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**Customer: PRINCETON PLASMA PHYSICS LAB**

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**Part: SE120-002 / PPPL NCSX VVSA**

Drawing ID: SE120-002                      Revision: 1

Customer P.O.: S005243-F/Ln:2  
Serial No.: VVSA # 2

Reported By: DOUG MCCORKLE  
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Problem: During vacuum testing operation, the high vacuum gauge display would not illuminate (PPPL MKS Type 290 SP54-83 ION gauge controller).  
A replacement gauge was not readily available. After discussion with Mike Viola, it was decided to continue with the test if we could verify the leak detector could accurately read the standard leak positioned at the opposite end of the vessel.  
All three low pressure gauges were pegged at zero for at least 14 hours prior to the test. The turbo-molecular pump had been running for approximately 8 hours prior to the test. The MTM leak detector (Varian 979) was valved in, and the PPPL roughing skid valved out and shut off. Once the leak detector was ready, the test port pressure was (0.0 x 10<sup>-4</sup>). The MTM leak detector instantly recognized the standard leak located at the opposite end of the vessel when activated. After the standard leak helium was evacuated (waited approximately 1/2 hour), the leak test was performed and revealed no leaks. All welds and seals were sprayed, then the entire vessel was saturated. No response from the leak detector.

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**Proposed Disposition:**  
HOLD FOR CUSTOMER DISPOSITION

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Number of additional pages: 0

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**Customer Disposition:**     Use As Is     Rework     Repair     Scrap     Replace

**Technical Contact Approval:** \_\_\_\_\_ **Title:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Buyer Approval:** \_\_\_\_\_ **Title:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Major Tool Implemented By:** \_\_\_\_\_ **Title:** \_\_\_\_\_ **Date:** \_\_\_\_\_

Nonconformance Report: Major Tool NC19832

This is for: **VVSA # 2 Leak Check**

**Problem:**

During vacuum testing operation, the high vacuum gauge display would not illuminate (PPPL MKS Type 290 SP54-83 ION gauge controller).

See further detail above regarding steps taken to verify validity of Vacuum leak check parameters.

The Major Tool Standard leak is  $7.21E-8$

**Project Disposition:**

Accept As Is

**Approvals:**

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Procurement Technical Representative

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Responsible Line Manager: