20 October 1999

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Theodore Michaels
U.S. Nuclear Regulatory Commission
Office of Nuclear Reactor Regulation
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Mr. Michaels:

Pursuant to 10CFR50.59(b), the following changes are being submitted for the Kansas State University TRIGA Mark II Nuclear Reactor (License R-88, Docket 50-188) for the period 1 October 1998 to 30 September 1999. As appropriate, these changes were reviewed by either the Reactor Staff, the Reactor Safeguards Committee (RSC), or the Nuclear Regulatory Commission (NRC). Some of the changes are not reportable, although they are presented for completeness.

A. Changes in Facility

The HVAC system in Ward hall has changed drastically in the month of January. The reactor bay air system is now to be held at a negative pressure with respect to the rest of the building by an exhaust fan mounted at the roof of the building. Monitoring of reactor bay air is to be performed with an Eberline AMS-4 air sampling system that measures particulate, iodine and noble gas concentrations in the air. Should the detectors alarm, the exhaust fan shuts down automatically. This system was installed in early January, old bay ventilators were sealed off, and the exhaust fan was activated on 6 January 1999. A report about these changes was sent to Mr. Ted Michaels at the NRC on 15 January 1999.

License amendment number 11 was approved by the NRC on 28 October 1998, removing License Condition 3E, which required that a physical security plan be maintained. We are still maintaining our plan, it is simply no longer reportable.

Several personnel changes have occurred at the facility. The position of Nuclear Engineering Program Director was discontinued in September 1998, resulting in license amendment number 12, approved by the NRC 21 December 1998. The head of the reactor Safeguards Committee is now the Mechanical and Nuclear Engineering Department Head. The facility was also faced with the loss of its reactor manager. A search for a new manager continues, while interim operations are under the supervision of the Department Head, acting as reactor manager.

On 17 June 1999, a core reload was performed, resulting in the removal of the last aluminum (Mark II) fuel element. Our safety margins have been increased significantly due to the change in fuel, as the new fuel has a different zirconium to hydrogen ratio that insures its safety at higher temperatures than the older fuel. The assorted paperwork necessary for re-licensing is currently in progress, as re-licensing occurs in 2001.

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B. Changes in Procedures

Due to the changes in RSC personnel, our internal Reactor Administrative Plan, Radiation Protection Plan and Operations Manual are currently being modified. They will be submitted to the RSC for approval before implementation.

Our Emergency Plan and Procedures have been revised and approved by the RSC. The plan is currently being reviewed for approval by the NRC. These changes were made to bring the Plan up to date with current regulations, as well as reflect the personnel changes to the RSC and administration. It will be implemented upon NRC approval.

Procedure 8: *Calibration of Continuous Air Monitors* was changed to reflect the use of the new air monitoring system. It was approved by the RSC on 2 July 1999.

A new procedure, Procedure 25: *Removal of Residual RSR Oil* was written to facilitate upcoming efforts to clean old lubricant out of our Rotary Specimen Rack. As the reactor has been operated for many years, this oil has built up in the RSR housing, often making it difficult to operate, and occasionally contaminating sample vials. The cleanup of the RSR is planned for this year.

C. Changes in Experiments

There have been no changes to any Experiments in the past year. We are planning more radiography in the next year, and are currently working on a design for a new beam collimator.

Sincerely,

Stephanie Sharp, Reactor Supervisor

For

J. Garth Thompson, Reactor Manager,
KSU Nuclear Reactor Facility