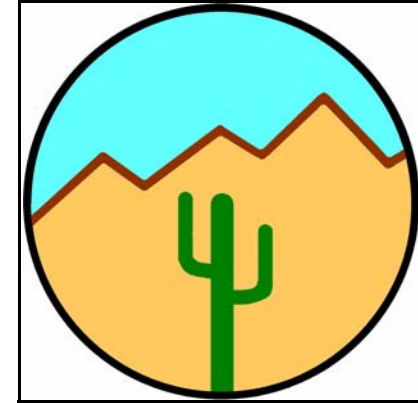


# **Tucson & Southwestern Railroad Company**



## **RULES AND REGULATIONS OF THE OPERATING DEPARTMENT**

**SECOND EDITION**

Revised – April 2, 2013

**Effective Monday, December 1, 1952**

Copy No. \_\_\_\_\_

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**Tucson & Southwestern Railroad Co.**

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who hereby agrees to return it to the proper officer  
when called for, or upon leaving this service, or pay  
for same.

**\$10.** Blocking of freight trains is at the discretion of the engineman. However, note that ICC rules require that tank cars be placed at least one car from the engine and at least one car from the caboose, whenever practical.

**\$11.** If LCL (Less-than Car Loading) is designated on the Cargo waybill that cargo is typically put in a car directly behind the locomotive for easy access by the head-end brakeman, who is responsible for unloading it at the designated stations. Unloading of LCL requires spotting of this boxcar at the designated station/freight house for a minimum of 40 minFT.

The Rincon, Benson and Tucson freight houses have staff that can do the unloading so that the train crew can proceed with local switching.

**\$12.** Clearance Cards and Train Orders - Before a train can leave its point of origin (beyond the yard limits), the engineman must have a Clearance Card Form A, authorizing the movement from the dispatcher, in addition to any appropriate train orders. In order for a train to pass a "stop" train order board, the train order board must be reset to the "proceed" position by the dispatcher or the train must be issued a clearance card by the dispatcher.

# Tucson & Southwestern Railroad Company

## RULES AND REGULATIONS

OF THE

OPERATING DEPARTMENT

The rules set forth herein govern operation of the railroad owned by the Southern Arizona Society of Model Engineers Inc., namely, The Tucson & Southwestern Railroad. The rules must be complied with by all employees regardless of gender whose duties are in any way affected thereby.

They take effect December 1, 1952, superseding all previous rules and instructions inconsistent therewith.

Special instructions may be issued by proper authority and will be included in the timetable or on official bulletin Boards.

Joseph P. Farley

General Manager

### About the TSW rules

1. The rules outlined in this booklet are copied from several sources: The La Mesa Club operation rules; The Standard Code of rules Adopted 1949 as set out in "Rights of Trains" and S.P. prototype railroad rule book. Some rules are applicable to the SasmeOps group some are not.
- \$2.** Rules are numbered as the original rule books numbered them. These are not always consecutive numbers. \$ rules like this one are used to number rules which relate to SASME or model operations and had no equivalent in the prototype

**SUPPLEMENTAL RULES AND INSTRUCTIONS**

- \$1.** Derailed equipment - Derailed equipment should be handled by enginemen with the greatest care. Treat all equipment as if it was your own.
- \$2.** Turning equipment and trains - Equipment to be turned at Indian Springs or Friberg should be turned on the turntable. To use the turntable, run the equipment onto the turntable, move to the destination track.  
Trains to be turned at Sonoita or McNary may use the appropriate reverse loop and tunnel. Trains to be turned at Tucson may use the reverse loop through the Passenger Yard lead
- \$3.** Electrical Shorts - electrical shorts should not be ignored. The engineer should remain close enough to his train to fix any shorts which occur promptly. In the event that a cause cannot be determined, the location of any short should be Marked with a Blue Flag (**blue push pin**) and reported at the next opportunity to the Maintenance Department on the prescribed form.
- \$4.** Turnout controls - most turnouts are controlled by hand throws. The three switches in the passenger terminal and the Tucson crossover switches are controlled by switch motors. Toggle switches for the turnouts are located on the front fascia control panel. The toggle switch will line up with the direction of the points of the turnout being controlled. The toggles should be returned to the neutral (center) position after the points reach the desired position.  
The switches at Bowie are also controlled by switch motors, rocker switches on the fascia and LEDs indicate the position of the switches  
Toggle switches controlling main track turnouts can be identified by red toggle handle. The toggle handle will indicate the direction of the switch. Red (diverging track) or white (main track) dots indicate the normal position of the toggle. All main line track toggle switches shall be left lined for the main track. Toggle switches controlling tracks and spurs not on the main track can be identified by blue toggle handles. The toggle handle will indicate the direction of the switch. Such turnouts can be left lined in either direction.
- \$5.** Timetables -All employees are to have a current copy of the employe Timetable on their person at all times.  
Employees are to read and follow the Special Instructions contained therein.  
Siding capacities on the Schedule are the total number of 40' cars in the train which can fit into the sidings, not including the engine or caboose. Thus, a capacity of 4 indicates that the engine, caboose, and four 40' freight cars can fit between the clearance points on the siding.
- \$6.** Scale Time -A scale time ratio of 4:1 is used. To estimate scale time, multiply the estimated actual time by 4. Thus an operation which is estimated to consume 2 actual minutes will take 8 scale minutes. The abbreviations, FT, FTC, minFT or minFTC; Whenever used herein stand for, Fast Time, Fast Time Clock, Minutes Fast time and minutes Fast time clock.  
Refer to the Fast Clock for Model time on the layout.
- \$7.** Water -All Steam engines are to take water upon arrival or before leaving Indian Springs, Bowie, Benson, Vail, Red Rock and Sonoita. Taking water takes about 20 MinFT (5 actual minutes).
- \$8.** Train Orders -When train orders are to be picked up from a train order station (Indian Springs, ~~Benson, Redrock, Sonoita~~ and Friberg), the dispatcher will set the train order board display to "stop". After picking up the orders, the train order board will be set to "proceed" by the dispatcher.
- \$9.** Bulletins - Bulletins are used by the railroad to keep employes informed of temporary changes in trackage, special rules, and other items. All employes are to be knowledgeable of any bulletins in effect.  
Bulletins will be posted on the Tucson and Southwestern bulletin board near the chief dispatcher's desk.

- 834.** Open top cars loaded with rail, pipe, logs, lumber, structural steel, poles or mounted wheels, when lading projects above the sides or end walls of cars, must not be placed in trains next to engines, cabooses, occupied cars, nor cars placarded "Explosives", "Dangerous", "Poison Gas" or "Flammable Poison Gas". This does not apply to trains consisting entirely of logs. Federal regulations must be observed in handling placarded cars in proper location in train.
- 836.** Outside of yard limits cars must not be shoved ahead of engine between stations when it can be avoided. When necessary to so handle, speed must not exceed 20 MPH.
- 837.** Switching must be carefully done, and trains and engines must be carefully handled, to avoid shocks from abrupt starting or stopping; from impact in making coupling, and to prevent personal injuries, and damage to equipment or contents.  
 Before fouling any track it must be known that engines or cars on adjacent tracks are clear. Cars must not be shoved to foul leads or adjacent tracks until it is known that it is safe to do so. Cars and engines must not be left foul of an adjacent track if possible to avoid it.  
 Movements into spur tracks must be controlled to prevent damage at end of spur.
- 842.** Yardmasters are responsible for conditions within yards. Trains and engines are under control of the yardmaster, and all employees in train, engine and yard service will be subject to his direction as to movements within yard limits. Road crews of trains will be responsible for their respective trains and engines until yardmaster or his representative takes charge.
- 871.** Engineers and conductors must assure themselves that subordinate employees on engines and trains are competent and instruct them if necessary in the performance of their duties. Incompetence and disobedience must be reported.
- 874.** Enginemen and trainmen on engine must be alert in all matters pertaining to safety and while running must keep a vigilant lookout, carefully note all signals, observe position of switches and derails affecting their movement, and watch for obstructions and defects in track. They must frequently look back for signals and indications of defects in train, especially while rounding curves and approaching or leaving stations.
- 883.** Trains, engines or cars must not be left on main track without protection, nor left on any track blocking movement on adjacent tracks.
- 896.** The loading of lumber, timber, scrap metal and other freight on open top cars must be in conformity with Rules Governing the Loading of Commodities on Open Top Cars as published by the Association of American Railroads, printed copies of which will be furnished for use of shippers upon application to the Superintendent.
- 915.** Unless otherwise provided, operators are subordinate to chief train dispatcher and will give train orders preferred attention. They must not absent themselves or close office without permission from the train dispatcher, except when means of communication fail.

