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101.0 Locomotive Air Brake Tests and Inspections

101.1 General Requirements

When locomotive inspection forces are not immediately available, an engineer taking charge of a locomotive consist must know that the brakes are in operating condition.

Engineers are responsible for the following:

1. If possible, position yourself so you can conduct a roll-by inspection of an incoming locomotive consist.

2. Keep the side and end doors of the locomotive closed when the doors are not being used.


4. Keep the locomotive’s high-voltage cabinets closed during operation.

5. Check for sliding wheels at frequent intervals if:
   · The locomotive is dead.
   · The locomotive is isolated.
   · Any of the locomotive’s traction motors are cut out.

6. Verify that brake pipe exhaust ports are not plugged or obstructed.

7. Verify that the independent brake valve handle is not blocked in the actuate position.

8. Verify that the reverser is centered to engage the low-idle feature when the locomotive is not moving.

9. Verify that the brake shoes are thick enough to last until the next maintenance or through the shift in yard service.

101.2 Locomotive Daily Inspection

A. Inspection Requirements

Engineers are responsible for ensuring that each locomotive in their charge including locomotive(s) picked up en route is inspected each day the locomotive is in service. In service includes locomotives moving in through freight service that are isolated or shut down for fuel conservation or other than non-complying defects. (Locomotives properly tagged as non-complying locomotives moving to repair facilities require no daily inspection en route.) Determine if locomotive needs to be inspected by checking the Daily & Mid-Trip Inspection form (locomotive cab card) in each locomotive cab. The card will indicate the date and time of the last inspection.

Exceptions:

• On a multiple locomotive consist engineer may assume that all trailing locomotives in the consist were inspected on the same date as the cab card on the controlling locomotive.

• An inspection is not required on a locomotive that is left standing (idling or shutdown) and will not be used as a working locomotive:

Inspected Previous Calendar Day

If the locomotive cab card indicates that the locomotive was inspected the previous calendar day, complete the current daily inspection before 2359 hours.
To allow the locomotive to remain in service:

- If your tour of duty will go beyond 2359 hours, conduct the locomotive daily inspection before 2359 hours. Contact the RTC, yardmaster, or other proper authority to determine where to complete the daily inspection.

  or

- If you have time to reach your final terminal before 2359 hours, inspect the locomotive at that terminal, unless informed that the Mechanical Department or the relieving engineer will inspect the locomotive before 2359 hours.

**Not Inspected Previous Calendar Day**

If the locomotive cab card indicates that the locomotive was not inspected during the previous day, or if there is no record on the locomotive, inspect the locomotive before it is placed into service on the current day.

**Locomotive Picked Up En Route**

When picking up a locomotive on line, the engineer must determine which locomotives will require a daily inspection. No locomotive in resulting consist may have a date older than the lead, controlling locomotive.

**Locomotive Set Out On Line**

When setting out a locomotive on line that was inspected on the previous calendar day, inspect the locomotive, unless notified that the locomotive will be inspected by the Mechanical Department or be picked up by another train before 2359 hours.

**B. Conducting a Locomotive Daily Inspection**

Not all defects are non-complying conditions. However, the following items are non-complying conditions if they do not function properly during the daily inspection.

Inspect the following three general areas of each locomotive:

**I. Control Compartment/Locomotive Cab**

Verify that Form F 6180-49A (blue card) is displayed under a transparent cover in the cab of each locomotive.

Operate sanders to deposit sand in front of each locomotive's lead wheels when the reverser position determines the direction.

Ensure that:

1. Each air gauge registers correctly and is within 3 psi of the required pressure. See Rule 101.7
2. At least one headlight bulb must be operational on each end of the locomotive consist.
3. Two ditch lights, if equipped, are operational in direction of travel. If not equipped, may be used as leading locomotive if 20 MPH is observed over all road crossings.
4. Horn operates
5. Bell operates
6. Gauge lights and engineer’s overhead cab light illuminate. If burned out and other available lighting is sufficient to allow visibility from the crew’s normal position, report as a defect but not a non-complying condition.
7. Speed indicator functions accurately, if equipped. After a daily inspection, if the speed indicator failure is identified on the lead locomotive as soon as it begins moving, the failure is a non-complying condition discovered during the daily inspection.

