branch Line	Train Register Location	For Trains Operating Beyond
Oakdale .....	Stockton .....	MP 94.40
Kentucky House .....	Victor .....	MP 107.50
Ione .....	Galt .....	MP 112.10
Biola .....	Biola Jct. ....	MP 208.44

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

Sacramento .....	Trains originating or terminating
Stockton .....	Trains via Oakdale Branch.
Victor .....	Trains beyond Victor via Kentucky House Branch.
Galt .....	Trains via Ione Branch originating or terminating.
Biola Jct. ....	Trains via Biola Branch originating or terminating.
Ingle .....	Trains required by train order.

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

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

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

**Tracy:** Flashing white light installed at MP-74.4 between Tracy and Lathrop controlled by switchmen from control panel located at the base of yardmaster's tower and on east side of Signal 735. All westward freight trains will not proceed by MP 74.4 unless flashing light displayed. After receiving flashing light, will then be governed by aspect displayed on Signal 735 to enter yard. Movement into yard tracks must not exceed 8 MPH so as to allow verification of train passing Signal 735.

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

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

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

**RULE D-97.** Applies on both main tracks between Lathrop (MP 81.30) and El Pinal (MP 92.32).

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

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

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

Brandywine .....	CCTCo., crossing of Kentucky House Branch.
Oakdale .....	AT&SFRy, crossing of Oakdale Branch. MP 116.7 on
Ione Branch .....	CCTCo., crossing of Ione Branch.

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

Oakdale Branch .....	Between MP-94.40 and end of branch.
Kentucky House Branch .....	Between MP-107.50 and end of branch.
Ione Branch .....	Between MP-112.10 and end of branch.
Biola Branch .....	Between MP-208.44 and end of branch.

**SPECIAL INSTRUCTIONS—STOCKTON SUBDIVISION**

**RULE 103-A. Automatic crossing gates:**

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

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

Automatic protection (controlled by single track circuit with "Stop" signs at control limits) exists at following crossings:

Location	Crossing No.	Track	Protection
Manteca	B-96.9	Yard	Gates
Calla	*B-98.52-C	Spreckels	Gates
Salida	B-106.4	Spur	Gates
Modesto	*B-112.3	Stor.; #2 Siding	Gates
Livingston	B-136.5	Drill track	Gates
Madera	#B-183.9-C	Spur	Fl. Lights
Firebaugh	BA-168.6-C	Britton	Fl. Lights
Cromir	BA-170.2	Drill	Gates
Kerman	BA-193.5	Siding	Gates
Tomsbur	#D-98.1	Spur	Gates
Oakdale	DC-122.3	House	Gates
Rancho Seco	DG-124.3-C	SMUD Spur	Gates
Stockton (Port)	DK-92.41-C	Spur	Gates

\*Westward movements only.

#PUC Order

Members of crews should assure themselves that crossing protection is operating (and gates are down where they exist) before entering crossing or crossing is protected by member of crew.

**Los Banos:** Crossing gates installed on crossings Mercy Springs Road, MP-141.2, and State Highway MP-141.3. Trains or engines switching in this area must not enter crossing until revolving yellow beacon, located on mast on north side of track between the two crossings, is actuated.

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

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

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

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

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

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

Lodi	Crossing Oak St., D-103.25, and Pine St., D-103.3 on yard tracks,
Woodbridge	Crossing Woodbridge Road on General Mills spur, DE-105.3-C,
Carbondale	Crossing County road when on industry track, DG-132.1,
Modesto	Tully Ave., on Grange Co. spur, B-112.25-C,
Modesto	B St. on Shoemaker spur, B-113.55-C,
Vernalis	Crossing on Associated Dehydrators spur, BA-93.0,

Los Banos	Crossing 2nd and 4th Sts., on drill crossovers and storage tracks, BA-140.1, BA-140.2,
Firebaugh	Crossing 12th St., on drill and spur tracks, BA-166.2,
Helm	County road crossing on Spreckles Sugar Co. track, BAO-199.1.

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

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

**RULE 104-A. Tracy:** Westward freight trains approaching east end Tracy Yard must run expecting to find main track switch lined for movement into yard tracks.

Yellow switch targets and keepers have been installed on main tracks switches at the ends of the following branch lines:

Kentucky House Branch	MP-142.6, Kentucky House
Biola Branch	MP-200.5, Biola
Riverdale Branch	MP-214.6, Riverdale

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

**RULE 105. Manteca-Calla:**

Manteca Track No. 1 extends from MP 96.73 to MP 97.72. Calla siding extends from MP 97.74 to MP 99.44, is CTC controlled siding, capacity 8350 ft. Crossover at west end Calla siding is equipped with dual control switch machines.

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

Top unit governs movements to Manteca Track No. 1.

Center unit governs movement to main track.

Lower unit, when displaying lunar aspect, governs movements to Manteca Track No. 1 per Rule 289.

**RULE 221.** Fresno Yard is a train-order office only for trains originating.

**RULE D-251.** Will apply as follows:

On eastward track: Lathrop to MP 92.2.

On westward track: MP 92.2 to MP 81.24.

On both tracks between Fresno Yard and Calwa Tower.

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

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

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

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

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

Eastward Signal	Protection	Westward Signal
P-710	TRACY-FRESNO (WESTSIDE LINE) Spring switch, junction to Westside Line, Tracy Spring switch to yard, Tracy	P-829
P-1164	Flood detector at MP-116.60, Newman	P-1179
P-1372	Flood detector, MP-137.80, Volta	P-1387
P-2046	Barricade detector, MP-204.60, Fresno	P-2051
	TRACY-POLK LINE Spring switch to Freight Lead, MP-75.9 (Polk Line)	P-SA
	Spring switch, Stockton wye	P-I
	LATHROP-FRESNO (VALLEY LINE)	
P-1972	Spring switch, Crossover Biola Jct.	P-A
P-2042	Barricade detector, MP 204.6	

**RULE 505. AUTOMATIC BLOCK SIGNAL SYSTEM**

**Tracy:** Trains moving on main track in either direction will move between junction switch MP-70.62 and P-SA Signal MP-75.9, beginning CTC, by block signals whose indications will supersede the superiority of trains.

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

Signals 713, 825 and 827 are approach clearing. Signal 713 will revert to stop position when 600-ft. track circuit in front of station building is occupied for approximately four minutes. A second approach circuit is located at MP 71.39, 185 feet east of MacArthur Blvd., to clear Signal 713 for movements to continue.

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

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

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

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

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

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

Eastward trains moving on main track must not pass Signal 734 and eastward trains entering main track through crossover MP 73.5 must not pass Signal 736 until signal governing movement displays proceed indication or permission obtained from Train Dispatcher. When Signal 734 displays proceed indications, eastward trains on main track may proceed to Centralized Traffic Control limits MP 75.81, and when Signal 736 displays proceed indication, eastward trains entering main track through crossover are authorized to enter main track and proceed to Centralized Traffic Control limits MP 75.81.

When westward P-SA Signal at MP 75.9 displays proceed indication, westward trains are authorized to proceed on main track to Signal 735, Tracy Yard.

When Signal 816, approach signal to West End Tracy displays stop indication, eastward trains may proceed after receiving oral authority from Operator at Tracy but must comply with Rule 507.

**RULE 505. PUSH BUTTONS**

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

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

**RULE 538. SPRING SWITCHES**

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

Location	Normal Position
Tracy .....	Junction switch MP-71.16 to Westside Line .....
Tracy .....	MP-75.9 Freight Lead to Main Track .....
	Lathrop Line .....
	Main Track .....

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

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

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

Switch point indicator located at:  
Fresno Yard.....Spring switch leading from Freight Lead to Ice House Lead west of Ashlan Avenue.

**RULE 605. INTERLOCKING**

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

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

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

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

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

**Stockton: AT&SF Crossing Sacramento and Taylor Streets:**

Limits of Stockton Tower include that portion of main track, siding and crossovers on the AT&SF Ry. to Stockton Public Belt Railroad, at AT&SF MP-1122.97. Signal indications supersede the superiority of trains in both directions on both tracks. At Lincoln Street, MP-1121.75 signals and power switch to Port Lead are controlled from Stockton Tower. Tower telephone located near Lincoln Street signal. West end of Fibreboard support tracks diverge from Port Lead at MP-1121.90 and converge with Port Lead at MP-1122.14. Fibreboard spur track diverges from Port Lead at MP-1122.17. The Washington Street Yard Lead diverges from the Port Lead at MP-1122.20. Crossover also exists between AT&SF Ry. main track and Port Lead at MP-1122.28. Signals and power switches at crossover are controlled from Stockton Tower. Tower telephone located near east switch of crossover. West end of set-out track diverges from Washington Street Yard Lead at MP-1122.21, east end of set-out track converges with Port Lead track at MP-1122.54.

The movement of trains and engines in this territory is under the control of Stockton Tower, who may issue instructions as required and must be advised in advance of any movement of trains and engines to the AT&SF main track and also advised of any known condition that will delay the train or engine or prevent it from making usual speed.