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**GENERAL REGULATIONS**

- 801.** Employees will not be retained in the service who are careless of the safety of themselves or others, indifferent to duty, insubordinate, dishonest, immoral, quarrelsome or otherwise vicious, or who conduct themselves in a manner which would subject the railroad to criticism. Courteous deportment is required of all employees in their dealings with the public, their subordinates and each other. Boisterous, profane or vulgar language is forbidden.
- 804.** Any act of hostility, misconduct or willful disregard or negligence affecting the interest of the Company will not be condoned and must be reported. Withholding such information will be considered proof of negligence or indifference, and treated accordingly.
- 809.** The railroad's communication system is for handling railroad business, but may be used for messages relating to personal affairs of employees in cases of illness or accident. Commercial telephones on railroad property, except pay phones, are not to be used without permission from proper authority and long distance or message unit calls are not to be made unless specifically authorized. The railroad's office equipment and machines must not be used other than for railroad business.
- 810.** Employees must report for duty at the prescribed time and place, remain at their post of duty, and devote themselves exclusively to their duties during their tour of duty. They must not absent themselves from their employment without proper authority.
- 811.** Employees whose duties connect them with the movement of trains or engines must not absent themselves from their places, substitute others, or exchange duties without proper authority. Trains must not be delayed for trainmen and enginemen to eat, without permission of chief train dispatcher.
- 820.** In case of damage to trains, engines, cars or structures involving security of freight or other company property, it is the duty of all employees to see that arrangements are promptly made for its protection against loss through pilferage or other causes.
- 824.** On grades before engine is cut off, a sufficient number of hand brakes must be set to hold the train.
- 825.** Cars must not be left on sidings without permission of train dispatcher.  
Cars must be kept clear of any street or public crossing, and at least one hundred (100) feet from crossing when practicable.
- 827.** Speed of freight trains must not exceed eight (8) miles per hour when starting from initial stations and intermediate stops, for length of train. Trainmen and enginemen must be in position to observe their train while running.
- 829.** Employees must observe passing trains closely and if hot bearings, brakes sticking, wheel sliding, dragging equipment, insecure lading or any other dangerous condition is detected, they must give stop signals to trainmen and enginemen on passing train. If nothing irregular is noted, they will give proceed signal as rear of train passes, as an indication they have observed train and noted nothing dangerous.
- 830.** Trains and engines when standing or switching must not block traffic on street or public road crossings longer than necessary.  
Trains must not stand on railroad crossings at grade or within the limits of an interlocking, when practicable to avoid it.
- 831.** Pile drivers, locomotive cranes, and other work equipment having butt couplers (no draft gear) and scale test cars must be handled near rear of train ahead of caboose and behind any helper engine. When practicable all other work equipment, including steel underframe outfit cars, power shovels, derricks, spreaders, pile drivers and locomotive cranes should be similarly handled in the train.

**TRAIN ORDER FORM Y****Speed Limit Orders**

- (1) 1201 PM TO 501 PM APPROACH GANGS OR MACHINES BETWEEN MP 335.5 AND MP 336 BETWEEN CALIENTE AND ALLARD PREPARED TO STOP UNLESS PROPER PROCEED SIGNAL RECEIVED

To be used covering work where safety to the movement requires that trains approach prepared to stop, and are not to proceed until authorized by proceed signal given by flagman.

- (2) SPEED LIMIT 10 MPH BETWEEN MP 338 AND MP 339.5 BETWEEN CALIENTE AND BEALVILLE

To be used where track condition required speed to be reduced below normal.

- (3) SPEED LIMIT 15 MPH OVER BRIDGE MP 335.9 BETWEEN CALIENTE AND ALLARD

To be used where bridge conditions require speed to be reduced below normal.

**GENERAL NOTICE.**

SAFETY is of first importance in the discharge of employe duties. The term employe applies to anyone operating the **Tucson and Southwestern Railroad**. Compliance with the rules and close attention to duty are required. To enter or remain in the railroad's service is an assurance of a willingness to obey the rules.

Cases not covered by the rules demand sound judgment in applying correct principles of safety, efficiency and economy. In case of doubt, take the safe course.

**GENERAL RULES**

**A.** Employes whose duties are prescribed by these rules must provide themselves with a copy. Employes whose duties are in any way affected by the timetable must have a copy of the current timetable with them while on duty.

**B.** Employes must be conversant with and obey the rules and special instructions. If in doubt as to their meaning, they must apply to proper authority for an explanation.

**C.** Accidents, failure in the control system (DCC), defects in track, bridges, signals, or any unusual conditions which may affect the movement of trains, must be promptly reported on a maintenance form to the proper authority.

**D.** Employes on duty during *public displays* must wear the prescribed badge and be neat in appearance. (**SASME Name Badge**)

**E.** Employees must be courteous to visitors and render every assistance in their power in carrying out the rules and instructions and must report promptly to the proper official any violation thereof.

**F.** The use of alcoholic beverages, intoxicants or narcotics by employees subject to duty is prohibited.

**G.** The use of tobacco by employees while on duty in the presence of the public is prohibited.

**H.** Carelessness by employees will not be condoned and they must exercise care to avoid injury to themselves, others and the railroad.

**I.** In the event of a derailment, employes must exercise care to avoid damaging any piece of equipment, report any defects to the proper authority. (Owner or Maintenance Crew Chief)

**J.** The abbreviations, FT, FTC, minFT or minFTC; Whenever used herein stand for, Fast Time, Fast Time Clock, Minutes Fast time and minutes Fast time clock.

**DEFINITIONS.**

Note: Definitions relating to CTC, interlocking and block signals have been removed from the rules, since these currently do not exist on the T&SW RR.

**CROSSOVER.** - A track connection between two adjacent tracks.

**CURRENT OF TRAFFIC.** - Movement of trains on a main track, in one direction, specified by the rules.

**DIVISION.** - That portion of a railroad assigned to the supervision of a superintendent.

**CLEARANCE CARD FORM A** - A clearance form giving a train permission to occupy the Main track as shown on page 14.

**ENGINE** -- A unit propelled by any form of energy, or a combination of such units operated from a single control, used in train or yard service.

**EXTRA TRAIN.** A train not authorized by a timetable schedule. It may be designated:

*Extra*-- For any extra train except passenger extra or work extra;

*Passenger Extra*-- For passenger train extra;

*Work Extra*-- For work train extra.

**MAIN TRACK.** - A track extending through yards and between stations, upon which trains are operated by timetable or train order, or both.

**MARKER.** - A red light or other prescribed signal affixed to rear end of equipment being operated as a train.

**MIXED TRAIN**-- A train Consisting of passenger and freight equipment carrying passengers, other than attendants accompanying shipments, which operates at freight speeds..

**PASSENGER TRAIN**-- A train carrying passengers, other than attendants accompanying shipments, which operates at passenger speeds.

**PILOT**-- An employe assigned to a train when the engineer or conductor, or both, are not fully acquainted with the physical characteristics or rules of the railroad.

**REGISTER STATION**- - A station at which train register is located.

**REGULAR TRAIN.** - A train authorized by a timetable schedule.

**SCHEDULE.** - That part of a timetable which prescribes class, direction, number and movement for a regular train.

**SECTION.** - One of two or more trains running on the same schedule displaying signals or for which signals are displayed.

**SIDING** - A track auxiliary to the main track for meeting or passing trains. Named sidings are designated on the time table in italics as: *Pennington Siding*, *Gleason Siding*, etc.

**SINGLE TRACK.** - A main track on which trains are operated in both directions.

**SPECIAL INSTRUCTIONS**-- Where used in this book, refers to Special Instructions in the timetable.

**SPEEDS**

MAXIMUM SPEED - A speed not exceeding the defined speed limit.

MEDIUM SPEED - A speed not exceeding thirty (30) miles per hour.

SLOW SPEED - A speed not exceeding fifteen (15) miles per hour.

**TRAIN ORDER FORM P****Superseding an Order or Part of an Order**

- (1) NO 55 ENG 5333 MEET NO 58 ENG 6440 AT PEARCE INSTEAD OF MESZAR
- (2) NO 447 ENG 6190 PASS NO 55 ENG 4229 AT CLIFF INSTEAD OF BEALVILLE NO 55 TAKE SIDING
- (3) EXTRA ATSF 153 WEST HAS RIGHT OVER FIRST 804 ENG 6345 TEHACHAPI TO ALLARD INSTEAD OF BENA
- (4) ORDER NO 14 SHOULD READ EXTRA ATSF 3854 WEST INSTEAD OF EXTRA ATSF 3936 WEST
- (5) NO 52 HAS ENG 6390 INSTEAD OF ENG 4350

Train addressed must have a copy of order containing movement that is superseded.

Meeting point must not be changed by use of Form P train order more than once. If further changes are necessary, previous order must be annulled.

This form must be used whenever limits in an order Form S-C, are shortened or lengthened.

An order which has been superseded must not be reissued under its original number.

When a train is directed by train order to take siding or to hold the main track for another train, such instructions apply only to point named in order, and do not apply to superseding order unless so specified.

**TRAIN ORDER FORM Q****Issuance of New Timetable or Supplement**

- (1) TIMETABLE NO 73 IS EFFECTIVE 1201 AM JAN 1
- (2) SUPPLEMENT NO 1 TO TIMETABLE NO 3 IS EFFECTIVE 1201 AM FEB 15

**TRAIN ORDER FORM V****Check of Trains**

- (1) REGULAR TRAINS DUE KERN JCT BEFORE 330 PM JUNE 4 HAVE ARRIVED AND LEFT EXCEPT THIRD 806

"Due" refers to schedule arriving or leaving time, and not to run or wait order time.

- (2) NO 58 OF JUNE 4 HAS ARRIVED MOJAVE

- (3) THIRD 4 OF JUNE 4 HAS LEFT KERN JCT WITH GREEN SIGNALS

A check of a section will indicate that all preceding sections of the same schedule have also arrived or left, and must state "with no signals" or "with green signals", as the case may be.

When necessary to make an exception of a train or trains, such exception will be added. Train addressed is not to be included in the exception.

