

**THINK
SPEAK
ACT**

with caution!

Your life, as well as the lives of others, depends on **YOUR** attitude and action with regard to safety.

Safety is everybody's job on the B & O (from the President down) . . . but, it begins with

You

THE BALTIMORE & OHIO RAILROAD COMPANY

WESTERN REGION

SAFETY ABOVE EVERYTHING



**OHIO-NEWARK DIVISION
CINCINNATI TERMINAL SUB-DIVISION**

139

TIME-TABLE No. 139

**EFFECTIVE 12:01 A.M., EASTERN
STANDARD TIME**

SUNDAY, APRIL 25, 1965

H. I. WALTON
Superintendent

**OHIO-NEWARK DIVISION
CINCINNATI TERMINAL SUB-DIVISION**

**SUPERINTENDENT
H. I. Walton**

**ASSISTANT SUPERINTENDENT
S. C. Myers**

**TERMINAL SUPERINTENDENT
S. R. Jones**

TERMINAL TRAINMASTERS

H. H. Corbett

W. T. Martin

ASSISTANT TERMINAL TRAINMASTERS

R. W. Whitehead
K. Neely

J. F. Snow
L. Flannery, Jr.

**ROAD FOREMAN OF ENGINES
L. D. Benson**

**CHIEF TERMINAL DISPATCHER
D. G. Harlow**

TERMINAL DISPATCHERS

C. L. Highfill
J. N. Rekers

W. C. Ray
R. E. Alvey

W. C. Eernisse
R. C. Holland

**MASTER MECHANIC
O. M. Dorsey**

**DIVISION ENGINEER
R. S. Henry**

ASSISTANT DIVISION ENGINEERS

R. F. Silbaugh

S. J. Levy

**DISTRICT CLAIM AGENT
R. D. Steed**

H. J. J. Lentz, Jr.

**CLAIM AGENTS
R. F. Vonderahe**

H. E. Gilbert

**SUPERVISOR SAFETY AND FIRE PREVENTION
R. J. Talkington**

**CAPTAIN OF POLICE
R. G. Albers**

THE BALTIMORE AND OHIO RAILROAD COMPANY

Medical Department

I. KAPLAN, M.D., Medical and Surgical Director

COMPANY SURGEONS

Cincinnati, Ohio

Dr. V. E. Siler
Christian R. Holmes Hospital
Eden & Bethesda Ave.,
861-2270 Ext. 81 or
861-3100 Ext. 356

Dr. E. J. Glaser, Oculist
703 Carew Tower, 721-5999

Dr. Edward Bender,
Doctor's Bldg., 19 Garfield Place
621-1177

Dr. A. J. Huesman,
2617 Vine Street, 961-7657

Dr. Taylor Asbury, Oculist
718 Carew Tower, 721-1593

St. Bernard, Ohio

Dr. Frank Cunningham,
206 Delmar Ave., 281-1135

Glendale, Ohio

Dr. G. B. Hannah, 771-7213

Covington, Kentucky

Dr. C. J. Farrell,
808 Scott Street, 431-6100

HOSPITALS

Cincinnati, Ohio

Christian R. Holmes
Bethesda. Emergency

FIRST AID CLINIC

Room 4, Railway Express Bldg., York and McLean Streets, 8:30 A.M. to
4:00 P.M., daily except Saturday, Sunday and holidays.

EXAMINING POINT

CINCINNATI—REGIONAL HEADQUARTERS OFFICE

Railway Express Bldg., Room 4 York and McLean Streets, 9:00 A.M. to
4:30 P.M., daily except Saturday, Sunday and holidays.

MEDICAL EXAMINER

Cincinnati, Ohio

Dr. D. J. Foglia

NOTICE OF DISABLEMENT OR DEATH OF A RELIEF DEPARTMENT
MEMBER SHOULD BE REPORTED PROMPTLY.

INSTRUCTIONS COVERING MEDICAL SERVICES

1. Employees seriously injured on duty or passengers, whose injuries require medical or surgical aid, should be promptly taken to the nearest listed Company's Surgeon or hospital emergency room, except in extreme emergency, when they should be transported to the closest medical facility.

Workers with minor injuries sustained on duty should be treated at the listed First Aid Clinics. Where these services are not readily available, such cases should be referred to the nearest listed Company's Surgeon or hospital emergency room.

2. Depending on severity of injury, the officer in charge will use discretion as to proper conveyance for removal of injured employee. Municipal or private ambulances, taxicabs, personal or Company's vehicles may be used for this purpose, and the Company may be billed for the service.
3. When a passenger becomes ill on a train and requests medical attention, any local physician, Company's Surgeon or otherwise, may be called. If the passenger cannot or will not pay the physician called, we shall pay for the first call, but both the patient and the physician should be told that all subsequent treatment shall be at the patient's expense.

SPECIAL INSTRUCTIONS

1. SUPERIORITY OF TRAINS

On single track eastward trains are superior to westward trains, and northward trains are superior to southward trains, of the same class.

2. LOCATION OF WATCH INSPECTORS

Cincinnati Southam Watch Co., Cincinnati Union Terminal Building, Cincinnati.

Carl Leser, Jeweler, 4144 Hamilton Ave., Cincinnati. Eckerle Jewelry Co., 6104 Vine St., Elmwood.

3. STANDARD CLOCKS, BULLETIN BOARDS TRAIN REGISTERS

Located as indicated by "X"

	Stand- ard Clock	Bulle- tin Board	Train Regis- ter
C.U.T.			
Crew Dispatcher	x	x	x-a
Storrs Jct.	x		x-c
Storrs			
Yard Office	x	x	
Locker Room	x		x
Cincinnati Jct.			
Telegraph Office	x		
Stock Yards			
Round House	x	x	x-d
RH Tower	x		
Winton Jct.			x-e
Ivorydale Jct.			x-f
Queen City Yard Office		x	
Wood Street Yard Office		x	
Brighton Yard Office		x	
Mill Creek Yard Office		x	
Oakley Yard Office		x	
Maplewood Yard Office		x	
Ivorydale			
Yard Office	x	x	
Yard A			
Yardmaster's Office	x	x	x-g

a—For passenger train and engine crews.

c—All trains at Storrs Junction will register with Form C.

d—For B & O Freight and Yard Crews.

e—First class trains only will register with Form C.

f—Toledo Division trains only will register with Form C.

g—For trains starting and terminating only.

4. CLEARANCE CARD FORM A

Trains will secure Clearance Card Form A from following locations when moving over divisions:

East Norwood—Eastward Ohio-Newark Division.

Storrs Junction—Westward St. Louis Division.

Winton Junction—Northward Toledo Division.

East Norwood, Ivorydale Junction or RH Tower—P.R.R. N&W and NYC trains will not be required to secure Clearance Card Form A. Operating Rules 6, 55 and 111 modified.

Trains will secure permission from operator at following locations when leaving respective yards:

Brighton—Eastward—RH Tower.

