



Department of Energy

Washington, DC 20585

June 16, 2011

MEMORANDUM FOR: DANIEL R. LEHMAN
DIRECTOR
OFFICE OF PROJECT ASSESSMENT
OFFICE OF SCIENCE

FROM: *for Stephen Eckstrand*
EDMUND J. SYNAKOWSKI
ASSOCIATE DIRECTOR OF THE OFFICE OF SCIENCE
FOR THE OFFICE OF FUSION ENERGY SCIENCES

SUBJECT: OFFICE OF SCIENCE PROJECT REVIEW FOR THE
NATIONAL SPHERICAL TORUS EXPERIMENT (NSTX)
UPGRADE PROJECT

I request that your office organize and lead an Office of Science (SC) project readiness review of the NSTX Upgrade Project at PPPL on October 26-27, 2011. The purpose of this review will be to verify the readiness of the project to commence to full procurement/construction.

The NSTX Upgrade project received Critical Decision (CD)-0 approval in February 2009, CD-1 approval in April 2010, and a CD-2 approval in October 2010. The project team is currently working to complete final design and has been authorized limited advanced procurement/fabrication, and will be seeking approval of CD-3, Approve Start of Construction/Execution.

In carrying out its charge, the review committee is requested to consider the following questions:

1. Final Design: Is the design sufficiently mature so that the project can pursue full procurement, fabrication and construction activities? For those elements of the design that are still not finalized, has the project convincingly shown that there are no major issues that need to be addressed and that they are on a clear path to final design?
2. Baseline Cost and Schedule: Are the current project cost and schedule projections consistent with the approved baseline cost and schedule? Is the contingency remaining adequate for the risks that remain?
3. Management: Evaluate the management structure as to its adequacy to deliver the proposed final design within specifications, budget and schedule. Has the project responded satisfactorily to the recommendations from the previous independent project review?



4. Documentation: Is the documentation required by DOE Order 413.3B for CD-3 complete?
Has the CD-2 documentation been updated to reflect any changes resulting from the final design?

Barry Sullivan, of my staff, is the program manager for this project and will serve as the contact person for this review. He can be reached at 301-903-8438. I would appreciate receiving your committee's report within 60 days of the review's conclusion.

cc:

J. Makiel, SC-PSO
A. Indelicato, SC-PSO
B. Sullivan SC-FES
S. Eckstrand, SC-FES
G. Nardella, SC-FES
S. Meador, SC-28
S. Prager, PPPL
A. Cohen, PPPL
M. Zarnstorff, PPPL
M. Williams, PPPL
R. Strykowski, PPPL
E. Perry, PPPL
M. Ono, PPPL
J. Menard, PPPL