

March 25, 2010

CCN 220379

U.S. Nuclear Regulatory Commission  
Attention: Document Control Desk  
Washington, D.C. 20555

NRC Project #0748

SUBJECT: Contract No. DE-AC07-051D14517 – Next Generation Nuclear Plant Project Submittal – (NRC Project #0748) – Voluntary Response to Nuclear Regulatory Commission Regulatory Issue Summary 2010-03

On February 25, 2010, the U.S. Nuclear Regulatory Commission (NRC) published Regulatory Issue Summary (RIS) 2010-03, “Licensing Submittal Information for Small Modular Reactor Designs” (Ref. a). The RIS seeks voluntary information regarding the content and schedule information for Early Site Permit (ESP), Limited Work Authorization (LWA), Design Certification (DC), and Combined License (COL) application submissions, and any other licensing requests that applicants expect to submit to the NRC in support of the licensing of advanced reactor designs.

This letter provides the voluntary response to NRC RIS 2010-03 for the Next Generation Nuclear Plant (NGNP) Project. The purpose of this response is to make the NRC staff aware of planned NGNP Project licensing activities that will support the future COL application for plant licensing, design, construction, and deployment.

As stated in the Energy Policy Act of 2005, the NGNP Project will “consist of the research, development, design, construction, and operation of a prototype plant, including a nuclear reactor that is based on research and development activities supported by the Generation IV Nuclear Energy Systems Initiative.” The NGNP will be a licensed commercial high temperature gas-cooled reactor (HTGR) plant capable of producing electricity and high temperature process heat for a variety of energy intensive industries.

The NGNP Licensing Strategy *A Report to Congress*, dated August 2008 (Ref. b), provides the overview of the licensing strategy to achieve the objectives set forth in the Energy Policy Act of 2005. The licensing strategy was jointly developed and submitted to Congress by the NRC and the Department of Energy (DOE). The NGNP Project team then developed a more detailed description of the project actions to be taken to implement the Licensing Strategy. This description is contained in the NGNP Licensing Plan (Ref. c), which was issued in June 2009. Implementation of this Plan is underway and forms the basis for much of this RIS response.

Going forward, the DOE is implementing the NGNP Project in two phases. Phase 1, which is currently in progress, is comprised of ongoing research and development, completion of conceptual design activities, and development of licensing requirements for the HTGR design. At the conclusion of Phase 1, which is expected to occur near the end of FY 2010, the Secretary of Energy will review project progress and determine whether the NGNP Project should proceed to Phase 2. This determination is expected to occur in the second quarter of FY 2011. Phase 2 comprises detailed design activities, license application submittal and review, and construction that would lead to the operation of a demonstration plant capable of producing hydrogen, electricity, and/or process heat.

Document Control Desk  
March 25, 2010  
CCN 220379  
Page 2

DOE will use the information and data gathered in Phase 1 as a basis for determining whether the project should continue to Phase 2. Since the primary purpose of this RIS response is to aid NRC in establishing resource requirements for FY 2012 and beyond, the information provided in Enclosure 1 to this letter is based on the assumption that the Secretary will determine that Phase 2 should proceed.

Enclosure 1 provides the NGNP Project response entitled, Next Generation Nuclear Plant Project Submittal (NRC Project #0748), Voluntary Response to Nuclear Regulatory Commission, RIS 2010-03.

If you have any questions, please contact me at (208) 526-6063 or James Kinsey, Director of NGNP Regulatory Affairs, at (208) 569-6751.

Sincerely,



Greg Gibbs, Project Director  
Next Generation Nuclear Plant Project

JK:CN

Enclosure:

1. Next Generation Nuclear Plant Project Submittal (NRC Project #0748), Voluntary Response to Nuclear Regulatory Commission, RIS 2010-03

- References:
- (a) NRC Regulatory Issue Summary 2010-03, Licensing Submittal Information for Small Modular Reactor Designs, dated February 25, 2010
  - (b) Next Generation Nuclear Plant Licensing Strategy, A Report to Congress, dated August 2008
  - (c) Next Generation Nuclear Plant Licensing Plan, PLN-3202, dated June 26, 2009

cc: <u>DOE-HQ</u>	<u>DOE-ID</u>	<u>INL</u>	<u>NRC</u>
T. L. Cook	M. L. Adams, (w/o Enc.)	J. Alvarez, (w/o Enc.)	J. R. Jolicoeur
T. J. O'Connor	C. P. Fineman	A. Clark, (w/o Enc.)	M. E. Mayfield
J. Zamore	R. V. Furstenuau	J. J. Grossenbacher, (w/o Enc.)	W. D. Reckley
	A. J. Kraupp, (w/o Enc.)	D. J. Hill, (w/o Enc.)	J. F. Williams
	G. R. McClellan	L. A. Sehlke, (w/o Enc.)	
	S. M. Olson, (w/o Enc.)		