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

SUMMARY DESCRIPTION

WBS Number: 22	**Title: Vacuum Pumping Systems**
Originator: W. Blanchard	

Description

This WBS element provides the vacuum pumping system (TVPS) for the plasma chamber (torus). The basic system will consist of one pumpduct and two 1500 l/s TMPs. The residual gas analyzer (RGA) will be a stand-alone analyzer. It is intended that the RGA system and a second TVPS duct will be incorporated after initial plasma as an upgrade to NCSX. Control of the vacuum system control system will be a PLC.

Description of Existing Equipment/Facilities to be Reused: The two 1500 l/s TMPs are legacy equipment from NCSX. Most of the existing PBX-M backing system will be used as is for NCSX. The NCSX vacuum pumping system will use as much as possible of the existing legacy PBX-M vacuum pumping system.

Description of Major Modifications Required to Existing Equipment/Facilities: The high vacuum system design and installation will be new for NCSX but will use much of the legacy equipment form PBX-M. The control system will be completely new and will be a PLC based system.