

REI200025A



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
ADVISORY COMMITTEE ON REACTOR SAFEGUARDS  
WASHINGTON, D.C. 20555-0001

November 13, 2000

MEMORANDUM TO: ACRS Members  
FROM: *Noel Dudley*  
Noel Dudley, Senior Staff Engineer  
SUBJECT: SUMMARY OF MEETINGS CONCERNING RESOLUTION OF  
PUBLIC COMMENTS ASSOCIATED WITH THE LICENSE RENEWAL  
GUIDANCE DOCUMENTS

The NRC staff and representatives of the Nuclear Energy Institute (NEI) held two days of meetings on November 8 and 9, 2000, to discuss NEI comments on the draft Standard Review Plan (SRP) for license renewal and on the draft Generic Aging Lessons Learned (GALL) report. The purpose of the meetings was for the staff to better understand NEI comments.

I attended the meeting sessions concerning scoping and electrical components. Dr. Pao-Tsin Kuo, NRR, and Mr. Douglas Walters, NEI, lead the discussions. Dr. Kuo explained that after the meetings, NEI would have to identify which issues, if any, should be reviewed by NRC and NEI managers. Mr. Walters stated that NEI wanted to understand why previous NEI comments had not been incorporated into the guidance documents. The staff and NEI discussed issues related to the scoping process, including:

- whether requests for additional information would be written based on information sources identified in the scoping section of the SRP,
- the definitions of "complex assembly" and "piece parts," and
- adding to NEI 95-10 the lessons learned from the review of the Oconee license renewal application.

Some of the items discussed concerning electrical systems and components are attached.

The issues discussed were editorial or clarifications. NEI's concerns appeared to be related to limiting the extent to which NRC reviewers could request additional information about existing programs.

Attachment: NEI Comments Omitted From the Comment Letter

cc via e-mail.:

J. Larkin  
J. Lyons  
ACRS Fellows and Staff

## NEI ELECTRICAL COMMENTS OMITTED FROM THE COMMENT LETTER

COMMENT NUMBER	ITEM NUMBER	PROPOSED CHANGE INCLUDING ANY PROPOSED REWRITE	JUSTIFICATION FOR PROPOSED CHANGE
S 2.5- 33	2.5.1 Paragraph 3	<p><u>Revise Section 2.5.1 paragraph 3 to read:</u></p> <p>"Scoping for electrical systems and components, as defined in 10 CFR 54.4(a), is based on the Design Basis Events (DBEs) considered in the plant's current licensing basis (CLB) and other CLB information relating to non-safety-related systems and structures and certain regulated events. The staff reviews the applicant's 'scoping' results separately following the guidance in Section 2.2 of this standard review plan."</p> <p>(No changes suggested for paragraph 4.)</p>	<p><u>Section 2.5.1 Paragraphs 3 and 4 state:</u></p> <p><i>"An applicant should list all plant level systems and structures. Based on the Design Basis Events (DBEs) considered in the plant's current licensing basis (CLB) and other CLB information relating to non-safety-related systems and structures and certain regulated events, the applicant would identify those plant level systems and structures within the scope of license renewal, as defined in 10 CFR 54.4(a). This is 'scoping' of the plant level systems and structures for license renewal. The staff reviews the applicant's plant level 'scoping' results separately following the guidance in Section 2.2 of this standard review plan.</i></p> <p><i>"For an electrical and I&amp;C system that is within the scope of license renewal, an applicant would not identify the specific electrical and I&amp;C components that are subject to an aging management review. For example, an applicant may not 'tag' each specific length of cable that is 'passive,' 'long-lived,' and performs an intended function as defined in 10 CFR 54.4(b). Instead, an applicant would use the so-called 'plant spaces' approach (Ref. 1) which is explained below. The 'plant spaces' approach provides efficiencies in aging management review of electrical equipment located within the same plant space environment."</i></p> <p><u>COMMENT</u></p> <p>Paragraph 4 describes the use of the "spaces approach" which is the preferred method used for electrical components because it does, as stated, provide efficiencies in the aging management review. A major contributor to these efficiencies is that global scoping of systems and components is not required.</p> <p>Scoping performed during a spaces approach review of cables is not necessarily performed before the AMR but may be performed toward the end of the AMR, only when it was required as part of the AMR. The additional work required to scope electrical and I&amp;C systems to specifically identify all systems that are in scope is counter-productive to the efficiency of the spaces approach and is not required by 10 CFR 54.21(a).</p> <p>When using the spaces approach, an applicant may identify for a specific area only the components subject to an AMR, but for the bulk</p>

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			<p>of the plant, the most efficient way for electrical components subject to an aging management review to be reported in the application would be to state something like, "All insulated cables and connections are subject to an AMR excluding those associated with the following systems and groups of electrical components: ..." This type of reporting by an applicant matches exactly the review process outlined in SRP Section 2.5.3.1 where the reviewer is instructed to <i>"review selected components that the applicant did not identify as within the scope of license renewal"</i>. Using this approach avoids needless work by the applicant, avoids including extraneous information in the application, and provides the reviewer with the specific information needed to make the reasonable assurance finding for the identification of components subject to an aging management review.</p>