Crews will not leave the Port of Stockton yard (in area of yard office) without securing authority of Stockton Tower Interlocking Operator. This authority may be obtained orally, or through Yardmaster at Port of Stockton.

Speed limit between Stockton Tower and Stockton Public Belt Railroad is 20 MPH; through turnouts and crossovers—12 MPH.

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

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

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

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

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

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

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

**SPECIAL INSTRUCTIONS—STOCKTON SUBDIVISION**

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

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

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

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

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

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

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

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

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

**RULE 680. AUTOMATIC INTERLOCKING**

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

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

Signals are approach clearing, if movement over crossing is not completed within 8 minutes after train enters approach circuit, signals will revert to STOP position. Approach circuits to re-clear SA signals are located 1,050 feet in advance of eastward signals and 500 feet in advance of westward signals.

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

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

If signal displays flashing red indication per Rule 290-A, train may proceed through interlocking limits.

If home signal indicates STOP per Rule 290, Figure E, and red indicator light cannot be actuated, train may proceed over crossing as provided for in Rule 663(c).

**RULE 705. LETTER TYPE INDICATORS**

Indicators located as follows:

Illum. On	Authorizes and Requires
Letter Signal Approaching	Movement as Follows:

S ..... Post at east switch  
Covell...West Modesto ..... Take siding at West Modesto

S ..... Absolute Signal  
MP 114.9...Modesto ..... Take siding at West Modesto

**RULE 705. HOT BOX DETECTORS**

Refer to Rule 705 All Subdivisions

**SCANNER SITE**

M.P.	Type	Direction	Location
102.3	A	East & West	Calla-Covell
103.6	A	East & West	Westley-Patterson
119.5	A	East & West	Elk Grove-Need
121.1	A	East & West	Ceres-Turlock
144.7	B	East & West	Arena-Fergus
161.2	A	East & West	Lingard-Chowchilla
193.6	D	East	*Irrigosa-Biola Jct.

\*Recorder at Fresno Yard.

**TYPE "A" HOT BOX DETECTOR LETTER TYPE INDICATOR AND READOUT LOCATIONS.**

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

**RULE 760. CENTRALIZED TRAFFIC CONTROL**

CTC is under control of Train Dispatcher at Bakersfield.

**Lathrop-Biola Jct.:** Limits extend from eastward absolute signals at MP 75.81 on Tracy line and westward absolute signal at MP 82.15 on Polk Line at Lathrop, to westward absolute signal at MP 199.32 at Biola Junction on Valley Line.

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

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

Westward 3 unit signal MP 82.15 governs movements as follows:

Top unit ..... westward main track  
Center unit ..... Valley Line  
Bottom unit ..... eastward main track

Movements across WPRR MP 93.72 under control of SP train dispatcher.

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

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

Press button until amber light is illuminated, then release. After interval of 5 3/4 minutes, red light should be illuminated, indicating time release has functioned and WPRR crossing is clear of conflicting trains.

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

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

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

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

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

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

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

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

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

**Movements on Main Track**

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

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

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

**Movement to Butchertown Spur**

1. Press push button until amber light appears above push button.  
2. SP. red light will be displayed immediately and electric lock released.

3. After 3 minutes, TS Ry. red light should be displayed indicating time release has functioned.  
4. Reverse switch.

5. If absolute signal does not then indicate proceed on diverging route and red lights for TS Ry. and SP are displayed in push button box, train may proceed over crossing under provisions of Rule 776 without providing flag protection on TS Ry.

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

**Movement to Main Track**

1. Press push button until amber light appears above push button.  
2. After 3 minutes, TS Ry. red light should be displayed indicating time release has functioned.

3. SP red light should be displayed immediately or after an interval of 6 minutes indicating SP time release has functioned and electric lock released.

4. Reverse switch.  
5. If absolute signal does not then indicate proceed, and red lights for TS Ry. and SP are displayed in push button box, train may proceed over crossing under provisions of Rule 776 without providing flag protection on TS Ry. and SP main track.

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

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

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

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

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

**El Pinal-Polk:** Limits extend from signal at MP 92.30, 650 feet west of WP RR crossing at El Pinal, to westward signals at MP 131.81 at west end of Polk.

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

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

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

1. Press button until amber light is illuminated, then release.  
2. After interval of 5 3/4 minutes, red light should be illuminated, indicating time release has functioned and WP RR crossing is clear of conflicting trains.

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

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

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

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

**El Pinal-Akers:** On tracks Nos. 1 and 2 between MP-92.36 and MP-95.02, train movements may be made in either direction on either track being governed by absolute and automatic signals. Rule 507 applicable to single track will apply on both tracks.

**GENERAL REGULATIONS**

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

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

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

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

Refer to Rule 827 All Subdivisions.

**Tracy.** Eastward freight trains passing Tracy Yard Office and trains to or from Westside Line operating on either leg of wye must not exceed 8 MPH to allow visual verification of consists.

**RULE 830. Lodi:** Through freight trains picking-up or setting out will be governed as follows:

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

**SPECIAL INSTRUCTIONS — STOCKTON SUBDIVISION**

Trains with consist in excess of 5000 ft. and using controlled siding must arrange to immediately cut Tokay St. crossing.

**West Modesto:** Eastward trains setting out and picking up must not block Blue Gum Crossing, MP-110.91.

**Modesto:** Trains setting out and picking up must not block Kansas Avenue, MP-112.3, or "L" Street, MP-112.7.

**Turlock:** City ordinance requires that in event of fire alarm being sounded, any train blocking Main St., MP-126.1, must clear crossing immediately.

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

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

**Madera:** Eastward through freight trains when stopping to set out, leave train clear of Central Avenue crossing, MP-183.3, and westward through freight trains clear of Olive Avenue crossing, MP-184.5.

**Los Banos:** Westward freight trains making pick-up or set-out must stop to clear Place Road, MP-141.7, which is first crossing east of Main Highway crossing, MP-141.3, east of Los Banos.

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

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

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

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

**AIR BRAKE RULES**

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

Toyon to MP-125.5.

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

**With Dynamic Brake in Operation:**

Permissible Tons Per Unit Without Retaining Valves\*

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

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

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

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

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

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

**FREIGHT TRAINS**

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

**RULE 25.** Will apply at Toyon.

**RULE 33.** Toyon to MP-125.5.

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

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

Restrictive grades are as follows:

**KENTUCKY HOUSE BRANCH**

Westward

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

**MISCELLANEOUS**

1. Load limit (car and contents):

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

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

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

##Applies to uniformly loaded four axle cars having trucks spaced 23 ft. 0 in. or more center to center and minimum axle spacing of 5 ft. 6 in.

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

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

2. **Lathrop.** MP-81.50. Libby Owens Ford Glass Co. Hinged platform has been placed on platform inside building near the end of Track No. 1. Protective signals have been placed on each side of door where track enters building. Trainmen and enginemen must not pass these signals if red indication or no indication is shown. Green indication must be shown before proceeding beyond signals.

3. **Stockton.** Coupled in motion track scale located on lead track, Stockton Yard, MP-89.2. Speed of train when weighing must not exceed 4 MPH. Bidirectional indicator lights located at scale, MP-89.8. Continuous white aspect indicates speed is under 4 MPH, flashing white aspect, speed is in excess of 4 MPH. Speed of train when weighing should be at continuous speed without slack action or stopping.

**4. Madera.** (Winery Spur). MP-183.9. A remote control gate across Winery Spur. Gate is controlled by United Vintner's watchman who should open gate upon observing an approaching train. If necessary, the watchman may be alerted by activating an alarm bell at the gate. The gate is to remain open while train crew is working in the plant area. A member of the train crew must signal the watchman with the alarm bell when switching in the area is completed and crew is in the process of leaving with their train intact.

**5. Woodbridge.** MP-104.8. General Mills Co. Signals have been placed over all tracks at doorways entering buildings. Trainmen and enginemen must not pass these signals if red indication or no indication is shown. Green indication must be shown before proceeding beyond signals.

**6. Ione.** MP-138.8. Interpace Corp'n. Track. Signal has been placed at retractable loading ramp with red aspect indicating ramp in lowered position. Trainmen and enginemen must not pass signal displaying red indication. Green aspect must be showing before proceeding beyond retractable loading ramp.

