



Instructions and Rules

INTERMITTENT
INDUCTIVE
AUTOMATIC
TRAIN STOP

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September 1, 1959

CHICAGO AND
NORTH WESTERN
RAILWAY COMPANY

INFORMATION, INSTRUCTIONS AND RULES TO ALL CONCERNED FOR HANDLING INTERMITTENT INDUCTIVE AUTOMATIC TRAIN STOP APPARATUS ON DIESEL ELECTRIC LOCOMOTIVES

Intermittent Inductive Automatic Train Stop or the Instructions in Connection Therewith Will in No Way Supersede Current Rules and Instructions with Reference to Automatic, Interlocking or Other Signals.

PROCEDURE TO "CUT IN" AND "CUT OUT" TRAIN STOP DEVICES

To Cut In:

Locomotive must be standing and air pumped up to full pressure.

If locomotive is equipped with more than one device, place change-over switch in proper position for the system in the territory in which the locomotive is to be operated.

Close switch to start motor-generator set.

Cut in A.T.S. cut-out cock, push in plunger, lock it and remove token.

Operate re-set lever to full opposite position.

Apparatus will re-set in 60 seconds on passenger locomotives and 120 seconds on freight and switch locomotives.

To Cut Out:

Insert token, unlock, pull out plunger, and cut out A.T.S. cut-out cock.

Open switch to stop motor-generator set.

DEPARTURE TESTS

- (a) Cut in A.T.S. device as instructed in "Pro-

cedure to 'Cut In' and 'Cut Out' Train Stop Devices."

(b) Test air brakes in accordance with air brake rules.

(c) Hold acknowledging lever in full acknowledging position for more than 15 seconds. A brake application should occur. Operation of re-set lever is not required. On locomotives having an actuator, when the acknowledging lever is released and returns to its normal position, the arrow on the actuator will return to "R" and brake valve handle can be relatched with rotary valve after which the brakes may be released in usual manner. On locomotives having a brake application valve, when the acknowledging lever is released and returns to its normal position, the brake valve handle must immediately be placed in lap position and let remain in that position until the brake application valve piston returns to release position, after which the brakes may be released in the usual manner.

(d) Move locomotive over test inductor at not less than 2 miles per hour with acknowledging lever in full acknowledging position to determine that acknowledging whistle sounds and no automatic train stop brake application occurs. When making this test, acknowledging lever must not be held in acknowledging position more than 15 seconds.

(e) Move engine over second test inductor (where two are provided) at not less than 2 miles per hour. Do not acknowledge. A brake application should occur bringing engine to a stop. Operate re-set lever to full opposite position and release brakes as explained in item (c).

(f) If departure test is made by other than engineer, engineman will be given Form 651A with signature of person making test and information that the device functioned properly.

OPERATION IN TRAIN STOP TERRITORY **(Rules 540 and 541)**

1. Departure test must be made as instructed under "Departure Tests".

2. Locomotives equipped with train stop must have same cut in before entering train stop territory.

This does not apply to the second unit of a double-header or to a helper locomotive pushing a train and does not apply in case of other exceptions authorized by time table or train order.

3. When a wayside signal displays an indication other than Proceed, engineman must acknowledge by moving acknowledging lever as far as possible to the acknowledging position less than 15 seconds before receiver on locomotive passes over inductor and hold lever until acknowledging whistle stops sounding which indicates that acknowledgment has been properly made. Failure to acknowledge at the proper time will result in a penalty brake application and train will be brought to a stop.

4. If a penalty train stop brake application is received due to failure to properly acknowledge, engineman must wait until brakes are fully applied then operate the re-set lever and brakes may be released after the expiration of 60 seconds for passenger locomotives and 120 seconds for freight and switch locomotives.

5. If a penalty train stop brake application is received, after train or locomotive is brought to a stop, it may proceed in accordance with such automatic block and interlocking rules as apply.

6. When a penalty train stop brake application is received and there is no cause for same in evidence, report must be made to train dispatcher by engineman from first communicating station. If more than one penalty train stop brake application is received in succession, action should be taken as prescribed in Section "A", under action to be taken in event of

failure of train stop device enroute.

