

## NCSX Work Approval Form (WAF)

**WBS Number: 21**  
**WBS Title: Gas Fueling System**  
**Job Number: 2101**  
**Job Title: Fueling System**  
**Job Manager: Bill Blanchard**

**Description:**

The MIE project scope for the Gas Fueling System (WBS 211) is limited to a single gas injector system capable of injecting any one of the species of interest, H<sub>2</sub>, D<sub>2</sub>, or He gas, into the plasma at a time. The proposed fueling system consists of a gas delivery from a single gas cylinder and a gas injection portion consisting of one piezo electric pulse valve, one manual interface valve located at one of the upper P12 port covers. The pulse valve will be operated by a valve driver controlled by the NCSX computer system (greater than 50 T-l/sec fueling rate). In its final configuration, the system will have 2 to 4 injector systems capable of injecting H<sub>2</sub>, D<sub>2</sub>, or He gas into the plasma. The controls will be upgraded with a modern PLC controlling this and other systems.

**Schedule:**

See Attached

**Approvals:**

_____	_____
Job Manager	Date
_____	_____
Responsible Line Manager	Date
_____	_____
Project Manager	Date
_____	_____
Engineering Department Head	Date