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Comments on the Preliminary Regulatory Philosophy and
Approach for License Renewal Regulation

The Federal Register, Vol. 54, No. 197, dated October 13, 1989 contained a notice of a public workshop on technical and policy considerations related to nuclear plant license renewal. The notice also contained a statement of the Preliminary Regulatory Philosophy and Approach for License Renewal Regulation. Written comments were invited to be submitted by December 1, 1989. This letter forwards those comments.

Northern States Power's Monticello Nuclear Generating Plant is serving as the lead Boiling Water Reactor plant in the industry's new Plant License Renewal Program. As such we have participated extensively in the development of the comments on the philosophy, conceptual outline and the responses to the questions on the workshop technical sessions being provided by the Nuclear Management and Resources Council (NUMARC) on this subject and fully endorse them as expanded by our comments contained in Attachment 1. Due to time constraints, individual responses to the questions issued in conjunction with the workshop have not been provided, at this time. As NUMARC responses to the workshop sessions on Overview and Screening Systems are finalized, should we feel the need to provide separate responses, we will prepare and forward them to you accordingly.

Please contact us if you have any questions or further information is required on this issue.

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Attachment 1 - Comments on the Preliminary Regulatory Philosophy and
Approach for License Renewal Regulation

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While the information requested under XX.9 would certainly provide an adequate basis for review of aging for these systems, structures, and components, it goes well beyond the information necessary. The information requested should be focused to provide only that necessary to evaluate those systems, structures and components whose safety function can be affected by age-related degradation. The approach outlined by the industry in its report "Methodology to Evaluate Plant Equipment for License Renewal" which was forwarded to the NRC staff on October 6, 1989, provides the criteria to determine the appropriate level of evaluation and resulting documentation and is consistent with the NRC philosophy. The following is a synopsis of this methodology.

The initial step of the industry methodology identifies the systems and structures relied upon to operate the plant safely which basically corresponds to the NRC staff approach to the initial step of identifying systems, structures, and components that are important to safety. Under the NRC staff approach, a listing of all components which make up those systems and structures important to safety would be necessary as well as providing all of the information requested in XX.9(c). The industry methodology does not require all of the information requested in XX.9(c) at this level.

The next set of steps in the industry approach evaluate the important to safety systems and structures at the component level. The first component step determines which components do not contribute to the safety function of the system or structure and whose failure would not preclude performance of the safety function. For components which are dispositioned at this step, the documentation which needs to be provided is that necessary to support a determination that the component does not contribute to the system's safety function, and the determination that if the component failed it would not preclude the system from performing its safety function.

The second step identifies those components which are subject to established, effective replacement, refurbishment or inspection programs. For components to be dispositioned at this step, the documentation which needs to be provided is that necessary to support determination of the component's safety function(s), the degradation mechanisms which could preclude that component from performing that safety function(s), and the program(s) which ensure that function is being maintained.

The third step identifies those components which are not subject to significant age-related degradation (deterministically) or if aging resulted in component failure would not have a significant impact on risk (probabilistically). For components to be dispositioned at this step would require documentation which references documents that provide the basis for the conclusion that the component is not subject to significant age-related degradation or provides the risk assessment results.

The final step of the industry approach identifies the options for dispositioning the components which remain after the previous steps of the methodology. The components which remain at this point in the evaluation process are those which contribute to the ability of a system to perform its

environmental assessment or environmental survey to bound the environmental impacts of license renewal. The use of parallel paths for the renewal rule and this generic environmental assessment will reduce the risk that this generic environmental assessment will delay the issuance of the renewal rule. The staff's intention to adopt the findings from this generic environmental assessment as a rule is supported. Items such as severe accidents could be handled generically and the results placed in a table in 10 CFR 51. The findings could then be utilized in individual license renewal proceedings. It is requested that this generic environmental assessment be completed in parallel with the rulemaking so that the lead plants may take advantage of this generic resolution of as many environmental issues as possible.