Where not required, the work "arrived" or "left" will be omitted.

When this form is received train may register by ticket, provided it is not necessary to check the register against other schedules.



These orders will be addressed to operator and acknowledged in the usual manner.

Form J will be used only when necessary to hold trains until other orders can be given, or in case of emergency.

### TRAIN ORDER FORM K

#### Annuling a Schedule or Section

- (1) NO 4 OF FEB 21 IS ANNULLED BAKERSFIELD TO MOJAVE
- (2) SECOND 51 OF FEB 21 IS ANNULLED MOJAVE TO BAKERSFIELD
- (3) NO 52 OF FEB 21 HAS ARRIVED VAIL AND IS ANNULLED VAIL TO INDIAN SPRINGS

Schedule or section annulled becomes void between points named and cannot be restored.

When a section is annulled from an intermediate point, opposing inferior trains must not leave that point until it is ascertained that the schedule has been fulfilled to that point, or an order example (3) is received, or an order is received authorizing train to proceed.

### TRAIN ORDER FROM L

#### Annuling an Order

Date named in the order must be the date on which schedule is due to leave its initial station on the subdivision.

- (1) ORDER NO 10 IS ANNULLED

If an order which is to be annulled has been delivered to a train, the annulling order must be addressed to that train. If it has not been delivered, annulling order may be addressed to operator, who must then destroy all copies of order annulled but his office copy, on which he must write the number of annulling order.

Operator or train addressed must have a copy of the order annulled.

When an order is annulled on other than date of issue, date as well as number of order annulled must be designated in the annulling order.

- (2) THIS ORDER ANNULLED AT 210 PM

Above addition may be made to any order which is to be annulled at a pre-determined time.

An order which has been annulled must not be reissued under its original number.

### TRAIN ORDER FORM M

#### Annuling Part of an Order

- (1) THAT PART OF ORDER NO 10 READING NO 23 ENG ATSF 51 MEET NO 58 ENG 4294 AT ROWEN IS ANNULLED
- (2) THAT PART OF ORDER NO 21 READING EXTRA 5484 WEST WILL NOT LEAVE TEHACHAPI UNLESS EXTRA ATSF 170 EAST HAS ARRIVED IS ANNULLED
- (3) THAT PART OF ORDER NO 12 READING NO 57 ENG 4165 WAIT AT WALONG UNTIL 420 PM IS ANNULLED

Form M must be used when a particular movement or portion of movement in an order is to be annulled, and does not affect other movements in the order.

RESTRICTED SPEED - Proceed prepared to stop short of train, obstruction or switch not properly lined and look out for broken rail, not exceeding twenty (20) miles per hour.

WITH CAUTION: To run at reduced speed, according to conditions, prepared to stop short of a train, engine, car, misplaced switch, derail or other obstruction, or before reaching a stop signal.

**STANDARD CLOCK**-- A clock designated by Special Instructions as a standard clock. It must bear the sign "Standard Clock" or "Regulator".

**STATION**-- A place designated in the timetable by name in bold typeface as: **PEARCE, FRIBERG**, etc.

**TRAIN ORDER STATION**-- A station where train orders are delivered.

**STATION**. A place identified in the timetable by name other than a named siding.

**SUPERIOR TRAIN**. A train having precedence over another train.

**TIMETABLE**. The authority governing movement of trains subject to the rules. It contains classified schedules of regular trains and special instructions.

**TRAIN**. An engine, or more than one engine, with or without cars, displaying markers with a caboose.

**TRAIN OF SUPERIOR CLASS**. A train given precedence by timetable.

**TRAIN OF SUPERIOR DIRECTION**. A regular train given precedence in the direction specified by the timetable as between opposing trains of the same class.

**TRAIN OF SUPERIOR RIGHT**. A train given precedence by train order.

**TRAIN REGISTER**. A book or form used at designated stations for registering signals displayed, time of arrival and departure of trains and such other information as may be prescribed.

**YARD**. A system of tracks within defined limits, other than main track and sidings, provided for the making up of trains, storing cars and other purposes, over which movements may be made without timetable or train order authority, but subject to direction of a yardmaster, if on duty, and such rules, instructions and signals as may be prescribed.

**YARD ENGINE**. An engine assigned to yard service.

**YARD LIMITS**. The territory between signs placed adjacent to the main tracks to designate the points between which engines may operate on main tracks without train order or timetable authority, and within which engines and certain trains are restricted in their movements on all tracks.

**NOTE:** Where, in these rules, special instructions, timetable bulletins, or in train orders, the following terms appear, they will apply as follows:

TRAIN or TRAINS: - In connection with speed restrictions, or the observance of signals (except train-order signals), also applies to engines.

CONDUCTORS: - To conductor or yard-engine foreman.

TRAINMEN: - To conductors and brakemen, yard engine foremen and switchmen.

ENGINEMAN or ENGINEMEN: - To engineers, firemen, hostlers and hostler helpers.

**OPERATING RULES****STANDARD TIME.**

1. Standard Time will be transmitted to all points from designated offices at 0800 (8:00AM) Mountain Standard Time, daily except Sunday. Those in charge of standard clocks will set the standard clock. Trains will be governed by the time specified in the timetable.
2. Dispatchers, conductors, yard foremen, engineers, hostlers and track car operators will use the standard clock. The location of standard clocks will be shown in timetable.
3. Employees designated in Rule 2 must, when commencing each day's work, compare time with a standard clock. Where standard clock is not available, correct time must be obtained from the train dispatcher, or from an employee designated in Rule 2 who has made such comparison.  
Watches must be set to correct time if they reflect a variation of more than 20 seconds from correct time when comparison is made as prescribed by this rule.

**TIMETABLES.**

4. Each timetable, from the moment it takes effect, supersedes the preceding timetable and its schedules take effect at the leaving time at their initial station. Not more than one schedule of the same number and day may be in effect on any timetable.
- 4-A. Notice of new timetable or supplement must be issued by timetable bulletin. Notice by train-order, Form "Q", must be given to conductors and engineers of trains.
- 4-B. Special instructions in timetable supersede any rule or regulation of the book of rules with which they conflict.

Bulletin boards and/or bulletin books will be provided at stations designated by timetable. Timetable bulletins will contain only information or instructions relating to the rules, or movement of trains; supersede special instructions in the timetable, or any rule or regulation of the book of rules with which they conflict, and expire with the current timetable.

Trainmen, enginemen and others concerned in the movement of trains must review timetable bulletins when commencing each day's work.

Timetable bulletins will be issued by authority and over the name of the Superintendent, and will be numbered consecutively during the effectiveness of each timetable, and bear the name of the division and the number of current timetable.

5. Not more than two times are given for a train at any station. When one is given, unless otherwise indicated, it is the leaving time; where two, they are the arriving and leaving times.

Unless otherwise provided the time applies at the clearance point of siding where an inferior train must be clear of main track; where there is no siding, it applies at train-order signal; where there is neither siding nor train-order signal, it applies at station sign.

Schedule meeting or passing times are indicated by figures in full-faced type.

Both the arriving and leaving times of a train are in full-faced type when both are meeting or passing times, or when one or more trains are to meet or pass it between those times.

When there are one or more trains to meet or pass a train between the two times, or more than one train to meet or pass a train at any station, it will be indicated by a heavy dash under figures, thus:

5.45 or 7.10 or 7.30

- (6) ENG ATSF 1683 AND ENG ATSF 195 WORK EXTRA 1130 AM UNTIL 430 PM BETWEEN MAGUNDEN AND ARVIN NOT PROTECTING AGAINST EXTRA TRAINS EXCEPT WORK EXTRA ATSF 1683 PROTECTS AGAINST WORK EXTRA ATSF 195

This permits work extra ATSF 195 to move within these limits without providing protection against work extra ATSF 1683 and restricts the movement of work extra ATSF 1683 except under flag protection against work extra ATSF 195.

To enable a work extra to work on time of a regular train, following example may be used:

- (7) WORK EXTRA 5320 PROTECTS AGAINST NO 55 ENG 4193 BETWEEN CLIFF AND CALIENTE

Work extra may work on the time of regular train mentioned in order, and must protect against that train.

- (8) WORK EXTRA 5324 HAS RIGHT OVER ALL TRAINS BETWEEN WOODFORD AND MARCEL 115 PM UNTIL 501 PM

This order gives work extra exclusive right between points designated, between times named, and other trains must not enter the limits unless permission is obtained from the conductor and engineer of work extra.

This order must not be modified or amplified, and must not be issued while an order, example (3) Form G, is in effect.

Work limits should be as short as practicable, to be changed as progress of work may require.

Work extras must give way to all trains as promptly as practicable.

Whenever extra trains are run into limits of a work extra they must be given a copy of the orders sent to the work extra. Should work order instruct work extra not to protect against extra trains in one or both directions, extra trains must protect against work extra; if order indicated that work extra is protecting itself against other trains, such trains must run expecting to find work extra protecting itself.

**TRAIN ORDER FORM I****Relief of Protection by Flagman**

- (1) NO 447 ENG 4318 NOT PROTECTING AGAINST WESTWARD EXTRA TRAINS UNTIL 130 PM BETWEEN MOJAVE AND BAKERSFIELD
- (2) EXTRA 5031 EAST NOT PROTECTED AGAINST EASTWARD EXTRA TRAINS UNTIL 130 PM BETWEEN EDISON AND CALIENTE

This form must not be used to relieve a train of protection by flagman to rear against a regular train, and must not be used when a work extra in territory named has been instructed not to protect against extra trains.