## SPECIAL INSTRUCTIONS - STOCKTON SUBDIVISION

SPEED RESTRICTIONS FOR TRAINS: Maximum speed of trains in territory shown below is subject to further restrictions applicable to engines in the train as shown in SPEED RESTRICTIONS FOR ENGINES appearing on page 7 and MAXIMUM SPEED PERMITTED WITH CERTAIN EQUIPMENT and OTHER MAXIMUM SPEEDS appearing on page 8 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				TERRITORY					
MP	MP	Column:	1	2	MP	MP	Column:	1	2
<b>EASTWARD, LATHROP TO FRESNO:</b> On East leg of wye, Lathrop.....				25	25				
92.80 to 93.07 (switches).....				20	20				
93.07 to 94.00.....				30	30				
94.00 to 112.60.....				70	60				
112.60 to 114.00 (Modesto).....				60	60				
114.00 to 126.00.....				70	60				
126.00 to 126.30 (Turlock).....				65	60				
126.30 to 149.70.....				70	60				
149.70 to 151.60.....				45	45				
151.60 to 182.60.....				70	60				
182.60 to 184.50 (Madera).....				45	45				
184.50 to 199.28.....				70	60				
199.28 to 201.89.....				50	50				
201.89 to 201.93 (thru turnout).....				25	25				
201.93 to 203.90.....				50	50				
203.90 to 204.50.....				35	35				
204.50 to 205.50.....				20	20				
<b>EASTWARD, BIOLA TO BIOLA JCT.:</b> 199.93 to 208.62.....				40	40				
<b>EASTWARD, TRACY TO FRESNO:</b> 82.58 to 83.00 (Jct. Switch).....				15	15				
83.00 to 140.10.....				40	40				
140.10 to 141.30.....				35	35				
141.30 to 206.87.....				40	40				
206.87 to 207.36 (Jct. Switch).....				15	15				
207.36 to 208.40.....				20	20				
<b>INGLE TO RIVERDALE:</b> 181.97 to 191.74.....				...	25				
191.74 to 192.17.....				...	15				
192.17 to 215.00.....				...	25				
<b>EASTWARD, TRACY TO POLK:</b> 71.16 to 72.25.....				35	35				
72.25 to 81.30.....				70	60				
81.30 to 81.50 (switches).....				20	20				
81.50 to 89.65.....				70	60				
89.65 to 90.40.....				70	45				
90.40 to 91.40 (Stockton).....				20	20				
91.40 to 92.32.....				70	60				
92.32 to 95.00 (via No. 2 Track).....				70	60				
92.32 to 92.36 (via No. 1 Track, crossover)...				15	15				
92.36 to 95.00 (via No. 1 Track).....				70	60				
95.00 to 95.02 (thru turnout).....				60	60				
95.02 to 102.00.....				70	60				
102.00 to 103.65.....				30	30				
103.65 to 132.00.....				70	60				
<b>EASTWARD, STOCKTON TO MONTPELLIER:</b> 90.95 to 93.10 (Stockton).....				...	12				
93.10 to 140.29.....				...	25				
<b>EASTWARD, LODI TO KENTUCKY HOUSE:</b> 103.51 to 121.40.....				...	30				
121.40 to 132.30.....				...	25				
132.30 to 139.70.....				...	15				
139.70 to 142.84.....				...	25				
<b>EASTWARD, LODI TO WOODBRIDGE:</b> .....				...	25				
<b>EASTWARD, GALT TO IONE:</b> 112.12 to 112.50.....				...	20				
112.50 to 124.95.....				...	40				
124.95 to 132.43.....				...	30				
132.43 to 138.99.....				...	40				
<b>WESTWARD, FRESNO TO LATHROP:</b> 205.50 to 204.50.....				20	20				
204.50 to 199.28.....				50	50				
199.28 to 184.50.....				70	60				
184.50 to 182.60 (Madera).....				45	45				
182.60 to 151.60.....				70	60				
151.60 to 149.70.....				45	45				
149.70 to 126.30.....				70	60				
126.30 to 126.00 (Turlock).....				65	60				
126.00 to 114.00.....				70	60				
114.00 to 112.60 (Modesto).....				60	60				
112.60 to 94.00.....				70	60				
94.00 to 93.07.....				30	30				
93.07 to 92.80 (switches).....				20	20				
East leg of wye, Lathrop.....				25	25				
<b>WESTWARD, BIOLA JCT. TO BIOLA:</b> 208.62 to 199.93.....				40	40				
<b>WESTWARD, FRESNO TO TRACY:</b> 208.40 to 207.36.....				20	20				
207.36 to 206.87 (Jct. Switch).....				15	15				
206.87 to 141.30.....				40	40				
141.30 to 140.10.....				35	35				
140.10 to 83.00.....				40	40				
83.00 to 82.58 (Jct. Niles Lines).....				15	15				
<b>RIVERDALE TO INGLE:</b> 215.00 to 192.17.....				...	25				
192.17 to 191.74.....				...	15				
191.74 to 181.97.....				...	25				
<b>WESTWARD, POLK TO TRACY:</b> 132.00 to 103.65.....				70	60				
103.65 to 102.00.....				30	30				
102.00 to 95.02.....				70	60				
95.02 to 95.00 (thru turnout).....				60	60				
95.00 to 92.39 (via No. 1 Track).....				70	60				
95.00 to 92.43 (via No. 2 Track).....				70	60				
92.43 to 92.39 (via No. 2 Track, crossover)...				15	15				
92.39 to 91.40.....				70	60				
91.40 to 90.40 (Stockton).....				20	20				
90.40 to 81.37.....				70	60				
Thru diverging route crossover and switches, Lathrop.....				25	25				
81.37 to 72.25.....				70	60				
72.25 to 71.16.....				35	35				
<b>WESTWARD, MONTPELLIER TO STOCKTON:</b> 140.29 to 122.30.....				...	25				
122.30 to 122.20.....				...	10				
122.20 to 93.10.....				...	25				
93.10 to 90.95 (Stockton).....				...	12				
<b>WESTWARD, KENTUCKY HOUSE TO LODI:</b> 142.84 to 139.70.....				...	25				
139.70 to 132.30.....				...	15				
132.30 to 121.40.....				...	25				
121.40 to 103.51.....				...	30				
<b>WESTWARD, WOODBRIDGE TO LODI:</b> .....				...	25				
<b>WESTWARD, IONE TO GALT:</b> 138.99 to 132.43.....				...	40				
132.43 to 124.95.....				...	30				
124.95 to 112.50.....				...	40				
112.50 to 112.12.....				...	20				



# SPECIAL INSTRUCTIONS — STOCKTON SUBDIVISION

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

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

### SPEED RESTRICTIONS FOR OTHER THAN MAIN TRACKS

With Caution  
Not Exceeding  
MPH

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

**SPECIAL INSTRUCTIONS—BAKERSFIELD SUBDIVISION**

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

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

Westward	Reading	Eastward	Reading
MP-207.93	.....20.....	MP-327.76	.....55-No. 1 Track
MP-223.30	.....City Ordinance	MP-359.50	.....25-No. 1 Track
MP-283.45	.....40		

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

Westward	Reading
MP-379.90	.....45
MP-378.41	.....35
MP-373.40	.....45
MP-372.41	.....25

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

- Green: Tracks may be used for train or switching movements.
- Yellow: Tracks may be entered, switched, and engines, cars or cabooses added or detached.
- Red: Tracks may be entered but cars on tracks must not be coupled to or moved. Trains made up on these tracks must not depart until it has been ascertained indicator displays green aspect.
- Not lighted: Must be considered as displaying most restrictive indication and icing platform foreman must be contacted for instructions before cars are coupled to or moved.

**RULE 82-A.** Westward extra trains originating Bakersfield will obtain clearance OK'd by Chief Train Dispatcher which will be issued at Bakersfield and delivered in red container by tube to Yard Office at Bakersfield.

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

**Exeter Branch:** Crew departing Porterville on No. 600 may leave without obtaining clearance except when Train Order Operator is on duty.

Crew arriving Ducor on No. 600 may assume schedule of No. 601.

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

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

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

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

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

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

pleted their trip and registered time and date of arrival at Rossi accordingly.

Trains operating on Stratford Branch will operate as an extra train on entire trip as indicated by the engine number leaving Rossi and are authorized to operate as extra trains.

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

Trains originating at Bakersfield and operating beyond Gosford on Buttonwillow Branch will operate as an extra train on entire trip as indicated by the engine number leaving Gosford and are authorized to operate as extra trains beyond Gosford on Buttonwillow Branch.

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

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

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

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

Bakersfield	.....All trains.
Kern Jct.	.....AT&SFRy trains
Mojave	.....All trains.

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

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

West MP		East MP
199.34	Fresno (Valley Line)	209.00
203.00	" (Westside Line)	
208.44	" (Biola Branch)	
	" (Clovis Branch)	206.99
	" (Exeter Branch)	208.15
310.87	Bakersfield	321.09
	" (Buttonwillow Branch)	315.67
	" (Arvin Branch)	317.10
360.65	Tehachapi	362.62
364.00	Monolith	366.00
378.87	Mojave	
219.01	Sanger	221.50
228.73	Reedley	230.78
234.31	Dinuba	235.72
248.90	Ivanhoe	249.90
256.33	Exeter	257.96
260.00	" (Visalia Branch)	
263.40	Lindsay	265.00
267.90	Strathmore	269.00
272.00	Porterville	275.72
286.00	Richgrove	308.66
	" (Richgrove Branch)	End of Track
239.86	Goshen Jct. (Coalinga Branch)	243.00
251.88	Hanford	253.28
255.43	Armona	256.83
260.30	Lemoore	264.00
	" (Stratford Branch)	263.48
272.00	Huron	282.00
294.82	Coalinga	End of Track
246.01	Visalia Branch	256.00
308.74	Oil City Branch	End of Track
315.67	Buttonwillow Branch	322.80
317.10	Arvin Branch	End of Track

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

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

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

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

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

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

**RULE D-97.** Applies on both main tracks between Fresno Yard (MP 201.93) and Calwa Tower (MP 209.09).

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

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

**RULE 98.** Railroad crossings at grade not interlocked:

AT&SFRy, MP 228.04 east of Lacjac. STOP.

