DOE, NRC Issue Licensing Roadmap For Next-Generation Nuclear Plant

WASHINGTON, DC – The U.S. Department of Energy (DOE) and the U.S. Nuclear Regulatory Commission (NRC) today delivered to Congress the Next Generation Nuclear Plant (NGNP) Licensing Strategy Report which describes the licensing approach, the analytical tools, the research and development activities and the estimated resources required to license an advanced reactor design by 2017 and begin operation by 2021. The NGNP represents a new concept for nuclear energy utilization, in which a gas-cooled reactor provides process heat for any number of industrial applications including electricity production, hydrogen production, coal-to-liquids, shale oil recovery, fertilizer production, and others that meet significant industrial needs.

“DOE is committed to the development and commercial deployment of NGNP technology in a timely manner,” said DOE Assistant Secretary for Nuclear Energy Dennis Spurgeon. “Nuclear energy is vital to our nation’s energy security and the NGNP has the potential to extend the benefits to bring nuclear technology to a whole new sector of the U.S. economy.”

The Energy Policy Act of 2005 instructed the agencies to jointly develop a strategy for licensing the NGNP demonstration plant. The report identifies NRC review procedures that require revisions, as well as areas of new or additional research that must be conducted in order for the Commission to reach decisions on any NGNP application.

"The NRC's new reactor licensing process is currently focused on light-water reactors, and the staff is confident this basic framework can also support an NGNP review," said NRC Chairman Dale Klein. "We will work with DOE to supplement that framework with NGNP-specific items."

In April of this year, the Department sought public and industry comment to help finalize ongoing conceptual design activities for the NGNP and further define the reactor’s performance, safety and functional requirements, as well as the estimated cost and schedule for its construction and operation. DOE will use the responses to develop a final strategy for partnering with industry to deploy the NGNP project. DOE anticipates
noticing its final strategy this fall and seeks to complete the design and construction of a prototype NGNP plant by 2021.

The NGNP project is a part of DOE’s Generation IV nuclear program, which focuses on very high-temperature reactor technologies to produce hydrogen and other energy products, and furthers research and development to ensure the viability of the next-generation of nuclear energy systems. This program supports President Bush’s Advanced Energy Initiative, which advocates the increased use of nuclear energy in order to increase our nation’s energy security.

Visit Nuclear.gov to read the joint Licensing Strategy Report and to learn more about DOE’s Office of Nuclear Energy.