

## NCSX Work Approval Form (WAF)

**WBS Number: 186**

**WBS Title: Tooling Design & Fabrication**

**Job Numbers: 1803 & 1805**

**Job Titles: FPA Tooling & Constructibility (1803)**

**Job Titles: FPA Hardware & Fixture Procurement (1805)**

**Job Manager: Tom Brown (1803) and Larry Dudek (1805)**

**Description:**

This WBS element includes all of the non-VVSA procurements.

**Schedule:**

See Attached

**Approvals:**

_____	_____
Job Manager	Date
_____	_____
Job Manager	Date
_____	_____
Responsible Line Manager	Date
_____	_____
Project Manager	Date
_____	_____
Engineering Department Head	Date



NCSX June 2007 ETC  
TABLE II - Materials and Subcontracts

<b>WBS Number: 61</b>									
<b>WBS Title: Water Cooling Systems</b>									
<b>Job Number: 6101</b>									
<b>Job Title: Water Cooling Systems</b>									
<b>Job Manager: Larry Dudek</b>									
<b>Materials and Subcontracts (M&amp;S)</b>									<b>Basis of Estimate</b>
<b>M&amp;S in Table I</b>									

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**TABLE III - Fabrication/Assembly Installation**

<b>In-house Fabrication and Assembly and Installation</b>															
<b>Fabrication &amp; Installation in Table I</b>															

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**TABLE IV - Uncertainty of Estimate and Residual Risk Assessment**

**WBS Number: 61**  
**WBS Title: Water Cooling Systems**  
**Job Number: 6101**  
**Job Title: Water Cooling Systems**  
**Job Manager: Larry Dudek**

**Uncertainty of the Estimate**

	<u>High</u>	<u>Medium</u>	<u>Low</u>	<u>Uncertainty Range (%)</u>	<u>Comments/Other Considerations</u>
Design Maturity		X		-10%/15%	Design not complicated, but still in a conceptual stage.
Design Complexity			X		Standard piping -- off-the-shelf components

**Note: High/Medium/Low uncertainty assessment from Job Manager. Uncertainty range based on AACEI recommended practice 18R-97 as amended for NCSX.**

**Residual Impacts**

<u>Job</u>	<u>Risk Description</u>	<u>Likelihood of Occurring</u>	<u>Mitigation Plan</u>	<u>Basis of estimate</u>	<u>Cost Impact</u>		<u>Schedule Impact</u>	
					<u>Low</u>	<u>High</u>	<u>Low</u>	<u>High</u>
NONE								

**Notes:**

- [1] Low cost and schedule impacts are considered the minimum (0-percentile) impacts should the event occur. High cost and schedule impacts are considered the maximum (100-percentile) impacts should the event occur
- [2] Cost impacts should be entered as man-hours (by demographic) and M&S direct cost under basis of estimate. Cost impacts should NOT include standing army costs which are separately calculated from the schedule impact. Project control is responsible for quantifying the low and high cost impacts based on the labor hours and M&S identified
- [3] The schedule impacts should be entered as the min and max impacts on the critical path. If there is no critical path impact then the schedule entries should be zero.
- [4] Likelihood of occurrence should be entered consistent with our risk classification methodology, i.e. VL= Very Likely (P>80%), L=Likely (80%>P>40%), U=Unlikley (40%>P>10%), VU=Very Unlikely (P<10%), NC=Non-credible (P<1%)