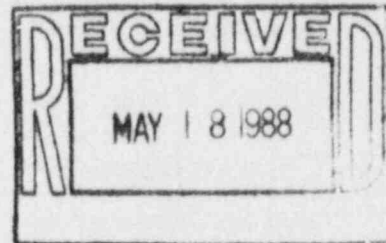




Department of Nuclear Engineering

Ward Hall
Manhattan, Kansas 66506
913-532-5624



May 11, 1988

U.S. Nuclear Regulatory Commission
Division of Reactor Projects
ATTN: L. J. Callan, Director
611 Ryan Plaza Drive, Suite 1000
Arlington, TX 76011

Re: License R-88
Docket 50-188/88-01

Gentlemen:

This is in response to your letter of 19 Apr 88 dealing with the inspection of 8-10 Mar 88 conducted by Messrs. G. A. Pick and R. J. Evans of your office. Responses to notices of violation and deviation are attached.

Sincerely,

Richard E. Faw, Director
KSU Nuclear Reactor Facility

REF/cs

cc: Reactor Safeguards Committee

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Response to Notice of Violation

Kansas State University
Kansas State University Nuclear Reactor Facility

Docket 50-188/88-01
License R-88

Notice

The code of Federal Regulations, 10 CFR 55.53(e) requires that operators shall actively perform a minimum of 4 hours of licensed operator activities per calendar quarter at a research reactor. If this requirement is not met, 10 CFR 55.53(f) requires that before resumption of functions authorized by a license issued under this part, an authorized representative of the facility licensee shall certify the following:

- (1) That the qualifications and status of the licensee are current and valid; and
- (2) That the licensee has completed a minimum of 6 hours of shift functions under the direction of an operator or senior operator as appropriate and in the position to which the individual will be assigned. The 6 hours must have included a complete tour of the plant and all required shift turnover procedures.

Contrary to the above, during the third calendar quarter in 1987, a licensed senior operator performed licensee functions for only 2 hours. The senior operator during the fourth calendar quarter in 1987 performed active license functions without being under the direction of another licensed individual.

Response

It is admitted that a technical violation occurred despite good-faith efforts to meet requirements of new regulations and guidelines issued within and just prior to the time periods identified in the citation.

During the third calendar quarter of 1987, it was recognized that the license of one of our senior operators was not active, although all requalification requirements had been met. We were aware that meetings were held in April 1987 concerning revisions of 10CFR55, we were not aware of the date of effectiveness. Therefore we contacted the Region IV Office of the NRC on 31 Aug 87 to inquire about new requirements for license reactivation. Efforts were undertaken in the third and fourth calendar quarters of 1987 to reactivate the license. These efforts were not completed, and no claim was made that the license was active. Efforts were resumed in the first calendar quarter of 1988 to reactivate the license and were successful.

As to the operations performed in the third calendar quarter of 1987, these were not considered by us to be "active license functions." Rather, they were based on our interpretation of 10CFR55.53(f), specifically the words, "... under the direction of an operator or senior operator as appropriate." To us, appropriate direction of an operator at a research reactor facility, having met all requirements of the requalification program and seeking to reactivate an operator license, required supervision by but not the continuous presence of a senior reactor operator. Indeed, we were pleased that the newly issued

Response to Notice of Violation (cont'd.)

version of 10CFR55 seemed to give more flexibility to reactor facility management than did the older version of 10CFR55.

Reasons for the Violation

Misinterpretation of the wording of 10CFR55.53(f).

Corrective Steps

We now interpret 10CFR55.53(f) to mean that appropriate direction implies that continuous presence of a reactor operator is required.

Date of Full Compliance

We are now in full compliance with 10CFR55.53(f).

Response to Notice of Deviation

Kansas State University
Kansas State University Nuclear Reactor Facility

Docket 50-188/88-01
License R-88

Notice

The Hazard Summary Report, Section II.7.0, Operations logbook, Step 2, states "All scrams and their cause as well as malfunctions of equipment must be entered in the logbook in red."

In deviation from the above, the licensee was found to have highlighted in red only one of ten equipment malfunctions, between the dates May 1986 through March 8, 1988. (188/8801-01).

Response

We acknowledge a difference of opinion as to the intent of Section II.7.0, Step 2 of the Hazards Summary Report. We believe that the "red ink" feature of Step 2, taken not as an isolated sentence but in the context of the entire section, relates to unintentional scrams or equipment malfunctions during operation which challenge safety limits or limiting conditions for operation. We assert that intentional scrams, often generated for operational* or training purposes, need not be entered "in red." Further, we assert that there is a substantial distinction between malfunction of safety-related equipment during operation and circumstances of equipment, either redundant or not required for operation, being out of service awaiting repair or replacement.

Entering unintentional scrams "in red" has been very effective in alerting inspectors of potential problems in operations or indeed in identifying problems in equipment performance. So far as we can recall, intentional scrams have never been logged "in red" during the past twenty-five years of reactor operations. To have done so would have negated the intent of the Hazards Summary Report and prevented real problems from being identified. Similar arguments can be made for not logging "in red" items of non-essential equipment "out of service." We urge that you reconsider your position on this point. We suggest that the intent of the Hazards Summary Report will be met and that public safety will be served best if, in Section II.7.0, Step 2, the term "scrams" be interpreted as "unintentional scrams" and the phrase "malfunctions of equipment" be interpreted as "operational malfunctions of essential equipment."

*For many years, the only way of inserting the safety rod into the reactor core was to perform an intentional scram.

Response to Inspection Report

Kansas State University
Kansas State University Nuclear Reactor Facility

Docket 50-188/88-01
License RSS

Item: Logs and Records

Response

Monthly operations reports are documents prepared for internal use by the Facility management and the Reactor Safeguards Committee. They have been offered to NRC inspectors as a convenience to their activities. Reports are prepared by the Reactor Supervisor or his designee and transmitted to the Facility Director.

Of the four "administrative errors" mentioned, one was a typographical error so obvious as to be ignored by the Director. Three were deliberate omissions on the part of the Supervisor, to signal that actions were called for by the Director. After the actions were completed, their dates of completion were recorded in the subsequent monthly reports, a process perfectly acceptable to us in conducting our internal business.

Item: Review and Audit

Response:

The statement that "The Facility Director . . . did not appear to have a working knowledge of 10CFR50.59" is unsupported and, we believe, unsupportable. It is a gratuitous indictment of the Facility management that cannot be left unchallenged. If, indeed, the Facility Director is deficient in this knowledge, central to his responsibilities, then evidence should be brought before University officials so that the evidence and its rebuttal could be considered objectively and, if appropriate, disciplinary action taken.

Item: Experiments

Response:

This concerns limits imposed by Experiment 1. To be sure, the experiment limits the mass of an unknown target to 100 mg and requires that calculations of estimated induced source strengths be recorded in the Byproducts Log (Form KSUTMII-4). Instructions in the Byproduct Log do indeed provide written guidance that samples of unknown composition not be irradiated for more than one minute at 100 watts thermal power. That the staff choose to follow more restrictive practices than required by the Safeguards Committee does not require that the more restrictive practices be "hardened" by their incorporation into a procedure. There are many instances of Safeguards Committee requirements being more restrictive than NRC regulations or Technical Specification requirements. There seems to be no reason why operations staff cannot follow guidelines more restrictive than those imposed by the Reactor Safeguards Committee.