Mill Creek—Westward—RH Tower.

Yard A—Northward—Winton Junction.

5. SPEED RESTRICTIONS

LIMITS	Class or Service		
	Passenger trains	Manifest trains	Other trains
CW Cabin and Mile Post 3.....	65	50	40
Mile Post 3 and Storrs Junction.....	20	20	20
Oakley and Terminal Junction.....	50	45	40
On No. 3 and No. 4 tracks, westward and eastward freight mains, RH Tower and Eighth St.	30	25	25
Except:			
Through Interlocking NA Tower.....	35	35	30
Through Interlocking RH Tower Westward	20	20	20
Through Interlocking RH Tower Eastward	30	30	30
Through turnout and crossover at East Norwood Interlocking	25		
Mitchell Ave. and Spring Grove Ave. crossings—Winton Junction connection track Ivorydale Junction and Winton Junction	10	10	10
Through reverse curves between Hopple St. and first signal west of Hopple St. on eastward and westward freight main tracks	30	20	20
Over NYC crossing Oklahoma track.....	10	10	10

SPECIAL INSTRUCTIONS

Hopple Street and Winton Junction.....	20	20	20
Winton Junction and Carthage.....	25	25	25
Carthage and Woodlawn.....	60	45	40
Mile Post 14-Woodlawn to Sharon Ave. Glendale.....	60	35	35
Woodlawn and Grasselli switch No. 1 track.....	50	40	40
Entering or leaving sidings or through crossovers.....	10	10	10
When picking up Clearance Card Form A or train orders.....	30	30	30

LIGHT ENGINES

Oakley to Terminal Jct. Storrs Jct. to CW Cabin and Glendale to Cin'ti Jct.		RH Tower to Storrs Jct.	
Forward	Backward	Forward	Backward
40	25	30	15

Where the maximum speed of a division or sub-division is 25 miles or less, the same speed will apply to light engines in forward motion.

Diesel Switching Locomotives, single unit of Road Diesel Locomotive, either freight or passenger, when operated light or single Budd Car unit will not exceed 30 miles per hour.

RELIEF TRAINS

Engine in forward motion.....	35
Engine in backward motion.....	20
With crane ahead of engine.....	20

Passenger trains, the locomotive consist of which includes one or more Freight Diesel Units, will be governed by speed restrictions applying to passenger trains, but will not be operated in excess of:

Units Nos. 6693 to 6699—Passenger Train Speed
Units Nos. 6900 to 6976, 3500 to 3549 and 7400 to 7419—70 MPH.
All other Freight Diesel Units—65 MPH.

Diesel switching engines will not exceed 40 miles per hour.

Diesel engines moving dead in train may be moved at speed authorized in the Time Table unless special instructions and/or the speed provided for in shipper's endorsement on bill of lading, govern otherwise.

Trains handling scale test cars will not exceed 35 miles per hour. Train Order will be issued to this effect. As these cars are not equipped with air brakes, they will be spaced 3 cars ahead of the caboose, and train must have 85% operative air brakes.

Trains handling steam cranes, locomotive cranes, pile-drivers, ditchers and similar equipment will not exceed 30 miles per hour.

Loaded welded rail trains will not exceed 30 miles per hour.

Trains will approach crossover leading from No. 1 Main track to Storrs Yard, just East of Storrs Junction, at restricted speed expecting to find trains crossing over at that point. This will not relieve trains making crossover movement from protecting in accordance with Operating Rule 99.

Trains and engines will approach and move at restricted speed on both main tracks and through crossovers and to and from C.U.T. Co. limits approximately 1,000 feet east of the connecting switch on the Southwest Connection.

Trains handling foreign line short ore hoppers, will not exceed 30 miles per hour on tangent track, 20 miles per hour on curves and branch lines, except where speed restrictions, Time Table, General Order or Train Order is lower.

6. TRAIN ORDERS

7. EXTRA TRAINS

8. OPERATING TRAINS BY SIGNAL INDICATION

Operating Rules 251 to 254 inclusive are in effect between Oakley and Terminal Junction and between Hopple Street and Gest Street.

9. SPACING TRAINS

Operating Rules 505 to 519 inclusive are in effect:

Oakley and Terminal Junction
RH Tower and Gest Street
Storrs Junction and CW Cabin
Hopple Street and Glendale

Operating Rules 290 and 292 inclusive are in effect:

ETC Sign, Hopple Street
Deraill on yard running track

In automatic block territory, hand operated switches must be opened five minutes before fouling main or crossover tracks. Operating Rule 512 modified.

Operating Rules 305 to 330 inclusive are in effect:

Ivorydale Junction and Winton Junction

10. FIXED SIGNALS

Square end blades may be used in place of round end blades as illustrated in Operating Rules 281-H, 289-E and 292-G.

Reflectorized targets may be used in place of lamps on deraills. Operating Rules 272 and 296 modified.

The following automatic signals have intervening track, or tracks, between them and the tracks which the signals govern:

Toledo Division Side	Ohio Division Side
1-9	1922 { located between
3-3	1914 { Gest Street and
77	1931 { Hopple Street,
84	

SPECIAL INSTRUCTIONS

Westward semi-automatic signal located west end of New Track, Jarecki, has intervening track. Trains finding this signal in Stop position, Operating Rule 292, will immediately call Operator at Ivorydale Junction for instructions.

Westward home signal at Ivorydale Junction governing movements on No. 2 track and crossover to No. 1 track located on left side of westward home bracket mast signal.

At Ivorydale Junction train order board, Operating Rule 280, for westward trains is located east side interlocking tower and train order board, Operating Rule 280, for eastward trains is located on west side interlocking tower. Yellow train order signal light, NYC Operating Rule 221 (C), is located north of westward track and governs NYC eastward and westward trains.

To avoid blocking Clifton and Mitchell Avenue Crossings, Winton Place, Eastward freight trains, transfer cuts, or yard engines, handling more than 50 cars, when stopped by automatic signal 1884 located at Clifton Avenue, will contact Operator at Ivorydale Junction for instructions, by telephone located in Crossing Watchman's Office at Clifton Avenue.

When Home Signal at RH Tower is in stop position for West-bound Trains on No. 1 Track, all freight trains will stop at the bridge over Spring Grove Avenue.

Eastward trains on Track 4 having automatic signal 1914 at Brighton in Stop and Proceed Position, will not pass signal until they receive proper hand signal from Switchtender at Hopple Street.

Railroad grade crossing targets will govern movements as follows:

Yard Two.

Horizontal—Toledo Division running tracks.
Extension from Yard Two.

Diagonal—C&O of I
Vertical—Old Main

Cincinnati Junction.

Horizontal—Toledo Division Trains
Vertical—NYC Ditch, Toledo Division running Track from Old Main

Oklahoma track crossing, Storrs.

Vertical—NYC main track
Diagonal—Oklahoma track

Mill Street.

Vertical—Southern tracks
Horizontal—B&O tracks

Toledo Division Connection at RH Tower.

