

SOUTHERN PACIFIC COMPANY



TUCSON DIVISION SPECIAL INSTRUCTIONS NO. 5

EFFECTIVE JANUARY 1, 1969

AT 12:01 A.M.,

MOUNTAIN STANDARD TIME

SUPERSEDING SPECIAL INSTRUCTIONS NO. 4

THESE INSTRUCTIONS CONSTITUTE A PART
OF THE TIMETABLE CURRENTLY IN EFFECT

M. A. McINTYRE,
General Manager.

S. B. BURTON,
R. L. KING,
Assistant General Managers.

J. J. WILLIS,
General Superintendent of
Transportation.

O. D. GOODWILL,
Superintendent of Transportation.

R. O. COLTRIN,
Superintendent.

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

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

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

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

RULE 95. When conductor and/or engineer is changed at Gila, Phoenix, Lordsburg and Carrizozo, such trains must obtain a clearance OK'd by the Chief Train Dispatcher and train order, if any, which will authorize display of engine number, markers and signals, if any.

RULE 105. Capacity of Sidings column indicates the number of cars of average length of 49 feet that siding will hold between fouling points, in addition to engine and caboose.

RULE 286. When distant signals governing movements on controlled sidings display yellow aspect, train may proceed on siding at restricted speed expecting to find siding occupied by preceding train.

RULE 505. AUTOMATIC BLOCK SIGNAL SYSTEM PUSH BUTTONS

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

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

ELECTRIC OR MECHANICAL SWITCH LOCKS

Where electric or mechanical switch locks installed be governed by instructions posted in telephone booths on doors or on housings of electric or mechanical switch lock.

RULE 705. HOT BOX DETECTORS

Instructions follow for operation of hot box detector boxes when stopped by illuminated letter or flashing white light actuated by hot box detector device. These instructions are also posted inside detector boxes.

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 H indicator indicates a hot journal on train and there is no count shown on hot bearing detector and red light below readout marked "Locator out of Service" is illuminated, all journals on 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.

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.

GENERAL REGULATIONS

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 in place where locks are provided.

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. Stop need not be made if in the judgment of engineer it is safe to proceed.

RULE 872. Enginemen taking charge of engines at Tucumcari, Carrizozo, El Paso, Lordsburg, Douglas, Tucson, Nogales, Phoenix, Gila and Yuma will consider engines as having been amply supplied with water, fuel and sand.

RULE 883. Engines must not be left unattended on grades unless protected in descending direction by derail or spur track switch lined for diverging track. Air brakes must be applied and hand brake on each unit of consist must be applied and chain must be placed under wheels.

AIR BRAKE RULES

RULE 2. Enginemen taking charge of road engines at Tucumcari, Carrizozo, El Paso, Lordsburg, Douglas, Tucson, Nogales, Phoenix, Gila and Yuma will consider that condensation has been drained from reservoirs and from moisture and dirt collectors; that sanders are operating properly.

RULE 2-A. When using engine brake, it must according to conditions, be operated in such manner as to avoid overheating of brake shoes and wheels.

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. Dynamic brake on head end of freight and mixed trains must not exceed three 8-axle units, four 6-axle units, six 4-axle units, or any combination thereof which totals 24 axles, except dynamic brake on EF415 A and B and EP415 A and B classes is limited to five units.

Dynamic brake must not be used when operating in multiple with engines other than SP or SSW units unless equipped with dynamic brake interlock.

RULE 3. A full independent brake application on road locomotive classes EP 636, GF628, EF630, EF636, EF850B, GF630, GF633 and EF623 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 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 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—334399	Gondolas
SP 337500—337599	Gondolas
SP 345000—345669	Gondolas
SP 354000—354399	Gondolas
SP 463500—463999	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

MISCELLANEOUS

Helper service:

- (a) When helper engine is placed behind caboose, not more than 2 operating units or 4000 operative horsepower will be used.
- (b) When helper engine is placed immediately ahead of caboose a combination of not more than 18 axles will be used.
- (c) Helper engines consisting of more than 12 axles must not be placed directly behind 80 foot or longer trailer flatcars.
- (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.

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

Engines operated with engineer in other than lead unit in direction of movement must not exceed 20 MPH when approaching highway or street crossing at grade, subject to further restrictions imposed by local conditions.

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

Dead or disabled engines, 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.

All cars handled in passenger trains must be equipped with steel-tired or all-steel wheels. Cars not so equipped must move in freight trains, passengers, if any, to move on passenger trains.

Passenger carrying cars, baggage, express and other head-end cars, unless equipped with steel center sills and steel platforms must not be handled in passenger trains except on authority of Superintendent.

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.

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

Nominal classifications are descriptive of the engines as follows:

- 1st letter.....Builder: A Alco: B BLH: E EMD: F Fairbanks-Morse: G GE: K Krauss-Maffei
- 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 indicated road switcher type

MAXIMUM SPEED FOR ENGINES

Length of Diesel Units
(Between Pulling Face of Couplers)

Classification	Maximum Speed Except (#)	LENGTH (feet)
AF420-1.....	70	57
AF624C-1.....	75	67
AF624-1.....	70	67
AF628-1, 2.....	70	70
AF630-1.....	70	70
AF640-1.....	70	59
EF415C-1.....	70	56
EF415A-4 to 9, 11.....	70	51
EF415AC-1, 2, 3.....	70	51
EF415BC-1, 2, 3.....	70	50
EF415B-4 to 7, 9, 11, 13.....	70	50
EF418A-1.....	70	51
EF418B-1.....	70	50
EF418-1 to 9.....	70	56
EF418C-1, 2.....	70	56
EF618-1 to 5.....	70	61
EF420C-1.....	75	56
EF420C-1, 2.....	70	56
EF420-1, 2.....	70	56
EF423C-1.....	70	56
EF423-1.....	70	56
EF425C-1, 2, 3.....	70	56
EF425-1, 2, 3, 4.....	70	56
EF625-1.....	70	61
EF430C-1.....	70	59
EF630-1, 2.....	70	66
EF636-1, 2, 3, 4.....	70	66
EF636C-1, 2.....	70	66
EF850B-1.....	70	88
GF425-1, 2, 3.....	70	60
GF428-1.....	70	60

SPECIAL INSTRUCTIONS—ALL SUBDIVISIONS

MAXIMUM SPEED FOR ENGINES—Cont'd

Length of Diesel Units
(Between Pulling Face of Couplers)

Classification	Maximum Speed Except (#)	LENGTH (feet)
GF628-1	70	67
GF630-1	70	67
GF850-1	70	84
ES410C-1, 2	65	44
ES410-1	60	44
ES410-2	65	44
ES412C-1 to 5	65	44
ES412-1 to 5	65	44
EF623-1	70	66
ES415-1, 2	65	45
ES415C-1, 2	65	45
ES615-1, 4	55	61
KF636A-1	70	66
KF636-1	70	68
EP415A-1 to 4	79	51
EP415A-5	79	55
EP415AC-1	70	55
EP415B-1, 2, 3	79	50
EP418-1 to 4	79	56
EP418-5	70	56
EP620B-1, 2	79	70
EP620A-2	79	71
EP624A-1	79	70
EP636-1	70	71
FP624-1, 2	70	66
AS407-1	60	44
AS409-1 to 5	60	45
AS410-2 to 5	60	45
AS410-6	60	46
AS415-1	65	54
AS416C-1, 2, 3	75	57
AS416C-4, 5	65	57
AS616-1, 2	65	56
AS616-3, 4	65	56
AS616-5	65	56
AS616C-1	65	56
AS418-1 to 6	70	57
AS618-1	70	58
BS410-2	60	49
BS410-4	60	46
BS412-1 to 4	60	46
BS615B-1	35*	58
BS615-2 to 5	35*	58
BS616-2, 3	35*	58
BS616-5, 6	35*	58
ES406-2, 3	45	44
ES408-1 to 4	65	44
ES408B-1	65	44
ES409-1, 2	65	44
ES615-1 to 4	70	61
FS412-1, 2, 3	60	49
FS412-4, 5	60	46
GS407-1, 6	55	37
RDC	79	—
Rock Island Lines Locomotives:		
Units Nos. 200 to 238, incl.	70	60
Units Nos. 240 to 261, incl.	70	60
Units Nos. 300 to 333, incl.	70	56
Units Nos. 340 to 361, incl.	70	59
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.

*Speed must not exceed 25 MPH on less than 90-lb. rail.

MAXIMUM SPEED PERMITTED WITH CERTAIN EQUIPMENT	MPH MAIN TRACKS OTHER THAN BRANCHES	MPH MAIN TRACKS ON BRANCHES
Double or triple loads	..	25
Scale test cars, except	40	30
SP 2024	65	49
Steel pile-drivers, except:	40*	30*
SPMW-4088 (locomotive crane pile-driver):	45	35
Relief outfits with steam derrick:	45	25*
(Relief outfits 7032 and 7033 must not be operated on any branch)		
K&J pedestal or center-hinged air-dump cars, loaded or empty (except SPMW-5100 to 5289)	35*	25*
Locomotive cranes:		
with boom disconnected, heavy end forward, except:	45	25*
SPMW-4020, 743 and 2575	35*	25*
with boom disconnected, light end forward	20*	15
with boom in place, either end forward	25*	15

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

OTHER MAXIMUM SPEEDS	MPH PASSENGER TRAINS	MPH FREIGHT AND MIXED TRAINS
Trains of deadhead equipment with caboose	65	..
Passenger trains with caboose	65	..
Engine and caboose only, except:	..	65
must not exceed speed for same engine running forward light.		
Engine, flanger and caboose only, except:	..	40
On curves	..	30

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

Baggage, express, mail, refrigerator or other head-end cars must not be handled on rear of passenger trains.

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.

RULE 10-J. Speed signs for eastward movement on No. 1 track, Dome to Wellton are located to left of No. 1 track; speed signs for westward movement on No. 2 track, Wellton to Dome are located to left of No. 2 track, and are located as follows:

Eastward No. 1 Track		Westward No. 2 Track	
MP	Reading	MP	Reading
755.12	60	770.65	70—60
762.88	70—60		Thru x-over
767.31	Thru x-over	768.93	25
	25		to No. 1 track
769.97	to No. 2 track	763.63	60
	60	756.62	45

Other speed signs to left of track:

Eastward	Reading
MP 733.01	60
MP 735.99	60—55
MP 736.76	35
Westward	Reading
MP 792.54	70—60
MP 856.52	30
MP 979.37	70—60

RULE 21. Eastward trains authorized at Yuma and westward trains authorized at P.F.E. Yard or Tucson, enroute Phoenix Subdivision must display engine number and signals, if any, within CTC limits between East Yard and Wellton, and between Stockham and Coolidge.

Identification of superior trains must be made by eastward trains enroute Phoenix Subdivision between Yuma and Wellton to be applied at Wellton, and by westward trains enroute Phoenix Subdivision between Tucson and Coolidge to be applied at Coolidge. Reduce speed sufficiently to permit identification and comply with Rule 14(k).

RULE 26-A. Yuma and Tucson: Indicator lights located above tracks at each end of PFE icing platform govern movements on these 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. Eastward trains originating Yuma, and westward trains originating P.F.E. Yard or Tucson, enroute Phoenix Subdivision with same conductor and engineer must obtain two clearances, one endorsed Gila Subdivision and one endorsed Phoenix Subdivision. Phoenix Subdivision clearance and orders, if any, addressed to such trains at Yuma, P.F.E. Yard or Tucson authorizes movement on Phoenix Subdivision.

RULE 83. Check of train register at Yuma by eastward trains enroute Phoenix Subdivision will apply at Wellton. Check of train register at Tucson by westward trains enroute Phoenix Subdivision will apply at Coolidge.

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

Tucson	} Trains originating or terminating.
P.F.E. Yard	

RULE 85. Within CTC limits, between East Yard and Wellton and Stockham and Picacho, a section of a regular train must not pass and run ahead of another section of the same schedule without first exchanging train orders with the section to be passed, each section to display signals of necessary.

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

West MP		East MP
731.51	Yuma	737.83
854.20	Gila	857.70
977.96	Tucson	(No. 2 Track) 993.00
	"	(No. 1 Track) 992.09
	"	(Nogales Br.) 988.26
1042.37	Nogales	1049.89

Yuma: Trains must not enter or depart Yuma Yard unless a proceed signal is received, green flag by day, green light by night, or engineer is orally instructed.

Nogales: Trains arriving Nogales with not to exceed 40 cars, unless otherwise instructed, will trail through spring derail in main track at west end of yard, proceed on main track and stop short of fouling point of crossover from main track to No. 1 yard track, west of Court Street. If yard crew is not available on arrival, road engine will be left attached to train.

RULE D-97. Will apply as follows:

On both main tracks between end of CTC, MP 732.45, Yuma and Subway, MP 734.26.

On both main tracks between P.F.E. Yard and Stockham.

RULE 99-C. Will apply on Nogales Branch.

RULE 103-A. At the following locations, trains or engines 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	Mile Post
Stockham	End of double track—Prince Road	979.6
Maricopa	East siding switch, County Highway	897.8
Kino	West Switch—Ina Road	974

When necessary to cross US-89 on Drill Track to AS&R Mine, MP 999.76, west of Sahuarita during night hours, movements must be preceded by a member of train crew displaying lighted red fusee.

Except in an emergency, trains must not stop while on the highway right-of-way. Eastward trains entering the Drill Track will continue across and clear of the highway before stopping for brakeman to board train. Westward trains will stop at the highway right-of-way line and not proceed until main track switch has been lined for continued movement across highway. Switching movements must not be made at main track switch to Drill Track.

A flagman must precede all movements over:

- Tucson West Congress St.,
- " South 4th Ave.,
- " South 6th Ave.,
- " Simpson St.,
- " 36th St. on No. 160 lead,
- " 7th Avenue on Drill Track,
- " 7th Street on Track 251, Tucson Warehouse Spur,
- " Aviation Highway on Track 201
- Nogales Banks Bridge crossing at MP 1048.92,
- Nogales Court and Park Sts.

RULE 104.

Derauls on main track:

Nogales Spring point derail, facing westward movement, just west of west switch of first yard track north of main track may be trailed through in eastward movement.

Sahuarita: On AS&R spur, switch to derailing spur at entrance to AS&R yard is equipped with spring head rod and must be trailed through when moving into AS&R yard.

On Pima Spur, switch to derailing spur at entrance to Pima Yard is equipped with spring head rod and must be trailed through when moving into Pima Yard.

SPECIAL INSTRUCTIONS—GILA SUBDIVISION

RULE 204. Trains of Gila and Phoenix Subdivisions with same conductor and engineer may be issued train orders on one Subdivision that affect their movement on Gila or Phoenix Subdivision.

RULE 221. Wellton is train order-office only for eastward trains enroute Phoenix Subdivision.

P.F.E. Yard and Tucson are train-order offices only for trains originating.

RULE D-251. Will apply as follows:

On both main tracks between end of CTC, MP 732.45, Yuma and Subway MP 734.26.

Between Subway MP 734.26 and MP 737.50 westward main track is identified as No. 1 track and eastward main track is identified as No. 2 track, and trains and engines may use main tracks in either direction being governed by signal indication.