This form must not be combined with other form and must not be used in territory where, by special instructions in time table, trains moving with current of traffic may run extra or work extra without train order authority, as prescribed by Rule D-97.

**TRAIN ORDER FORM J****Holding Order**

- (1) HOLD NO 52
- (2) HOLD ALL TRAINS

When train has been so held it must not be permitted to proceed until order to hold is annulled, or an order is addressed to operator in following form:

- (3) NO 52 MAY GO

- (5) AFTER EXTRA 6236 EAST ARRIVES CALIENTE ENG 3734 RUN EXTRA CALIENTE TO BAKERSFIELD

Extra 3734 West will not leave Caliente until Extra 6236 East has arrived. Except when otherwise provided, the above examples give the extras no authority to occupy the main track at the turning point of fulfillment of the order.

#### TRAIN ORDER FORM H.

##### Work Extras.

- (1) ENG 4500 WORKS EXTRA 6 45 A M UNTIL 5 45 P M BETWEEN D AND E.

- (1) ENG 3611 WORKS EXTRA 1145 AM UNTIL 301 PM BETWEEN CALIENTE AND ALLARD

Work extra, whether standing or moving, must protect itself against extra trains within work limits in both directions.

Time of regular trains must be cleared.

This may be modified by adding:

- (a) NOT PROTECTING AGAINST EASTWARD TRAINS

When above is added the work extra will protect only against westward extra trains.

- (b) NOT PROTECTING AGAINST EXTRA TRAINS

When above is added protection against extra trains is not required.

- (c) NOT PROTECTING AGAINST EXTRA TRAINS UNTIL 240 PM

When above is added protection against extra trains is not required until time named, and extra trains must not enter work limits before that time.

When a work extra has been authorized by train order not to protect against extra trains, and later it is desired that after a certain time it clear the track for an extra, or to protect against a designated extra in either direction, the appropriate example of the following may be used:

- (2) WORK EXTRA 2362 CLEARS EXTRA 5471 EAST BETWEEN ILMON AND CALIENTE AFTER 210 PM

- (3) WORK EXTRA 2362 PROTECTS AGAINST EXTRA 5471 EAST BETWEEN ILMON AND CALIENTE AFTER 210 PM

To enable a work extra to follow an extra into work limits when it is not practicable to furnish the extra a copy of the work order, the following example may be used:

- (4) WORK EXTRA 3711 MUST NOT PASS EXTRA 4101 WEST BETWEEN WALONG AND WOODFORD

When necessary to authorize two or more work extras within the same limits or portions of the limits, the following example may be used, and responsibility for the thorough understanding as to the movements of two work extras, and protection that is to be provided will rest with conductors and engineers of the work extras named.

- (5) ENG 5296 AND ATSF 2651 WORK EXTRA 1201 PM UNTIL 430 PM BETWEEN MAGUNDEN AND ARVIN NOT PROTECTING AGAINST EXTRA TRAINS EXCEPT PROTECTING AGAINST EACH OTHER

If it is desired to authorize two or more work extras within the same limits or portion of limits and permit one of the work extras to move without providing flag protection against other work extra or extra trains, the following example may be used:

6. The following symbols when placed before the figures of a schedule indicate:

s – Regular stop,

f – Flag stop to receive or discharge traffic,

c – Conditional flag stop as prescribed by special instructions.

- 6-A. The following symbols when placed at left of station name indicate:

TO – Train order office.

R – Train register station.

The following symbols when placed at left of page indicate:

B – Bulletin station,

K – Standard clock,

W – Water station,

C – Coaling Tower

D – Diesel fuel station,

O – Fuel oil station,

I – Interlocking,

T – Turntable,

Y – Wye or turning track,

P – Telephone.

OS - Train OS to Dispatcher

#### SIGNALS.

7. Employees whose duties may require them to give signals must provide themselves with the proper appliances, keep them in good working order and ready for immediate use.

- 7-A. Yellow flags and unattended red flags and red lights must be placed to the right of the track in the direction of approach. When practicable, all signals by hand must be given on engineer's side.

**NOTE:** Flags may be of cloth, metal or other suitable materials.

8. Flags of the prescribed color must be used by day, and lights of the prescribed color by night.

9. Day signals must be displayed from sunrise to sunset. When day signals cannot be plainly seen, night signals must be used.

Night signals must be displayed from sunset to sunrise.

10. Color Signals

##### COLOR INDICATION

- |                  |   |
|------------------|---|
| A. Red           | Stop.   |
| B. Yellow        | Proceed at reduced speed, and for other uses prescribed by the rules. |
| C. Green         | Proceed, and for other uses prescribed by the rules.                  |
| D. Green & White | Flag stop. See Rule 28.   |
| E. Blue          | See Rules 26 and 297.   |
| F. Purple        | Indication for siding derrails  |

- 10-A. When an unattended red flag or red light is displayed on or near the track, train, after stopping, must be preceded for a distance of three-fourths (3/4) mile from point where signal is displayed, by a flagman who must carefully examine track and structures.

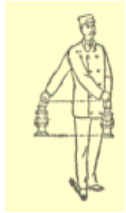
A train finding a fusee burning on or near its track must stop and extinguish the fusee, and then proceed at restricted speed.

**10-B.** Speed signs will be located to the right of track in direction of approach where practicable.

The higher number on speed sign indicates the maximum speed for trains consisting entirely of passenger equipment, and the lower number indicates the maximum speed for all other trains. Where but one number is shown, it indicates the maximum speed for all trains.

**12.** Hand Signals - for train and Engine Movements - Note.-The hand, or a flag, moved the same as the lantern, as illustrated in the following diagrams, gives the same indication.

**12-A.**



**Stop**

Swung at right angle to track

**12-C.**



**Proceed**

Raised and lowered vertically.

**12-E.**



**Apply air brakes**

Swung horizontally above the head, when standing.

**12-B.**



**Reduce speed**

Held horizontally at arm's length.

**12-D.**



**Back**

Swung vertically in a circle at right angle to the track

**12-F.**



**Release air brakes**

Held at arm's length above the head, when standing.

To drop any section other than the last, when there are more than two sections, example (4) will be used:

(4) ENG 6448 IS WITHDRAWN AS SECOND 56 AT VAIL FOLLOWING SECTIONS CHANGE NUMBERS ACCORDINGLY

Engine named will drop out at station named, and following sections will take next lower number, last section authorized will not display signals.

Under examples (3) and (4) it is the duty of train dispatcher to know that each conductor and engineer has in his possession all train orders affecting his train in its new position.

To pass one section by another, example (5) will be used:

(5) ENGS 6390 AND 4368 REVERSE POSITIONS AS SECOND AND THIRD 58 WOODFORD TO MOJAVE

Conductors and engineers of the trains addressed must personally exchange orders, and arrange for display of signals accordingly. Following sections, if any, need not be addressed. Engine 6390 will then become Second 58 displaying signals, and engine 4368 will become Third 58 displaying signals if Third 58 displayed signals into first named station.

Each section affected by these orders must have copies and must arrange signals accordingly.

**TRAIN ORDER FORM G**

**Extras**

(1) ENG 4137 RUN EXTRA FRIBERG TO BENSON

(2) ENG 2718 RUN EXTRA RINCON TO REDROCK AND RETURN TO BENSON

When example (2) is used extra must go to station second named before returning to station last named, unless order is annulled. If second named station is an open train-order office, a clearance ok'd by train dispatcher must be obtained. This form of order does not relieve train of providing protection by flagmen to the rear in either direction, when required by the rules.

(3) ENG 4415 RUN EXTRA LEAVING MOJAVE SATURDAY FEB 21 AS FOLLOWS WITH RIGHT OVER ALL TRAINS

LEAVE	MOJAVE	1120 AM
	CLIFF	1125 AM
	CALIENTE	1135 AM
ARRIVE	BAKERSFIELD	1145 AM

This order may be varied by specifying kind of extra and particular trains over which the extra shall, or shall not, have right. Trains over which the extra is given right must clear time of extra as prescribed in Rule 86. Work extras, whether required to protect or not protect against extras, must clear time of this extra in the same manner.

This order does not relieve extra from compliance with Rule 99. It must not be issued while an order, example (8) Form H is in effect, and must not be combined with any other form of order.

(4) AFTER 210 PM ENG 3765 RUN EXTRA CALIENTE TO MOJAVE

Extra must not leave the station first named before the time stated. This example must not be used in lieu of other forms of orders which provide protection against opposing extra work trains.

When an order, Form G, is fulfilled or annulled, other forms of orders held by extra so created, except Forms K, V, and Y and train orders pertaining to track conditions, become void.

Train, or trains, named must not pass the designated points before the time given. Other trains receiving the order are required to run with respect to the time specified at designated points or any intermediate station where schedule time is earlier than time specified in the order, as before required to run with respect to schedule time of train, or trains, named.

Station names must be written in column formation.

(4) NO 52 ENG 4411 RUN 20 MINUTES LATE ON ORDER NO 17

This order makes the time mentioned at each station in an order issued under example (3) as much later as specified and trains receiving this order are required to run with respect to this later time, as before required to run with respect to time specified in order under example (3).

