## PPPL ENGINEERING CHANGE NOTICE (ECN) ECN # 5064

**COGNIZANT INDIVIDUAL:** D. Williamson

**ECN TITLE: Revisions to Improve MCWF Machining/Inspection** 

**ASSOCIATED ECP: None** 

CC/WP/Job: 1403 AREA OR PROJECT: NCSX

LIMITATION OF SCOPE - NOTE: A Work Planning Form is NOT required if the total change to be accomplished (ENG-032):

- Is not large or complex or does not represent a new installation into a usable space
- Does not have a significant ES&H impact
- Does not involve tritium or other radioactive contaminated or activated equipment
- Does not impact multiple projects, systems, or groups

OR does not change the scope or intent of the original design.

Responsible Line Manager CONCURRENCE:	
(Signature indicates that no Work Planning form	is required.)

If non-concurrence or associated with a work planning form, enter the WP Number:

DRAWING(S) AFFECTED NUMBER:	NEW Revision	TITLE
SE141-114	6	PRODUCTION WINDING FORM TYPE-A
SE141-115	6	PRODUCTION WINDING FORM TYPE-B
SE141-116	8	PRODUCTION WINDING FORM TYPE-C

**DESCRIPTION OF CHANGE:** (State Drawing No., Zone/Group, or List Attachments)

Drawing changes reflect discussions held at Major Tool, Jan 4-6, 2006. See attachment for meeting summary and action items. Some changes were implemented through RFD-14-012 and -013. This ECN incorporates those changes also.

Item #2b, Wing Surfaces Machining -

References dwg SE141-114, -115, -116, SHT-1, G-2

Action is to change wing surface tolerance from  $\pm -.125$  to  $\pm 0./-.188$ -in.

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## **DESCRIPTION OF CHANGE (Continued)**

Item #2b, Wing Surfaces Machining -

References SE141-114/SHT-10/D5, SE141-115/SHT-11/C3, SE141-116/SHT-10/C4 Action is to change wing surface tolerance from +/-.125 to +0./-.188-in.

Item #3b, Flange Holes –

References SE141-114/SHT4-5, SE141-115/SHT4-5, SE141-116/SHT4-5 Action is to change cylindrical zone tolerance from .01 to .06 and diam from 1.88+/-.01 to 1.885+/-.003-in.

Item #4b, Tee Holes –

References SE141-114/SHT2, SE141-115/SHT2, SE141-116/SHT2, DETAIL-C Action is to change cylindrical zone tolerance from .01 to .06-in.

Item #5, Tee Profile-

References SE141-114/SHT2, SE141-115/SHT2, SE141-116/SHT2, DETAIL-A Action is to change profile tolerance on top of tee web to .100-in total, change profile tolerance below VPI groove from .100 to .200-in. Leave "L" surface profile tolerance as is.

Item #6, Tee Base Grinding-

References SE141-114/SHT2, SE141-115/SHT2, SE141-116/SHT2, DETAIL-A Add note, "GRIND BASE OF TEE TO GIVE ACCESS FOR STUD WELDING. CLEARENCE DEFINED BY TEMPLATE, SE141-130, OVER ENTIRE LENGTH OF COIL."

Item #12, Port Openings

References SE141-114/SHT7-8, SE141-115/SHT7-8, SE141-116/SHT7-8 Revise geometry to match hole cuts made using a single setup, change dimensions to reference or increase tolerance to be greater than drawing sheet tolerance.

Item #13, Spherical Seats

References SE141-114/SHT4-5, SE141-115/SHT4-5, SE141-116/SHT4-5 Change feature to conical seat, 1.38 diam x 1.25 dp, chamfer 1.88 diam x 90-deg. Change position tolerance from .01 to .06-in.

Item #1, RFD-14-012, Flange Profile Tolerance References SE141-114/SHT10, SE141-115/SHT11, SE141-116/SHT10 Eliminate profile tolerance note for flanges, or change to .030-in total.

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REASON FOR CHANGE:
Improve machining operations and overall schedule.
ENGINEERING CHANGE PROPOSAL: ECP-042 DATE: 1/24/06
COGNIZANT INDIVIDUAL MAKING THE CHANGE: D. Williamson
RESONSIBLE LINE MANAGER: B. Nelson