What is the (Changing) Bush Global Nukes Program?

President Bush's Global Nuclear Energy Partnership (GNEP) is being promoted internationally, while the program continues to lack support by many in Congress, and the promised draft GNEP programmatic environmental impact statement (PEIS) still has not been released. (See Voices from the Earth, Winter 2006/2007 and Winter 2007.) Thus, it is certain that the major decisions about the nuclear power "almost everywhere" program will be deferred to the next administration. Nonetheless, what happens regarding public opposition and in Congress in the final months of the Bush administration could have significant impact on those future decisions. Moreover, the Bush administration is using funding and diplomatic efforts to promote nuclear power internationally.

In February 2006, President Bush announced:

[A] bold new proposal called the Global Nuclear Energy Partnership. Under this partnership, America will work with nations that have advanced civilian nuclear energy programs, such as France, Japan, and Russia. Together, we will develop and deploy innovative, advanced reactors and new methods to recycle spent nuclear fuel. This will allow us to produce more energy, while dramatically reducing the amount of nuclear waste and eliminating the nuclear byproducts that unstable regimes or terrorists could use to make weapons.

As these technologies are developed, we will work with our partners to help developing countries meet their growing energy needs by providing them with small-scale reactors that will be secure and cost-effective. We will also ensure that these developing nations have a reliable nuclear fuel supply. In exchange, these countries would agree to use nuclear power only for civilian purposes and forego uranium enrichment and reprocessing activities that can be used to develop nuclear weapons.

In March 2006, the Department of Energy (DOE) announced that it would prepare a GNEP environmental impact statement (EIS) including scoping meetings later in 2006 and draft and final EISs in 2007. Among other things, the EIS would determine what site in the U.S. would host the new reprocessing plant and "Advanced Burner Reactor."

Only the scoping meetings have occurred (in February and March 2007), and there is not enough time for the final EIS to be issued by the Bush administration. While DOE continues to say that it will still issue the draft EIS in 2008, it will be difficult to issue a legally and technically adequate draft, since the nature of GNEP

has greatly changed from what was described in 2006 and early 2007. Indeed, on April 14, 2008, the DOE Assistant Secretary for Nuclear Energy admitted that DOE still "has not decided on a path forward for the domestic component of GNEP."

WHAT HAPPENED TO U.S. GNEP SITES?

On November 29, 2006, DOE announced that it would give grants totaling up to \$16 million to eleven localities that had volunteered to host the GNEP reprocessing and burner reactor. On January 30, 2007, the 11 grants actually awarded were reduced to slightly less than \$10.5 million. During the scoping meetings and comment period, the vast majority of the more than 14,000 comments opposed GNEP, and pointed out substantial problems with each of the 11 sites. At the majority of the proposed sites, the public did not support being a "volunteer" site.



Savannah River Site, South Carolina.

If there is a draft PEIS, it will not propose that any of the 11 sites be chosen for GNEP facilities, though DOE laboratories might be proposed for research and development activities. Reprocessing plants and advanced reactors have been deemed expensive and take decades to perfect at best. An October 2007 report from the National Academy of Sciences recommended "that the GNEP program should not go forward." A January 2008 Synapse Energy Economics report found that if GNEP ever produces benefits it would not be for 40 years or more. That report also found that GNEP:

 might inhibit "more reasonable solutions to global climate change by diverting resources into an unproven and, most likely, a prohibitively expensive nuclear option,"

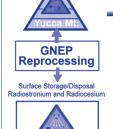
- "[w]ould increase the danger of nuclear proliferation and the potential for weapons grade materials falling into the hands of hostile or unstable nations and terrorist groups," and
- "[w]ould make the United States the dumping ground for radioactive wastes from the other participating nations."

Congress also has not supported GNEP. For Fiscal Year 2007, the GNEP proposed budget was \$243 million, but it received less than \$167 million. For Fiscal Year 2008, the request for \$405 million and Congress provided \$179 million. For Fiscal Year 2009, the budget request is \$302 million, and it seems unlikely that Congress will support even the 2008 funding level.

While local communities have essentially given up on having GNEP facilities, some companies are receiving GNEP funds. On May 9, 2007, DOE announced that it planned to provide \$60 million "to



Technician inspects canisters of vitrified radioactive waste from the Savannah River Site (SRS) in South Carolina.