Horizontal—Mill Creek Yard lead
Diagonal—Toledo Division connection track

Normal position of target at Mill Street is vertical for Southern routes. B&O crews will restore to normal position.

The operator at Cincinnati Junction will not line crossing target for any movement without first ascertaining from switch-tender that switches are properly lined.

All movements through Storrs Junction and to and from C.U.T. Co. limits approximately 1,000 feet east of connecting switch on the Southwest Connection are governed by B&O Operating Rules and Special Instructions.

Train order signals at Storrs Junction do not apply to New York Central trains.

Eastward trains entering C.U.T. Co. tracks will be governed by indication on fixed eastbound signal 208 located on the South-west Connection.

End of Automatic Block sign is located 2151 feet west of westward automatic signal 11 on Southwest Connection. Indication displayed by automatic signal 11 will govern only to end of block sign.

Dwarf signals located at Sixth Street govern movements from C&O Bridge to No. 1 and No. 2 running tracks.

Trains approaching these signals will be governed by their indications. If stop signal is received, trains will stop between Cut Section Sign and Dwarf Signal and call operator at Cincinnati Junction for permission to proceed. Operating Rules 290 and 292 in effect.

11. HAND SIGNALS AND FLAGGING

When single unit Budd car is operated where Operating Rules 505 to 519, inclusive, are in effect, the following will govern when car is stopped. It shall immediately be moved forward ten (10) feet and second stop made without the use of sand. If car cannot be moved forward immediately, flagman must go back a sufficient distance to stop a train moving at normal speed. Passengers will not be permitted to entrain or detrain until second stop is made.

Red and white lanterns have been eliminated as engine flagging equipment. Operating Rule 11 (A) modified.

Location of Switchtenders who handle main track switches:

Ohio Division Side	Toledo Division Side
Storrs Junction	
East End Storrs	Yard 2—Cincinnati Junction
Gest Street	Winton Junction
Hopple Street	

At locations where movements are governed by hand signals from switchtenders, switches will not be fouled until it is known that switches are properly lined. The following hand signals will govern:

Green hand signals for eastward movements.

Yellow hand signals for westward movements, except modified as follows:

At Storrs Junction all main track movements will receive green hand signal. All crossover movements will receive yellow hand signal. Operating Rule 13 (A) modified.

Movements entering or leaving west end of Oklahoma Track will receive green hand signal from NYC switchtender. Operating Rule 13 (A) modified.

At Gest Street green hand signal for all main track movements, yellow hand signal for crossover movements and movements to and from the Old Main. Operating Rule 13 (A) modified.

At Cincinnati Junction, movements to and from the Ditch will receive yellow hand signal. Operating Rule 13 (A) modified.

Movements on southward or northward running tracks and turnout track will receive green hand signal. Operating Rule 13 (A) modified.

Westward movements for C&O of I will receive green hand signal. Eastward movements from C&O of I will receive yellow hand signal. Operating Rule 13 (A) modified.

SPECIAL INSTRUCTIONS

Northward trains and engines before passing Winton Junction will be governed by hand signal from operator-switchtender. In the absence of signal from operator-switchtender or when automatic signal 6-6 is in STOP and PROCEED position, trains and engines will stop to clear Winton Road and get instructions over telephone.

Nos. 53, 54, 57, and 58 use Winton Junction connection between Winton Junction and Ivorydale Junction. Southward trains using Winton Junction connection will be governed by signal from operator-switchtender.

11A. MARKERS AND CLASSIFICATION SIGNALS

Reflectorized markers may be used by freight trains.

Classification lamps on diesel engines, when equipped with red lens, may be used as markers. Operating Rule 28 modified.

B&O, N.Y.C., P.R.R. and N&W first class trains may display classification signals on authority of their Train Dispatchers.

Westward B&O trains may display classification signals Oakley to C.U.T. Operating Rule 24-A and 27 modified.

12. JOINT OR SPECIAL USE OF TRACKS

Cincinnati Terminal Sub-Division time table is in effect between Oakley and Terminal Junction, between RH Tower and CW Cabin, via Oklahoma Track between Winton Junction and Ivorydale Junction; and between Glendale and Cincinnati Junction.

Cincinnati Union Terminal Co. Operating rules are in effect between C.U.T. Co. limits approximately 1,000 feet east of connecting switch on Southwest Connection and Cincinnati Union Terminal and between Cincinnati Union Terminal and Terminal Junction.

All trains and engines making southward moves from double track at Hopple Street must stop at ETC sign and obtain authority from Yardmaster at Yard A.

Yard Track No. 5, immediately south of No. 2 main track, will be used as a running track for movements in both directions between Hopple Street to west switch of lead tracks to Stock Yards Roundhouse, on instructions of switchtender at Hopple Street.

Trains or engines moving from Gest Street to East End Storrs via Oklahoma track will secure permission from switchtender at Gest Street.

Trains or engines moving from East End Storrs to Gest Street via Oklahoma track will secure permission from switchtender East End Storrs.

Switchtender at Gest Street and East End of Storrs will confer with operator at Cincinnati Junction before authorizing movement in either direction over Oklahoma track.

Movements between Cincinnati Junction and Gest Street will be made on authority of operator at Cincinnati Junction through the switchtenders at Gest Street and Cincinnati Junction.

Movement of trains and engines between East End of Storrs and Front Street will be controlled by switchtender at East End of Storrs.

The west lead at Yard A extends from Gest Street to crossover switch to east lead at Liberty Street. The east lead at Yard A extends from Gest Street to crossover switch to No. 3 main track at Queen City. These tracks may be used in either direction with permission from the operator at Cincinnati Junction who will secure authority from the Yardmaster at Yard A.

No. 1 and No. 2 tracks between Cincinnati Junction and Sixth Street are designated as southward and northward running tracks respectively. Movements against the current of traffic between Cincinnati Junction and Sixth Street will be made on the authority of the Yardmaster at Yard Two, through the operator at Cincinnati Junction and the Switchtender at Yard Two.

Valley track between Hopple Street and Terminal Junction will be used only on authority of Yardmaster, Brighton Yard.

Toledo Division connection track between Fairmount and RH Tower will be used only on authority of the operator at RH Tower.

Toledo Division track extending from Hopple Street to Cincinnati Junction will be used as a running track for movements in both directions and may be used on authority of Yardmaster at Cincinnati Junction.

13. OPERATION OF AIR BRAKES

Terminal test of brakes will be made on freight trains when air gauge on rear indicates a pressure of 65 pounds. When engineer is notified that pressure on rear is up to 65 pounds, he will set red hand over black hand on brake pipe flow indicator. It is not necessary that amber lights be out when terminal test is made. Brake pipe leakage must not exceed 5 pounds per minute. Rule 200, Form 1118-D Rev. 4 modified.

