

<i>EIO RFD</i>	<b>Number: RFD-14-026 (EIO RFD #110806-1P dated November 8<sup>th</sup>, 2006)</b>	<b>RFD Description: Remaining B Castings (B2 thru B6) Thin Wall Condition</b>
<b>Initiator: Peter Djordjevich</b>		<b>Organization: Energy Industries of Ohio</b>
<b>List of Impacted Documents:</b> <i>Drawing wall thickness dimensions shown on NCSX drawing: SE141-115 (Type-B Modular Coil Winding Form)</i>		
<b>Quality Impact:</b> <i>None per PPPL evaluation of stress regions. Per previous agreement on 1.21" minimum wall for B-1 casting (see CAR 1538 approved by NCSX Project on 2/7/2006)</i>		
<b>State Requirement Deviation is Requested For:</b> <i>Drawing wall thickness specifications shown on NCSX drawing SE141-115 (Type-B Modular Coil Winding Form)</i>		
<b>Full Description of the Deviation Requested</b>  <i>Allow thin wall condition on B castings, which was discovered on casting B1.</i>  <i>Actual drawing specification wall thickness = 1.5" + .25" – 0</i>  <i>Requested dimensional deviation 1.5" +0 .25"/ -0 .29" max</i>  <i>Lowest dimension observed 1.21" wall B1, balance of B castings range 1.3"-1.4" wall after Evaluation.</i>		
<b>Attachments:</b> <b>(1) CAR 1538 for B-1 casting.</b>		
<b>Initiator Signature:</b> <u>Peter A Djordjevich</u> EIO QA		<b>Date:</b> <u>11/08/06</u>

<i>NCSX RFD Part III</i>	Number: RFD-14-026 (EIO RFD #110806-1P dated November 8 <sup>th</sup> , 2006)	RFD Description: Remaining B Castings (B2 thru B6) Thin Wall Condition
RLM(s): Design: Brad Nelson Manufacturing: Larry Dudek		Organization: Design: ORNL Manufacturing: PPPL
Impact on Interfaces with Other WBS Elements/Items: <i>(If none, so state)</i>		
Design RLM Recommendations: <input checked="" type="checkbox"/> Approve <input type="checkbox"/> Do Not Approve		Manufacturing RLM Recommendations: <input checked="" type="checkbox"/> Approve <input type="checkbox"/> Do Not Approve
Additional remarks: <i>Deviation Request is modified to state dimensions as 1.5" +0 .25"/ -0 .20" max (vs. -0.29" max since only B-1 casting (addressed by CAR 1538) has the 1.21" dimension.</i>		
Should the impacted drawings be formally revised or should the "stamp" process outlined in NCSX Procedure PROC-007 be utilized and should the specification (or other documents) be updated?		
<input checked="" type="checkbox"/> No, a formal revision required to the drawing or specification is required – <b><i>THIS CHANGE WILL BE INCORPORATED WITH CHANGES BEING PROCESSED FOR ECN-5185.</i></b> <input type="checkbox"/> "Stamp" process outlined in PROC-007 is authorized.		
<input type="checkbox"/> If the change is substantial, a revision to the impacted drawings will be required after the third RFD stamp marking a substantial revision is placed on the drawing. <input type="checkbox"/> This change is NOT substantial and no update to the drawing will ever be required => in this case the "3" RFD stamp process does NOT apply.		
Does this Change Impact Material Already Procured or Parts/Assemblies Already Assembled/Manufactured using this Material: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
If "Yes", what is the recommended disposition of this material/part/assembly and what is the impact? <b><i>B2 through B6 castings will be accepted if within the stated dimensional tolerance band of 1.5" +0.25"/-0.20"</i></b>		
Design RLM Signature: _____		
Manufacturing RLM Signature: _____		
Project Disposition:		
<input checked="" type="checkbox"/> Approved. No ECP required. _____ <span style="margin-left: 300px;">NCSX Systems Engineering Support Manager</span>		
<input type="checkbox"/> Approved. ECP - assigned and processed.		
<input type="checkbox"/> Not Approved. Reason(s) for disapproval:		

## NCSX Corrective Action Resolution Response

**CA # 1538**

**Date: Feb. 6, 2006**

**NCSX Response:** This CA addresses 7 areas on B1 which deviates from the model dimensions as detailed in the attached. NCSX agrees with EIO's planned action plan, as summarized below. Other than area 1, NCSX leaves the decision about the necessity of pattern changes up to EIO.

Area 1: Areas of the flange are outside of tolerance range. EIO proposes to add stock in low areas and grind high areas to bring into tolerance, as well as to add stock to cre box to prevent reoccurrence. NCSX concurs- the casting stock addition should be handled as a weld repair.

Area 2: Opposite of area 1 but not related has excess stock. EIO will remove excess during processing. NCSX concurs.

Area 3: loss of machine stock ranging from 3/8-9/16". EIO feels that since 1" of machine stock was planned, sufficient remains. This is an EIO decision, but it appears reasonable to NCSX.

Area 4 is a thin shell wall condition similar to A1. NCSX reviewed the details and concurs with EIO's recommendation to use as is. This will be acceptable for future B's and NCSX will submit a RFD.

Area 5: Parts of the wing area interface may be high and it is not certain if other areas are out of tolerance. EIO will get better data during layout scans and may need to bring some areas into tolerances. NCR's may be needed if all areas are not brought into compliance.

Area 6: wing interface appears to be high, EIO plans to remove metal as required. NCSX concurs with this plan.

Area 7: wing interface appears to be high, but details need to be clarified in subsequent scans; EIO plans to remove metal as required. NCSX concurs with this plan.

### Approved by:

Phil  
Heitzenroeder

Digitally signed by Phil Heitzenroeder  
DN: cn = Phil Heitzenroeder, c = US,  
o = PHIL, ou = Mech. Eng. Division  
Reason: I agree to the terms defined  
by the placement of my signature on  
this document.  
Date: 2006.02.07 14:38:54 -0500

### Tech. Rep.

Brad  
Nelson

Digitally signed by Brad Nelson  
DN: cn=Brad Nelson, c=US,  
o=DRNL, ou=FED,  
email=nelsonbr@csst.gov  
Date: 2006.02.07 16:12:17  
-0500

**Responsible Line Manager**



**Carondelet Division**

8600 Commercial Blvd. • Pevely, MO 63070 USA  
Phone: 636-479-4499 • Fax: 636-479-3399  
E-Mail: Charles.Ruud@MetalTekInt.com

Corrective Action 1538  
Carondelet Division  
Corrective Action Type NCR  
Date 1-13-06 **Revised 1-26-06**  
CA Originator C. Ruud  
Applies to: B-1 Coil

**Description of Defect / Non-Conformance**

Scan performed by 3D Scanco indicated that the coil deviates from the model in some areas.

**Root Cause**

Detailed analysis has been performed. See report below.

**Corrective Action**

Addressed in each area below.

**Verification of Corrective Action**

A scan will be performed with our equipment to verify dimensions.

**Preventive Action**

Pending.

**Verification Of Preventative Action**

Pending

**Estimated Completion Date**

Prior to shipment of B-1.

**Actual Completion Date**

Signed: C. Ruud

CC: B. Craig, J. Edwards, E.J. Kubick, J. Markham, R. Broman