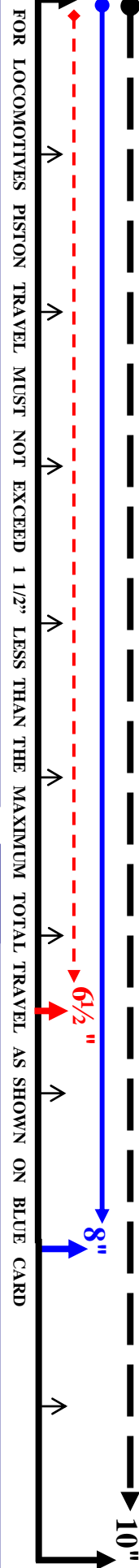


" SAFETY FIRST "

SAFETY PERFORMANCE GUIDE



- Daily Locomotive Inspection
- Initial Terminal Road Train Air-Brake Test
- Nullifying and Restoring Operating Controls
- Train Securement Rules



31.2.2 – CONDUCTING A DAILY LOCOMOTIVE INSPECTION

Locomotive Cab

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.

Remote control locomotives must be in manual mode when conducting inspection.

Inspect these three general areas of each locomotive:

Note: B-units and units designated or modified not to be occupied, are not required to have or be equipped with all the devices included in the inspection.

A. Control Compartment/Locomotive Cab

Verify that FRA 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 using the reverser position to determine the direction.

Ensure that:

1. Each air gauge registers correctly and is within 3 psi of the required pressure. See Rule 31.7 (Standard Air Pressures).
2. At least one headlight bulb is to be operational on each end of the locomotive consist.
3. At least one of two ditch lights is operational in the direction of travel.
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 crews normal position, report as a defect but not a non-complying condition.
7. Speed indicator functions accurately. 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.
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. However, on GE AC, GE-8 DC, GE-9 DC & EMD AC locomotives, one or more traction motors/trucks may be cut out and not considered a non-complying condition.
11. Cab seats are properly secured.

Be conversant with the following rules:

- **Rule 31.2.1** – Inspection Requirements
- **Rule 31.2.3** – Complete Required Daily Inspection Forms
- **Rule 31.2.4** – Locomotive With Non-complying Condition Safe To Move

Sanitation Compartment / Toilet Facilities:

Effective June 3, 2002 the FRA amended the locomotive daily inspection regulations by adding standards that address toilet and washing facilities for employees who work in locomotive cabs. **With some exceptions, occupied locomotives are required to have an operative, sanitary toilet facility.**

See Cab Sanitation Guide handout
for general guidelines and exceptions.
To report defective / non-complying toilet facilities go to:
www.bletsafetyfirst.org

Walk Way & Engine Compartment (Both Sides)

B. 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.

Ground Level (Both Sides)

C. 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 FRA 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.

INITIAL TERMINAL & ROAD AIR-BRAKE TEST (Class 1)

Air-Flow Method (AFM)

Rule 30.9.1

AFM is the preferred method to test brake pipe leakage. To qualify a train's air brake system using AFM, the train must be equipped as follows:

- ✓ The controlling locomotive has a maintaining-type automatic brake valve.
- ✓ The train has a gauge or device at the rear of the train.
- ✓ The locomotive has an air flow indicator with a direct reading of air flow increments no greater than 10 cubic feet per minute (CFM).

Conduct an AFM test as follows:

1. Charge the brake system to within 15 psi of the regulating valve setting as indicated by a gauge or device at the rear of the train.
 - After receiving proper notification to set the brakes, make a twenty (20) pound brake-pipe reduction with the automatic-brake valve. (Rule 30.10.2)
 - After the brake-pipe air has stopped exhausting at the automatic-brake valve, notify the inspector that the brakes are applied for the test. (Rule 30.10.2)
 - After receiving proper notification to release the brakes, place the automatic-brake valve handle in RELEASE position. (Rule 30.10.2)
 - Notify the inspector that the brakes have been released. (Rule 30.10.2)
2. When air flow does not exceed 60 CFM, AFM test is complete. If air flow exceeds 60 CFM, train must be inspected for leakage, leakage corrected, and re-tested.

Brake Pipe Leakage Method

Rule 30.9.2

If the train does not meet AFM test conditions conduct a brake pipe leakage test as follows:

1. Charge the brake system to within 15 psi of the regulating valve setting as indicated by a gauge or device at the rear of the train.
2. Wait for the signal to apply the brakes.
3. When the signal is received, reduce brake pipe pressure by 20 psi.
4. Allow the brake pipe exhaust to stop.
5. Wait 1 minute.
6. Cut out the automatic brake valve maintaining feature.
7. Wait an additional 1 minute for the brake pipe pressure to equalize
8. Time the brake pipe leakage for 1 minute. If the leakage exceeds 5 psi, the train must be inspected for leakage, leakage corrected, and re-tested.
9. When the signal to release the brakes is received, move the automatic brake valve to RELEASE position. Cut in the automatic brake valve maintaining feature.

Note: Utilize the Distributed Power systems automated brake pipe leakage mode when checking leakage on DP trains.

" SAFETY FIRST "

The nation's railroads provide vital transportation services to every major metropolitan center across the country creating overlapping safety concerns for rail industry employees, shippers and the public. In response, "Safety First" was jointly developed by the UP General Committees of Adjustment and State Legislative Boards with the intent of seeking the most responsible and professional means of improving railroad related health and safety issues.

Accountability for operational safety is a shared responsibility. As the most skilled and highly trained operating craft employees in the rail industry, we are committed to doing everything within our power to ensure the safest possible railroad operating environment.

For more information or to report safety issues, visit:

www.bletsafetyfirst.org