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

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

AT&SFRy, Porterville. STOP.

FIRy. Junctions with FIRy at MP-213.01 and MP-213.03 east of Las Palmas. STOP.

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

**RULE 99. Buttonwillow Branch.** Rule 99 will not apply between Gosford and Buttonwillow.

**Stratford Branch.** Rule 99 will not apply between Rossi and Stratford.

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

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

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

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

Porterville ... Olive St., BC-274.7, on side tracks.

**Calwa:** Flood lights over Railroad Ave. at David & Sons spur. Crossing B-208-5-C, are operated from switches located in box on power pole on main track side of highway. When these crossings are to be used trainman must close floodlight switch before cars foul the highway, and open the switch after completing use of the track.

**Fresno:** Freight trains changing crews at Fresno Depot must stop to clear insulated joints located just west of Tulare Street unless otherwise instructed by yardmaster or his representative. Sound detector microphone is located on the west end of the Depot building.

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

Crossing gates at Tulare Street, MP-205.5, and Kern Street, MP-205.6, may be operated by operating key release on relay shelter near pole line. Insert key and turn to operate gates.

Crossing protection installed on McClatchy Newspaper Spur at "G" Street, MP-204.96-C, is controlled by single track circuit with stop signs installed at control limits. Members of crews should assure themselves that crossing protection is operating before entering crossing or street protected by member of crew.

Automatic protection (controlled by single track circuit, with "Stop" signs at control limits) exists at following crossings:

Location	Crossing No.	Track	Protection
Fresno	B-205.0-C	McClatchy	Fl. Lights
Calwa	B-210.55-C	P.P. Glass	Fl. Lights
Calwa	B-210.80-C	P.P. Glass	Fl. Lights
Kingsburg	B-225.7	Drill	Gates
Delano	*B-281.2	House & 2 Yd.	Gates
Oil Jct.	B-308.9	Minkler Con.	Gates
Edison	B-319.9	Drill	Fl. Lights & gates
Goshen Jct.			
(Visalia Br.)	BAC-247.3-C	Prestolite	Fl. Lights
Goshen Jct.	BAC-247.28-C	Gifford-Hill	Fl. Lights
Goshen Jct.	BAC-248.7-C	Bostitch	Fl. Lights
Fresno			
(Exeter Br.)	BC-208.38-C	Ward's Drill	Fl. Lights
Sanger	BC-219.9	Siding & Yard	Gates
Reedley	BC-229.8	Siding & Yard	Gates
Fresno			
(Clovis Br.)	BS-210.15-C	Bartonette	Fl. Lights
Clovis	BS-217.5	Drill	Gates
Bakersfield			
Corrals	BT-315.2	Corral	Gates
Wible Orchard	BT-318.9	Siding	Gates

\*Stop signs located on No. 2 yard track also apply to yard track No. 1.

Members of crews should assure themselves that crossing protection is operating (and gates are down where installed) before entering crossing or crossing is protected by member of crew.

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

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

Baker Street.....MP-312.9

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

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

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

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

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

**Monolith:** Eastward trains stopping to set out or pick up cars must not exceed 10 MPH approaching County Highway, Crossing No. B-365.2, until crossing gates are down.

**SPECIAL INSTRUCTIONS — BAKERSFIELD SUBDIVISION**

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

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

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

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

Selma .....W. Front St. on Turkey Growers Spur, Crossing No. B-221.05-C.

Kingsburg,  
Sierra St. ....Roma Wine Company Spur, Crossing No. B-225-2, stop sign governing westward movement over this crossing is located to left of Spur and applies to this track only.

Armona.....Lake St., MP 256.5, while switching,  
Bakersfield.....30th St. on McCarthy Tank spur,  
Bakersfield.....Golden State Ave. on freight station spur.

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

Arvin.....Widmar Road, MP-332.60, while switching.

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

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

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

Station	Location	Mile Post
Caliente.....	East siding switch, Caliente-Bodfish Road	335.5

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

- Fresno Yard .....End double track, for westward track,
- Fresno .....Westside Line, for eastward track,
- Fresno .....Stem of Wye for West Leg Wye,
- Fresno .....Drill track, for Exeter Branch,
- Goshen Jct. ....Visalia Branch, for Tulare line,
- Goshen Jct. ....Coalinga Branch, for spur track,
- Oil Jct. ....Oil City Branch, for spur track,
- Oil Jct. ....AT&SFRy, for tail track,
- Rossi .....Stratford Branch, for branch,
- Exeter.....VERY, for Exeter Branch,
- Ducor.....AT&SFRy, for siding,
- Richgrove.....Richgrove Branch, for siding,
- Gosford .....Buttonwillow Branch, for Sunset Ry.
- Magunden.....Arvin Branch, for eastward track,
- Mojave.....Lone Pine Branch, for westward track.

Derails in main track:

- Goshen Jct. ....On Visalia Branch, 250 feet east of junction switch,
- Coalinga .....MP 295.70.

**Summit Switch:** MP-362.0. At electric lock on east end main track crossover crews must push button and run 6 minutes time release to unlock unless train remains in clear on Summit siding and crew lines switch after departure of eastward trains moving by indication of Signal 3621.

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

**Oil Jct. (Oil City Branch):** Derail has been placed on both tracks at Mobile Chemical. Derail positioned to derail inward. Derails must be removed before performing switching at Industry.

**RULE 104-A.** Yellow switch targets and keepers have been installed on main track switches at the ends of the following branch lines:

- Clovis Branch .....MP-225.7, Rockfield
- Coalinga Branch.....MP-295.4, Coalinga
- Buttonwillow Branch....MP-346.3, Buttonwillow

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

**RULE 221.** Fresno Yard is a train order office for trains originating only.

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

**RULE D-251.** Will apply on both tracks between Fresno Yard and Calwa Tower.

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

**RULE 306.** The following block signals equipped with triangular plate displaying the letter "P" have included in their control limits some special protective device. Interlocking signals are listed as P-I; absolute signals as P.A.

Eastward Signal	Protection	Westward Signal
P-1972	Spring switch, Crossover Biola Jct.....	P-A
P-2036	Spring switch, west leg of Westside Line wye, Fresno	
	Spring switch on crossover, Valley Line, Fresno.....	P-2041
P-2042	Barricade detector, MP 204.6 Valley Line, Fresno....	P-2057
P-2046		P-2059
	Spring switch, east end station track, Famoso.....	P-2937
	Spring switch, junction switch Exeter Branch, Famoso siding .....	P-A
P-3124	Spring switch, west end yard Track 22, Bakersfield	
	Spring switch, east end double track, Bakersfield...	P-3129
P-3438	Slide detector fence between Tunnels 7 and 8 .....	P-3445
P-A	Spring switch at west end of westward siding, Marcel	
	Spring switch at east end of eastward siding, Marcel .....	P-A
P-3556	Slide detector fence between Tunnels 14 and 15 ...	P-A
P-3632	Barricade detector MP-363.4 .....	P-3639
P-3630		
P-I	Spring switch west crossover switch MP-370.40	
	Spring switch east crossover switch MP-370.40 .....	P-SA
P-A	Spring switch at west end of westward siding, Marcel .....	
	Spring switch at east end of eastward siding, Marcel .....	P-A

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

**RULE 505. AUTOMATIC BLOCK SIGNAL SYSTEM**

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

Westward signal adjacent to Eastward main line MP-204.11 will display red aspect only per Rule 290, figure "I". Trains and engines will be governed by yardmasters instructions and Rules 507 and 513 before passing this signal.

Eastward trains and engines making reverse movement and Westward trains and engines passing Signal 2041 under Rule 507, moving over spring switch East end crossover on Eastward main line West of west leg of Westside Line wye, will be governed by Rule 513.

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

- Top unit governs westward movement on siding;
- Middle unit governs movement through crossover to main track;
- Lower unit will display lunar aspect only.

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

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

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

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

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

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

**Bakersfield:** Trains or engines will operate between MP-312.82 and MP-313.54 on signal indication, which indication will supersede the superiority of trains between these points.

