

From: Kevin Ramsey
To: Judy Muszkiewicz
Date: 1/14/05 10:42AM
Subject: Summary of 1/5/05 call with Idaho State University

Judy - Please docket this as publicly available. SISP Review Complete.

On January 5, 2005, a conference call was conducted concerning a request from Idaho State University (ISU) to amend NRC License SNM-1373 (Docket 70-1374). The following individuals participated:

Kevin Ramsey, NRC
Kevin Morrissey, NRC
Dr. John Bennion, ISU

The participants discussed requests for additional information that NRC intends to send to ISU. Many of the questions involve clarifying the difference between commitments for the existing the existing activities and commitments for the proposed, new activities.

During a discussion of the proposed activities at the Idaho Accelerator Center, Dr. Bennion stated that the computer model results submitted with the application represented the most reactive core configuration (i.e., an optimized model). The licensee performed a sensitivity study to determine the configuration with the maximum k-effective. This is a new core configuration that hasn't been used in previous experiments. The use of graphite as a core reflector is new. When asked how many different configurations the licensee expects to use, Dr. Bennion said it was difficult to specify a number. Changes to the core configuration will depend on experiment results and evolving issues. It was noted that only fuel plates will be moved. The target remains stationary.

Dr. Bennion noted that the computer model results are used as a guide. Criticality safety is assured with actual measurements as the core is assembled. If the measurements indicate that k-effective will exceed 0.94 before all fuel plates have been added to the core, the licensee will stop adding fuel plates and conduct the experiments with the core assembled to that point.

During a discussion of impact the accelerator has on k-effective, Dr. Bennion noted that k-effective depends on the fuel present, not the neutron source. The accelerator has no impact on k-effective because it provides a neutron source only.

During a discussion of the verification and validation of the MCNPX computer code, Dr. Bennion noted that the version used by the licensee comes from Los Alamos. He agreed to run test cases to validate the code and provide the results to NRC.

During discussion of the transport container, Dr. Bennion explained that the container only holds 10-15 fuel plates. It will take several trips to move the entire assembly to the Accelerator Center. Dr. Bennion stated that transportation of the fuel plates to the IAC would be performed using previously approved procedures and that no new processes or procedure modifications would be needed to transport fuel to the IAC for the experiments.

Kevin Ramsey explained that the request for additional information will ask for a response within 30 days. Dr. Bennion said responding within 30 days shouldn't be a problem.

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CC: John Bennion; Kevin Morrissey

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