July 18, 2003

Professor Richard Hazeltine, Chair
Fusion Energy Sciences Advisory Committee
Institute for Fusion Studies
University of Texas at Austin
Austin, TX 78712

Dear Professor Hazeltine:

The Administration has taken unprecedented steps to reform the budget process by establishing a systematic, consistent process for developing program performance ratings and then using that information to make budget decisions. To enhance the practical use of performance information, the Office of Management and Budget, in collaboration with other Federal agencies, has developed the Program Assessment Rating Tool (PART), comprised of assessment criteria on program performance and management. The PART establishes a high, "good government" standard of performance and will be used to rate programs in an open, public fashion. The FY 2004 PART for the Fusion Energy Sciences program, and the FY 2004 PART Summary for the FES program is enclosed for your information.

Program performance assessments developed using the PART will again be an integral component of the President's FY 2005 budget. DOE has dedicated considerable time and effort to develop program effectiveness and accountability ratings using the PART. An important element of this performance measurement system is the program goals along with long-term indicators and annual targets that allow OMB to measure the program's progress.

The FY 2005 PART worksheet includes the following questions:

- Does the program have ambitious long-term indicators?
- Does the program have ambitious annual performance targets?

In order for the Office of Science to answer "Yes" to these questions, evidence must be cited that supports that answer. Therefore, I would like FESAC to review the proposed long-term targets and annual performance indicators. Following your review, please provide this office by August 15, 2003 with a letter summarizing the consensus FESAC view on whether the annual performance targets and long-term indicators are adequate to permit us to answer "Yes" to both of the PART questions. If they are not sufficiently ambitious, please recommend alternate targets and/or indicators that would allow us to answer "Yes".

Enclosed you will also find the proposed long-term indicators and the annual performance targets for FY 2005 so that the members of FESAC can be prepared to discuss them and reach consensus on whether they are sufficiently ambitious at the July 31-August 1, 2003 FESAC meeting.

Sincerely,

/s/

Raymond L. Orbach
Director

Enclosures:
FY 2004 FES PART Work Sheet
FY 2004 FES PART Summary
FY 2005 Annual Performance Measures and Long-Range Targets

OFES Targets and Indicators

Long Term Indicators

Tokamaks

Validate a comprehensive experimental database of tokamak stability, transport, particle interaction, and edge effects that will be used to test predictive models for burning plasmas.

SciDAC Fusion Simulation Project

Solve one or more of the key issues requiring modeling complex physical phenomena and their mutual interactions, and develop the unified mathematical and computational framework needed to combine these models into an integrated simulation.

Alternates

Demonstrate enhanced fundamental understanding of magnetic confinement and improved basis for future burning plasma experiments through research on alternative magnetic confinement configurations.

High Energy Density Physics/IFE

Demonstrate that new physical phenomena have resulted from using high energy beams and lasers to explore extreme states of matter.

Materials

Develop and validate a portfolio of multi-scale radiation damage models that includes production, migration, and clustering of irradiation defects and their resultant effects on material properties..

F05 Targets

Facility Operations

Average unscheduled downtime of the major national fusion facilities as a percentage of the total scheduled annual operating time.

FY05 Construction

Cost-weighted mean percent variance from established cost and schedule baselines for major construction, upgrade, or equipment procurement projects.