

Moving NCSX Toward Construction: Project Steps in FY2001-02

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The Stellarator Program Will Take Important Steps Toward Construction in FY2001-02

Reviews

- Four major reviews

Project Planning and Management

- Opportunities for improvement

Community Involvement

- Keeps increasing

**We Look Forward to Working
with OFES to Make These Succeed**

Design Reviews: Building a Sound Technical Basis

NCSX Physics Validation Review (PVR), Dec. 18-20, 2000

- Physics requirements to meet mission
- Physics design basis
- Status of FESAC and PAC technical issues.

⇒ Sound basis for conceptual design.

NCSX Design, Cost, and Schedule Review (DCSR), April, 2001

- A design meeting requirements
- Cost and schedule range for project, data sheet for design.

⇒ Sound basis for FY-2003 project validation and funding request.

NCSX Conceptual Design Review (CDR), April, 2002

- Performance baseline: optimized design, cost, schedule.

⇒ Sound basis for engineering design, large-scale prototyping, construction.

QOS Review, March, 2001

Review process will be a significant task for all of us.

New DOE Procedures Contain Opportunities to Improve in Project Management

Provision for project engineering and design (“PED”) funding could enable NCSX Title I design to start in FY-2002 instead of FY-2003.

Benefits to program: earlier start of prototyping means...

- Reduce cost uncertainties sooner → lower risk.
- Avoid unnecessary delays→ lower cost, faster schedule.

But, necessary mechanisms may not yet be in place in DOE.

We want to work with OFES to take advantage of this.

NCSX is a Community Effort

Designed by a Growing National Team

- ORNL, LLNL, PPPL, Univ. of Texas, Columbia U., Auburn U., Univ. of Wisconsin, New York Univ., UCSD, plus numerous foreign collaborators.

Scientific Discussions of Program Progress

- Annual APS DPP Meetings (invited paper each year since 1997.)
- IAEA Meetings (incl. 5 papers in 2000), international stellarator workshops.
- Annual ICC Meetings, white paper updates.
- Journal articles.
- Frequent seminars: Wisconsin, Texas, MIT, Columbia, NYU, GA, UCSD,...

Reviews Have Been a Vehicle for Community Input

- DOE PoP Review, June, 1998.
- Snowmass Summer Study, July, 1999.
- FESAC Priorities and Balance Review, Aug., 1999.
- NCSX Informal Program Advisory Committee (4 meetings since 1998).

FY2001-02 Review Process Will Extend Community Involvement.

NCSX is an Exciting Opportunity for Magnetic Fusion Science

Key Tasks to Bring it to Fruition

- Document Mission Need (“CD-0”)
- Provide resources to expedite issue resolution.
- Carry out an efficient and effective review process.
- Take advantage of project management improvement opportunities in new DOE guidelines.
- Keep the community involved

**For Continued Success:
Community and OFES Will Keep Working Together!**