

WHAT MUST DOE CONSIDER IN ITS ANALYSIS OF THE PROPOSED GLOBAL NUCLEAR ENERGY PARTNERSHIP?

What is the Purpose of DOE's Public Meeting?

As part of the National Environmental Policy Act (NEPA), the U.S. Department of Energy is required to prepare a Programmatic Environmental Impact Statement (PEIS). A PEIS is supposed to evaluate the potential environmental impacts of a broad federal plan or action that includes a number of phases or actions. Before preparing a PEIS, DOE is required to request comments from the public about what issues should be part of the analysis.

DOE is holding public meetings in or near the 11 sites that are potential candidates for the siting of GNEP facilities, which include:

- a spent fuel storage facility,
- a reprocessing plant (DOE is calling it a “nuclear fuel recycling center”), and
- a fast reactor (DOE is calling it an “advanced recycling reactor”).

DOE is also proposing to build a research facility for developing the reprocessing technology and fuel for the fast neutron reactor at one of six potential sites (DOE is calling it an “advanced fuel cycle research facility”).

Comments can be made orally at these meetings and/or submitted in writing to Mr. Timothy A. Frazier, GNEP PEIS Document Manager, Office of Nuclear Energy, U.S. Department of Energy, 1000 Independence Avenue, SW, Washington, DC 20585-0119. The best way to get your comments to DOE is to e-mail Mr. Frazier at GNEP-PEIS@nuclear.energy.gov. Mark envelopes, faxes, and e-mail: “GNEP PEIS Comments.”

How Did My Community Become a Candidate Site for GNEP facilities?

At none of the 11 sites that are potential candidates for the siting of GNEP facilities did community members apply to be a spent fuel waste storage site or to host a reprocessing plant or fast reactor. It depends on the site, but the applicants range from elected officials to industry development councils to for-profit companies. *As part of the applications, the applicants agreed that the community would be willing to be indefinite storage sites for spent fuel.* When community members requested copies of the applications that were submitted in their name, they were denied by the U.S. Department of Energy and by the entities that applied.

What Must DOE Consider in its PEIS?

DOE's proposed scope and environmental issues of its Programmatic Environmental Impact Statement (PEIS) is woefully inadequate. DOE is proposing to dramatically limit its analysis, so that it does not have to address the full environmental impacts of the entire GNEP program, as required legally in a PEIS. The law requires that DOE evaluate all of the phases of the GNEP proposal. Tell DOE that it must consider the following issues:

Waste streams:

- All environmental, safety, and security impacts from the *indefinite* storage of U.S. and global spent nuclear fuel and radioactive waste at all reprocessing facilities.

- Analysis of how DOE is going to manage and protect the public and workers from the numerous radioactive and non-radiological releases and waste streams that result from reprocessing. These waste streams include:
 - Plutonium
 - Americium, curium, neptunium and other radioactive transuranics
 - Radioactive lanthanides, which are long-lived radionuclides
 - Uranium, which is long-lived radioactive and chemically toxic waste
 - Liquid low-level waste
 - Strontium and cesium, highly radioactive elements that DOE is proposing to store aboveground at the reprocessing facility
 - Technetium and other long-lived radioactive fission products
 - Krypton gas, which must be captured so that it is not released into the air
 - Radioactive iodine
- All impacts of emissions on air, land, and water quality at ALL of the facilities that GNEP would require, not just the three facilities that DOE is proposing to build now.
- Impacts on Native Americans, people of color and low income communities, including health, economic, cultural and archaeological, from all potential GNEP facilities, including on spent fuel storage facilities, reprocessing facilities and fast reactors, and from transportation.
- Impacts on flora and fauna of the region from ALL of the sites that would be impacted by all of the GNEP facilities, including all of the reprocessing plants, fast reactors, and fuel fabrication facilities required to fully implement GNEP.

