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CHARLOTTESVILLE, 22901

DEPARTMENT OF NUCLEAR ENGINEERING AND ENGINEERING PHYSICS
REACTOR FACILITY

TELEPHONE: 804-924-7136

July 14, 1978

Division of Reactor Licensing
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555
Attention: Mr. George Lear, Chief
Operating Reactors Branch #3

RE: Docket No. 50-62, License No. R-66
Docket No. 50-396, License No. R-123

Gentlemen:

- A. An amendment is here-by requested for Facility License R-66, Docket No. 50-62 to revise Section 4.1.C of the Technical Specifications concerning visual inspection of the boron-stainless steel safety rods. The present requirement is for the visual inspection of the rods at intervals not to exceed thirteen months or 50 Megawatt-days, whichever comes first.

Over a period of seventeen years and about 275 Megawatt-days of operation, the yearly visual inspection of these rods has shown no evidence of deterioration, swelling, or cracking. The visual inspection requires that each rod be physically removed from the guide tube and lowered into the reactor pool where it is inspected under several feet of water. During the short interval the rod is being removed from the guide tube and prior to being lowered in the water the individual handling the rod is exposed to radiation from the rod. In the past activity from the rods have been 150-200 REM/hr at contact with the individual receiving an exposure of approximately 0.010 Man-rem.

In the near future we expect to be operating on a shift basis for a special series of experiments. Each series of experiments will involve 70 Megawatt-days of operation. Under our present surveillance requirements we would have to shut-down the reactor prior to the completion of an experiment to inspect the rods. Due to the increased power history the rods would have a much higher radiation level than we have experienced previously.

In order to keep exposure to personnel as low as reasonably achievable we hereby request that 4.1.C of the Technical Specifications be amended as follows:

- 4.1.C The Safety rods shall be visually inspected at intervals not to exceed twenty-four months or intervals of 150 Megawatt-days, whichever comes first. If a safety rod is found to be deteriorated or have a crack of more than $\frac{1}{4}$ inch in length, it shall be removed from service.

In our opinion this change does not involve an unreviewed safety question.

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- B. An amendment is also requested for a change in the Technical Specification 1.12 d of the UVAR Reactor, Facility License R-66 Docket No. 50-62 and Technical Specification 1.15 D of the CAVALIER reactor, Facility License R-123, Docket No. 50-396, both of which are the same and concern the definition of an abnormal occurrence. The specification now reads as follows:

1.12 d (UVAR)	Release of fission products from a fuel element.
1.15 D (CAVALIER)	

This specification as worded is unnecessary vague. Many reactors release minute quantities of fission produce activity from irradiation of tramp uranium which can be detected by up to date analysis systems.

We request an amendment to change the specification as follows:

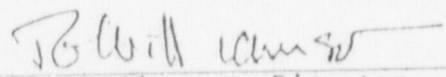
Fission product release from the reactor such that I-131 activity in the pool water exceeds 6×10^{-6} uci/ml.

This value is a factor of ten below the maximum permissible concentration for Iodine-131 for restricted areas. It is a factor of ten above the minimum detectable activity of our instrumentation. We feel this is a reasonable number, easily detected by our instrumentation, and well below the MPC for restricted areas.

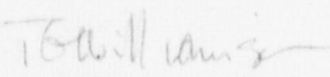
In our opinion this change does not involve an unreviewed safety question.

These changes have been reviewed and approved by our Reactor Safety Committee.

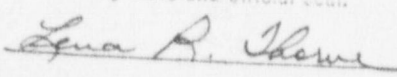
Very truly yours,


T.G. Williamson, Director
Reactor Facility

TGW:vs


Copy signed and notarized 12/18/78

Sworn to and subscribed before me this 18th
day of December, 19 78
Witness my hand and official seal:

 Notary Public

Embossed Hereon is My
Aibemarle County, Va., Notary Public Seal
My Commission Expires January 21, 1979
LENA R. THORNE