Tucson: On both main tracks between PFE Yard and Stockham.

PFE YARD: Westward trains departing PFE Yard must receive proceed signal (white flag by day, green light by night) or be orally authorized.

RULE 291. EAST YARD: Flashing yellow unit on eastward absolute signal, MP 737.4, governs movement from No. 1 Yard Track to tail track.

Flashing yellow unit on westward absolute signal, MP 737.45, governs movement from tail track to No. 1 Yard 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" or "P-SA".

Eastward Signals	Signals	Westward Signals
P-A } P-A }	Spring switch, east end Colorado River bridge.....	
	Spring switch, east end No. 1 Yard Track on No. 2 Track, MP 737.5. .P-SA	
P-A, East end } P-A, Fortuna } P-A Dome } No. 1 Track } P-7606 } No. 2 Track } P-7988 }	High water detector Bridge, 745.79.....	P-7461
	Collision detector, Ligurta underpass, MP 760.61.....	P-7607
	Collision detector, Ligurta underpass, MP 760.61.....	{ P-A } MP 768
	High Water Detector, Bridge 798.99.....	{ P-A West end } { P-A Stoval }
P-8556 } P-8558 } P-8674 }	Spring switches to crossovers, Gila.....	{ P-8557 } { P-8559 }
	High Water Detector, Bridge 868.88.....	{ P-A West end } { P-A Shawmut }
P-8778	High Water Detector, Bridge 878.34.....	P-8807
P-8948	High Water Detector, Bridge 894.92.....	{ P-A West end } { P-A Maricopa }
P-A, East end } P-A, Maricopa } P-9488 }	High water detector, Bridge 898.96.....	P-8991
	High water detector Bridge 949.28.....	{ PA } { PA }
P-A	Spring switch, west end westward siding, Stockham.....	
P-9826	Dragging Equipment; Detector, Stockham MP 979.58.....	
P-9834	Spring switch, west end crossover, Sixth Ave., Tucson.....	
P. Westbound } Main Track }	Spring switch, west end of crossover, westbound main to eastbound main, Cherry Avenue.....	
P. Eastbound } Main Track }	Spring switch, west end of crossover from eastbound main to Nogales Lead, Cherry Avenue.....	
P. Nogales Lead	Spring switch, west end of west Lead, Cherry Avenue	
	Spring switch, east end of double track, Cherry Ave.	{ P-SA East end } { Double Track, } { Cherry Ave. }
	Spring switch, east end of crossover from westbound main to eastbound main, Cherry Avenue.....	{ P-SA west lead } { P-SA east lead }
	East End of crossover from eastward main to east lead	P-SA east lead

Stockham: Dragging equipment detector on both main tracks at MP 979.58, just west of Prince Road.

Two unit light type indicators (for displaying red or lunar aspect, actuated by dragging equipment detector) are located adjacent to Signal 9826 east of Stockham for eastward trains, and adjacent to Signal 9771 east of Kino for westward trains, govern movements as follows:

Red (top unit): Stop, inspect train for dragging equipment and request train dispatcher for display of lunar aspect for authority to proceed. When Signal 9771 displays approach indication and indicator light displays red aspect, such trains must stop short of east switch Kino.

Lunar (bottom unit): Proceed being governed by block signal indication.

RULE 505. AUTOMATIC BLOCK SIGNAL SYSTEM

Yuma: Main tracks between MP 734.26 and MP 737.50 are designated as follows:

No. 1 track—To North

No. 2 track—To South

Between MP 734.26 and MP 737.50 trains and engines may use main tracks in either direction, being governed by signal indication.

Yuma: Signal 7333 governs westward movements through crossover to main track only and will remain dark until crossover switch is open.

Westward signal adjacent to No. 2 Track, MP 734.32 will display red aspect only as per Rule 290, Fig. 1.

Trains and engines will be governed by Yardmasters instructions before passing this signal. These signals will remain dark until crossover switches are open.

Gila: Eastward signal P-8558 and westward signal P-8557 on No. 1 track govern movements through crossovers to main track only and will remain dark when inside switches of crossovers are lined for movement on No. 1 track.

Push buttons are on instrument cases opposite signals P-8556 and P-8559. When movements are to be made through crossovers to main track to enter CTC limits, permission must first be obtained from train dispatcher, then push button on instrument case opposite signal governing movement actuated to clear the signal.

Tucson: Westward Signal 9833 on eastward main track governs westward movement through crossover and displays stop indication until east crossover switch is lined for crossover movement to westward main track.

Eastward 2-unit Signal P-9834 top unit governs movements on eastward main track, bottom unit governs movements to Passenger Track No. 1.

When westward signal 9835 displays stop indication westward freight trains must not pass this signal if there is a westward passenger train in passenger track No. 1, except on instructions from yardmaster.

Trains moving on main track in either direction, will move between MP 987.7 at 36th St. and MP 985.48 at Cherry Ave. by block signals whose indications will supersede the superiority of trains.

RULE 535. SPRING SWITCHES

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

Location	Normal Position
East Yard..	East end of crossover from running track to Track No. 2.....
Gila.....	Westward crossover to No. 1 track... Main Track
Gila.....	Eastward crossover to No. 1 track... Main Track
Stockham..	West end westward siding..... Main Track
P.F.E. } Yard... }	End double track, MP 985.48..... Westward Track

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

Location Normal Position

**Yuma . . .	West leg of wye from running track	West leg of wye
	East leg of wye from running track	Running track
	Tail end of wye	West leg of wye
	East end Roundhouse Track No. 1	East leg of wye
	West end Roundhouse Track No. 1	Roundhouse Track No. 1
*Tucson . . .	West end crossover, Stone Ave.	Westward track
*Tucson . . .	West end crossover from passenger tracks	Eastward track
Tucson . . .	Spring switch, west end of crossover, westbound main to eastbound main, Cherry Avenue	Westward main track
Tucson . . .	Spring switch, west end of crossover from eastbound main to Nogales Lead, Cherry Avenue	Eastward main track
Tucson . . .	Spring switch, west end of west lead, Cherry Ave.	East lead
Tucson . . .	Spring switch, east end of double track, Cherry Avenue	Main track
Tucson . . .	Spring switch, east end of crossover from westbound main to eastbound main, Cherry Avenue	Crossover
Tucson . . .	East end of crossover from eastward main to east lead	East lead

*Equipped with switch point indicator.

**All engines to diesel facilities will use west leg of wye into roundhouse service track.

Yuma: Spring switch on engine lead equipped with switch-point indicator. Indicator does not indicate track occupancy. Indicator will display green aspect with switch in either normal or reverse position. When indicator displays red aspect or indicator light is extinguished, careful examination of switch must be made before making a facing point movement.

RULE 605. INTERLOCKING. Tucson: Limits extend on westward main track from eastward interlocking signal MP 985.15 to westward interlocking signal end of double track MP 985.50 on eastward main track from eastward interlocking signal MP 985.15 to westward interlocking signal end of double track MP 985.50 and from eastward interlocking signal MP 985.2 on Nogales Lead to westward interlocking signal on eastward lead MP 985.7 and to westward interlocking signal on west lead MP 985.36.

Signals are under the control of Operator at Yard Office, 22nd Street.

RULE 663(b). Operators at Yard Office, 22nd Street, Tucson, 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 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	Approaching	Authorizes and Requires Movement as Follows:
S	Eastward "A" MP 848.38	Smurr	Enter siding Smurr
S	Westward "A" MP 850.80	Smurr	Enter siding Smurr
W	MP 986.8	Nogales Branch, Tucson	Westward trains must stop east of Indicator. When flashing white light is displayed train is authorized to proceed to PFE yard.
W	On Signal 982.6	(Speedway)	Stop until light in indicator is extinguished.

RULE 705. HOT BOX DETECTORS

Illum. Letter	On Signal	Approaching	Location of Readout
H	Westward Absolute Signal E.E. Wellton	Wellton	M.P. 769.2 Wellton
W	7722	Noah	
H	7742	Noah	Eastward Absolute Signal E.E. Noah
W	7743	Wellton	
H	8035	Stoval	Westward Absolute Signal W.E. Stoval
W	8054	Aztec	
W	8073	Stoval	
H	8092	Aztec	Eastward Absolute Signal E.E. Aztec
W	8322	Piedra	
H	8323	Sentinel	Westward Absolute Signal W.E. Sentinel
W	8349	Sentinel	
H	8378	Piedra	Eastward Absolute Signal E.E. Piedra
H	Westward Absolute Signal E.E. Estrella	Estrella	Westward Absolute Signal W.E. Estrella
W	8778	Mobile	
H	8806	Mobile	Eastward Absolute Signal E.E. Mobile
W	8807	Estrella	
H	P-8991	Maricopa	Westward Absolute Signal W.E. Maricopa
W	8992	Bon	
W	9051	Maricopa	
H	9052	Bon	Eastward Absolute Signal E.E. Maricopa
W	9398	Wymola	
H	9399	Picacho	Westward Absolute Signal W.E. Picacho
H	Eastward Absolute Signal W.E. Wymola	Wymola	Eastward Absolute Signal E.E. Wymola
W	9600	Rillito	
H	9601	Naviska	Westward Absolute Signal W.E. Naviska
W	9619	Naviska	
H	9640	Rillito	Eastward Absolute Signal E.E. Rillito

SCANNER SITE

M.P.	Direction	Location	Location of Readout
772.7	East and West	Wellton-Noah	
806.3	East and West	Stoval-Aztec	
834.9	East and West	Sentinel-Piedra	
878.7	East and West	Estrella-Mobile	
902.0	East and West	Maricopa-Bon	
941.4	East and West	Picacho-Wymola	
961.7	East and West	Naviska-Rillito	
851.3	East	Smurr-Gila	Gila Station
861.5	West	Gila-Bosque	Gila Station

Refer to Rule 705 All Subdivisions.

RULE 760. CENTRALIZED TRAFFIC CONTROL. Limits extend from eastward absolute signals at end of double track, East Yard, MP 737.38, to westward absolute signals at fouling point west end No. 1 track, Gila, MP 854.11; and from eastward absolute signals at fouling point east end No. 1 track, Gila, MP 857.34 to westward absolute signal at end of double track, Stockham.

East Yard: West switch crossover, between yard track No. 1 and eastward main track is hand operated, normal position for movements to drill track. Eastward absolute signal located on signal bridge just west of this switch governs movements through crossover to eastward main track when switch is lined for movement through crossover, and on drill track when lined for movement to drill track. Westward absolute signal located on drill track just east of this crossover governs westward movements on drill track.

Between Wellton and Dome, westward track is identified as No. 1 track and eastward track identified as No. 2 track. Signals are provided for movement of trains in either direction, on both main tracks, being governed by indicators of absolute and automatic block signals. Crossovers equipped with dual control switches installed at MP 768.

PFE Yard: CTC Limits extend from MP 987.7 to east end PFE Yard MP 987.92.

RULE 825. Instructions for setting hand brakes:

Yuma: Freight trains Four brakes on east end,
Two brakes on west end;

East Yard: Freight trains . . . Two brakes on east end,
Five brakes on west end;

Tucson: Passenger trains . . . Two brakes on west end,
Two brakes on east end;

Tucson and PFE Yard:

*Freight trains, 50 cars
or more Fifteen brakes on west end,
ten brakes on east end.

*Freight trains, 49 cars
or less Ten brakes on west end,
five brakes on east end.

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

*Hand brakes will not be set if outgoing crew takes charge of train on arrival, and if inbound crew is advised by yardmaster that engine is not to be detached and no switching is to be performed on the train, or if switch crew takes charge of train on arrival; except, hand brakes will not be set on trains yarded on main track at PFE Yard unless outgoing crew is not on hand to take charge of train on arrival.

Tucson: Passenger trains—If outbound crew is on duty, hand brakes will not be set on passenger trains at passenger station unless engine is detached. If engine is detached sufficient hand brakes must be set to prevent uncontrolled movement of cars.

If necessary to detach engine after these hand brakes have been released, employe before detaching engine must see that sufficient hand brakes have again been set.

Portable rail skids are hung on posts at the following locations:

- KINTER: West end of siding.
- MOHAWK: East end of siding.
West end of siding.

AIR BRAKE RULES

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

SAHUARITA: AS&R, Pima and Anaconda Mines.

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 but without pressure maintaining system of braking	425	625	500	750	1000
With dynamic brake in operation and with pressure maintaining system of braking	1000	1500	1200	1800	2400

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

*If any unit having basic dynamic brake is operated with units having extending 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.

RULE 24-B. Gila: 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-C. Sahuarita: Ten minutes must be allowed to charge air brake system on cars picked up at AS&R, Pima and Anaconda mines before making air brake test. All brakes must be operative on loaded cars before leaving AS&R, Pima and Anaconda mines.

RULE 24-E. Will apply at Tucson.

RULE 33. Sahuarita: AS&R, Pima and Anaconda mines.

Maximum tonnage per operative brake . . . 80 tons except with dynamic brake and pressure maintaining system of braking in operation with not more than 15 cars for each four axles of dynamic brake; with speed not exceeding 15 MPH and with all retaining valves on loaded cars in high pressure position 140-1/2 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.

MISCELLANEOUS

Dragging and/or derailed equipment detectors and indicators installed at the following locations:

MP	Location
859.80	Between Gila and Bosque
866.40	Between Bosque and Shawmut
873.00	Between Shawmut and Estrella
879.15	Between Estrella and Mobile
886.40	Between Mobile and Enid
893.60	Between Enid and Maricopa
912.10	Between Bon and Casa Grande
922.80	Between Casa Grande and Toltec
930.80	Between Toltec and Eloy
940.70	Between Picacho and Wymola

The indicators will apply to trains in both directions and are mounted on posts on south side of track near detectors. Normal indication dark. When indicator is activated blue indicator lights will be displayed in both directions and when illuminated enginemen or trainmen will stop train and make inspection of train and track advising dispatcher promptly.

The above dragging equipment detectors have been equipped with Time Out device which will extinguish blue light after 10 minutes time has elapsed.

Casa Grande: Impaired overhead clearance over Casa Grande Warehouse Spur.

Impaired side clearance at scale house on Casa Grande Warehouse Spur. Trainmen must not ride side of car when spotting this spur.

Impaired overhead and side clearance at scale on Casa Grande Cotton Oil Mill spur. Trainmen must not operate beyond operating limit sign located approximately 600 ft. beyond point of switch.

Rillito: Cars must not be kicked or dropped into Arizona Portland Cement Spur, and cars must not be left standing on this spur west of insulated joints at east end of circuit actuating Highway Crossing Signals. Chains across crusher spur at each end of pit are secured by snaps to posts, and may be unfastened to move cars to or from pit. Chains must be fastened across track when there is no car spotted over pit.

Derailed on crusher spur, located 80 feet east of crusher pit, must not be lined for movement into spur until it is known that track over pit is ready for the movement.

Sahuarita: At AS&R plant, spur to Rod & Ball Mill has overhead and side impaired clearance at entrance to building. Cars must not be moved beyond face of building.

NOGALES BRANCH: Do not block Hughes Road Crossing with switching operations between 7:35 A.M. and 8:05 A.M.

