Reduce Your Risk During Biofuels Railcar Loading, Transportation and Unloading

Protect Your Investment by Specifying High-Quality Midland Valves for All of Your Rail Tank Cars.

Pressure Relief Valves

1 Loading Pressure Relief Valves
- Verify test dates on the safety valve
- Verify the valve seal is good (air-pressure testing)
- Check for visible loose parts or signs of physical damage

2 Unloading Pressure Relief Valves
- Check for visible signs of product on the valve
- Verify test dates
- Check for loose parts, physical damage and corrosion

No-Step Vacuum Relief Valves

3 Loading No-Step Vacuum Relief Valves
- Check for corrosion on the valve
- Check for visible damage to the valve
- Check for debris on or around the valve
- Pressure test with the car test

4 Unloading No-Step Vacuum Relief Valves
- Check for visible damage to the valve
- Check for debris on or around the valve
- Check for signs of product release through the valve

Standard Vacuum Relief Valves

5 Loading Vacuum Relief Valves
- Check for corrosion on the valve
- Do not step on the valve to release pressure in the tank
- Check for visible damage to the valve
- Check for debris on or around the valve

6 Unloading Vacuum Relief Valves
- Do not step on the valve to release pressure in the tank
- Check for signs of product release through the valve
- Check for debris on or around the valve
- Verify that the valve is operational before unloading by gently cycling the valve open

Bottom Outlet Plug Valves

7 Loading Cars with Bottom Outlet Plug Valves
- Prior to loading, verify that the valve is closed and the handle is secured with the locking pin in the closed position. Then, start the loading process **with the cap off** to verify no leaks.
- Never open the valve with the cap on
- Monitor the valve during the loading process to verify the valve is not leaking
- Do not operate the valve when the outlet leg is full of product and the outlet cap and plug are sealed. This may damage the internals of the valve since liquids are not compressible
- When loading is complete, reapply and properly secure the outlet cap and plug

8 Unloading Bottom Outlet Plug Valves
- Verify that the valve is in the closed position
- Before removing the outlet cap, gently loosen the 2" plug to verify that there is no leak from the valve before proceeding with unloading
  - o If liquid is present, a more thorough inspection should be conducted after unloading
- Plug valves operate with a 180-degree configuration for optimal performance, unlike ball valves that use a 90-degree configuration.
- When unloading is complete, reapply and properly secure the outlet cap and plug

Bottom Outlet Ball Valves

9 Loading Cars with Bottom Outlet Ball Valves
- Verify that the bottom outlet valve is closed
- Remove the outlet cap during loading to verify that the valve is not leaking
  - o Monitor the valve during the loading process to verify the valve is not leaking
- If a leak is detected, stop the loading process—a more thorough inspection and any necessary repair should be performed before loading and shipping the railcar
- Once loading is complete, reapply the cap and plug and properly secure for shipment

10 Unloading Bottom Outlet Ball Valves
- Before unloading, verify that the valve is in the closed position with the locking pin in place
  - o Only then remove the 2" test plug to check for leaks
  - o If there is liquid in the outlet leg, determine if the flow is slow or if it remains constant
    - If the flow is constant, re-tighten the plug and notify the shipper of the problem
  - o Once unloading is complete, close the valve and reapply the locking pin.
- When unloading is complete, reapply and properly secure the outlet cap and plug

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Learn more about NARs. Go to www.midlandmfg.net and follow the link to http://nar.aar.com
Download Pamphlet 34, which gives complete instructions on loading and unloading rail tank cars.

Legal disclaimer: The information included on this poster is recommended practices only. Company loading and unloading procedures should always be followed when working with the railcars.