

NATIONAL SPHERICAL TORUS EXPERIMENT UPGRADE PROJECT

Engineering Change Proposal (ECP)

Part I To be Completed by Originator

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ECP-079

COVER PAGE

Originator (CAM) Smith

Date Submitted 03/25/2013

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ECP No. 079

ECP Title In Control Account 1200. The bolted connection between the lower lid and the pedestal require re-design and analysis.

Required Reviewers
(Change Control Board)

<input type="checkbox"/> Williams	<input checked="" type="checkbox"/> Langish
<input checked="" type="checkbox"/> Strykowski	<input type="checkbox"/> Other...
<input checked="" type="checkbox"/> Dudek	
<input type="checkbox"/> Stevenson	

Change Level 2 Federal Project Director

Approvals

Change Level	Approving Official	Approval	Signature
3	NSTXU Project Manager	<input type="checkbox"/> Yes <input type="checkbox"/> No	
3a Expedited ECP	NSTXU Engineering Lead	<input type="checkbox"/> Yes <input type="checkbox"/> No	
2	NSTXU Federal Project Dir.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
1	Associated Director OFES	<input type="checkbox"/> Yes <input type="checkbox"/> No	
0	Deputy Secretary of Energy	<input type="checkbox"/> Yes <input type="checkbox"/> No	

Approval Date 4/19/2013

Primavera Updated ☐
Cobra Updated ☐
WAD Updated ☐
RAM Updated ☐

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PART I

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Type of ECP ☒ Standard ☐ Expedited

Type of Change (Check all that apply) ☐ Technical ☒ Cost ☐ Schedule ☐ Editorial ☐ Other

Reason for Change In Control Account 1200. The bolted connection between the lower lid and the pedestal require re-design and analysis.

Impacted WBS Elements ☒ 1.1 ☐ Milestone
☐ 1.2 ☐ Other...
☐ 1.3
☐ 1.4
☐ 1.5
☐ 1.6
☐ 1.7
☐ 1.8
☐ PEP

Control Accounts ☐ 1000 ☐ 1306 ☐ 2470 ☐ 5000 ☐ 8200
☐ 1001 ☐ 1307 ☐ 2475 ☐ 5200 ☐ 8210
☐ 1002 ☐ 1310 ☐ 2480 ☐ 5501 ☐ 8250
☒ 1200 ☐ 2300 ☐ 2485 ☐ 6100 ☐ Other...
☐ 1300 ☐ 2420 ☐ 2490 ☐ 7200
☐ 1301 ☐ 2425 ☐ 3200 ☐ 7300
☐ 1302 ☐ 2430 ☐ 3300 ☐ 7400
☐ 1303 ☐ 2440 ☐ 3400 ☐ 7100
☐ 1304 ☐ 2450 ☐ 4100 ☐ 7710
☐ 1305 ☐ 2460 ☐ 4500 ☐ 7900

Impacts of Change (Briefly Describe) Modifications required for the bolted connection between the pedestal and lower lid. Additional man hours required for redesign, model & drawing ECN's, and analysis. \$2k-\$5k in M&S cost increase.

Impact on Materials Parts Already Manuf. ☒ Yes ☐ No

If yes, what is recommended disposition When the redesign is complete and validated, existing parts will either be used, modified or replaced as needed.

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[Detailed Description of Change](#)

**Description
of Change**

Modifications required for the bolted connection between the pedestal and lower lid.
Additional man hours required for redesign, model & drawing ECN's, and analysis.
16 man hours needed for a designer.
8 man hours needed for EMEM.
8 man hours needed for EAEM.

Increased M&S cost for either replacement of parts and/or high friction coated shim plates:
\$2K.

16 man/hrs EA//SB = $16 * 139.86 = \$2,237.76$

8 man/hrs EA//EM = $8 * 215.73 = \$1,725.84$

8 man/hrs EM//EM = $8 * 177.14 = \$1,417.12$

M&S (41) = $\$2,000 * 1.32 = \$2,640.00$

Add new activity to 1200 to address the above budget elements.

Total contingency draw = \$8,020.72

Submitted by:

Mark Smith

Reviewed by:

Larry Dudek

SUBMIT ECP

Do not fill in information below this point

List of
Attachments

☐ Primavera Schedule (Before/After) ☐ Cobra (Before/After) ☐ Other...