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

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

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

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

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

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

**RULE 538. SPRING SWITCHES**

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

Location	Normal Position
Famoso.....East end station track.....	Main Track

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

Location	Normal Position
Biola Jct. ....East Switch of Crossover .....	Freight Lead
Fresno.....West leg of wye, Westside Line..	Eastward Main Track
Fresno.....East leg of wye, Westside Line ..	Eastward Main Track
Fresno.....West end Crossover on westward Main Line West of west leg of Westside Line wye.....	Westward Main Track
Fresno.....East end crossover on Eastward Main Track West of west leg of Westside Line wye .....	Crossover
Fresno.....Exeter Branch .....	Westward Main Track
Fresno.....Junction switch, Clovis Branch ..	Exeter Branch
Goshen Jct. ....Stem of Wye.....	West Leg of Wye
Famoso.....Junction switch, Exeter Branch ..	Famoso Siding
Bakersfield.....East end double track.....	Westward Track
Bakersfield.....West end yard, Track 1 .....	Westward Track
Caliente.....West end westward siding.....	Eastward siding

Caliente.....	East end eastward siding.....	Westward siding
Marcel.....	West end westward siding.....	Eastward siding
Marcel.....	East end eastward siding.....	Westward siding
Summit Switch.....	East end siding.....	Eastward track
Cameron.....	West end crossover.....	Westward track
Cameron.....	East end crossover.....	Crossover

Switch-point indicators located at:

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

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

**RULE 605. INTERLOCKING**

**AT&SFry Crossing MP 207.0 (Exeter Br.):** Interlocking is part of AT&SF Ry CTC system and operation over crossing is under control of AT&SF Ry train dispatcher. Telephones located in door of relay shelter at these crossings and at interlocking signals. Trains stopped by signals at crossing must immediately contact AT&SF Ry train dispatcher and inform him of arrival and desired movement.

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

**Kern Jct. Tower:** Buttonwillow Branch junction switch is at MP-313.65 on eastward main track inside of interlocking limits.

Top unit of westward interlocking signal located at end of double track and top unit of eastward interlocking signal at west interlocking limit and top unit of westward interlocking signal on Buttonwillow Branch may display flashing red aspect per Rule 290-A.

Westward interlocking signal located at east interlocking limit at end of double track governs movement as follows:

- Top unit governs westward movements to SP main track.
- Middle unit governs westward movements to AT&SFry westward main track.
- Lower unit will display lunar aspect only; when lunar aspect is displayed trains may proceed without stopping at restricted speed on SP No. 1 Track.

Eastward interlocking signal at west interlocking limit governs movements as follows:

- Top unit governs movements to eastward main track.
- Bottom unit governs movements to Buttonwillow Branch or to westward SP main track.

Westward interlocking signal at east interlocking limit on Buttonwillow Branch governs movements as follows:

- Top unit governs movements to SP main track.
- Bottom unit governs movements to AT&SFry westward main track.

Westward interlocking signal at east interlocking limit for westward movements on SP eastward main track governs movements as follows:

- Top unit governs westward movements on SP eastward main track to SP single main track.

**SPECIAL INSTRUCTIONS — BAKERSFIELD SUBDIVISION**

Bottom unit governs westward movements on SP eastward main track to AT&SFRy westward main track (and interchange tracks west of interlocking limit).

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

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

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

Block signals are provided on eastward track within these limits for movement of trains in either direction being governed by indications of interlocking and automatic block signals.

**RULE 705. LETTER TYPE INDICATORS**

Indicators located as follows:

Illum. Letter	On Signal	Approaching	Authorizes and requires movement as follows
S	P-2937	Famoso	Enter station track at east switch.
S	3612	Summit Switch	Enter siding and remain in siding until letter "M" is displayed.
M	3630	Summit Switch	Enter eastward track and proceed under provisions of Rule D-251

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

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

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

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

**RULE 705. HOT BOX DETECTORS**

Refer to Rule 705 All Subdivisions.

**SCANNER SITE**

M.P.	Type	Direction	Location
212.3	D	West	*Fowler-Malaga
235.1	A	East & West	Traver-Goshen Jct.
253.3	B	East & West	Tulare-Tipton
267.5	A	East & West	Pixley-Earlimart
294.5	C	East & West	Famoso-Slater
307.7	D	East	#Saco-Oil Jct.
318.8	D	West	#Edison-Magunden@

\*Recorder at Fresno Yard

#Recorder at Bakersfield

@White light is located on mast on north side of track.

TYPE "A" HOT BOX DETECTOR LETTER TYPE INDICATOR AND READOUT LOCATIONS.

Illum. Letter	On Signal	Approaching	Location of Readout
H*	M.P. 233.6	Traver	Westward Absolute Signal, W.E. Traver
W	2338	Goshen Jct.	
W	2361	Traver	
H*	M.P. 236.6	Goshen Jct.	M.P. 238.6 Goshen Jct.
H	2645	Tipton	Westward Absolute Signal W.E. Tipton
W	2670	Earlimart	
W	Westward Absolute	Pixley	
		Signal M.P. 269.4	
H	Eastward Absolute	Earlimart	M.P. 271.7 Earlimart
		Signal M.P. 269.4	

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

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

**RULE 760. CENTRALIZED TRAFFIC CONTROL**

CTC is under control of Train Dispatcher at Bakersfield.

**Calwa Tower-Bakersfield:** Limits extend from end of double track, Calwa Tower, MP 209.09, to beginning of double track, Bakersfield, MP 310.87.

**Calwa Tower:** Movements across AT&SF Railway track, MP-209.1, Calwa Tower, under control of Santa Fe train dispatcher. When eastward absolute signal or westward SA signal governing movements over AT&SF Railway track display stop indication, a member of crew must call Southern Pacific train dispatcher at Bakersfield who, after ascertaining that signals on AT&SF Railway track in both directions are displaying stop indication and no train approaching from either direction on AT&SF Railway track, may authorize movement over crossing.

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

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

**Sandcut-Tehachapi:** Limits extend from end of double track at Sandcut, MP 324.93, to beginning of double track at Tehachapi, MP-360.65.

**Sandcut-Bena:** On tracks Nos. 1 and 2 between Sandcut and Bena, train movements may be made in either direction on either track, being governed by absolute and automatic signals. Rule 507 applicable to single track will apply on both tracks. Westward absolute signal at end of double track Bena, MP-328.1, will authorize movement on either track.

**Caliente:** Westward absolute signal at east end of Caliente has call-on unit which may display flashing yellow light authorizing train to pass signal when making switching moves into house track after electric lock has been released and switches properly lined.

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

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

- Top unit governs eastward movement on siding,
- Middle unit governs movement through crossover to main track,
- Lower unit will display lunar aspect only.

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

**Cable-Tehachapi:** On tracks Nos. 1 and 2 between Cable and Tehachapi train movements may be made in either direction on either track, being governed by absolute and automatic signals. Rule 507 applicable to single track will apply on both tracks.

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

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

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

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

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

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

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

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

**GENERAL REGULATIONS**

**RULE 825. INSTRUCTIONS FOR SETTING HAND BRAKES:**

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

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

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

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

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

Refer to Rule 825 All Subdivisions.

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

**AIR BRAKE RULES**

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

**RULE 17.** Retaining valves must be used as follows:

**FREIGHT AND MIXED TRAINS**

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

Cameron to Mojave and Tehachapi to Caliente.

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

**With Dynamic Brake in Operation:**

	Permissible Tons Per Unit Without Retaining Valves*				
	Basic Dynamic Brake		Extended Range Dynamic Brake		
	4-Axle	6-Axle	4-Axle	6-Axle	8-Axle

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

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

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

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

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

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

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

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

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

**FREIGHT TRAINS**

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

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

**RULE 25.** Will apply for trains stopping at Summit Switch. Trains not stopping at Summit Switch will make running air test by applying train air brakes with sufficient force to insure that air brakes are operating properly and to give assurance by observation of air gauge on caboose that there has been a brake pipe reduction made. After receiving this assurance trainmen will inform engineer when brake pipe pressure is being restored.

**RULE 33.** Tehachapi to MP-332.62, and Cameron to Mojave: Maximum tonnage per operative brake.....80 tons, except With dynamic brake and pressure maintaining system of braking in operation; with not more than 100 cars and speed not exceeding 20 MPH.....100 tons Beet trains consisting of not more than 110 cars and speed not exceeding 20 MPH.....100 tons

**SPECIAL INSTRUCTIONS – BAKERSFIELD SUBDIVISION**

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

Restrictive grades are as follows:

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

**MISCELLANEOUS**

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

Class of Engine	Restricted Tracks
All, except: ES 406; AS 407; ES 408; ES 408B; ES 409; AS 409; AS 410; BS 410; ES 410; BS 412; ES 412; FS 412.....	Fresno—Bekins spur; Drill track serving Calif. Fig Growers; Sun- maid Raisin Plants; Stewart-Nuss spur; Pearl spur east of "M" St.
All, except: EF 618; ES 406; AS 407; ES 408; ES 408B; ES 409; AS 409; AS 410; BS 410; BS 410; ES 410; BS 412; ES 412; FS 412.....	Fresno—Drill track serving Pacific Crate; Roma Wine and Container Corp.; Drill track serving Levi Iron & Metal; Fresno-Vendolator Co. tracks; Carskaddon Distr. spur; Producers Cotton Oil tracks; Cen- tral Empire spur; PCA canal track.
All, except: ES 406, AS 407; ES 408; ES 408B; ES 409; AS 409; AS 410; BS 410; ES 410; BS 412; ES 412; FS 412.....	Fresno Yard-Wye track at Diesel Facilities.
All, except: AS 616; ES 406; AS 407, ES 408; ES 408B; ES 409; AS 409; AS 410; BS 410; ES 410; BS 412; ES 412; FS 412.....	Bakersfield—McCarthy Tank & Steel spur.
All, except: AS 616; EF 418; ES 406; AS 407; ES 408; ES 408B; ES 409; AS 409; AS 410; BS 410; ES 410; BS 412; ES 412; FS 412...	Bakersfield—Lead tracks to Freight House, Montgomery Ward Co.:
All, except: AS 616; ES 406; AS 407; ES 408; ES 408B; ES 409; AS 409; AS 410; BS 410; ES 410; BS 412; ES 412; FS 412.....	Lindsay—Tracks serving Shell Oil Co.; Independent Growers; Cali- fornia Spray Chemical Co.
All, except: ES 406; AS 407; ES 408; ES 408B; ES 409; AS 409; AS 410; BS 410; ES 410; BS 412; ES 412; FS 412.....	Rector—Southern Calif. Edison Co. spur beyond fouling point.

