



National Aeronautics and
Space Administration

SA-10-01



Langley Research Center Safety Alert

Date: 08/23/01

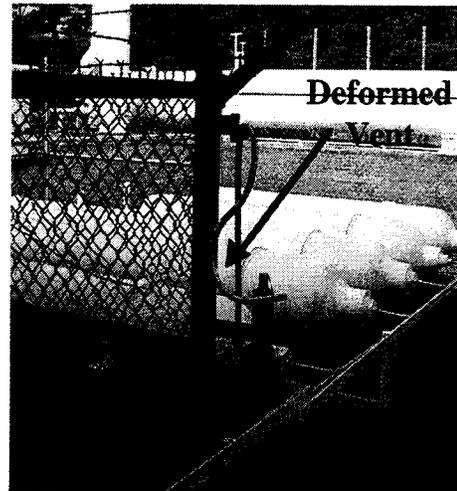
TO: All Center Employees

FROM: 429/Head, Office of Safety and Facility Assurance, OSMA

SUBJECT: Pressure Systems Design, Installation and Safety

In recent months, there have been several incidents involving ground based pressure systems and components that have resulted in "near misses." All of these incidents were the result of systems and/or components that were either improperly designed, installed, or operated. Also, an incident occurred recently where a facility's ability to do research was impacted because a pressure system was not designed and manufactured in accordance with the appropriate consensus codes.

For example, the photo to the right shows a relief valve vent line that violently deformed during operation as a result of improper design and installation. Had personnel been close to the vent line when this event occurred, serious injury could have resulted. Other examples include tubing that separated from a fitting while under pressure because it was improperly swaged and failure of a pressurized fitting due to improper assembly.



A large majority of these incidents were attributed to pressure systems and components being procured, installed, and/or repaired by personnel who were not experienced in the design, specification, and installation of pressure systems.

Personnel are reminded that pressurized systems are inherently dangerous if not designed, installed, and operated in accordance with national consensus codes and standard practices. The design, installation, and modification of all pressure systems shall:

1. Be in accordance with LAPG 1710.40, "Safety Regulations Covering Pressurized Systems,"
2. Be installed by personnel experienced in the applicable codes and standard practices for pressure systems and components, and
3. Be reviewed and signed off by the Standard Practice Engineer for Pressure Systems (Robbie Kerns - 46932).

(This Safety Alert to be posted on Facility Bulletin Boards for a Minimum of 30 days.)

Personnel are also reminded that any pressure system with an operating pressure greater than 125 psi shall be reviewed by the Pressure Systems Manager (Carlos Perez-Ramos - 47258) for inclusion in LaRC's pressure systems recertification program.

If you have any questions concerning the design, installation, modification, repair, or maintenance of any pressure system or component, please contact the Standard Practice Engineer, Robbie Kerns, at 46932; the Pressure Systems Manager, Carlos Perez-Ramos, at 47258; or Grant Watson of the Office of Safety and Facility Assurance (OSFA) at 43069.

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27-01 LARC ACTIVE CIVIL SERVICE
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