



National Aeronautics and
Space Administration



Langley Research Center Safety Alert

SA-18-90

Date: November 14, 1990

TO: All Employees

FROM: 429/Safety Manager, Head, Safety Engineering Branch,
SSQRD

SUBJECT: Safety Release Regarding the 8-Foot High Temperature
Tunnel (8-Foot HTT) Contractor Mishap

On November 20, 1989, a mishap occurred at the 8-Foot HTT when a team of construction contractor personnel was preparing to perform a pneumatic flushing of debris from high pressure air lines by use of low pressure, high velocity air. The mishap resulted in serious personnel injury when a blank flange was removed from air lines perceived to have been unpressurized.

There were formal approved procedures which were to control this activity. If they had been followed, the accident could have been prevented. The procedures were written so as to insure that the line was unpressurized when the blank flanges were removed and that the flushing air source was not attached to the system unless the flanges were already removed. However, a failed valve and the use of an alternate source for the air supply allowed this mishap to occur. The new configuration used a larger volume air source which was not isolated prior to flange removal. The configuration also allowed a single order failure to pressurize the line upstream of the blank flange. Removal of the flange, under pressure, resulted in serious injury to two of the personnel involved in the operation.

A detailed "Lessons Learned" briefing was furnished at the H. J. E. Reid Conference Center, Building 1222, on November 5, 1990, for your information. If you were not able to attend this briefing, a video tape is available through the Safety Office, by calling Ms. Perrin at 47233.

It is requested that you survey your facility to verify that vents are present upstream of blank flanges used within your research systems/apparatus. Procedures dealing with the removal of these blank

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flanges must require verification of the venting of any such system to atmospheric pressure prior to flange removal. If you have questions resulting from this summary, please contact Mr. C. B. Zeitman, Head, Facility Systems Safety Section, at 43371 for support.

Thank you for your cooperation in this matter.

V. William Wessel

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