PPPL NONCONFORMANCE REPORT NO: 3628 Open Date 01/09/06

Status 9 - Closed NCR **Trend** 01-Deviation From Doc/Proc

Department NCSX **Division** NCSX Project

Source/Org FABRICATION, OPERATIONS & MAINTENANCE

Item Dwg/Part# # SE142C-280 Rev. 0 **Procurement #** D-NCSX-MCF-001 R2 **Cost Center**

RAP# 3207 **Job Doc #** D-NCSX-MCF-001 **Vendor**

RAP Title Modular Coil Fabrication - Winding Form Preparation Activities

☐ HoldTag Applied

Nonconforming Condition (include requirement(s) violated):

The lead block mounts (pt. 9, 10, 11 & 12) for the C type NCSX modular coils are beyond the maximum magnetic permeability of 1.02 as stated in NCSX-ASPEC-GRD-03 paragraph 3.3.1.1. There were seven sets of four pieces each machined here at PPPL. The work order required these pieces to made from type 316 material, the actual type of material is not able to be positively identified. One of the seven sets of mounts was not able to measured because it is inaccessible on the C1 winding form due to conductor installation. The remaining six sets of mounts (24 pcs.) were able to be measured and have the following permeability:

Outside diameter of parts = greater than 1.07 and less than 1.1, one piece was greater than 1.1 but less than 1.15.

Inside diameter (machined threads) = greater than 1.2 and less than 1.8.

Severn gauges #5111 and #3570 were used which contain the following inserts for readings: 1.01, 1.02, 1.05, 1.10, 1.15, 1.2, 1.8, 2.0, 2.2, 3.0, 3.35 and 5.0. This situation was discovered during the winding form preparation activities for the C2 casting.

Lot Size Recd 28 **Sample Size Insp** 24 ☑ Lot Rejected **# Rejected** 24

Reported By Phelps C **Validated By** Boscoe J **Validated Date** 01/09/06

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

Parts will be used "as is" with the exception of the piece measured above 1.1 mu. A field error analysis was performed by Art Brooks, 1/13/06, that noted that the higher permeability of these parts had neglible impact on field errors. New part will be made for the higher permeability part.

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

#Hours **$Est Labor** **$G&A**

$Material **$Burden** **$Total**

Disposition By Chrzanowski J **Date** 01/13/06

Supervisor's Concur Dudek L **Date** 01/13/06

Eng. Dept. Head Concur Williams M **Date** 01/16/06

WCO/Other N/A **Date**

PQA/QC Mgr Dispos Concur Boscoe J **Date** 01/19/06

QC Field Verification By Phelps C **Date** 03/17/06

Distribution

Cog J. Chrzanowski
Insp Phelps/Boscoe
Proj. Doc Control (when closed)
QC Files
Malsbury J
Boscoe J
Heitzenroeder P
Williams M
Tyrrell M