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Karl W. Singer
Vice President, Browns Ferry Nuclear Plant

February 4, 1999

10 CFR 50.12

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555

Gentlemen:

In the Matter of) Docket No. 50-259
Tennessee Valley Authority)

**BROWNS FERRY NUCLEAR PLANT (BFN) - UNIT 1 - REQUEST FOR A
TEMPORARY EXEMPTION FROM THE REQUIREMENTS OF 10 CFR 50.65,
MAINTENANCE RULE**

Pursuant to the provisions of 10 CFR 50.12(a), TVA requests a temporary partial exemption from the requirements of 10 CFR 50.65, Maintenance Rule, for BFN Unit 1. The exemption, if granted, is requested to remain effective until TVA returns Unit 1 to operation.

TVA is requesting this exemption to resolve an issue which was initially raised in NRC Inspection Report 50-259/97-04, 50-260/97-04, and 50-296/97-04, dated May 21, 1997. In the report NRC concluded that, although the BFN Maintenance Rule program was comprehensive and was being effectively implemented, the scope of the program was inconsistent with the requirements of the rule. The NRC staff concurred with this conclusion in a letter dated July 30, 1997.

If NRC approves this request, TVA will continue to implement the current BFN Maintenance Rule program that includes scoping and monitoring of Unit 1 systems, structures and components (SSCs) in a manner appropriate to Unit 1's shutdown and defueled status. This program contains two key elements: 1) an alternative scoping methodology utilized for

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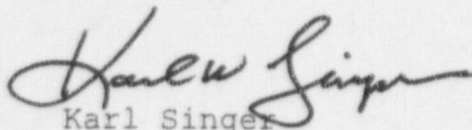
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the Unit 1 SCCs and 2) an explicit program requirement to re-evaluate the scoping of the Unit 1 SCCs if the status of Unit 1 changes. Both of these existing Maintenance Rule program elements were described in a September 29, 1997, letter to NRC.

The enclosure to this letter provides the background and the justification for seeking this exemption.

If you have any questions regarding this exemption request, please contact Tim Abney, Manager of Licensing and Industry Affairs, at (256) 729-2636.

Sincerely,



Karl Singer

Enclosure

cc (Enclosure):

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TENNESSEE VALLEY AUTHORITY
BROWNS FERRY NUCLEAR PLANT (BFN)
UNIT 1

REQUEST FOR AN EXEMPTION IN ACCORDANCE WITH 10 CFR 50.12
FROM THE REQUIREMENTS OF 10 CFR 50.65, MAINTENANCE RULE

Pursuant to 10 CFR 50.12, TVA is requesting a temporary, partial exemption from the requirements of 10 CFR 50.65, Maintenance Rule, for BFN Unit 1. TVA plans to fully implement the Maintenance Rule upon restart of Unit 1.

BACKGROUND

Unit 1 status

Browns Ferry Unit 1 was shut down by TVA in March 1985. It was defueled in late 1985 and put on administrative hold to resolve regulatory concerns. The unit has remained in a defueled condition, and there is currently no defined schedule for restart. The Unit 1 systems that perform a required function in the defueled condition or that directly support Unit 2 or Unit 3 operation are being operated and maintained under applicable Technical Specifications and plant programs. The Unit 1 systems and components that are not required to be operational have been placed in lay-up under a formal lay-up program. In its current long-term defueled and administrative hold status, most of the Unit 1 systems are not required to perform the functions required to be monitored by 10 CFR 50.65(b) and cannot perform these functions due to the lay-up status of the unit.

NRC conducted an inspection of the implementation of the Maintenance Rule at Browns Ferry on April 14-18, 1997. The results of the inspection were documented in NRC Inspection Report 50-259/97-04, 50-260/97-04, and 50-296/97-04, dated May 21, 1997. The inspection report concluded that the BFN Maintenance Rule program was comprehensive and was being effectively implemented. The inspection team also reviewed the actions to implement the Maintenance Rule on Unit 1 and concluded that the actions were technically adequate; however, the team identified one Unresolved Item (URI) which concerned the application of the Maintenance Rule for Unit 1. Subsequently, in a letter to TVA dated July 30, 1997 (Reference 1), the staff

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concluded that the scope of the BFN Maintenance Rule Program for Unit 1 was not consistent with the requirements of the rule. This letter further stated that TVA had three apparent alternatives:

1. Revise the scope of the Maintenance Rule monitoring program for Unit 1 to include structures, systems, and components as specified in paragraph (b) of the rule, or
2. Submit a written certification to the NRC as specified in 10 CFR 50.82(a)(1) that TVA has determined to permanently cease BFN Unit 1 operations, or
3. Petition the NRC for an exemption from the requirements of the rule that are not currently being met.

