

UNION RAILROAD COMPANY

Time Table No. 66

Takes effect MONDAY, JAN. 16, 1950
at 12.01 A. M.

EASTERN STANDARD TIME

FOR EMPLOYEES ONLY

Roger Preissendoffer

R. C. McINTYRE,
General Manager

D. B. SHIREY,
Superintendent of Operations

Name

R. W. Preisendorfer

Occupation

Date Received

July 10, 1950

No

2814

UNION RAILROAD SHOP TRAINS

NORTHWARD

STATIONS	DAILY	DAILY	DAILY	DAILY
MON. JUNCTION YARD OFFICE	A. M.	P. M.	P. M.	P. M.
MON. JUNCTION CAR SHOPS	7 09	7 30	4 38	11 30
BESSEMER ENGINEHOUSE	7 14	7 32	4 41	11 32
EAST PITTSBURGH	7 24	7 34	4 44	11 36
TURTLE CREEK	7 34	7 41	4 47	11 39
NEWTOWN	7 37	7 44	---	11 42
LINHART	7 39	7 46	---	11 44
HALL	7 42	7 49	---	11 47
	7 45	7 52	---	11 50
	A. M.	P. M.	P. M.	P. M.

SOUTHWARD

STATIONS	DAILY	DAILY	DAILY	DAILY
HALL	A. M.	P. M.	P. M.	A. M.
LINHART	8 10	4 10	4 13	12 10
NEWTOWN	8 13	4 13	---	12 13
TURTLE CREEK	8 17	4 17	---	12 17
EAST PITTSBURGH	8 20	4 20	---	12 20
BESSEMER ENGINEHOUSE	8 24	4 24	11 20	12 24
MON. JUNCTION CAR SHOPS	---	4 30	11 23	---
MON. JUNCTION YARD OFFICE	---	4 33	11 27	---
	A. M.	4 36	11 29	A. M.
	A. M.	P. M.	P. M.	A. M.

B. & L. E. PASSENGER TRAINS

The arriving time of Train No. 1 at North Bessemer Station is 9:41 A. M., and the departing time of Train No. 2 from North Bessemer Station is 4:30 P. M. Train No. 2 will continue to operate over southbound main track, between B. & L. E. locomotive terminal outbound track and "XB" Tower.

SPECIAL INSTRUCTIONS

GENERAL

A. All employes whose duties are prescribed by these special instructions will provide themselves with a copy.

B. Employes whose duties are in any way affected by the time table will have a copy of the current time table with them while on duty.

C. Employes will be conversant with and obey these special instructions. If in doubt as to their meaning, they will apply to proper authority for an explanation.

D. Employes will render every assistance in their power in carrying out these special instructions and will report to the proper official any violation thereof.

E. Whenever the term "train" is used in these special instructions, it shall be construed as including motor cars, hand cars, and all other types of self-propelled equipment.

F. When a rule number is referred to in these special instructions, it will be understood that it is one of the Rules of the Operating Department, effective August 1, 1947.

G. These special instructions supersede such general orders as may be inconsistent therewith.

MOVEMENT OF TRAINS

1. All employes handling switches must examine the points and see that they are properly thrown without regard to the switch marker indication.

2. Derails must be set to derail cars at all times when track is not being used in regular operation. This requirement must be observed even though there are no cars standing on track protected by derail.

3. An order of the Interstate Commerce Commission, dated June 6, 1910, reads as follows:

"It is ordered, That on and after September 1, 1910, on all railroads used in interstate commerce, whenever, as required by the Safety Appliance Act as amended March 2, 1903, any train is operated with power or train brakes, not less than 85 percent of the cars of such train shall have their brakes used and operated by the engineer of the locomotive drawing such train, and all power-brake cars in every such train which are associated together with the 85 per cent shall have their brakes so used and operated."

Crews of all trains are required to make a road test before making a main line movement from any terminal or yard on the Union Railroad. When practicable, all cars in such main line trains will have the train line connected throughout the entire train and 100% of the cars will have operative air brakes, but never less than 85% of the cars of such trains shall have their brakes used and operated by the engineer, as required by the I.C.C. order above referred to. When trains move over ascending grades without pusher attached and cars in rear of train have air brakes cut out, trainmen must be on the alert to protect the train with hand brakes.

Except when necessary to make an emergency stop, the angle cocks should be opened very carefully to avoid pulling "AB" brakes into emergency, thus draining both reservoirs and train line, on account of relay vent valve opening, which will not close until all air is out of train. Enginemen should lap brake valve to avoid loss of main reservoir pressure.

All locomotives must have 80 pounds train line pressure and 110 pounds main reservoir pressure. To stop train in case of emergency, conductors will place caboose valve in No. 5 position and let it remain in that position until train stops or until the emergency is past.

When necessary for the safe control of a train being shoved, a back-up hose shall be used on the front end of the lead car to permit the train to be stopped in emergency.

When necessary to move non-air cars to shop, such cars shall be placed on the rear of train, and must not exceed fifteen (15) per cent of the total number of cars in that train. This does not apply to wreck or shop car trains.

4. Nothing in these special instructions will in any way relieve trainmen or enginemen from properly protecting their trains, as prescribed by Rules Nos. 99, 100, 101 and 102.

5. Cars occupied by workmen must be hauled in rear of train when practicable.

6. Trains or engines must not pass passenger or shop trains while loading or unloading passengers at stations.

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MOVEMENT OF TRAINS—Continued

7. All trains and engines using northbound main track or yard tracks at north end of North Bessemer Yard must not pass "XB" Tower when red flag is displayed on side of tower by day or red light by night.

8.(a) Operator at "XB" Tower, North Bessemer, will control all movements in either direction over that section of southbound main track extending from B. & L. E. Enginehouse Outbound Track to "XB" Tower.

(b) Permission to make a northward movement over southbound main track from B. & L. E. Enginehouse Outbound Track must be obtained from operator at "XB" Tower.

(c) Permission to make a southward movement over southbound main track from extreme north end of North Bessemer Yard must be obtained from operator at "XB" Tower before crossover movement is made.

(d) All crews, after completing southward movement over section of southbound main track controlled by operator at "XB" Tower, must report "CLEAR" by telephone to operator at "XB" Tower. A telephone for this purpose is located in box attached to pole immediately north of U. R. R. switchtenders' building.

(e) Yardmaster at North Bessemer will control all movements over northbound main track, in either direction, from South End Yard Office to a clearance point between northbound main track and Ladder Lead Track, just south of "XB" Tower.

(f) Permission to make a northward movement from yard office over northbound main track must be obtained from yardmaster.

(g) Permission to make a southward movement from "XB" Tower over northbound main track to yard must be obtained from yardmaster, and, upon arrival in yard, the crew will report "CLEAR" to yardmaster.

(h) Permission to make a movement from Yard Tracks Nos. 40 to 47, both inclusive, or from Hotel Spur or Glenn Lumber & Supply Siding onto northbound main track at north end of these tracks, North Bessemer Yard, must be obtained from yardmaster. A telephone for this purpose is located at extreme south end of Hotel Spur Track.

(i) Hand-operated derail is located just north of switch leading to No. 8 West Yard Track, North Bessemer Yard. Color indications are purple and green, with purple for derailing position. U. R. R. switchtender will handle this derail for B. & L. E. southward trains. Crews will restore derail to derailing position.

(j) The switch located on No. 36 Ladder Lead Track which controls movements to north end East Yard Lead Track locates two hundred fifty (250) feet north of the derail which locates on the East Yard Lead Track. This switch and derail are pipe connected and the derail is operated by movement of the hand thrown switch. Normal position of switch is for straight movement on No. 36 Track. Crews will restore switch to normal position. Movements over this switch are controlled by high-pole color light signal located thirty (30) feet north of the switch. Indications of this signal are shown on page 17. Derail color indica-

(Continued on Page 5)

MOVEMENT OF TRAINS—Continued

tions are standard. U. R. R. switchtender will handle this switch for B. & L. E. southward trains.

(k) Normal position of first crossover switch located on northbound main track, just north of North Bessemer Yard Office, will be for yard when not in use. Supervisory yard force will handle this switch for passenger trains only.

(l) Switches leading to north end of Nos. 1, 2, and 3 West Yard Tracks, North Bessemer Yard, are located at Unity Junction. Switches and derail will be handled by operator at "XB" Tower for B. & L. E. southward trains only.

9. The normal position of the switch at south end of North Bessemer Yard, leading from southward main track into West Ladder Track, will be for yard when not in use. Trains and engines on main track will approach this switch under full control, expecting to find track obstructed. Switch will be handled by train crews.

10. Yardmaster located at Universal Yard Office will control movements over the track commonly known as the "Third Track" at Universal in both directions from a point four hundred (400) feet south of water plug located between Northbound Main Track and Third Track southward to a point approximately five hundred (500) feet north of the public road crossing at Gascola, at which point, a telephone booth is located. Further movement by crews required to perform switching operations on tracks located in the Gascola area will be made under yard rules.

11. Crossovers connecting No. 1 Roundhouse Track, Hall, and southbound main track must be used by all trains and engines when it is intended to make a further movement northward or to Oak Hill Yard. The southbound main track between the above-named crossovers and switch leading from southbound main track to Hall Roundhouse, at the extreme south end, must not be used for northward movement, except upon order from Superintendent of Operations.

12. Conductors of crews must first contact Train Movement Director, Monongahela Junction, when required to enter Main Tracks at the following points:

- (a) Universal Yard.
- (b) Crossover switches at Hall where Main Track use is involved.
- (c) Mifflin Yards (North Yard and South Yard).
- (d) Taylor Dump.
- (e) Continental Can Company.
- (f) McCrady Rodgers Company — Limestone Cut.
- (g) Main Tracks at Risher.

13. Conductors of crews must first contact Operator "J" Tower before entering Main Track from the following points:

- (a) Central Wharf.
- (b) South River Spur.
- (c) North River Spur.
- (d) Kenny Yard Ladder onto Keystone Main Track to Munhall, Rankin or intermediate points.

14. Conductors of crews must first contact operator "MO" Tower before occupying Main Track at south end of Oak Hill Yard.

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MOVEMENT OF TRAINS—Continued

15. Crews setting off cars on North River Spur and South River Spur must allow enough room to hold an engine in the clear of the Main Track.

16. The following switches are equipped with electric locking devices and cannot be opened without cooperation of the operator or switchtender at the tower shown. Telephones are located at or near each of these switches for use of crews to obtain permission from operator to move into or out of these sidings:

(a) "MO" Tower.

1. Switch leading to Tri-Boro Siding located on east side of northbound main track, Turtle Creek.
2. Switch leading to Produce Siding, located on west side of southbound main track, East Pittsburgh.
3. Switch and derail leading to No. 4 inbound from runaround track, Rail Yard, Bessemer.
4. Switch leading to P. & L. E. Short Way from Port Perry Tail Track Lead.
5. Switch leading to Port Perry Yard from Port Perry Tail Track.
6. Crossover from No. 4 Inbound Track to Old Main Track near B. & O. Bridge.
7. Switches and derails at north and south end of "A" track leading to Old Main Track.

(b) "J" Tower.

1. Switch leading from southbound main track Bessemer, to north end of Engine Storage Track, Bessemer Enginehouse.
2. Switch at north end of crossover from No. 2 southbound main track to No. 1 Ash Track, Monongahela Junction.
3. Switches leading from Cinder Bridge Track to No. 1 Inbound Track and No. 1 Scale Track, Bessemer.

(c) "BR" Tower.

1. Switch at north end of Clairton Junction Storage (formerly known as Jew Spur).

(d) "RK" Tower.

1. Crossover switches leading from southbound main track to northbound main track opposite south end of Central Wharf, Munhall.
2. Switch leading from Track 11-B, Munhall, to northbound main track.
3. Crossover switches leading from southbound main track to northbound main track and crossover switches leading from northbound main track to new southbound main, Munhall, and switch merging northbound main, Munhall, to northbound main track just north of Rankin Street Car Bridge, Munhall.
4. Crossover switches leading from Carrie Furnace northbound main to Carrie Furnace southbound main, located just south of Rankin Street Car Bridge, Munhall.

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MOVEMENT OF TRAINS—Continued

Crews of all trains or engines and others entering the above sidings must restore the switches to normal, or main line, position as soon as they clear the insulated rail joints at clearance point, as the operator may find it necessary to make a train movement over the main track before a movement can be made out of these sidings.

Crews of all trains or engines and others desiring to make movements from the above sidings over these switches must not pass the insulated rail joints located at clearance point on these sidings unless it is definitely known that switch has been unlocked and is set for a movement out of siding. (All of the above movements must be made under proper flag protection.)

17. CREWS OF TRAINS OR ENGINES STOPPED AT A HOME SIGNAL WHERE A TELEPHONE IS LOCATED MUST CALL THE OPERATOR FOR INSTRUCTIONS.

18. In cases where southbound trains moving into Bessemer Yard have a car or cars on the head end of train to be set off in Valley Yard, in order that as many cars as possible may be clear of the steep portion of the Low Grade approach to Bessemer Yard, the cut should be made as far south as will permit the set-off to be made. Conductors will see that detached cars are secured with sufficient hand brakes to prevent their starting in case of train line leakage or from other causes.

19. Dwarf position-light signal No. L-38, located at the south end of No. 4 Inbound Track, Bessemer Yard, will not relieve trainmen, enginemen and others of the necessity of calling operator at "MO" Tower for permission to proceed northward through No. 4 Inbound Track.

