



ENG-033 - CRR - CHIT RESOLUTION REPORT

CHIT RESOLUTION REPORT FOR PRIVATE FLUX REGION FUELING

NSTXU_1-3-4-2-5_CRR_100

Rev. 1

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Chit Resolution Report for Private Flux Region Fueling

NSTXU_1-3-4-2-5_CRR_100, R1

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Record of Changes

Rev.	Date	Description of Changes
0	11/25/2019	Initial Release includes PDR Chits
1	03/02/2020	Include FDR Chits



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CR-VACS_PFR-01 – Drawing Documentation

Review	ID	Chit
PDR	PRIFLUXFU ELPDR01	Make sure that the presence of the bellows in the field run line is documented somewhere.

Review	ID	Chit
PDR	PRIFLUXFU ELPDR05	Consider a drawing (or sketch in procedure) that shows the routing of the gas lines.

Bellows are now shown in the 3D model and also on the fabrication drawings. Additionally, drawings now show the routing of the gas lines.

Therefore, these chits can be closed. (Rev. 0)

CR-VACS_PFR-02 – IBDH Tile for PFC Analysis

Review	ID	Chit
PDR	PRIFLUXFU ELPDR02	Verify that the hole in the IBDH tile for the private flux gas delivery has been accounted for in the PFC analysis.

The Gas delivery tile is identified in E-ED1300-6. Calculation NSTXU-CALC-11-18-00 performed a detailed analysis of the base tiles. The calculation addressed the variants to include Gas Delivery and PFC diagnostics. The analysis showed the Langmuir was the worst case variant analyzed and determined to be adequate as a result it was determined that there would not be a problem.

Therefore, this chit can be closed. (Rev. 0)

CR-VACS_PFR-03 – Viton Gasket

Review	ID	Chit
PDR	PRIFLUXFU ELPDR03	Determine whether there is line of sight from the plasma to the Viton gasket. Also, check to see if the metal around the gasket is heated enough to threaten the gasket.

The line of sight was checked and determined there was no line of sight from the plasma to the o-ring. Additionally, the power level is low through the pipe; therefore, the heat does not threaten the o-ring.



a, this is rejected and can be closed. (Rev. 0)

CR-VACS_PFR-04 – Combustible Gas Ignition

Review	ID	Chit
PDR	PRIFLUXFU ELPDR04	Check the system against the condition where a combustible gas ignites. I don't believe that this scenario is covered by MECH15.

All the gas lines will be leak checked to be vacuum tight. There is also no ignition source. PFR is part of gas delivery and injection system. The whole system will be qualified to be Mech15 compatible after machine reassembly.

Therefore, this chit is closed. (Rev. 0)

CR-VACS_PFR-05 – Grounding Path

Review	ID	Chit
FDR	PRIFLUXFU ELFDR01	Consider grounding path if there is a breakdown across ceramic break separating vessel from PZV

An additional ceramic break has been added (see drawing 5EEA3517) in front of the pressure transducer to ensure there will be no damage to the pressure sensor in case of breakdown across the ceramic break between vessel and PZV.

Therefore, this chit can be closed. (Rev. 1)