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

MP	Location	Description
201.80	Fresno Yard .....	Diesel facility .....
253.50	West of Lort .....	Kaweah River bridge .....
315.05	Kern Jct.-Strader .....	Golden State Wrecking Co. Spur .....
332.60	East of Ilmon .....	Tunnel 1/2 .....
336.90	East of Caliente .....	Tunnel 1 .....
337.80	East of Caliente .....	Tunnel 2 .....
340.80	East of Bealville .....	Tunnel 3 .....
341.50	East of Bealville .....	Tunnel 5 .....
343.70	East of Cliff .....	Tunnel 7 .....
344.20	East of Cliff .....	Tunnel 8 .....
351.00	East of Woodford .....	Tunnel 9 .....
352.30	East of Walong .....	Tunnel 10 .....
355.14	East of Marcel .....	Tunnel 14 .....
355.80	East of Marcel .....	Tunnel 15 .....
355.90	East of Marcel .....	Tunnel 16 .....
356.00	East of Marcel .....	Tunnel 17 .....
359.20	East of Cable .....	Overhead highway crossing .....

3. Load limit (car and contents):

##Fresno-Mojave .....	263,000 pounds
#Fresno-Mojave .....	315,000 pounds
Fresno-Famoso via Porterville .....	251,000 pounds
Fresno-Rockfield .....	240,000 pounds
Richgrove-Jovista .....	240,000 pounds
Goshen Jct.-Exeter .....	240,000 pounds
Goshen Jct.-Coalinga .....	240,000 pounds
Rossi-Stratford .....	240,000 pounds
Oil Jct.-Oil City .....	240,000 pounds
Kern Jct.-Buttonwillow .....	240,000 pounds
*Magunden-Arvin .....	240,000 pounds

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

##Applies to uniformly loaded four axle cars having trucks spaced 23 ft. 0 in. or more center to center and minimum axle spacing of 5 ft. 6 in.

\*Cars 67 ft. in length with 4 axles with 5'-10" axle centers, 53'-0" truck centers and 36" diameter wheels may have gross weight of 315,000 pounds between Magunden and Harperton, MP-321.1, if speed does not exceed 10 MPH.

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

4. **Tulare:** MP-248.37. Burglar alarm system has been installed on gate to Western Compress. Alarm must be shut off before opening gate to perform switching. Instructions are posted inside metal box attached to gate.

5. **Locans:** When two 60 ft. box cars on tracks 1 and 2 at Bonner Packing Co., will not clear man on side of car.



# SPECIAL INSTRUCTIONS — BAKERSFIELD SUBDIVISION

**SPEED RESTRICTIONS FOR TRAINS:** Maximum speed of trains in territory shown below is subject to further restrictions applicable to engines in the train as shown in **SPEED RESTRICTIONS FOR ENGINES** appearing on page 7 and **MAXIMUM SPEED PERMITTED WITH CERTAIN EQUIPMENT** and **OTHER MAXIMUM SPEEDS** appearing on page 8 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				TERRITORY					
MP	MP	Column:	1	2	MP	MP	Column:	1	2
<b>EASTWARD, FRESNO YARD TO MOJAVE:</b>					<b>WESTWARD, MOJAVE TO FRESNO YARD:</b>				
201.89 to 201.93 (through turnout).....			25	25	380.70 to 376.40.....			45	45
201.93 to 203.90.....			50	50	376.40 to 373.40.....			35	35
203.90 to 204.50.....			35	35	373.40 to 369.50.....			50	50
204.50 to 205.93 (Fresno).....			20	20	369.50 to 368.74.....			40	40
205.93 to 206.80.....			50	50	368.74 to 360.61.....			70	60
206.80 to 209.14.....			60	60	360.61 to 338.00.....			25	20
209.14 to 214.48.....			70	60	338.00 to 332.10.....			25	25
214.48 to 215.65 (Fowler).....			45	45	332.10 to 329.76.....			55	55
215.65 to 220.04.....			70	60	329.76 to 325.93.....			60	60
220.04 to 221.30 (Selma, 5 AM to 11 PM).....			45	45	325.93 to 325.60.....			50	50
220.04 to 221.30 (Selma, 11 PM to 5 AM).....			70	60	325.60 to 313.64.....			70	60
221.30 to 225.17.....			70	60	313.64 to 313.58 (Kern Jct.) except:.....			25	25
225.17 to 225.98.....			60	60	AT&SF Ry. trains.....			20	20
225.98 to 249.21.....			70	60	313.58 to 312.80.....			35	35
249.21 to 250.73 (Tulare).....			35	35	312.80 to 310.07.....			60	60
250.73 to 279.16.....			70	60	310.07 to 281.45.....			70	60
279.16 to 281.45 (Delano).....			40	40	281.45 to 279.16 (Delano).....			40	40
281.45 to 310.07.....			70	60	279.16 to 250.73.....			70	60
310.07 to 312.80.....			60	60	250.73 to 249.21 (Tulare).....			35	35
312.80 to 313.64 (Kern Jct.) except:.....			35	35	249.21 to 225.98.....			70	60
AT&SF Ry. trains.....			30	30	225.98 to 225.17.....			60	60
313.64 to 325.60.....			70	60	225.17 to 221.30.....			70	60
325.60 to 325.93.....			50	50	221.30 to 220.04 (Selma, 5 AM to 11 PM).....			45	45
325.93 to 329.76.....			60	60	221.30 to 220.04 (Selma, 11 PM to 5 AM).....			70	60
329.76 to 332.10.....			55	55	220.04 to 215.65.....			70	60
332.10 to 335.97.....			30	30	215.65 to 214.48 (Fowler).....			45	45
335.97 to 359.50.....			25	25	214.48 to 209.14.....			70	60
359.50 to 360.65 (via No. 2 track).....			70	60	209.14 to 206.80.....			60	60
359.50 to 360.65 (via No. 1 Track).....			25	25	206.80 to 205.93.....			50	50
360.65 to 366.44.....			70	60	205.93 to 204.50 (Fresno).....			20	20
366.44 to 368.74.....			70	60	204.50 to 201.89.....			50	50
368.74 to 370.37.....			40	40	<b>WESTWARD, ON EASTWARD</b>				
370.37 to 371.40 (spring switch).....			35	35	<b>MAIN TRACK:</b>				
371.40 to 374.00.....			30	30	380.18 to 376.40.....			45	45
374.00 to 380.70.....			25	25	376.40 to 373.40.....			35	35
					373.40 to 370.42.....			45	45
					370.42 to 370.36 (Through crossover).....			25	25

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

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

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

**SPECIAL INSTRUCTIONS – BAKERSFIELD SUBDIVISION**

Signs reading "CITY ORDINANCE" are in place 2 miles in advance of the City Limits at the following cities having variable speed restrictions depending upon time of day:

City MAIN TRACK	City Limits		Sign Locations	
	West	East	Eastward	Westward
Fowler.....	MP-214.48.....	MP-215.65.....	MP-212.48.....	MP-217.65
Selma.....	MP-220.04.....	MP-221.30.....	MP-218.04.....	MP-223.30
<b>EXETER BRANCH</b>				
Reedley.....	MP-229.16.....	MP-230.66.....	MP-227.16.....	MP-232.66
Exeter.....	MP-256.49.....	MP-257.89.....	MP-254.49.....	MP-259.89
Lindsay.....	MP-263.42.....	MP-264.84.....	MP-261.42.....	MP-266.84

