GE Nuclear Energy

General Electric Company
175 Curtner Avenue, San Jose, CA 95125

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Document Control Desk
U.S. Nuclear Regulatory Commission
Washington DC 20555

Attention: Richard W. Borchardt, Director
Standardization Project Directorate

Subject: QUALITY OF SIMPLIFIED BOILING WATER REACTOR (SBWR) APPLICATION

Reference: Letter, Dennis M. Crutchfield (NRC) to Patrick W. Marriott (GE), Same Subject, dated April 7, 1994.

The purpose of this letter is to respond to the referenced letter. I agree with you that neither of us wishes to lose momentum by having to redo work thought to be completed and reviewed. Your calling the concerns to our attention early will permit us to rectify real and perceived problems in time to avoid needless duplication.

This letter will not attempt to answer all of the examples listed in the enclosure to your letter, a task best left to individual NRC reviewers and GE performers. Rather, I will address the broad concerns and what we are doing in general to address them.

With regard to the quality of RAI responses, I believe we are well on the way to solving the problem. The SBWR SSAR review is now well underway, GE having received and answered more post-Round Zero RAIs than those in Round Zero. RAI responses since Round Zero have received considerably more management attention, since we have added an experienced licensing manager to the project staff. Our QA procedure for RAI responses was strengthened. Finally, since your April 7 letter, I have been personally reviewing responses at random and find them to be quite responsive in my judgment. Many of the clarifying and/or follow-on to Round Zero RAIs have now been answered. The NRC has performed some inspections and the open items have now largely been closed. Let us stay in touch on this issue and see if it is already solved.

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With regard to SSAR quality, the answer is complex. It is true that the form and content of the SBWR SSAR have not been updated to the recently-submitted ABWR Amendment 34. We agree that it is desirable to do this, and we have a plan for doing this for sections where substantial similarity exists. In our Similarities Document, NEDC-32231, it can be seen that nearly half of the SBWR SSAR and ABWR SSAR sections are technically identical or technically similar with minor differences. There are no significant safety changes in the SBWR design from the design presented in the SSAR, and those changes that have been made have been or will be characterized to your staff. Amendment 1 to the SBWR SSAR is about to be forwarded to you. While it was not possible to make the entire SBWR SSAR identical to the final version of the ABWR SSAR (which is only recently available), this submittal does include agreed-upon updates to the plant definition. Where updates were made clearer by modifying ABWR SSAR text to reflect SBWR design rather than to update SBWR text, this was done.

We do not think that the SBWR SSAR should necessarily be completely revised for consistency with ABWR. We all have invested considerable resources reviewing the SBWR SSAR as it is now written (over 800 RAIs have been received by GE to date and we are advised by your staff that many more are about ready to be transmitted to us) and we do not want to cause a disruption in the review by unnecessarily changing material which is now familiar to the reviewers in its present form. The RAI process is now over a year along on the SBWR SSAR in its present form. We do agree completely that where significant SSAR updates are required to capture substantial technical revisions that it will generally be preferable to revise ABWR text to reflect SBWR design.

In response to the specific numbered items in your letter:

1. GE agrees to perform a review of the staff's questions raised in the ABWR review and to address those issues applicable to the SBWR. This will be particularly helpful when the same NRC reviewers who dealt with the issue on ABWR are assigned to SBWR.

2. GE agrees to provide an SSAR amendment which updates SBWR systems to the latest ABWR design where the systems are common to both plant types and where it is appropriate to do so. It is noted that it was possible for the ABWR to furnish more detail than has been required of other advanced designs because there was a First Of A Kind Engineering (FOAKE) activity which provided the detail and/or because there was an ABWR under construction. The SBWR does not have a FOAKE effort, nor plants under construction, to draw that level of detail from. GE will, however, provide the details necessary for NRC review leading to certification.

3. GE will continue to endeavor to submit complete information and adequate responses to address the staff's questions within the scope of the SBWR Certification project. Again, it is my belief that this issue may be behind us. We must both acknowledge that due to differences in judgment and interpretation between GE performers and NRC reviewers, the process will never be perfect.

   We have spent considerable effort assisting your staff and contractors to obtain test information for input to computer codes used by NRC which are not used by GE. The NRC questions have often required considerable clarification since our analysts are not familiar enough with the contractors' codes to know in detail what test information the contractors require. Typically, different analytical methods require different characterization of test facilities, and therefore different input requirements. We believe this situation is now resolved.

   In other areas we have had many telephone discussions trying to understand what information was really being requested by written RAIs. These later clarifications have been very successful in avoiding follow-on clarifications and information requests, and we appreciate such interactions so that we can deal with the issues as effectively as possible. While we recognize that there have been (and probably always will be) specific instances where iterations are required to satisfy RAIs, we believe that the vast majority have been timely and completely addressed.

4. GE intends that the SBWR SSAR will be correct and internally consistent. Our staff is continually instructed on the importance of high quality submittals. GE publishes a monthly newsletter entitled "In Pursuit of Quality" which has been used to advise employees of important issues, such as those brought-up in the NRC audit of GIST. GE procedures have also been improved as a result of NRC SBWR interactions. A major difficulty with the SBWR SSAR and other SARs is that it is framed around Regulatory Guide 1.70 which is itself inconsistent with regards to level of detail and requests the same or comparable information in several locations. In an attempt to deal with these repetitious sections, SBWR Amendment 1 has included an Index which provides an alphabetical listing of SSAR information by subject. Thus a reviewer is alerted that information with the same or comparable title is treated in multiple locations in accordance with RG 1.70. This will not in itself prevent inconsistencies but will facilitate highlighting where inconsistencies might occur.

The modifications to the SSAR committed in (1) and (2) above will be submitted in a general SSAR revision shortly before resumption of SSAR review in early 1996.

In conclusion, let me say that I share your wish to benefit fully from the lessons learned in the ABWR review. In many meetings with your staff we have emphasized this desire, and we have received many constructive suggestions. Our being attentive to these, and your assigning as many ABWR reviewers to SBWR as practical, will ensure that it happens.

Let us discuss this once more after you have had a chance to review.

Sincerely,

P. W. Marriott, Manager
Advanced Plant Technologies
M/C-781, (408) 925-6948

cc: D. M. Crutchfield, Associate Director for Advanced Reactors and License Renewal (NRC)
M. Malloy, Project Manager (NRC)
F. W. Hasselberg, Project Manager (NRC)