The standard brake pipe pressure for freight service is 80 pounds except where Special Instructions provide for a higher pressure. Engines charging the brake system on cars to be placed on rear will carry 65 pounds brake pipe pressure to avoid overcharging car brakes. Rule 14, Form 1118-D Rev. 4 modified.

Trains Advance Manhattan, Manhattan Trailer Jet, Manhattan, St. Louis Trailer Jet, St. Louisan and Cincinnati will carry 90 pounds brake pipe pressure.

After the brake system on a freight train is charged to within 15 pounds of the setting of the feed valve on the locomotive, but to not less than 65 pounds, as indicated by an accurate gauge at the rear end of train, and upon receiving signal to apply brakes for test, a 15 pound brake pipe service reduction must be made and brake valve lapped. Brake pipe leakage must not exceed 5 pounds per minute. After leakage test is completed, engineer will reduce brake pipe pressure to make full service application. Inspection of the train brakes must be made to determine that angle cocks are properly positioned, that brakes are applied on each car, that piston travel is correct, that brake rigging does not bind or foul and that all parts of the brake equipment are properly secured. When this inspection is completed, the release signal must be given, brakes released, and each brake inspected to see that all have released. Rule 208(a), Form 1118-D Rev. 4 modified.

Rules 212(a), 213(a) and 214(a) modified accordingly.

To fasten down a hinged automatic brake valve handle or a diaphragm foot valve pedal or in any other manner annul the safety control feature on an engine is prohibited. Rule 8, Form 1118-D, modified.

Where caboose is equipped with type A-1 caboose valve it will be used for making all service applications from rear, complying with instructions governing its use posted in caboose.

SPECIAL INSTRUCTIONS

14. SPRING SWITCHES

Instructions covering operation posted as follows:
 CW Cabin..... In push button box on signal mast.
 Toledo Division Hopple Street. In telephone booth.

15. RAILROAD CROSSINGS AND DRAWBRIDGES

In State of Ohio, at Railroad crossing and drawbridges, not equipped with approved interlocking, all trains or engines will stop not less than 200 feet or more than 800 feet from crossing or drawbridges, and will not proceed until the route is clear, except as provided by Special Instruction No. 15.

Railroad Crossings		Position of signal indicating clear route for Cincinnati Terminal Sub-Division
Stations	Railroad	
Mill Street...	Southern.....	Horizontal
Storrs Jct.....	NYC.....	Hand signal from switchtender
Cincinnati Jct.	Oklahoma Track Crossing	Interlocking
Cincinnati Jct.	C&O.....	Diagonal
Ivorydale Jct..	NYC.....	Interlocking
Bond Hill.....	N&W.....	Interlocking
East Norwood	P.R.R.....	Interlocking

Trains or engines moving on any of the tracks involved will come to a stop and a member of crew will flag over crossing of PRR connection track and B&O yard tracks at Second and Smith Streets.

16. YARDS

It is unlawful for any employee of a Railroad Company doing business in the State of Ohio to allow or permit passenger or freight cars to stand on a track commonly called a "Running Track" within yard limits, unless protected by a flagman, or red light on end of car, during that period, 30 minutes before sunset to 30 minutes after sunrise.

On double track, within yard limits, when necessary for trains or engines to make movements against the current of traffic, the following employee is authorized to issue written instructions in accordance with Operating Rule 93:

- Between Oakley and Terminal Junction..... Nos. 1 and 2 Tracks
- Between RH Tower and Gest Street..... Nos. 3 and 4 Tracks
- Between Storrs Jct. and east end of Storrs... Nos. 1 and 2 Tracks
Terminal Dispatcher
- Between Storrs Jct. and CW Cabin..... Nos. 1 and 2 Tracks
St. Louis Division Train Dispatcher
- Between Cincinnati Junction
and Sixth Street..... Yardmaster Cincinnati Junction

Between Glendale and the end of double track Hopple Street on No. 1 and 2 Tracks. Yardmaster at Ivorydale, but the movement will be protected by a flagman of the trains involved.

17. HELPER ENGINES

18. MAIL

Newspapers may be dispatched from moving trains. Care must be exercised to avoid accidents. Safety Rule 77 modified.

19. WATER AND FUEL

20. WHISTLE SIGNALS

Trains standing in passing siding will use following whistle signals to recall Flagman:

From South or West—One Short and Four Long.

From North or East—One Short and Five Long.

Operating Rule 14(d) and 14(e) modified.

21. HIGHWAY CROSSING PROTECTION

Trains approaching following crossings and unable to complete through movement will stop clear of Cut Section Sign, and when proceeding over crossing must consume not less than 20 seconds running time between the Cut Section Sign and highway crossing.

74th Street	Carthage
71st Street	Carthage
Township Avenue	Elmwood
Este Avenue	Ivorydale
Winton Road	Winton Place
Evans Street	Cincinnati

At Evans Street Push Button control box for flashlight signals is located south of crossing.

Switch engines passing over street crossings and entrance to Island Creek Coal Company on Front Street, between Storrs and Mill Street, including Mill Street, and over Smith Street and Central Avenue, will approach crossing prepared to stop, and member of crew will protect crossing in switching movement.

When passing over any highway crossing protected by crossing gates, wig-wags, flashlights or bells, train and enginemen will, where practicable, observe if the signals are operating. If not operating properly, notify Terminal Dispatcher promptly.

After trains pass over highway crossing protected by automatic crossing gates, flashlight or bells, and clearing insulated joints just beyond crossing, and reverse movement is made, automatic protection does not operate. In such cases member of train crew must protect movement over crossing.

SPECIAL INSTRUCTIONS

22. TRAIN ORDER STATIONS

23. RESTRICTIONS ON STRUCTURES AND TRACKS

Maximum Weight Limits	Heaviest class of Diesel Power permitted.	Cars Gross Weight in lbs.
Within limits of Cincinnati Terminal Sub-Division except as noted.....	SD-9	240,000

Engines with a rating heavier than GP-9 cannot be operated over cutoff between Fairmount and RH Tower.

Engines with a rating heavier than SD-9 cannot be operated over Oklahoma Track.

The Standard Brands, Sedamsville, coal pit track will not be used by engines and cars from beginning of coal pit to end of track.

Byrnes-Conway Trestle, St. Bernard, cannot be used by engines heavier than Class Diesel SD-9.

Engines will not be placed on the following structures:
Bowker High Track, A.A.C. Co.

Diamond National Co., Lockland, coal unloading trestle. Trains are prohibited from riding cars over this trestle.

Engines with a rating heavier than GP-9 cannot be operated over the bridge at Lockland between Philip Carey and Diamond National Plants.

Engines with a rating heavier than GP-9 cannot be operated over trestle to the Fox Paper Company, Lockland.

24. CLEARANCES

Employees are required to familiarize themselves with all close clearances in territory in which they operate, both for their own protection and the protection of the Company.

Crews doing work on side tracks, tracks leading to buildings or under coal, gravel or other tipples, will determine that engine and equipment will clear and gates and doors are secured for their movement.

