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Mr. Micheals:

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 1997 to 30 September 1998. 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

An unirradiated instrumented fuel element was transferred to the University of Texas-Austin on 15 June 1998 to replace a failed element at their facility. Another unirradiated standard element was transferred to the Idaho National Engineering Laboratory on 22 July 1998. This second transfer is a temporary loan to allow calibration of fuel monitoring equipment to be used in the receipt of foreign reactor fuels. The Department of Energy (DOE), the actual owner of the fuel, handled both transfers. Each transfer was reported both to the NRC and to the Nuclear Materials Safeguards System on the action date.

The plumbing in the makeup water system was modified to eliminate pump-priming problems. This system feeds water from the still to either the reactor tank or the bulk shield tank and also serves to recirculate the bulk shield tank water. The modifications were inspected by the RSC on 17 February 1998 and found to be complete.

As per the approval* of the Reactor Safeguards Committee on 17 February 1998, the bulk shield tank was drained, stripped, sealed, and repainted during August 1998. The repairs have eliminated leakage from the tank. Repairs were inspected by the RSC on 24 September 1998 and found to be satisfactory.

On 22 September 1998, the Department Head informed the Reactor Facility Manager of the discontinuance of the Nuclear Engineering Program Director position. The Department head agreed to assume the responsibilities of the Director's position and to complete the required radiation safety training. A license amendment has been requested from the NRC on 25 September 1998, after discussion with the RSC on 24 September 1998. A response to this request has not yet been received.

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A revised Safety Analysis Report is in progress to support re-licensing efforts. Aluminum-clad fuel is currently being replaced with stainless steel-clad elements, with the one remaining aluminum element to be replaced in the summer of 1999. This will greatly increase the safety margin for the facility due to the higher yield strength and melting point of stainless steel. A new air monitoring system is on order that will feature particulate, radioiodine, and noble gas detection. This will greatly enhance air monitoring during both normal operations and emergency conditions.

B. Changes in Procedures

Consistent with the creation of the Reactor Manager position, the internal Reactor Administrative Plan, Radiation Protection Plan, and Operations Manual were modified and approved* by the RSC on 13 November 1997, 17 February 1998, and 13 November 1997, respectively. Similar changes were made to the Physical Security Plan, a copy of which was sent to the NRC for review on 19 June 1998. A follow up copy was sent on 13 August 1998 with a more detailed description of the changes, along with a request to make the Physical Security Plan an internal document to the facility. NRC response has not yet been received. The Radiation Protection Plan was also modified by approval* to include the $10 \text{ mrem}\cdot\text{y}^{-1}$ constraint on air emissions on 17 February 1998.

Revision of the Emergency Plan was approved by the RSC* on 24 September 1998 to implement the aforementioned personnel changes, as well as changes in the classification scheme by the NRC. The Emergency Procedures associated with this plan are being rewritten as well. The Procedures Section is delayed awaiting receipt of a new air monitoring system. After these changes are approved* by the RSC, a copy will be sent to NRC for review before being implemented.

Procedure 8: *Calibration of Continuous Air Monitors* was revised to use current EC values instead of MPC's. This revision was approved* by the RSC on 24 September 1998. Procedure 9: *Entrance to the Reactor Bay - Visitor Control* was modified to require that tours conducted outside of normal business hours require the approval of the Reactor Manager or designee. This modification was approved* on 24 September 1998.

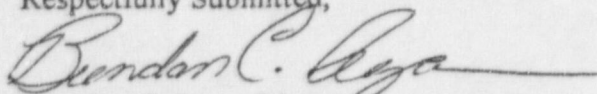
C. Changes in Tests or Experiments

No new experiments or tests were proposed during this period. However, Experiment 34: *Cadmium Covered In-Core Irradiation* was re-supported for use in Ar-geochemistry measurements. Formal approval* was given on 22 August 1998. To ensure familiarity, a formal review was conducted before revitalizing the procedure. No unreviewed safety questions were discovered during this review on 24 September 1998.

* Approval of the Reactor Safeguards Committee signifies that the proposed changes do not involve any unreviewed safety questions, and that their implementation does not represent an increase in the risks to personnel or reactor integrity.

**Approval signifies that the change(s) were submitted to and approved by the Nuclear Regulatory Commission by either license amendment or confirmatory letter.

Respectfully Submitted,



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