(5) NO 52 ENG 4356 RUN 20 MINS LATE ON ORDER NO 17 FROM CALIENTE

If it is desired that an order to run late on a wait order shall not apply to time given at all of the stations, example (5) may be used, and will have the same meaning except that it applies only to station named in example (5) and succeeding stations.

Examples (4) and (5) may be used in connection with a wait order of an extra when issued in form of example (3).

Examples (1), (2), (3), (4) and (5) may be used in connection with an extra created by example (3) form G, and times at each point stated in that example have the same meaning as schedule times in foregoing examples.

(6) NO 57 ENG 4193 WAIT AT CLIFF UNTIL 430 PM FOR NO 448 ENG 5353

Train first-named must not pass the designated point before the time given, unless the other train has arrived. Train last-named is required to run with respect to time specified, at designated point or any other intermediate station where schedule time is earlier than time specified in the order, as before required to run with respect to schedule time of train first-named.

#### TRAIN ORDER FORM F.

##### For Sections.

Sections will be created at their initial stations by clearance bearing the words "green signal", or "no signals". Sections may be created, withdrawn or reversed at an intermediate station by using one of the following examples:

(1) NO 23 ENG ATSF 3751 DISPLAY SIGNALS BENSON TO FRIBERG FOR ENG 6053

(2) SECOND 58 ENG 2486 DISPLAY SIGNALS CALIENTE TO MOJAVE FOR ENG ATSF 40

Engine named in example (1) will become Second 23 and engine named in example (2) will become Third 58 from station named.

(3) ENG 5623 DISPLAY SIGNALS AND RUN AS SECOND 4 BENSON TO VAIL FOLLOWING SECTIONS CHANGE NUMBERS ACCORDINGLY

(4) ENG 62 DISPLAY SIGNALS AND RUN AS FIRST 1 A TO Z.

(5) ENG 5220 RUN AS SECOND 1 A TO Z.

To drop an intermediate section, (6) will be used.

(6) ENG 5218 IS WITHDRAWN AS SECOND 1 AT F. FOLLOWING SECTIONS CHANGE NUMBERS ACCORDINGLY.

This example may be used to add any section other than the last section at an intermediate station.

Engine named will display signals and run as directed, and following sections will take next higher number.

**12-G.** Any object waved violently by anyone on or near the track is a signal to stop.

**12-H.** Radio, Telephone or other means of voice communication may be used in place of hand signals to convey information.

#### ENGINE WHISTLE SIGNALS.

**14.** The whistle must be sounded at whistle posts, and where required by rule or law. It must not be used unnecessarily.

**Note.**--The signals prescribed are illustrated by "o" for short sounds and "\_" for long sounds. The sound of the whistle should be distinct, with intensity and duration proportionate to the distance signal is to be conveyed.

Sound	Indication
(a) o	Apply brakes. Stop.
(b) _ _	Release brakes. Proceed.
(c) _ o o o	Flagman protect rear of train.
(d) o o o _	Flagman protect front of train.
(e) _ _ _ _	Flagman may return from West or South
(f) _ _ _ _ _	Flagman may return from East or North
(g) o o	Answer to 14(k) or any signal not otherwise provided for.
(h) o o o	When standing back. Answer to 12(d)
(j) o o o o	Call for signals.
(k) _ o o	To call attention of engine and train crews of trains of the same class, inferior trains and yard engines, and of trains at train order meeting or waiting points, to signals displayed for a following section, unless otherwise provided by special instructions On single track, if not answered by a train, the train displaying signals must stop and ascertain the cause.
(l) _ _ o " _ "	Approaching public crossings at grade; tunnels and obscure curves to be commenced not less than 1/4 mile from before reaching a crossing and to be prolonged or repeated until engine has passed over the crossing.
(n) _ _ o	Approaching meeting or waiting points.
(p) Short sounds.	Alarm for persons or live stock on the track.
(q) o o _	Answer to flagman's stop signal.

**15.** The explosion of two torpedoes is a signal to proceed at reduced speed. Torpedoes must not be placed at stations or on public crossings.

**16.** A train finding a fusee burning on or near its track must stop and extinguish the fusee. It may then proceed at restricted speed. Fusees must not be placed on road crossings, bridges or where they may cause fire.

**HEADLIGHTS.**

17. When engine is so equipped, the headlight will be displayed to the front of every train by day and night. It must be extinguished when meeting trains under the following conditions,

- (a) The train has stopped on the siding clear of main track
- (b) When standing on main track if switch has been lined for the opposing train.

It must be dimmed, provided trains are not nearing a public crossing at grade

- (a) While passing through yards where yard engines are working;
- (b) Approaching stations at which stops are to be made or where trains are receiving or discharging passengers;
- (c) Approaching train order stations, junctions, terminals, meeting points, or while standing on main track
- (d) On two or more tracks when approaching a train in the opposite direction.

Yard engines will display the headlight to the front and rear by night. When not provided with a headlight at the rear a white light must be displayed. Headlight on the end coupled to cars may be extinguished.

When an engine is running backward, a white light must be displayed by night on the leading end.

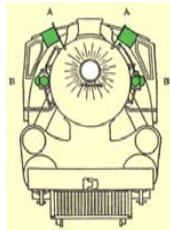
18. Engines, except in yard service, will display a white light at night on the rear when detached from train.

**CLASSIFICATION SIGNALS.**

- 19. A marker must be continuously displayed while a train is authorized.
- 20. All sections, except the last, must display two green flags and two green lights in the places provided on the front of the engine, both day and night.

Engine running forward displaying signals for a following section.

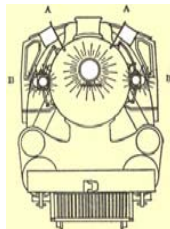
Green flags at A A and green lights at B B.



20-A. Extra trains must display two white flags and two white lights in the places provided on the front of the engine, both day and night.

Engine running forward as an extra train.

White flags at A A and white lights at B B.



**NOTE:** Trains authorized to display signals must notify inferior trains that are met or passed, including trains at train-order meeting points. Such notification will be accepted as evidence of green signals displayed. Identification of engine authorized to run extra will be accepted as evidence of white signal displayed.

**TRAIN ORDER FORM C.**

**Giving Right Over an Opposing Train.**

- (1) NO 448 ENG 5624 HAS RIGHT OVER NO 57 ENG 6441 BENA TO TEHACHAPI
- (2) NO 1 ENG 86 HAS RIGHT OVER NO 2 ENG 74 BENSON TO INDIAN SPRINGS YARD

If second-named train reaches point last named before the other arrives, it may proceed, clearing time of the opposing train as required by rules.

- (3) EXTRA ATSF 122 EAST HAS RIGHT OVER NO 55 ENG 5320 BENA TO CALIENTE

Regular train must not go beyond point last named until extra train has arrived, unless authorized by train order.

Examples (1) and (3) give right to train first named over regular train between points named. If trains meet at either of designated points, first-named train must take siding, unless order otherwise prescribes.

**TRAIN ORDER FORM D**

**Giving Right Over Another Train in the Same Direction**

- (1) NO 23 ENG ATSF 32 HAS RIGHT OVER NO 55 ENG 4264 MOJAVE TO BAKERSFIELD

Second-named train must clear time of first-named train as prescribed by Rule 86.

- (2) EXTRA 6345 WEST HAS RIGHT OVER NO 59 ENG 4347 MOJAVE TO CALIENTE AND WAIT AT  
MOJAVE UNTIL 250 PM  
CLIFF 255 PM  
ALLARD 301 PM

- (3) EXTRA ATSF 200 WEST HAS RIGHT OVER EXTRA 4137 WEST MOJAVE TO BAKERSFIELD

Examples (2) and (3) give right to first-named train over other train between points named. If train-order time is given, first-named train must not pass designated stations before time shown, and second-named train must clear such time as prescribed by Rule 86. If no time is given, second-named train must not leave first-named point ahead of first-named train.

**TRAIN ORDER FORM E.**

**Time Orders.**

- (1) NO 51 ENG 6459 RUN 50 MINS LATE MOJAVE TO BAKERSFIELD
- (2) NO 51 ENG 4457 RUN 50 MINS LATE MOJAVE TO CALIENTE AND 20 MINS LATE CALIENTE TO BAKERSFIELD

This form of order makes the schedule time of a train named, between stations named, as much later as stated in order. Any other train receiving this order is required to run with respect to this later time, as before required to run with respect to schedule time. Time in this order should be such as can easily be added to schedule time, as 10, 20, etc.

- 3) NO 24 ENG ATSF 168 WAIT  
BENA UNTIL 120 PM  
CALIENTE 130 PM  
BEALVILLE 140 PM

**FORMS OF TRAIN ORDERS.****TRAIN ORDER FORM A.****Fixing Meeting Points for Opposing Trains**

- (1) NO 10 ENG 216 MEET NO 4 ENG LIRR 1555 AT VAIL
- (2) NO 10 ENG 216 MEET SECOND 4 ENG 425 AT BENSON
- (3) EXTRA 216 EAST MEET EXTRA SPL 522 WEST AT MESZAR
- (4) NO 52 ENG 4456 AND SECOND 4 ENG ATSF 329 MEET NO 55 ENG 4171 AND NO 23 ENG ATSF 51 AT ALLARD AND EXTRA 4287 WEST AT BEALVILLE
- (5) NO 52 ENG 4352 MEET NO 55 ENG 4284 NO 23 ENG ATSF 40C AND NO 7 ENG ATSF 3756 AT CLIFF
- (6) NO 51 ENG 4431 MEET NO 58 ENG 6390 AT ROWEN NO 4 ENG ATSF 3456 AT CLIFF AND EXTRA 4294 EAST AT BEALVILLE NO 51 TAKE SIDING AT ROWEN AND BEALVILLE
- (7) SECOND 447 ENG 6234 HOLD MAIN TRACK MEET NO 52 ENG 4347 AT ILMON

When there is more than one meeting point made in a train order, and it is desired that superior train take siding; or that inferior train hold main track at either, or all, of any meeting points, such instructions must be in a separate paragraph in the order.