20. Train movements in either direction between Lead Track and Port Perry Yard, over P. & L. E. Short Way, or between Port Perry Yard and Tail Track are made by signal indication controlled by operator at "MO" Tower, from whom permission must be obtained before such movements are made. Crews of trains, when clearing lead track, P. & L. E. Short Way, or Tail Track, must report "CLEAR" to operator at "MO" Tower. Switchtender located at south end of Bessemer Inbound Yard at B. & O. Railroad Bridge working in conjunction with operator at "MO" Tower will give a hand signal "GREEN" to indicate that crossover switches are properly lined for a movement onto the Lead Track eastward from No. 4 Inbound Track. All eastward movements onto the Lead Track are controlled by signal indication. Telephones for use of crews in contacting "MO" Tower are located near Switch No. 45, leading from Port Perry Lead Track to P. & L. E. Short Way and at Switch No. 47, dividing the Lead Track and the Tail Track, Port Perry Yard.

21. Crews of trains or engines, including motor car operators and others, are required to call operator at "J" Tower for signal to move from Bessemer Enginehouse tracks, and must inform operator at "J" Tower of the movement that is desired to be made.

22. Before a movement is made to or from Tail Track at north end of Port Perry River Bridge over north end of No. 5 crossover switch, person in charge must see that No. 5 crossover is in position to make the movement, then push button in box, mounted on RF6 signal to "ON" position. If a green light is then displayed on this signal over two white lights in stop position, movement may be made to or from Tail Track. If an immediate reverse movement is not to be made, push button must be re-

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MOVEMENT OF TRAINS—Continued

turned to normal or "OFF" position; after northward movement from Tail Track is completed, push button must be restored to normal or "OFF" position.

23. Operators must always identify themselves on the telephone when called; instead of answering "hello," the name of the tower must be given, for example, "MO" Tower." In addition, care must always be exercised by operators, when receiving telephone calls from train crews and others, requesting permission to make a movement, to know clearly and definitely the movement that is desired to be made.

24. Movements from Tower Yard to Furnace Yard, Bessemer, must be reported "CLEAR" to operator at Tower Yard by conductor or engineer in charge of engine before movement may be permitted from Furnace Yard to Tower Yard.

25. Standard form of train order is to be used for permission to make movement in either direction over Keystone Main Track, and southward movement from Bessemer Furnace Yard via Cinder Bridge.

When it becomes necessary to conduct single-line operations over a section of main track, other than operations covered in this Time Table or authorized by general order, the conductor or engineer in charge of the train or locomotive will make the necessary arrangements with operator or yardmaster in control of the single-line operation before the movement is made.

When permission to make a single-line movement is received by telephone, the order must be written by the person receiving the same and repeated to the operator or yardmaster. When the order to make such a single-line movement is delivered in person by the operator or yardmaster, it must be in writing. In every such case the engineer will receive a copy of these written instructions before the movement is made.

26. Conductor or engineman in charge of all trains or engines and others moving northwardly into Edgar Thomson Furnaces from Cinder Bridge must report by telephone to operator at "J" Tower immediately after clearing single line at Furnace Yard. This also applies to pusher engines which assist cinder runs or other trains out of Furnace Yard and which return to the Furnace Yard after reaching top of grade. When calling operator at "J" Tower to get permission to move southwardly over Cinder Bridge, the operator must be informed in all instances whether or not a pusher engine is to be used.

27. Single-line movements between the south end of No. 1 Oliver Track, Duquesne, and the Munhall end of Keystone Main Track will be controlled by yardmaster at Oliver Avenue, Duquesne.

28. The Wildcat Track extends from the ladder switch leading to No. 17 and 18 B. & O. Denniston Yard, northward to the switch leading from the Wildcat Track to the Scale Track at the American Steel and Wire Company Plant, Rankin. Crews of all trains and engines must precede movement by flag when operating in a northwardly direction over this track. Southward movement over this track may be made under yard rules.

29. Switch located at extreme south end of New High Line Track, Sintering Plant, must be positioned and locked for New High Line Track when not in use for regular operation.

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MOVEMENT OF TRAINS—Continued

30. Crews handling molten iron through Dravosburg Tunnel must stop when train is clear of Mifflin Branch and receive permission from operator at "BR" Tower before movement is made through tunnel. When permission is obtained from operator, movement will be made according to position-light signal indications.

31. Right-hand main track movements are normal where there are double tracks, except on the double track between north end of Duquesne Hill and New Ore Yard, Duquesne, where left-hand movements are normal.

32. Heavy southbound trains must not pass high-pole position-light Signal B-16 at south end of Oak Hill Yard unless signal is displaying the "CLEAR" aspect. In such cases, trainmen must call operator at "MO" Tower if the signal is not showing "CLEAR" aspect.

33. Heavy southbound trains enroute to Rankin must not pass high-pole position-light signal U-4, located approximately 600 feet north of the south end of River Spur Track, Munhall Branch, unless signal is displaying the "CLEAR" aspect. In such cases, trainmen must call operator at "RK" if signal is not showing "CLEAR" aspect.

34. While operating through the Boroughs of Turtle Creek and East Pittsburgh, enginemen will refrain from unnecessary whistling and ringing of bells. Smoke from locomotives must be kept to a minimum at all points on the railroad. Engineers will be held equally responsible with firemen for violation of these instructions.

35. Trainmen must be on the alert to acknowledge signal from any person affecting the movement of their train.

36. At points where switchtenders are employed, such employees will, when necessary to transmit hand signals, use equipment as follows:

GREEN flag by day.

GREEN light by night.

37. To prevent damage caused by rough handling, the following rules must be observed in yard switching:

- (a) Cut cars off so that they can be reasonably controlled.
- (b) In graded yards, test hand brakes before starting cars.
- (c) Keep knuckles open to insure coupling.
- (d) Keep slack bunched as much as possible.
- (e) Keep to a minimum the number of reverse movements.
- (f) Crew members must position themselves to pass hand signals instead of using bumping blocks to stop cars.

38. MOTOR CARS AND HAND CARS

(a) Motor cars and hand cars will be in charge of qualified employees and, except as otherwise provided, the rules and special instructions governing the movement of trains will apply to the movement of motor and hand cars.

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MOTOR CARS AND HAND CARS—Continued

(b) Permission must be obtained from operator or towerman, by telephone or otherwise, before a motor car or hand car may be operated within the limits of any interlocking plant. This for the reason that such lightweight equipment will not operate the track circuits and signals properly, operator or towerman must exercise extreme caution and not operate switches unless absolutely certain that the cars are clear of the switches. Operators of motor cars and hand cars moving northwardly from "J" Tower Interlocking Plant into Bessemer Enginehouse must report by telephone to operator at "J" Tower immediately after clearing the interlocking plant at Port Perry.

(c) All motor cars and hand cars must display a red light when operating at night or in foggy weather.

(d) Maximum speed is twenty (20) miles per hour and they must be run carefully through interlocking plants and yard limits, and when approaching grade crossings.

(e) The practice of motor cars pushing trailer cars is forbidden.

(f) When the term "train" is used in these special instructions, it shall be construed as including motor cars and hand cars.

(g) All southbound motor cars and hand cars must stop at high-pole position-light Signal B-16, located at the south end of Oak Hill Yard, regardless of the indication displayed by the signal, and obtain permission by telephone from operator at "MO" Tower to proceed. Telephone for this purpose is located in box attached to Signal B-16. Operators of motor cars and hand cars intending to make a southward movement must not enter that portion of southbound main track between Signal B-16 and high-pole position-light Signal R-4, located on west side of southbound main track just south of Turtle Creek Viaduct, without first obtaining permission from operator at "MO" Tower.

SIGNALS AND INTERLOCKERS

STANDARD HIGH-POLE POSITION-LIGHT SIGNALS

Aspect

Indication



CLEAR

Proceed at maximum authorized speed at point involved, over main route.



APPROACH—RESTRICTING

Proceed, reducing speed at once, for movement over diverging route, or to permit passing next signal at reduced speed and be prepared to stop at second signal in advance.



APPROACH

Proceed, preparing to stop at next signal in advance. Where there is no other signal in advance, prepare to stop at end of interlocking limits or automatic block signal limits.



MEDIUM APPROACH

Proceed at reduced speed over diverging route, preparing to stop at next signal in advance. Where there is no other signal in advance, prepare to stop at end of interlocking limits.



MEDIUM CLEAR

Proceed at reduced speed over diverging route; two blocks in advance are clear.



SIDING

Proceed at slow speed, with caution, prepared to stop within range of vision, into siding or yard.



and



RESTRICTING

Proceed at restricted speed under full control into Non-Circuited Track, prepared to stop, as track may or may not be occupied.



STOP

Stop and stay.

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SIGNALS AND INTERLOCKERS—Continued

STANDARD HIGH-POLE POSITION-LIGHT SIGNALS
(Continued)

Aspect

Indication



STOP AND PROCEED

Stop and then proceed under full control prepared to stop short of train or obstruction or hand switches may not be properly set. When displayed by home signal in interlocking territory, indication will be proceed under full control, prepared to stop short of train or obstruction or hand switches may not be properly set.



STOP AND PROCEED

Trains having tonnage of 50% or more of the prescribed engine rating accepting this indication may proceed under full control, prepared to stop, when signal displays a yellow disc on which is shown the letter "G".

NOTE: Engine crews, when calling out signal indications, will call them by their proper names, as shown above.

STANDARD DWARF POSITION-LIGHT SIGNALS

Aspect

Indication



CLEAR

Proceed over main route.



APPROACH

Proceed at slow speed to next signal or over diverging route, or to end of interlocking limits, or to automatic block signal limits.



STOP

Stop and stay.



RESTRICTING

Proceed at restricted speed over any route under full control, prepared to stop, as track may or may not be occupied.

NOTE: Engine crews, when calling out signal indications, will call them by their proper names, as shown above.

STANDARD HIGH-POLE COLOR-LIGHT SIGNALS

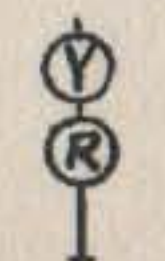
Aspect

Indication



CLEAR

Proceed at maximum authorized speed at point involved, over main route.



APPROACH

Proceed, preparing to stop at next signal in advance. Where there is no other signal in advance, prepare to stop at end of interlocking limits or automatic block signal limits.

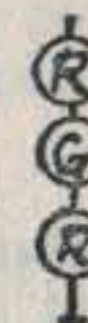
(Continued on Page 13)

SIGNALS AND INTERLOCKERS—Continued

STANDARD HIGH-POLE COLOR-LIGHT SIGNALS
(Continued)

Aspect

Indication



MEDIUM CLEAR

Proceed at reduced speed over diverging route; two blocks in advance are clear.



MEDIUM APPROACH

Proceed at reduced speed over diverging route, preparing to stop at next signal in advance. Where there is no other signal in advance, prepare to stop at end of interlocking limits.



STOP

Stop and stay.

STOP AND PROCEED



Stop and then proceed under full control prepared to stop short of train or obstruction or hand switches may not be properly set. When displayed by home signal in interlocking territory, indication will be proceed under full control, prepared to stop short of train or obstruction or hand switches may not be properly set.

NOTE: Engine crews, when calling out signal indications, will call them by their proper names, as shown above.

STANDARD DWARF COLOR-LIGHT SIGNALS

Aspect

Indication



CLEAR

Proceed over main route.



APPROACH

Proceed at slow speed to next signal or over diverging route, or to end of interlocking limits, or to automatic block signal limits.



STOP

Stop and stay.

NOTE: Engine crews, when calling out signal indications, will call them by their proper names, as shown above.

"MO" INTERLOCKING PLANT—BESSEMER

All interlocking switches and signals are controlled by operator at "MO" Tower. Signals are of the position-light and color-light type, with standard aspects and indications, (see pages 10, 11, and 12), with the following exceptions:

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SIGNALS AND INTERLOCKERS—Continued

Position-light dwarf signals LA-26, LB-26, LC-26, LD-26, L-32 and L-36 governing northward movements from Old Main, No. 1, 2, 3, 4 Inbound and No. 2 Ladder, when displaying a "CLEAR" aspect will indicate track is not occupied to home signal L-18 located approximately 175 feet south of Brinton Bridge.

The limits of the "MO" Interlocking Plant are as follows:

Signal L-20 governing northward movements over southbound main track, Signal L-8 governing northward movement over northbound and southbound main tracks, and Signal LC-20 governing movements from B. & O. Transfer.

Signals governing northward movements over No. 4 Inbound Track and from No. 2 Ladder, Old Main track, and from Nos. 1, 2, and 3 Inbound Tracks.

Signals governing southward movements from No. 11 Valley track and Valley Pocket track.

Signals governing northward and southward movements over the running and tail tracks, Port Perry Yard.

Signals just north of Greensburg Avenue crossovers governing southward movements.

Telephones are located at Signal R-4, south end of Turtle Creek Viaduct; near switch leading to Tri-Boro Supply Company Siding; Signal R-6 East Pittsburgh Viaduct; near switch leading to Produce Siding; on No. 3 Track Signal bridge carrying Signals L-6; Signal R-10 at north end of Brinton crossovers; at Signal L-18 at south end of Brinton Bridge. Crews of trains or engines having been stopped at any signal between Greensburg Avenue and Brinton Bridge, should call the operator at "MO" Tower for instructions. Telephones are also located at Switch No. 45 leading from Port Perry Lead Track to P. & L. E. Short Way and at Switch No. 47 dividing the Lead Track and the Tail Track, Port Perry Yard.

