



COMPRESSED GAS ASSOCIATION, INC.

SAFETY ALERT

SA-13—2002

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TUBE TRAILER RUPTURE DISC — ELBOW “EXPULSION”

Member companies of the Compressed Gas Association (CGA) have recently experienced several incidents where the elbow of a pressure relief device (PRD) assembly on jumbo tube trailers (22-inch 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 potential to cause serious injury.

The pressure relief devices associated with these expulsions are rupture disc (CG-1) type assemblies with threaded elbows. These assemblies are commonly 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 thread had become worn or did not have sufficient thread engagement, which can cause the elbow to be expelled from the PRD assembly with the force of PRD activation.

To prevent similar incidents, CGA recommends these PRD assemblies and elbows be examined for compliance with manufacturers’ specifications. Users should contact their gas supplier for further information.



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

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FIRST EDITION: 2002

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Printed in U.S.A.