

International Nuclear Energy Research Initiative (I-NERI)

United States and Japan Agree on Joint Nuclear Energy Research Project

On March 15, 2006 the Office of Nuclear Energy, Science and Technology's (NE) and Japan's Ministry of Education, Culture and Sports, Science and Technology (MEXT) agreed to collaborate on the first joint project under the United States Department of Energy (DOE) and MEXT bilateral Agreement signed on February 8, 2005. This collaboration will begin immediately and be jointly worth about \$1.9 million over three years.

The project is titled *Assessment of Irradiation Performance of ZrC TRISO Fuel Particles for Advanced High Temperature Gas Cooled Reactors*. The objective of this project is intended to (1) clarify fundamental irradiation response of ZrC, both as a coating to surrogate TRISO particles and in a zone-refined high purity polycrystalline form, (2) evaluate statistical fracture strength properties of developmental ZrC coatings before and after irradiation, and (3) develop failure model of ZrC-TRISO particles for fuel performance evaluation and safety design.

Japan is a Charter Member of the Generation IV International Forum (GIF), a group of eleven members (Argentina, Brazil, Canada, the European Union, France, Japan, Republic of Korea, Republic of South Africa, Switzerland, the United Kingdom, and the United States) organized to conduct collaborative nuclear technology R&D. GIF activities support the recommendations in the National Energy Policy to pursue research that will develop next-generation nuclear energy technologies and to collaborate with international partners with highly developed fuel cycles and a record of close cooperation.

Information regarding the I-NERI program or additional bilateral cooperation is available at the I-NERI website, which can be reached via www.nuclear.gov.