The staff requested TVA to describe which of the three alternatives it considers to be applicable, or propose another course of action and discuss why that option was consistent with regulatory requirements.

TVA replied by letter dated September 29, 1997 (Reference 2), stating that it did not believe that the selection of any of the above-enumerated alternatives was warranted since TVA's existing program to implement the Maintenance Rule for Unit 1 met the requirements of 10 CFR 50.65.

On January 26, 1998 (Reference 3), TVA met with the staff to further discuss TVA's position regarding this issue. As a result of this meeting, the staff requested TVA to submit its alternate plan for the Unit 1 Maintenance Rule program. On April 3, 1998, (Reference 4), TVA submitted an alternative plan which would have scoped the Unit 1 SSCs in a manner analogous to Units 2 and 3. This plan, however, would ultimately have led to the placing of a large number of Unit 1 SSCs in "a(1)" status, since many of the systems cannot be monitored to prove that they can perform their design function in their current lay-up condition.

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While TVA still believes that the current program meets the requirements of the Maintenance Rule, TVA is submitting this petition for an exemption as proposed by NRC in the July 30, 1997, letter to expeditiously resolve this issue.

The following justification and safety impact assessment are provided in support of this request.

JUSTIFICATION

10 CFR 50.12 authorizes the Commission to grant exemptions from the requirements of the regulations provided that:

- The exemption is authorized by law;
- The exemption does not present an undue risk to the public health and safety;
- The requested exemption will not endanger the common defense and security;
- Special circumstances are present as defined in 10 CFR 50.12 (a) (2).

I. The Requested Exemption is Authorized By Law

The Commission is authorized by law to grant this exemption.

II. The Requested Exemption Does Not Present an Undue Risk to the Public Health and Safety

BFN Unit 1 systems that perform a required function while the unit is in a defueled condition, or which directly support Unit 2 or Unit 3 operations, are currently being operated and maintained under applicable technical specifications and plant programs, including the Maintenance Rule. Appropriate scoping of Unit 1 systems,

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structures, and components (SSCs) into the Maintenance Rule has been performed based on current plant conditions (Unit 1 defueled and in lay-up, Units 2 and 3 in operation). As a result, Unit 1 systems, or appropriate portions thereof, such as Fuel Pool Cooling and Cleanup, Raw Cooling Water, Fire Protection, Reactor and Refuel Zone Ventilation, Radiation Monitoring, Residual Heat Removal, and Reactor Building Closed Cooling Water have been adequately scoped into the BFN Maintenance Rule program.

Unit 1 systems and components that are not required to be operational have been drained, de-energized, disassembled, and placed in dry lay-up under a formal lay-up program as appropriate. Both safety and non-safety-related plant systems are included in this lay-up program which is designed to protect and preserve equipment until Unit 1 is returned to service. The lay-up program is described in plant procedures and includes periodic monitoring of equipment condition and provisions for corrective actions when lay-up criteria are not met.

The current BFN Maintenance Rule Program requires that if Unit 1 conditions change, the affected SSCs will be re-evaluated for 10CFR50.65 applicability. Based on the foregoing, the current maintenance programs in place for BFN Unit 1 maintain and monitor the unit in a manner that fully assures the safety of the unit and appropriately consider the non-operational status of Unit 1. Therefore, approval of the requested exemption will not present an undue risk to the public health and safety.

III. The Requested Exemption Will Not Endanger the Common Defense and Security

The proposed exemption is consistent with common defense and security and is otherwise in the public interest.

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IV. Special Circumstances are Present Which Necessitate the Request for an Exemption to the Regulations of 10 CFR 50.65

TVA believes that special circumstances are present in this instance to warrant exemption from the regulatory requirements of 10 CFR 50.65. Specifically, Sections (ii), (iii), and (v) of 10 CFR 50.12(a)(2) state,

- (ii) "Application of the regulation in the particular circumstances would not serve the underlying purpose of the rule or is not necessary to achieve the underlying purpose of the rule...."