Trains receiving form A train orders will run with respect to each other to designated points and there meet in the manner prescribed by the rules, and unless designated train is met, will not proceed until further authority to move is given by train order.

Work extras must not be given meeting points with each other, nor with other trains

**TRAIN ORDER FORM B.****Directing a Train to Pass or Run Ahead of Another Train.**

- (1) NO 1 ENG 68 PASS NO 8 ENG 74 AT K.
- (2) NO 6 ENG 87 PASS NO 4 ENG 78 WHEN OVERTAKEN.
- (3) NO 447 ENG 5490 PASS NO 55 ENG 4242 AT BEALVILLE NO 55 TAKE SIDING

Both trains will run according to rule to the designated point and there arrange for the following train to pass promptly. Order must state which train is to take siding. When an inferior train receives an order to pass a superior train, authority is conferred to run ahead of train passed, from designated point. If after leaving the station named, first-named train is delayed, it may allow second-named train to pass and authority to run ahead is void.

- (4) EXTRA 6290 EAST RUN AHEAD OF NO 58 ENG 6054 BAKERSFIELD TO ALLARD

First-named train will run ahead of second-named train between points designated.

If a train is delayed after receiving an order to run ahead of a superior train, first-named train may allow second-named to pass, and authority to run ahead will then become void.

21. Trains must be identified by number on lead engine when practicable. When not practicable, trains will be identified by number of another engine on the head end of the train.

Engine number of regular trains and sections thereof, when necessary, must be furnished by train order, message or verbal instructions to all trains that are to be met or passed.

22. When two or more engines are coupled at the head of a train, the leading engine only will display signal; except when road engine is coupled behind a helper over part of a subdivision, the road engine will display signals the same as displayed on helper engine. The lead engine only will give or answer signals.
26. A blue signal displayed at one or both ends of an engine, car or train, or suspended from a mast placed in center of track, indicates that workmen are under the engine, car or train. When so displayed the engine, car or train must not be coupled to or moved.
27. A signal improperly displayed, the absence of a fixed signal at a place where a signal is usually shown, or absence of a flag or sign where required, must be regarded as the most restrictive indication that can be given by that signal, except that when day indication, if any, is plainly seen, it will govern. Imperfectly displayed or absence of fixed signal must be promptly reported to train dispatcher.
28. A green and white signal must be used to stop a train at authorized flag stops.
29. When a signal is given to stop a train, it must be acknowledged and unless proceed signal is received, reason for stopping train must be made known to engineer before train proceeds.
- 29-A. When cause for a flagman's signal is fully explained to engineer, and circumstances do not require train to stop, it may proceed, being governed by instructions of flagman.
30. Engine bell must be rung when engine is about to be moved; while passing through tunnels; while approaching public crossings at grade, beginning sufficiently in advance to afford ample warning, and continuing until engine has passed over crossing.
31. Unnecessary use of either whistle or bell is forbidden.
32. Markers are signals displayed on each side of the rear of every train to indicate the rear of the train. Lighted markers will be displayed, both day and night, as follows:  
Green lights to the front and side and red lights to the rear. When train is clear of the main track, green lights must be displayed to the front, side and rear. Before fouling or entering the main track, the markers must be turned to show red to the rear.
- 32-A. Where the helper engine is attached to the rear of the train, the markers must be displayed on the rear of the helper engine and not on the caboose or rear car.
33. Yard engines must not display markers, except in transfer service or when making movements on the main track from one station to another.

**SUPERIORITY OF TRAINS.**

71. A train is superior to another train by right, class or direction. Right is conferred by train order; class and direction by timetable.  
Right is superior to class or direction. Direction is superior as between trains of the same class. Trains in the direction specified by the timetable are superior to trains of the same class in the opposite direction.



- 72.** Trains of the first class are superior to those of the second class. Trains of the second class are superior to those of the third class. Extra trains are inferior to regular trains.
- 72-A.** Regular trains in the direction specified by timetable are superior to trains of the same class in the opposite direction.
- 73.** Extra trains are inferior to regular trains. They must be governed by train orders with respect to opposing extra trains.  
Second and following sections of a schedule are inferior to preceding sections of the same schedule.

### MOVEMENT OF TRAINS AND ENGINES.

- 80.** Unauthorized persons will not be permitted to ride on engines.
- 81.** Main track must not be occupied without authority. Outside of block system limits main track must not be fouled until by observation or flag protection the engineer or conductor, as the case may be, is assured it is safe to do so.
- 82.** Timetable schedules, unless fulfilled, are in effect for twelve hours after their time at each station.  
Regular trains more than twelve hours behind either their scheduled arriving or leaving time at any station lose both right and schedule. Thereafter they can proceed only as authorized by train order.
- 82-A.** Unless otherwise provided, regular trains will be authorized at their initial station by clearance, which must bear the OK, time and initials of the chief train dispatcher. At an intermediate station, following form of train order must be used:  
“ENGINE \_\_\_\_\_ RUN AS NUMBER \_\_\_\_\_ FROM \_\_\_\_\_”  
When its initial station is an open train-order office, unless otherwise provided, an extra train must not leave without clearance, which must bear the OK, time and initials of the chief dispatcher.
- 83.** A train must not leave its initial station, or a junction, or an intermediate station where schedules originate or terminate, or pass from double track to single track, until it is known that all superior trains due have arrived or left, or that it has authority to proceed.  
Visual or oral identification, register check or train order check of a section, will be evidence that all preceding sections of the same schedule have also arrived.  
Stations at which train registers are located will be designated in timetable.
- 83-A.** Information called for by train register must be inscribed therein and the register checked by the conductor, or by engineer if there is no conductor, except as herein provided.  
Regular trains will register their arrival on pages of the register for the day on which such regular trains are due to arrive; and register their departure on pages for the day on which such trains are due to depart.  
An extra train will register only at a register station where it originates or terminates, unless otherwise directed.  
All lines on page of register must be filled in before starting a new page for the same day.
- 83-B.** A train may leave a register ticket on prescribed form with the train-order operator at train-register station when authorized by special instructions or by train order, or when train-order check of trains is received. When so authorized, the operator must enter on the register information contained on the ticket, then report train from register.
- 83-D.** When a train is restricted for another train, the restricted train must not leave until train has been identified, or train order is received superseding or annulling the restriction, or train order Form V is received.

- nals” should have been registered, he must require immediate correction in train register
- 222-A.** Operators in relieving each other must make a transfer of undelivered train orders and messages addressed to, or in care of trains; also show on the transfer numbers of all overdue trains and whether trains then in the yard or at stations have or have not been cleared.  
A train-order office must not be closed unless permission is obtained from the train dispatcher.
- 222-B.** Train dispatchers in relieving each other must make a written transfer in the train order book of all train orders and clearances in effect.  
The transfer must include special mention of any unusual conditions.  
The relieving dispatcher must read and check each train order and clearance in effect.  
Transfer must then be signed by both train dispatchers and the time transfer is made must be shown.
- 223.** Following signals and abbreviations may be used:  
Initials for name of chief train dispatcher, such office and other signals as are arranged for by superintendent.
- |        |  |
|--------|--|
| C&E    | Conductor and engineer,                                |
| X      | Train will be held until train order is made complete, |
| COM    | complete,  |
| OK     | correct,   |
| OS     | train report,  |
| NO     | number,  |
| ENG    | engine,  |
| PSGR   | passenger,   |
| FRT    | freight,   |
| MINS   | minutes,   |
| JCT    | junction,  |
| DIV    | division,  |
| SUBDIV | subdivision,   |
| MP     | mile post,   |
| MPH    | miles per hour,  |
| DISPR  | dispatcher,  |
| OPR    | operator,  |
| YM     | yardmaster,  |
| ENGR   | engineer,  |
| CONDR  | conductor  |
- The following for names of the month: Jan, Feb, Mar, Apr, May, June, July, Aug, Sept, Oct, Nov, Dec.



**221.** A train-order signal will be provided at each train-order office, except at those where all trains are required to obtain clearance. Light-type train-order signal will be designated by letters "TO" on the mast.

The arm of a train order signal to the right, as seen from an approaching train, is the one which governs. When the arm is extended horizontally, or in addition a red light is displayed, it indicates "STOP", and when slanted downward at an angle of 60 degrees, or in addition a green light is displayed it indicates "PROCEED". Arms will be positioned to indicate "PROCEED" when a train order office is closed.

When red light is displayed in light-type train-order signal it indicates "STOP". When green light is displayed it indicates "PROCEED". Green light will be displayed when train order office is closed.

Train-order signal must be kept in stop position for both directions while operator is on duty, except signal will be cleared for approaching train when no orders are held for any train in the same direction other than for trains originating.

