

Peer Review Summary for the NSTX-U Fall Protection System

Peer review summary: NSTXU_1-8-1_peerDRs_100

REVISION 0

October 2, 2019

PREPARED BY: **Kathleen Lukazik** 9/23/2019 2:40:28 PM

Kathleen Lukazik,

REVIEWED BY: **Steve Raftopoulos** 9/23/2019 2:58:11 PM

Steve Raftopoulos,

REVIEWED BY: **Timothy N. Stevenson** 9/23/2019 4:44:10 PM

Timothy N. Stevenson,

APPROVED BY: **Robert A. Ellis** 10/2/2019 9:04:01 AM

Robert A. Ellis,

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DESIGN REVIEW DOCUMENTATION – RESULTS – No: 3056 #

Title: NSTX-U Fall Protection - Post

CAT: XA1 ☐ A2 ☐ A3

Type of Review: X Peer ☐ CDR ☐ PDR ☐ FDR

Cognizant Individual: W. Harris/S. Raftopoulos

Date of Review: 7/19/19

Review Board Members:

Chair: T. N. Stevenson

RE T. Stevenson

TA (Mech) M. Safabakhsh

TA ()

TA ()

QA A. Castendo

ESH W. Slavin

ESH H. Wetzel

Invited Attendees:

T. Egebo

J. Winston

S. Gifford

T. Jernigan

S. Gernhardt

Other Attendees:

T. Estes (DOE-PSO)

D. Nieminski (DOE-PSO)

Items Reviewed:

Appropriate requirements identified

Development plans and schedules

Reg. compliance incl. USI/USID and NEPA

Disposition of CHITS from previous reviews

Cost objectives

Other review objectives addressed

Sat.

Unsat.

Comments or n/a if not applicable

X

X

X

X

SUMMARY OF RESULTS:

This review covered the details of a fall protection post for use on top of the NSTX-U umbrella flange. This device would permit fall protection to be deployed in advance of a hand rail system and would facilitate the installation of a hand rail system around the catwalk. Further, it would support fall protection when the central hole of the machine is open inside the umbrella. The post has been designed with attachment point at the required heights; the base bolts to the umbrella flange. The dead load of 5000 Lbs. and the angled load of 1800 Lbs. has been considered. A factor of safety of 2 is required. Human performance error was considered with regard to using correct fall protection and with regard to directionality. Two chits recommended that the post handle two in any direction if two attachment points are provided and verify that two in the same direction is acceptable (Slavin, Winston). Costs are considered minor; 6 units will be provided. The schedule for this post system has urgency to allow work on the top of the machine. An FDR is planned by the end of the summer. The handrail system will undergo its own design and review process.

Disposition: [check one]

Acceptable

X

Acceptable pending resolution of concerns- CHITS identified above must be resolved prior to installation.

Incomplete - Additional design work is required prior to another design review.

Unsuccessful – Corrective actions must be taken and another review process must be initiated.

Design Review Chair: _____ **Date:** _____

Cognizant Individual Acceptance _____ **Date:** _____

Distribution: Review Board Members, Operations Center, Responsible Engineer (RE), Cognizant Individuals, Project Manager, Project Director, relevant Technical Authorities (TAs), Chief Engineer (CE), Fire Protection Engineer, Attendees, QA, ES&H, Security, Requesting & Performing Dept. Head