

NCSX June 2007 ETC  
TABLE I - Design Labor

WBS Number: 62  
WBS Title: Cryogenic Systems  
Job Number: 6201  
Job Title: Cryogenic Systems  
Job Manager: Geoff Gettlefinger

	Labor Hours					Assumptions	Basis of Estimate
	EMEM	EAEI	EEEM	EADB	Design		
<b>WBS 62 Engineering Design and Oversight</b>							
<u>WBS-621 LN2-LHe Supply &amp;</u>							
<u>WBS-622 LN2 Coil Cooling Supply System</u>							
Document Requirements 621/622	16					Engineering judgement on NSTX and experience on Jobs 1409 & 1414	
CDR 621/622	8					Engineering judgement on NSTX and experience on Jobs 1409 & 1414	
Resolve CDR Chits 621/622	16					Engineering judgement on NSTX and experience on Jobs 1409 & 1414	
Prelim Dwgs 621/622				50		Engineering judgement on NSTX and experience on Jobs 1409 & 1414	
Flow Calcs 621/622	16					Engineering judgement on NSTX and experience on Jobs 1409 & 1414	
PDR 621/622	8					Engineering judgement on NSTX and experience on Jobs 1409 & 1414	
Resolve PDR Chits 621/622	16					Engineering judgement on NSTX and experience on Jobs 1409 & 1414	
Finalize Dwgs/Calcs 621/622				50		Engineering judgement on NSTX and experience on Jobs 1409 & 1414	
FDR 621/622	8					Engineering judgement on NSTX and experience on Jobs 1409 & 1414	
Resolve FDR Chits 621/622	16					Engineering judgement on NSTX and experience on Jobs 1409 & 1414	
<b>WBS-623 GN2 Cryostat Cooling System</b>							
Document Requirements 623	16					Engineering judgement on NSTX and experience on Job 1701 , previous	
CDR 623	8					Engineering judgement on NSTX and experience on Job 1701 , previous	
Resolve CDR Chits 623	16					Engineering judgement on NSTX and experience on Job 1701 , previous	
Prelim Models 623	80			80	40	Engineering judgement on NSTX and experience on Job 1701 , previous	
Fan Mechanical Design	160					Estimate based on opinions from Engineering Dept managers	
Fan Magnetics Design			160			Estimate based on opinions from Engineering Dept managers	
Stell Core Thermal Analysis 623		160				Estimate based on opinions from Engineering Dept managers	
PDR 623	8					Engineering judgement on NSTX and experience on Job 1701 , previous	
Resolve PDR Chits 623	16					Engineering judgement on NSTX and experience on Job 1701 , previous	
Finalize Dwgs/Calcs 623	16			70	40	Engineering judgement on NSTX and experience on Job 1701 , previous	
FDR 623	8					Engineering judgement on NSTX and experience on Job 1701 , previous	
Resolve FDR Chits 623	16					Engineering judgement on NSTX and experience on Job 1701 , previous	
<b>Title III Support 62X</b>	240					Engineering judgement on NSTX and experience on Jobs 1409 & 1414	
<b>Totals</b>	<b>688</b>	<b>160</b>	<b>160</b>	<b>250</b>	<b>80</b>		