The following overhead structures and wire crossings have less than 22 feet vertical clearance, and the high-tension lines shown have less than 27 feet and employees should not stand on the top of engines, cars or other equipment while passing under these overhead structures or wire crossings:

Location	Pole Number
Oakley—Oakley Coal & Supply.....	12-15
Oakley—Cincinnati Bickford Tool Co., Track 3.....	
Oakley—Kirk & Blum Mfg. Co. Outside Track.....	
Oakley—Excello Track.....	12-04
Oakley—Williamson Heater Co.....	
Oakley—Dust Down Co.....	11-29
Oakley—Roberston Fence Co.....	11-28
Oakley—Trailmobile Co. Track 3.....	11-17

Oakley—Trailmobile Co. Track 2.....	11-16
Oakley—Trailmobile Co. Track 1.....	11-15
Norwood—Globe-Wernicke Track 4.....	
Norwood—U. S. Playing Card Co.....	11-00
Norwood—Montgomery Avenue Viaduct.....	10-21
Norwood—Section Avenue Viaduct.....	9-45
Norwood—Rubber Hill Track.....	9-44
Section Avenue—Original Tire Company.....	
Bond Hill—Goodyear Tire & Rubber Co.....	9-10
Bond Hill—Davison Chemical Co.....	8-32
St. Bernard—Byrnes-Conway Track.....	8-02
St. Bernard—Bowker Track Vine Street.....	7-42
Ivorydale Junction—Chatfield Paper Company.....	
Winton Place—Albers Super Markets Switch.....	7-05
Winton Place—Main—Hauser-Stander and Queen City Lumber Co.....	6-56
Winton Place—Mitchell Avenue Crossing.....	6-50
Ludlow Avenue—Main—Sabin Robbins Co.....	5-20
Cumminsville—Ludlow Ave. Viaduct.....	Bridge 5-29
Cumminsville—Crosley Lead, Arlington St.....	
Stock Yards—Engine Washing Facilities, Tracks 15, 16 and Lead.....	
Brighton—Southern Freight House Tracks 3 and 4.....	
Cincinnati Jct.—Southern Bridge Carr St.....	Bridge 4-A
Cincinnati Jct.—Southeast Connection to C.U.T.....	Bridge 5-A
Cincinnati Jct.—Southwest Connection to C.U.T.....	Bridge 6-A
Yard One—Joseph Scrap Track.....	
Yard One—Unclaimed Freight Bldg.....	
Front St. Lead—Southwest Connection to C.U.T.....	
Storrs Front Street Lead.....	415 feet west of Bridge 1-38
Mississippi Valley Barge Co. Dock Tracks.....	
Ohio Valley Warehouse Track.....	
Firestone Warehouse Track.....	
Hatfield Coal Company.....	
Smith St.—C&O Bridge over Plum St. Lead.....	
Plum St. Yard Between Smith St. & Central Ave.....	
Southside Avenue Viaduct.....	3-02
Pure Oil Company Track.....	Opposite 3-17
Standard Brands Grain & Platform Tracks.....	3-28
Standard Brands Car Shop.....	3-38
Tresler Oil Company—Tracks No. 1 and No. 2.....	5-20
Eighth Street Viaduct—Toledo Division.....	
Gest Street—Vulcan Company, Rat Hole.....	
Gest Street—Kroger Company Track 3.....	
Gest Street—Lawson Tracks.....	
Fairmount—Valley Builders Supply Track.....	
Fairmount—Buckeye Foundry Company Track.....	
Fairmount—Anchor Paper Co.....	
Fairmount—South of Signal 4-4, Enameling Co. Siding..	
Fairmount—Oil Kraft & Cincinnati Gilbert Tracks.....	
Fairmount—Early & Daniel Tracks.....	
Northside—Ohio Knife Track.....	
Northside—Pease Woodworking Tracks.....	
Northside—Pierson Lumber Company.....	

SPECIAL INSTRUCTIONS

Northside—Hamilton Avenue Crossing.....	
Northside—Myron Johnson & Sons Lumber Co. Track....	
Northside—Liberty Scrap Materials Co. Track.....	
Winton Place—Winton Road.....	
Winton Place—John Shillito Company.....	
Winton Junction—Albers Super Market.....	6-52
Winton Place—Cincinnati Veneer & Bishopric Products Co.....	
Winton Junction—Ferro Siding Co.....	6-56
Winton Junction—American Metal Products.....	
Winton Junction—GMC Truck Co.....	7-15
Ivorydale—Emery Industries.....	7-35
Ivorydale—June Street.....	7-37
Ivorydale—P & G Yards, June Street.....	7-40
Ivorydale—Caboose Track.....	8-16
Elmwood Place—Team Track.....	8-21
Hartwell—Cambridge Tile Manufacturing Company....	
Hartwell.....	10-17
Maplewood—Philip Carey Co.....	11-25
Maplewood—Diamond National Co. Coal Dock Tracks.	
Maplewood—Fox Paper Co.....	
Glendale—Vulcan-Cincinnati, Inc., Woodlawn.....	
Glendale—Farm Bureau.....	
Springdale—Avon Products, Inc.....	

Account close clearance on curvature on Front Street just east of Mill Street Cars in excess of 45 feet in length will not be left standing on this curve.

25. CLASSIFICATION WHERE THERE ARE TWO OR MORE MAIN TRACKS

Between	Track	Current of Traffic	No.
Oakley and RH Tower.....	North track.....	Westward main track..	1
	South track.....	Eastward main track..	2
	Third from.....	Westward Passenger	
RH Tower and Terminal Jct....	North.....	Main track.....	1
	Fourth from.....	Eastward Passenger ..	
	North.....	Main track.....	2
RH Tower and Gest Street....	First from.....	Westward freight.....	
	North.....	Main track.....	3
	Second from.....	Eastward freight.....	
East End Storrs and CW Cabin	North.....	Main track.....	4
	North track.....	Westward main track..	1
	South track.....	Eastward main track..	2
Hopple St. and Glendale.	West track.....	Southward main track..	1
	East track.....	Northward main track..	2

26. TELEPHONES

Conductors of trains meeting with accident or unusual delay will call nearest open Office or Train Order Station by telephone or if condition warrants, call Terminal Dispatcher's Office, 541-0855. In using public telephone instruct Operator to reverse charges.

Location	Connected with
Sedamsville.....	
Culloms.....	Storrs
Anderson Ferry.....	
Crossover—Ohio River Oil Co.....	
Tresler Oil Co. Switch.....	Yard, Storrs Jct.
Crossover—American Diamalt Co.....	
Storrs Jct.....	Yard, Terminal Dspr. CUT Train Director St. L. Div. Train Dispr.

