

# **NCSX Project Overview**

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*NCSX Project Manager*

**NCSX Project Meeting**

**September 26, 2000**

## Status of NCSX Milestones for FY-2000

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Planned Accomplishment Status	Schedule Status
<b>Configuration Update</b>	
<ul style="list-style-type: none"> <li>• Improved physics tools to implement new requirements.</li> <li>• Candidate machine topology options for subsequent evaluation.</li> </ul>	3/1/2000 <b>Completed</b>
<ul style="list-style-type: none"> <li>• Updated reference plasma configuration meeting all requirements.</li> <li>• Understand machine topology options for C82.</li> </ul>	6/1/2000 <b>Completed</b> <b>8/17/2000</b>
<ul style="list-style-type: none"> <li>• Updated stellarator configuration based on new reference plasma and best machine topology. <b>Saddle and modular coil options have been evaluated based on LI383. Review results at this meeting.</b></li> </ul>	9/1/2000 <b>Forecast:</b> <b>this meeting</b>

## **NCSX Milestones for FY2001-2002**

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<b>Planned Accomplishment Status</b>	<b>Schedule Status</b>
<b>Complete Pre-conceptual Design</b>	
Update NCSX Configuration Design for PVR (Next Project Meeting) • A credible hardware solution to the physics requirements	Nov. 15-16, 2000
Issue PVR documentation package.	Dec. 4, 2000
Physics Validation Review (PVR) • Establish physics requirements and sound basis for conceptual design.	Dec. 18-20, 2000
<b>Conceptual Design</b>	
Update NCSX Configuration Design for DCSR • Incorporate design developments, including PVR outcomes.	~March, 2001
Design, Cost, and Schedule Review (DCSR)	April, 2001
Project Validation for FY-2003	May, 2001
Conceptual Design Review	April, 2002
Start Title I Design (including large-scale prototyping)	October, 2002 (earlier if possible)

## **Goal for This Meeting**

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**Complete FY-2000 Program: Update Reference Machine Configuration Based on LI383 and Best Coil Topology.**

**Modular and Saddle Coil Options Have Been Evaluated**

- Which provides the better basis for design development?
- Where shall we put our efforts from now to the PVR?

**Sessions:**

**LI383 Coil Topology Options**

- Physics
- Flexibility
- Engineering Evaluations

**Power and Particle Handling**

**Discussion**

## Near-Term Tasks

### **Define PVR Deliverables**

- Documentation (outline issued by MZ at this meeting)
- Design development priorities (what must be folded in for the PVR?)

### **Plan FY-2001 Work**

- Front-load efforts to support review schedule (Dec., April)

### **Check Web Site Improvements by A. Percival**

- Directory (corrections to Autumn)
- Compact Stellarator Publications (updates to Autumn)
- Physics Validation Review page (watch for postings)

# PVR Preparation Schedule

Tasks/Conferences	Responsibility	9/22	9/29	10/6	10/13	10/20	10/27	11/3	11/10	11/17	11/24	12/1	12/8	12/15	12/22	12/29	1/5	1/12	1/19	1/26
<b>Conferences</b>																				
IAEA																				
APS																				
<b>Tasks Leading to PVR</b>																				
Discuss PVR Plans (Project Meeting)	Neilson/Zarnstorff			▼ Sept 26th-27th																
Issue Draft PVR Documentation Outline	Zarnstorff			▼ Sept 29th																
Define PVR Process	Finfgeld/Neilson				▼ Oct 18th															
Organize Review, Coordinate with FESAC	Finfgeld									▼ Nov 17th										
Develop First Draft of PVR Documentation	Zarnstorff/Neilson									▼ Nov 17th										
Update Configuration (Project Meeting)	Project									▼ Nov. 15-16										
Prepare Final Drafts of PVR Documentation	Zarnstorff/Neilson												▼ Dec 1st							
Finalize PVR Planning/Logistics	Simmons/Finfgeld												▼ Dec 1st							
Put PVR Documentation on NCSX Web	Simmons/Percival												▼ Dec 4th - Documentation Posted on Web							
Prepare PVR Handout Packages	Simmons/Percival														▼ Dec 15th - PVR Books Put Together					
NCSX Physics Validation Review (PVR)	Project/DOE														▼ Dec 18th - 20th					
Develop Plan for Closing Out PVR Findings	Neilson																			