**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 7 and **MAXIMUM SPEED PERMITTED WITH CERTAIN EQUIPMENT** and **OTHER MAXIMUM SPEEDS** appearing on page 8 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			TERRITORY		
MP	MP		MP	MP	
<b>EASTWARD, FRESNO TO FAMOSO VIA PORTERVILLE:</b>			<b>WESTWARD, FAMOSO TO FRESNO VIA PORTERVILLE:</b>		
206.11 to 207.50 (Fresno).....	20		310.06 to 308.67 (Famoso).....	20	
207.50 to 218.49.....	40		308.67 to 275.00.....	40	
218.49 to 220.30 (Sanger).....	35		275.00 to 272.70 (Porterville).....	35	
220.30 to 228.00.....	40		272.70 to 264.84.....	40	
228.00 to 229.16.....	35		264.84 to 263.42 (Lindsay, 5 AM to 11 PM).....	20	
229.16 to 230.66 (Reedley, 5 AM to 11 PM).....	20		264.84 to 263.42 (Lindsay, 11 PM to 5 AM).....	35	
229.16 to 230.66 (Reedley, 11 PM to 5 AM).....	35		263.42 to 257.89.....	40	
230.66 to 247.00.....	35		257.89 to 256.49 (Exeter, 5 AM to 11 PM).....	20	
247.00 to 256.49.....	40		257.89 to 256.49 (Exeter, 11 PM to 5 AM).....	40	
256.49 to 257.89 (Exeter, 5 AM to 11 PM).....	20		256.49 to 247.00.....	40	
256.49 to 257.89 (Exeter, 11 PM to 5 AM).....	40		247.00 to 230.66.....	35	
257.89 to 263.42.....	40		230.66 to 229.16 (Reedley, 5 AM to 11 PM).....	20	
263.42 to 264.84 (Lindsay, 5 AM to 11 PM).....	20		230.66 to 229.16 (Reedley, 11 PM to 5 PM).....	35	
263.42 to 264.84 (Lindsay, 11 PM to 5 AM).....	35		229.16 to 228.00.....	35	
264.84 to 272.70.....	40		228.00 to 220.30.....	40	
272.70 to 275.00 (Porterville).....	35		220.30 to 218.49 (Sanger).....	35	
275.00 to 275.05 (Orange Ave. Crossing).....	15		218.49 to 207.50.....	40	
275.05 to 308.67.....	40		207.50 to 206.11 (Fresno).....	20	
308.67 to 310.06 (Famoso).....	20				
<b>EASTWARD, RICHGROVE TO JOVISTA:</b> .....	20		<b>WESTWARD, JOVISTA TO RICHGROVE:</b> .....	20	
<b>EASTWARD, GOSHEN JCT. TO EXETER:</b>			<b>WESTWARD, EXETER TO GOSHEN JCT.:</b>		
245.96 to 251.87.....	30		262.72 to 253.92.....	30	
251.87 to 253.92 (Visalia).....	15		253.92 to 251.87 (Visalia).....	15	
253.92 to 262.72.....	30		251.87 to 245.96.....	30	

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

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

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

EF-415B, EP-415B, AS-418.....45 MPH

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

Diesels 99, 2650 to 2893.....30 MPH

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

AS 410.....25 MPH

EF 415B, EP 415B.....20 MPH

ES 410, AS 410.....20 MPH

EF 415B, EP 415B.....15 MPH

# SPECIAL INSTRUCTIONS — BAKERSFIELD SUBDIVISION

**SPEED RESTRICTIONS FOR TRAINS:** Maximum speed of trains in territory shown below is subject to further restrictions applicable to engines in the train as shown in **SPEED RESTRICTIONS FOR ENGINES** appearing on page 7 and **MAXIMUM SPEED PERMITTED WITH CERTAIN EQUIPMENT** and **OTHER MAXIMUM SPEEDS** appearing on page 8 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			TERRITORY		
MP	MP		MP	MP	
EASTWARD, GOSHEN JCT. TO COALINGA:			WESTWARD, COALINGA TO GOSHEN JCT.:		
239.53 to 240.13 (Wye)	15		296.39 to 280.00	30	
240.13 to 251.65	40		280.00 to 265.51	40	
251.65 to 253.40 (Hanford)	30		265.51 to 264.99	30	
253.40 to 256.48	40		264.99 to 261.25	40	
256.48 to 256.49 (Lake St. Armona)	20		261.25 to 260.25 (Lemoore)	30	
256.49 to 260.25	40		260.25 to 256.49	40	
260.25 to 261.25 (Lemoore)	30		256.49 to 256.48 (Lake St. Armona)	20	
261.25 to 264.99	40		256.48 to 253.40	40	
264.99 to 265.51	30		253.40 to 251.65 (Hanford)	30	
265.51 to 280.00	40		251.65 to 240.13	40	
280.00 to 296.39	30		240.13 to 239.53 (Wye)	15	
EASTWARD, ROSSI TO STRATFORD:	25		WESTWARD, STRATFORD TO ROSSI:	25	
EASTWARD, FRESNO TO ROCKFIELD:			WESTWARD, ROCKFIELD TO FRESNO:		
206.15 to 206.99	15		225.77 to 223.15	20	
213.03 to 214.30	20		223.15 to 214.30	30	
214.30 to 223.15	30		214.30 to 213.03	20	
223.15 to 225.77	20		206.99 to 206.15	15	
EASTWARD, KERN JCT. TO BUTTONWILLOW:			WESTWARD, BUTTONWILLOW TO KERN JCT.		
313.44 to 314.15 (street crossings)	15		347.00 to 316.65	30	
314.15 to 316.65 (US Highway 99)	25		316.65 to 314.15 (US Highway 99)	25	
316.65 to 347.00	30		314.15 to 313.44 (street crossings)	15	
EASTWARD, OIL JCT. TO OIL CITY:	20		WESTWARD, OIL CITY TO OIL JCT.:	20	
EASTWARD, MAGUNDEN TO ARVIN:			WESTWARD, ARVIN TO MAGUNDEN:		
316.66 to 317.06	10		333.54 to 329.95	25	
317.06 to 329.76	25		329.95 to 329.76	10	
329.76 to 329.95	10		329.76 to 317.06	25	
329.95 to 333.54	25		317.06 to 316.66	10	

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

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

**SPECIAL INSTRUCTIONS—MOJAVE SUBDIVISION**

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

Eastward	Reading
MP-458.94.....	60-35

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

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

**Oak Creek Branch:** Extra trains originating at Mojave and operating between Mojave and Creal will display numbers as an extra train on entire trip as indicated by the engine number of the lead unit leaving Mojave and are authorized to operate as extra trains between Mojave and Creal without obtaining a clearance.

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

**RULES 82-A, 83 and 83-A. Oak Creek Branch.** Extra trains operating between Mojave and Creal, in addition to information required by train register located at Mojave, must register destination of trip (turning point) and date of departure in the column captioned "Signals." When trip has been completed, date of arrival at Mojave must also be entered in column captioned "Signals." An extra train en route Creal must not leave Mojave until it has been ascertained from the train register that all preceding extra trains via the route to be used have completed their trip and registered time and date of arrival at Mojave accordingly. Flag protection is not required in this territory.

**RULE 83.**

**Vincent:** Trains may be identified on double track at Vincent.

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

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

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

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

- Mojave.....All trains.

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

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

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

**Mojave:** Trains and engines from Lone Pine Branch must stop at stop sign located 500 feet east of highway crossing MP-380.34 and obtain instructions from operator as to whether or not they can cross over to main track to avoid blocking highway crossing.

**RULE 99. Oak Creek Branch.** Rule 99 will not apply between Mojave and Creal.

**RULE 103-A.**

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

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

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

Automatic protection (controlled by single track circuit, with "Stop" signs at control limits) exists at following crossings:

Location	Crossing No.	Track	Protection
Palmdale .....	B-412.53-C .....	P.I.D.	
		Drill .....	Flash. Lights
Palmdale .....	B-412.78-C .....	P.I.D.	
		Drill .....	Flash. Lights
Sylmar .....	B-457.83-C .....	2 spurs.....	Gates
Inyokern.....	BAM-447.1.....	Siding.....	Gates

Members of crews should assure themselves that crossing is operating (and gates are down where they exist) before entering crossing or crossing is protected by member of crew.

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

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

**Sun Valley.** MP-467.46-C. Tuxford Street Crossing. Consolidated Rock Company spur.

Stop signs installed. Crossing must not be entered until flashing lights are operating. Flashing lights are operated manually by inserting switch key in receptacle. Turn key 1/2 turn to right. Key may be removed but crossing must be occupied within 45 seconds or flashers will stop. Key start located in box 30 feet in advance of crossing in either direction and on all 3 tracks.

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

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

**Mojave.** MP-380.70. Deraill located between No. 5 track switch and No. 6 track switch east end Mojave Yard is lined in derail position. Deraill is facing point for eastward movements and may be trailed through on westward movements.

**Fleta.** MP-383.6. Tail track diverging westward from Purdy Company track is for exclusive use of industry. Tail track also substitutes for derail and has derail target. Switch must be locked in reversed (derailing) position except when Purdy Company spur being switched by Railroad.