STORRS YARD—		
Yard Office West End.....	} Yard	
Yard Office.....		
Switchtender's Office East End.....	} Yard, Terminal Dispr., Storrs Jct.	
Front Street, Island Creek Coal Co. Switch.....		
Wood Street Yard Office.....	} Storrs Yard	
Operator's Office Cincinnati Jct.....	} Terminal Dispatcher Tol. Div. Train Dispr. Ohio & Tol. Div. Yard	
GEST STREET—		
Switchtender's Office.....	} Terminal Dispr., Yard	
Running Track, West End Southern 1.....		
Running Track, West End Lower 5. West End Upper 5.....		
Harrison Avenue Crossover.....	} Terminal Dispatcher	
Queen City Ave. Yardmaster's Office.....		
Brighton Yard, East End Yard- master's Office.....	} Terminal Dispr., Yard	
HOPPLE STREET—		
Switchtender's Office.....	Terminal Dispr., Yard	
East End Crossovers.....	Yard	
MILL CREEK YARD—		
Yard Office.....	} Terminal Dispr., Yard	
Yard Office, East Lead.....		
Head Out Switch, West Lead.....		
STOCK YARDS—		
East End No. 5 Running Track.....	Yard	
Crew Dispr's Office.....	Terminal Dispr., Yard	
Outlet Switch, East End.....	Yard	
RH Tower, Terminal Dispatcher's Office.....	} Terminal Dispatcher Yard, Ohio Division Train Dispr., St. Louis Division Train Dispr., Toledo Division Train Dispatcher, CUT Train Director	
Spring Grove Avenue, West End of Crossover.....		
Cumminsville—Ludlow Avenue.....		Terminal Dispatcher
Winton Place, Crossing Watch- man's Office.....		} Yard
Mitchell Avenue.....		
Albers Company Switch.....	Terminal Dispatcher	
Ivorydale Jct. Operator's Office.....	} Terminal Dispr., Yard Winton Jct. Yard Toledo Division Yard	

SPECIAL INSTRUCTIONS

ST. BERNARD—

Ross Avenue } Yard
 Agent's Office }
 Yard Office } Terminal Dispr., Yard
 East End }

BOND HILL—

Operator's Office }
 Crossover East End } Terminal Dispr., Yard

NORWOOD—

Opposite Norwood Mfg. Co. No. 4 }
 Switch } Terminal Dispr., Yard
 Crossover, Section Avenue } Terminal Dispatcher

EAST NORWOOD—

Operator's Office } Terminal Dispr., Yard
 } Ohio Div. Train Dispr.
 East End Chevrolet Lead } Yard

OAKLEY—

Yard Office Terminal Dispr., Yard
 Locker Room Yard
 Passenger Station—in box
 behind building } Terminal Dispatcher
 Crossover West of Ridge Ave. } Yard

WINTON JUNCTION—

Spring Grove Avenue } Ivorydale Jct. and
 } Winton Jct. Yard
 } Terminal Dispr.,
 Telegraph Office } Toledo Div. Train
 } Dispr., Ivorydale Jct.
 } Yard, Toledo
 } Div. Yard

GLENDALE—

Center Siding, North End } Yard
 Center Siding, South End }

WYOMING—

Mulberry Avenue Yard

CARTHAGE—

74th Street—on Pole Yard

ELMWOOD PLACE—

Township Avenue, head in
 switch—on pole Yard

IVORYDALE—

West Yard, Yardmaster's Office, }
 West Yard, north end opposite } Yard
 Caboose track—on pole }

IVORYDALE—

East Yard, lead opposite No. 4 }
 Switch } Yard
 Crossover Switch, South End }
 Winton Road—telephone booth }

Dane Street—on pole }
 Colerain Avenue—on pole }
 Fricke Road, 5 poles South of }
 on East Side of track } Yard
 Opposite Early & Daniels Elevator... }
 New Connection, South End }
 North Siding, South End }
 Harrison Avenue }
 Liberty Street Crossover }

CONSOLIDATED YARD A—

Lead north of run switch } Ohio Div. Yard
 } Toledo Div. Yard
 Yardmaster's Office—north end... } Toledo Div. Train Dispr.
 } Ohio Div. Yard
 } Toledo Div. Yard
 Yardmaster's Office—south end... }
 Queen City Ave. lead—on pole... } Toledo Div. Yard
 Liberty St.—opp. Track 1—on pole }
 South End, opp. No. 1 and 2 }
 Switch—on pole }

GEST STREET—Toledo Side

Yard No. 2 }
 Freeman Ave. } Yard

27.

UNCLASSIFIED

When physically able to do so, employees sustaining injury, no matter how minor, will report it to supervisor before leaving company premises.

The supervisor must arrange prompt first aid for the injured; then, as soon as possible, place him under the care of a Company's Surgeon. He must also report the injury promptly on the prescribed forms however minor it may appear.

In case of fatal accident on line of road, the nearest state or local police should be promptly notified. If such police cannot be promptly contacted and brought to the scene within a short time, train will proceed without further delay, a member of the crew or other agent of the Company being left at the scene to notify the police and make sure that the body is placed in the hands of the proper authority.

All trains handling cranes on own wheels, with boom attached or detached boom must be trailing. Exceptions—relief trains and work trains.

Employees are prohibited from riding engine footboards except in yard service.

Employees are prohibited from riding or walking on the roof of any moving car. Operating Rule L modified.

When switching industrial or team tracks, conductors and yard foremen will assure themselves that there are no brow plates, pipe connections or all-weather doors fouling equipment to be moved.

HOLIDAYS—New Year's Day, Washington's Birthday, Decoration Day, Fourth of July, Labor Day, Thanksgiving Day, and Christmas Day.

28. ADDITIONAL REGULAR AND FLAG STOPS

29.

EXPLANATION OF LETTERS

H Stop to discharge through passenger business only.

