

Status 2 - Disposition Needed **Trend** 01-Deviation From Doc/Proc
Department NCSX **Division** WBS 114
Source/Org FABRICATION, OPERATIONS & MAINTENANCE
Item Dwg/Part# SE142C-270 Rev. 0 **Procurement #** **Cost Center**
RAP# 3234 **Job Doc #** D-NCSX-MCF-004 **Vendor** VARIOUS
RAP Title Modular Coil Fabrication - Post VPI Activities

☐ HoldTag Applied

Nonconforming Condition (include requirement(s) violated):

The first shipment of NCSX modular coil final winding clamp assemblies, and related purchased hardware exhibits a magnetic permeability higher than the maximum allowed per NCSX-ASPEC-GRD-03 paragraph 3.3.1.1 (permeability shall not exceed 1.02). Unless otherwise noted all material is type 316 stainless steel See attached list for details.

REV 1: Parts 3 and 6 are silverplated and were verbally reported as not being able to be annealed without damage.

SEE PAGE 2 FOR ADDITIONAL REVISIONS.

REV 2: Final winding clamp assembly redesigned, see attachment for revision details. Also see NCR 3639 as it deals with this same issue.

Lot Size Recd 0 **Sample Size Insp** 0 ☐ Lot Rejected **# Rejected** 0
Reported By Phelps C **Validated By** Boscoe J **Validated Date** 04/16/07

~~Disposition: Rework* Repair* Use As Is* Return To Vendor* Scrap*~~

(Rev 0) Rework by removing permeability using vacuum oven cycle 800-1000 deg. C @ 1 hour. (Labor = 40 hours)

(Rev 1) Awaiting test results from outside laboratory to determine whether the permeability of the 316ss parts can be used "as is" without further work.

Please use p. 2 for disposition and approvals .

~~For rework or repair of vendor supplied equipments, fill in information below:~~

~~#Hours _____ \$Est Labor _____ \$G&A _____~~
~~\$Material _____ \$Burden _____ \$Total _____~~

~~Disposition By _____ Date _____~~
~~Supervisor's Concur _____ Date _____~~
~~Eng. Dept. Head Concur _____ Date _____~~
~~WCO/Other _____ Date _____~~

~~PQA/QC Mgr Dispos Concur _____ Date _____~~
~~QC Field Verification By _____ Date _____~~

Distribution

Cog J. Chrzanowski

Insp C. Phelps

Proj. Doc Control (when closed)

QC Files

Malsbury J

Boscoe J

T. Meighan

Williams M

Dudek L

Tyrrell M

Reiersen W

Disposition: Rework____ Repair ____ Use As Is____ Return to Vendor____ Scrap____

For rework or repair of vendor supplied equipment, fill in information below:

Hours _____ \$ Est Labor _____ \$ G&A _____
\$ Material _____ \$ Burden _____ \$ Total _____

Disposition by _____

~~Supervisor's Concurrence~~ _____

Eng. Dept. Head Concurrence _____

Other (i.e., WCO/FPE) Concurrence _____

PQA/QC Mgr Disposition Concurrence _____

QA Field Verification by _____

<u>Part #</u>	<u>Part Type</u>	<u>Quantity</u>	<u>Sample Size</u>	<u>Results</u>
2	Bar, Clamp	175	21	(12) >1.10, <1.15 (4) >1.15, <1.2 (5) >1.2, <1.8
3	Bushing Spacer (Silver Plated 316)	1	1	(1) >1.06, <1.08
4	Washer, Convex	1610	100	(40) <1.02 (60) >1.02, <1.03
5	Washer, Concave	1610	100	(6) >1.02, <1.03 (9) >1.03, <1.04 (30) >1.04, <1.05 (30) >1.05, <1.06 (25) >1.06, <1.08
6	Keeper Screw (Silver Plated)	4	4	(1) >1.02, <1.03 (1) >1.03, <1.04 (2) >1.04, <1.05
7	Clamp Swivel	1	1	(1) >1.03, <1.04
10	3/8-16 x 1 ¼ SH	882	44	(41) >1.02, <1.03 (3) <1.02
11	3/8 x 3/8 shoulder	188	20	(1) >1.02, <1.03 (1) >1.03, <1.04 (3) >1.04, <1.05 (6) >1.05, <1.06 (6) >1.06, <1.08 (3) >1.08, <1.09

The following parts were found to be acceptable.

<u>Part #</u>	<u>Part Type</u>	<u>Quantity</u>	<u>Sample Size</u>	<u>Results</u>
8	Belleville Washers	~10,000	~200	(~200) <1.02 (Inconel)
12	¼-20 x ½ BH	1850	100	(100) <1.02

REV 2: The final winding clamp has been redesigned eliminating parts 4, 5, and 11. Parts 3 and 7 have been redesigned, the new shipments of parts 3 and 11 are below 1.02 Mu (see sampling results below). Parts 2 and 10 have been annealed in accordance with Rev 0 disposition and are all below 1.02 Mu. Part 6 remains unchanged and cannot be annealed due to the silver plating. See results above and NCR 3639 for additional permeability readings on the balance of Part 6.

<u>Part #</u>	<u>Part Type</u>	<u>Quantity</u>	<u>Sample Size</u>	<u>Results</u>
New - 3	Bushing Spacer	910	72	(72) <1.02 Mu
New - 7	Clamp Swivel	920	80	(80) <1.02 Mu