**Lone Pine.** MP-517.9. Spring deraill installed in main track.

**RULE 104-A.** Yellow switch targets and keepers have been installed on main track switches at the ends of the following branch lines:

- Oak Creek Branch.....MP-389.9, Creal
- Lone Pine Branch.....MP-518.8, Lone Pine

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

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

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

**RULE 211.**

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

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

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

**RULE 221.** Burbank Jct. is train-order office only for westward trains.

Unit for display of flashing light installed at following location:

Station	Location	Direction
---------	----------	-----------

Palmdale.....On train-order signal mast.....Eastward

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

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

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

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

Eastward Signal	Protection	Westward Signal
P-3826	Barricade detector, MP-384.63.....	P-3853
P-3894	Spring switch, west end siding, Ansel.....	
	Spring switch, east end siding, Ansel.....	P-3911
P-3992	Spring switch, west end siding, Oban.....	
	Spring switch, east end siding, Oban.....	P-4009
P-3992	Barricade detector, MP-400.00.....	P-4009
P-4008)		
P-4010)	Barricade detector, MP-402.00.....	P-4021
P-4046	Spring switch, west end siding, Lancaster.....	
	Spring switch, east end siding, Lancaster.....	P-4057
P-4092	Spring switch, west end siding, Denis.....	
	Spring switch, east end siding, Denis.....	P-4109
P-4156	Spring switch, west end siding, Harold.....	
	Spring switch, east end siding, Harold.....	P-4167
P-4200	Spring switch, west end Vincent.....	
	Spring switch, east end Vincent.....	P-4213
P-4248	Spring switch, west end siding, Paris.....	
	Spring switch, east end siding, Paris.....	P-4257
P-4284	Spring switch, west end siding, Ravenna.....	
	Spring switch, east end siding, Ravenna.....	P-4297

P-4338	Spring switch, west end siding, and slide detector fence middle of siding, Russ.....	
P-4346)		
P-4348)	Slide detector fence at MP 435.....	
	Spring switch, east end siding, and slide detector fence middle of siding, Russ.....	P-4347
	Slide detector fence at MP 435.....	P-4357
P-4382	Spring switch, west end siding, Lang.....	
	Spring switch, east end siding, Lang.....	P-4393
P-4426	Spring switch, west end siding, Humphreys.....	
	Spring switch, east end siding, Humphreys.....	P-4435
P-4466	Spring switch, west end siding, Honby.....	
	Spring switch, east end siding, Honby.....	P-4475
	Spring switch, east end eastward siding, Saugus.....	P-4505
P-4504	Spring switch, west end westward siding, Saugus.....	
Interlocking Signals	High Water Detector	Interlocking Signals
MP-451.46	Saugus-Newhall MP-451.92.....	MP-452.67
	Spring switch, east end siding, Newhall.....	P-4541
P-4566	Barricade Detector MP-451.60.....	P-4581
		P-4583
P-4580	Spring switch, west end siding, Sylmar and Barricade Detector MP-458.80.....	
	Spring switch, east end siding, Sylmar, and Barricade Detector MP-458.80.....	P-4593
P-4610	Spring switch, west end siding, San Fernando.....	
P-4622	Barricade Detector MP-462.60.....	P-4631
P-4630	Barricade Detector MP-463.30.....	P-4635

**RULE 516.** Overlap post:

Pacoima.....Westward trains, MP 463.30.

**RULE 538. SPRING SWITCHES.** Spring switches equipped with facing point locks are located as follows:

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

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

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

**SPECIAL INSTRUCTIONS — MOJAVE SUBDIVISION**

Switch-point indicators located at:

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

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

**RULE 605. INTERLOCKING**

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

Eastward signal at MP 381.30 governs movements as follows:

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

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

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

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

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

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

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

**Palmdale:** Limits extend from eastward interlocking Signal MP-414.42 to westward interlocking signals MP-414.50 Mojave-Saugus line and MP-416.62 on Palmdale-Colton Cut-Off.

**Palmdale-Colton Cut-Off.** Limits extend from MP-414.42 to MP-416.62.

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

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

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

**Burbank Jct.:** Whistle signals:

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

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

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

**RULE 705. LETTER TYPE INDICATORS.**

Indicators located as follows:

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

**Denis:** Illuminated "M" or "S" Signal at Denis requires movement be made as indicated and supersedes all other instructions and/or train orders that may be held restricting train at that point.

**RULE 705. HOT BOX DETECTORS**

Refer to Rule 705 all Subdivisions.

**SCANNER SITE**

M.P.	Type	Direction	Location
396.0	A	East & West	Ansel-Oban

**TYPE "A" HOT BOX DETECTOR LETTER TYPE INDICATOR AND READOUT LOCATIONS.**

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

**GENERAL REGULATIONS**

**RULE 825.** Instructions for setting hand brakes:

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

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

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

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

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

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

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

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

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

Portable rail skids are hung on posts at:

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

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

these sidings must remove rail skid and return it to proper post.  
Refer to Rule 825 All Subdivisions.

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

**AIR BRAKE RULES**

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

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

**Without Dynamic Brake in Operation:**

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

**With Dynamic Brake in Operation:**

Permissible Tons Per Unit Without Retaining Valves\*

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

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

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

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

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

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

**FREIGHT TRAINS**

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

**RULE 24-E.** Applies at Palmdale.

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

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

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

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

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

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

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

Restrictive grades are as follows:

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

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

**MISCELLANEOUS**

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

2. Engines listed must not operate on tracks shown below:  
Class of Engine      Restricted Tracks

All engines .....Inyokern—Must not go beyond 200 feet west of east interchange track, NWC.

3. Location of overhead and side structures not standard clearance on main track and sidings:

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

4. Load limit (car and contents):

- ##Mojave-Burbank Jct. ....263,000 pounds
- #Mojave-Burbank Jct. ....315,000 pounds
- ##Mojave-Searles.....281,000 pounds
- ##Searles-Lone Pine .....263,000 pounds
- #Mojave-Creal.....315,000 pounds

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

##Applies to uniformly loaded four axle cars having trucks spaced 23 ft. 0 in. or more center to center and minimum axle spacing of 5 ft. 6 in.

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

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

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

6. Pacoima, MP-463.03: Spur track serving Price-Pfister International has beam across spur 100 feet from end, for operation of overhead crane, is at impaired clearance and is to be kept in raised position by industry during switching operations and when crane not in use. Look out for poor footing spur serving this industry.

7. Searles, MP-428.40: Look out for cars and equipment on both legs of wye.

8. Inyokern, MP-447.20: Look out for poor footing on team track account lumber loading.

**SPECIAL INSTRUCTIONS — MOJAVE SUBDIVISION**

**SPEED RESTRICTIONS FOR TRAINS:** Maximum speed of trains in territory shown below is subject to further restrictions applicable to engines in the train as shown in **SPEED RESTRICTIONS FOR ENGINES** appearing on page 7 and **MAXIMUM SPEED PERMITTED WITH CERTAIN EQUIPMENT** and **OTHER MAXIMUM SPEEDS** appearing on page 8 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			1	2	TERRITORY			1	2
MP	MP	Column:			MP	MP	Column:		
<b>EASTWARD, MOJAVE TO BURBANK JCT.:</b>					<b>WESTWARD, BURBANK JCT. TO MOJAVE:</b>				
380.70 to 381.30.....			45	25	471.49 to 461.90.....			60	60
381.30 to 381.40 (through turnouts).....			25	25	461.90 to 461.80 (street crossings).....			60	60
381.40 to 414.76.....			70	60	461.80 to 458.94 (Sylmar).....			60	60
414.76 to 417.36.....			50	50	458.94 to 457.25.....			40	40
417.36 to 420.00.....			30	25	457.25 to 456.25.....			30	30
420.00 to 422.62.....			30	25	456.25 to 454.81.....			25	25
422.62 to 426.33.....			45	25	454.81 to 453.00.....			40	25
426.33 to 435.19.....			30	25	453.00 to 448.60.....			40	40
435.19 to 436.74.....			35	25	448.60 to 448.23.....			30	30
436.74 to 438.17.....			30	25	448.23 to 446.22.....			45	45
438.17 to 442.13.....			40	35	446.22 to 442.13.....			30	30
442.13 to 446.22.....			30	30	442.13 to 439.41.....			45	45
446.22 to 448.23.....			45	35	439.41 to 438.17.....			40	40
448.23 to 448.60.....			30	30	438.17 to 436.74.....			30	25
448.60 to 454.81.....			40	40	436.74 to 435.19.....			35	35
454.81 to 456.25.....			25	25	435.19 to 426.33.....			30	25
456.25 to 457.25.....			30	25	426.33 to 422.00.....			45	45
457.25 to 458.94.....			40	25	422.00 to 420.00.....			30	30
458.94 to 461.80 (Sylmar).....			60	35	420.00 to 417.36.....			30	25
461.80 to 461.90 (street crossings).....			60	35	417.36 to 414.76.....			50	45
461.90 to 471.49 (Burbank Jct.), except.....			60	45	414.76 to 381.40.....			70	60
thru crossover west of tower.....			35	35	381.40 to 380.70.....			50	45
<b>EASTWARD, MOJAVE TO LONE PINE:</b>					<b>WESTWARD, LONE PINE TO MOJAVE:</b>				
380.09 to 380.47.....				15	518.00 to 428.80.....				30
380.47 to 422.00.....				40	428.80 to 428.20.....				15
422.00 to 428.20.....				30	428.20 to 412.90.....				30
428.20 to 428.80.....				15	412.90 to 380.47.....				40
428.80 to 518.00.....				30	380.47 to 380.09.....				15
<b>EASTWARD, MOJAVE TO CREAL:</b>					<b>WESTWARD, CREAL TO MOJAVE:</b>				
380.70 to 386.75.....				30					20
386.75 to 389.90.....				25					

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

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

except as follows:

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



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

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

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





