

July 25, 2011

Mr. Jim Kinsey
Director, Regulatory Affairs
Next Generation Nuclear Plant Project
Idaho National Laboratory
P.O. Box 1625
2525 North Fremont Ave
Idaho Falls, ID 83415

SUBJECT: NEXT GENERATION NUCLEAR PLANT - REQUEST FOR ADDITIONAL
INFORMATION LETTER NO. 003 REGARDING NEXT GENERATION
NUCLEAR PLANT FUEL QUALIFICATION AND MECHANISTIC SOURCE
TERMS

Dear Mr. Kinsey:

On July 21, 2010, Idaho National Laboratory (INL), Next Generation Nuclear Plant (NGNP) Project, submitted white papers, CCN 221270 and CCN 22171, "Fuel Qualification and Mechanistic Source Terms," requesting that the Nuclear Regulatory Commission (NRC) staff review these documents to facilitate resolution of key design, safety, and licensing issues.

The NRC staff and its contractor have identified the need for additional information to continue portions of the review. The requests for additional information (RAIs) are contained in the enclosures to this letter. Each RAI in the enclosure opens with a concise statement of the information being requested and adds comments as needed to clarify content and context. The expectation is that responses to interrelated RAIs will be duly coordinated, and that in some cases sets of related RAIs may best be addressed in combination by a single integrated response.

All of the enclosed RAIs are based on reviewing the Fuel Qualification (FQ) white paper. Because FQ is largely a subtopic of Mechanistic Source Terms (MST), each RAI is designated as applying to MST as well as to FQ. RAI responses should thus duly consider ramifications in the contexts of both white papers.

On May 3, 2011, INL provided supplemental information on the NGNP Project's evolving approaches to pebble-bed fuel qualification and testing. While the staff understands that ongoing evolutions will call for substantial revisions to affected portions of the white papers, the enclosed RAIs reflect the information and objectives presented in the white papers as

J. Kinsey

- 2 -

submitted. The expectation is that the Project's RAI responses will note such evolutions where appropriate.

Should you have questions, please contact me at (301) 415-1470 or Joseph.Williams@nrc.gov.

Sincerely,

/RA/

Joseph F. Williams, Sr. Project Manager
Advanced Reactors Branch 1
Advanced Reactor Program
Office of New Reactors

Project No.: 0748

Enclosure:

1. Request for Additional Information on NGNP
Fuel Qualification and Mechanistic Source
Terms White Papers

J. Kinsey

- 2 -

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NAME	JShea (JWilliams for)	DCarlson	JWilliams	TKevern
DATE	07/25/2011	07/22/2011	07/25/2011	07/25/2011

*Approval captured electronically in the electronic RAI system.

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