## Approved By:

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## Document Revision Chart

The following chart lists the revisions made to this document tracked by version. Use this to describe the changes and additions each time this document is re-published. The description should include as many details of the changes as possible.

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| **#.#** | **Section Modified and Revision Description** | **Date** | **Author** |
| 1.0 | Initial release (Reformat to GE requirements. No change to requirements) | 10/26/2011 | Liz Pullig |
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Table of Contents

[1.0 Purpose 3](#_Toc265139832)

[2.0 Scope / Application 3](#_Toc265139833)

[3.0 Procedure](#_Toc265139834) 3

[4.0 Responsibilities 4](#_Toc265139835)

[5.0 Quality Records 4](#_Toc265139836)

[6.0 Definitions 4](#_Toc265139837)

[7.0 References 4](#_Toc265139838)

[8.0 Compliance Requirements 4](#_Toc265139839)

# Purpose

This procedure establishes requirements for the inspection, calibration and certification of NPT Plug and Ring Gages used during the inspection of products by Pressure Control Operating Units.

# Scope / Application

This procedure complies with the requirements of the standards listed in Section 7.0 of this procedure and is applicable for all Pressure Control facilities.

1. **Procedure of Calibration for NPT Plug and Ring Gages**

**3.1 Required Equipment or Standards**

* Standard Measuring Machine or Super Micrometer
* Sine Block
* Master Thread Measuring Wires

**3.2 Calibration Procedure**

Visually inspect all parts for damage and the legibility of markings. If damage is detected, the gage shall be taken out of service, subject to be reworked or replaced. Otherwise, the calibration process may be continued.

Using a Sine Block, Master Thread Measuring Wires, and a Standard Measuring Machine or Super Micrometer measure the pitch diameters of NPT plugs and compare the measurements with the requirements listed in ANSI/ASME B1.20.1. Establish one NPT Plug for each size of NPT thread used as a reference gage to be used in checking working ring gages.

Using the reference plug gage, check standoff of working ring gages according to the requirements of ANSI/ASME B1.20.1.

**3.3 Calibration Frequency**

The normal calibration frequency for NPT Plug and Ring Gages shall be once every seven-hundred and thirty (730) days. Master setting gages shall be calibrated once every one-thousand, eight-hundred and twenty-five (1825) days.

**3.4 Acceptance Criteria**

Tolerances and wear allowances shall be according to the tolerances for NPT Plug and Ring Gages, as specified in ANSI/ASME B1.20.1.

# 4.0 Responsibilities

The Quality Management Representatives for each Operating Unit are responsible for ensuring complete implementation and compliance with this procedure.

**5.0 Quality Records**

The following records produced by this procedure are considered Quality Records and shall be maintained and controlled according to the requirements in GEEQMS 4.2.4 - Record Control:

* Completed calibration certificates complying with this procedure and SQ-02

# 6.0 Definitions and Acronyms

Italicized terms have been defined in GEEQMS 3.0 – Terms, Definitions and Acronyms. Their definitions have been repeated here for convenience purposes. In case of conflict GEEQMS 3.0 will take precedence.

* 1. **Definitions**
* **Operating Unit** – identifies the various organizations and operating companies that make up Pressure Control.
* **Quality Management Representative** – as used in this procedure refers to the designated quality management representative for one of the Pressure Control Operating Units.
* ***Product*** *– as used in this procedure includes materials, parts, subassemblies, assemblies and subcontracted services.*

**7.0 References**

The latest effective editions of the following specifications are included by reference in the text of this specification:

* SQ-02 – Supplier Quality Requirements for Calibration Services
* ANSI/ASME B1.20.1 –Pipe Threads, General Purpose (Inch)

# 8.0 Compliance Requirements

* Plan for implementation in place by 11/30/2011
* Full compliance required by 12/31/2011

|  | GE Energy - Oil & Gas |
| --- | --- |
| Title: | Calibration – National Pipe Threads (NPT) Plug and Ring Gages |
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