Signal must be restored to stop position as soon as practicable after rear of train has passed, and operator must not OS the train, nor "X" or repeat an order for a following train until signal has been restored. If signal is restored to stop position before rear of train has passed the signal, train must stop and obtain clearance.

When signal remains in stop position for an approaching train, a clearance must be obtained, and engine must not pass the fouling point of the switch at which an opposing train may enter the siding, until engineer has ascertained that he is not to receive train orders which restrict his train at that point.

Delivery of orders while train is moving will indicate that orders do not restrict the train at that station.

Outside of block system limits and for movements into territory outside of block system limits, operators must space trains two minutes apart. When clearance is delivered before the expiration of two minutes, operator must show on clearance the time following train may leave.

**221-A.** Before clearing a train for which there are orders, operator must carefully read the address of each order held, fill out the clearance, showing thereon without erasure or alteration, number of each train order addressed to train or in care of an employee on the train, then transmit address and order numbers from clearance to train dispatcher, who must check correctness thereof against his record in train-order book, and if correct give the OK, time and initials of chief dispatcher, and make proper record thereof. Operator, after entering this information on clearance, may make delivery.

When necessary to issue clearance to a train for which there are no orders, the word "No" must be written in space provided for number of orders and time issued will be inserted following operator's name. Such clearance will not bear dispatcher's OK, except when used to authorize a train at its initial station as prescribed by Rule 82-A.

Clearances may be handwritten or typewritten, and must bear date of issuance, with time in the proper space.

If, after a clearance is delivered to conductor or engineer, or both, orders are issued for a train which do not restrict its superiority, train dispatcher, without requiring operator to destroy the clearance first issued, may authorize issuance of a second clearance which must be endorsed "second" preceding the word "clearance" on top margin. All orders for delivery to train at that station must be shown on second clearance.

**222.** Operators must promptly record, and report to train dispatcher, the arrival and departure of all trains, reporting "no signals" or "green signals", as the case may be. If report of signals displayed is incorrect, train dispatcher must immediately notify all trains affected until he has ascertained that signals are properly displayed, and should "no signals" be registered when "green sig-

A train may check register against an extra.

**84.** A train must not start until the proper signal is given.

**85.** When a train of one schedule is on the time of another schedule of the same class in the same direction, it will proceed on its own schedule.

Trains of one schedule may pass trains of another schedule of the same class. Second and inferior class and extra trains may pass and run ahead of second and inferior class and extra trains.

Unless otherwise provided a section must not pass and run ahead of another section of the same schedule without first exchanging train orders, and each assuming the other section's number displaying signals if necessary. The change in sections must be reported from the first available train-order office. If trains are met or passed after change is made, sections involved must stop and identify themselves to such trains, unless train order Form F, example 5, is issued to trains involved.

**86.** Unless otherwise provided, an inferior train must clear the time of a superior train, in the same direction, by not less than five minutes; but must be clear at the time a first class train, in the same direction, is due to leave the next station in the rear where time is shown.

**88.** Extra trains will be governed by train orders with respect to opposing extra trains.

At a train-order meeting point between extras, train in inferior timetable direction must take siding, unless train order provides otherwise.

**89.** When an inferior train fails to clear a superior train by the time required by rule, it must be protected at that time as prescribed by Rule 99.

Trains required to take siding must head in, when practicable. If necessary to pull by and back in, or enter siding at other than the initial switch, train must be protected by flagman before movement is made beyond the initial switch, unless authority for occupancy of main track is otherwise provided.

**90.** At meeting points trains must stop short of fouling point, and when practicable, must stop back not less than 400 feet from fouling point.

**91.** Trains in the same direction must keep not less than ten (10) minutes apart.

**92.** A train must not leave a station in advance of its scheduled leaving time.

**93.** Within yard limits, engines, after complying with provisions of Rule 81, may use main track without train-order authority, clearing against first-class trains, and without flag protection against second and inferior-class trains, extra trains and engines.

Second and inferior-class trains, extra trains and engines must move with caution on main track within yard limits.

Trains and engines must not move against the current of traffic within yard limits until provision has been made for protection of movement.

**95.** Two or more sections may be run on the same schedule. Each section has equal timetable authority.

Unless otherwise provided a train must not display signals for a following section without train-order authority, except as prescribed by Rule 85, or upon receipt of clearance of initial station with the words "green signals" following the section number.

**96.** Clearance or train-order requiring display of signals authorizes such signals to be displayed to the terminal on the subdivision. A train order must not be issued creating a section at an intermediate point or to take down signals at an intermediate point of schedule. When it is desired to discontinue the last section from initial station or any intermediate point, train-order form K must be used.

**97.** Unless otherwise provided, extra trains must not be run without train-order authority.

- 98.** Trains and engines must approach end of double track, junctions, railroad crossings at grade and drawbridges, prepared to stop, unless switches are properly lined, track is clear and signals, if any, display proceed indication.
- 99.** When a train is moving under circumstances in which it may be overtaken by another train, the flagman must take action as may be necessary to insure full protection.  
 Except as prescribed in Rule 99-A, when a train stops under circumstances in which it may be overtaken by another train, the flagman must go back immediately with flagman's signals a sufficient distance to insure full protection.  
 The front of the train must be protected in the same way when necessary.  
 Conductors and engineers are responsible for the protection of their trains or engines.
- 99-A.** When rear of train is standing within yard limits, flag protection to the rear is not required against second and inferior-class trains, extra trains and engines. When a train stops within block system limits, with protection of at least two block signals to the rear, flagman must go back immediately with flagman's signals a sufficient distance to insure full protection against following trains moving at restricted speeds, except when rear of train is standing between opposing absolute signals at a station, or is within interlocking limits, flag protection to the rear is not required.
- 99-B.** When a flagman is sent with specific instructions restricting the movement of a train or engine, such instructions can be oral or written. When such flagging is to permit movement against an opposing train, the flagman must stop all opposing trains. He must show flagging instructions to the engineer of train or trains so restricted.
- 99-C.** When a regular train, in territory designated by Superintendent, receives train order, Form I, Example (1), protection against extra trains in direction specified is not required until the time named. Extra trains in direction specified must not follow the regular train until time named.  
 When an extra, in territory designated by Superintendent, receives train order, Form I, Example (2), protection against extra trains in direction specified is not required until time named. Other extra trains in direction specified must not enter territory specified until the time named.
- 101.** Trains and engines must be fully protected against any known condition not covered by the rules, which interferes with their safe passage.
- 101-A.** Instructions respecting movement of trains or condition of track or structures must be in writing, except within yard limits where movements are subject to yardmaster's instructions, within CTC where movements are subject to train dispatcher's instructions and within interlocking where movements are subject to operator's instructions.
- 102.** If a train should part while in motion, trainmen must take every precaution to prevent damage to the detached portions.
- 102-A.** When portion of train is left on main track where view is obscured, it must be protected.
- 104.** Except where switch tenders are in charge of switches, trainmen and enginemen are responsible for proper setting of hand-operated switches and derrails to be used by their train or engine, and for their return to proper position after use.  
 A train or engine must not foul a main track until switches connected with the movement are properly lined.  
 Where trains or engines are required to be reported clear of main track, such report must not be made until switch has been returned to normal position.  
 A switch must not be left open for another train or engine unless there is a thorough understanding with the other train or engine of the movement being made.

- 212.** When directed by train dispatcher, a train order, having been transmitted, may be acknowledged by operator as a holding order until repeated, by responding: "\_\_\_\_\_ (order number) \_\_\_\_\_ to \_\_\_\_\_ (train number) \_\_\_\_\_X", with the operator's initials and office name. Operator must then write or type on the order his initials and time.
- 213.** "Complete" must not be given to a train order for delivery to an inferior train until order has been repeated or "X" response sent by operator who receives order for superior train.
- 214.** When a train order has been repeated, it must be completed at once, but when "X" response is sent, and until it has been completed, order must be treated as a holding order for train or trains addressed, and must not be otherwise acted on until "complete" has been given.  
 If communication fails before an office has repeated an order or has sent the "X" response, the order is of no effect and must be there treated as if it had not been sent.
- 216.** When an order is to be issued and delivered to a train by the train dispatcher, a carbon impression must be made in the train-order book at the time the order is written. If later the order is to be sent to another office, the requirements for delivery are the same as at other offices.
- 217.** A train order to be delivered to a train at a point not a train-order office, or at which the office is closed, must be addressed to "C&E \_\_\_\_\_ AT \_\_\_\_\_ CARE OF \_\_\_\_\_", and forwarded and delivered by the employee in whose care it is addressed. When sent in care of conductor or engineer of a train, the number of the order must be shown in the usual manner on clearance for train making delivery the same as if addressed to it. Copies of order must be provided for conductor and engineer of train making delivery and copies for conductor and engineer of train being addressed.  
 Orders must not be sent, in manner herein prescribed, to a train, the superiority of which is thereby restricted.  
 Train orders for use by the same crew on another trip are not to be addressed to the train by the identification it will have on a later trip, but by the identification it is authorized to display when the train orders are received.  
 Train orders must not be addressed to a crew in care of themselves.
- 218.** When a schedule is designated in a train order by its number alone, all trains operating as sections of that schedule are included, and each must have copies delivered to it.  
 This does not apply to addresses on clearance.
- 220.** Train orders once in effect continue so until fulfilled, superseded or annulled. Any part of an order specifying a particular movement may be either superseded or annulled.  
 Orders held by or issued for, or any part of an order relating to, a regular train, become void when such train loses both right and schedule as prescribed by Rule 4 and Rule 82, or its schedule is annulled.  
 When the authority for an extra or work extra is fulfilled or annulled, other orders held by, or any part of an order related to such extra or work extra becomes void unless otherwise provided.  
 When a crew is relieved before the completion of a trip, all train orders, clearances and instructions held must be delivered to the relieving crew.
- 220-A.** Train orders related to track conditions, unless annulled, must be respected by conductor and engineer on all trips made during the tour of duty on which such orders are received.  
 A train order received by a train may be made applicable to an additional trip by issuance of an order reading "RESPECT ORDER NO. \_\_\_\_\_", or adding these words to the order creating the train for the additional trip.

