

International Travel FTMS Forms: Guidance for PPPL Travelers

Submission of a completed FTMS form is required for all PPPL travelers planning an international trip in order to obtain DOE approval regardless of the source of funds. The only exception is for travel taken completely during vacation or unpaid leave and with no PPPL expenditures. The completed FTMS form must be submitted at least 40 days before the proposed departure date for travel to DOE sensitive countries and 30 days before the start of travel to non-sensitive countries. A blank form is available at:

[Travel Approval Request Form.](#)

Most entries on the FTMS form are self-explanatory. There are four that merit special attention:

Section II): Benefit to the Government (include benefit to present position with the Department)

Key elements include trip benefits to the US fusion program (or other US program activity) and the PPPL activities in that program.

Section III): Primary Purpose (select the appropriate category in box a or complete box b if “Other” is selected in box a)

This should identify the primary activity for each part of the trip (each itinerary stop).

Section III): Justify Trip Purpose

Key elements include: (1) A description of the purpose for each itinerary of the trip, including specific topics to be discussed or presented; (2) A description of how this part of the trip is related to the PPPL programs and projects; and (3) A description of the specific benefits realized from this part of the trip, or description of opportunities lost by not making trip.

Section III): Agreements (Select “Yes” or “No” for the appropriate type of Trip)

This should identify international agreements that the trip is organized under or that the trip supports. Examples include the ITER Agreement; the IEA Implementing Agreements for Fusion Research on Tokamaks, Spherical Torii, and Stellarators; bilateral agreements for fusion research with the EU, China, Japan, Korea, and other countries; bilateral agreements for scientific research with the EU, Germany, and other countries; the IAEA statute; lab-to-lab MOUs.

The responses on these lines inform DOE and the government about the significance of the trip and are key to securing DOE approval. The answers should be as specific as possible.

In the sections below, examples are given for four common types of international trips:

1. Present an invited lecture / seminar / colloquium
2. Conferences
3. Meetings
4. Working trip or collaboration

These should not be copied literally, but rather indicate appropriate types of answers.

Example 1: Present an invited lecture at the International ITER School

Benefit to Government: This trip supports the US participation in ITER through teaching young scientists fundamental wave physics, an element of the DOE-FES program. In the invited lecture, new methodologies and developments are explained, highlighting US and PPPL program activities. Participation will give exposure to developments in the other ITER-partner programs, and will lead to international connections with young attendees who are likely to become leading researchers in the ITER team.

Primary Purpose: Seminar/Symposium

Justify Trip Purpose: Give an invited lecture titled "Lagrangian and Geometrical methods in the fundamental physics of waves and their application to plasma dynamics" to young researchers from the international ITER-partner programs. This will ensure they are aware of the US program and results in this area, and build connections between the US and future ITER team members.

Agreement: The ITER Agreement.

Example 2: Attend the European Physical Society Conference

Benefit to Government: Represent the US fusion program and interests at the European Physical Society Conference on Plasma Physics and Fusion. Present results of US research and ensure that US results receive appropriate visibility at the conference. Identify key new results from the European program Plan ongoing and future collaboration opportunities with European researchers.

Primary Purpose: Professional conference or workshop.

Justify Trip Purpose: The purpose is to present a poster on edge and plasma-wall interactions in NSTX at the annual EPS Conference on Plasma Physics and Fusion. Attending the conference provides an opportunity to discuss our new results with researchers in the EU edge program, discuss and understand their new results on tungsten walls, and develop new collaborations.

Agreement: US-EU Bilateral Agreement on Fusion Research

Example 3: Attend ITPA Topical Group Meeting on Transport and Confinement

Benefit to Government: Represent the US and PPPL in working group activities coordinating international research on plasma transport in tokamaks, preparing for experiments on ITER, and developing a predictive understanding of plasmas

confinement (a key goal of the US and world fusion program). US and PPPL participation is critical for disseminating US research results, understanding international results and ideas, planning collaborations and future coordinated research, and ensuring that the US is aware of ITER research needs.

Primary Purpose: Working group or colloquium (scientific meeting)

Justify Trip purpose: The purpose of this trip is to attend a meeting of the ITPA Transport and Confinement Group, to present the results of joint experiments conducted between NSTX and other international tokamaks. Results from this year's planned activities in all programs will be discussed. ITER high priority requests and initial ideas for next year's joint research will be identified, and will inform planning for new experiments on NSTX and other US facilities.

Agreement: IEA Implementing Agreement on Tokamak Research and ITER Agreement.

Example 4: Collaborate on experiments on KSTAR

Benefit to Government: This trip continues US collaboration on KSTAR experiments, providing results and experience to the US fusion program from a superconducting tokamak.

Primary Purpose: R&D Activities under an agreement

Justify Trip purpose: The purpose of this trip is to participate in KSTAR experiments related to ELM stability with Resonant Magnetic Perturbations (RMP) and analyze data with other KSTAR team members. A seminar will be given on results from NSTX.

Agreement: IEA Implementing Agreement on Tokamak Research and US-Korean Bilateral Agreement on Fusion Research