PFE Yard: Look out for ice and material alongside PFE tracks.

Engines listed must not operate on tracks shown below:

Class of Engine	Restricted Tracks
All engines..Smurr.....	Unloading pit on spur, Gila Feed Yards.
" Casa Grande..	Track scales on cotton oil mill spur, and Casa Grande Warehouse spur.
" Rillito.....	On open pit at Arizona Portland Cement Co. Trainmen must not cross pit, but must go around pit via stairway.
" Plata.....	Track scales, AS&R track.
" Sahuarita.....	Track scale, Pima mine concentrate track.

Load limit (car and contents):

- Yuma-PFE Yard, except: 263,000 pounds
 - Gross weight uniformly loaded four axle cars with minimum axle spacing of 6 feet 0 inches, and minimum distance 37 feet 0 inches center to center of trucks; also, wheels 38 inches or more in diameter 315,000 pounds
 - Ore cars SP 333500 to SP 334399 and SP 341000 to SP 341070 281,000 pounds
 - PFE Yard-Nogales, except: 240,000 pounds
 - Gross weight uniformly loaded four axle cars with minimum axle spacing of 6 feet 0 inches, and minimum distance 37 feet 0 inches center to center of trucks; also, wheels 38 inches or more in diameter 315,000 pounds
 - Ore cars SP 333500 to SP 334399 and SP 341000 to SP 341070 between MP 1004.8 and PFE Yard including AS&R spur, Anaconda and Pima Mines, Sahuarita 281,000 pounds
- Unless authorized by Superintendent, heavier loads must not be handled.

SPEED RESTRICTIONS FOR OTHER THAN MAIN TRACKS	With Caution Not Exceeding MPH
Centralized Traffic Controlled sidings and turnouts, and crossovers	25
Through west siding at Gila	25
Through east siding at Gila	25
Through other sidings, yard and other tracks, wyes, balloon tracks, crossovers and turnouts, except:	15
On branches	10
AS&R Spur at Plata	10
Cement track at Rillito	10
Spur to A.S. & R. mine, Sahuarita, Eastward	15
Westward	15
Spur to Pima mine, Sahuarita, Eastward	20
Westward	20
Spur to Anaconda Mine, Sahuarita, eastward	20
westward	20

PFE Yard: Authorized speed of trains and engines using No. 1 Yard Track, No. 2 Yard Track and No. 3 Yard Track is 25 MPH, from Cherry Ave. to the east Diesel facility, except Yard Track No. 3 is restricted to 20 MPH through west switch.

SPECIAL INSTRUCTIONS—GILA 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**, and **MAXIMUM SPEED PERMITTED WITH CERTAIN EQUIPMENT** and **OTHER MAXIMUM SPEEDS** appearing on pages 3 and 4 of Special Instructions for All Subdivisions. Speed must be further reduced as prescribed by speed signs, except as specifically authorized by Special Instructions herein, or by timetable bulletin.

All trains must run carefully during and after heavy storms, particularly when the track is apt to be affected. When fog, storms or other conditions obscure track or signals, speed of trains must be so reduced as to permit strict observance of signals and **INSURE SAFETY, REGARDLESS OF TIME.**

TERRITORY			PASSENGER TRAINS	FREIGHT AND MIXED	TERRITORY			PASSENGER TRAINS	FREIGHT AND MIXED
MP	MP	Column:	1	2	MP	MP	Column:	1	2
EASTWARD, YUMA TO P.F.E. YARD:					WESTWARD, P.F.E. YARD TO YUMA:				
732.29 to 733.01			15	15	987.75 to 982.73			35	35
733.01 to 736.74 (No 2 Track)			60	60	982.73 to 981.91			60	60
736.74 to 737.49 (No. 2 Track)			60	55	981.91 to 979.40			70	60
737.49 to 737.51 (Through Turnout)			35	35	979.40 to 979.37			60	60
737.51 to 748.58			70	60	979.37 to 919.24			70	60
748.58 to 755.12 (No. 2 Track)			45	45	919.24 to 918.40 (Casa Grande)			70	60
755.12 to 762.88			60	60	918.40 to 872.11			70	60
762.88 to 770.65 " except:			70	60	872.11 to 866.98			60	60
Trains to Phoenix			45	45	866.98 to 825.18 except: until engine has			70	60
770.65 to 770.84 (No. 2 Track)			60	60	crossed Martin Avenue			30	30
770.84 to 792.54			70	60	825.18 to 823.00			60	60
792.54 to 794.30			60	60	823.00 to 794.30			70	60
794.30 to 823.00			70	60	794.30 to 792.54			60	60
823.00 to 825.18			60	60	792.54 to 770.84			70	60
825.18 to 866.98 except: until engine has			70	60	770.84 to 770.72 (No. 1 Track)			60	60
crossed Martin Avenue			30	30	770.72 to 762.88			70	60
866.98 to 872.11			60	60	762.88 to 755.87			60	60
872.11 to 918.40			70	60	755.87 to 748.58			45	45
918.40 to 919.24 (Casa Grande)			70	60	748.58 to 737.51			70	60
919.24 to 979.37			70	60	737.51 to 734.50 (No. 1 Track) except:			60	60
979.37 to 979.40			60	60	Through turnout to No. 2 Track, MP				
979.40 to 981.91			70	60	737.51 to MP 737.49			35	35
981.91 to 982.73			55	55	734.50 to 733.01 (No. 1 Track)			20	20
982.73 to 987.75			35	35	733.01 to 732.29 (Until engine passes				
					spring switches)			15	15
EASTWARD, YUMA TO EAST YARD (No. 1 Track)					WESTWARD, WELLTON TO DOME (No. 2 Track)				
733.01 to 734.50			60	45	770.84 to 770.65			60	60
734.50 to 737.51			60	60	770.65 to 762.88			70	60
					762.88 to 755.87			60	60
					755.87 to 748.58			45	45
EASTWARD, DOME TO WELLTON (No. 1 Track)					WESTWARD, EAST YARD TO YUMA: (No. 2 Track)				
748.58 to 755.87			45	45	737.51 to 737.49 (Through Turnout)			35	35
755.87 to 762.88			60	60	737.49 to 736.74			60	55
762.88 to 770.72			70	60	736.74 to 734.50			60	60
770.72 to 770.84			60	60	734.50 to 733.01			20	20

Freight and mixed trains containing no restricted cars are authorized to operate at Column 1 speeds not exceeding 65 MPH (BSM—70 MPH), provided these trains do not exceed:

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

Passenger, freight and mixed trains, EXCEPT BSM, are further restricted as follows:

EASTWARD, YUMA TO P.F.E. YARD	MPH
MP MP	
918.40 to 919.24	60

WESTWARD, P.F.E. YARD TO YUMA	MPH
MP MP	
919.24 to 918.40	60

SPECIAL INSTRUCTIONS—PHOENIX SUBDIVISION

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

Eastward	Reading
MP 904.74 (Phoenix)	15
MP 999.89 (Hayden Br.)	20

RULE 21. Trains using freight lead between Phoenix Yard and Kendall must identify superior trains on main track, to be applied at Kendall.

RULE 26-A. Phoenix Yard: Indicator lights located above tracks at each end P.F.E. icing platform govern movements 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 81. Freight lead between east end Phoenix Yard and Kendall may be used by trains when authorized by train order. Single track rules apply.

RULE 82-A.

Trains authorized at Phoenix or Phoenix Yard enroute Gila Subdivision with same conductor and engineer are thereby authorized on both Phoenix and Gila subdivisions.

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

Phoenix Yard . . . Trains originating or terminating.

Trains operating between Hayden and Ray Jct. only, may defer registering arrival at Hayden until after completion of tour of duty.

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

West MP	East MP
864.34	Dixie 867.10
874.22	Buckeye 877.02
888.80	Litchfield Jct. 890.60
	(Litchfield Branch) End of track
894.23	Tolleson 896.89
900.96	Phoenix 908.79
914.23	Tempe 915.39
	(Tempe Branch) End of track
920.45	Mesa 924.5
923.6	McQueen (Chandler Branch) Dock 943.2
925.66	Gilbert 928.48
934.45	Germann 939.71
940.50	Queen Creek 943.02
946.84	Magma 951.02
986.84	Ray Jct. 988.72
998.80	Hayden 1004.90

Phoenix: Tracks at east and west end of Union Station are used jointly at AT&SFRy and SP trains. Yard and light engines must avoid delaying first-class trains on all tracks within Union Station zone. Trains will approach switch at entrance to Union Station tracks prepared to stop and may proceed only when track is known to be clear.

Phoenix Yard: Freight trains arriving or departing must receive proceed signal (white flag by day, green light by night), or oral instructions from Yardmaster, before passing 7th Street or 16th Street.

RULE 99-C. Will apply as follows:
On Hayden Branch.

RULE 103-A. A flagman must precede all movements over:

Pipeola Crossings within Southern Pacific Pipe Line reservation.

Tovrea, Washington St.,
Mesa, Spur crossing East Main St.,

A flagman must precede all switching movements over Fifth St., Tempe.

Trains and engines must not exceed 5 MPH over Baseline Road at MP 917.84 on Tempe Branch, until crossing is blocked.

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

Litchfield Jct. Litchfield Br., for Phoenix line,

Tempe Jct. Tempe Br., for Phoenix line,

McQueen Chandler Br., for Phoenix line,

Magma Magma-Arizona RR main track, for back track,

Ray Jct. KCCRR main track, for yard track.

Hayden KCCRR line for Hayden Br.,

Hayden SMARR main track, for Hayden Br.

RULE 104-E. Ray Jct.: Switch point indicator installed on variable switch at crossover at Ray Junction, MP 987.7, will display green indication when switch is in full normal or full reverse position and will display red indication if switch is not in full normal or reverse position. Switch target will indicate the position of the switch point. Trains and engines making trailing movement over this switch may leave switch in position to which forced by the trailing movement.

RULE 204. Trains of Gila and Phoenix Subdivisions with same conductor and engineer may be issued train orders on one Subdivision that affect their movement on Gila or Phoenix Subdivision.

RULE 211. Will apply when letter "M" is illuminated in letter-type indicator as follows:

On Stub Mast Approaching

MP 921 Advance eastward trains on main line Mesa.
MP 921.9 Switch to east leg of wye, Mesa.

RULE 221. Wellton is train-order office only for eastward trains enroute Phoenix Subdivision.

Phoenix is a train order office for train No. 2 only.

Phoenix Yard is train-order office only for trains originating.

Coolidge is train-order office only for westward trains.

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

Eastward Signals	Protection	Westward Signals
P-7916	High water detector, Bridge 792.67	P-7927
P-8406	High water detector, Bridge 841.30	P-8415
P-8414	High water detectors, Bridges 842.75 and 842.86	P-8431
P-8550	High water detector, Bridge 857.56	P-8589
P-8662	High water detector, Bridge 866.93	P-8673
P-9052	Spring switch, west end passenger lead, Phoenix	
	Spring switch east end freight lead, Kendall	P-9113
P-9218	Barricade Detector for Dead End Streets MP 922.8	P-9231
P-9290	High water detector, Bridge 933.71	P-9351
P-9396	High water detector, Bridge 941.12	P-9415
P-9756	High water detector, Bridge 976.88	P-A, MP 977.1

RULE 505. AUTOMATIC BLOCK SIGNAL SYSTEM

Phoenix: Crossing—AT&SFRy Wye: If signal indicates "Stop" trains and engines must stop, and if wye is clear of intersecting movement, may then proceed as prescribed by Rule 507, but must provide flag protection on intersecting track unless derail is known to be in derailing position.

Phoenix: Signal P-9052 will display indications per RULE 282 Figure D, RULE 283 Figure D, RULE 285 Figure E, RULE 288 Figure C and RULE 290 Figure F of Rules and Regulations of Transportation Department. Top unit of Signal P-9052 governs eastward movement on main track and lower unit of Signal P-9052 governs eastward movement through spring switch to Union Station tracks. Trains or engines to move from main track to passenger lead must stop before reaching Signal P-9052 until spring switch has been lined for passenger lead, and signals display proceed indication.

Phoenix: Signal protection is provided for Westward movements from Passenger Station to Main Track and for Westward Movements on New Freight Main. Push Buttons and pilot lights installed in box mounted on side of Signal Case 9057 with time-release feature, to clear signals on one track when the control circuit on the other track is occupied.

Kendall: Signal 9112 governs eastward mainline movement and Signal 9114 governs eastward movement from freight lead through spring switch to mainline. Push buttons and pilot lights installed in box mounted on side of Signal Case 9112 with time-release feature, to clear signals on one track when the control circuit on the other track is occupied.

Coolidge: Trains moving on main track in either direction between Signal 9623 and Signal 9616 will move by block signal indication which will supersede the superiority of trains.

When Signal 9623 displays stop indication and letter "S" is not displayed, westward trains after stopping must obtain permission from train dispatcher before proceeding under the provisions of Rule 507 or entering the siding.

When Signal 9616 displays stop indication eastward trains after stopping must obtain permission from train dispatcher before proceeding under provisions of Rule 507 or entering the siding.

Main track or siding must not be occupied or fouled except as authorized by signal indication or the train dispatcher.

Eastward trains on siding must obtain train dispatcher's permission before fouling main track to proceed to beginning of CTC regardless of the aspect displayed in eastward absolute signal and after permission obtained from train dispatcher, RULE 513 must be complied with before fouling main track.

RULE 516. Overlap posts:

Tolleson . . . 450 feet east of Signal 8958 . . . Eastward trains
 Tolleson . . . 750 feet east of MP 895.00 . . . Westward trains
 23rd Ave. Phoenix . . . Middle of siding . . . Eastward trains
 23rd Ave. Phoenix . . . Middle of siding . . . Westward trains

RULE 535. SPRING SWITCHES

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

Location	Normal Position
Kendall . . . East end Freight Lead	Main track

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

Location	Normal Position
Phoenix . . .	Main track at passenger lead.
Hayden . . .	700 feet west of KCC gate. Main track derail
Hayden . . .	MP 1001.81 Ore Track

RULE 705. LETTER TYPE INDICATORS

Indicator located as follows:

Illum. Letter	On Signal	Approaching	Authorizes and Requires Movement as follows:
S	9623	East switch	Enter siding and remain in siding until authorized by timetable or train order authority to proceed.
		Coolidge	
M	Stub Mast		Enter main track proceed to east siding switch, Mesa.
	MP 924 . . .	Jct. switch	
		McQueen (Chandler Br.) . . .	

RULE 705. HOT BOX DETECTORS

Illum. Letter	On Signal	Approaching	Location of Readout
W	9512	Coolidge	
H	9513	Magma	M.P. 949.6 Magma
H*	M.P. 954.6 . . .	Coolidge	M.P. 960.3 Coolidge
W	9591	Magma	

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

SCANNER SITE

M.P.	Direction	Location
953.0	East and West	Magma-Coolidge

Refer to Rule 705 All Subdivisions

RULE 740. ABSOLUTE PERMISSIVE BLOCK

Hayden-Ray Jct.: Limits extend between absolute signal MP 988.7 and absolute signal MP 998.9. Distant signal D-9882 installed MP 988.3 just east of Ray Jct.

