

NCSX Fueling Backup Information

WBS21

Title: Gas Fueling System

Originator: W. Blanchard

Description of Activities to be Performed Activity Definition	Eng Mhrs	Design Draft MHrs	Monthly Support Mhrs	Tech Mhrs	M&S
I. Gas Delivery/Gas Injection					
1) Design and Mech. Eng., Work Planning and Testing	100	80	60		
2) Testing and Refurbishment of Equipment			60		
3) Mechanical Fabrication and Installation			150		\$7,000.00
4) Electrical Design and Drafting		60			
5) Electrical Fab and Installation				80	\$1,000.00
III. PLC Controls					
1) Engineering Design	20		160		
2) Electrical Design and Drafting		60			
3) Fabrication and Installation			80	120	\$5,600.00
4) Integrated System Testing	20		20		
Totals=	140	200	530	200	\$13,600.00

Total Engineering Labor @ \$150.00/hr= \$21,000.00

Total Design/Draft Labor @ \$100.00/hr= \$20,000.00

Total Monthly Support Labor @ \$100.00/hr= \$53,000.00

Total Bi-weekly Tech Labor @ \$75.00/hr= \$15,000.00

Total M&S * 1.25= \$17,000.00

Total for TVPS= \$126,000.00

Total with 14% contingency= \$143,640.00

Note: This estimate includes three gas injectors (one per period) only. It does not include any other fueling system or technique.