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For immediate release

## **Argonne-SRNL agreement supports critical DOE, national priorities** *Joint research efforts to focus on nuclear energy, environmental management*

ARGONNE, Ill. (May 15, 2008) – Argonne National Laboratory has signed a memorandum of understanding (MOU) with Savannah River National Laboratory (SRNL) to collaborate on nuclear energy and environmental management research projects in support of critical U.S. Energy Department (DOE) needs and other important national priorities.

"The MOU allows Argonne to remain a leader in nuclear energy research," Argonne Director Robert Rosner said. "Argonne has the nation's largest concentration of scientists and engineers involved in fast-reactor design and nuclear fuel separations and processing technologies – expertise that is essential to developing next-generation nuclear energy systems, a key component of President Bush's Global Nuclear Energy Partnership."

The agreement will bring together the strengths of the two national laboratories, including SRNL's applied science and engineering expertise and their nuclear facilities for the safe handling and study of highly radioactive materials. The SRNL facilities include the Shielded Cells, where highly skilled employees use remote manipulator arms to perform work with radioactive samples, while safely protected behind thick shielding. Argonne brings to the partnership scientific and engineering expertise and state-of-the-art radiological facilities for studying chemical phenomena at the smallest scale. Among the facilities that may be used in understanding materials properties include the Advanced Photon Source, the brightest X-ray beam in the western hemisphere.

"This agreement blends the key skills and capabilities from SRNL and Argonne for advancing U.S. nuclear energy capabilities," said G. Todd Wright, SRNL laboratory director. "SRNL's core competencies for the development and deployment of applied technology solutions for safe nuclear facilities operation will help this partnership make advances that support important energy independence initiatives for the nation."

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## Argonne-SRNL agreement – add one

Argonne and SRNL will collaborate in areas in which the two research facilities have complementary strengths, including actinide chemistry, separations science and technology, and computational chemistry and modeling. "Advances in these research areas are vital for any U.S. expansion of the use of safe, clean nuclear energy, closing the nuclear fuel cycle and management of legacy nuclear materials," said Mark Peters, Argonne's program manager for the Global Nuclear Energy Project (GNEP) and the deputy to the associate laboratory director of energy sciences and engineering.

Actinide chemistry involves the study of radioactive heavy metals, such as uranium, neptunium and plutonium, that are indigenous to nuclear energy processes. Maintenance of a core competency associated with actinide science is critical to sustain continued growth of nuclear programs in the United States and to effectively treat legacy nuclear materials. Argonne's actinide experience dates back to the earliest days of the Manhattan Project and is focused on basic scientific understanding and knowledge. SRNL's experience, which dates back to the early 1950s, has been generally focused on production-scale deployment, including the design and development of specialized technologies for the safe characterization, purification, stabilization and disposition of these materials.

Separations science involves the design, study and application of processes for separating mixtures of compounds into their component substances. The two laboratories have made significant contributions to the field over their histories. These contributions date to the earliest years of the U.S. nuclear enterprise and continue to support such national initiatives as GNEP. The labs will develop a joint plan for advancing separations science and technology programs to meet the current and future needs of DOE with a focus on the DOE Offices of Nuclear Energy and Environmental Management.

Argonne National Laboratory brings the world's brightest scientists and engineers together to find exciting and creative new solutions to pressing national problems in science and technology. The nation's first national laboratory, Argonne conducts leading-edge basic and applied scientific research in virtually every scientific discipline. Argonne researchers work closely with researchers from hundreds of companies, universities, and federal, state and municipal agencies to help them solve their specific problems, advance America's scientific leadership and prepare the nation for a better future. With employees from more than 60 nations, Argonne is managed by UChicago Argonne, LLC for the U.S. Department of Energy's Office of Science.

SRNL, located in Aiken, S.C., puts science to work to provide applied R&D solutions in the areas of national and homeland security, energy security, and environmental management. It serves as the corporate laboratory for DOE's Office of Environmental Management and is managed for DOE by Washington Savannah River Company, a subsidiary of the Washington Division of URS Corp.