



# ENG-033 - CRR - CHIT RESOLUTION REPORT

## CHIT RESOLUTION REPORT FOR PERSONNEL SAFETY SYSTEM

*NSTXU\_1-7-3-1\_CRR\_100*

*Rev. 2*

Work Planning #:  
Effective Date: **02/20/2020**  
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13:02:25 PM



# Chit Resolution Report for *Personnel Safety System*

February 18, 2020

**NSTXU\_1-7-3-1\_CRR\_chit\_100 Rev 2**

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**Final Design Review**

<b>Chit Resolution Number</b>	<b>Description</b>	<b>Chit Number</b>	<b>Status</b>
CR-OSS-20	Rejected Chit	PSSFDR06	Rejected at FDR
CR-OSS-21	Conduit Design	PSSFDR07 PSSFDR18 PSSFDR19 PSSFDR20	Closed Closed Closed Closed
CR-OSS-22	General Design/Drawings	PSSFDR13	Closed
CR-OSS-23	Control Cabinets	PSSFDR22 PSSFDR23	Closed Closed
CR-OSS-24	Component Selection	PSSFDR24 PSSFDR25	Closed Closed



# Record of Changes

Rev.	Date	Description of Changes
0	June 17, 2019	Initial Release
1	January 17, 2020	Added PDR Chits and Resolution(s)
2	February 18, 2020	Added Select FDR Chits and Resolution(s) for conduit installation



# Table of Contents

<b>CR-OSS-20 – Rejected</b>	<b>5</b>
<b>CR-OSS-21 – Conduit Design</b>	<b>5</b>
<b>CR-OSS-22 – General Design/Drawings</b>	<b>6</b>
<b>CR-OSS-23 – Control Cabinets</b>	<b>6</b>
<b>Appendix 1 - Previous Rev 0 Chit Resolution Report</b>	<b>7</b>
<b>Appendix 2 - Previous Rev 1 Chit Resolution Report</b>	<b>8</b>

### CR-OSS-20 – Rejected

Review	ID	Chit
FDR	PSSFDR06	Combine signed calculation PDFs to fix DMS truncation of the filed calculation.

**Closed:** This chit was rejected by the DRC at the FDR due to the fixed calculation being assembled and uploaded to DMS prior to the completion of the FDR.

### CR-OSS-21 – Conduit Design

Review	ID	Chit
FDR	PSSFDR07	Revisit need for spare cables to FCPC SDS cabinets, some may be unnecessary.
FDR	PSSFDR19	Conduit & cabling located in FCPC associated with the EF/VC-SDS and EF/OH disconnect switch is not required. These cabinets will not be brought online for the life of NSTX-U

**Closed:** Spare conduit/cables in FCPC to equipment not envisioned to be needed in the near future were removed from the drawing set.

Review	ID	Chit
FDR	PSSFDR18	Consider adding additional references on drawings when installing new devices in existing equipment.
FDR	PSSFDR20	All PSS-SIS drawings shall reference existing PPPL drawings where applicable.

**Closed:** Pre-existing reference drawings, where applicable and available, were added to the conduit/cable drawing set.

### CR-OSS-22 – General Design/Drawings

Review	ID	Chit
FDR	PSSFDR13	Generalized drawings of common hardware is a good practice and reduces redundant drawings that may be similar and confusing. Identifying mark on physical hardware should match reference tables on generalized drawing.

**Closed:** Hardware identification is included in the presented design at FDR and is located in the notes on completed drawings.

### CR-OSS-23 – Control Cabinets

Review	ID	Chit
FDR	PSSFDR22	Consider the merits of evaluating the heat load in PSS cabinets to ensure components are maintained below manufacturer specifications under all credible load conditions. Note that cabinet heat loading has led to performance issues at some peer facilities.
FDR	PSSFDR23	Consider the merits of designing PSS cabinets with sufficient passive cooling to maintain temperatures below manufacturer specifications such that active cooling is not essential for operability.

**Closed:** Cabinet volumes and rack-ups were selected in accordance with COTS component manufacturer specifications. The use of in-field (outside of control cabinets) interposing relays in the design minimizes the switched load in each control cabinet. As an assurance measure each cabinet design will be evaluated by the cabinet builder for heat load performance as part of the outsourced cabinet design detail & fabrication procurement.



## Appendix 1 - Previous Rev 0 Chit Resolution Report



## Appendix 2 - Previous Rev 1 Chit Resolution Report