   Exception: Locomotives not equipped with speed indicators are not considered to have a non-complying defect and may be used as controlling locomotive only if operated at speeds not exceeding 20 MPH.
8. Locomotive cab is free of stumbling or slipping hazards.
9. Windows provide a clear view. Small cracks that do not obscure view must be reported as a defect but not a non-complying condition.
10. No traction motors have been cut out.
11. Cab seats are properly secured.

   Note: Locomotives with defect items 3, 4, 5, 6, 7 and 9 above, may be used in power as trailing units. These defects must always be reported but are considered non-complying only when positioned in locomotive consist as the lead, controlling locomotive.

II. Walkway and Engine Compartment

   Inspect both sides of each locomotive to ensure that:

   1. Walkways and walk-in compartments (car body-type locomotives) are clear of debris, tools, and accumulated oil or grease that present a hazard to the crew.
   2. Handrails, hand holds, steps, ladders, safety chains, and guards are secured and ready for service. Inspect for broken, bent, damaged, or loose equipment. Make sure safety chains are connected high enough for safe passage.
   3. All electrical and rotating equipment guards are in place.
   4. The diesel engine has no apparent exhaust, oil, water, or fuel leaks.
   5. The hand brake is operational.

III. Ground Level

   Inspect the exposed areas for apparent defects, but do not crawl under or between locomotives to make the visual inspection.

   Set hand brakes, if necessary, and walk around both sides of the locomotive to ensure that:

   1. Sand is deposited on the rail in front of the lead wheels of each locomotive in consist.
   2. Fuel tank is not leaking.
   3. No defects such as cracks and broken or missing parts are on the:
      · Locomotive trucks
· Wheels
· Gear cases
· Draft gears

4. Brake cylinder piston travel is:
   · Minimum: Sufficient to provide brake shoe clearance when the brakes are released.
   · Maximum: 1 1/2 inches less than the travel entered on Form F 6180-49A (blue card) in the locomotive cab.

5. Foundation brake rigging is secured and all components other than wheels and sand hoses are at least 2 1/2 inches above the top of the rail.

6. Snowplow, pilot, or endplate is properly secured and is between 3 inches and 6 inches above the top of the rail.

7. Brake shoes are secured and approximately in line with the tread of the wheel. Make sure the shoe has no obvious lips or overhangs.

8. No part of the electrical cable is lying on the coupler.

9. Unused electrical cables are stowed, or the disconnected ends are placed into a dummy receptacle or a multiple-unit cable holder.

10. Manually drain oil and water from main reservoirs that are not equipped with automatic drains. If equipped with automatic drains, ensure the valve handles are then turned fully clockwise to the automatic position, with the stem extending beyond the valve handle.

C. Complete Required Daily Inspection Forms

Locomotive Inspection Report

Complete a Locomotive Inspection Report for each locomotive inspected.

Locomotive daily inspection form and Daily & Mid-Trip Inspection form (cab card) must be completed with the following inspection information:
· Date
· Location
· Time

Indicate “Not used” if the locomotive has not been used on a particular day, and form supplied on locomotive has calendar-type daily inspection form. The locomotive cab card must remain in the holder in the locomotive cab.

Note: Leave a copy of the locomotive daily inspection at location designated by other local instructions.

101.2.1 Locomotive With Non-complying Condition Safe To Move

If during the locomotive daily inspection you find one or more non-complying conditions, determine if the locomotive is safe to move.

If the locomotive is safe to move, it may be moved only:
· As a single locomotive under power not attached to cars.
- In a locomotive consist not attached to cars.
- Isolated or shut down when attached to cars.

**Exceptions:**
- Controlling locomotive found with defective speed indicator during daily inspection may be operated under power attached to cars not exceeding 20 MPH.
- Locomotives found with the following defects during the daily inspection may be operated under power attached to cars as a trailing locomotive:
  a. Inoperative headlights
  b. Defective Electronic Alertness Device
  c. Inoperative horn
  d. Inoperative bell
  e. Defective speed indicator
  f. Window cracks that obscure view
  g. Cab seats not properly secured
  h. Both ditch lights inoperative

Prior to moving a non-complying locomotive perform the following:
1. Complete a non-complying locomotive tag and attach it to the isolation switch of the non-complying locomotive. The tag must include this information:
   - “Non-complying locomotive” written on the tag.
   - Locomotive initials and number.
   - Name of the inspecting railroad.
   - Inspection location and date.
   - Nature of the defect.
   - Movement restrictions, if any.
   - Destination.
   - Signature of the employee making the inspection.
2. Secure a copy of the non-complying tag on the control stand of the controlling locomotive.
3. Make sure the engineer in charge of the locomotive movement receives written notification of the non-complying locomotive (a copy of a non-complying locomotive tag meets this requirement). The engineer must inform all other crew members of the non-complying unit and of any restrictions.
4. Notify the RTC/Mechanical Department, yardmaster, or other proper authority.