Unit for display of flashing white light governing westward movements installed on mast 600 feet west of west switch Burns, and when displayed authorizes westward movement to beginning of APB.

RULE 760. CENTRALIZED TRAFFIC CONTROL

CTC Limits extend from eastward absolute signal east of east switch of siding, Coolidge, to westward absolute signals east of east switch of crossover to Phoenix line and at fouling point of north siding, Picacho.

GENERAL REGULATIONS

RULE 821. Wooley: Eastward trains must approach stop sign at MP 984.66 and westward trains must approach stop sign at MP 984.80 prepared to stop until it can be ascertained that Wooley Wash track is safe for passage of trains.

During and after heavy rains and run-off when there are indications that gravel or debris may be found on Wooley Wash track, trains must stop at these stop signs and not proceed until it has been ascertained that track is safe for the passage of trains.

Maximum speed across Wooley Wash must not exceed 10 MPH.

RULE 827. Trains handling car loads of scrap tin or empty scrap tin cars between Magma and Hayden will handle these cars on the head of train directly behind engine. While passing through Tunnel No. 1 near MP 972.40, train will not exceed 5 MPH until the scrap tin cars are through the tunnel. Trainmen will station themselves so that these cars can be watched while passing through the tunnel and take action to stop the train if it becomes necessary.

SPECIAL INSTRUCTIONS—PHOENIX SUBDIVISION

AIR BRAKE RULES

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

MISCELLANEOUS

Litchfield: Gate at entrance Goodyear Aircraft spur is locked with Government lock, and to gain entrance a long and short sound of whistle will be notification to watchman on duty to take care of the opening and closing of the gate.

Load limit (car and contents):
 Wellton-Picacho, except: 263,000 pounds
 Gross weight 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 315,000 pounds
 Ore cars SP 341000 to 341070 281,000 pounds
 Litchfield Jct.-Litchfield Park 240,000 pounds
 Tempe Jct.-West Chandler 240,000 pounds
 Magma-Hayden, except: 240,000 pounds
 Ore cars KCCR between Ray Jct. and Hayden, MP 1002.4 266,000 pounds
 Ore cars SP 341000 to 341070 between Magma and Hayden, MP 1002.4 281,000 pounds

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

Higley: Southern Pacific train and engine crews will make interchange of all cars and perform all switching service on Government tracks at Williams Airport.

Engines and cars must not operate over easterly 400 feet of No. 2 and No. 3 Tracks.

Hayden: Kennecott Copper Corporation Railroad between Hayden and Hayden Smelters is operated by the Tucson Division, is within Hayden Yard limits, S.P. Rules apply.

Back-up hose must be used when shoving cars Hayden to Hayden Smelters.

Maximum speed permitted between Hayden and Hayden Smelters is 15 MPH. Grade is 2.2% descending Hayden Smelters to Hayden.

Impaired overhead and side clearance at Hayden Smelters.

Engines and cars must not be operated beyond east derail located east of east switches of sidings of San Manuel Arizona Railroad.

Pipeola: Impaired side clearance in building on San Jose Steel Spur and cars must not be moved beyond south face of building.

Cotpro: Impaired side clearance into Western Electric Building.

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

Mile Post	Location	Description
778.00	Gila River bridge	Side
891.00	Agua Fria River bridge	Side
914.00	Salt River bridge	Side
959.30	Gila River bridge	Side

HAYDEN BRANCH

971.30 to 971.77	Rock cuts	Side
972.40	Tunnel No. 1	Side and Overhead
972.50	Gila River bridge	Side
973.00	Rock cut	Side
973.04	Rock cut	Side
973.07	Rock cut	Side
976.00 to 977.00	Rock cuts	Side
980.00 to 982.00	Rock cuts	Side
983.50	Rock cut	Side
985.30	Gila River bridge	Side
985.50	Rock cut	Side
988.30	Rock cut	Side
988.50	Tunnel No. 2	Side and Overhead
990.00	Tunnel No. 3	Side and Overhead
992.30	Rock cut	Side

SPEED RESTRICTIONS FOR OTHER THAN MAIN TRACKS	With Caution Not Exceeding MPH
Through sidings, yard and other tracks, wyes, balloon tracks, crossovers and turnouts, except:	15
On branches	10
On Government tracks at Williams Airbase Higley	10

SPMW 7028 must not be operated east of MP 972.40, Hayden Branch.

SPECIAL INSTRUCTIONS—PHOENIX 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**, and **MAXIMUM SPEED PERMITTED WITH CERTAIN EQUIPMENT** and **OTHER MAXIMUM SPEEDS** appearing on pages 3 and 4 of Special Instructions for All Subdivisions. Speed must be further reduced as prescribed by speed signs, except as specifically authorized by Special Instructions herein, or by timetable bulletin.

All trains must run carefully during and after heavy storms, particularly when the track is apt to be affected. When fog, storms or other conditions obscure track or signals, speed of trains must be so reduced as to permit strict observance of signals and **INSURE SAFETY, REGARDLESS OF TIME.**

TERRITORY			PASSENGER TRAINS	FREIGHT AND MIXED	TERRITORY			PASSENGER TRAINS	FREIGHT AND MIXED
MP	MP	Column:	1	2	MP	MP	Column:	1	2
EASTWARD, WELLTON TO PICACHO:					WESTWARD, PICACHO TO WELLTON:				
770.65 to 770.72 (Thru Crossover).....			25	25	Thru Crossover.....			25	25
770.72 to 771.01.....			60	60	979.75 to 979.32.....			40	40
771.01 to 776.36.....			70	60	979.32 to 962.36.....			70	60
776.36 to 778.22.....			60	60	962.36 to 961.35 (Coolidge).....			60	60
778.22 to 803.00.....			65	60	961.35 to 924.20.....			70	60
803.00 to 825.00.....			70	60	924.20 to 923.76.....			50	50
825.00 to 840.00.....			65	60	923.76 to 922.04.....			60	60
840.00 to 845.93.....			70	60	922.04 to 920.84.....			25	25
845.93 to 849.40.....			60	60	920.84 to 918.46.....			70	60
849.40 to 875.35.....			65	60	918.46 to 916.48 (Tempe).....			60	60
875.35 to 876.07 (Buckeye).....			60	60	916.48 to 915.97 (Tempe).....			40	40
876.07 to 887.40.....			65	60	915.97 to 915.32 (Tempe).....			30	30
887.40 to 887.65.....			60	60	915.32 to 913.77 (Tempe).....			20	20
887.65 to 889.73.....			65	60	913.77 to 912.81.....			40	40
889.73 to 890.93.....			55	55	912.81 to 908.27.....			50	50
890.93 to 891.19.....			60	60	908.27 to 907.91.....			30	30
891.19 to 893.50.....			65	60	907.91 to 905.62.....			20	20
893.50 to 894.50.....			60	50	905.62 to 905.60 (Spring Switch).....			15	15
894.50 to 898.72.....			65	60	905.60 to 904.69.....			20	20
898.72 to 903.17.....			50	50	904.69 to 903.17.....			40	40
903.17 to 904.77.....			40	40	903.17 to 898.72.....			50	50
904.77 to 905.60.....			20	20	898.72 to 894.50.....			65	60
905.60 to 905.62 (Spring Switch).....			15	15	894.50 to 893.50.....			60	50
905.62 to 907.91.....			20	20	893.50 to 891.19.....			65	60
907.91 to 908.27.....			30	30	891.19 to 890.93.....			60	60
908.27 to 912.81.....			50	50	890.93 to 889.73.....			55	55
912.81 to 913.77.....			40	40	889.73 to 887.65.....			65	60
913.77 to 915.32 (Tempe).....			20	20	887.65 to 887.40.....			60	60
915.32 to 915.97 (Tempe).....			30	30	887.40 to 876.07.....			65	60
915.97 to 916.48 (Tempe).....			40	40	876.07 to 875.35 (Buckeye).....			60	60
916.48 to 918.46 (Tempe).....			60	60	875.35 to 849.40.....			65	60
918.46 to 920.09.....			70	60	849.40 to 845.93.....			60	60
920.09 to 920.84.....			50	50	845.93 to 840.00.....			70	60
920.84 to 922.04.....			25	25	840.00 to 825.00.....			65	60
922.04 to 923.76.....			60	60	825.00 to 803.00.....			70	60
923.76 to 924.20.....			50	50	803.00 to 778.22.....			65	60
924.20 to 961.35.....			70	60	778.22 to 776.36.....			60	60
961.35 to 962.36 (Coolidge).....			60	60	776.36 to 771.01.....			70	60
962.36 to 979.32.....			70	60	771.01 to 770.02.....			60	60
979.32 to 979.75 (936.69) except.....			40	40					
Thru Crossover.....			25	25					
EASTWARD, PHOENIX YARD TO KENDALL ON FREIGHT LEAD:					WESTWARD, KENDALL TO PHOENIX YARD ON FREIGHT LEAD:				
907.82 to 907.91.....			..	20	911.38 to 907.91.....			..	25
907.91 to 911.38.....			..	25	907.91 to 907.82.....			..	20
EASTWARD, LITCHFIELD JCT. TO LITCHFIELD PARK:					WESTWARD, LITCHFIELD PARK TO LITCHFIELD JCT.:				
889.30 to 894.26.....			..	20	894.26 to 889.30.....			..	20

SPECIAL INSTRUCTIONS—PHOENIX 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**, and **MAXIMUM SPEED PERMITTED WITH CERTAIN EQUIPMENT and OTHER MAXIMUM SPEEDS** appearing on pages 3 and 4 of Special Instructions for All Subdivisions. Speed must be further reduced as prescribed by speed signs, except as specifically authorized by Special Instructions herein, or by timetable bulletin.

All trains must run carefully during and after heavy storms, particularly when the track is apt to be affected. When fog, storms or other conditions obscure track or signals, speed of trains must be so reduced as to permit strict observance of signals and **INSURE SAFETY, REGARDLESS OF TIME.**

TERRITORY				FREIGHT AND MIXED	TERRITORY				FREIGHT AND MIXED
MP	MP	Column:		2	MP	MP	Column:		2
EASTWARD, MAGMA TO HAYDEN:					WESTWARD, HAYDEN TO MAGMA:				
949.44 to 958.75				30	1003.44 to 1003.16				10
958.75 to 971.50				40	1003.16 to 998.90				20
971.50 to 984.60				25	998.90 to 989.70				40
984.60 to 984.80				10	989.70 to 984.80				25
984.80 to 989.70				25	984.80 to 984.60				10
989.70 to 998.90				40	984.60 to 971.50				25
998.90 to 1003.16				20	971.50 to 958.75				40
1003.16 to 1003.44				10	958.75 to 949.44				30
EASTWARD, MCQUEEN TO DOCK:					WESTWARD, DOCK TO MCQUEEN:				
923.74 to 928.57				49	944.00 to 942.91				30
928.57 to 929.57				40	942.91 to 929.57				49
929.57 to 942.91				49	929.57 to 928.57				40
942.91 to 944.00				30	928.57 to 923.74				49
EASTWARD, TEMPE JCT. TO WEST CHANDLER:					WESTWARD, WEST CHANDLER TO TEMPE JCT.:				
915.25 to 923.13				20	923.13 to 915.25				20

01	02	03	04	05	06	07	08	09	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100
101	102	103	104	105	106	107	108	109	110
111	112	113	114	115	116	117	118	119	120
121	122	123	124	125	126	127	128	129	130
131	132	133	134	135	136	137	138	139	140
141	142	143	144	145	146	147	148	149	150
151	152	153	154	155	156	157	158	159	160
161	162	163	164	165	166	167	168	169	170
171	172	173	174	175	176	177	178	179	180
181	182	183	184	185	186	187	188	189	190
191	192	193	194	195	196	197	198	199	200
201	202	203	204	205	206	207	208	209	210
211	212	213	214	215	216	217	218	219	220
221	222	223	224	225	226	227	228	229	230
231	232	233	234	235	236	237	238	239	240
241	242	243	244	245	246	247	248	249	250
251	252	253	254	255	256	257	258	259	260
261	262	263	264	265	266	267	268	269	270
271	272	273	274	275	276	277	278	279	280
281	282	283	284	285	286	287	288	289	290
291	292	293	294	295	296	297	298	299	300
301	302	303	304	305	306	307	308	309	310
311	312	313	314	315	316	317	318	319	320
321	322	323	324	325	326	327	328	329	330
331	332	333	334	335	336	337	338	339	340
341	342	343	344	345	346	347	348	349	350
351	352	353	354	355	356	357	358	359	360
361	362	363	364	365	366	367	368	369	370
371	372	373	374	375	376	377	378	379	380
381	382	383	384	385	386	387	388	389	390
391	392	393	394	395	396	397	398	399	400
401	402	403	404	405	406	407	408	409	410
411	412	413	414	415	416	417	418	419	420
421	422	423	424	425	426	427	428	429	430
431	432	433	434	435	436	437	438	439	440
441	442	443	444	445	446	447	448	449	450
451	452	453	454	455	456	457	458	459	460
461	462	463	464	465	466	467	468	469	470
471	472	473	474	475	476	477	478	479	480
481	482	483	484	485	486	487	488	489	490
491	492	493	494	495	496	497	498	499	500
501	502	503	504	505	506	507	508	509	510
511	512	513	514	515	516	517	518	519	520
521	522	523	524	525	526	527	528	529	530
531	532	533	534	535	536	537	538	539	540
541	542	543	544	545	546	547	548	549	550
551	552	553	554	555	556	557	558	559	560
561	562	563	564	565	566	567	568	569	570
571	572	573	574	575	576	577	578	579	580
581	582	583	584	585	586	587	588	589	590
591	592	593	594	595	596	597	598	599	600
601	602	603	604	605	606	607	608	609	610
611	612	613	614	615	616	617	618	619	620
621	622	623	624	625	626	627	628	629	630
631	632	633	634	635	636	637	638	639	640
641	642	643	644	645	646	647	648	649	650
651	652	653	654	655	656	657	658	659	660
661	662	663	664	665	666	667	668	669	670
671	672	673	674	675	676	677	678	679	680
681	682	683	684	685	686	687	688	689	690
691	692	693	694	695	696	697	698	699	700
701	702	703	704	705	706	707	708	709	710
711	712	713	714	715	716	717	718	719	720
721	722	723	724	725	726	727	728	729	730
731	732	733	734	735	736	737	738	739	740
741	742	743	744	745	746	747	748	749	750
751	752	753	754	755	756	757	758	759	760
761	762	763	764	765	766	767	768	769	770
771	772	773	774	775	776	777	778	779	780
781	782	783	784	785	786	787	788	789	790
791	792	793	794	795	796	797	798	799	800
801	802	803	804	805	806	807	808	809	810
811	812	813	814	815	816	817	818	819	820
821	822	823	824	825	826	827	828	829	830
831	832	833	834	835	836	837	838	839	840
841	842	843	844	845	846	847	848	849	850
851	852	853	854	855	856	857	858	859	860
861	862	863	864	865	866	867	868	869	870
871	872	873	874	875	876	877	878	879	880
881	882	883	884	885	886	887	888	889	890
891	892	893	894	895	896	897	898	899	900
901	902	903	904	905	906	907	908	909	910
911	912	913	914	915	916	917	918	919	920
921	922	923	924	925	926	927	928	929	930
931	932	933	934	935	936	937	938	939	940
941	942	943	944	945	946	947	948	949	950
951	952	953	954	955	956	957	958	959	960
961	962	963	964	965	966	967	968	969	970
971	972	973	974	975	976	977	978	979	980
981	982	983	984	985	986	987	988	989	990
991	992	993	994	995	996	997	998	999	1000

RULES 7-A, 10-G and 10-I. Yellow flags and unattended red flags and red lights must be placed to the left of track in the direction of movement on No. 1 Track and No. 2 Track between P.F.E. Yard, MP 987.76 and MP 1000.22 west of Vail.

