

**NCSX Preliminary Design Cost Estimate Summary Form  
(Attachment 1a)**

**SUMMARY DESCRIPTION**

<b>WBS Number: 123</b>	<b>Title: Vacuum Vessel Heating and Cooling Distribution Systems</b>
<b>Originator: Paul Goranson</b>	
<u>Description:</u> The vacuum vessel is maintained at its desired temperature (150C for bakeout, nominally 25C for normal operation) by circulating a coolant through coolant tubes attached to the vacuum vessel. The Vacuum Vessel Heating and Cooling Distribution System connects the Vacuum Vessel Assembly (WBS 121) with the Helium Bakeout System (WBS 64).	
<u>Description of Existing Equipment/Facilities to be Reused:</u> <b>None</b>	
<u>Description of Major Modifications Required to Existing Equipment/Facilities:</u> <b>None</b>	