7. If a train stop brake application is received due to holding acknowledging lever in acknowledging position more than 15 seconds, brakes can be released as described in paragraph (c), under "Departure Tests".

CARS, SNOW PLOWS, OR OTHER EQUIPMENT PUSHED AHEAD OF LOCOMOTIVE

8. Acknowledgment must be made at each inductor when locomotive is pushing cars, snow plows, or other equipment and when switching under various circumstances.

ACTION TO BE TAKEN IN EVENT OF FAILURE OF TRAIN STOP DEVICE ENROUTE (Rule 550)

A. When two successive false stops have occurred while passing over inductors at signals displaying Proceed indications, engineman must acknowledge at succeeding inductors thereafter, regardless of signal indications, to first point where communication can be had with dispatcher, and his instructions are received.

The train dispatcher will direct conductor and engineman on what basis to proceed thereafter; to continue as above to a point where a locomotive having operative train stop device can be provided, or as provided in Paragraph "E".

If acknowledging at succeeding inductors does not prevent stops, the device will be considered unworkable and procedure will be in accordance with Paragraphs "B" and "E".

B. The train stop device or any part of it must not be cut out unless it is unworkable. When, through failure of the locomotive device, it becomes necessary to cut out the train stop device, the engineman must

immediately notify the conductor. After cut out is completed, the train will then proceed to the first point where communication can be had with, and facts reported to the train dispatcher; being governed by indications displayed by automatic block signals. Train must not exceed 40 M.P.H. until the train dispatcher is notified and his instructions are received.

C. If the acknowledging whistle fails to sound when acknowledgment is made over an inductor at a wayside signal which displays an indication other than Proceed, or if brakes do not apply upon failure to acknowledge such indication, this will be considered an improper operation. Train must not exceed 40 M.P.H. being governed by automatic block signals, to the first point where communication can be had with, and facts reported to the train dispatcher and his instructions are received.

D. Enginemen noting the absence of or damage to a receiver must operate train at not exceeding 40 M.P.H., being governed by automatic block signals to the first point where communication can be had with, and facts reported to the train dispatcher and his instructions are received.

E. When the train dispatcher receives advice as to failures described in Paragraphs "A", "B", "C" or "D", he will direct the conductor and engineman on what basis to proceed; to continue as above to a point where locomotive having operative train stop can be provided or under positive block protection in advance of the train. When operating under positive block protection in advance of the train with the train stop cut out and the automatic block signals operating properly, the train may proceed being governed by the indication displaying by the signals, and in accordance with timetable special rules, and speed of passenger trains must not exceed 79 M.P.H. and speed of freight trains must not exceed 50 M.P.H.

F. The Chief Train Dispatcher, by train order, will establish restricted speed approaching and through the block where improper operation as described in Paragraph "C" has been reported.

The Division Superintendent will immediately by wire notify the General Manager, Signal Engineer, and Electrical Engineer-Equipment of the occurrence so that they or their representatives may proceed as promptly as possible to the location.

Signal Department representative and Electrical representative of the Mechanical Department will immediately make an inspection and test of all wayside signal apparatus in the section involved. The restriction shall continue in effect until its removal is authorized by the General Manager.

The locomotive involved must be held out of service upon arrival at the first point where a relief locomotive can be furnished. If a double end diesel is involved, it is permissible to turn the locomotive at a convenient point enroute in order that the train may proceed at normal speed.

No part of the locomotive shall be disturbed or inspections or tests made until an electrical representative of the Mechanical Department and a representative of the Signal Department are present. The locomotive must be held out of service until released by order of the General Manager.

G. Enginemen noting the absence of, or damage to a wayside inductor in approach to a signal will report same to train dispatcher at the first communicating station.

Train dispatcher will immediately call the signal maintainer and instruct him to set the signal to display its most restrictive indication until inductor is replaced or repaired.

H. When locomotives are operated over A.T.S. territory during any portion of the trip, each engineman, at end of his trip, must make out Form 651A, answering each question and stating any irregularities

observed that affect proper operation of the A.T.S. apparatus.

S. C. JONES,
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