



4X-960304-CLN-01

TO: DISTRIBUTION
FROM: C NEUMEYER
SUBJECT: MINUTES OF MEETING ON WBS 4

The following is a summary of the 3/1/96 meeting.

Status:

- 1) A draft SRD has been produced for WBS 4.
- 2) A write up on diagnostics which was prepared for a Tiger Team review should be helpful in forming the basis of an SDD.

Issues:

1) Considerable discussion related to the question of how to group the diagnostics with regard to when they would be implemented and how they would be paid for. The following possible groupings were identified:

- those required to operate the machine in 1st plasma mode
- those required to operate the machine in all baseline modes
- those required not for operation but for physics
- those to be installed at 1st plasma
- those to be installed after 1st plasma
- those to be paid for by the baseline project funds
- those to be paid for by operations funds

It was decided simply to group the diagnostics into two groups, namely the "day 1 diagnostics" and the "upgrade diagnostics".

The day 1 diagnostics will be paid for by the baseline project funds. The upgrade diagnostics will be paid for by operations funds. The day 1 diagnostics should (at least for now) include all of those required to operate the machine in all baseline modes. Those presently envisioned but not in the day 1 category would be upgrades.

2) It was decided that a few channels (maybe 8) of quasi-analog data with quasi-real time display should be implemented in the NSTX control room. These signals should be "patchable". On the unsafe (test cell) side of the isolation it should be possible to plug in analog signals without concern for voltage isolation and grounding. The isolation itself should consist of fiber optically isolated, differential input signal input and signal output signal conditioners. Bandwidth should be fairly high (>100kHz). Display could be oscilloscopes or equivalent.

Action: D Bashore to add this feature to his I&C scope.

3) The question of archiving, and access to experimental data by outsiders was discussed. There is a concern that the existing scheme at the lab which uses the VAX cluster for access to PBX, TFTR, etc. data, will become obsolete by the time NSTX becomes available. Also concern was expressed that the existing scheme tends to impose large a tax on the operations funding. How will this be handled by NSTX?

Action: D Bashore to write a brief summary of the NSTX plan after dicussion of the issues with R Kaita and S Kaye.

4) Some implementation issues exist with respect to the feasibility of modifications required to support NSTX operation. These were not discussed in detail.

Major Components of the Design Effort:

- 1) Design of magnetics diagnostics.
- 2) Layout and general arrangement.
- 3) Modifications to existing diagnostics.
- 4) Design of local I&C for diagnostics.

Deliverables for Engineering Review:

- 1) SRD/SDD for WBS 4
- 2) Cost Estimate
- 3) Layout (plan view of machine)

Other Items Discussed:

None

cc: * = meeting attendee

D Bashore	T Egebo*	P Heitzenroeder	R Katia*	S Kaye*
M Ono*	R Parsells	E Perry	J Robinson*	J Spitzer
R Wilson	NSTX File			