

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

**SUMMARY DESCRIPTION**

<b>WBS Number: 13</b>	<b>Title: Conventional Coils</b>
<b>Originator: Mike Kalish</b>	
<p><u>Description:</u> This WBS element consists of the following:</p> <ul style="list-style-type: none"><li>• TF Coils (WBS 131);</li><li>• PF Coils (WBS 132);</li><li>• External Trim Coils (WBS 133); and</li><li>• Conventional Coils Local I&amp;C (WBS 134).</li></ul> <p>Included in these elements are all the engineering and physics design efforts starting with the preliminary design phase (Title I) and ending at first plasma, all coil component fabrication and assembly activities, and all system level commissioning and testing. At this time no R&amp;D is anticipated for this WBS element. Pre-assembly of the field periods (including installation of the TF and external trim coils) is covered in Field Period Assembly (WBS 18). Final assembly (including installation of the PF coils) is covered in Test Cell Preparation and Machine Assembly (WBS 7). Integrated systems testing of the conventional coils is also covered in Test Cell Preparation and Machine Assembly (WBS 7).</p> <p><i>Note: Following this PDR, the Conventional Coils will be renumbered as follows:</i></p> <ul style="list-style-type: none"><li>• TF Coils (WBS 131);</li><li>• PF Central Solenoid Coils (WBS 132)- will include the Central Solenoid Supports currently in WBS 152;</li><li>• PF Ring Coils (WBS 133);</li><li>• External Trim Coils (WBS 134); and</li><li>• Conventional Coils Local I&amp;C (WBS 135).</li></ul> <p><i>However, for this PDR, the cost and schedule estimates will be structured as above.</i></p> <p><u>Description of Existing Equipment/Facilities to be Reused:</u>   <b>None</b></p>          <p><u>Description of Major Modifications Required to Existing Equipment/Facilities:</u>   <b>None</b></p>	