However, a locomotive may be moved without complying with Items 1, 2, and 3 above as a single locomotive or dead within a yard solely for repairs and at no more than 10 MPH.
If during the locomotive daily inspection you find one or more non-complying conditions and determine the locomotive is not safe to move, do the following:

1. Notify the RTC, supervisor, or other proper authority.

2. Complete a non-complying tag and attach the tag to the isolation switch of the non-complying locomotive. The tag must include this information:
   - “Non-complying locomotive” written on the tag.
   - Locomotive initials and number.
   - Name of the inspecting railroad.
   - Inspection location and date.
   - Nature of the defect.
   - Signature of the employee making the inspection.

101.3 Defects Other Than Non-Complying Conditions

If a defect or problem is found and is not a non-complying condition do the following:

1. Complete a Locomotive Daily Inspection Report for each locomotive in the consist with a defect or problem.

2. Report any locomotive not producing power to the Mechanical Department.

Examples of a defect or problem that is not a non-complying condition include:

- Weather stripping is defective.
- Windshield wipers are not working.
- One headlight bulb is burned out.
- Ground relay is tripped.
- Safety valve on the air compressor or main reservoir is popping off.

101.4 Non-Complying Condition Found En Route

A locomotive that develops a non-complying condition en route may continue operating if the engineer or other qualified employee determines the locomotive is safe to move and completes the Locomotive Daily Inspection Report. The locomotive may then be operated at normal speed until the next daily inspection or until it reaches the nearest point where repairs can be made, whichever occurs first.

The engineer must:


2. Leave the completed Locomotive Daily Inspection Report with the non-complying locomotive unless otherwise instructed.

3. Report non-complying conditions to the RTC/Mechanical Department as soon as possible.

4. Notify the relieving engineer of any non-complying conditions when possible.

5. Apply a Non-Complying Tag to the isolation switch on the non-complying locomotive and the controlling locomotive.

Examples of additional non-complying conditions found en route include:

1. While performing a speed indicator check, an employee determines that the speed is not accurate to within:
· ±3 MPH at speeds up to 30 MPH. 
   or
· ±5 MPH at speeds above 30 MPH

See Rule 101.11 (Operative speed Indicator) when defective speed indicator is found en route

2. While moving and crew members detect flat spots and if inspection determines:
   · One or more flat spots are 2 1/2 inches or more in length.
   or
   · Flat spots of 2 inches or more are adjoining.

   **Note:** If a locomotive has flat spots as described above, set it out at the first available point and limit speed to 10 MPH until the setout destination is reached.

### 101.5 Major Internal Defects Found En Route
If a locomotive en route has a major internal defect do the following:

1. If possible, isolate the locomotive.

2. Shut down the diesel engine immediately if noise indicates an internal mechanical defect in:
   · Diesel engine.
   · Turbocharger.
   or
   · Components related to the above.

3. If you shut down the engine, do not restart the engine until the equipment has been inspected and can be operated without damaging the locomotive.

4. Report condition to RTC/Mechanical Department.

5. Fill out an “Out of Service” tag and attach the tag near the engine starting control.

6. Set out a locomotive with a major defect if the defect requires that the locomotive be set out. Leave the locomotive where maintenance personnel can access it.

### 101.6 Locomotive Air Brake Test

**A. Location Of Test**

Conduct a locomotive air brake test when:

· Making up a locomotive consist.
· Adding locomotive to a consist
· Other than rear locomotive(s) is removed from consist.
· Locomotive consist is rearranged
   or
· Changing operating ends.

**B. Procedure for Conducting Locomotive Air Brake Test**

From the ground, observe that the locomotive brakes apply and release during this procedure:
1. With the independent and automatic brake valve handles in RELEASE, apply the independent brake.

