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John C. Stennis Space Center **PRESSURIZATION STANDARD IN SUPPORT OF** **THE RECERTIFICATION OF PRESSURE** **VESSELS AND PRESSURE SYSTEMS**

Approved by:

Son Le
NASA SSC Safety & Mission Assurance

4-7-17
Date

Concurrence by:

Scott Olive
NASA SSC Center Operations
Design & Construction Project
Management Division

4-5-17
Date

Bartt J. Hebertt
NASA SSC Engineering & Test Directorate

4-6-17
Date

Issued by:

ISSUED CEF
Central Engineering Files

4-7-17
Date

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SUBJECT: Pressurization SSTD In Support Of Recertification Of Pressure Vessels & Pressure Systems	

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1.0 PURPOSE

This John C. Stennis Space Center (SSC) standard (SSTD) sets forth the requirements and methods of conducting pressure tests in support of periodic recertification of in-service pressure vessels and pressure systems as prescribed by NASA-STD-8719.17.

2.0 APPLICABILITY

- a. This standard delineates the inspecting and testing practices used during recertification of in-service SSC pressure vessels and the pressurized systems associated with them. Pressure vessel and system recertification will normally be accomplished by using nondestructive testing (NDT) as evidence of mechanical integrity.
- b. Code compliance pressure testing for the purpose of determining a maximum allowable working pressure shall normally not be the sole evidence for mechanical integrity. However, if the integrity of the component, pipe, or vessel cannot be certified to be safe by referencing existing data, by visual inspection, engineering analysis, or comparison to like items with similar histories, it may then be necessary to pressure test the system above normal design pressure to obtain adequate data for recertification.
- c. Once a requirement for pressure testing above normal design pressure has been established, the standard practices set forth in this document will apply.
- d. The NASA Safety and Mission Assurance (S&MA) Directorate or their designee will be responsible for the interpretation of this document.

3.0 REFERENCES

All references are assumed to be the latest version unless otherwise indicated.

ASME Boiler & Pressure Vessel Code, *Section VIII, Rules for Construction of Pressure Vessels Division 1 and Division 2, Alternative Rules*

ASME Boiler & Pressure Vessel Code, *Section V, Non-destructive Examination, Article 12*

ASME B31.1, *Power Piping*

ASME B31.3, *Process Piping*

ASME B40.100, *Pressure Gauges and Gauge Attachments*

NASA-STD-8719.17, *NASA Requirements For Ground-Based Pressure Vessels And Pressurized Systems (PV/S)*

SPR 1440.1, *SSC Records Management Program Requirements*

SPR 1740.1, *Pressure Vessel and Pressurized System Procedural Requirements*

SPR 8730.1, *Control of Nonconforming Product*

SSTD-8070-0005-CONFIG, *SSC Preparation, Review, Approval, and Release of SSC Standards*

SSTD-8070-0097-TEST, *Relief Devices – Inspection and Recertification*