

Center for Excellence in  
Nuclear Technology, Engineering, and Research

50-407

November 2, 1998

Nuclear Regulatory Commission  
Document Control Desk  
Washington, DC. 20555

RE: Changes to Technical Specifications of Lic. No. R-126

Document Control Center

In an inspection of the our 100 kW nuclear reactor license no R-126, two confusing passages were pointed out that could be interrupted differently resulting in questions of compliance. In order to eliminate the confusion associated with these passages, I propose to change the language in the Technical Specifications. The requested changes are listed here followed by a summary of each proposed action and a brief analysis is provided to support the requested change.

In addition, pages containing the existing version, identifying the needed changes, and containing the final version for approval follow this letter.

**1. Proposed Action: change the word "biennial" to "annually" in the specification section of the TS 4.3.3 Radiation Monitoring Systems (page 18)**

Analysis: The specification and basis sections for TS 4.3.3 indicate two different calibration schedules. A biannual calibration is written in the specification section while the basis section notes an annual calibration. Historically, we have done annual calibrations and we will continue that practice.

**2. Proposed Action: change the language to indicate particulate collection is done in the exhaust stack. TS 5.4 Radiation Monitoring System (page 23)**

Analysis: This TS change replaces the present language with a more accurate description of our radiation stack monitoring system. Historically, since the reactor went critical in 1975 particulate measurements have always been taken in the exhaust stack which is less than 10 feet away from the pool. Terms "pool room", reactor room, and crypt are used to define the rooms 1205e, f and g. In addition, area radiation monitors located above and

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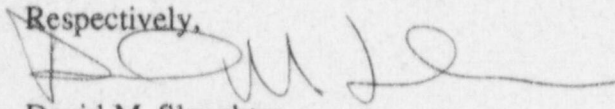
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next to the pool represent a system that is capable of detecting the presence of gamma emitting particulates.

In the current system, all air being discharged from the reactor room pass through HEPA filters. An exhaust sample, extracted from the down-stream side of the HEPA filter, is used to determine if any radioactive particulates are being released to the surroundings. This approach is more conservative then our past particulate monitoring and control systems. In the previous design, HEPA filters were engaged only if a radiation or safety limit was reached. When the filter was engaged exhaust samples were extracted downstream matching the current set up. Again, this allows the facility personnel to estimate the release to the surroundings.

If there is any additional information concerning my request that you may need, please do not hesitate to call me at (801) 581-8499.

Respectively,

A handwritten signature in black ink, appearing to read "D. M. Slaughter", written over a horizontal line.

David M. Slaughter.  
Reactor Administrator and Supervisor

cc: Marvin Mendonca, U.S. NRC