

Pressure Relief Valve Inspection and Maintenance

“Relief valves should be inspected each time the container is filled but no less than once a year. If there is any doubt about the condition of the relief valve, it must be replaced.”

Major Factors to determine “Life” of Relief Valves

- Water/Ice Accumulation
- Corrosion
- Dirt – Debris
- Damage
- Normal Aging

Eye protection must be worn when performing inspection on relief valves under pressure. Never look directly into a relief valve under pressure or place any part of your body where the relief valve discharge could impact it. In some cases, a flashlight and a small mirror are suggested to assist when making visual inspections.

1. **Rain cap.** Check protective cap located in valve or at end of pipe away for a secure fit. Protective caps help protect the pressure relief valve against possible malfunction caused by rain, sleet, snow, ice, sand, dirt, pebbles, insects, other debris and contamination. REPLACE DAMAGED OR MISSING CAPS AT ONCE AND KEEP A CAP IN PLACE AT ALL TIMES.
2. **Open weep holes.** Dirt, ice, paint and other foreign particles can prevent proper drainage from the valve body. IF THE WEEP HOLES CANNOT BE CLEARED, REPLACE THE PRESSURE RELIEF VALVE.
3. **Deterioration and corrosion on pressure relief valve spring.** Exposure to high concentrations of water, salt, industrial pollutants, chemicals and roadway contaminants could cause metal parts to fail. IF THE COATING ON THE SPRING IS CRACKED OR CHIPPED, REPLACE THE PRESSURE RELIEF VALVE.
4. **Physical damage.** Ice accumulations and improper installation could cause mechanical damage. IF THERE ARE ANY INDICATIONS OF DAMAGE, REPLACE THE PRESSURE RELIEF VALVE.
5. **Tampering or readjustment.** Pressure relief valves are factory set to discharge at specified pressure. IF THERE ARE ANY INDICATIONS OF TAMPERING OR READJUSTMENT, REPLACE THE PRESSURE RELIEF VALVE.
6. **Seat leakage.** Check for leaks in the seating area using a non-corrosive leak detection solution. REPLACE THE PRESSURE RELIEF VALVE IF THERE ARE ANY INDICATION OF LEAKAGE. Never force a pressure relief valve closed and continue to leave it in service. This could result in damage to the valve and possible rupture of the container or piping on which the pressure relief valve is installed.
7. **Corrosion and contamination.** REPLACE THE PRESSURE RELIEF VALVE IF THERE ARE ANY SIGNS OF CORROSION OR CONTAMINATION.
8. **Moisture, foreign particles or contaminants in the pressure relief valve.** Foreign material such as paint, tar or ice in pressure relief valve parts can impair the proper functioning on the valves. Grease placed in the valve body may harden over time or collect contaminants, thereby impairing the proper operation of the pressure relief valve. DO NOT PLACE GREASE IN THE VALVE BODY. REPLACE THE PRESSURE RELIEF VALVE IF THERE ARE ANY INDICATIONS OF MOISTURE OR FOREIGN MATTER.
9. **Corrosion or leakage at the container connection.** Check container to pressure relief valve connection with a non-corrosive leak detection solution. REPLACE THE PRESSURE RELIEF VALVE IF THERE IS ANY INDICATION OF CORROSION OR LEAKAGE AT THE CONNECTION AND CONTAINER.

Caution: Never plug the outlet of a pressure relief valve. Any device used to stop the flow of a properly operating pressure relief valve that is venting an overfilled or over pressurized container – raises serious safety concerns.