**206-B.** When transmitting a train order, the dispatcher must write it in the train-order book as he transmits the order and underscore each word and number as repeated by each office.

**206-C.** To relay a train order, it must be transmitted in the usual manner to the relaying office. Operator at relaying office must transmit the order to destination. Employee receiving the order at destination must repeat the order to operator at relaying office, who must underscore on his copy each word and number as repeated. He must then repeat the order to train dispatcher, by whom "complete" will be given to relaying operator, who will transmit it to destination.

If order is also addressed to a superior train at relaying office, the "X" response must be given before it is transmitted to the inferior train.

**207.** To transmit a train order, the direction must be given to each office addressed, and the number of copies stated.

**208.** A train order to be sent to two or more offices must be transmitted simultaneously to as many of them as practicable. When not sent simultaneously to all, the order must be sent first to the superior train. The several addresses must be in the order of superiority of trains, each office taking its proper address.

A train order restricting movement of a train must not be issued for it at the station where such movement is restricted if it can be avoided. When this cannot be avoided, and the order is sent to a point other than its initial station or a station within interlocking limits, the following must be added to the order:

ORDER TO \_\_\_\_\_ AT \_\_\_\_\_.

Opposing trains that have received this order must take siding if the restricted train is met at the station named, unless order otherwise provides.

Train dispatcher must not give OK to the clearance until assured by the operator that the train has stopped.

**208-A.** When a train has received a clearance, or the engine of which has passed train-order signal displaying proceed indication, a train order restricting the superiority of that train must not be repeated, nor "X" response sent until conductor or engineer is in the train-order office and has assured operator that he understands that train is to be restricted.

If clearance has been received at that station, all copies of such clearance must be returned to the operator and destroyed before new clearance and the restricting order are delivered.

**208-B.** When a train order restricting the superiority of a train is to be issued direct to a train, train dispatcher must have a personal understanding with conductor or engineer that train is to be restricted before transmitting order.

Before transmitting a train order direct to a train, the person who is to receive the order must give his name, train identification and location.

The "X" response must not be used when handling train orders direct to a train.

**209.** Operators receiving train orders must write or typewrite them in manifold during transmission. When necessary to make additional copies of a train order, operator, after repeating new copy to train dispatcher, must sign his own name on new copies. Train dispatchers must record time and date, and name of office repeating each recopied train order.

**210.** When a train order has been transmitted, unless otherwise directed, operators must repeat it in the succession in which the several offices have been addressed. Each operator receiving the train order must observe whether others repeat correctly, unless relieved of this duty by train dispatcher. After each order has been repeated correctly, the response "complete", time, and initials of chief train dispatcher will be given by the train dispatcher. Operator will then write or type, in space provided, the time and his last name.

When spring switches or dual control switches are operated by hand, they are considered hand-operated switches within the meaning of this rule.

**104-B.** Rigid switches must not be run through. A rigid switch that has been run through must be inspected, and if found unsafe must be spiked and the matter reported to the proper authority.

**104-C.** When switch is lined, employee setting it must see that both points have moved to proper position.

Crossover switches must not be opened when there is a train, engine or car closely approaching either switch. When crossover movement is to be made, both switches must first be opened before movement is commenced, and movements must be completed before either switch is restored to normal position.

**105.** Trains or engines using other than main track must proceed with caution.

Sidings must not be blocked unless authorized by train dispatcher, except in emergency. When so blocked, report must be made to the train dispatcher from the first open train order office.

Sidings of an assigned direction must not be used in a reverse direction unless authorized by the train dispatcher, or in an emergency under full protection.

When practicable, a train entering a siding will not stop until train is clear of the main track.

**106.** The conductor and the engineer, and pilot if any, are responsible for the safety of the train and observance of the rules, and, under conditions not provided for by the rules, must take every precaution for protection.

**107.** When a passenger train is receiving or discharging traffic at a station, a train or engine must not pass between it and the station platform unless proper safeguards are provided, and movement must be made with caution.

**108.** In case of doubt or uncertainty, the safe course must be taken.

## HAND SWITCHES.

**109.** Switches must be left in proper position after having been used. Conductors and yard foremen are responsible for the position of the switches set by them and their trainmen but, when practicable, the engineman must see that the switches nearest the engine are properly set. A switch must not be left open for a following train unless in charge of a trainman of such train.

**110.** Trains using a siding must proceed, expecting to find it occupied.

**CLEARANCE CARD FORM A.**

111. Conductors must report at initial station and must not leave without Clearance Card Form A.

**THE TUCSON & SOUTHWESTERN  
RAILROAD COMPANY**  
Clearance Card Form A

At \_\_\_\_\_ Station. Date \_\_\_\_\_ 19\_\_\_\_ signals

To C & E \_\_\_\_\_ Display \_\_\_\_\_  
(Insert "No" or "Green for each regular train at initial station.)

I have \_\_\_\_\_ orders for your train. Orders:  
(if no orders, insert "NO")

No. \_\_\_\_\_, No. \_\_\_\_\_, No. \_\_\_\_\_, No. \_\_\_\_\_,  
No. \_\_\_\_\_, No. \_\_\_\_\_, No. \_\_\_\_\_, No. \_\_\_\_\_,  
have been delivered and there are no more orders for your Train.

OK at \_\_\_\_\_ M, By \_\_\_\_\_ Chief Dispatcher,  
Do not leave before \_\_\_\_\_ M. Signed by C & E if required.

Conductor \_\_\_\_\_ Engineer \_\_\_\_\_  
TSW 2643

112. Delivered train orders and messages must be accompanied by a Clearance Card Form A, which must specify the numbers of the train orders delivered. Conductors, engineers and firemen must see that these numbers correspond with the train orders received.

Clearance Card Form A will be issued on authority of Train Dispatcher only, except when communication is lost. In such case, except where Rules 261 to 264 inclusive, are in effect, operator may issue provided he has no train orders restricting the movement of trains at that point.

**RULES FOR MOVEMENT BY TRAIN ORDERS.**

201. For movements not provided for by timetable, otherwise provided, train orders will be issued by authority and over the initials of the Train Dispatcher and only contain information or instructions essential to such movements. Train orders will only contain essential information.

They must be brief and clear; in the prescribed forms when applicable; and without erasure, alteration or inter-lineation.

Figures in train orders must not be surrounded by brackets, circles or other characters.

202. Each train order must be given in the same words to all employes addressed.

203. Train orders must be numbered consecutively each day, beginning at midnight. Duplicate numbers of the same date must not be used over the initials of the same chief dispatcher.

204. Train orders must be addressed to those who are to execute them, naming the place at which each is to receive his copy. Those for a train must be addressed to the conductor and engineer, and also to the pilot, if any.

Orders addressed to operators restricting the movement of trains must be respected by conductors and engineers the same as if addressed to them.

Conductors and engineers must read train orders, clearances, see that the order numbers shown on clearance correspond with the number of orders received, and call attention to errors or omissions. They must compare their understanding of the orders and remind each other of their contents.

205. Each train order must be written in full in the train order book provided for the purpose in the office of the Chief Train Dispatcher, and with it recorded the time and the signals which show, when, and from what office order was repeated and the responses transmitted. The date and train dispatcher's initials must be placed at the top of each page. These records must be made at once and never from memory or memoranda.

Additions to train orders must not be made after they have been repeated.

If an error is made in transmitting a train order it must be immediately destroyed, and the same order number must not be again used on the same day.

206. In train orders and clearances, regular trains must be designated by the train number adding engine numbers if desired, as "No. 10" or "Second 10, engine 184." Extra trains must be designated by engine numbers and the direction, as "Extra 7610 East."

For the movement of an engine of another company, the initials must precede the engine number.

EXTRA ATSF 269 EAST.

Even hours, such as "10.00 A.M." must not be used in stating time in train orders.

206-A. In transmitting and repeating train orders and clearances, names of stations, sections and directions of extras must be plainly pronounced, and then spelled, letter by letter, thus: AURORA, A-U-R-O-R-A; SECOND, S-E-C-O-N-D; EAST, E-A-S-T. Order numbers, train, engine, and other numbers, and time, must first be pronounced and followed by pronouncing each figure, thus: One hundred five, 1-0-5; Twenty seven fifty-six, 2-7-5-6; Nine fifty, 9-5-0. Where the number is but one figure it must first be pronounced, thus: One, figure 1, then spelled, thus: O-N-E.

The names of stations, sections, direction of extras, order numbers, train, engine, and other numbers, and time, must be written in train orders and in train order book, thus: AURORA; SECOND; EAST; 105; 2756; 950; 1.