"J" INTERLOCKING PLANT—MONONGAHELA JUNCTION

All interlocking switches and signals are controlled by the operator at "J" Tower. Signals are position-light type with standard aspects and indications. (See pages 10, 11 and 12.) Where signals govern movements to end of Interlocking Plant limits, all trains must accept signals prepared to stop beyond these limits.

The limits of the "J" Interlocking Plant are as follows:

Signals L-6, R-6, RE-6 and RF-6 located just north of Port Perry River Bridge.

Signal DRA-8, located between Cinder Bridge Track and No. 1 Scale Track approximately thirty (30) feet south of point of switch leading from Cinder Bridge Track to No. 1 Scale Track, Bessemer.

Signals at north end of Munhall Viaduct.

Signals on Duquesne Hill, just north of Swamp Yard Office.

Signals governing northward movements from northbound main track, Nos. 1 and 2 Southbound Main Tracks, and Nos. 1 and 2 Ladder Tracks, Monongahela Southern.

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SIGNALS AND INTERLOCKERS—Continued

Whistle signals to indicate to operator at "J" Tower movement desired.

The signals prescribed are illustrated by "O" for short sounds; — for long sounds. The sound of the whistle should be clear and distinct so that the operator may not become confused.

ROUTE FROM ANY POINT	SOUND
North (through Port Perry).....	—
To Duquesne.....	— O
To Munhall.....	— O O
To Bessemer Enginehouse.....	— O O O O
To Cinder Bridge.....	— O — O
To No. 1 Southbound Main Track....	O —
To No. 2 Southbound Main Track....	O O —
To No. 1 Ladder Track.....	O — O
To No. 2 Ladder Track.....	O O — O

Microphones are located at the three northbound approaches to this plant for the purpose of picking up the engine whistle codes and reproducing them in the tower. One is located on the Munhall Branch on the steel pole to the right of the northbound main track about 550 feet north of Cantilever Bridge Signal U-4; another along the northbound main track on Monongahela Southern, approximately 2,000 feet south of Signal LA-50; and the third on Duquesne Hill, approximately 1,500 feet south of Signal L-22.

All trains and engines approaching "J" Tower Plant from the Munhall Branch will sound whistle code after passing Keystone switch four engine lengths. All trains and engines approaching "J" Tower Plant from Monongahela Southern and Duquesne Hill will sound whistle code after passing whistling post one engine length, and under no circumstances will enginemen allow steam to blow off when passing in the vicinity of the microphones, as this noise will prevent the proper interpretation of the code by the operator.

"BR" INTERLOCKING PLANT

All interlocking switches and signals are controlled by operator at "BR" Tower. Signals are position-light type with standard aspects. (See pages 10, 11, and 12.)

The limits of "BR" Interlocking Plant are as follows:

Signals on main line north of tower, governing southward movements into the plant from northbound main track, or from Nos. 1 and 2 Southbound Main Tracks.

Signals on main line, Mifflin Branch, south of tower, governing northward movements into the plant from northbound and southbound main tracks.

Signals at Curry Hollow, governing northward movements toward "BR" Tower from northbound and southbound main tracks, and from Irvin Works.

(Continued on Page 16)

SIGNALS AND INTERLOCKERS—Continued

All southbound trains or engines approaching "BR" Tower on either No. 1 or No. 2 Southbound Main Track will sound whistle code after passing whistling post one engine length. The whistling post is located along No. 2 southbound main track approximately 1200 feet south of Mifflin Mine Track switch. A microphone located in the vicinity of this post picks up the whistle code and reproduces it in the tower. Enginemen will sound whistle code clearly and distinctly, and under no circumstances allow steam to blow off while passing in the vicinity of the microphone, as this noise will prevent the proper interpretation of code by the operator. The whistle signals are as follows:

ROUTE	SOUND
From No. 1 or No. 2 southbound to Mifflin.....	—
From No. 1 or No. 2 southbound to Clairton Branch.....	O
From northbound Clairton Branch to Clairton Junction Storage (Jew Spur).....	— OO

"RK" INTERLOCKING TOWER

All interlocking switches and signals are controlled by the operator at "RK" Tower. Signals are of the color-light and position-light types, with standard aspects and indications (See pages 10, 11, and 12.) The following special whistle signals are to be used to indicate to the operator at the "RK" Tower the move that is desired to be made.

ROUTE	SOUND
Northward movement from Rankin over north leg of Wye.....	OOOO
Movement from Rankin over south leg of Wye to Homestead.....	— OO
Movement into Rankin over north leg of Wye..	OOOO
Movement toward Rankin over north leg of Wye, to proceed over south leg of Wye to Homestead.....	— O
Movement toward Rankin over south leg of Wye, to proceed northwardly over north leg of Wye.....	— O
Movement over south leg of Wye into Rankin...	— OO

Limits of "RK" Interlocking Plant:

High-pole color-light Signal 6-L, located on south leg of Wye, controlling movements over south leg of Wye toward Rankin Bridge.

High color-light Signal 6-R, located on down-river side of Rankin Bridge, just south of crossovers leading to north and south legs of Wye, governing all movements from northbound, or Hot Metal, track to Homestead and north leg of Wye.

Dwarf color-light Signal 8-L, located at north end of main track crossovers, north of main entrance to Carrie Furnaces, governing northward movements over southbound main track.

High-pole position-light Signal 2-R, located on north leg of Wye, governing southward movements.

Dwarf color-light signal 4-R, located on north leg of Wye, governing southward movements over northbound track.

SIGNALS AND INTERLOCKERS—Continued

AIR WHISTLES OPERATED BY TOWERMEN—
STANDARD CODE

Call trainmen to phone.....	OOOOO
Maintainer's call.....	OOOO
Stop.....	—

Air whistles for "J" Tower are located at Tower and signals L-50, L-32, R-6, R-16 and L-22. Air whistles for "MO" Tower are located at signals R-20, R-18, R-8, and R-26. Air whistles for "BR" Tower are located at the tower and signals L-10, R-4 and R-2 also at Curry Hollow relay house. Air whistle for "RK" Tower is located on the bridge railing at the center of the Wye, between north and south legs.

GRANT AVENUE, DUQUESNE—NARROW
GAUGE CROSSING

Protection signals are of the dwarf color-light type and normally show stop position; however, these signals will clear to yellow when train enters track circuit, providing narrow-gauge track is not occupied. When a train or engine comes to a stop signal, trainman should go to the crossing to ascertain that there is no train on the conflicting route. He should then operate the emergency switch designated for Union Railroad operations. After a predetermined time has elapsed, the signals will clear, unless there has been a power failure. In case of signal failure, movements over the crossing will be made under proper flag protection.

FARM YARD SWITCHES—HOMESTEAD

Two signal lights — one located along the northbound main track 350 feet south of P. & L. E. R. R. Bridge, governing northward movements; the other located along the southbound main track about 500 feet north of P. & L. E. R. R. Bridge, and governing southward movements—are controlled by switch-tender who is located along southbound main track immediately north of yard office, and show the following indications:

Red light indicates STOP.

Yellow light indicates proceed with caution, prepared to stop.

If signal lights are not burning, it must be regarded as a STOP signal, and trains or engines must not proceed without a hand signal or permission from the switchtender.

The normal indication of these signal lights will be red, and a yellow light will be displayed only when a train movement is to be made.

The following whistle signals must be used at this point to indicate to switchtender the desired movement. The signals prescribed are indicated by "O" for short sounds; — for long sounds:

ROUTE	SOUND
Southward to Hays or intermediate points... 54-inch Steel Track.....	— O
Old Scale Track.....	— OO
Pit Track.....	— OOO
Northward movements from Hays or intermediate points.....	— —

SIGNALS AND INTERLOCKERS—Continued

O. H. NO. 4—HOMESTEAD

Permission must be obtained by conductor in person from operator located at the river end of O. H. No. 4 Viaduct before movement is made to O. H. No. 4. Telephone permission must be obtained by conductor from operator before movement is made over O. H. No. 4 Viaduct from O. H. No. 4.

Before fouling narrow gauge crossover at O. H. No. 4 Hot Metal Pouring Track, Homestead, crew member will proceed to southwest corner of building, and if no narrow gauge engines are moving southward, will set light switch to indicate RED against narrow gauge engines. When work is completed on Pouring Track, crew member will restore signal light to indicate GREEN if narrow gauge crossing is clear at the time Union Railroad crew leaves this track.

RED and GREEN lights are installed on the mill building above the Hot Metal Pouring Track at O. H. No. 4 to control placement of hot metal in the mill at this point. A switch to operate these lights is located on the third column inside the mill. Before entering the mill with the train, conductor will proceed to mill end of track to see that track is clear, and warn all men working at or near the track to look out for a trip of hot metal to be placed. Conductor will then set the light to indicate GREEN, which will be authority for the train of hot metal to be placed in mill. The train will then be handled in a careful manner while placing. Signals necessary to be transmitted to the engineer while placing trip will be transmitted by a crew member.

AUTOMATIC BLOCK SIGNALS

All automatic block signals outside of interlocking territory limits display standard aspects (see pages 10, 11, and 12) except as follows:

NORTH BESSEMER YARD

High-pole color-light signal located on the west side of No. 36 Lead Track at north end of North Bessemer Yard will display the following indications for southward movements from No. 36 Lead Track:

	Lunar white Green	Indicates switch is lined for through movement on No. 36 Lead Track.
	Lunar white Yellow	Indicates switch is lined for movement to East Yard lead and derail is in non-derailing position.
	Lunar white Red	Movement will stop north of signal.

NORTH BESSEMER TUNNEL

Signal Aspects are Standard. (See pages 10, 11, and 12.)

Position-light signals located at north and south portals of tunnel, governing movements through tunnel, are absolute signals and must not be passed while displaying STOP indication, unless it is definitely known that the signals are out of service. Then

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SIGNALS AND INTERLOCKERS—Continued

AUTOMATIC BLOCK SIGNALS

NORTH BESSEMER TUNNEL—Continued

permission must be obtained from yardmaster at North Bessemer, who will control movements through tunnel while signals are out of service. The failure of lights, preventing the correct reading of signal indication, must be regarded as a STOP signal.

The end of automatic block signal limits on northbound main track at north end of North Bessemer Tunnel is at a point two rail lengths south of hand switch leading from northbound main track to south end of North Bessemer Yard, and all trains or engines will approach this point prepared to stop.

DRAVOSBURG TUNNEL

Signal Aspects are Standard (See pages 10, 11, and 12.)

Position-light signals, located at north and south portals of tunnel, governing movements through tunnel, are absolute signals and must not be passed while displaying a STOP indication, unless the operator at "BR" Tower is called; then they may be passed while in the STOP position at slow speed, but only as track sections controlled by the respective signals are known to be clear. When signals display a "STOP AND PROCEED" aspect they will indicate that their respective track section is clear to opposite end of tunnel. The failure of lights, preventing the correct reading of signal indication must be regarded as a STOP signal.

WILSON

Color-light Dwarf Signal C-2, located along west side of southbound main track and just north of Benzol Office Building, governs southward movements as follows:

Aspect	Indication
	Red light (STOP AND PROCEED). Stop and then proceed under full control prepared to stop short of train or obstruction or hand switches may not be properly set.
	Yellow light (APPROACH). Proceed, prepared to stop at end of automatic block signal limits.

The end of automatic block signal limits on southbound main track is at a point directly across from No. 3 Coal Hoist approximately 100 feet north of the north end of crossovers between northbound and southbound main tracks at "C" Yard. The beginning of the automatic block signal limits on the northbound main track is approximately 425 feet south of Signal S-1. Due to the fact that the track circuit section on northbound main track, approaching Signal S-1, and controlling switch indicators leading to northbound main track, is very short, Signal S-1 will normally display an APPROACH indication, even though the block sections of position-light Signals S-1 and CA are clear; and as approaching train or engine passes the frog of switch leading to Benzol Plant, Signal S-1 will then change from APPROACH to CLEAR position, providing, of course, that the above sections of track are still clear and no one has pushed switch indicator button.

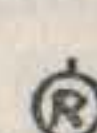
(Continued on Page 20)

SIGNALS AND INTERLOCKERS—Continued

AUTOMATIC BLOCK SIGNALS

MUNHALL

Color-light Dwarf Signal U-9 located along the Carrie Furnaces northward main track approximately 1100 feet north of Munhall Yard Office, governs train movements as follows:

Aspect	Indication
	Green light (CLEAR). Track is unoccupied two or more blocks in advance.
	Yellow light (APPROACH). Approach prepared to stop at signal in advance.
	Red light (STOP AND PROCEED). Stop and then proceed under full control prepared to stop short of train or obstruction, or hand switches may not be properly set.

EXCEPT AS OTHERWISE PROVIDED, INDUSTRY OWNED AND MAINTAINED SIGNALS GOVERNING OPERATIONS WITHIN PLANTS SERVED BY THIS COMPANY ARE NOT COVERED BY THIS TIME TABLE. OPERATIONS CONTROLLED BY SUCH SIGNALS ARE COVERED BY GENERAL ORDERS ONLY.

