Charge to the Eighth NSTX Program Advisory Committee Meeting, March 2-3, 2000

Recent FESAC Report on Opportunities and Balance has articulated overarching fusion energy science research goals, which include clear statements for the Spherical Torus proof of principle research during the next 5 years as well as over the longer term. The NSTX research and facility teams recently achieved major milestones in plasma current and are well underway in completing the research and facility goals for FY 2000, which aim to establish a fuller capability to address the FESAC goals. The NSTX Research Forum for FY 2000, held during January 31 - February 2, provided an update of research elements for FY 2001-2002, when full HHFW and NBI powers are scheduled to be available. As a major U.S. magnetic Fusion Facility capable of innovative confinement concept research, the national NSTX research and facility teams therefore must determine how the present research plan and projected capabilities of the national research team can effectively contribute to achieving the FESAC goals during the next 5 years.

I therefore ask the PAC to review and advise me on the following issues during the next meeting:

1) Are the proposed NSTX scientific (plain English) research milestones for FY 2000-2001 properly directed to contribute effectively to the FESAC 5-year objectives (see the FESAC report at http://wwwofe.er.doe.gov/more_html/FESAC/Knoxville.pdf)? Are the necessary research tools and capabilities to achieve these milestones identified? Are the Phase-II research program and facility project plans, both baseline and incremental, optimal for achieving these milestones?

2) Is the process to strengthen the NSTX national research team effective in meeting the needs of the proposed research program? Is the process to plan the national team research appropriate?

3) To prepare for transition from FY 2000 to FY 2001 research, are the baseline and incremental plans for the following areas appropriate?

    * Plans in Ohmic plasma and CHI experimental runs for completion of this FY
    * Plans for HHFW experimental and modeling studies in FY 2000-2002
    * Plans for NBI availability
    * Plans for diagnostic enhancements
    * Status and plans for remote scientific collaboration

National Spherical Torus Experiment
Program Advisory Committee
8th Meeting

Agenda

Princeton Plasma Physics Laboratory
Conference Room LSB-318
March 2 - 3, 2000

Thursday, March 2, 2000

8:30	Coffee & Donuts	
9:00	PAC Executive Session	
9:30	Goldston	Welcome
9:40	Willis/Priester	Comments from DOE
9:50	Navratil	Agenda
10:00	Peng	Actions from PAC-7
10:10	Coffee Break	

FY 2001 - 2002

10:20	Peng	Proposed Research Program Scientific Milestones
11:00	Synakowski	Research Priorities
11:40	Ono	Proposed Facility Project Plan
12:20	Lunch	

Completing FY-2000 Research

1:20	M. Bell	Experiment Status, Plan and Issues
1:50	Sabbagh	Ohmic Characterization Data and Interpretations
2:20	Raman	CHI Data and Interpretations
2:50	Wilson	Data and Plans for HHFW Experimental and Modeling Studies
3:30	Cookie Break	
3:40	Kaye	Near-Term Issues for NSTX Physics
4:00	Sabbagh	Status and Plans for Remote Scientific Collaboration (Capabilities)

4:15	PAC Caucus	
5:15	Navratil	PAC Comments & Requests
5:30	Adjourn	

6:30 PAC Party at the Goldstons'

Friday, March 3, 2000

8:30	Coffee & Donuts	
9:00	Peng, Ono et al.	NSTX Responses to PAC Comments & Requests

National Team Research Planning

10:00	Peng	Process, Research Forum, Possible DOE Solicitation, National Team
11:00	Coffee Break	
11:15	PAC Caucus	
12:00	Lunch	
1:00	PAC Caucus	
2:00	Navratil	Briefing for PPPL Director (in Video Conference with OFES)
3:00	Adjourn	