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S 2.5- 34	2.5.1 Paragraph 5	<p>Replace Section 2.5.1 paragraph 5 with the following two paragraphs:</p> <p>"Under the 'plant spaces' approach, an applicant would begin the aging management review with all 'passive' and 'long-lived' electrical insulated cables and connections subject to an aging management review. That is, no scoping is yet performed. Using the 'plant spaces' approach an applicant identifies the insulation materials (or materials with bounding aging characteristics) and assumes that all materials may be in all plant spaces. Then, the plant environments of each space are globally compared to the environments to which the materials could be exposed for 60 years and still perform their function. This environment, when describing temperature, is referred to as the 60-year service-limiting temperature (Ref. 1). This same concept when applied to radiation is known as the 60-year service-limiting dose. If this comparison identifies a plant space where insulated cables or connections with specific insulation materials would require aging management, the electrical components in this space may be individually identified along with their functions for the purpose of scoping. All in-scope insulated cables and connections installed in the identified plant space and constructed with the specific insulation material would require aging management."</p> <p>"For example, an applicant would initially identify all non-EQ electric cables located within the turbine building ('plant space') to be subject to an aging management review for license renewal. In the subsequent aging management review, the applicant would compare the environment of the turbine building to the cable insulation materials 60-year service-limiting temperature. If the applicant identified elevated temperatures in a specific plant area that could cause PVC insulated cables to prematurely age and lose their function during the renewal term, the applicant has the option to individually identify cables in the elevated temperature area to determine if there really are PVC insulated cables in the area and to determine if the PVC insulated cables are within the scope of license renewal."</p>	<p><u>Section 2.5.1 paragraph 5 states:</u></p> <p><i>"Under the 'plant spaces' approach, an applicant would identify all 'passive,' 'long-lived' electrical equipment within a specified plant space as subject to an aging management review, regardless of whether these components perform any intended functions. For example, an applicant could identify all 'passive,' 'long-lived' electrical equipment located within the turbine building ('plant space') to be subject to an aging management review for license renewal. In the subsequent aging management review, the applicant would evaluate the environment of the turbine building to determine the appropriate aging management activities for this equipment. The applicant has options to further refine this encompassing scope on an as-needed basis. For the above example, if the applicant identified elevated temperatures in a particular area within the turbine building, the applicant may elect to identify only that 'passive,' 'long-lived' electrical equipment which perform an intended function in this particular area as subject to an aging management review."</i></p> <p><u>COMMENT</u></p> <p>The above description describes the plant spaces approach fairly well. The concept of the plant spaces approach is sometimes difficult for individuals to grasp and sometimes needs more explanation. Also, the plant spaces approach is used mainly for the evaluation of electrical insulated cables and connections as this is the only passive electrical commodity that is installed in most plant areas. This proposed change is submitted to provide a fuller explanation of the spaces approach as it is being practiced in order to better help the reviewer understand the concept.</p>

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S 2.5- 35	2.5.1.1	<p><u>Revise Section 2.5.1.1 to read:</u>            "The applicant's identification of electrical and I&amp;C systems and components that are within the scope of license renewal is reviewed. When using the 'plant spaces' approach the intermediate step of identifying all systems or components within the scope of license renewal is not necessarily used. (Scoping)"</p>	<p><u>Section 2.5.1.1 states:</u>  <i>"The applicant's identification of electrical and I&amp;C system components that are within the scope of license renewal is reviewed. (Scoping)"</i></p> <p><u>COMMENT</u>            Based on the proposed changes or Section 2.5.1, paragraph 3, this corresponding proposed change for Section 2.5.1.1 is provided.</p>
S 3.6- 1	Table 3.6-2 Implementation Schedule column	<p><u>Revise the Implementation Schedules of Table 3.6-2 to read:</u>            "The first inspection [tests] for license renewal should be completed at the earliest opportunity during the period of extended operation."</p> <p><u>Quality Assurance Program</u>            "Program should be implemented at the start of the extended period of operation."</p>	<p><u>Under Implementation Schedule of Table 3.6-2 it states:</u>  <i>"The first inspection [or tests] for license renewal should be completed before the period of extended operation."</i></p> <p><u>COMMENT</u>            Per 10 CFR 54.21(a)(3) an applicant is not required to perform any license renewal demonstration of adequate management prior to the extended period of operation. The stated program implementation schedules go beyond the rule because they require license renewal actions prior to the period of extended operation. Any question regarding the adequacy of programs during the current operating term must be addressed as directed under 10 CFR 54.30 and are not within the scope of the license renewal review.</p>
S 4.4- 3	4.4.1.2 Sentence 1	Delete the first sentence of Section 4.4.1.2.	<p><u>The first sentence of Section 4.4.1.2 states:</u>  <i>"The EQ requirements differ for newer and older plants."</i></p> <p><u>COMMENT</u>            This is a true statement. But there are a variety of other reasons that GSI-168 was generated. Highlighting this one reason and not the others implies that it is of most importance. In actuality, the difference in EQ requirements between newer and older plants was eliminated as a safety issue in the <i>Report on the Status of the Environmental Qualification Task Action Plan</i> dated November 15, 1996.</p>