

The University of Texas at Austin

Plutonium for Energy? Findings of a Year-long Study of MOX Nuclear Fuel in 7 Countries

Tuesday, May 1 2:30 – 4:00pm LBJ School of Public Affairs Sid Richardson Hall (SRH) 3.314 / 3.355

Plutonium is a controversial fuel for nuclear power for three reasons: its usability to make nuclear weapons, carcinogenic properties, and high cost. Yet, relatively little information has been publicly available regarding the main use of this fuel around the world, in traditional ("thermal") nuclear power reactors.

"Plutonium for Energy" is the first-ever comparative research project on "Mixed Oxide" (MOX) fuel – containing both plutonium and uranium – used in traditional, light-water nuclear power reactors. The project explores the manufacture and use of MOX fuel in the seven main countries that have done so: Belgium, France, Germany, Japan, the Netherlands, Switzerland, and the United Kingdom. It examines the security, economic, safety, environmental, and public acceptance experience in each country. A primary aim is to inform ongoing decision-making in East Asia – including China, Japan, and South Korea – about whether to recycle plutonium for energy.

The year-long project, including a comparative overview and seven case studies, is led by the LBJ School's <u>Prof. Alan J. Kuperman</u>. He and seven graduate students from the University of Texas at Austin conducted field research in all seven countries. The project is supported by a grant from the John D. and Catherine T. MacArthur Foundation.

Prof. Kuperman will introduce the project, followed by these presentations:

Belgium: An Engineering Success but Policy Failure Valentina Bonello

France: Reassessment as Foreign Customers Fade Kingsley Burns

UK: High Costs and Cut Corners Neal Mann

Japan: Ambitious Plans Derailed Hina Acharya

Switzerland: Explaining an Uneconomic Fuel Choice Harry Kim

Germany: Reprocessing Spurs Opposition to Nuclear Power Kelli Kennedy