HIGHWAY CROSSING SIGNALS AT WYLIE

In connection with the highway crossing flashing-light signals at south end of Wylie Bridge, two tell-tale, color-light signals are located as follows:

One signal located across track from police box, and the other on post attached to instrument case on other side of highway.

All trains or engines approaching this crossing in either direction must observe indication displayed by these signals and be governed as follows:

Steady Yellow Light indicates that all four lamps in the two highway crossing signals are flashing a red light along the highway, and train or engine may proceed over the crossing.

Flashing Yellow Light indicates that at least one lamp in each of the two highway crossing signals is flashing a red light along the highway, and train or engine may proceed over the crossing.

NOTE: Crews observing a flashing yellow light on these signals are required to report this condition to Assistant Superintendent of Operations' Office as soon as possible, this being an indication that at least one lamp in one or both highway crossing signals is not burning.

No Light on these two tell-tale signals indicates that two lamps in one or both highway crossing signals are not burning and the highway has no protection. Train or engine will therefore stop and must not cross the highway until adequate flag protection has been provided for the crossing by train or engine crew. This condition must be reported as soon as possible to Assistant Superintendent of Operations' Office.

At the other highway crossing on the Elizabeth side of our tracks, no tell-tale signals are installed, as the flashing light signals are visible from our tracks, and train crews are required to observe that these signals are operating properly before cross-

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SIGNALS AND INTERLOCKERS—Continued

HIGHWAY CROSSING SIGNALS AT WYLIE—Continued

ing the highway. Trains or engines may proceed over the highway so long as at least one light in each signal is flashing a red light; otherwise, train or engine must stop and not cross the highway until adequate flag protection has been provided for the crossing by train or engine crew. Crews finding one or more lamps not burning must report this condition as soon as possible to Assistant Superintendent of Operations' Office.

HIGHWAY CROSSING SIGNALS PROTECTING ROAD CROSSING EXTENDING FROM 44" SLAB MILL TO FURNACE YARD, BESSEMER

All rail traffic over this road crossing will be governed by signals located as follows:

For Eastward Movements — Signals for Wall Track and 1, 2, and 3 Tracks, Port Perry Yard, are mounted over the respective tracks on the west side of the Hot Metal Bridge above the road crossing. Ground dwarf signals for Trestle and Shortway Tracks are located near the west side of the road crossing along the south side of the Trestle and Shortway Tracks.

For Westward Movements — Signals for 1, 2, and 3 Tracks, Port Perry Yard, are mounted over the respective tracks on the east side of the Hot Metal Bridge above the road crossing. Ground dwarf signal for Wall Track and Trestle Track is located along the north side of Lead Track approximately 100 feet east from switch point leading to Trestle Track and Wall Track. Ground dwarf signal for Shortway Track is located along north side of track east of road crossing.

All signals will display standard color light aspects. These signals will normally display a RED or stop indication which will clear to YELLOW (Approach) when rail traffic enters track-circuited territory by passing over insulated rail joints, which are painted YELLOW.

Eastward movements to the Wall Track from the Iron Track will be governed by a ground dwarf signal located along the south side of the track, approximately 120 feet west from point of switch leading to the Iron Track from the Wall Track. This signal will normally display a YELLOW (Approach) indication.

Cars set off on any of these tracks must be stopped to clear insulated rail joints, painted YELLOW and located approximately 200 feet east and west of road crossing. Clearance points are also marked by white signs mounted on posts located east and west of road crossing along north side of No. 1 Track, Port Perry Yard.

All rail traffic will approach road crossing under full control.

SPECIAL INSTRUCTIONS GOVERNING TRAIN MOVEMENTS WITHIN INTERLOCKING PLANT AND AUTOMATIC BLOCK SIGNAL LIMITS

50. Trainmen and enginemen on all trains or engines for which a proceed indication on a signal has once been displayed must observe that signal until it has been passed, as operator may find it necessary to change the signal should conditions arise which necessitate stopping train or engine.

51. Operators, after having given a proceed signal to a train or engine and then finding it necessary to take signal away from that train or engine, must not change the line-up of any switches governed by that signal unless it is known that train or engine has stopped.

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SIGNALS AND INTERLOCKERS—Continued

SPECIAL INSTRUCTIONS GOVERNING TRAIN MOVEMENTS WITHIN INTERLOCKING PLANT AND AUTOMATIC BLOCK SIGNAL LIMITS—Continued

52. A reverse movement within the limits of an interlocking plant, or a forward movement after making a reverse movement, must not be made without the proper interlocking signal or permission from the operator.

53. A train or engine must not, without permission, proceed on a signal known to have been displayed for a preceding movement.

54. Trainmen, when setting cars off on sidings within interlocking plant limits, must see that cars are clear of the insulated rail joints on the siding to avoid locking up interlocking switch circuits.

55. Enginemen are forbidden to sand the rails unnecessarily within the limits of an interlocking plant, also within automatic block system limits. When sand is necessary, it must be used only in the smallest quantities and over the shortest possible section of track.

56. During freezing weather, steam engines must not be permitted to stand over movable parts of interlockings, if possible to avoid it.

57. Trainmen or others must not signal enginemen to proceed after an interlocking switch has been thrown for the movement of a train or engine until the block signal indicates proceed over the desired route. This does not prohibit the operator or towerman from giving hand signal in case of emergency or failure of the signal apparatus.

58. When trains or engines are approaching interlocking plants and conditions suddenly arise which will cause their delay, conductor or engineman, knowing that a proceed signal has been displayed for them, must immediately get in touch with operator or towerman, informing him that they will not be able to accept the signal for a while. The operator or towerman may then take the signal away from them and move other trains, preventing unnecessary delay. The operator or towerman should be promptly notified when the train is again ready to move.

59. When an automatic block signal displays a STOP AND PROCEED indication, not only does it indicate an occupied track, but it also indicates that hand switches or crossovers in that block may not be properly set or may be broken, a rail may be broken, cars on sidings may not be in clear of main track, or track may be otherwise obstructed. Trainmen and enginemen moving under this signal must keep a sharp lookout for all of the above-mentioned conditions, especially facing switches.

60. Trainmen, when setting cars off on sidings, or when pulling in off the main track onto sidings, within automatic block system limits, must see that they are clear of the insulated rail joints on the siding, in order to avoid holding the automatic signal in STOP AND PROCEED position.

61. Trainmen or enginemen of all trains and engines finding automatic block signal No. B-10, located along the southbound main track north of Hall Roundhouse and just south of overhead bridge, in STOP AND PROCEED position, in addition to looking out for all other conditions that apply to such a signal indication, must move at such speed as to be able to stop within range of vision, as track may be occupied by trains or engines single-lining northwardly on southbound main track between crossovers.

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SIGNALS AND INTERLOCKERS—Continued

SPECIAL INSTRUCTIONS GOVERNING TRAIN MOVEMENTS WITHIN INTERLOCKING PLANT AND AUTOMATIC BLOCK SIGNAL LIMITS—Continued

62. A signal imperfectly displayed or the absence of a signal at a place where a signal is usually shown must be regarded as the most restrictive indication that can be given by that signal, except when the day indication is plainly seen or when sufficient lights in a position-light or color-light signal are displayed to determine indication of the signal, it will govern. A signal imperfectly displayed or the absence of a signal at a place where a signal is usually shown must be promptly reported to the Office of Assistant Superintendent of Operations.

(This does not apply to automatic signals governing movements through North Bessemer and Dravosburg Tunnels. See special instructions covering these signals.)

63. A train within automatic block system limits, having passed beyond the limits of a block, must not back into that block without special precautions being taken to protect the movement.

64. Due to the light weight of motor cars, hand cars, and other light cars, they cannot be depended upon to operate the automatic signals properly, and all trains or engines, even though moving under a CLEAR signal, may expect to find motor cars or hand cars anywhere at any time. For the same reason this equipment may cause the signal to flicker from CLEAR to STOP AND PROCEED position while occupying block. This indication must be regarded as a STOP AND PROCEED signal and treated as such.

65. Motor car operators must have their cars in good running condition at all times, and when stopping within automatic block system limits, must provide extraordinary flag protection for themselves against trains or engines which may be moving under a CLEAR signal. Operators must also keep engine running while occupying main track in hazardous locations.

LIGHT-TYPE SWITCH INDICATORS

66. All main track switches and main track crossovers within automatic block signal territory are equipped with light-type switch indicators or electric locks, except as follows:

- (a) Switch leading from Church Siding to northbound main track, Mifflin.
- (b) Switch leading from Dolomite Storage Track to southbound main track south of "BR" Tower.
- (c) Switch leading from East Side Taylor Dump Siding to northbound main track, Mifflin.

(For locations of switches equipped with electric locks, see Special Instruction No. 16.)

67. Trainmen and others concerned, before opening any switch leading to main track in territory where light-type switch indicators are used, are required to observe indication given by pressing push button mounted on indicators. If a yellow light appears on any of the indicators, except those covered by Special Instructions Nos. 70, 71, 72, and 74, it will indicate on descending grades, where three-block signaling is used, that the block in which the indicator is located and three blocks in the rear of this block are clear of trains or engines; and on level and ascending grades, where two-block signaling is used, that the block in

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SIGNALS AND INTERLOCKERS—Continued

LIGHT-TYPE SWITCH INDICATORS—Continued

which the indicator is located and two blocks in the rear of this block are clear of trains or engines. Switch may then be opened, and main track used under proper flag protection. Switch must be opened immediately after obtaining an indication giving permission to do so.

(Note carefully the modifications of this general rule with respect to indicators covered by Special Instructions Nos. 70, 71, 72, and 74.)

68. If, on pressing the button, no light appears, it will indicate that the above-referred-to sections of track are occupied, and switch must not be used. When it is known that train or engine occupying the block has passed the switch to be used, and that following trains will be approaching under proper restrictive signal indications, the switch may then be used, but only after providing proper flag protection against following trains.

NOTE: If after waiting a reasonable length of time after pressing indicator no light appears and no approaching trains are seen, switch may be opened but not used until a period of three minutes has elapsed; and then, if no trains are seen to be approaching, switch may be used under proper flag protection.

69. If it is known that switch indicator is out of service, the same instructions will apply as for hand switches in automatic signal territory where no switch indicators are provided. (See Special Instruction No. 77.)

70. The three switch indicators located at switches and crossovers leading to southbound main track at Universal will show a yellow light when section of southbound main track extending from Signal B-6 at Barry Bridge to approximately the center of North Bessemer Tunnel is clear. Due to the fact that the track section immediately back (north) of the section in which these indicators are located is short, extending only from signal B-4 (immediately north of the tunnel) to approximately the center of the tunnel, trainmen and all others concerned, after obtaining an indication permitting the use of the switch, must immediately open the switch in order that any southbound train that may be approaching through the tunnel at the time will find signal B-4 in "STOP AND PROCEED" position.

71. Switch indicator located at derail leading from south end of No. 3 Union Track to southbound main track, which is north of Gascola, will show a yellow light only when section of southbound main track from south end of North Bessemer Tunnel to the signal at Gascola is clear of trains or engines.

72. Switch indicator located at south end of Newtown crossovers and indicator located at switch leading to south end of No. 1 Newtown Track will show a yellow light only when section of northbound main track between Greensburg Avenue road crossing and the signal located south of Linhart Station is clear of trains and engines.

The above applies also to switch indicator located at south end of crossovers leading from the north end of No. 1 Newtown to northbound main track.

73. Special attention is called to the fact that switch indicator located at south end of Newtown crossovers is for governing movements from southbound to northbound main track, and indicator located at north end of crossovers is for governing movements from northbound to southbound main track.

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SIGNALS AND INTERLOCKERS—Continued

LIGHT-TYPE SWITCH INDICATORS—Continued

74. Switch indicator located at crossover switch leading from southbound to northbound main track at north end of Mifflin Yard will show a yellow light only when section of northbound main track between the switch leading to Municipal Airport and this crossover is clear. Due to the fact that the controlled track section immediately back of block in which indicator is located is shorter than the average, or only about 35 rail lengths, trainmen and all others concerned, after obtaining an indication giving them permission to use switch, must immediately open the switch, in order that approaching northbound trains will find the signal in the STOP AND PROCEED position.

75. Switch indicator located at switch leading from southbound main track to north end of Old Main Track connecting with the P. R. R. and switch indicator located at north end of crossover at Marine Ways are controlled by track circuits on southbound main track extending to Signal C-10, and the switch indicator located at south end of crossover leading from Track K-12 to southbound main track is also controlled by the above track circuits, in addition to the track circuit in which the crossover is located. These indicators are to be used for making movements onto the southbound main track.

76. Switch indicator located at switch leading from northbound main track to Marine Ways and switch indicator located at south end of crossover at Marine Ways are controlled by track circuits on northbound main track extending to frog of switch leading to Benzol Plant, south of Signal S-1, and are to be used for making movements onto northbound main track.

INSTRUCTIONS GOVERNING THE USE OF SWITCHES IN AUTOMATIC BLOCK SIGNAL TERRITORY WHERE NO SWITCH INDICATORS ARE PROVIDED, OR WHEN SWITCH INDICATORS ARE OUT OF SERVICE

77. Under the above conditions, switch or switches connecting main track should be opened for one minute, or as long as may be necessary to determine that no train or engine had passed the signal governed by this circuit before the switch had been thrown, before proceeding over switch to main track. Movements to main track, under these conditions, must always be made under proper flag protection.

