

From: Araguas, Christian
Sent: Wednesday, June 27, 2012 11:06 AM
To: richard.yarnell@gmail.com
Subject: NRC Response To Your Pebble Bed Reactors Inquiry - Dated May 23, 2012

Mr. Yarnell,

I am responding to your email dated May 23, 2012, to Chairman Gregory Jaczko of the US Nuclear Regulatory Commission (NRC).

As a regulatory and licensing agency, the development and promotion of specific technologies or designs is not an NRC activity but instead is the role of the private sector, the Department of Energy (DOE), and other organizations. Our role is to prepare for expected design and licensing applications by developing review guidance for our staff, application guidance for potential applicants, and by identifying and resolving policy and technical issues related to the subject reactor designs. Information from sources such as vendors, energy companies, and DOE are used to develop plans and budgets that will identify which reactor designs we include in our preparation activities.

To that end, the NRC is currently engaged in activities with designers of various new nuclear reactor technologies. Some examples of these efforts are the NRC's engagement with the DOE on the Next Generation Nuclear Plan (NGNP) program (high temperature gas-cooled reactors), with designers of integral pressurized water reactors (e.g., small modular light water reactors), and with designers of other Generation IV reactor designs (e.g., sodium-cooled fast reactors).

The NRC's involvement in the NGNP program was driven by the Energy Policy Act of 2005. In the Act, Congress directed DOE to establish the NGNP Project with a goal to develop and operate a prototype modular high temperature gas-cooled reactor (HTGR) by 2021. Congress also directed the NRC to work with DOE to establish safety standards and licensing criteria appropriate to pebble-bed and prismatic-block modular HTGRs. Prior to the NGNP program, the NRC had interactions with Pebble Bed Modular Reactor (PBMR), Pty, but in their March 26, 2010 letter to the NRC, PBMR stated that their plans were dependent on the NGNP schedule and they did not foresee interactions with the NRC independent of that program.

Last year, the Secretary of Energy wrote a letter to Congress reporting that its NGNP Project was not proceeding as directed because of difficulties in establishing a legislatively required co-funding partnership with private industry. The NRC's plans for future research in this area are contingent on anticipated needs to license a modular HTGR design in the U.S. and, accordingly, on further developments under DOE's NGNP Project.

Additional information on DOE activities is available at (www.ne.doe.gov). Additional information about NRC activities related to advanced reactor designs is available on the [advanced reactor website](#) at the NRC's website (www.nrc.gov).

Christian Araguas
Technical Assistant
Division of Advanced Reactors and Rulemaking
Office of New Reactors
US Nuclear Regulatory Commission
301-415-3637

Christian.araguas@nrc.gov