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MILLS,L.I REOIP.N. VENTON,H	AME Tennessee Valley Authority AME RECIPIENT AFFILIATION R. Office of Nuclear Reactor Regulation, Dinector
SUBJECT	Forwards addl info supporting 840402 exemption resquest from test interval requirements of 10CFR50, App J, per 840717 telcon, Followup discussions indicate info rebellows & electrical penetrations adecuately resolves NRC concerns. /
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TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401 400 Chestnut Street Tower II

July 25, 1984

Mr. Harold R. Denton, Director Office of Nuclear Reactor Regulation U.S. Nuclear Regulatory Commission Washington, D.C. 20555

Dear Mr. Denton:

In the Matter of the) Docket Nos. 50-260 Tennessee Valley Authority)

By my letter to you dated April 2, 1984, we submitted a request for exemption from the test interval requirements of 10 CFR 50, Appendix J for the Browns Ferry Nuclear Plant unit 2. In a July 17, 1984 telephone conference with members of your staff, we were requested to provide additional information in support of that request. The additional information requested is provided in the enclosure.

This information was provided by facsimile transmission to your staff on July 23, 1984. From followup discussions we understand that the information provided adequately resolves NRC concerns.

If you have any questions, please get in touch with us through the Browns Ferry Project Manager.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

8407

M. Mills

L. M. Mills, Manager Nuclear Licensing

Subscribed and sworn to before 1984. me this $\dot{\alpha}$ day of Notary Public My Commission Expires

Enclosure cc (Enclosure): U.S. Nuclear Regulatory Commission Region II ATTN: James P. O'Reilly, Regional Administrator 101 Marietta Street, NW, Suite 2900 Atlanta, Georgia 30323

Mr. R. J. Clark Browns Ferry Project Manager U.S. Nuclear Regulatory Commission 7920 Norfolk Avenue Bethesda, Maryland 20814 Bethesda, Maryland 20814

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ENCLOSURE ADDITIONAL INFORMATION SUPPORTING REQUEST FOR APPENDIX J EXEMPTION TVA LETTER DATED APRIL 2, 1984 BROWNS FERRY NUCLEAR PLANT

Bellows (32 Bellows Total)

Sixteen (16) bellows located in the steam tunnel cannot be tested because of excessive heat stress. Temperatures in the steam tunnel during operation range from 150 to 160° F. BF 14.42 (stay time for heat stress graph) maximum temperature is 120° F and limits entry time to 10 minutes. The plant superintendent must authorize all entries in spaces where the temperature exceeds 115° F. Per the Safety Engineer, work has been attempted in spaces where the temperature was 160° F and the personnel could not withstand any exposure time. Estimated work times are 1/2-hour to remove each bellows cover, 1/4-hour to set up for each test, and 1/2-hour to replace each bellows cover.

Bellows in this category are:

X-7A IB&OB, X-7B IB&OB, X-7C IB&OB, X-7D IB&OB X-8 IB&OB, X-9A IB&OB, X-9B IB&OB, X-10 IB&OB

Sixteen bellows can be tested, however, 8 of these are in areas where the temperature is expected to exceed 100°F which will present heat fatigue and heat stroke risk situations. Two other bellows are in a high heat and high radiation area (RWCU Hx room) the radiations level in the RWCU Hx room are 200 MR/HR general area with 10 R/HR contact on the RWCU Hx's. Estimated total exposure for the bellows in the RWCU Hx room is 600 MR versus 100 MR when tested during shutdown. The remaining 6 bellows are in relatively moderate heat and radiation areas, however, these bellows will be tested again after shutdown resulting in a doubling of the radiation exposure.

Bellows in high heat stress areas are:

X-11 IB&OB, X-12 IB&OB, X-13A IB&OB, X-13B IB&OB

Bellows in high heat and radiation areas are:

X-16A IB&OB, X-16B IB&OB, X-17 IB&OB,

Electrical Penetrations (32 Total)

Twenty-six (26) electrical penetrations are in relatively moderate temperatures and radiation areas. These penetrations can be tested during operation. However testing these penetrations during operation creates a risk of disrupting steady-state operation, thereby creating a possibility of unnecessary challanges to safety systems.

The electrical penetrations that are testable are:

X-100A, X-110B, X-110C, X-100D, X-100E, X-100F, X-100G, X-102, X-103, X-140A, X-104B, X-104C, X-104D, X-104E, X-104F, X-105D, X-106A, X-106B, X-107A, X-107B, X-108A, X-108B, X-109, X-110A, X-110B, X-219. e hojo i de la companya de la companya

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Six (6) electrical penetrations can not be tested at power. They are on the supply to the recirculation pumps. Power must be removed by opening the MG breakers. Pursuant to current technical specifications, the plant cannot be operated with only one recirculation loop in service for more than .24 hours.

The electrical penetrations that are not testable are: X-101A, X-101B, X-101C, X-101D, X-105B, X-105C.

T.I.P. Penetrations (3 Total)

Can test T.I.P. penetrations. General area is about 50 MR/HR (if T.I.P. have not been moved). Exposure is estimated at 150 MR for testing the 3 T.I.P. penetrations versus 20 MR for testing all 7 T.I.P. penetrations when shutdown. We believe the additional incremental exposure incurred by testing at power is unnecessary and not consistent with ALARA principles. T.I.P. penetrations to be tested are X-35D, X-35E, X-35E.

X-47 Power Operation Test can be tested. Will require about 200 MR total exposure versus 25 MR when tested during shutdown. General area is 200 MR/HR; maximum dose rate is 10 R/HR (on contact) at the RWCU HX.

The 8 shear lug inspections cover hatches can not be tested during operation. The unit will have to be shutdown and the drywell de-inerted before the shear lugs can be accessed.

Valves (66 Total)

Thirty-two (32) values can not be tested because: (1) The unit must be shut down and the containment de-inerted to facilitate access to the values, or (2) the unit must be shut down so that affected systems can be properly vented for testing.

The following valves are in this category:

2-1192, 2-1383, 33-785, 33-1070, 43-13, 43-14, 63-525, 63-526, 71-2, 71-3, 73-2, 73-3, 73-81, 74-54, 74-67, 74-68, 75-25, 75-26, 75-53, 75-54, 76-49, 76-50, 76-51, 76-52, 76-53, 76-55, 76-57, 76-59, 76-60, 76-61, 76-62, 76-67.

Ten (10) values can not be tested because it would required entering a LCO condition of technical specifications in order to perform the local leak rate tests. In addition SIs must be performed on related safety systems in order to prove their operability. Performance of these SIs to accommodate local leak rate testing represents an unnecessary challange to plant safety systems.

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The following valves are in this category: 71-32, 71-592, 73-24, 73-609, 74-71, 74-72, 74-74, 74-75, 75-57, 75-58.

Three (3) values present a potential technical specification problem in that they are part of the drywell $\triangle P$ system which must be inoperative during testing. There is a real risk of problems in maintaining the drywell $\triangle P$ within technical specification limits if those values are tested during operation. These values are 32-62, 32-63, 32-336.

Twenty-one (21) values can be tested during operation, however, these values will be tested again after shutdown in September. This will result in a doubling of the exposure incurred during conduct of the tests.

The following valves are in this category: 2-1143, 12-738, 12-742, 43-28A, 43-28B, 43-29A, 43-29B, 76-17, 76-18, 76-19, 84-8B, 84-8C, 84-8D 84-601, 84-602, 84-603, 90-254A, 90-254B, 90-255, 90-257A, 90-257B.

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