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

Eastward	Reading	Westward	Reading
MP 987.75	55	MP 988.50	35
MP 990.25	70—60	MP 988.60	Diverging 15
			Route
MP 1036.04	50	MP 991.05	50
MP 1046.74	40		
MP 1073.52	60		
MP 1278.90	65—60	MP 1053.18	50

RULE 26-A. Tucson: Indicator lights located above tracks at each end of P.F.E. Icing Platform govern movements on these 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 or moved.

RULES 30 and 31. Curtiss: Whistle signal must be sounded and bell kept ringing approaching and over crossing near Apache Powder Co. office.

RULE 82-A. Crews ordered for trains at El Paso (Union Depot) will obtain clearance and train orders, if any, from pneumatic tube receptacle installed in Trainmen's Register Room, El Paso Union Depot.

When interlocking signal Tower 47 displays proceed indication for movement to eastward main track, such indication will authorize engines to move from Tower 47 to Alfalfa unit, El Paso Yard.

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

Tucson } Trains originating or terminating.
P.F.E. Yard }

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

El Paso (Tower 196), Trains originating or terminating Alfalfa or Cotton Avenue units.

Trains originating or terminating El Paso (Union Depot) will register by ticket, placing ticket in pneumatic tube receptacle located in Trainmen's Register Room.

Conductors of trains originating Alfalfa or Cotton Avenue units, El Paso Yard, must show on margin of train register ticket thrown off at Tower 196 the time watch was compared with standard clock, and operator at Tower 196 will enter this information on train register.

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

West MP		East MP
977.96	Tucson (No. 2 Track)	993.00
	" (No. 1 Track)	992.09
	" (Nogales Br.)	988.26
	Benson (Douglas Br.)	1034.00
1058.30	Lewis Springs	Ft. Huachuca—End of Track
1084.27	Bisbee Jct.	1085.78
	" (Don Luis Branch)	End of track
	" (Bisbee Branch)	End of track
1102.94	Douglas	1109.06
	Benson (Douglas Br.)	1034.00
	Bowie (Globe Br.)	1099.50
1218.70	Globe-Miami	1232.98
1147.19	Lordsburg	1151.38
	" (Lawrence Br.)	End of Branch
	" (Clifton Br.)	1148.52
1319.87	El Paso (No. 2 Track)	
1291.54	" (No. 1 Track)	
	" (Carrizozo Subdivision)	1300.54
	" (T&L tracks)	820.00

El Paso: First-class trains enter and leave El Paso Union Depot on yard track within interlocking limits of Tower 196. Employees are subject to Rules and Regulations of El Paso Union Depot Co. within limits of that company.

Semi-automatic signal on No. 2 Track west of Icehouse crossover will display yellow aspect when switch to crossover from No. 2 Track to T&L Lines is lined and Signal 8314 at east end of crossover displays Stop indication.

RULE D-97. Will apply as follows:
On No. 1 track and on No. 2 track between P.F.E. Yard and Mescal. Proceed indication in westward "SA" signals at west end Mescal will authorize movement on No. 1 track. Between Anapra and Tower 47.

RULE 99-C. Will apply as follows:
On Douglas, Globe and Clifton Branches.

RULE 103-A. A flagman must precede all movements over:

P.F.E. Yard: All crossings within Southern Pacific Pipe Line reservation.

Calumet Crossings at Phelps Dodge smelter on tracks Nos. 1 and 2; on track No. 5 near office; on lead to acid loading plant; and on lead to calcine track;

Ft. Huachuca All crossings in Fort Huachuca.
Douglas All crossings on Queen track.

Deming: Sage spur crossing Highway 80.

RULE 104.

Derails in main track:

Globe MP 1221.51, facing eastward movement.
Ft. Huachuca 378 feet west of west wye track switch;
Lewis Springs On Ft. Huachuca Br., 237 feet east of junction switch;

Corta 212 feet east of Corta switch.

Galena West end Interchange Track for Interchange Track.

Lawrence On Lawrence Br., 350 ft. east of Banner Spur switch.

The normal position of rigid switches at end of double track and junctions is as follows:

Lewis Springs. Ft. Huachuca Br., for Douglas line;

Bisbee Jct.: Main track switches at east and west ends of yard must be left lined for lead.

Bisbee Jct. Bisbee Br., for Douglas line;

Bisbee Jct. End of west leg of wye must be left lined for east leg of wye;

Naco PdMRR, for Douglas line;

Douglas Nacozari RR, for SP yard track;

Corta Bisbee Br., for Bisbee Branch;

SPECIAL INSTRUCTIONS—LORDSBURG SUBDIVISION

RULE D-151. Westward trains will use No. 1 track Mescal to P.F.E. Yard. Eastward trains will use No. 2 track P.F.E. Yard to Mescal. Double track rules apply.

Between Anapra and Icehouse Crossover MP 1320.90, the two main tracks are designated as follows—

- No. 1 Track, current of traffic westward.
- No. 2 Track, current of traffic eastward.

Between Icehouse Crossover, MP 1320.90, and El Paso (Union Depot), three main tracks are designated as follows:

- North track . . . No. 1 Track, current of traffic westward;
- Middle track . . . No. 2 Track, current of traffic eastward;
- South track . . . No. 3 Track, current of traffic eastward.

Between El Paso (Union Depot) and El Paso (Cotton Avenue), the two main tracks are designated as follows:

- No. 1 Track, current of traffic westward.
- No. 2 Track, current of traffic eastward.

Eastward trains may use No. 2 Track or No. 3 Track between Icehouse Crossover and El Paso (Union Depot), being governed by block indication.

Movements against the current of traffic between end of CTC, Anapra and Tower 196, El Paso may be authorized by Train Order or orally by the Train Dispatcher and protection for such movements authorized orally will be provided jointly by the Train Dispatcher and the Yardmaster, El Paso.

RULE 221. Tucson and P.F.E. Yard are train-order offices only for trains originating.

Benson is a train order office for trains operating on the Douglas Branch.

Deming is a Train Order Office for originating trains only.

RULE D-251. Will apply as follows:

On No. 2 track from MP 987.76, P.F.E. Yard, to beginning of CTC, MP 1023, west end Mescal.

On No. 1 track from end of CTC, MP 1023, west end Mescal, to P.F.E. Yard, MP 987.76.

On No. 1 and No. 2 Tracks between Anapra and Icehouse Crossover; on No. 1, No. 2 and No. 3 Tracks between Icehouse Crossover and El Paso (Union Depot); on No. 1 and No. 2 Tracks between El Paso (Union Depot) and El Paso (Cotton Avenue); on both main tracks between Tower 47 and Alfalfa unit, El Paso Yard.

Movements against the current of traffic between end of CTC, Anapra and Tower 196, El Paso, may be authorized by Train Order or orally by the Train Dispatcher and protection for such movement authorized orally will be provided jointly by the Train Dispatcher and the Yardmaster, El Paso.

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

Eastward Signals	Protection	Westward Signals
P. Westbound Main Track	Spring switch, west end of crossover, westbound main to eastbound main, Cherry Avenue	
P. Eastbound Main Track	Spring switch, west end of crossover from eastbound main to Nogales Lead, Cherry Avenue	
P. Nogales Lead	Spring switch, west end of west lead, Cherry Avenue Spring switch, east end of double track, Cherry Avenue Spring switch, east end of crossover from westbound main to eastbound main, Cherry Ave. East end of crossover from eastward main to east lead	P.SA East end double track, Cherry Ave. P.SA West Lead P.SA East Lead
P-SA	Spring switch, end double track, PFE Yard, MP 987.7	
P-10140	Collision detector, underpass, MP 1014.00.	

Eastward Signals	Protection	Westward Signals
P-A	Spring switch, west end north siding Mescal	
P-A	Collision detector, Luzena underpass, MP 1091.04	P-A
P-10572	High water detector, Bridge 1057.85	P-10601
P-10600	High water detector, Bridge 1060.54	P-10625
P-10862	High water detector, Bridge 1086.93	P-10883
P-A, West end	High water detector, Bridge Olga 1106.32, main track and siding	P-A, East end
P-A East end	High water detector, Bridge 1115.34	P-11157
P-ASanSimon		
P-11202	High water detectors, Bridges 1121.40 and 1121.49	P-A West end Vanar
P-A, East end	High water detector, Bridge 1123.30	P-11243
P-A, Vanar		
P-11650	High water detector, Bridge 1166.20	P-A West end Separ
P-11694	High water detector, Bridge 1170.64	P-11721
P-A East	High water detector, Bridge 1170.76	
P-A End Tunis	High water detector, Bridge 1199.02	P-12005
P-12112	High water detector, Bridge 1211.92	P-12131
P-12132	High water detector, Bridge 1212.92	
	High water detector, Bridge 1213.17	P-12151
	High water detector, Bridge 1213.58	
P-12152	High water detector, Bridge 1215.96	P-12173
	High water detector, Bridge 1216.11	
P-12172	High water detector, Bridge 1218.11	P-A West end Carne
P-A West end	High water detector, Bridge Carne 1219.02	P-A East end Carne
P-12314	High water detector, Bridge 1233.56	P-12337
P-12430	High water detector, Culvert 1244.68	P-12455
P-13188	Dragging equipment detector Anapra	
P-13198		

The two indication light type indicators attached to the masts of Signals P-13188 and P-13198 are designated as dragging equipment indicators. They will display red aspect, stop indication, when actuated and lunar aspect, proceed indication when not actuated by dragging equipment.

Trains stopped by dragging equipment indicators, may clear signals by pushing buttons on Signals P-13188 or P-13198 after first complying with the provisions of Rule 306.

RULE 505. AUTOMATIC BLOCK SIGNAL SYSTEM

P.F.E. Yard-Mescal: Eastward and westward trains moving against current of traffic on No. 1 and No. 2 Tracks will have no block signal protection.

Tucson: Trains moving on main track in either direction will move between MP 987.7 at 36th St. and MP 985.48 at Cherry Ave. by block signals whose indications will supersede the superiority of trains.

Lordsburg: Trains moving on main track, in either direction, will move between end of CTC, at west switch yard track No. 1, and end of CTC, at east switch yard track No. 1, by block signals whose indications will supersede the superiority of trains.

Clifton: Signals 12162, 12163 and 12164 on P. D. track govern movements on P. D. track only.

RULE 535. SPRING SWITCHES

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

Location	Normal Position
PFE Yard	End double track, MP 985.48 Westward track
PFE Yard	End double track, MP 987.7 No. 2 track
*Wilmot	East end, Eastward siding No. 2 track

*Equipped with switch-point indicator.

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

Location	Protection	Normal Pos.
Tucson	Spring switch, west end of crossover, westbound main to eastbound main, Cherry Avenue.	{ Westward Main Track
Tucson	Spring switch, west end of crossover from eastbound main to Nogales Lead, Cherry Avenue	{ Eastward Main Track
Tucson	Spring switch, west end of west lead, Cherry Avenue	East Lead
Tucson	Spring switch, east end of double track, Cherry Avenue	Main Track
Tucson	Spring switch, east end of crossover from westbound main to eastbound main, Cherry Ave.	Crossover
Tucson	East end of crossover from eastward main to east lead	East Lead
Mescal	West end, north siding	No. 1 track

RULE 605. INTERLOCKING. Tucson: Limits extend on westward main track from eastward interlocking signal MP 985.15 to westward interlocking signal end of double track MP 985.50 on eastward main track from eastward signal MP 985.15 to westward interlocking signal end of double track MP 985.50 and from eastward interlocking signal MP 985.2 on Nogales Lead to westward interlocking signal on eastward lead MP 985.7 and to westward interlocking signal on west lead MP 985.36.

Signals are under the control of Operator at Yard Office, 22nd Street.

RULE 663(b). Operators at Yard Office, 22nd Street, Tucson, 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 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	Approaching	Authorizes and Requires Movement as Follows
S	Mast opposite 9916	Wilmot.	Enter eastward siding Wilmot and remain in siding until letter "M" is displayed.
M	Signal bridge east end siding	Wilmot.	Enter No. 2 track and proceed as prescribed by Rule D-251.
S	Cantilever mast 9977	Wilmot.	Enter westward siding Wilmot and remain in siding until letter "M" is displayed.
M	Signal bridge west end siding	Wilmot.	Enter No. 1 track and proceed as prescribed by Rule D-251.
S	12060	Deming.	Train to enter station track at west switch, MP 1207.2.

RULE 705. HOT BOX DETECTORS

Illum. Letter	On Signal	Approaching	Location of Readout
H	10147	Marsh	M.P. 1012.4 Marsh
W	10179	Marsh	
H*	M.P. 1035.9 ML	West End Fenner	Westward Absolute Signal M.P. 1033.7
H*	M.P. 1035.9 Siding	West End Fenner	
H	Eastward Absolute Signal W.E. Sibyl	Sibyl	Eastward Absolute Signal E.E. Sibyl
H	10669	Cochise	Westward Absolute Signal W.E. Cochise
W	10692	Willcox	
H	10712	Willcox	Eastward Absolute Signal M.P. 1074.3 Willcox
W	10713	Cochise	
H	Westward Absolute Signal M.P. 1099.6	Bowie	Westward Absolute Signal W.E. Bowie
W	11014	Olga	
W	11039	Bowie	
H	Eastward Absolute Signal W.E. Olga	Olga	Eastward Absolute Signal E.E. Olga
W	11792	Gage	
H	11793	Wilna	Westward Absolute Signal W.E. Wilna
H	11834	Gage	Eastward Absolute Signal E.E. Gage
W	11835	Wilna	
H	12215	Carne	Westward Absolute Signal W.E. Carne
W	12234	Akela	
W	12251	Carne	
H	12268	Akela	Eastward Absolute Signal E.E. Akela
H	12501	Aden	Westward Absolute Signal W.E. Aden
W	12502	Afton	
W	12527	Aden	
H	12550	Afton	Eastward Absolute Signal E.E. Afton

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

SCANNER SITE

M.P.	Direction	Location
1016.4	West	Marsh-Mescal
1038.1	East and West	Fenner-Sibyl
1069.3	East and West	Cochise-Willcox
1102.6	East and West	Bowie-Olga
1181.2	East and West	Wilna-Gage
1224.2	East and West	Carne-Akela
1252.0	East and West	Aden-Afton

M.P.	Direction	Location	Location of Readout
1143.0 . . .	East	Gary-Lordsburg	Lordsburg Station
1152.0 . . .	West	Lordsburg-Ulmoris	Lordsburg Station

Refer to Rule 705 All Subdivisions.