WESTWARD

Distance from Oakley Via. C. U. I. Co.	Distance from Oakley Via B&O	Train Order Station	Cincinnati Terminal Sub-Division TIME TABLE No. 139 April 25, 1965	PRR 741 DAILY FIRST CLASS	NYC 327 DAILY FIRST CLASS	N&W 3 DAILY FIRST CLASS	B&O 57 DAILY FIRST CLASS	B&O 1 DAILY FIRST CLASS	PRR 77 DAILY FIRST CLASS	NYC 15 DAILY FIRST CLASS	B&O 53 DAILY FIRST CLASS	PRR 701 DAILY FIRST CLASS	N&W 25 DAILY FIRST CLASS	B&O 11 DAILY FIRST CLASS
				A.M.	A.M.	A.M.	A.M.	A.M.	A.M.	A.M.	A.M.	P.M.	P.M.	P.M.	P.M.
			OAKLEY 1.1	.....		.....		S 7.05	.....			.....	.....	S10.15
1.1	1.1	DN	PRR PRR JCT. 0.1	6.10		6.33		7.07	7.21			7.26	9.35	10.16
1.2	1.2		PRR EAST NORWOOD 0.5	6.11		6.34		7.08	7.22			7.27	9.36	10.18
1.7	1.7		PRR NORWOOD 1.3	.....		.....		.....	.....			.....	.....	.....
3.0	3.0		N&W BOND HILL 1.0	6.14		6.37		7.10	7.24			7.31	9.39	10.20
4.0	4.0		N&W ST. BERNARD 0.4	.....		.....		.....	.....			.....	.....	.....
4.4	4.4	DN	Toledo Div. WINTON JCT. 0.4	.....		.....	6.42	.....	.....		4.42	.....	.....	.....
5.2	5.2		NYC IVORYDALE JCT. 0.8	6.18	6.28	6.40	6.52	7.12	7.26	8.10	4.50	7.33	9.41	10.22
6.9	6.9		NYC WINTON PLACE 1.7	H 6.20	S 6.40	H 6.42	S 6.55	S 7.15	H 7.30	S 8.15	S 4.53	H 7.35	H 9.43	S10.25
8.0	8.0		DN RH TOWER 1.1	6.22	6.42	6.45	7.00	7.19	7.34	8.17	4.57	7.37	9.46	10.29
8.8	8.8	8.0	HOPPLE STREET 0.8	6.24	6.44	6.47	7.02	7.21	7.36	8.19	4.59	7.39	9.48	10.31
9.9	9.9		TERMINAL JCT. 1.1	6.26	6.46	6.49	7.04	7.23	7.38	8.21	5.01	7.41	9.50	10.33
10.1	10.1		CINCINNATI 2.1	A 6.30	A 6.50	A 6.55	A 7.10	L 8.00	A 7.40	A 8.25	A 5.05	A 7.45	A 9.55	L11.30
11.6	11.6	DN	HOPPLE STREET 2.1											
16.6	16.2		EIGHTH STREET 0.2						U. T. Co.					U. T. Co.
11.6	11.2	DN	CINCINNATI JCT. 0.2					Via. C.						Via C.
16.6	16.2		Toledo Div. OKLAHOMA SW. 0.2 Dbl. Trk.											
16.6	16.2		End of STORRS 0.5 Dbl. Trk.						8.05					
			NYC STORRS JCT. 5.0					8.11						11.42
			End of CW CABIN Dbl. Trk.											
				A.M.	A.M.	A.M.	A.M.	A.M.	A.M.	A.M.	P.M.	P.M.	P.M.	P.M.
			Time over Sub-Division.....	.20	.22	.22	.28	1.06	.19	.15	.23	.19	.20	1.27
			Average speed per hour.....	26.4	15.0	24.0	12.6	15.1	27.7	22.0	15.3	27.7	26.4	11.4

Passenger trains will not exceed 50 miles per hour Oakley to Terminal Junction and 65 miles per hour
Mile Post 3 to CW Cabin

Speed as shown in Special Instruction 5, and such other restrictions as may be in effect, will not be exceeded.

EASTWARD

Distance from CW Cabin Via C. U. T. Co.	Distance from CW Cabin Via B&O	Train Order Station	Cincinnati Terminal Sub-Division TIME TABLE No. 139 April 25, 1965	B&O	PRR	N&W	B&O	NYC	PRR	B&O	NYC	PRR	B&O	N&W
				12	710	26	54	16	78	2	306	750	58	4
				DAILY FIRST CLASS	DAILY FIRST CLASS	DAILY FIRST CLASS	DAILY FIRST CLASS	DAILY FIRST CLASS	DAILY FIRST CLASS	DAILY FIRST CLASS	DAILY FIRST CLASS	DAILY FIRST CLASS	DAILY FIRST CLASS	DAILY FIRST CLASS
				A.M.	A.M.	A.M.	A.M.	P.M.	P.M.	P.M.	P.M.	P.M.	P.M.	P.M.
			End of CW CABIN Dbl. Trk.	7.00									5.18	
5.0	5.0	DN	End of 5.0 Dbl. Trk. STORRS JCT. NYC	7.08									5.25	
	5.5		0.5 STORRS											
	5.7		0.2 OKLAHOMA SW. NYC											
	5.9	DN	0.2 CINCINNATI JCT. Toledo Div.											
	6.1		0.2 EIGHTH STREET 2.1											
	8.2		HOPPLE STREET	A 7.20									A 5.35	
6.7			1.1 CINCINNATI	L 8.10	8.25	8.45	S 8.55	2.30	3.40	L 6.00	10.00	10.20	S 11.00	11.15
7.8			1.1 TERMINAL JCT.	8.13	8.28	8.48	8.58	2.33	3.43	6.03	10.02	10.23	11.03	11.18
8.6			0.8 HOPPLE STREET	8.15	8.30	8.50	9.00	2.35	3.45	6.05	10.04	10.25	11.05	11.20
9.7	9.3	DN	1.1 RH TOWER 1.7	8.17	8.32	8.52	9.02	2.37	3.47	6.07	10.06	10.27	11.07	11.22
11.4	11.0		0.8 WINTON PLACE	S 8.20	S 8.34	S 8.55	S 9.05	S 2.40	S 3.50	S 6.10	S 10.11	S 10.30	S 11.11	S 11.25
12.2	11.8	DN	0.4 IVORYDALE JCT. NYC	8.22	8.37	8.57	9.07	2.42	3.52	6.12	10.13	10.32	11.14	11.27
		DN	0.4 IVORYDALE JCT.	.....	.....	.....	9.07		.....	.....			11.14	.....
12.6		DN	0.4 WINTON JCT. Toledo Div.	.....	.....	.....	9.14		.....	.....			11.22	.....
12.6	12.2		1.0 ST. BERNARD N&W	.....	.....	.....			.....	.....				.....
13.6	13.2		1.3 BOND HILL	8.24	8.40	9.00			3.54	6.14		10.35		11.30
14.9	14.5		0.5 NORWOOD	.....	.....	.....			.....	.....		.....		.....
15.4	15.0	DN	0.1 EAST NORWOOD	8.27	8.42	9.02			3.58	6.16		10.38		11.33
15.5	15.1		0.1 PRR JCT.	8.28	8.43	9.03			3.59	6.17		10.39		11.34
16.6	16.2		1.1 OAKLEY	S 8.30	.....	.....			.....	S 6.20		.....		.....
				A.M.	A.M.	A.M.	A.M.	P.M.	P.M.	P.M.	P.M.	P.M.	P.M.	P.M.
			Time over Sub-Division.....	1.30	.18	.18	.19	.12	.19	1.02	.13	.19	.22	.19
			Average speed per hour.....	11.0	29.3	29.3	18.6	27.5	27.7	15.5	25.3	27.7	16.1	27.7

Passenger trains will not exceed 65 miles per hour CW Cabin to Mile Post 3 and 50 miles per hour..
Terminal Junction to Oakley.

Speed as shown in Special Instruction 5, and such other restrictions as may be in effect, will not be exceeded.