The underlying purpose of the Maintenance Rule is to ensure that structures, systems, and components of nuclear power plants be maintained so that the plant SSCs will perform their intended function when required. Due to the status of Unit 1, defueled and in long-term lay-up, the safety function of many of the systems is not required. Since these systems' safety functions will not be required until restart of the unit, no legitimate purpose would be served in maintaining any present ability to perform their intended function. Indeed, the very status of these SCCs precludes any present ability to perform their intended function. TVA will implement the Maintenance Rule for Unit 1 systems not currently under the scope of the rule at restart.

- (iii) "Compliance would result in undue hardship or other costs that are significantly in excess of those contemplated when the regulation was adopted, or that are significantly in excess of those incurred by others similarly situated;....."

Strict compliance with the 10 CFR 50.65(a)(1)(b) requirement of the rule for timely corrective action would result in unnecessary expenditure of considerable funds and resources to bring equipment

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into conformance with goals related to the intended safety functions of Unit 1 SSCs. Review of the rule and the Statements of Consideration indicate that the application of the rule to a plant in an extended lay-up period was not contemplated.

- (v) "The exemption would provide only temporary relief from the applicable regulation and the licensee or applicant has made a good faith effort to comply with the regulation;....."

The requested exemption would provide only temporary relief from the rule. This exemption is being requested to allow maintenance of BFN Unit 1 under the current programs described above until such time TVA may decide to restart Unit 1.

TVA has implemented a program that is designed to comply with the purpose and intent of the Maintenance Rule for Unit 1. This program, which was described to NRC by letter dated September 29, 1997 (Reference 2), utilizes a scoping methodology which is slightly different than the methodology endorsed by the staff in NRC Regulatory Guide 1.160, "Monitoring the Effectiveness of Maintenance at Nuclear Power Plants." For BFN Unit 1 in its current defueled status, most of the Unit 1 SSCs are not required to perform the functions required to be monitored by 10 CFR 50.65(b) and cannot perform these functions due to the lay-up status of the unit. The Unit 1 systems that perform a required safety function in the defueled condition or that directly support Unit 2 or Unit 3 operation are included in the Maintenance Rule Program as appropriate. The lay-up status of Unit 1 was appropriately recognized and factored into the scoping of Unit 1 SSCs for the Maintenance Rule Program. As stated above, the current Maintenance Rule program also explicitly requires that the scoping of Unit 1 SSCs be re-evaluated if the status of Unit 1 changes.

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ASSESSMENT OF THE SAFETY IMPACT

The approval of this exemption request does not impact the probability of occurrence of any accident. The requested temporary exemption from the Maintenance Rule does not impact any event precursors or event initiators.

The exemption does not create the possibility of a new or different kind of accident from those previously analyzed. The exemption request is administrative in nature. The proposed exemption does not add any new equipment or require any existing equipment to be operated in a manner different from the present design. Plant SSCs will continue to be operated consistent with the SAR analysis for design basis accidents. No operation outside of the existing design basis is introduced by the proposed exemption.

The Maintenance Rule exemption will not physically modify any equipment, setpoints, equipment initiation sequences or safety system redundancy. Therefore, approval of the requested exemption will not involve a significant reduction in the margin of safety.

CONCLUSION

Approval of the exemption request will resolve the open issue associated with the implementation of the Maintenance Rule for Unit 1. The current maintenance programs in place for BFN Unit 1 maintain and monitor the unit in a manner that fully assures the safety of the unit and appropriately considers the non-operational status of Unit 1. These programs continue to meet the full letter and intent of the rule. The proposed exemption poses no risk to the health and safety of the public.

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REFERENCES

1. NRC letter to TVA dated July 30, 1997, Implementation of the Maintenance Rule, 10 CFR 50.65, For Browns Ferry Nuclear Plant, Unit 1
2. TVA letter to NRC dated September 29, 1997, Browns Ferry Nuclear Plant - Unit 1 - Response to NRC Request Regarding Implementation of Maintenance Rule, 10 CFR 50.65 (URI 50-259/97-04-01)
3. NRC meeting summary dated February 6, 1998, Summary of Meeting With Tennessee Valley Authority on Implementation of 10 CFR 50.65 - Meeting of January 26, 1998
4. TVA letter to NRC dated April 3, 1998, Browns Ferry Nuclear Plant - Unit 1 - Revised Response to NRC Request Regarding Implementation of Maintenance Rule, 10 CFR 50.65 (URI 50-259/97-04-01)