Burnell, Scott

To: jgorman4@hotmail.com
Subject: RE: Your letter to Chairman Jaczko

Jeremy W. Gorman
343 Haystack Rd.
Wilmington, VT

Mr. Gorman;

Thank you for your letter to Chairman Jaczko regarding nuclear power. Please keep in mind the NRC's mission involves protecting public health and safety, as well as the environment, from radiation hazards during civilian uses of nuclear materials. The NRC plays no role in promoting or restricting consideration of nuclear power; rather, the agency determines whether a proposed reactor (or other use of nuclear material) would be safe. The Department of Energy (DOE) is responsible for determining U.S. policy regarding energy sources, including nuclear power.

With regards to the current fleet of U.S. reactors, about half of them were completed and went into operation after the 1979 Three Mile Island accident. The last U.S. reactor to begin operating was the Tennessee Valley Authority's (TVA) Watts Bar Unit 1, in Spring City, Tenn., in 1996. The TVA recently restarted construction of Watts Bar Unit 2, which had been maintained in an unfinished state since 1996. If the Nuclear Regulatory Commission's requirements are met, Watts Bar Unit 2 could begin operating in the next few years. The NRC is also reviewing 12 applications for brand-new reactors at sites from Texas to New York. These applications, if approved, would grant permission to build and operate up to 20 additional reactors, using advanced designs that meet NRC's safety standards. The NRC also expects to see applications in the next few years for small, modular reactor designs.

The DOE has requested additional loan guarantee authority and funding to support small modular reactors from Congress. DOE has also funded the Megatons to Megawatts program for several years; this effort has turned thousands of uranium-based warheads into thousands of tons of reactor fuel. The NRC is currently considering an application from DOE to operate a mixed-oxide fuel fabrication facility in South Carolina, in order to transform plutonium warhead material into reactor fuel.

Thorium is one of the nuclear materials the NRC has jurisdiction over, if it were to be used as reactor fuel. The NRC has yet to see any applications for a thorium-based reactor or related technology.

Spent nuclear reactor fuel contains a variety of highly radioactive isotopes that must be kept isolated from the environment. Current U.S. policy regarding spent fuel calls for DOE to build and operate a permanent storage site, which the NRC would license and oversee. It remains to be seen where such a site would be located.

The DOE's Office of Nuclear Energy is an information source you might consider when examining DOE nuclear power programs. Please let me know if you have any additional questions regarding NRC activities. Thank you.

Scott Burnell
Public Affairs Officer
Nuclear Regulatory Commission