RULE 760. CENTRALIZED TRAFFIC CONTROL

P.F.E. Yard: Limits extend from MP 987.7 to East end P.F.E. Yard, MP 987.92.

Mescal-Anapra: Limits extend from west switches of controlled siding Mescal, MP 1023.00, to west switch of No. 1 track Lordsburg, MP 1147.66; and from fouling point at east end No. 1 track, Lordsburg, MP 1149.77, to clear point on North main line at Anapra, MP 1290.

SPECIAL INSTRUCTIONS—LORDSBURG SUBDIVISION

Deming: Portion of old siding west of MP 1208.17 is a station track, capacity 102 cars. This track must be kept clear of cars and may be used for meeting or passing trains when directed by Train Dispatcher. Permission must be obtained from Train Dispatcher before using this track for switching movements.

GENERAL REGULATIONS

RULE 825. Instructions for setting hand brakes:

Tucson: Passenger trains—If outbound crew is on duty, hand brakes will not be set on passenger trains at passenger station unless engine is detached. If engine is detached sufficient hand brakes must be set to prevent uncontrolled movement of cars.

If necessary to detach engine after these hand brakes have been released, employe before detaching engine must see that sufficient hand brakes have again been set.

Tucson and PFE Yard: *Freight trains,

- 50 cars or more Fifteen brakes on west end,
Ten brakes on east end;
- 49 cars or less Ten brakes on west end,
Five brakes on east end.

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

*Hand brakes will not be set if outgoing crew takes charge of train on arrival, and if inbound crew is advised by yardmaster that engine is not to be detached and no switching is to be performed on the train, or if switch crew takes charge of train on arrival; except, hand brakes will not be set on trains yarded on main track at PFE Yard unless outgoing crew is not on hand to take charge of train on arrival.

Portable rail skids are hung on posts at the following locations:

- Mescal: East end of siding.
West end of siding.
- Dragoon: Ore Spur.
- Lawrence Branch: Twenty-five (25) feet east of derails on the Atwood Spur, Banner Spur and Diversified Mine Spur.

AIR BRAKE RULES

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

Pinal to Burch, Pinal to Cutter, between Lordsburg and Clifton, Lawrence to Lordsburg, Galena to Corta, Bisbee to Bisbee Jct., Ft. Huachuca to Lewis Springs.

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 but without pressure maintaining system of braking	600	900	725	1075	1450
With dynamic brake in operation and with pressure maintaining system of braking	1500	2250	1800	2700	3600

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

*If any unit having basic dynamic brake is operated with units having extending 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.

RULE 24-B. Lordsburg: 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 Tucson.

RULE 24-F. Will apply as follows:
Lawrence Branch, Bisbee Branch, Don Luis Branch, Fort Huachuca Branch, on all tracks at Curtiss Powder Plant, Paul's Spur at Forrest and on unloading trestle at P.D. Smelter at Douglas.

RULE 25. Will apply as follows:
Fort Huachuca . . . Westward trains.
Douglas All trains and yard movements between Douglas and P. D. Smelter.

RULE 33. Pinal to Burch, Pinal to Cutter, between Lordsburg and Clifton, Lawrence to Lordsburg, Galena to Corta, Bisbee to Bisbee Jct. and Ft. Huachuca to Lewis Springs:

Maximum tonnage per operative brake 80 tons
except with dynamic brake and pressure maintaining system of braking in operation with not more than 15 cars for each four axles of dynamic brake; with speed not exceeding 15 MPH and with all retaining valves on loaded cars in high pressure position 120 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:

WESTWARD

STATION MP	TO	STATION MP	SPEED
Benson Jct.	to	Benson	
1046.4	to	1032.7	25
Ft. Huachuca	to	Lewis Springs	
1070.8	to	1058.8	20
Miami	to	Bowie	
1217.52	to	1213.5	20

MISCELLANEOUS

Engines listed must not operate on tracks shown below:

Class of Engine	Restricted Tracks
All engines except, ES406-1, AS409-4, AS410-1, FS412-5, BS615-1 (5200 and 5201)	only Calumet Trestle to ore bins at Smelter.
All engines	Don Luis White Tail Deer spur, beyond impaired clearance sign.

MISCELLANEOUS (Continued)

Load limit (car and contents):

Tucson-El Paso, except	263,000 pounds
Gross weight uniformly loaded four axle cars with minimum axle spacing of 6 ft. 0 in. and minimum distance 37 feet, 0 inches center to center of trucks; also, wheels 38 in. or more in diameter	315,000 pounds
Ore cars SP 333500 to SP 334399	281,000 pounds
Ore cars SP 341000 to SP 341070	281,000 pounds
Sulphuric acid tank cars	281,000 pounds
Bowie-Miami	281,000 pounds
Lordsburg-Clifton, except	281,000 pounds
Sulphuric acid tank cars and ore cars must not exceed 10 MPH over bridges MP 1205.01 and MP 1215.89 and 15 MPH over bridge MP 1216.58.	
Lordsburg-Lawrence	240,000 pounds
Benson-Douglas, except	251,000 pounds
Ore cars SP 341000 to SP 341070	281,000 pounds
Ore cars SP 467500 to 467549 between Bisbee Jct. and Douglas	281,000 pounds
Lewis Springs-Ft. Huachuca	240,000 pounds
Corta-Galena, except	240,000 pounds
Ore cars SP 467500-467549	281,000 pounds
Bisbee Jct.-Bisbee, except	240,000 pounds
Ore cars SP 467500-467549	281,000 pounds

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

Bisbee Branch: Campbell shaft track and Denn spur track at Lowell must not be used beyond points indicated by signs: "Limit of Southern Pacific switching operations".

Lowell: Engines must not operate over trestle 1091.38 on approach to ore bin, Shattuck Denn mine.

Dragging and/or derailed equipment detector and indicator installed at the following location:

M.P.	Location
1013	No. 1 Track Marsh

Indicator mounted on post adjacent to detector will display revolving red light when detector is actuated. Crew members must keep vigilant lookout when passing these locations and if revolving red light observed train will be stopped promptly and inspection made of train and track notifying dispatcher of condition found.

P.F.E. Yard: Look out for ice and material alongside PFE. Co. tracks.

Crook Tunnel: Look out for fallen rocks at east and west ends of tunnel.

Miami: Do not use tunnel warehouse track without permission of Section Foreman.

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

Mile Post	Location	Description
1008.20	Rock cut	Side
1008.30	Rock cut	Side
1032.50	Benson	San Pedro River bridge
1148.30	Lordsburg	East end High No. 4 track
1208.00	Deming	Stock corral track
1208.00	Deming	Stem of wye

CLIFTON BRANCH

1205.10	Gila River bridge	Overhead and side
1216.30	Clifton	San Francisco River bridge
		Overhead and side
		Chase Creek bridge
		Side
1189.20	} to	Rock cuts
1216.40		
1212.10	} to	Tunnels Nos. 1, 2, 3, 4, 5 and 6
1214.50		

DOUGLAS BRANCH

1089.00	Crook Tunnel	Overhead and side
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FT. HUACHUCA BRANCH

1059.00	Lewis Springs	Bridge over San Pedro River
		Overhead and side

DON LUIS BRANCH

1089.80	Don Luis	Ore loading ramp on White Tail Deer spur
		Side
1090.80	Galena	Dallas Shaft spur
		Side

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

Centralized Traffic Controlled sidings and turnouts, except:	25	
West switch Ulmoris	20	
Through siding Mescal	15	
Through other sidings, and turnouts, except:	15	
Over slip switches	10	
Through yard and other tracks, wyes, balloon tracks, crossovers, except:	15	
On branches	10	
On PFE Co. yard tracks Nos. 51 to 57, inc. at PFE yard	10	
On Government tracks at Wilmot Airport	10	
On all tracks and turnouts serving lettuce packing sheds, Willcox	10	
Carne, Cement Spur	10	
Through West Turnout Icehouse Crossover	30	
Through East Turnout Icehouse Crossover	30	
On all tracks in Fort Huachuca	15	
On wye tracks at Lewis Springs, Bisbee Jct., Douglas	10	
On all turnouts listed below:		
Benson	Wye track	10
Curtiss	Magazine spur	10
Lowell	Denn Lumber spur	10
Douglas	Nacozari connection	20
	Machine shop and industry tracks	10

Lordsburg: Maximum speed of all trains on siding and No. 1 track is 15 MPH.

Lordsburg: When necessary, operation of the following locomotives on the Lawrence Branch will be permitted if restricted to indicated speeds:

EF 420	(4030-4087)	8 MPH
EF 423	(5000-5017)	8 MPH

Deming: Do not exceed 15 MPH on the following tracks:

Transfer Track	Old Rip Track
Stock Track	House Track

PFE Yard: Authorized speed for trains and engines using No. 1 Yard Track, No. 2 Yard Track and No. 3 Yard Track is 25 MPH. Cherry Ave. to east diesel facility, except Yard track No. 3 is restricted to 20 MPH through west switch.

SPECIAL INSTRUCTIONS—LORDSBURG 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**, and **MAXIMUM SPEED PERMITTED WITH CERTAIN EQUIPMENT** and **OTHER MAXIMUM SPEEDS** appearing on pages 3 and 4 of Special Instructions for All Subdivisions. Speed must be further reduced as prescribed by speed signs, except as specifically authorized by Special Instructions herein, or by timetable bulletin.

All trains must run carefully during and after heavy storms, particularly when the track is apt to be affected. When fog, storms or other conditions obscure track or signals, speed of trains must be so reduced as to permit strict observance of signals and **INSURE SAFETY, REGARDLESS OF TIME.**

TERRITORY			PASSENGER TRAINS	FREIGHT AND MIXED	TERRITORY			PASSENGER TRAINS	FREIGHT AND MIXED
MP	MP	Column:	1	2	MP	MP	Column:	1	2
TUCSON EASTWARD, AGAINST CURRENT OF TRAFFIC ON NO. 1 TRACK:					WESTWARD, EL PASO TO TUCSON:				
1021.29 to 1021.74 (Mescal)			35	35	1297.76 to 1297.50			15	15
EASTWARD, TUCSON TO EL PASO:					1297.50 to 1295.40				
982.73 to 987.75			35	35	1295.40 to 1293.10 (No. 1 Track)			50	50
987.75 to 990.25			55	55	1293.10 to 1290.04 (No. 1 Track)			45	45
990.25 to 1003.88			70	60	1290.04 to 1281.20			45	45
1003.88 to 1004.82			40	40	1281.20 to 1279.70			65	60
1004.82 to 1005.75			35	35	1279.70 to 1128.68			70	60
1005.75 to 1010.36			30	30	1128.68 to 1121.40			50	50
1010.36 to 1012.48			50	50	1121.40 to 1075.28			70	60
1012.48 to 1014.00			30	30	1075.28 to 1074.27 (Willcox)			60	60
1014.00 to 1014.40			50	50	EL PASO WESTWARD, AGAINST CURRENT OF TRAFFIC ON NO. 2 TRACK:				
1014.40 to 1016.77			55	55	1295.40 to 1293.54 (1320.90)			25	25
1016.77 to 1018.08			30	30	1320.90 to 1317.70			25	25
1018.08 to 1021.63			45	45	WESTWARD, ALFALFA UNIT TO EL PASO, COTTON AVE. NO. 1 TRACK:				
1021.63 to 1023.10			55	55	820.00 to 827.40			35	35
1023.10 to 1026.00			60	60	827.40 to 827.70 (1297.60)			15	15
1026.00 to 1030.86			65	60	ANAPRA EASTWARD, AGAINST CURRENT OF TRAFFIC ON NO. 1 TRACK:				
1030.86 to 1036.79			60	60	1289.90 to 1295.40			25	25
1036.79 to 1047.49			50	50	EASTWARD, EL PASO COTTON AVE. TO ALFALFA UNIT, NO. 2 TRACK:				
1047.49 to 1051.68			40	40	1297.60 (827.70 to 827.40)			15	15
1051.68 to 1058.00			60	60	827.40 to 820.00			35	35
1058.00 to 1074.27			70	60	Freight and mixed trains containing no restricted cars are authorized to operate at Column 1 speeds not exceeding 65 MPH (BSM 70 MPH) provided these trains do not exceed:				
1074.27 to 1075.28 (Willcox)			60	60	Such freight and mixed trains except BSM are further restricted as follows:				
1075.28 to 1121.40			70	60	EASTWARD—TUCSON TO LORDSBURG				
1121.40 to 1128.68			50	50	MP	MP	MPH		
1128.68 to 1279.70			70	60	1026.00 to 1030.86			60	
1279.70 to 1281.20			65	60	1082.80 to 1091.00			60	
1281.20 to 1290.04 (1317.82)			45	45	WESTWARD—LORDSBURG TO TUCSON				
1317.82 to 1320.15 (No. 2 Track)			40	40	MP	MP	MPH		
1320.15 to 1320.60 (No. 2 Track)			30	30	1021.29 to 1008.40			60	
1320.60 to 1320.90 (west switch Icehouse Crossover) (No. 2 Track)			45	45	1007.45 to 990.30			60	
1320.90 to 1322.28 (No. 3 Track)			45	45					
1322.28 to 1322.87 (No. 3 Track)			25	25					
1320.90 (1293.54) to 1295.40 (No. 2 Track)			30	30					
1295.40 to 1297.50			20	20					
1297.50 to 1297.76			15	15					

Number of Cars

Tons Per Operative Brake

70	70
75	69
80	68
85	67
90	66
95	65
100	64
105	63
110	62
115	61
120	60
125	58
130	56
135	54
140	52
145	50

Such freight and mixed trains except BSM are further restricted as follows:

EASTWARD—TUCSON TO LORDSBURG

MP	MP	MPH
1026.00 to 1030.86		60
1082.80 to 1091.00		60

WESTWARD—LORDSBURG TO TUCSON

MP	MP	MPH
1021.29 to 1008.40		60
1007.45 to 990.30		60

SPECIAL INSTRUCTIONS—LORDSBURG 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**, and **MAXIMUM SPEED PERMITTED WITH CERTAIN EQUIPMENT and OTHER MAXIMUM SPEEDS** appearing on pages 3 and 4 of Special Instructions for All Subdivisions. Speed must be further reduced as prescribed by speed signs, except as specifically authorized by Special Instructions herein, or by timetable bulletin.