78. SPEED RESTRICTIONS—All Trains

All speed restrictions apply until the entire train has passed through the restricted area. All trains, unless otherwise specified, are restricted to a maximum speed of THIRTY-FIVE miles per hour within automatic block territory and TWENTY-FIVE miles per hour outside of automatic block territory and throughout all interlocking plants. The additional following restrictions must be observed:

(a) TEN MILES PER HOUR

1. On northbound main track between north end of North Bessemer Tunnel and first switch north of tunnel.
2. On curve at P. & L. E. end of Wylie Bridge.
3. Over all industry bridges and trestles.
4. Trains handling steam locomotive cranes with traveling gears in mesh.

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SPEED RESTRICTIONS—All Trains—Continued

5. Over that portion of the northbound main track in "J" Interlocking Plant between Signal LA-50 and Interlocking Switch No. 43.

(b) FIFTEEN MILES PER HOUR

1. Through North Bessemer Tunnel.
2. On either northbound main track or southbound main track at curve at south end of Sintering Plant, Briquette.

(c) TWENTY MILES PER HOUR

1. Over Turtle Creek Viaduct.
2. Over Crossovers under B. & O. Bridge, Bessemer, Crossovers at south end of Inbound Yard, Bessemer, and the section of track across Union Junction Bridge.
3. Throughout the "J" Interlocking Plant, with the exception of that portion of the northbound main track between Signal LA-50 and Interlocking Switch No. 43, over which section of track there is a speed restriction of ten miles per hour.
4. Over north and south legs of Wye, Rankin Bridge.
5. For loaded hot cinder or hot metal ladle trains except as otherwise specified.
6. Motor cars.
7. Engines handling scale test cars.

(d) TWENTY-FIVE MILES PER HOUR

1. On northbound main track between Mifflin Yard and "J" Interlocking Plant, except on curve at south end of Sintering Plant, Briquette, where speed must not exceed fifteen miles per hour.
2. Through Dravosburg Tunnel.
3. Trains handling diesel locomotive cranes and steam locomotive cranes with traveling gears disengaged.

NOTE: The speed restrictions shown above are additional to those set forth in other special instructions issued with this Time Table, and do not include temporary speed restrictions, as covered by general notices, due to construction work or other causes.

79. LOCOMOTIVE AND OTHER RESTRICTIONS**(A) ENGINES are restricted as follows:**

1. Engines of any class must not be operated over track Nos. 1 and 2, High Line Trestle at Universal Atlas Cement Company.
2. Engines of any class must not operate over bins at Tri-Boro Siding, Turtle Creek.
3. Engines of any class making deliveries to B. & O. R. R. at Port Perry Transfer must not run beyond a white-painted marker stenciled "END URR".
4. Booster, Class S-64-B steam engines, must not operate over Open Hearth No. 4 Bridge, Homestead Works, or over Open Hearth Hot Metal Bridge, Edgar Thomson Works, on account of sharp curves.

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LOCOMOTIVE AND OTHER RESTRICTIONS—Continued

5. Diesel Engines, Classes D-98 and D-99, must not operate over any tracks in the Tower Yard District, Edgar Thomson Works, on account of no clearance.

6. Engines of any class are restricted from using any portion of the Pennsylvania Railroad Interchange Track, Hays, south of switch leading to Nos. 2 and 3 tracks at south end.

7. Engines of any class must not pass under Coal Dock No. 2, Duquesne, on tracks Nos. 2, 3, and 4 (commonly referred to as "above" or "below") on account of no overhead clearance.

8. Diesel Engines, Classes D-98 and D-99, must not operate on track M-25, Mon. Southern Yard, on account of sharp curves.

9. Engines of any class must not be operated over No. 2 South Drop Track, Homestead Steel Works, beyond a point approximately 100 feet north from south door of building. A sign marked "Engine Limit" located on east side of building and adjacent to No. 2 Track indicates limit of track over which engines are permitted to operate.

10. Engines of any class must not pass under hopper while operating on No. 5 Track at Crusher Plant, Briquette, Pa., on account of no clearance.

11. Engines of any class are restricted from movement over Spur Track leading from Airport Siding Track, Mifflin, beyond a point 210 feet from the point of switch leading to the Spur Track.

12. No steam engine heavier than 75-tons and no Diesel locomotive heavier than 125-tons is permitted to operate over Wharf Trestle Track, Marine Ways, Clairton, and over No. 7 Bloom Mill Boiler Trestle Track, Clairton Steel Works.

13. When necessary to move Diesel locomotives over ash pits, care must be exercised to avoid damage account of fire hazard.

14. Locomotive movements over the following bridge structures are restricted, as noted below:

Turtle Creek Viaduct — Span over Thompson Run.

Port Perry Bridge — Spans over river

Rankin Bridge — Spans over river.

Coal Valley Bridge.

Wylie Bridge.

Peters Creek Bridge.

a. More than two steam engines of any class coupled together must not be moved over these structures, and additional steam engines must not be operated within a distance of 400 feet from the coupled engines on the same track.

(Continued on Page 28)

LOCOMOTIVE AND OTHER RESTRICTIONS—Continued

b. There is no restriction regarding the number of 125-ton Diesel engines that may be coupled together, and such Diesel engines may be moved in combination with steam engines without further restricting the operation of steam engines, as provided in Section a.

(B) ENGINES AND CARS are restricted as follows:

1. Engines or cars must not be operated on West Track (No. 2 Bin Track), High Line, in the Raw Material Building, Universal Atlas Cement Plant.
2. Caboose cars must not be shoved ahead of engines on Port Perry Tail Track, Bessemer, as reflector numeral signs have been installed indicating the distance in car lengths to the end of Tail Track.
3. No steam locomotive heavier than 75-tons, no Diesel locomotive heavier than 125-tons, and no car heavier than 70-ton hopper cars, shall be permitted on that portion of the Duquesne Steel Works trestle north of No. 1 Blast Furnace.

(C) HANDLING OF HOT METAL is restricted as follows:

1. Handling of loaded 75-ton hot metal ladles over Port Perry Bridge.
 - a. Not more than seven (7) loaded 75-ton hot metal ladles may be handled without the use of spacer cars. No train shall follow the ladle train closer than 500 feet when crossing the main river spans.
 - b. A train consisting of five (5) ladles or less may be moved in one train at a speed not to exceed 10 miles per hour.
 - c. A train consisting of six (6) or seven (7) ladles may be moved in one train at a speed not to exceed 5 miles per hour across the main river spans and 10 miles per hour over the approaches. Only one engine may be used while crossing over the main river span.
 - d. When helper engines are used to assist such trains out of the Edgar Thomson Furnace Yard, they must be detached from the train approximately 80 feet north of the end of the channel span of the bridge.
2. Only the Cinder Bridge shall be used for movements of loaded hot metal ladles to and from the Edgar Thomson Works.
3. Handling of loaded 75-ton hot metal ladles over Rankin Bridge, and all other main line bridge structures, unless otherwise specified:
 - a. A train consisting of only two loaded 75-ton hot metal ladles, engine (Steam — not to exceed 100-tons; Diesel — not to exceed 125-tons), and a caboose, may be handled over these structures. No other loaded cars shall be included in that train.

(Continued on Page 29)

LOCOMOTIVE AND OTHER RESTRICTIONS—Continued

b. A maximum of four loaded 75-ton hot metal ladles may be handled in one train with no other loaded cars. Such a train shall be made up as follows:

Engine (Steam — not to exceed 100-tons;
 Diesel — not to exceed 125-tons)
 2 loaded 75-ton ladles.
 1 empty 50-foot gondola car.
 2 loaded 75-ton ladles.
 Caboose.

c. If the train is to be made up of loaded 75-ton hot metal ladles (maximum of 3) and loaded 45-ton hot metal ladles (maximum of 2), it must be made up in the following manner:

Engine (Steam — not to exceed 100-tons;
 Diesel — not to exceed 125-tons)
 1 loaded 75-ton ladle.
 1 loaded 45-ton ladle.
 1 loaded 75-ton ladle.
 1 loaded 45-ton ladle.
 1 loaded 75-ton ladle.
 Caboose.

d. No other train is permitted to follow any of above trains on same track closer than 500 feet.

4. Handling of loaded 75-ton hot metal ladles is prohibited over any mill structure except as follows:

a. The following trestle and elevated tracks at Edgar Thomson Works:

1. Open Hearth Trestle from Blast Furnaces to Open Hearth Mixer.
2. Open Hearth Trestle over No. 1 and No. 2 Pouring Tracks into Mixer Building.
3. From No. 2 Pouring Track over crossing to E. T. No. 4 Open Hearth.
4. E. T. No. 4 Open Hearth Track through Main Open Hearth Building.
5. Straight Trestle 266 feet from point to switch leading to No. 1 Pouring Track to Pier "L", located on north side of No. 5 Open Hearth Track.

b. Not more than one ladle may be handled between a point 266 feet north of switch leading to No. 1 Pouring Track and Calcining Plant, including the Calcining Trestle, Edgar Thomson Works.

c. Open Hearth Trestle at East End of Open Hearth No. 5, Homestead Works.

Note: Steam engines handling 75-ton ladles over the above mill structures must not exceed 100-tons, and Diesel engines must not exceed 125-tons.

(D) HANDLING OF HOT CINDER is restricted as follows:

1. Only the Cinder Bridge shall be used for movements of loaded hot cinder ladles from the Edgar Thomson Works.

(Continued on Page 30)

LOCOMOTIVE AND OTHER RESTRICTIONS—Continued

(E) MOVEMENT OF ENGINES AND TRAINS OVER SCALES are restricted as follows:

1. Any train movement over the dead rails of any scale shall be made at a maximum speed of 10 miles per hour; any move over the weighing rails shall be made at a maximum speed of 4 miles per hour for all scales except No. 1 Munhall Scale and No. 7 Hot Metal Scale, Munhall, for which the maximum speed is 10 miles per hour.

For those scales over which locomotive moves are permitted by use of the weighing rails, extreme caution must be exercised while running engines over these weighing rails to prevent the sudden application of brakes or the spinning of wheels.

Except by special permission from the office of the Superintendent of Operations, engines may be weighed only on those scales over which that respective class of engine may be operated by use of the weighing rails.

2. Any locomotive move over the following scales must be made over the dead rail:

No. 1 Blast Furnace Scale, Duquesne.

No. 1 Steel Work Scale, Clairton.

No. 2 Blast Furnace Scale, Clairton.

No. 4 Tar Plant Scale, Clairton.

Montour Railroad Scale.

3. Any steam engine move over the following scales must be made by the use of the dead rails. Diesel engines of any class may be run over the weighing rails only while engaged in a weighing or scale testing operation; however, all return moves for Diesel engines and cars across the scales must be made over the dead rails:

No. 3 Clairton Scale.

No. 4 West Run Scale.

No. 5 Scrap Yard Scale, Mon Junction.

No. 6 Universal Scale.

Rail Scale, Edgar Thomson.

Iron Yard Scale, Edgar Thomson.

No. 2 Steel Works Scale, Duquesne.

Hot Metal Scale, Duquesne.

Shipping Scale, Carrie Furnaces.

"D" Yard Scale, Homestead.

"E" Yard Scale, Homestead.

4. Any steam or Diesel engine may be operated over the weighing rails of the following scales, which are not equipped with dead rails:

No. 1 Munhall Scale.

No. 7 Hot Metal Scale, Munhall.

Irvin Works Scale.

Cold Metal Scale — Edgar Thomson Ore Yard.
(On Green Signal Only)

No. 3 Merchant Mill Scale, Duquesne.

Light Ladle Scale, Edgar Thomson.

Hot Metal Scale, Edgar Thomson.

(Continued on Page 31)

LOCOMOTIVE AND OTHER RESTRICTIONS—Continued

5. Steam engines not heavier than 75-tons and all Diesel engines may be operated over the weighing rails of the following scales which are not equipped with dead rails:

Basic Mixer Scale, Edgar Thomson.

Bessemer Mixer Scale, Edgar Thomson.

6. No steam engine or cars coupled together are permitted to run over the No. 2 Coal Dock Scale, which is not equipped with dead rails. Light Diesel engines may be operated over this scale only while engaged in a weighing or scale testing operation.

7. No steam or Diesel engines of any class may be operated over the following scales which are not equipped with dead rails:

Ingot Scale, Homestead.

Metal Mixer Scale, Homestead.

Hot Metal Mixer Scale, Carrie Furnaces.

Hot Metal Scale, Clairton.

(F) LOCOMOTIVE CRANES AND WRECKING DERRICK NO. 15412 are restricted as follows:

1. Locomotive Cranes Nos. 2, 12, 13 and 14, due to long booms, are restricted to special movements at locations where there is close side clearance on curves, such as north end of Rankin Bridge, Cinder Bridge, Peters Creek Bridge, Wylie Bridge and No. 2 Coal Dock.

2. Wrecking Derrick No. 15412 may be moved over the Running Rail of No. 3 Clairton Scale, No. 5 Mon Junction Scale, and No. 6 Universal Scale at a speed not to exceed three miles per hour. Movement of this derrick is not permitted over No. 2 Coal Dock Scale and No. 4 West Run Scale.

3. Wrecking Derricks and all other locomotive cranes must not be moved over any track or trestle over which engines are not permitted to operate. Wrecking Derrick No. 15412 must not be moved over any track or trestle over which steam engines heavier than 75-tons are not permitted to operate.

