



COMPRESSED GAS ASSOCIATION, INC.

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SAFETY ALERT

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TUBE TRAILER RUPTURE DISK—ELBOW “EXPULSION”

Member companies of the Compressed Gas Association, Inc. (CGA) have experienced several incidents where the elbow of a pressure relief device (PRD) assembly on jumbo tube trailers (22-in diameter cylinders) has been expelled at the time the device was functioning. In all of these incidents, the elbow expulsion occurred during tube trailer re-examination testing. While no injuries occurred during these incidents, the PRD's elbow was expelled from the PRD assembly under high pressure with the potential to cause serious injury.

The PRDs associated with these expulsions are rupture disk (CG-1) type assemblies with threaded elbows. These assemblies commonly are used on the front end of jumbo tube trailers and are sometimes referred to as “in-tube devices” or “front internal safeties” (see Figure 1). The elbow is attached to the PRD assembly body by a straight thread. Examination of the PRDs involved revealed the threads were stripped indicating there was not sufficient thread engagement or that the threads were not within specification, either of which can cause the elbow to be expelled from the PRD assembly with the force of activation.

To prevent similar incidents, CGA recommends these PRD assemblies and elbows be examined for compliance with manufacturers' specifications. CGA TB-23, *Inspection and Correct Installation Procedure for Tube Trailer Relief Device Elbows*, provides guidance on the proper inspection and installation of these types of devices [1].



Figure 1—Pressure relief device assembly for the front end of a tube trailer

Reference

Unless otherwise specified, the latest edition shall apply.

[1] CGA TB-23, *Inspection and Correct Installation Procedure for Tube Trailer Relief Device Elbows*, Compressed Gas Association, Inc., 4221 Walney Rd, 5th Floor, Chantilly, VA 20151. www.cganet.com

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Work Item 07-046
Cylinder Valve Committee

NOTE—No technical information has been changed from the 2006 edition. This reaffirmed edition may include minor editorial changes.

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