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Ladies and Gentlemen:

**Transmittal of AmerenUE Comments on Draft Generic Communication;  
Requirements for Steam Generator Tube Inspections  
(68 Fed. Reg. 25909)**



The Nuclear Electric Institute (NEI) is providing a letter to the Nuclear Regulatory Commission that contains a collection of industry comments concerning the proposed Generic Letter (GL). AmerenUE agrees with the comments contained in that letter. In particular, AmerenUE supports the continued development of a generic license change package (GLCP) that provides a regulatory framework based on the guidance of NEI 97-06, Steam Generator Program Guidelines. Because successful completion of the GLCP would resolve the issue associated with this proposed GL, AmerenUE believes a generic letter is not necessary and would distract from the efforts currently underway to complete the generic technical specification change.

AmerenUE appreciates the opportunity to comment on the proposed GL, Requirements for Steam Generator Tube Inspections, and is providing additional comments. Note that these comments are consistent with those of the STARS plants (a consortium of nuclear licensees who have entered a mutual agreement known as Strategic Teaming and Resource Sharing). AmerenUE comments are as follows:

The stated purpose of the GL is to ensure compliance with plant Technical Specifications (TS) that pertain to steam generator tube inspections. The GL proposes that there is an implicit requirement in TS that examinations of steam generator tubes be performed using technology "qualified" to identify flaws that may potentially exist at locations being inspected, and that inspection requirements continually change as advancements in technology are achieved.

The GL specifically focuses on inspections in the lower tubesheet region, where examination with advanced technology (not available until recently) may increase the probability of detecting certain kinds of tube degradation. Because many utilities do not currently apply advanced inspection techniques to these areas, which

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they have determined to have no structural significance, the NRC believes the issue is one of strict TS compliance to "employ inspection techniques capable of detecting all flaw types which may potentially be present at locations which are required to be inspected pursuant to the TS" (in the words of the proposed GL).

Although AmerenUE agrees that current TS pertaining to steam generator tube inspections are not adequate by themselves to assure tube integrity, we believe the position taken by the proposed GL is unprecedented, in that it creates an ambiguity concerning the appropriate inspection technology required to meet the TS requirement. It is problematic to imply that utilities may find themselves in violation of their technical specifications each time an improvement in technology is achieved. If an immediate solution is required, it would be better to resolve this issue in accordance with NRC Administrative Letter 98-10, Disposition of Technical Specifications That Are Insufficient to Assure Plant Safety.

The letter states "In 2002, the staff learned of several instances in which licensees were not fully implementing inspection methods capable of detecting circumferentially oriented cracks at all locations where the potential for such cracks exists . . .". This statement may create the erroneous impression that the staff was unaware of the practice prior to 2002, and that this letter is a result of new information rather than a change in the staff's position.

In fact, steam generator inspection activities (with results) have been routinely provided to the staff in required inspection reports, site visits by regional inspectors, outage phone calls, and utility meetings / conferences which they attended.

Most plant TS date from the late 1970's or early 1980's, when the bobbin coil was universally considered the "tube inspection" referenced in the TS. This is readily apparent by the fact that the Pre-Service Inspections, which "shall be performed . . . using the equipment and techniques expected to be used during subsequent inservice inspections . . ." were performed using bobbin coil probes.

It was not until the early 1990's that newer technology such as rotating pancake coils (RPC) became widely available, driven by the need to detect tube corrosion that could not be reliably detected by the bobbin coil. This technology, which continues to be updated and improved, has allowed utilities to supplement the out-of-date TS to further assure tube integrity.

Due to its high cost, use of RPC technology has been limited to those structurally significant areas with expected or potential corrosion. It has never been routinely used deep inside the tubesheet where there are no structural integrity concerns or in areas where corrosion is not expected. And it has never been suggested, by the industry or the staff (until now), that it should replace the bobbin coil as the TS required technique.

Furthermore, issuance of this generic letter will have a chilling effect on the development of improved technology. In the past, utilities have invested, and driven vendors to invest, considerable resources for the development of advanced technologies which are better able to detect and size steam generator tube flaws. Improved inspection techniques are often slower and more expensive (in addition to the development cost) to implement, but can provide additional information that is useful in qualifying particular defects. These methods are typically used sparingly due to the higher costs and schedule impact.

There would be little incentive to fund continued improvements under the threat of arbitrary re-interpretation of TS that would impose the higher cost inspections on the utilities, regardless of their safety significance. Extending the logic of the proposed GL could lead to the imposition of RPC, ultra-sonic, or any other inspection technology at the tubesheet, U-bends, free spans, etc., of the steam generator tubes regardless of the cost / schedule impact or the safety significance, subject only to "the staff's position."

An additional concern is that the proposed generic letter repeatedly uses the term "qualified" in terms of eddy current probes. However, there is no reference provided that defines the term. How is the determination to be made as to whether a probe or technique is "qualified"? Is it the staff's intent to issue further guidance on how to "qualify" a technique for each location and type of degradation?

Finally, the required 30-day response time is not sufficient time for utilities to provide a comprehensive reply. The response time should be changed to 60 or even 90 days.

Both the staff and industry, as far back as the early 1990's, recognized that standard plant Technical Specifications were inadequate to properly assure tube integrity. At that time the industry began to work collectively through the Electric Power Research Institute (EPRI), then later through a NEI initiative, to improve steam generator tube examinations and increase assurance that tubes would not fail in service. The industry, often in consultation with the staff, continued to police itself and to develop a set of guidelines that eventually culminated in the unanimous industry acceptance in 1999 of NEI 97-06, Steam Generator Program Guidelines. This effort to supplement steam generator TS has been very successful in improving overall industry steam generator safety performance.

NEI 97-06 (and its associated EPRI guidelines) require that additional (to current TS) examinations be performed to ensure active and potential damage mechanisms are properly identified and evaluated. NEI 97-06 further requires that tube structural conditions be evaluated via a series of tube integrity assessments (degradation, condition monitoring, and operational assessments) that determine whether steam generator tubes meet their structural integrity requirements.

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The industry has continued to work with the staff to develop and implement a generic license change package (GLCP), which would actually "fix" the plant Technical Specifications and would render this (proposed GL) issue moot. AmerenUE believes the staff and industry would be better served if resources were focused on this GLCP, which appears to be near completion.

In summary, AmerenUE believes the issuance of this proposed Generic Letter would create unnecessary ambiguity in steam generator TS requirements, would result in an unnecessary (no corresponding increase in safety) and expensive burden on the utilities, and would have a chilling effect on the industry's research and development efforts to improve inspection equipment and techniques. All parties would be better served by completing the current generic license change package associated with NEI 97-06.

Sincerely,



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