GNEP Disposal Plan Leaves Hottest Waste On the Surface

Strontium-90 and Cesium-137

- Dangerous for hundreds of years
- Over two thirds of the radioactivity
- Main Source of Heat in spent fuel

Cesium-135

 Half-life=2.3 million years and dominates human doses in about 600 years.

spur industry engagement" in GNEP. On October 1, 2007, DOE provided \$16.3 million to four consortia and gave them an additional \$18.3 million on March 28, 2008. DOE plans to provide the remaining approximately \$26 million in late 2008. The funds for "conceptual design studies, technology development roadmaps, business plans, and a communications strategy" so far have provided:

- \$11.3 million to Areva and Mitsubishi Heavy Industries, Ltd.
- \$10.3 million to GE-Hitachi Nuclear Americas, LLC
- \$10.2 million to Energy Solutions
- \$2.9 million to General Atomics

While the work done by the four consortia is proprietary, an April 2008 Government Accountability Office report stated that two groups funded would use "mixed oxide" (plutonium-uranium) fuel in existing powerplants. The GNEP strategic plan had ruled out such technologies because they do not meet GNEP goals of

dramatically reducing the amount of spent fuel so that only one repository is needed and of substantially reducing proliferation risks by making nuclear weapons grade plutonium unavailable by not separating it from other radioanuclides. The GAO report recommended that DOE reassess its preference for accelerating GNEP.

IS THERE INTERNATIONAL SUPPORT FOR GNEP?

The industry funds primarily benefit companies from some of the European nations and Japan that are supporting GNEP. DOE has announced that 21 nations have joined GNEP to "voluntarily engage" in activities to promote nuclear energy. Those nations are: Australia, Bulgaria, Canada, China, France, Ghana, Hungary, Italy, Japan, Jordan, Kazakhstan, Lithuania, Poland, Republic of Korea, Romania, Russia, Senegal, Slovenia, Ukraine, United Kingdom, and United

States. Representatives from most of those nations have participated in two steering group meetings — in Vienna, Austria in December 2007, and in Jordan in May 2008.

As part of GNEP, the Bush administration also has negotiated bilateral agreements with Russia, Japan, China, and Australia and is expecting to sign an agreement with France to transfer technology, material, equipment (including reactors), and components for nuclear research and nuclear power production. On May 12, 2008, President Bush sent the 30-year U.S.-Russian agreement to Congress for its approval, as required by the Atomic Energy Act. Even though the agreement goes into effect unless both the House and Senate oppose it, both Democrats and Republicans have expressed their opposition to the agreement, so it is uncertain

whether it will be approved.

Thus, while citizen opposition, technical concerns, and congressional opposition have stopped GNEP in local communities, affected communities may still have to oppose GNEP if the draft PEIS is issued, as it would require public hearings in those localities. In addition, congressional action this year on GNEP funding and the U.S.-Russian Nuclear Agreement could greatly influence what the next administration decides about GNEP and promoting nuclear power internationally.

FOR MORE INFORMATION

The federal government's official GNEP website: www.gnep.energy.gov

The Synapse Energy Economics GNEP report: www.whistleblower.org/doc/2008/GNEPMarch.pdf

The NAS GNEP report: http://books.nap.edu/catalog.php?record_id=11998#toc

The General Accounting Office GNEP report: www.gao.gov/new.items/d08483.pdf

The Four Industry Consortia

AREVA & MITSUBISHI HEAVY INDUSTRIES, LTD. / Also: Japan Nuclear Fuel Limited; Battelle Memorial Institute; BWX Technologies, Inc.; and Washington Group International.

GE-HITACHI NUCLEAR AMERICAS, LLC / Also: Burns and Roe; Ernst & Young; Fluor Corp: International Business Machines (IBM); and Lockheed Martin.

ENERGY SOLUTIONS, LLC / Also: The Shaw Group and Westinghouse Electric Company; Atomic Energy of Canada Limited; Booz Allen Hamilton; Nexia Solutions; Nuclear Fuel Services; and Toshiba.

GENERAL ATOMICS / CH2M Hill; United Technologies Corporation — Hamilton Sundstrand Rocketdyne Division; a Russian consortium led by OKB Mechanical Engineering; Potomac Communication Group; LISTO; and KAERI.