NORTHWARD

Distance from Cincinnati	Train Order Station	Cincinnati Terminal Sub-Division TIME TABLE No. 139 April 25, 1965	Passing Sidings Capacity 48-foot cars including engine and baggage	54	92	94	58							
				DAILY FIRST CLASS	DAILY SECOND CLASS	DAILY SECOND CLASS	DAILY FIRST CLASS	A.M.	P.M.	P.M.	P.M.			
3.4	DN	CINCINNATI Ohio Div. 3.4		8.55	.....	.....	11.00							
5.5		HOPPLE STREET 2.1		.....	.....	.....	.....			
6.6		CUMMINSVILLE 1.1		.....	.....	.....	.....			
7.0		WINTON PLACE 0.4		.....	.....	.....	.....			
		WINTON JCT. 0.6		9.14	12.45	7.07	11.22							
7.6		IVORYDALE 0.9		9.15	12.46	7.10	11.23							
8.5		ELMWOOD PLACE 0.9		9.17	12.48	7.15	11.24							
9.4		CARTHAGE 1.2		.....	.....	.....	.....			
10.6		HARTWELL 0.6		9.20	12.54	7.20	11.28							
11.2		MAPLEWOOD 0.6		.....	.....	.....	.....			
11.8		WYOMING 3.2		9.22	12.58	7.24	11.30							
15.0		GLENDALE	106	9.26	1.02	7.30	11.34							
				A.M.	P.M.	P.M.	P.M.							
		Time over Sub-Division.....		.31	.17	.23	.34							
		Average speed per hour.....		26.9	28.3	20.8	24.5							

Passenger trains will not exceed 30 miles per hour Winton Junction to Carthage and 60 miles per hour Carthage to Glendale.

Speed as shown in Special Instruction 5, and such other restrictions as may be in effect, will not be exceeded.

SOUTHWARD

Distance from Glendale	Train Order Station	Cincinnati Terminal Sub-Division TIME TABLE No. 139 April 25, 1965	Passing Sidings Capacity 45-foot cars including engine and caboose	57	93	53	99							
				DAILY FIRST CLASS	DAILY SECOND CLASS	DAILY FIRST CLASS	DAILY SECOND CLASS	A.M.	A.M.	P.M.	P.M.			
3.2		GLENDALE 3.2	106	6.27	4.55	4.31	10.30							
3.8		WYOMING 0.6		6.33	5.00	4.35	10.37							
4.4		MAPLEWOOD 0.6		.....	.....	.....	.....			
5.6		HARTWELL 1.2		6.35	5.05	4.37	10.42							
		CARTHAGE 0.9		.....	.....	.....	.....			
6.5		ELMWOOD PLACE 0.9		6.39	5.11	4.40	10.47							
7.4		IVORYDALE 0.6		6.41	5.13	4.41	10.50							
8.0	DN	WINTON JCT. 0.4		6.42	5.15	4.42	10.53							
8.4		WINTON PLACE 1.1		.....	.....	.....	.....			
9.5		CUMMINSVILLE 2.1		.....	.....	.....	.....			
11.6		HOPPLE STREET 3.4		.....	.....	.....	.....			
15.0		Ohio Div. CINCINNATI		A 7.10	.....	A 5.05	.....						
				A.M.	A.M.	P.M.	P.M.							
		Time over Sub-Division.....		.43	.20	.34	.23							
		Average speed per hour.....		19.4	24.0	25.3	20.8							

Passenger trains will not exceed 60 miles per hour Glendale to Carthage and 30 miles per hour Carthage to Winton Junction.

Speed as shown in Special Instruction 5, and such other restrictions as may be in effect, will not be exceeded.

AVOID DAMAGE

SWITCH CUSTOMERS CARS CAREFULLY

JUDGING SPEED

Accurate judgment of coupling speed depends upon correct timing. An excellent way to get accurate timing without a watch is to count "one hundred and thirty-one, one hundred and thirty-two" and so on as the car passes a stationary point. With a little practice counting can be done at the rate of one a second.

Ability to closely estimate speed at time car strikes is extremely important because impact force builds up as the square of the speed. This means that impact delivered by a car coupled at 8 miles per hour is not four times that at 2 miles per hour, but 16 TIMES AS GREAT. Damage to freight or car can be avoided by always keeping coupling speed within the safe range — NOT OVER 4 MILES PER HOUR — A BRISK WALK.

IMPACT FORCE AT VARIOUS STRIKING SPEEDS

	Car Coupled At	Units of Destructive Force
Safe	1 mph	1
	2 "	4
	3 "	9
	4 "	16
Damaging	5 "	25
	6 "	36
	7 "	49
	8 "	64
	9 "	81
	10 "	100

TABLE OF SPEEDS

(Minutes and seconds per mile, in terms of miles per hour.)

Time Per Mile		Miles Per Hour	Time Per Mile		Miles Per Hour	Time Per Mile		Miles Per Hour
Min.	Sec.		Min.	Sec.		Min.	Sec.	
..	45	80.0	1	08	52.9	1	46	34.0
..	46	78.3	1	10	51.4	1	48	33.3
..	47	76.6	1	12	50.0	1	50	32.7
..	48	75.0	1	14	48.6	1	52	32.1
..	49	73.5	1	16	47.4	1	54	31.6
..	50	72.0	1	18	46.1	1	56	31.0
..	51	70.6	1	20	45.0	1	58	30.5
..	52	69.2	1	22	43.9	2	..	30.0
..	53	67.9	1	24	42.9	2	05	28.8
..	54	66.6	1	26	41.9	2	10	27.7
..	55	65.5	1	28	40.9	2	15	26.7
..	56	64.2	1	30	40.0	2	30	24.0
..	57	63.2	1	32	39.1	2	45	21.8
..	58	62.1	1	34	38.3	3	..	20.0
..	59	61.0	1	36	37.5	3	30	17.1
1	..	60.0	1	38	36.8	4	..	15.0
1	02	58.0	1	40	36.0	4	30	13.3
1	04	56.2	1	42	35.3	5	..	12.0
1	06	54.5	1	44	34.6	6	..	10.0

SPEED CARD

To Find Coupling Speed of 40 Foot and 50 Foot Car

Sight vertical end of car body on a fixed point and note the number of seconds it takes car to pass. Speed in miles per hour is shown opposite.

Sec-onds	40 Foot Car Miles Per Hour	50 Foot Car Miles Per Hour
1	28	35
2	14	17.5
3	9.3	11.6
4	7	8.7
5	5.6	7
6	4.7	5.9
7	4	5
8	3.5	4.4
9	3.1	3.9
10	2.8	3.5
11	2.5	3.1
12	2.3	2.9
13	2.15	2.7
14	2	2.5

Damage as a result of Rough Handling makes up a large part of the claim bill for Loss and Damage to Freight. From the Railroad standpoint it is the major item in the expense. We all know that Rough Handling can be reduced, often eliminated. It is hoped that this card will be helpful in your efforts to prevent Rough Handling.

Switch Crews must function as a team. Clear signals properly given are mighty important; talk it over — prevent Rough Handling—it can be done.