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

SUMMARY DESCRIPTION

WBS Number: 411	**Title: Auxiliary AC Power Systems**
Originator: Raki Ramakrishnan	

Description

This WBS element consists of the effort to design and reconfigure existing auxiliary AC power systems. The existing AC power infrastructure at C-site will be re-used to the maximum practical extent, except for that in the Test Cell that will be stripped. A new AC distribution system, up to and including power panels, is provided in the Test Cell. Activities associated with the reactivation of AC power systems at C-site are included. UPS systems are provided for the controllers of the cryogenic systems associated with NBI and the main NCSX coils. Grounding in the NCSX test cell is provided.

This WBS element includes cabling to the racks of Diagnostics equipment.

Appropriate measures shall be taken by other WBS elements to isolate the a) Vessel and b) PFCs from one another and ground. Isolation shall be tested at 5kv DC. All diagnostics components mounted on the vessel/PFC shall also be isolated at 5kV DC or float with vessel/PFC.

Description of Existing Equipment/Facilities to be Reused: The existing AC power infrastructure at C-Site will be reused to the maximum practical extent. The one exception will in the Test Cell where all the existing AC power infrastructure will be stripped.

Description of Major Modifications Required to Existing Equipment/Facilities: No major modifications are needed other than routine maintenance to reactivate the existing AC power infrastructure.

Date: 9/15/03