2. After observing that the brakes apply on each locomotive, release the independent brakes.

3. When the brakes are released on all locomotives, apply the automatic brakes by making a 10-psi brake pipe reduction.

4. After the brakes apply on all locomotives, actuate and observe that the brakes release.

5. Reduce brake pipe pressure an additional 10 psi to reapply the brakes.

6. Determine that all brakes apply on all locomotives.

7. Cut out the automatic brake.

8. Observe gauges and verify that equalizing reservoir indicates no leakage and that brake pipe leakage does not exceed 5 psi per minute.

9. Move automatic brake valve handle to RELEASE position.

10. Cut in the automatic brake valve.

11. Determine that all brakes release.

**Canada Only**

12. With generator field switch OFF, move throttle to 3rd notch. Allow the safety control device (RSC) to initiate brake application and confirm engine returns to IDLE. Return throttle to Idle, recover PC and verify release of the brakes;

13. Place automatic brake valve in emergency position;

14. Recover emergency brake application, place the automatic brake valve in release position and verify release of the brakes.

**Note:** Upon successful completion of the test, re-apply the independent brakes.

101.6.2 Air Brake Test Required When Changing Controlling Units Within the Same Locomotive Consist

After changing controlling locomotives on a locomotive consist, a moving test of the air brakes as prescribed by rule 101.13 may be performed as soon as speed and conditions permit in lieu of the standing air test as outlined in 101.6.

101.7 Standard Air Pressures

Ensure that air pressures are as follows:

- Main reservoir pressure is 120 to 140 psi.
- Locomotive brake cylinder pressure is:
  a. Switch locomotives with 10- or 11-inch brake cylinders-35 psi
  b. Switch locomotives with 9-inch brake cylinders-45 psi
  c. Locomotives with clasp type brake shoe rigging (2 shoes per wheel)-45 psi
  d. Locomotives with single shoe per wheel brake rigging-72 psi
Note: Foreign line locomotives may require different main reservoir and independent brake cylinder pressures.

- Brake pipe pressure is:
  a. Yard or Freight service - 90 psi
  b. Trains consisting entirely of business cars or passenger equipment-105 psi

101.8 Reducing Locomotive Overcharge
To reduce locomotive overcharge:
1. Adjust the regulating valve to the desired setting.
2. Make an automatic brake pipe reduction to at least 20 psi below the regulating valve setting.
3. Allow pressure to equalize in the brake system.
4. Move the automatic brake to RELEASE.
5. Verify that the equalizing reservoir pressure is at the required setting.

101.9 Control Switches
Position electrical switches and control equipment in the cab according to instructions on the badge plate or stenciling.

101.10 Locomotive Safety Devices
To the extent possible, make sure these locomotive safety devices are cut in and operating at all times:
- Overspeed.
- Alerters. - Test Electronic Alertness Devises (Alerters) when required to perform a locomotive brake test and changing operating ends.

However, safety devices do not have to be operating on non-controlling locomotives, or:

a. When a safety device becomes defective en route.

If a safety device becomes defective en route, inform the RTC and mechanical department as soon as possible.
Do not cut out, tamper with, or defeat a safety device without proper authorization.
When a locomotive is en route, this authorization may come from the RTC, mechanical supervisor, or other manager.

101.11 Operative Speed Indicator
A locomotive used as a controlling unit at speeds above 20 MPH must be equipped with an operative speed indicator. Follow these speed indicator requirements:
1. Locomotive speed indicators must be accurate within:
   - ±3 MPH at speeds between 10 and 30 MPH
   - ±5 MPH at speeds above 30 MPH
   Speed indicator that exceeds the above tolerances must be handled as a non-complying condition found en route.
2. If a speed indicator on a controlling locomotive fails en route, the locomotive may continue as a controlling locomotive at normal track speed only to the next facility where repairs can be made or until the locomotive is due a daily inspection, whichever occurs first. Movement beyond a facility where repairs can be made or location where daily inspection was conducted must not exceed 20 MPH.

When leaving the terminal, the engineer must test the speed indicator of the controlling locomotive as follows:
1. Test speed indicator accuracy using identified mile posts.
2. Conduct the speed check in the 10 to 30 MPH range.
3. Conduct the speed check as near maximum speed as conditions permit.

101.12 Event Recorder
Access to the event recorder is restricted. Only authorized personnel may remove the event recorder data pack or download event recorder data.