All trains must run carefully during and after heavy storms, particularly when the track is apt to be affected. When fog, storms or other conditions obscure track or signals, speed of trains must be so reduced as to permit strict observance of signals and **INSURE SAFETY, REGARDLESS OF TIME.**

TERRITORY			FREIGHT AND MIXED	TERRITORY			FREIGHT AND MIXED
MP	MP	Column:	2	MP	MP	Column:	2
EASTWARD, BOWIE TO MIAMI:				WESTWARD, MIAMI TO BOWIE:			
1098.12 to 1099.45			15	1232.98 to 1231.33			10
1099.45 to 1111.00			35	1231.33 to 1229.82			15
1111.00 to 1132.00			30	1229.82 to 1227.22			30
1132.00 to 1137.16			35	1227.22 to 1222.57			20
1137.16 to 1138.34			25	1222.57 to 1220.59			10
1138.34 to 1142.00			30	1220.59 to 1217.52			20
1142.00 to 1146.42 (Pima)			25	1217.52 to 1195.53			30
1146.42 to 1195.53			35	1195.53 to 1146.42			35
EASTWARD, LORDSBURG TO CLIFTON:				WESTWARD, CLIFTON TO LORDSBURG:			
1146.54 (1148.30) to 1147.16			15	1146.42 to 1142.00 (Pima)			25
1147.16 to 1149.33			30	1142.00 to 1138.34			30
1149.33 to 1157.28			35	1138.34 to 1137.16			25
1157.28 to 1160.75			30	1137.16 to 1132.00			35
1160.75 to 1171.22			35	1132.00 to 1111.00			30
1171.22 to 1180.90			30	1111.00 to 1099.45			35
1180.90 to 1193.40			25	1099.45 to 1098.12			15
1193.40 to 1193.60			20				
1193.60 to 1195.50			25				
1195.50 to 1195.67			20				
1195.67 to 1197.78			25				
1197.78 to 1198.70			15				
1198.70 to 1202.58			20				
1202.58 to 1204.95			15				
1204.95 to 1205.10			10				
1205.10 to 1214.20			20				
1214.20 to 1216.69, except: Into street intersections, Clifton			15 5				
EASTWARD, LORDSBURG TO LAWRENCE:				WESTWARD, LAWRENCE TO LORDSBURG:			
			8				8

GLOBE BRANCH: When engines of the following classifications are operated on the Globe Branch, they must not exceed speeds shown between mile post locations as listed below where authorized maximum speeds as shown above are greater:

Class of Engines	MP
EP 415A, AS 418, GF 425	1227.39 to 1231.94
	10

EASTWARD, BENSON TO DOUGLAS:		WESTWARD, DOUGLAS TO BENSON:	
1032.60 to 1033.25	20	1107.00 to 1106.71	30
1033.25 to 1039.50	40	1106.71 to 1093.15	49
1039.50 to 1040.00	30	1093.15 to 1091.45	45
1040.00 to 1049.30	40	1091.45 to 1085.11	49
1049.30 to 1050.57 (1046.39)	25	1085.11 to 1084.41	15
1046.39 to 1053.45	49	1084.41 to 1053.75	49
1053.45 to 1053.75	35	1053.75 to 1053.45	35
1053.75 to 1084.41	49	1053.45 to 1046.39 (1050.57)	49
1084.41 to 1085.11	15	1050.57 to 1049.30	25
1085.11 to 1091.45	49	1049.30 to 1040.00	40
1091.45 to 1093.15	45	1040.00 to 1039.50	30
1093.15 to 1106.71	49	1039.50 to 1033.25	40
1106.71 to 1107.00	30	1033.25 to 1032.60	20
EASTWARD, LEWIS SPRINGS TO FT. HUACHUCA:		WESTWARD, FT. HUACHUCA TO LEWIS SPRINGS:	
	30		30
EASTWARD, BISBEE JCT. TO BISBEE:		WESTWARD, BISBEE TO BISBEE JCT.:	
	20		20
EASTWARD, CORTA TO GALENA:		WESTWARD, GALENA TO CORTA:	
	20		20

DON LUIS and BISBEE BRANCHES: AS 418 class engines must not exceed 15 MPH.

SPECIAL INSTRUCTIONS—EL PASO TERMINAL

RULE 26-A. Indicator lights located above tracks at each end, at East and West crossovers from C Yard lead to track 18 and at crossover leading from track 16 to track 17 of P.F.E. icing platform, 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 93. Yard limits within which the provisions of Rule 93 will apply are established at the following points:

	West MP	East MP
1319.87	El Paso (No. 2 Track)	
1291.54	" (No. 1 Track)	
	" (Carrizozo Subdivision)	1300.54
	" (T and L Lines Tracks)	820.00
1301.50	Fort Bliss-Planeport	1304.00

Freight trains must not enter receiving tracks unless proceed signal received from yardman, green flag by day, green light by night, or on oral instructions from yardmaster or his representative.

RULE 98. Railroad crossings at grade not interlocked: T&P yard track crossing River track near foundry. Movements over this crossing may be made only after flagman has preceded the movement.

Joint SP Santa Fe Levee Track crossing Santa Fe connection to International Bridge located 387 feet North of the center of the Santa Fe International Bridge. Stop signs are located on both sides of the Santa Fe connection to the International Bridge. Movements over this crossing may be made after stopping and flagman has preceded the movement.

RULE 103-A. Automatic crossing warning device on No. 3 track at Globe Mills is not connected with two industry tracks.

- Flagman must precede all movements over:
- Globe Mill—Road crossing over industry tracks.
- TP Yard—Cotton Avenue.
- Fort Bliss Drill—Airport Road.

Ashley: State Highway crossing on Fort Bliss spur. Approach circuits of automatic crossing warning device indicated on rail joints on each side of crossing. When these circuits are occupied and crossing is not entered within one minute signals cease to operate.

To operate or restart signals, insert switch key in either of the KEY RELEASE boxes located on each signal mast and turn SLOWLY one complete turn to right.

RULE 104. Split point derail in B, C and D units of El Paso yard are located on west end of tracks Nos. 16, 17, 18, 29, 33, 34 and west end of lead opposite PFE salt house.

RULE D-151. Between Ice House Crossover, MP 1320.90, and El Paso (Union Depot) the three main tracks are designated as follows:

- North track No. 1 Track, current of traffic westward;
- Middle track No. 2 Track, current of traffic eastward;
- South track No. 3 Track, current of traffic eastward.

Eastward trains may use No. 2 Track or No. 3 Track being governed by block signal indication.

Movements against the current of traffic between end of CTC, Anapra and Tower 196, El Paso, may be authorized by Train order or orally by the Train Dispatcher and protection for such movement authorized orally will be provided jointly by the Train Dispatcher and the Yardmaster, El Paso.

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

Eastward Signals	Signals	Westward Signals
P-8232	Barricade Detector for Dead End Streets	P-8231 P-8233

RULE 505. AUTOMATIC BLOCK SIGNAL SYSTEM

Signals 8231 and 8233 located on signal bridge west end Alfalfa unit govern movements as follows:

Signal 8231 governs movement on Westward Track.

Signal 8233 governs movement from drill track to Westward Track.

Westward trains or engines stopped by Signal 8231 must actuate push button, wait 45 seconds and if signal does not display a proceed indication may proceed under the provisions of Rule 507.

Westward trains or engines leaving Alfalfa unit from drill track and stopped by Signal 8233 may, provided no westward movement is approaching on Westward Track, actuate push button and, if after waiting 2 minutes and 50 seconds, signal does not display a proceed indication, may proceed under the provisions of Rule 507 after first complying with Rule 513.

Signal 8226 located west of facing point crossover from Eastward Track to Westward Track Alfalfa unit governs movements as follows:

- Top unit governs movement on Eastward Track;
- Bottom unit governs movement into yard.

Both crossovers and lead switch into yard must be lined before signal will display "Proceed on Diverging Route at Restricted Speed".

When Signal 8226 displays stop indication an eastward train or engine to enter Alfalfa unit at this location may, after stopping, proceed at restricted speed if proceed signal received from yardman, green flag by day, green light by night, which will indicate protection on Westward Track has been provided in the directions necessary to safeguard movement.

Signals 8223 and 8225 located on signal bridge Alfalfa unit (near Little Flower Road) govern movements as follows:

- Signal 8223 governs movement on Westward Track;
- Signal 8225 governs movement from yard to Westward Track and will not display any indication unless crossovers are lined for movement from yard to Westward Track.

RULE 535. SPRING SWITCHES

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

Location	Normal Position
Alfalfa unit. West end of crossover from drill to Westward Track	Westward Track
*Tower 47 No. 6 Lead to Tucumcari	Tucumcari
El Paso Connection	Connection
*Tower 47 West end Crossover 3 to 6	Track 3
El Paso Diesel Shop Track	
*Tower 47 East end Crossover 29 to 30	Track 30
El Paso Track	

*Equipped with switch-point indicator.

RULE 605. INTERLOCKING

Ice House Crossover, MP 1320.90: Eastward SA signal governs movement as follows:

- Top unit To No. 3 Track;
- Bottom unit To No. 2 Track.

When signal displays stop indication a member of crew must call operator at Tower 196. Telephone located on instrument case.

El Paso (Union Depot) Tower 196: Limits on No. 1 Track and No. 2 Track extend from Signal 8299 to westward interlocking signal near (T and L Lines) MP 828.20 and No. 3 Track from east end Union Depot yard to Campbell Street overpass.

Yardmaster Union Depot will inform signal operator when passenger trains are ready to leave; when yardmaster not available, conductors will furnish this information.

Whistle signals:

Main track movements in either direction with current of traffic —,

Movements between No. 1 Track, No. 2 Track and No. 3 Track (Union Depot) o — o,

Other main track movements in either direction against current of traffic o — —.

Tower 47: Limits on No. 1 Track and No. 2 Track extend from eastward interlocking signals near (T and L Lines) MP 828.20 east of trainway to westward interlocking signals at (T and L Lines) MP 826.90 and on Carrizozo Subdivision to absolute signal at MP 1297.82.

Westward three-Unit signal at MP 1297.82 Carrizozo Subdivision governs movement as follows:

- Top Unit Westward to No. 1 Track;
- Middle Unit Eastward to No. 1 Track;
- Bottom Unit To other Diverging Routes.

Eastward two-unit signal on East leg of wye at connection with No. 1 Track governs movement as follows:

- Top Unit To No. 1 Track;
- Bottom Unit Through crossover to No. 2 Track.

Westward three-unit signal on No. 1 Track at (T and L) MP 826.90 governs movements as follows:

- Top Unit Westward on No. 1 Track;
- Middle Unit To T and P Connection;
- Bottom Unit To other Diverging Routes.

Crank required to operate dual control switches and telephone for communication with operator located on instrument house just West of Piedras Street Crossing.

Dwarf signal governing movements from Tracks 203 or 206 does not check position of inside switch 206, observance of points must be made to assure proper line-up for movement.

INTERLOCKING

RULE 663(b). Operator at Tower 196 and Tower 47 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.

GENERAL REGULATIONS

RULE 825. Before engine is detached in A, B, C and D units or before engine is detached from freight trains yarded on eastbound or westbound main track at Dallas Street, at least five hand brakes must be set on east end and five hand brakes on west end of trains and cuts of cars, unless authorized by Yardmaster on arrival to not set brakes on west or east end of train. Any employe releasing any of these brakes must first set as many others to replace them.

Hand brakes on cars on rear of outbound trains must not be released until engine is coupled to train and air through train.

Sufficient hand brakes must be set on all trains arriving Union Depot and not less than two hand brakes at any time on the east end of the train. Any employe releasing any of these brakes must first set as many others to replace them.

RULE 827. Alfalfa and Cotton Ave. Units, El Paso Yard: First two paragraphs will not apply to crews of westward freight trains while departing these units.

MISCELLANEOUS

The El Paso Terminal is under the jurisdiction of the Superintendent of the Tucson Division.

Within the limits of El Paso Union Depot Company's yard, employes are subject to the Rules and Regulations of that company.

The main tracks between El Paso (Union Depot) and Tower 47 are designated:

- North track No. 1 Track;
- Middle track No. 2 Track;
- South track, between Union Depot and Campbell Street overpass No. 3 Track.

SPEED RESTRICTIONS ON MAIN TRACK Not Exceeding MPH

Between west limits Tower 196 (T and L Lines) MP 829.90 and Dallas Street (T and L Lines) MP 827.71	20
Between Dallas Street (T&L) MP 827.71 and east limits Tower 47 (T&L) MP 826.90, and between Dallas Street (T&L) MP 827.71, and east limits Tower 47 Carrizozo Subdivision MP 1297.82	15
Except: Over slip switches	10
Between east limits Tower 47 (T and L Lines) MP 827.40 and (T and L Lines) MP 820.00	35

SPEED RESTRICTIONS ON OTHER THAN MAIN TRACK With Caution Not Exceeding MPH

Through sidings, yard and other tracks, wyes, balloon tracks, crossovers and turnouts, except:	15
Over slip switches	10
On all turnouts listed below:	
West turnout Ice House Crossover	30
East turnout Ice House Crossover	30
Industry tracks	10
Repair, store and material tracks, shop yard	10

SPECIAL INSTRUCTIONS—CARRIZOZO SUBDIVISION

RULE 82-A. Crews ordered for regular trains and sections thereof at El Paso (Union Depot), Alfalfa Unit or other units of El Paso Yard, may assume those schedules or sections without obtaining a clearance, and crews ordered for extra trains at Alfalfa unit or other units of El Paso Yard, may leave without obtaining a clearance and will move on Yardmaster's instructions and signal indication to Planeport, where a clearance, OK'd by Chief Train Dispatcher, must be obtained.

Engine numbers, markers and signals, if any, will be displayed from El Paso (Union Depot), Alfalfa unit or other units of El Paso yard as instructed by Yardmaster or by telegram from Chief Train Dispatcher.

RULE 83. If visual identification is made by eastward trains between El Paso (Union Depot) and Tower 47, identification will apply at end of double track.

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

Planeport, All trains. Trains originating El Paso (Union Depot), must show time of departure from El Paso (Union Depot) on register ticket left at Planeport.

Conductors of trains terminating at El Paso (Cotton Ave.) or Alfalfa unit of El Paso yard must leave register ticket with waybills.

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

West MP		East MP
1319.87	El Paso (No. 2 Track)	
1291.54	" (No. 1 Track)	
	" (Carrizozo Subdivision)	1300.54
	" (T and L Lines Tracks)	820.00
1301.50	Fort Bliss-Planeport	1304.00
1343.30	Orogrande	1346.51
1381.05	Alamogordo	1385.06
1438.53	Carrizozo	1441.90
1523.65	Vaughn	1526.96
1567.79	Santa Rosa	1569.69
1624.95	Tucumcari	1629.19

RULE D-97. Applies between Anapra and Tower 47.

RULE 103-A. Alamogordo: Automatic crossing gates at Eighth St., will operate for continuous movement on main track or siding, but if stop is made within 150 feet of crossing, or movement is slow in switching, crossing must not be obstructed until it is known that crossing gates are down, or traffic has been protected by member of the crew. Movements on coal track or crossover to Lumber track must stop with lead wheels opposite "STOP" marker, 30 feet from crossing, and wait until crossing gates are down before occupying the crossing. Movements on Rip No. 4 and Treater spur must not be made over Eighth St. crossing until member of crew has protected traffic at the crossing.

RULE 104. Tucumcari: Derail placed in service on Balloon Track 300 feet east of east switch, Track No. 2. Normal position of east and west switches track No. 2 lined for track No. 2.

RULE 105. Carrizozo: Siding is first track south of Main Track formerly known as No. 1 Track, capacity 107 cars.

Tucumcari: Track No. 1 from West switch to crossover located East of depot is designated as siding.