4. Wrecking Derrick No. 15412 must not be operated over the following:

a. Track No. 3 at Duquesne Coal Dock No. 1.

b. Industry bridges or trestles without special permission.

c. Unloading tracks at Hot Slag and Cold Fill Disposal Dumps unless the crew has been notified by official in charge that it is safe to make this movement.

d. No. 1 Track, Ore Yard, Edgar Thomson Works where it crosses under the Cinder Bridge, on account of no overhead clearance.

(For weights of engines in working order see page 43).

INSTRUCTIONS REGARDING THE HANDLING OF ALL SHIPMENTS OR EQUIPMENT EXCEEDING PUBLISHED CLEARANCES AND/OR WEIGHTS

80. Clearance Form CF-1 must be used in connection with the handling of all shipments or equipment exceeding published clearance and/or weights.

Authority for movement of such shipments will be issued from Assistant Superintendent of Operations' Office. Dimensions of such cars received from connecting lines must be promptly reported by the Car Inspector personally to the Yardmaster on duty, who will then report the dimensions to the Assistant Superintendent of Operations' Office for movement instructions, which instructions will designate the route. When route is received, such route must be inserted on Clearance Form by Yard Supervisory Force, and signed by Railroad Representative.

Such cars offered for movement by industrial companies will likewise be reported to the Assistant Superintendent of Operations' Office for movement instructions. Representative of industrial company will specify on form, signed by proper plant representative, route of shipment over industrial-owned tracks, and must deliver form to nearest Yardmaster. The Railroad will specify route over Railroad-owned tracks. In no case will shipment be moved from the loading track until complete authorization is received from Office of Assistant Superintendent of Operations. In all cases, the conductor must have Clearance Form in his possession while handling cars or equipment which have excessive dimensions or weights. Conductor must notify engineer as to location of such cars or equipment in his train, and care must be exercised in handling such movements.

81. OVERHEAD CLEARANCES

(a) Overhead obstructions which will not clear man standing on top of box car, that is, under 22 feet:

1. Roof of North Bessemer Tunnel over main tracks.
2. Highway bridge over main tracks at Universal.
3. Barry Bridge over all tracks at South Universal.
4. Highway bridge over main tracks, north of Hall.
5. B. & O. R. R. and Port Perry Yard Bridges over all tracks south of Bessemer Inbound Yard.
6. Portals of Union Junction Bridge over Lead Track to Port Perry Yard.
7. P. R. R. Bridge over Port Perry Yard Tracks.
8. Cinder Bridge over all tracks at south end of Bessemer Yard.
9. Edgar Thomson Open Hearth Trestle over No. 1 and No. 2 Storage and Shipping Tracks at New Slab Mill.
10. Pipe line crossing over No. 2 B. & O. Nigger Track, Car Dumper Track, and River Line Track south of Edgar Thomson Open Hearth Trestle.
11. Straight Trestle, Edgar Thomson Works, over Open Hearth No. 2, Open Hearth No. 5 and Runaround Tracks.
12. Portals of Port Perry Bridge over main tracks.
13. P. & L. E. R. R. Monongahela River Bridge over all tracks near Farm Yard, Homestead.

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OVERHEAD CLEARANCES—Continued

14. Portals of Rankin Bridge over main tracks.
15. P. & L. E. R. R. Monongahela River Bridge over all tracks at Rankin.
16. P. R. R. Monongahela River Bridge over all tracks at South Duquesne.
17. P. R. R. Monongahela River Bridge over Keystone Tracks, near No. 2 Coal Dock.
18. Port Perry Bridge over Keystone Tracks.
19. North leg of Munhall Viaduct over River Siding.
20. No. 6 Blast Furnace Lead (M.A. Hole) at Duquesne Works.
21. Sand hole or lead between Blast Furnace and Steel Works, Duquesne Works.
22. Wylie Bridge over tracks leading to "B" Yard Clairton.
23. Portals of Wylie Bridge over main track.

NOTE: IN ADDITION TO THE ABOVE, EMPLOYEES MUST BE ON THE ALERT TO AVOID OTHER OVERHEAD OBSTRUCTIONS UNDER 22 FEET LOCATED WITHIN PLANTS AND AT OTHER POINTS OFF THE MAIN TRACKS.

82. LOCATION OF OFFICIAL BULLETIN BOARDS WHERE GENERAL ORDERS ARE DISPLAYED

North Bessemer.....	Yard Office (south end)
Universal.....	Yard Office (former station)
Hall.....	Trainmen's Room
Oak Hill.....	Yard Office
Bessemer.....	Yard Office
Bessemer.....	Crew Dispatcher's Office
Bessemer.....	Yard Office (Furnace Yard)
Bessemer.....	Yard Office (Rail Yard)
Bessemer.....	"MO" Tower
Monongahela Junction.....	"J" Tower
Monongahela Junction.....	Yard Office
Duquesne.....	M. of W. Shop
Duquesne.....	Orchard Yard Office
Duquesne.....	Blast Furnace Scales
Duquesne.....	Steel Works Scales
Duquesne.....	Merchant Mill Scales
Kenny.....	Yard Office
Munhall.....	Yard Office
Farm Yard, Munhall.....	Yard Office
Hays Yard.....	Yard Office
McClure St.....	Yard Office
Rankin.....	Yard Office
Rankin.....	Field Yard Office
Clairton Junction.....	Tower
Irvin (Curry Hollow).....	Yard Office
Clairton.....	Yard Office, "B" Yard
Clairton.....	Enginehouse
Clairton.....	Yard Office, "C" Yard
Clairton.....	Maple Avenue Yard Office
Mifflin Junction.....	Yard Office

83. BLOWING OUT OF LOCOMOTIVE BOILERS IS PERMITTED ONLY AT THE FOLLOWING POINTS:

UNIVERSAL.....	High Line and South Yard, just south of scales.
HALL.....	North end of tail track, back of enginehouse.
OAK HILL.....	Newtown Yard and Turtle Creek Yard, on outside track, next to creek.
BESSEMER YARD.....	Along Old Main Track, between Hamburg Road and B. & O. Bridge over Turtle Creek.
BESSEMER ENGINEHOUSE..	Tail track at south end.
DUQUESNE.....	Old Scale Track along river.
MIFFLIN.....	On any of cinder dumps and Airport tracks. Also immediately north and south of Limestone Cut.
CLAIRTON.....	Between Coke Scales and south end of "B" Yard, along river.
MUNHALL.....	Between Green Springs and Central Wharf, along river on southbound main track.
HAYS.....	South of Hays Yard Office, along river, outside track.
RANKIN.....	South of P. & L. E. Bridge, along old cinder pit.

NOTE: Locomotives equipped with muffler blow-outs must not be blown out on bridges, trestles, interlocking or yard switches, or on any property not owned by this Company.

PERSONAL INJURIES

84. EMERGENCY HOSPITALS

Location	Office Hours
East Pittsburgh General Office.....	8:00 A.M. to 5:00 P.M., except Saturdays, Sundays and Holidays. Saturdays 8:00 A.M. to 12:00 Noon.
Edgar Thomson Steel Works, Bessemer...	Day and Night. Week days and Sundays.
Homestead Steel Works, Munhall.....	Day and Night. Week days and Sundays.
Carrie Furnaces, Rankin.....	Day and Night. Week days and Sundays.
Duquesne Steel Works, South Duquesne..	Day and Night. Week days and Sundays.
Clairton Steel Works, Clairton.....	Day and Night. Week days and Sundays.
Irvin Works, Irvin.....	Day and Night. Week days and Sundays.

Employees injured or taken sick while on duty may be taken to the nearest Carnegie-Illinois Steel Corporation emergency hospital.

Injured employees must be transported or accompanied to an emergency hospital with the utmost regard for their safety and comfort enroute.

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PERSONAL INJURIES—Continued

LOCATION OF STRETCHERS AND FIRST AID EQUIPMENT

North Bessemer Car Shop
 North Bessemer Yard Office (south end)
 Universal Yard Office (former station)
 Gascola High Level Dump (Supervisor's office)
 Gascola, Section 2 Tool House
 Hall Storehouse
 Hall Roundhouse
 Oak Hill Yard Office
 Bessemer Yard Office
 Crew Dispatcher's Office, Bessemer
 Rail Yard Office, Bessemer
 Duquesne Coal Dock No. 2
 New Ore Yard Office, Duquesne
 Orchard Yard Office, Duquesne
 Monongahela Junction Yard Office
 Monongahela Junction Car Shop
 "J" Tower
 "BR" Tower
 Irvin, Trainmen's Coach.
 Mifflin Yard Office
 Kenny Yard Office
 Munhall Yard Office
 Farm Yard Office, Munhall
 Hays Yard Office
 McClure St. Yard Office
 No. 4 Scale Office, West Run
 Rankin Yard Office
 "B" Yard Office, Clairton
 Maple Avenue Yard Office, Clairton
 Coke Scales, Clairton
 M. of W. Shop, Duquesne
 *Yard Office, Denniston
 *Furnace Yard Office, Bessemer
 *Merchant Mill Yard Office, Duquesne
 *Monongahela Junction Storehouse
 *Wrecker
 *Motor Cars
 *Coach No. 500
 *Coach No. 502

*First Aid Kits Only.

85. All cases of injury or sickness must be immediately reported to the Superintendent of Operations by telegraph or telephone, using personal injury telegram, Form 133-4, by the foreman or other responsible authority in the vicinity of the occurrence. When stretcher is used, report must show place from which it was obtained.

86. All cases of injury to employees, trespassers, or others, as well as all cases of illness of employees, must be reported to Superintendent of Operations on the regular personal injury report, Form No. 112, as promptly as possible.

87. SAFETY

- Don't handle a telephone in a manner that will bring your person in contact with any metallic parts.
- Don't come in contact with loose or dangling wires.
- Don't think that because a wire is hanging, it is harmless. Loose or dangling wires should be reported promptly.

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SAFETY—Continued

- (d) Don't walk through escaping steam. Go around it.
 - (e) Don't walk or step on frogs, rails, switches, guard rails, or interlocking machinery and connections.
 - (f) Don't stand between cars when making coupling or attempt to adjust the couplers on moving cars.
 - (g) Don't go between moving cars to uncouple cars or airhose.
 - (h) Don't put hand between the lock pin and end sill or hold the cutting lever while making coupling.
 - (i) Don't stand in front of an approaching engine or car and board it while it is in motion.
 - (j) Don't place yourself in a dangerous position to release the air on a moving car.
 - (k) Don't kick a sticking brake shoe while train is in motion.
 - (l) Don't jump on or off a moving train, except when necessary to do so in discharge of a duty in connection with such train.
 - (m) Don't stand with any part of your body between lading and end of car loaded with lumber or any other freight that is liable to shift.
 - (n) Don't stand on the end of a car without secure hold or don't use the end gate of a gondola car for a hand hold.
 - (o) Don't board or alight from trains until sure that there are no obstructions to cause injury; at night, always use hand-lamp.
 - (p) Don't lean beyond the line of cab or car without exercising care to avoid being struck at points of limited clearance.
 - (q) Don't pass under a derrick while it is handling a load.
 - (r) Don't use safety appliances which are in bad order. Repair them; or, this being impracticable, report condition to proper person for repairs.
 - (s) Don't ride on a car with your legs hanging over the side.
 - (t) Don't disarrange bridge warnings so that they fail to serve their purpose.
 - (u) Don't go under cars or between the couplers of cars without first arranging for protection.
 - (v) Don't hang on step of car or locomotive when passing cars, fences, platforms, or over bridges.
88. Employees are prohibited from sitting on the track unless engaged in performing duties which require them to do so.
89. Look in both directions before alighting from a train or crossing the tracks.
90. While inspecting trains or working about cars and engines, a sharp lookout must be kept for approaching trains on adjacent tracks.
91. Trainmen working at points where the roofs of buildings extend over the track, or where the clearance is not sufficient, should be particularly careful to avoid personal injury.
92. When newly-employed or inexperienced men are members of a crew, the older members should call their attention to possible danger.
93. Employees are forbidden to walk upon tracks, except in the performance of duty. When necessary to be on tracks where there are two or more tracks, they should, where practicable, travel against the current of traffic, and when on any track, should keep a sharp lookout in both directions for approaching trains.

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SAFETY—Continued

94. Enginemen and firemen must see that coal boards, slash bars, scrapers, etc., are not allowed to lie upon the aprons of engines, and must see that they are so placed on the tenders of engines that they will not fall off nor project beyond the sides, where they are liable to cause personal injury or accidents to trains on adjacent tracks.
95. The attention of trainmen is called to the danger of working from the inside of a curve when cars are being coupled or uncoupled. Conductors should warn inexperienced brakemen in all cases where such a situation is likely to occur.
96. Remove broken parts of cars, such as drawheads, drafts, brake riggings, or any obstructions from between tracks, to avoid injury to employees.
97. When it is necessary for trainmen to ride on the leading footboard of engines, this must be restricted to not more than two (2) men, who should ride outside the rail. Stepping around coupler on lead footboard of locomotives, while in motion, is strictly prohibited.
98. When possible to avoid it, loose materials must not be carried on tenders, front ends and end sills of locomotives. Any materials so carried must be secured in such a way as to eliminate danger of materials falling from locomotive.
99. When not in use, hand cars and push cars must be secured with chain and lock to prevent their being moved by unauthorized persons.
100. Employees are forbidden to ride upon all loaded hot metal and hot cinder ladle equipment. Employees are likewise forbidden to ride upon empty hot metal and hot cinder ladles except ladles equipped with platforms for use of trainmen.
101. Attention is directed to the regulations for transportation of explosives and other dangerous articles contained in B. E. Pamphlet No. 20-F, issued to yardmasters, yard crews, and yard clerks, effective January 7, 1941 (revised February, 1948). These regulations must be strictly complied with.
102. The practice of poling, chaining, or cabling cars in switching is prohibited.
103. When trains are shoved over grade crossings in any plant served by this Company, a trainman must be on head end of train to warn traffic approaching such crossing or roadway. In such cases the crew must always be in position to transmit or relay signals to engineer immediately.
104. When uncoupling locomotives, cars and other equipment containing air, both angle cocks must be in closed position before cut is made.
- (a) Don't open angle cock to stop train, except in case of emergency.
 - (b) Don't open angle cock for the purpose of bleeding air in cars standing at rest without first taking a firm hold on the airhose with one hand, opening the angle cock with the other hand.
105. Use Unsafe Practice Report, Form 518, in reporting unsafe practices and conditions that may be observed.
106. Attention is directed to booklet containing Union Railroad Safety Rules entitled "General Instructions to Employees to avoid Accidents."