101.13 Moving Locomotive

A. Initial Movement of a Locomotive Consist Not Coupled to Other Equipment.
1. Follow these steps prior to making the initial movement of a locomotive consist outside designated mechanical department limits:
   a. Verify that hand brakes are released on all locomotives.
   b. Ensure air hoses are coupled between all locomotives in consist including:
      - Brake Pipe
      - Main Reservoir
      - Actuation
      - Application and Release
   c. Position cutout cocks and valves for MU operation.
   d. Ensure locomotive air brakes are applied on each locomotive during visual inspection.
   e. Determine that sufficient main reservoir pressure is present.
2. Perform these steps during the initial movement of a locomotive consist or as soon as operating conditions permit.
   a. At a speed of 1 to 3 MPH, allow the locomotive to drift with the throttle in IDLE.
   b. Check that brakes or other defects do not restrict the locomotive’s movement.
   c. Increase speed to approximately 10 MPH, make a service brake pipe application sufficient to develop brake cylinder pressure.
   d. When speed decreases to approximately 5 MPH, actuate to make sure the brakes release.

B. Initial Movement of a Locomotive Consist Coupled to Other Equipment.
When making the initial movement of a locomotive consist that is coupled to a train or
other equipment, before speed exceeds 10 MPH, actuate for 5 seconds per locomotive in the consist to determine if brakes apply on trailing locomotive(s) in consist.

If actuating results in brakes applying on trailing locomotives or a sudden change in slack is noted, stop and check MU hose connections. (Lines may be crossed between Act and App/Rel)

If MU hoses are not properly connected, correct the problem and then perform locomotive air brake test 101.6.

C. Hostling Locomotives Utilizing Brake Pipe Only to Control Air Brakes

Multiple locomotive consists may be moved within a terminal area with only the brake pipe connected provided speed does not exceed 10 MPH. When handling locomotive(s) in this manner, main reservoir charging must be maintained on locomotives with brake pipe only connected with either an operative air compressor or with the “dead engine fixture” cut in to provide main reservoir charging from the brake pipe.

Perform the following inspection and test before initial movement of locomotives coupled together and whenever locomotives are added or controlling locomotive is changed:

1. Brake pipe is connected and angle cocks are open between each locomotive.
2. Automatic brake valve must be cut out and independent brake placed in “trail” position with handle RELEASE position on all locomotives coupled together except the controlling locomotive.
3. Allow brake pipe to charge.
4. Perform a standing brake test as follows:
   a) Make a 10 psi service brake application
   b) Ensure brakes are applied on each locomotive with brake pipe only applied
   c) Release the automatic brake application
   d) Ensure brakes release on each locomotive with brake pipe only applied
5. Release all hand brakes.

D. Moving Locomotives Within Mechanical Department Limits

When moving locomotives within mechanical department limits:

1. Charge and properly position brake equipment before moving the controlling locomotive.
2. Apply and release locomotive brakes to verify on controlling locomotive that brake cylinder pistons are operating and brake cylinder lines to trucks are not cut out.
3. Do not move on or off a turntable unless correctly lined and locked.
4. When hostling locomotives with inoperative brakes, a minimum of one locomotive with operative brakes must be used per six locomotives without operative brakes.

101.14 Moving Light Locomotive Consists

Operate a light locomotive consist from the cab nearest the direction of travel when any one of the following conditions exists:
- Distance to be traveled exceeds 2 miles.
- A member of the same crew does not control movement using hand signals or radio.
  or
- Visibility is impaired.

101.15 Locomotive Air Brake Equipment

Place air brake valves in the proper position on freight and helper locomotives. Position brake valves and cutout cocks as indicated in the following tables:

<table>
<thead>
<tr>
<th>26 and 30 CDW Brake Equipment Positions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Lead</strong></td>
</tr>
<tr>
<td>Automatic Brake Valve</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Independent Brake Valve</td>
</tr>
<tr>
<td>Automatic Brake Valve</td>
</tr>
<tr>
<td>Cutout Valve</td>
</tr>
<tr>
<td>MU2-A Valve or Double-Ported Cutout Cock</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

101.16 Separating Locomotives

When separating locomotives do the following:
1. Apply hand brakes on locomotives to be cut away from.
2. Disconnect electric jumper cables.
3. Plug the jumper cables into a dummy receptacle.
5. Disconnect walkway safety chains.
6. Disconnect fuel tender hoses (if equipped).
7. Separate locomotives.
8. Attach air hoses to the dummy couplings or place them in the pockets.