Cost:

- Total lifecycle cost of the entire GNEP proposal, including all of the reprocessing facilities, fast reactors and fuel fabrication facilities, required to fully implement GNEP. This analysis must include clean-up of the reprocessing facilities, as well as decommissioning of fast reactors and fuel fabrication facilities. DOE has estimated that cleaning up the reprocessing waste from Cold War bomb production at Savannah River Site in South Carolina, Hanford in Washington, and Idaho National Environmental Laboratory in Idaho will cost over \$100 billion. DOE has not publicly given an estimate of the lifecycle cost of the reprocessing since it retracted its 1999 estimate of \$280 billion over 117 years.

Nuclear Weapons Proliferation:

- Impact on U.S. and global security from promoting reprocessing in selected countries. Reprocessing would result in separating plutonium that could be used to make nuclear bombs. GNEP would be a dramatic reversal of long-standing, successful U.S. practice. No new non-nuclear weapon countries have started reprocessing since the U.S. halted its program 30 years ago. The U.S. policy was a very important factor in why Argentina, Brazil, South Korea and Taiwan did not pursue reprocessing. The mere discussion of GNEP and of resuming reprocessing in the U.S. has already encouraged South Korea to reconsider.
- Impact on U.S. and global security from disseminating technologies and training experts on reprocessing technologies. This expertise and equipment could significantly reduce the time and cost to convert a civilian spent fuel program to a nuclear weapons program.
- Impact on U.S. and global security from separating plutonium or a mix containing plutonium that could be diverted or stolen by terrorist groups. Reprocessing will increase the amount of

bomb-usable material that could be stolen by terrorists. Reprocessed plutonium is much easier to steal compared to plutonium that is kept in highly radioactive spent fuel.

- Impact on U.S. and global security from using reprocessing technology that are not significantly different from the technology that was used to separate plutonium for nuclear weapons. The technologies that DOE is researching do not provide close to the same radioactive barrier of spent fuel.
- Impact on the Nuclear Nonproliferation Treaty (NPT), which commits the nuclear weapons states to get rid of their nuclear weapons. GNEP proponents claim that GNEP would create a regime in which the nuclear weapons states, plus Japan, Canada and possibly selected others, have the right to reprocess, while the rest of the world foregoes reprocessing. The reality is that the NPT is already weakened because the nuclear weapon states have not complied with their obligations. GNEP proposes to further segregate the “haves” and the “have nots,” and has already met with international criticisms. Not surprisingly, several countries have expressed interest in being “supplier” nations that reprocess, rather than volunteering to be “recipient” nations that forego reprocessing.

Terrorism and Accidents:

- All impacts from a terrorist attack or sabotage on all of the facilities required for fully implementing GNEP, including spent fuel storage facilities, reprocessing facilities, and fast reactors.
- All impacts from an accident at all of the facilities required for fully implementing GNEP, including spent fuel storage facilities, reprocessing facilities, and fast reactors.
- All impacts from transportation of fresh fuel, spent fuel, and all GNEP waste streams both within the U.S. and globally, including from terrorism and accidents on those transports.

Other comments:

- DOE is incorrectly using the word “recycling” to describe “reprocessing.” DOE conducted a focus group study that concluded the public had no idea what GNEP is, but fully supported “recycling.” The focus group also concluded that “the absence of information suggested that something was being hidden.”

What Alternatives Must DOE Consider in its PEIS?

As part of the NEPA process, DOE must analyze a “No Action” alternative. DOE is proposing that the alternative to the GNEP program is to continue current research on reprocessing and to store waste at reactor sites (where it is currently located) until direct disposal of spent fuel in a geologic repository is available. On-site storage makes sense. It is vital, however, that the spent fuel be safeguarded from terrorist attack while at reactor sites. Clearly, DOE is not ready to start construction of a reprocessing facility and a fast reactor, when at the same time it is proposing to build a *research* facility for reprocessing technologies and fast reactor fuel. It would be a huge waste of your taxpayer dollars to build these huge plants with immature and polluting technologies, while leaving spent fuel vulnerable to terrorist attack.

For more information, contact:

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