107. COMPANY AUTOMATIC TELEPHONE NUMBERS

2741	Assistant to General Yardmaster, Monongahela Junction
3421	Assistant Superintendent of Operations, Monongahela Junction
3351	Assistant Superintendent of Operations' Office, Monongahela Junction
3111	Crew Dispatcher, Bessemer
3451	Crew Dispatcher, Bessemer
3421	General Yardmaster, Monongahela Junction
2021	Superintendent of Operations, East Pittsburgh
3141	Superintendent of Operations' Office, E. Pittsburgh
3391	Superintendent of Operations' Office, E. Pittsburgh
3131	Telegraph Operator, "SH" East Pittsburgh
2947	Tower "BR," Clairton Junction
3382	Tower "J," Mon Junction
2953	Tower "MO," Bessemer
3421	Trainmasters, Monongahela Junction
3201	Train Movement Director, Monongahela Junction
3321	Yard Office, Bessemer
3491	Yard Office, Bessemer
3101	Yard Office, Bessemer, Furnace Yard
2975	Yard Office, Bessemer, Furnace Yard
7-304	Yard Office, Bessemer, Furnace Yard
3301	Yard Office, Bessemer, Rail Yard
7-291	Yard Office, Bessemer, Rail Yard
8-226	Yard Office, Clairton, "B" Yard
8-257	Yard Office, Clairton, "B" Yard
8-273	Yard Office, Clairton, "B" Yard
8-553	Yard Office, Clairton, "C" Yard
8-363	Yard Office, Clairton, Maple Avenue
8-280	Yard Office, Clairton, P. & L. E.
8-364	Yard Office, Clairton, Peter's Creek
3251	Yard Office, Curry Hollow
2961	Yard Office, Curry Hollow
3521	Yard Office, Denniston
9-316	Yard Office, Duquesne, Blast Furnaces
9-317	Yard Office, Duquesne, Blast Furnaces
9-243	Yard Office, Duquesne, Merchant Mill
9-357	Yard Office, Duquesne, Merchant Mill
3371	Yard Office, Duquesne, New Ore Yard
9-358	Yard Office, Duquesne, New Ore Yard
3311	Yard Office, Duquesne, Oliver Avenue
3361	Yard Office, Duquesne, Oliver Avenue
9-262	Yard Office, Duquesne, Oliver Avenue
9-230	Yard Office, Duquesne, Steel Works
9-398	Yard Office, Duquesne, Steel Works
3313	Yard Office, Duquesne, Swamp Yard
9-304	Yard Office, Duquesne, Swamp Yard
6-398	Yard Office, Farm Yard
6-401	Yard Office, Farm Yard
6-262	Yard Office, Hays
6-384	Yard Office, Hays
3281	Yard Office, Irvin
3181	Yard Office, Kenny
3211	Yard Office, Kenny
6-442	Yard Office, McClure St.
6-286	Yard Office, McClure St.
2944	Yard Office, Mifflin
2994	Yard Office, Mifflin
3401	Yard Office, Monongahela Junction
2943	Yard Office, Monongahela Junction

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COMPANY AUTOMATIC TELEPHONE NUMBERS—Cont.

3241	Yard Office, Munhall
2862	Yard Office, Munhall
6-397	Yard Office, Munhall
2936	Yard Office, North Bessemer (North End)
3261	Yard Office, North Bessemer (South End)
3271	Yard Office, North Bessemer (South End)
3441	Yard Office, Oak Hill
3121	Yard Office, Rankin
2864	Yard Office, Rankin
6-833	Yard Office, Rankin
3511	Yard Office, Rankin (South End)
3291	Yard Office, Universal
2973	Yard Office, Union Junction

For complete automatic telephone listings, consult Union Railroad Telephone Directory (Revised 4/1/44).

108. LIST OF TRACK AND STATION NUMBERS

STATION	NUMBER
NORTH BESSEMER....All tracks except Public Delivery Track.....	2
Public Delivery Track.....	2A
UNIVERSAL.....All tracks except Public Delivery Track.....	3
Public Delivery Track.....	3A
GASCOLA.....All tracks.....	4
LEAK RUN.....All tracks.....	5
HALL.....All tracks.....	7
OAK HILL.....All tracks.....	8
NEWTOWN.....Westinghouse Electric Corp. Connection.....	9
TURTLE CREEK.....Tri-Boro Supply Company.....	10
EAST PITTSBURGH....Station and Storage Sidings.....	12
BESSEMER.....All tracks, Edgar Thomson Steel Works.....	13
Union Junction.....	14
Port Perry Transfer.....	15
P. R. R. Inbound.....	16
P. R. R. Outbound.....	
Enginehouse Tracks.....	17

NOTE: Cars moved either way between Bessemer Yard and Union Junction need not be traced unless sealed.

MONONGAHELA JCT....All tracks except Car Shops.....	18
Car Shops.....	19
BRIQUETTE.....Sintering Plant Tracks.....	20
Scrap Stock Pile.....	20A
Crusher Plant.....	20B
Cinder Dumps Nos. 5 and 8.....	21
CLAIRTON JUNCTION..Clairton Junction Storage (Jew Siding).....	22
RISHER.....Best Siding.....	23
Linde Siding.....	23B
Risher Mine Siding.....	24
Duquesne Slag Products Co.....	

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LIST OF TRACK AND STATION NUMBERS—Continued

STATION		NUMBER
MIFFLIN.....	Taylor Cinder Dump, including Continental Can Co.....	25
	All tracks except Public Delivery Tracks.....	26
	Church Siding.....	26A
	Mifflin Siding.....	26B
	Airport.....	27
	South Team Track.....	28
	United Iron & Metal Company....	29
DUQUESNE.....	1-2-3 Hill Tracks.....	30
	1-2-3-4 Oliver Tracks.....	
	Orchard Yard.....	
	Swamp Yard.....	31
SOUTH DUQUESNE....	All tracks, Duquesne Steel Works..	32
KEYSTONE BRANCH...	Duquesne Coal Docks.....	33
	Arch Siding.....	
	McCrary-Rogers Company.....	
NOTE: Cars moved either way between Stations 30, 31, 32, 33, and 34 need not be traced unless sealed.		
KENNY.....	P. R. R. Interchange Tracks.....	35
MUNHALL.....	River Spur.....	36
	River Storage Track.....	
	Running Track.....	
	A & B Yards.....	
	Hays Yard.....	
	West Run Yard.....	
	All other tracks, Homestead Steel Works.....	
	Central Wharf.....	36B
HOMESTEAD.....	P. & L. E. Interchange (Inbound) ..	39
	P. & L. E. Interchange (Outbound)	40
HAYS.....	P. R. R. Interchange (Inbound)...	41
RANKIN.....	A. S. & W. Works.....	42
	Carrie Furnaces (All tracks).....	43
	P. & L. E. Interchange.....	44
DENNISTON.....	B. & O. Interchange.....	45
IRVIN.....	Stock Tracks.....	48
	All tracks, Fisher Body Plant....	49
	All tracks, Irvin Steel Works.....	50
CLAIRTON.....	Clairton Steel Works and By-Product Coke Works.....	51
WYLIE.....	P. & L. E. Interchange.....	52
	Public Delivery Track.....	52A

Instructions printed on Form No. 103 (Conductor's Trace Card) must be carefully noted and carried out. Correct information must be shown under each of the column headings appearing on Form 103. For the purpose of Form 103, the date changes at Midnight. The new date must be shown beginning at 12:01 A. M. It is very important that these reports show the proper date.

LIST OF UNION RAILROAD TRACK SCALES

109.

Number and Name	Length of Live Rail	Number of Sections	Scale Capacity Lbs.	Remarks
No. 1, Munhall.....	72'-0"	4	400,000	No Dead Rail. Automatic
No. 2, Coal Dock.....	60'-0"	6	144,000	No Dead Rail. Automatic
No. 3, Clairton.....	61'-10"	4	480,000	Dead Rail. Automatic
No. 4, West Run.....	100'-7"	8	240,000	Dead Rail. Weigh Running
No. 5, Mon. Junction.....	46'-8"	4	240,000	Dead Rail
No. 6, Universal.....	46'-7"	4	240,000	Dead Rail
No. 7, Hot Metal, Munhall.....	23'-0"	2	400,000	No Dead Rail

110. HOURS OF SERVICE LAW

The Hours of Service Law requires that no employe in train service shall be required or permitted to be or remain on duty more than sixteen hours in the aggregate in any twenty-four hour period, except in case of casualty, unavoidable accident or Act of God. After being on duty sixteen consecutive hours, he must not be required or permitted to again resume duty without having been off duty ten consecutive hours, and, after being on duty sixteen hours in the aggregate in any twenty-four hour period, he shall not be required or permitted to again go on duty without having had at least eight consecutive hours off duty.

Any train service employe concerned who may be ordered for duty before his legal rest period has expired must report the fact to the proper officer before going on duty; and when a crew, or any member thereof, has been continued on duty for fifteen hours in any twenty-four hour period, it shall be the duty of the conductor, and, in the absence of a conductor, of the engineer, to call the attention of the proper officer to the fact.

MISCELLANEOUS

111. Locomotives 175 to 191, inclusive, are equipped with connections to branch pipe, enabling these engines to be used as fire-fighting equipment. Connections will fit standard fire hose carried in all Union Railroad fire houses. Enginemen should familiarize themselves with operating these connections to be in position to function properly if called upon to use any of these engines in such an emergency.

112. All trainmen and enginemen and other employes who prepare a daily time report must turn in their time card at the completion of their tour of duty at the point relieved.

LOCOMOTIVE CLASSIFICATION

Class	Type	Weights in Working Order (Net Tons)	Engine Numbers	Number
S-45	0-6-0	90	75 to 84.....	10
S-64B	0-6-0	95	175 to 186.....	12
S-64B	0-6-0	100	187 to 191.....	5
D-39	0-4-4-0	65	401 to 410.....	10
D-57	0-4-4-0	96	455 to 468.....	14
D-59	0-4-4-0	99	451 to 454.....	4
D-59	0-4-4-0	115	503.....	1
D-69	0-4-4-0	120	500 to 502, 504 to 535.....	35
D-75	0-4-4-0	123	536 to 555.....	20
D-75	0-4-4-0	125	601 to 612.....	12
D-98	0-6-6-0	163	613 to 619.....	7
D-99	0-6-6-0	165	620 to 624.....	5
Total.....				135

UNION RAILROAD COMPANY



**General Instructions
to Employees
to Avoid Accidents**

**HELPING YOURSELF IN
SAFETY HELPS OTHERS**

UNION RAILROAD COMPANY

SAFETY RULES

PREFACE

Accidents do not happen; they are caused by someone not being thoughtful, someone not exercising the proper care in his work or actions. This Company is doing all possible to install proper safeguards on all equipment, machines, and dangerous places, but the Company cannot control Individual Carelessness, and records show that carelessness is the cause of most accidents. This is where you can help. Accidents can be greatly reduced if you keep in mind the thought of safety for yourself and others.

Any ideas or suggestions you may have that might help prevent accidents should be reported to the Safety Department. If the suggestion is practical, every effort will be made to have it adopted.

We are giving you this Rule Book with the thought in mind that it will aid you in performing your duties in a safe and careful manner.

UNION RAILROAD COMPANY
General Instructions to Employees to
Avoid Accidents

1. It is the duty of each employee to read carefully and thoroughly understand the instruction for the prevention of accidents to the end that he may avoid personal injury or loss of life.

2. Every Foreman, when he places a man on any job, must instruct him fully as to all existing and concealed dangers in such a manner that he is sure the man understands them. From time to time as new hazards arise, Foremen shall instruct all men under them in regard to the danger and the best methods of avoiding accidents due to same.

3. It is the duty of the Foreman in case of accident to see that each injured employee gets an accident card at once and reports immediately to the Emergency Hospital for treatment, no matter how slight the injury.

4. Every Foreman should become familiar with the location of stretcher Cases in his particular department, their contents and use of same, and in case

of accident should remove injured person to Emergency Hospital as quickly as possible.

5. In case of accident or injury, no matter how slight, employee must get accident card from his own Foreman, or any Foreman who is near, and report at once to the Emergency Hospital for treatment. If neglected, the wound may become infected and blood poisoning result.

