

**NCSX Fabrication Project Cost and Schedule Estimating Form
(Attachment 1c - FAB)**

WBS: 56 NCSX Central Safety Interlock System

Activity Title	Manhours	FY2002 \$\$	Labor Type	Start Date Month/Year	End Date Month/Year	Comments
Labor						
Preliminary Design (Title I)	160		ECEM	4/1/06	8/1/06	Baseline requirements, technology search
Final Design (Title II)	160		ECEM	8/1/06	10/1/06	Final Design Review
Lab Fab/Assembly/Installation (Title III)	780 1200		ECEM ECSM	10/1/06 10/1/06	4/1/07 4/1/07	Procurement, installation, test, troubleshoot Fab, test, troubleshoot, deployment
Level of Effort						
FY2003	24		ECEM			
FY2004	24		ECEM			
FY2005	24		ECEM			
FY2006						
FY2007						
M&S Costs						
Manufacturing Development						
Purchased Design Services						
Procured Hardware/Material						
Procured Hardware/Material		4		10/1/06	4/1/07	Kirk Locks, door sensors
		50		10/1/06	4/1/07	PLC, PLC I/O
		3		10/1/06	4/1/07	Badge readers
Purchased Design Services						
Procured Installation/Assembly Costs						
Other Costs						
Travel						
Allocations (WBS 81 only)						

Instructions for Completing Form

- (1) One form for each 3 digit WBS element (e.g., 111, 121, 452, etc.) => if no 3 digit WBS, use 2 digit WBS (e.g., 81, 82, 84)
- (2) For Lab labor, provide estimate in manhours => provide estimate by specific labor type.
- (3) For M&S, provide estimate in FY2002 direct dollars if procured by PPPL, or in fully loaded dollars if procured by ORNL
- (4) Start and end date provided in month/year format => March/2003

**NCSX Other Costs Cost and Schedule Estimating Form
(Attachment 1c - OTHER)**

WBS: 56 NCSX Central Safety Interlock System

Activity Title	Manhours	FY2002 \$\$	Labor Type	Start Date Month/Year	End Date Month/Year	Comments
FY2003 Conceptual Design Costs						
Laboratory Labor						
M&S						
Procured Hardware/Prototypes						
Procured Material for Lab Testing						
Purchased R&D Design Services						
Level of Effort						Research Prep Activities
FY2003						
FY2004						
FY2005						
FY2006						
FY2007						
Research Planning/Preparations						
Operational Spares		10				
Other Costs						
Travel						
Allocations (WBS 81 only)						

Instructions for Completing Form

- (1) One form for each 3 digit WBS element (e.g., 111, 121, 452, etc.) => if no 3 digit WBS, use 2 digit WBS (e.g., 81, 82, 84)
- (2) For Lab labor, provide estimate in manhours => provide estimate by specific labor type.
- (3) For M&S, provide estimate in FY2002 direct dollars if procured by PPPL, or in fully loaded dollars if procured by ORNL
- (4) Start and end date provided in month/year format => March/2003

Date: