

Date & Place	Seminar	Speaker
<p>June 15, 2011 9:00 am Bldg. 362 Auditorium <i>Refreshments served at 8:30 am</i></p>	<p>DEP Series: Nuclear Energy: Facts and Politics An introduction to how reactors work and what distinguishes them from nuclear warheads, followed by a discussion of nuclear energy issues.</p>	 <p>Roger Blomquist Nuclear Engineer, Criticality Safety Section</p>
<p>June 21, 2011 10:00 am Bldg. 208/A138 <i>Student lunch immediately following</i></p>	<p>Fast Reactor Physics How fast reactor physics differs from thermal reactor physics, and how the fast spectrum allows pursuit of various strategic objectives, e.g., resource extension, actinide burnup in lieu of disposal, weapons material disposition.</p>	 <p>Robert N. Hill Technical Director, Advanced Nuclear Energy R&D</p>
<p>June 28, 2011 10:00 am Bldg. 208/A138</p>	<p>Fast Reactor Coolant Options In the past, engineers proposed, and in many cases tested, nearly every imaginable fluid for use as a reactor coolant. In order to have a fast neutron spectrum, however, there are significant constraints imposed on the coolant choices. The Generation IV International Forum identified three promising coolant choices for fast reactors: sodium, lead, and helium. This presentation provides an overview of these coolant options and how they impact overall design, safety, and operations, and how they result in considerable differences with light water reactors.</p>	 <p>Thomas Fanning Manager, Safety Analysis Section</p>
<p>July 5, 2011 10:00 am Bldg. 208/A138</p>	<p>Introduction to the Nuclear Engineering Division The NE Division and its precursors have contributed to the development of civilian nuclear power systems for over 50 years, ever since the dawn of the nuclear age. Our mission is to apply Argonne's world-class expertise in nuclear reactor technology to the development of advanced nuclear reactor systems to problems of national and international significance.</p>	 <p>Jordi Roglans-Ribas Deputy Division Director</p>
<p>July 12, 2011 10:00 am Bldg. 203 Auditorium</p>	<p>Nuclear Weapons Proliferation Proliferation threat and response: Coevolution of proliferation and nonproliferation.</p>	 <p>Pete Heine Manager, Technical Nonproliferation Policy Support Section</p>
<p>July 19, 2011 10:00 am Bldg. 203 Auditorium</p>	<p>Light Water Reactor Severe Accident Analysis and Experimentation at Argonne Related to the Nuclear Incident in Japan The recent earthquake and Tsunami in Japan initiated severe accidents at several of the reactors at the Fukushima Dai-ichi nuclear complex. These accidents have led to a resurgence of interest in Light Water Reactor (LWR) severe accident phenomenology. This presentation will provide an historical overview of this research and discuss some of the basic physics involved with severe accidents, as well as phenomenological models that have been developed to describe the progression. The presentation will also include a general discussion about the application of the LWR severe accident knowledge base to events at Fukushima.</p>	 <p>Mitch Farmer Manager, Engineering Development Labs Section</p>
<p>July 26, 2011 10:00 am Bldg. 208/A138</p>	<p>Nuclear Fuel Behavior What kinds of experiments and analyses are done to ensure that nuclear fuel will not fail and will always contain the radioactive fission products and actinides after irradiation?</p>	 <p>Yeon Soo Kim Principal Nuclear Engineer, Fuel Development & Qualification Section</p>
<p>August 2, 2011 10:00 am Bldg. 208/A138</p>	<p>Used Nuclear Fuel Management in the U.S. A brief history of the Yucca Mountain repository development project will be provided, followed by recent developments and their potential impacts on the U.S. nuclear power fleet.</p>	 <p>Mark Nutt Manager, Engineering Assessments Section</p>