

POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2 (PBN) SUBSEQUENT LICENSE RENEWAL APPLICATION (SLRA) DRAFT REQUEST FOR ADDITIONAL INFORMATION (RAI) SAFETY - SET 8

SLRA Section 2.3.3.6, "Fire Protection"

DRAI 2.3.3.6-2

Regulatory Basis

The plant-specific current licensing basis (CLB) must be maintained during the subsequent renewal term in the same manner and to the same extent as during the first renewal and original licensing terms. Title 10 of the *Code of Federal Regulations* (10 CFR) Section 54.4, "Scope," states that plant systems, structures, and components (SSCs) within the scope of license renewal (and, therefore, potentially subject to an aging management review (AMR) per 10 CFR 54.21(a)(1)) are: (a) SSCs that are safety-related; (b) nonsafety-related SSCs whose failure could affect safety-related functions; and (c) SSCs that are relied on to demonstrate compliance with the NRC's regulations for fire protection, environmental qualification, pressurized thermal shock, anticipated transients without scram, and station blackout. The NRC's regulations for fire protection are at 10 CFR 50.48, "Fire protection."

In accordance with the criteria of 10 CFR 54.29(a), the NRC staff must evaluate, in part, whether actions have been identified and have been or will be taken with respect to managing the effects of aging during the period of extended operation, such that there is reasonable assurance that the activities authorized by the subsequent renewed licenses will continue to be conducted in accordance with the CLB. In order to complete its review and enable it to make a finding under 10 CFR 54.29(a), the staff requires additional information in regard to the matters described below.

Background

The screening methodology for complex assemblies as described in NUREG-2192, "Standard Review Plan for Review of Subsequent License Renewal Applications for Nuclear Power Plants," Table 2.1-2, "Specific Staff Guidance on Scoping," states that for purposes of performing an AMR, it is important to clearly establish the boundaries of complex assemblies. The guidance discusses that an applicant should establish the boundaries for a complex assembly, such as a diesel driven fire pump engine, by identifying each component that makes up the complex assembly and determining whether or not each component is subject to an AMR.

Section 2.3.3.6, "Fire Protection" (FP), of the Point Beach Nuclear Plant (PBN), Units 1 and 2, subsequent license renewal application (SLRA) states, in part:

The FP system boundaries are reflected on the SLR [subsequent license renewal] boundary drawings listed below. The only significant difference between the SLR boundaries and the boundaries identified as part of the original PBN license renewal effort is that due to replacement of the diesel driven fire pump engine, the old heat exchanger was removed and replaced by a cooler that is now integral to the engine skid rather than being a separate unit. This heat exchanger is now considered to be a part of the engine complex assembly and is not subject to AMR. There are no changes to other passive components that are subject to AMR associated with the engine.

The statements in SLRA Section 2.3.3.6 indicate that the diesel driven fire pump engine cooler/heat exchanger and associated components are within the scope of license renewal but are not subject to an AMR.

However, the screening of the diesel driven fire pump engine cooler/heat exchanger for the SLRA appears to not follow the guidance in NUREG-2192. Specifically, NUREG-2192, Table 2.3-2, "Examples of Mechanical Components Screening and Basis for Disposition," provides examples of mechanical components screening developed from lessons learned during the review of the initial license renewal applications and bases for their disposition. Table 2.3-2 states, in part, that diesel engine heat exchangers are "'passive,' 'long-lived' components having intended functions" and "are subject to an AMR for SLR even though the diesel generator is considered 'active.'" Further, the NRC staff considers an attached diesel driven fire pump engine cooler/heat exchanger to be functionally equivalent to a skid-mounted diesel engine heat exchanger and, therefore, subject to an AMR.

Request

The NRC staff requests that the applicant justify its determination for not considering the diesel engine driven fire pump cooler/heat exchanger subject to an AMR considering the guidance in NUREG-2192, Tables 2.1-2 and 2.3-2.