101.17 Locomotives Equipped for Multiple-Unit Operation

A. Locomotives With Alignment Control Couplers

When a locomotive equipped with alignment control couplers is being placed in a train with the diesel engine isolated or shutdown, couple the locomotive(s) directly behind the locomotive consist at the head end of the train. Then, do the following:
1. Set up air brake equipment as a trailing unit, couple all hoses, connect MU jumper cables and open all cut out cocks between the operating locomotive consist and the units that will be moved.
2. Perform an air brake test as outlined in Rule 101.6.

**Exception:** SW and MP model switch engines must be placed second in the locomotive consist, one per train, when handling cars.
If it cannot be determined whether a locomotive is equipped with an alignment control coupler, locomotive must be moved as described in Part (B) below.

**B. Locomotives Not Equipped with Alignment Control Couplers**

Most SW1200, SW1500, MP15, GP7, GP9, SD7 and SD9 locomotives, waybilled locomotives, some foreign line road and switch engines and some Amtrak and other commuter locomotives are not equipped with alignment control couplers. These units may be identified by special instructions. They are to be placed second in the locomotive consist, one per train when handling cars.

Mechanical inspection forces must ensure that coupler swing limiting devices are in place before these units move in freight trains. Coupler swing limiting devices do not make the coupler an alignment control coupler.

### 101.18 Locomotives Not Equipped for Multiple-Unit Operation

**A. Placement in Train**

**Non-MU Locomotives Equipped with Alignment Control Couplers**

Shut down locomotives that are not equipped for multiple-unit operation or have inoperative multiple-unit equipment and couple them directly behind the locomotive consist.

**Non-MU Locomotives Not Equipped with Alignment Control Couplers**

Locomotives that are not equipped with alignment control couplers may be identified by special instructions. They must be shut down and placed not less than five cars or greater than ten cars from the rear of the train, with at least one car separating locomotives. No more than two locomotives may be placed in a train.

Mechanical inspection forces must ensure that, coupler swing limiting devices or truck bolster movement limiting devices, are in place before these units are moved in freight trains. Distributed power consists or manned helpers must be cut in ahead of locomotives not equipped with alignment control couplers.

Place locomotive with bolted or temporary drawbar no more than five cars from rear of train.

**B. Set-up Procedure for Handling Locomotives Not Equipped for Multiple-Unit Operation**

Complete the following:

1. Make sure the dead-engine feature cutout cock is open or “Dead.”
2. Reduce main reservoir pressure to below 90 psi.
3. Cut out the automatic brake valve and place the handle in the HANDLE OFF/CONTINUOUS SERVICE position.
4. Cut in the independent brake valve and place the handle in the RELEASE position.
5. Close the cut out cocks in the main reservoir equalizing pipe.
6. Make sure the cut out cocks in the actuating pipe and independent application and release pipe are open.

### 101.19 Changing Operating Ends

Change operating ends on a locomotive consist by cutting out the operating controls on the controlling end of the locomotive consist and proceeding immediately to the
opposite end of the locomotive consist and restoring control.

A. Cut Out Operating Controls

To cut out operating controls, do the following:

1. Apply sufficient hand brakes to hold locomotive consist.
2. Place the throttle in IDLE.
3. Place the reverse lever in NEUTRAL and remove the handle.
4. Fully apply the independent brake.
5. Cut out the independent brake.
6. Place the independent brake valve handle in RELEASE.
7. Make a 20-psi brake pipe reduction.
8. Cut out the automatic brake.
9. Place the automatic brake valve handle in HANDLE OFF/CONTINUOUS SERVICE.
10. Place the generator field switch in the OFF position.
11. Disarm 2-way ETD, if equipped.

B. Restore Operating Controls

To restore operating controls, position equipment on the control stand as follows:

1. Replace the reverse lever.
2. Place the independent brake valve handle in FULL APPLICATION.
3. Cut in the independent brake.
4. Place the automatic brake valve handle in RELEASE.
5. Cut in the automatic brake.
6. Place the generator field switch in the ON position.
7. Place the engine run switch in the ON position.
8. Place the control/fuel pump switch in the ON position.
9. Conduct the test as specified in Rule 101.6 (Locomotive Air Brake Test).