6. Do not permit fellow workmen to remove dust or dirt from the eye. Report to the Emergency Hospital where proper treatment will be rendered.

7. Employees are requested to report at once to Foreman in charge regarding anything in their department which looks dangerous, or any defect in tools, machinery, or other appliances affecting the safety of men.

8. Running up or down stairway is strictly prohibited.

9. Practical jokes, such as charging water buckets, seats, hand rails, etc., with electricity, or placing air hose against the person of another employee, wrestling, throwing of material, or fooling of any kind, are positively prohibited.

10. A dirty plant means accidents. Throwing waste garbage, bottles, refuse, or other material about shops or out of windows is prohibited. Places are provided for disposing of it. Do your part towards keeping the plant clean.

11. Always keep floor space around machines and aisleway clean and free from oil and any obstruction that may cause you or others to trip, slip, or fall.

12. Employees passing through railroad yards and over tracks on which cars are standing must cross at least ten feet from end of car so that in case car is suddenly moved, they may have time to get off the track. Always look both ways before crossing any track.

13. Employees are forbidden to walk upon tracks, except in the performance of duty. When necessary to be on tracks where there are two or more tracks, they should, where practicable, travel against the current of traffic and when on any track should keep a sharp lookout in both directions for approaching trains.

14. Employees must not take short cuts over dangerous places when any other safe way is available even though the safe way may be longer or less direct.

15. Watch ladders—they may be dangerous. See that the rungs and sides are strong and in good condition. Never place ladders at an unsafe angle or on a slippery floor, or on boxes or loose boards, or so as to rest on one leg only unless someone steadies the lower end. Never place a ladder back of a revolving shaft in order to get at a bearing or pulley. Every ladder should be provided with a safety shoe, spike or other safety device to prevent slipping.

16. Do not go up or down a ladder without the free use of both hands. Do not come down a ladder face forward. If material must be handled, use a rope.

17. Suitable protective devices such as safety shoes and leggings should be worn by all men working where molten metal may splash and burn their feet and legs.

18. Employees are cautioned to keep away, as far as possible, from trains which carry hot slag or hot metal.

19. If you make an opening or remove the cover from any opening in floor, ground, valve pit, or sewer, guard that opening so no one can fall into it.

20. When excavating ditches, pits,

etc., proper shoring material shall be provided when necessary.

21. When excavating is to be done and is to be left uncovered at night, the Foreman in charge must see to the placing of proper guards, danger lights, and signals.

22. Boards with nails sticking up must not be left lying around. When you see such boards, turn nails over, pull the nails, or put the boards where they can do no harm. Never attempt to turn a nail down with the sole of your shoe.

23. The careless handling of materials produces more accidents than any other single cause. Remember this when you are moving or handling materials. Never raise one end of a piece of heavy material until others who are assisting are ready; securing a firm foothold or a strong grip before lifting. Release your hold only on a given signal.

24. Learn to lift the right way to avoid strains: i.e. keep the knees bent, the body straight, push your body upwards with your legs. It is much easier and safer.

25. Do not pile any material in such a manner that it is liable to fall.

26. Employees, when digging into any material, must be very careful that material does not slip and bury them, and when getting material from piles that the material does not fall upon them.

27. Men working with shovels, picks and mauls should avoid working too close together to avoid striking each other.

28. Use of any wrench other than a ratchet or self-adjusting car wrench, when opening or closing of drop bottom or hopper cars, is prohibited.

29. Throwing tools or material from cars, locomotives, or buildings, without knowing it is safe to do so, is prohibited.

30. Be certain of safe hand and foot holds before climbing anywhere.

31. Standing near a cable or chain when heavy pull is being made is prohibited.

32. Do not ride on locomotives, cars, overhead or locomotive cranes, or other moving machinery except when required by your duties and then only in proper place provided for that purpose.

33. Do not ride on any load being carried by crane or allow others to do so.

34. Be ever watchful of loads carried by cranes or suspended in the air, and keep out from under them.

35. Do not turn on any electricity, gas, steam, air, acid, or water, or set in motion any machinery, or throw down any material without first seeing if any one is in a position to be injured and all safeguards are in their proper place.

36. Employees working around machinery shall use great care and shall not wear gloves or unsuitable clothing, such as ragged sleeves, loose coats, ties, or jumpers, as there is danger of same getting caught in machinery. Wearing of finger rings and watch chains is prohibited.

37. Always shut down machinery before oiling, cleaning, or adjusting, and place a danger tag or lock on switch.

38. Do not work with defective machinery, chains, cables, tools, or appliances of any kind or in an unsafe place. Carefully examine same and report dangerous condition to your Foreman.

Take care of the tools you use. Tying knots in chains is absolutely prohibited.

39. Use of defective tools, ladders, ropes, tackle, scaffolds, and other appliances, is prohibited. They must be repaired or reported to proper person for repairs.

40. Be sure your wrench fits properly. Do not use a shim to fill up space around nut or bolt head. Get a proper fitting wrench and avoid wrenches with battered jaws.

41. Keep your wrenches in good condition; hold them firmly; get a good grip. When off the floor in a dangerous position, take hold of something so that if the wrench slips you won't fall.

42. When you are working on a job, never leave tools or material lying in such a position that they may fall and strike someone below.

43. Notify men working above you of your whereabouts in order that they may take necessary precautions for your safety.

44. Employees working on elevated places must first protect the area under them by proper placing of signs read-

ing "DANGER—MEN WORKING OVERHEAD." They must be particularly careful not to let anything drop which might injure employees below. Employees working on elevated places or in bins where material is unloaded should wear life belt and life line wherever practicable.

45. All overhead platforms or scaffoldings should be provided with toe boards to prevent small tools or other objects from rolling or being kicked off onto persons below.

46. Goggles shall be worn in connection with all work where there is danger of flying sparks or material of any kind which might cause injury to the eyes. When pouring lead or babbitt, use a mask.

47. Do not, under any circumstances, watch an electric welder. Always protect your eyes from the rays of the electric arc, as these rays may cause serious eye injuries.

48. Standing close to and watching forging operations, when not actually engaged, is prohibited.

49. Use proper protection to prevent

rivet heads, bolts, chips, or other material from flying.

50. Jumping across locomotive or other pits is prohibited.

51. Set jacks securely before using them. Remove handles when jacks are not being operated.

52. Place trestles or blocks under cars, locomotives, or tenders jacked up, upon which work is to be done.

53. Going under or working on cars or tenders jacked up which are not protected by trestles or blocks, is prohibited.

54. Guiding center pins with hands when lowering car or tender bodies on trucks is prohibited.

55. Never distract the attention of another worker, as you might cause him to be injured.

56. Arrange for protection before going between or under locomotives or cars on other than assigned repair tracks.

57. Employees are forbidden to go under or on a locomotive or car in railroad yards for any purpose unless their work requires it, and never unless a Blue Flag or Light is displayed at both ends of locomotive or cars. Workmen will dis-

play the Blue Signals and the same workmen are alone authorized to remove them. Locomotives or cars protected by Blue Signals must not be coupled to or moved, and other cars must not be placed on the same track so as to intercept the view of the Blue Signals, without first notifying the workmen. A Blue Flag or Light must also be placed at ends of cars when workmen are in them for any purpose.

58. Use special lock for switches leading to each assigned car repair track while workmen are at work on such tracks, key being used and retained by Foreman in charge of the work or employee designated by him. (This does not modify above rule.)

59. No employee may enter the property of this Company under the influence of liquor or bring same in for personal use on duty.

60. Employees coming out of buildings adjacent to tracks should use great care to avoid injury from approaching trains and should look in both directions before crossing tracks.

61. Employees are cautioned to be

on the alert in all types of work to avoid falling, slipping, tripping, or turning of ankle (coal, boards, stones, rubbish, refuse material, ties, rails, ballast, holes, openings, snow, ice, mud, etc.)

62. Never use air or oxygen to clean clothes.

63. Employees are urged to wear safety shoes. They will help prevent accidents to your toes.

64. All electric welding, burning or heating of tanks or drums which have contained combustible oil, paints, etc., must be preceded by filling with steam or water at the time of burning.

65. If your fellow workman is careless, call his attention to it. He should thank you for the act. If he persists, report the matter to your Foreman. We do not want careless men in our employ.

66. Employees must not commit nuisances around the plant as toilet conveniences are provided for that purpose.

67. Care must be taken to keep all tracks free from obstructions which might catch footboard or any part of a locomotive, or which might trip a person walking along the tracks. Keep all ma-

terials or obstructions back six feet from tracks.

68. Don't handle a telephone in a manner that will bring your person in contact with any metallic parts.

69. Don't come in contact with loose or dangling wires.

70. Don't think that because a wire is hanging it is harmless. Loose or dangling wires should be reported promptly.

71. Don't walk through escaping steam. Go around it.

72. Don't walk or step on frogs, rails, switches, guard rails, or interlocking machinery and connections.

73. Don't stand between cars when making coupling or attempt to adjust the couplers on moving cars.

74. Don't go between moving cars to uncouple cars or airhose.

75. Don't put hand between the lock pin and end sill, or hold the cutting lever while making coupling.

76. Don't stand in front of an approaching engine or car and board it while it is in motion.

77. Don't place yourself in a danger-

ous position to release the air on a moving car.

78. Don't kick a sticking brake shoe while train is in motion.

79. Don't jump on or off a moving train, except when necessary to do so in discharge of duty in connection with such train.

80. Don't stand with any part of your body between lading and end of car loaded with lumber or any other freight that is liable to shift.

81. Don't stand on the end of a car without secure hold or don't use the end gate of a gondola car for a hand hold.

82. Don't board or alight from trains until sure there are no obstructions to cause injury. Always use your hand lamp at night.

83. Don't lean beyond the line of cab or car without exercising care to avoid being struck at points of limited clearance.

84. Don't pass under a derrick while it is handling a load.

85. Don't use safety appliances which are in bad order. Repair them, or this

being impracticable, report condition to proper person for repairs.

86. Don't ride on a car with your legs hanging over the side.

87. Don't disarrange bridge warnings so that they fail to serve their purpose.

88. Don't go under cars or between the couplers of cars without first arranging for protection.

89. Don't hang on step of car or locomotive when passing cars, fences, platforms or over bridges.

90. Employees are prohibited from sitting on the track unless engaged in performing duties which require them to do so.

91. Look in both directions before alighting from a train or crossing the tracks.

92. While inspecting trains or working about cars and engines, a sharp lookout must be kept for approaching trains on adjacent tracks.

93. Enginemen and Firemen must see that coal boards, slash bars, scrapers, etc., are not allowed to lie upon the aprons of engines, and must see that

they are so placed on the tenders of engines that they will not fall off nor project beyond the sides where they are liable to cause personal injury or accidents to trains on adjacent tracks.

94. The attention of trainmen is called to the danger of working from the inside of a curve when cars are being coupled or uncoupled. Conductors should warn inexperienced brakemen in all cases where such a situation is likely to occur.

95. Think what you are doing when operating switches; don't place yourself in position to be struck by switch lever or ball.

96. In setting or releasing brakes by hand or with a brake club, be sure you are in proper position to protect yourself against being jarred off car due to sudden coupling of cars, kick or giving way of brake.

97. Getting off cars or locomotive facing outward is prohibited.

98. Trainmen working at points where the roofs of buildings extend over the track or where the clearance is not sufficient should be particularly careful to avoid personal injury.

99. When newly employed or inexperienced men are members of a crew, the older members should call their attention to possible danger.

100. Remove broken parts of cars, such as drawheads, drafts, brake riggings, or any obstructions from between tracks, to avoid injury to employees.

101. When it is necessary for trainmen to ride on the leading footboard of engines, this must be restricted to not more than two (2) men who should ride outside the rail. Stepping around coupler on lead footboard of locomotive while in motion is strictly prohibited.

102. When it is necessary to get off the lead footboard of a moving locomotive, always alight in the six-foot to clear of locomotive. Stepping off lead footboard in front of moving locomotive is strictly prohibited.

103. When possible to avoid it, loose materials must not be carried on tenders, front ends and end sills of locomotives. Any materials so carried must be secured in such a way as to eliminate danger of materials falling from locomotive.

104. When not in use, hand cars and

push cars must be secured with chain and lock to prevent their being moved by unauthorized persons.

105. Employees are forbidden to ride on all loaded hot metal and hot cinder ladle equipment. Employees are likewise forbidden to ride upon empty hot metal or hot cinder ladles except ladles equipped with platforms for use of trainmen.

106. Attention is directed to the regulations for transportation of explosives and other dangerous articles contained in B. E. Pamphlet No. 20F issued to Yardmasters, Yard Crews, and Yard Clerks, effective January 7, 1941, (revised June 8, 1943). These regulations must be strictly complied with.

107. The practice of poling, chaining, or cabling cars in switching is prohibited.

108. When trains are shoved over grade crossing in any plant served by this Company, a trainman must be on the head end of train to warn traffic approaching such crossing or roadway. In such cases the crew must always be in position to transmit or relay signals to Engineer immediately.

109. Use "Unsafe Practice Report," Form 518, in reporting unsafe practices and conditions that may be observed.

110. BE COURTEOUS. Not only heads of departments and Foremen, but all employees should be courteous to one another at all times. Cooperation between departments and between employees is very important. Courteous manners invite confidence and lead to discussion of matters pertaining to Safety and Welfare.

