

May 1, 2002

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Mr. David Lochbaum  
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Washington, DC 20006-3919

SUBJECT: LICENSE RENEWAL ISSUE: GUIDANCE ON THE IDENTIFICATION AND  
TREATMENT OF HOUSINGS FOR ACTIVE COMPONENTS

Dear Messrs. Nelson and Lochbaum:

The purpose of this letter is to provide you with the opportunity to comment on the enclosed guidance on the identification and treatment of housings for active components. This is consistent with our goal to more efficiently resolve license renewal issues identified by the staff or the industry, as outlined in NRR Office Letter No. 805, "License Renewal Application Review Process." Based on your response to this letter, the staff will decide how to finalize and implement this guidance.

The staff developed this guidance to ensure that screening of housings for active components is conducted in accordance with the requirements of 10 CFR 54.21. We are requesting comments on the proposed guidance and request that you submit a schedule for resolution to ensure a timely closure of this issue. The staff plans to incorporate this position into the improved renewal guidance documents (NUREGs 1800, and/or 1801) in a future update. It is also possible that comparable changes might be needed to NEI 95-10, Revision 3, "Industry Guidance for Implementing the Requirements of 10 CFR Part 54 - The License Renewal Rule." If you have any questions regarding this matter, please contact William Burton at 301-415-2853.

Sincerely,

*/RA/*

Pao-Tsin Kuo, Program Director  
License Renewal and Environmental Impacts  
Division of Regulatory Improvement Programs  
Office of Nuclear Reactor Regulation

Project 690

Enclosure: As stated

cc w/encl: See next page

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## **STAFF POSITION ON SCREENING OF HOUSINGS FOR ACTIVE COMPONENTS**

### 1. BACKGROUND

Section 54.29 of 10 CFR Part 54 (the Rule) states that a renewed license may be issued by the Commission if the Commission finds that actions have been or will be taken with respect to the matters identified in paragraphs (a)(1) and (a)(2) of this section such that there is reasonable assurance that the activities authorized by the renewed license will continue to be conducted in accordance with the Current Licensing Basis (CLB), and that any changes made to the CLB in order to comply with this paragraph are in accord with the Act and the Commission's regulations. These matters include managing the effects of aging during the period of extended operation to assure the functionality of structures and components that have been identified to require review under Section 54.21(a)(1).

The Statements of Consideration (SOC) for the Rule states that the objective of a license renewal review is to determine whether the detrimental effects of aging, which could adversely affect the functionality of systems, structures, and components (SSCs) that the Commission determines require review for the period of extended operation, are adequately managed.

### 2. DISCUSSION

The SOC articulates the underlying philosophy of the Rule that during the extended period of operation, safety-related functions should be maintained in the same manner and to the same extent as during the current licensing term. Aging effects that could adversely impact on the ability of SSCs to maintain these safety-related functions during the extended period of operation should be evaluated.

10 CFR 54.21(a)(1) provides that those components that perform their intended functions without moving parts and without a change in configuration or properties (10 CFR 54.21(a)(1)(i)) and that are not subject to replacement based on qualified life or specified time period (10 CFR 54.21(a)(1)(ii)) are subject to an AMR. Such components are commonly considered as "long-lived" and as performing a passive function. 10 CFR 54.21(a)(1)(i) states that "These structures and components include, but are not limited to, ... pump casings, valve bodies ..." and lists other components that perform passive functions. The examples cited in the license renewal rule illustrate components with significant passive functions.

Section III.f.i(a) of the SOC further explains that major components may have active functions, passive functions, or both, and cites pumps and valves as examples. Pumps and valves have moving parts, but the Commission concluded that the pressure-retaining function performed by the pump casing and the valve body should be subject to an AMR. The SOC further explains that the Commission does not limit the consideration of pressure boundaries to reactor coolant pressure boundary. The exclusion regarding components is focused on active functions rather than on the exclusion of the entire component, while the AMR applies to the passive function of the component.

Enclosure

On this basis, the staff concludes that the discussion of pump casings and valve bodies in both the Rule and the SOC are provided as examples of how an applicant should evaluate housings for active components, and that proper implementation of the Rule requires screening evaluations to consider not just the active component, but the intended function of its associated housing. Specifically, the staff believes that the housings of active components (e.g., housings for fans, dampers, and heating and cooling coils) may perform a critical pressure retention and/or structural integrity function which, should that function not be maintained, could prevent the associated active component from performing its function. Further, if such housings perform these functions and meet the long-lived and passive criteria, then the housings should be subject to an AMR.

### 3. CONCLUSION

On the basis of the Rule and the guidance provided in the SOC, the staff expects applicants for license renewal to identify active component housings which require an AMR. This determination should consider whether failure of the housing would result in a failure of the associated active component to perform its function, and whether the housing meets the long-lived and passive criteria as defined in the Rule.

NUCLEAR ENERGY INSTITUTE

Project No. 690

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