



**Oak Ridge National Laboratory  
1 Bethel Valley Road  
Oak Ridge, TN 37831**

**SUBJECT:** Report on Foreign Travel to International Atomic Energy Agency, Vienna  
**DATE:**  
**TO:** Dr. Angela Chambers, Nuclear Criticality Safety Program Manager, National Nuclear  
Security Administration / NA-ESH-21  
**FROM:** Marco T. Pigni, ORNL

**MEETING TITLE:** Consultancy Meeting to Update the Pu-239 Resonance Evaluation up to 5 keV

**MEETING LOCATION:** International Atomic Energy Agency, Headquarters in Vienna

**MEETING DATES:** 8—12 May 2023

**ATTENDEES ON BEHALF OF NCSP:** Marco T. Pigni

**MEETING PURPOSE:** The purpose of the meeting is to update the Pu-239 Evaluation up to 5 keV

**MEETING BENEFITS TO THE NCSP:** Oak Ridge National Laboratory (ORNL) has been performing work in key nuclear data work areas such as evaluation updates and improvements for light elements, structural materials, and fissile actinides. Marco Pigni's accomplishments in each of these areas is of fundamental important in supporting ORNL Model & Simulations efforts for nuclear technology applications. In this regard, Marco Pigni is representing US interests for nuclear data pertaining to nuclear criticality safety.

**PURPOSE OF TRAVEL** [Provide a detailed purpose of the travel]: To improve the agreement of the 239-Pu evaluation in the resolved resonance region with criticality benchmarks as well as the depletion reactivity trend as a function of the burnup. The evaluated nuclear data file was released for testing.

**Persons Contacted on your trip** [If applicable, provide a list of everyone you met with during the trip.]: Roberto Capote (IAEA), Andrej Trkov (Josef Stefan Institute), Paraskevi Dimitriou (IAEA), Dave Brown (BNL), Viktor Zerkov (IAEA)

**Presentations, Chair Responsibilities, Etc.:** See invitation letter.

**Distribution:**  
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