RULE 208. That portion reading "Train Dispatcher must not give OK to the clearance until assured by operators that the train has stopped" will not apply at Carrizozo.

RULE 221. Unit for display of flashing light installed at the following location:

Station	Location	Direction
Santa Rosa	On mast of Signal 15693	Westward
Corona	On mast of Signal 14900	Eastward
Vaughn	On mast of Signal 15246	Eastward

Display of flashing white light indicates that train-order signal is displaying proceed indication or that train-order 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 by 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.

RULE D-251. Will apply as follows:

On No. 2 Track Anapra to El Paso (Cotton Ave.).

On No. 1 Track El Paso (Cotton Ave.) to Anapra.

On both main tracks between Tower 47 and Alfalfa Unit, El Paso Yard.

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

Eastward Signal	Protection	Westward Signal
P-A	Barricade Detector for Dead End Streets Mile Post 1298.16	P-12989
P-SA	Spring switch, west end siding, Planeport	
P-13468	High Water Detector Bridge 1349.60	P-13497
P-13738	High Water Detector, Bridge 1374.15	P-13763
P-13788	High Water Detector Bridge 1378.96	P-13805
P-13838	High Water Detector Bridge 1384.35	P-13853
P-13804	High Water Detector Bridge 1381.50	P-13819
P-13886	High Water Detector, Bridge 1389.06	P-13901
P-13922	High Water Detector, Bridge 1393.43	P-13943
P-13972	High Water Detector Bridge 1399.23	P-13993
P-14068	High Water Detector Bridge 1407.15	P-14091
P-13994	High Water Detector Bridge 1399.61	P-14017
P-14092	High Water Detector Bridge 1409.75	P-14117
P-14364	High Water Detector, Arch 1436.76	P-14379
P-14540	High Water Detector Bridge 1453.98	P-14559
P-14788	High Water Detector, Arch 1479.90	P-14805
P-14900	Spring switch, west end siding, Corona	
	Spring switch, east end siding, Corona	P-14911
P-15070	High Water Detector Bridge 1508.08	P-15091
P-15578	Spring switch, west end siding, Arabella	
	Spring switch, east end siding, Arabella	P-15589
P-15616	High Water Detector Bridge 1561.65	P-15621
P-15616	Fire Detector, Bridge 1561.65	P-15621
P-15682	Spring switch, west end siding, Santa Rosa	
	Spring switch, east end siding, Santa Rosa	P-15693
	Spring switch, east end siding, Los Tanos	P-15781
	Spring switch, east end siding, Montoya	P-16073
P-15838	High Water Detector Bridge 1584.00	P-15855
P-15956	High Water Detector Bridge 1595.82	P-15969
P-16048	High Water Detector Bridge 1605.89	P-16063
P-16072	High Water Detector Bridge 1607.39	P-16087
P-16172	High Water Detector Bridge 1618.37	P-16197
P-16232	High Water Detector Bridge 1623.27	P-16249
P-16260	Spring Switch, west end yard track, Tucumcari	

RULE 505. Unless otherwise instructed, eastward trains arriving Tucumcari will use Main Track and westward trains arriving Tucumcari via Mater will use track No. 2.

Trains moving on main track in either direction will move between Southern Pacific MP 1626 and Rock Island MP 637 by block signal indications, which indications will supersede the superiority of trains.

Westward Searchlight type signal 6383 installed at clear point, Balloon Track, and displays indications as per Rule 285 Figure G and Rule 290 Figure I of the Rules and Regulations of Transportation Department.

Westward Searchlight type signal 6379 converted to two-unit Searchlight type signal and displays indications as per Rule 282 Figure D, Rule 285 Figure E, Rule 288 Figure C, and Rule 290 Figure F of the Rules and Regulations of Transportation Department.

Eastward Searchlight type signal 6380 equipped with flashing white light and must display flashing white light indication before Eastward movement may be made from east end of east lead or track No. 2 to Balloon Track.

Push buttons and pilot lights installed in box mounted on side of signal case, south side of track, opposite signal 6380 with time-release feature, to clear signals on one track when the control circuit on the other track is occupied.

Push buttons and pilot lights installed in box mounted on side of relay case, north side of track, opposite signal 6379 with time-release feature, to clear signals on one track when the control circuit on the other track is occupied.

RULE 535. SPRING SWITCHES

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

Location	Normal Position
Planeport.....	West end siding..... Main track
Corona.....	West end siding..... Main track
Corona.....	East end siding..... Main track
Arabella.....	West end siding..... Main track
Arabella.....	East end siding..... Main track
Santa Rosa.....	West end siding..... Main track
Santa Rosa.....	East end siding..... Main track
Los Tanos.....	East end siding..... Main track
Montoya.....	East end siding..... Main track
Tucumcari.....	West end yard track..... Main track

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

Location	Normal Position
Tucumcari... Kansas City main track and east lead.....	Yard Lead
Tucumcari... East Yard lead and Balloon Track.....	Balloon Track (435 feet west of main track switch)

RULE 705. LETTER TYPE INDICATORS

Indicators located as follows:

Illuminate	On Signal	Approaching	Authorizes and Requires Movement as Follows
M.....	SA.....	Planeport.....	Proceed to east end siding.
S.....	SA.....	Planeport.....	Enter siding.
M.....	13029.....	Planeport.....	Proceed to west end siding.
S.....	13029.....	Planeport.....	Enter siding.
M.....	14378.....	Eastward Carrizozo.....	Proceed on main track to east end of siding.
M.....	14415.....	Westward Carrizozo.....	Proceed on main track to west end of siding.

RULE 705. HOT BOX DETECTORS

Illum. Letter	On Signal	Approaching	Location of Readout
W.....	13788.....	Alamogordo	
H.....	13789.....	Omlee.....	M.P. 1377.7 Omlee
W.....	13819.....	Omlee	
H.....	13820.....	Alamogordo	M.P. 1383.9 Alamogordo
H.....	15271.....	Vaughn.....	M.P. 1524.7 Vaughn
W.....	15292.....	Leoncito	
W.....	15319.....	Vaughn	
H*	M.P. 1531.9.....	Leoncito.....	M.P. 1533.9 Leoncito
H.....	15879.....	Cuervo.....	M.P. 1585.4 Cuervo
W.....	15880.....	Newkirk	
W.....	15907.....	Cuervo	
H.....	15932.....	Newkirk.....	M.P. 1595.6 Newkirk

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

SCANNER SITE

M.P.	Direction	Location
1380.4.....	East and West.....	Omlee-Alamogordo
1530.3.....	East and West.....	Vaughn-Leoncito
1589.6.....	East and West.....	Cuervo-Newkirk

M.P.	Direction	Location	Location of Readout
1436.6.....	East.....	Polly-Carrizozo.....	Carrizozo Station
1445.6.....	West.....	Carrizozo-Robsart.....	Carrizozo Station
1622.6.....	East.....	Hargis-Tucumcari.....	Tucumcari-Old Yard Office

Refer to Rule 705 All Subdivisions.

RULE 740. ABSOLUTE-PERMISSIVE BLOCK

Limits extend between MP 1297.60 (east limit Tower 47), El Paso, and MP 1302.2 (west end siding), Planeport.

Main track industry switch at MP 1301.68, Fort Bliss is equipped with electric lock. Before lock box door is opened, permission must be obtained from operator Tower 47, then switch may be lined. Searchlight Type Signal 13016 installed at clear point and displays indication as per Rule 285 Figure G, and 290 Figure I of Rules & Regulations of Transportation Dept. If Signal 13016 displays stop indication after switch is lined, train may proceed as prescribed by Rule 507. Signal 13016, on industry spur, governs eastward movement to main track only, and will remain dark until switch is opened.

RULE 742. If, for any reason, proceed indication of an absolute signal cannot be acted upon at once, operator Tower 47 must be notified immediately.

RULE 744. When absolute signals display stop indication, operator Tower 47 must be contacted and when permission obtained from operator train may proceed as prescribed by Rule 507.

GENERAL REGULATIONS

RULE 825. Alamogordo: Sufficient hand brakes must be set to prevent uncontrolled movement of cars set out on track serving Holloman Air Force Base and brakes must not be released until coupled to by engine with or without cars.

Portable rail skids are hung on posts at east end of siding at:

Arabella and Ancho.
Portable rail skid is in telephone booth at east end of siding at Duran.

Portable rail skids are hung on post 100 feet east of stock pens on north side at Gallinas.

When necessary to leave cars on siding 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 this siding must remove rail skid and return it to proper post and lock it in place with switch lock.

RULE 827. Tucumcari: Trains arriving will reduce speed to 10 MPH prior to passing initial switch to permit rolling inspection by Car Inspectors.

First two paragraphs will not apply to crews of westward freight trains while departing Tucumcari.

AIR BRAKE RULES

RULE 24-B. Carrizozo: When engine crew, train crew or both are changed on freight trains at Carrizozo, but train consist including engine and caboose remain intact, incoming engineer, after coming to stop will make a full service brake application leaving brakes applied.

Outgoing trainmen, after noting brakes are applied on rear car, will signal outgoing engineer to release brakes and note that brakes on rear car do release and that brake pipe pressure in caboose is being properly restored.

SPECIAL INSTRUCTIONS—CARRIZO SUBDIVISION

MISCELLANEOUS

Alamogordo:

On track serving Holloman Air Force Base cars must not be moved beyond derailed located 2635 feet from main track switch without proper authority.

Engines listed must not operate on tracks shown below:

Table with 2 columns: Class of Engine, Restricted Tracks. Row 1: All engines... Tucumcari... Rip track over drop pit.

Load limit (car and contents):

El Paso-Tucumcari, except... 263,000 pounds

Gross weight 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... 315,000 pounds

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

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

Table with 3 columns: Mile Post, Location, Description. Rows: 1463.50 Ancho... Stock loading platform... Side; 1482.50 Gallinas... Stock loading platform... Side

SPEED RESTRICTIONS FOR OTHER THAN MAIN TRACKS

With Caution Not Exceeding MPH

Table with 2 columns: Track Name, Speed (MPH). Rows include Through sidings, yard and other tracks, wyes, balloon tracks, crossovers and turnouts, except: Over slip switches (10), Planeport Siding (25), Bunsen spur track and team track (10), Newman Siding (25), Desert Siding (25), Three Rivers Siding (20), Robsart Siding (25), Corona Siding (20), Santa Rosa Siding (20), Los Tanos Siding (20). Includes 'On all turnouts listed below:' with sub-rows for Planeport, Alamogordo, Pastura, Tucumcari, and Tucumcari.

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Vertical text on the right side of the page, likely bleed-through from the reverse side, containing various regulations and instructions.

SPECIAL INSTRUCTIONS—CARRIZOZO 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**, and **MAXIMUM SPEED PERMITTED WITH CERTAIN EQUIPMENT** and **OTHER MAXIMUM SPEEDS** appearing on pages 3 and 4 of Special Instructions for All Subdivisions. Speed must be further reduced as prescribed by speed signs, except as specifically authorized by Special Instructions herein, or by timetable bulletin.

All trains must run carefully during and after heavy storms, particularly when the track is apt to be affected. When fog, storms or other conditions obscure track or signals, speed of trains must be so reduced as to permit strict observance of signals and **INSURE SAFETY, REGARDLESS OF TIME.**

TERRITORY			PASSENGER TRAINS	FREIGHT AND MIXED	TERRITORY			PASSENGER TRAINS	FREIGHT AND MIXED
MP	MP	Column:	1	2	MP	MP	Column:	1	2
EASTWARD, EL PASO TO TUCUMCARI:					WESTWARD, TUCUMCARI TO EL PASO:				
1295.92 to 1297.50			20	20	1627.40 to 1626.00			30	30
1297.50 to 1297.76			15	15	1626.00 to 1572.00			70	60
1297.76 to 1298.83 (Wyoming and Piedras St.)			25	25	1572.00 to 1567.00			65	60
1298.83 to 1300.94			45	45	1567.00 to 1561.81			70	60
1300.94 to 1300.95 (Tompkins Ave.)			35	35	1561.81 to 1559.60			50	50
1300.95 to 1302.17			45	45	1559.60 to 1555.00			55	55
1302.17 to 1302.18 (Wilson Road)			35	35	1555.00 to 1531.80			70	60
1302.18 to 1382.00			70	60	1531.80 to 1529.30			55	55
1382.00 to 1383.80			65	60	1529.30 to 1519.85			70	60
1383.80 to 1432.10			70	60	1519.85 to 1519.35			55	55
1432.10 to 1432.30			60	60	1519.35 to 1514.10			60	60
1432.30 to 1434.40			70	60	1514.10 to 1492.00			70	60
1434.40 to 1434.70			60	60	1492.00 to 1488.80			55	55
1434.70 to 1463.70			70	60	1488.80 to 1487.60			45	45
1463.70 to 1473.85			50	50	1487.60 to 1473.85			70	60
1473.85 to 1487.60			70	60	1473.85 to 1463.70			50	50
1487.60 to 1488.80			45	45	1463.70 to 1434.70			70	60
1488.80 to 1492.00			55	55	1434.70 to 1434.40			60	60
1492.00 to 1514.10			70	60	1434.40 to 1432.30			70	60
1514.10 to 1519.35			60	60	1432.30 to 1432.10			60	60
1519.35 to 1519.85			55	55	1432.10 to 1383.80			70	60
1519.85 to 1529.30			70	60	1383.80 to 1382.00			65	60
1529.30 to 1531.80			55	55	1382.00 to 1302.93			70	60
1531.80 to 1555.00			70	60	1302.93 to 1302.18			70	55
1555.00 to 1559.60			55	55	1302.18 to 1302.17 (Wilson Road)			35	35
1559.60 to 1561.81			50	50	1302.17 to 1300.95			45	45
1561.81 to 1567.00			70	60	1300.95 to 1300.94 (Tompkins Ave.)			35	35
1567.00 to 1572.00			65	60	1300.94 to 1298.83			45	45
1572.00 to 1625.25			70	60	1298.83 to 1297.76 (Piedras and Wyoming St.)			25	25
1625.25 to 1626.00			70	50	1297.76 to 1297.50			15	15
1626.00 to 1627.40			30	30	1297.50 to 1295.92			20	20

Freight and mixed trains containing no restricted cars are authorized to operate at Column 1 speeds not exceeding 65 MPH provided these trains do not exceed:

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

Such freight and mixed trains are further restricted as follows:

WESTWARD—CARRIZOZO TO EL PASO:

MP	MP	MPH
1302.93 to 1302.18		55

SOUTHERN PACIFIC COMPANY



TUCSON DIVISION SPECIAL INSTRUCTIONS NO. 5

EFFECTIVE JANUARY 1, 1969

AT 12:01 A.M.,

MOUNTAIN STANDARD TIME

SUPERSEDING SPECIAL INSTRUCTIONS NO. 4

THESE INSTRUCTIONS CONSTITUTE A PART
OF THE TIMETABLE CURRENTLY IN EFFECT

M. A. McINTYRE,
General Manager.

S. B. BURTON,
R. L. KING,
Assistant General Managers.

J. J. WILLIS,
General Superintendent of
Transportation.

O. D. GOODWILL,
Superintendent of Transportation.

R. O. COLTRIN,
Superintendent.