Northern States Power also agrees with the NRC that an environmental assessment as opposed to an environmental impact statement should be prepared for submittal with individual license renewal applications. This would require the modification of 10 CFR 51.20.b.2 to allow the preparation of an environmental assessment which would assess the need for an environmental impact statement. Continued plant operation during the renewal period should not result in significant environmental impacts which would require an environmental impact statement.

SEVERE ACCIDENTS

The conceptual outline states that the staff is considering requirements related to severe accidents that must be satisfied before submission of a renewal application takes place. Northern States Power feels that severe accident closure should not be included as a precondition to license renewal. Northern States Power will be submitting a response to Generic Letter 88-20 "Individual Plant Examination for Severe Accident Vulnerabilities 10 CFR 50.54(f)" as a process of closing this issue. Severe accidents are also outside the scope of license renewal rulemaking because they are not connected to age-related degradation. In grouping severe accident issues with license renewal, the renewal process could be greatly delayed which could adversely affect the lead plants.

The accident management programs are currently being addressed by the NUMARC working group on severe accidents. As part of its function, the group is addressing the definition and enhancement of existing plant specific accident management capabilities. It has recently issued "Guidelines for Evaluating Accident Management Capabilities" in draft form as part of its work.

BACKFIT RULE

Northern States Power supports the NRC's intention to change the Backfit Rule, 10CFR 50.109 to remove the ambiguity pertaining to the applicability of the backfit rule during the license renewal term. It will then be clear that the rule will be in effect during the license renewal period.

However, the staff's position of removing the backfit rule during the evaluation of the application for license renewal is not acceptable. This

would leave the licensees open to requirements that are beyond the scope of license renewal. Our desire to have the backfit rule apply is not to prevent needed changes. Rather, it is because it provides a disciplined and structured process for the licensee and NRC staff alike to evaluate changes necessary to manage age related degradation during the renewal term.

PROBABILISTIC RISK ASSESSMENT

Northern States Power feels that Level I and II Probabilistic Risk Assessments are useful and may be beneficial but should not be required as a regulatory decision mechanism. We do not feel that a probabilistic approach to evaluate systems, structures and components should be required at this time as there are no established, recognized criteria for acceptance of probabilistic risk assessment results. Use of probabilistic risk assessments should be at the option of the license renewal applicants.

Northern States Power believes that a level III probabilistic risk assessment would not be of value to the license renewal program. A level III probabilistic risk assessment concerns off-site risks which are now covered by existing programs that are contained in the current licensing basis. These programs are updated as needed and will continue to be relevant into the renewal term.

STANDARDS FOR RENEWAL OF LICENSE

Northern States Power's position on license renewal is that it is not an issuance of a new license, but an extension of the existing license. The findings in 10 CFR 50.57(a) were made when the initial operating license was granted and served as the core of the current licensing basis. As stated in the NRC's philosophy, this licensing basis has evolved over time to provide ongoing assurance that the original conclusion of adequate protection of the health and safety and common defense and security continues to remain valid. This philosophy does not lead one to conclude that the current licensing basis requires a re-review to again demonstrate adequacy. We believe that the findings required under 10 CFR 50.57(a) can be continued through the renewal term. As such, the only findings which the NRC needs to make to support issuance of a renewed license is that age-related degradation is being managed and will not affect health and safety of the public during the renewed license term. Therefore, section XX.19(a) should be deleted from the license renewal rule as it is inconsistent with the NRC's renewal philosophy. Sections XX.19(b) and XX.19(c) should also be deleted as they are enveloped by section XX.19(d). Section XX.19(e) should be modified to include only those systems, structures, and components whose safety function can be affected by age-related degradation.

ISSUANCE OF RENEWED LICENSE

In Section XX.21 of the conceptual outline of the license renewal rule, it states that the renewal term should be limited to 20 years. There is no basis given for this 20 year limitation. Northern States Power supports the

position that the applicant may apply for a longer renewal term if it can demonstrate the technical basis justifying plant operation during that length of time. The NRC should include in this section a provision for additional renewal term(s) upon expiration of the existing license renewal term.

Also in Section XX.21(b), the statement "estimated useful life of the facility" should be deleted. Useful life is an economic determination which should be made by the holder of the license.