

# **NCSX Project Update**

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*NCSX Project Manager*

**NCSX Project Meeting**  
**August 28, 2001**

## **Project Highlights Since July Project Meeting**

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- FESAC Meeting, Aug. 1-2: Support for stellarator program and NCSX affirmed. World leadership potential seen.
- Shifted design emphasis to 18-coil modular design after positive physics assessment.
- Manufacturing Information Meeting, Aug. 22: high interest and useful feedback from industry.

# FY-2001 Milestones

## Program Milestones

- Deliverables
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## Schedule

### *Status*

### Conduct Physics Validation Review

- Documentation and presentations

March 2001

*Completed*

*March, 2001*

### Conduct FY-2003 Project Validation

- Update of Outyear Project Plans / Milestones
- Mission Need Approval (CD-0)

May 2001

*Completed*

*May, 2001*

### Update Reference Configuration for CDR

Project-level milestones leading up to:

- Update VV / PFC conceptual design.
- Update EM design of coils.

Sept. 2001

Aug. 15

Sept. 11

## Near-Term Goals

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- Update the Coil and VV design (by Sept. 10).
  - Vacuum vessel: geometry and segmentation.
  - Modular coils: 18-coil design OK for physics and flexibility?
  - PF coils: 5-coil design OK for flexibility?
  - TF coils: select optimum configuration (access, support)
- Tackle CDR issues.
  - Requirements: fill in the t.b.d.'s.
  - Diagnostics.
  - Manufacturing studies of major components.
  - Tolerances, control of field errors.
- Issue progress report on disposition of PVR items. (by Sept. 21)

# Progress Report on PVR Items

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- Cover letter. (Neilson)
- PVR tracking log, Sept. update. (Simmons)

## Attachments

- Design point and Day-1 NBI power. (Schmidt)
- Accommodating high-field-side RF launcher. (Reiersen)
- Stellarator program coordination issues. (Neilson, Lyon)
- Diagnostic integration issues. (Johnson)
- PIES Status. (Zarnstorff, Reiman)

## **Schedule**

- First drafts of attachments for comment, Sept. 7
- Final drafts due, Sept. 17.
- Tracking log update complete, Sept. 17.
- Issue report to DOE, Sept. 21.

## **Calendar**

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**Sept. 12-14.** PPPL 50th Anniversary Symposium, Princeton.

**Sept. 24-28.** 13th International Stellarator Workshop, Canberra, Australia.

**Sept. 25-26.** FPA Symposium, “Frontiers in Fusion Research,” Washington.

**Oct. 2-5.** Symposium on Fusion Engineering (SOFE), Atlantic City.

**Oct. 16-17.** NCSX Project Meeting.

**Oct. 29-Nov. 2.** APS/DPP Meeting, Long Beach.

**Nov. 14-15.** Next NCSX PAC, PPPL.

**Nov. 28-29.** (tentative) NCSX Project Meeting.

**Dec. 3-5.** Workshop: “Future Directions in Theory of 3D Magnetic Confinement Systems,” Oak Ridge. (D. Batchelor, organizer)

**Dec. 12-13** (tentative) NCSX Project Meeting / Requirements Review.