

## Technical Bulletin - ITT Conoflow HPNGV Series Regulator Pressure Relief Device (PRD)

ITT Conoflow Technical Bulletin 1-4 "HPNGV Series Regulator Imperatives and Gas Delivery System Recommendations" describes the requirement for a downstream Pressure Relief Valve (PRV) or other effective fuel system level protection, as the regulator's Pressure Relief Device (PRD) is not a high flow device. This regulator's PRD has been extensively tested, and under a worst case failure simulation conditions, the outlet pressure develops up to 90% of the applied inlet CNG pressure. In this worst-case failure simulation, the primary inlet to outlet valve is held in the full open position, while no flow is permitted to discharge from the regulator outlet.

ITT has learned that not all installations have followed our published requirement for downstream pressure and flow relief. As <u>this can potentially pose a system safety risk for regulator and</u> **downstream component burst**, we offer an alternate solution for your consideration and use.

ITT Conoflow has developed a new PRD design, which is now available. This new PRD option has been reviewed by TUV and VCA, and the regulator certification for the ECE R110 approval has been extended to cover this design change. With this new PRD, the same worst case failure simulation shows an average downstream pressure of 35% of the inlet pressure – a significant pressure reduction from the prior design. <u>Fuel system and vehicle protection strategies need to be reviewed, as this new PRD can discharge considerably more flow than the prior PRD.</u>

For those users who desire to upgrade their current installations to this new high flow PRD design, a separate sales bulletin will elaborate on other product configuration changes, and describe the new PRD kits available to field retrofit your current installations.

As part of your fuel system and vehicle protection review, ITT recommends the incorporation of a system warning label that clearly advises maintenance technicians to 1) NOT DISABLE any automatic upstream isolation valves and to 2) CLOSE upstream isolation valves, whenever feasible during servicing.

Effective January 15, 2008, all regulators shipped from ITT Conoflow will have the new high flow PRD installed. This will include all regulators returned to ITT Conoflow for reconditioning or repair.