



Technology Committee Bulletin

January 4, 2001

Pressure Relief Devices

As winter has arrived, it is time to remind NGV owners and operators that moisture trapped in pressure relief devices (PRDs) and in PRD vent lines can freeze and damage these safety components. In some cases, ice induced damage has caused PRDs to unexpectedly activate and release the fuel tank contents.

PRDs are safety devices intended to avoid rupture of the CNG fuel tanks by releasing the fuel in the event of a fire involving a natural gas vehicle. PRDs are typically located at one or both ends of NGV fuel tanks. On many vehicles (e.g., buses) piping attached to the PRDs directs the released gas to a vent port, commonly near the roof.

Industry experience has shown that moisture from rainwater and vehicle washes may enter PRD vent systems through any accessible opening. Open vent piping outlets with missing moisture caps are the most common entry points for water, but loose fittings can also provide an adequate opening. If sufficient moisture collects within a PRD and freezes, internal components may distort and cause the PRD to activate prematurely. This problem has been encountered primarily on transit buses with roof mounted PRD vents, but the potential exists for any CNG fuel system with openings in the vent system.

NGV manufacturers typically recommend routine inspection of PRD vent systems to verify the integrity of the vent lines and assure that all vent caps are in place. The recommended inspection procedures and precautions vary from vehicle to vehicle. Please consult your vehicle owner's guide and/or your manufacturer for appropriate inspection procedures to check your PRD vent system. If you find lost vent caps or any other indication that there might be moisture in your PRDs or vent system, please consult your vehicle manufacturer immediately for recommended actions.