

# Charter for the U.S. Burning Plasma Organization

As amended November 13, 2007

## Introduction

The US Department of Energy (DOE) Office of Fusion Energy Sciences (OFES), in consultation with the Magnetic Fusion Energy (MFE) research community, created<sup>1</sup> the U.S. Burning Plasma Organization (USBPO) to achieve the following mission:

*Advance the scientific understanding of burning plasmas and ensure the greatest benefit from a burning plasma experiment by coordinating relevant U.S. fusion research with broad community participation.*

To accomplish this objective, the USBPO serves the community as the principal organizing body for burning plasma (BP) research activities. It works with other domestic and international fusion R&D bodies to promote, coordinate, prioritize and facilitate the execution of these activities in the U.S., within programmatic and budgetary guidance from OFES. These activities include research in support of the ITER project during construction, and experiments on ITER during operations, research using existing experimental facilities to address BP-relevant issues, development and support of new or upgraded domestic and international experimental facilities, and associated theory and computation that are relevant to BP science and technology. The USBPO also promotes interest and participation in burning plasma research to the broader science and technology communities.

The USBPO is structured to carry out these multiple roles in coordination with the ITER Project and other major MFE program elements. This Charter describes the scope of activities and the overall structure of the USBPO.

## Organization and Functions of USBPO Components

The USBPO is composed of a Membership that is distributed into Topical Groups (TGs), a Council, and a Directorate.

### Membership

Regular Membership in the USBPO is open to researchers and graduate students who are active in burning plasma science and technology research, and whose home institution lies within the U.S.. Associate Membership in the USBPO is open to active fusion researchers whose home institution is outside the U.S.. Membership in the USBPO is established by joining one or more Topical Groups and participating in the research activities of those groups. As such, members are expected to join and participate in one

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<sup>1</sup> OFES charge letter to form USBPO.

or more Topical Groups. Membership renewal may be requested periodically. Other interested parties may register to receive published information from the USBPO.

### **Topical Groups and Task Groups**

The Topical Groups represent the resources and expertise of the USBPO. They exist to address the science issues of burning plasmas and provide a venue for community-based burning plasma research. The Topical Groups are the main organizational components of the USBPO, and the center of activity for members of the USBPO. Each group is comprised of fusion community researchers with common interests and expertise in fusion science and technology (e.g., Confinement and Transport, Plasma-Wave Interactions, etc.). These groups provide the knowledge base and research capabilities for the BPO for addressing specific burning-plasma related issues. The Topical Groups stimulate, support, organize, define, and execute burning plasma-related research tasks in the U.S. fusion program. Topical Groups can pursue research tasks within each given group and develop crosscutting research tasks that involve expertise from two or more groups. Topical Groups are the entry point and main focus of activity for U.S. fusion community participants in USBPO research activities.

A Leader and one or two Deputy Leaders lead each Topical Group. They organize, plan, and coordinate the group's efforts to address priority technical issues. These leaders and deputies represent the U.S. Topical Group's activities to the USBPO and to international burning plasma research activities associated with the ITER organization and other international organizations, including the International Tokamak Physics Activity (ITPA).

Task Groups focused on very specific BP issues that cut across the Topical Group boundaries may be formed to carry out work to address those issues.

### **Directorate**

The USBPO Directorate is composed of the Director, Deputy Director, Research Committee, and support staff. The Director of the USBPO has overall executive responsibility of the USBPO, and is assisted in this role by a Deputy Director. At his/her discretion, the Director can delegate tasks and responsibilities to the Deputy Director. With the review and approval of the Council, the Director proposes, reviews, and updates the Topical Group subject areas.

The leadership of the Topical Groups together with the Director and Deputy Director forms the Research Committee, which coordinates, prioritizes, and manages the Topical Group activities. The Research Committee is led by the Director or his/her designate., The Research Committee will generally focus on nearer-term burning plasma research activities, but will also contribute to long-term strategic planning of burning plasma research in collaboration with the Council.

## **Council**

The Council represents the U.S. MFE research community in providing oversight of the USBPO activities, and, working with the Directorate, is the primary USBPO element responsible for long-term strategic planning of burning plasma research. The Council is responsible for setting the policies and procedures of the USBPO, including establishing the by-laws governing USBPO operations. It will receive regular reports on USBPO activities from the Director, and will provide feedback and assessment on those activities to the Director regarding progress, issues, priorities, and opportunities. When required, a simple majority vote of the Council shall serve to designate Council approval of a decision. When Council comment and recommendations are required, the Council Chair and/or Vice-Chair will work to convey the sense of the Council to the Director and the OFES.

## **Amendments and Bylaws**

Amendments to the USBPO Charter may be proposed by the Director or by the Council Chair, in consultation with OFES, and presented to the Council for approval. A two-thirds majority vote of the Council is required for their acceptance. These approved changes shall then be submitted to the OFES for final approval before implementation.

Additions and changes to the bylaws governing the routine operation of the USBPO can be proposed by the Directorate or the Council, and shall be enacted upon a simple majority vote of the Council and approval of the Director and OFES.