

BWR OWNERS' GROUP

Stephen D. Floyd, Chairman
(919) 546-6901

c/o Carolina Power & Light Company • 411 Fayetteville Street • Raleigh, NC 27602

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Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Mail Station 12G18
Washington, DC 20555

Attention: F. J. Miraglia, Associate Director
Inspection and Technical Assessment

Subject: POSITION ON NRC REGULATORY GUIDE 1.97, REVISION 3
REQUIREMENTS FOR POST-ACCIDENT NEUTRON MONITORING
SYSTEM (NMS)

- References: 1) NRC Letter (F.J. Miraglia) to BWR Owners' Group (S.D. Floyd), "BWR Owners' Group Licensing Topical Report, Position on NRC Regulatory Guide 1.97, Revision 3, Requirements for Post-Accident Neutron Monitoring System (General Electric Report NEDO 31558)", dated January 29, 1990
- 2) BWR Owners' Group Letter (R.F. Janecek) to NRC (T.E. Murley), "BWR Owners' Group Licensing Topical Report, Position on NRC Regulatory Guide 1.97, Revision 3, Requirements for Post-Accident Neutron Monitoring System (General Electric Report NEDO-31558)", dated April 1, 1988

The BWR Owners' Group (BWROG) Reg. Guide 1.97-Neutron Monitoring Committee has performed a preliminary review of the NRC letter (reference 1) dated January 29, 1990. As discussed in a meeting between Committee members and the Staff on February 7, 1990, we believe that the NRC Safety Evaluation Report taken in conjunction with Reg. Guide 1.97 does not provide the necessary guidance for design and implementation of a post accident neutron monitoring system by BWR licensees. The BWROG understanding of the Staff's SER clarifications discussed on February 7 is as follows:

- The Staff has not identified specific events on which to base qualification requirements or low end minimum range.
- The Staff's intention is not to require qualification of the NMS for environments beyond those associated with design basis events.
- The Staff expects licensees to propose and technically justify specific design criteria to resolve open issues. It was suggested by the Staff, that this work could be performed generically in order to avoid multiple reviews by the Staff for each licensee.

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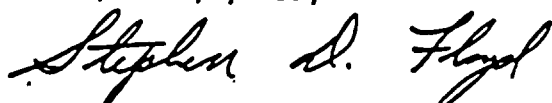
- The Staff is aware of the potential difficulty for plant-specific implementation constraints with respect to achieving the full range specified by Reg. Guide 1.97. The Staff is willing to consider plant specific deviations based on technical justifications and the capability of available equipment.

While not taking issue with the basis for the Staff's rejection of the BWROG Licensing Topical Report (NEDO-31558) or the overall philosophy of the SER, several significant issues were raised as a result of our initial review:

- As the Staff maintains in the SER, Reg. Guide 1.97 requires that Category 1 instrumentation be qualified in accordance with 10CFR50.49. 10CFR50.49 requires that environmental conditions be established for the most severe design basis accident during or following which the instrumentation is required to function. However, the SER also takes the position that the post accident NMS design should consider events that cannot be anticipated by standard event analyses. This is a design issue which could raise 10CFR50.49 compliance concerns unless it is resolved with the Staff prior to individual plant implementation of the regulatory guide.
- The SER suggests that fire conditions be considered. This appears to be outside the scope of Reg. Guide 1.97 and the regulatory basis needs to be clarified. Other design issues including plant flooding and the instrumentation availability time (as referenced in the Staff's SER) along with related design basis issues need to be established.

In light of the above, we believe that it may be appropriate for the BWROG to develop a generic design criteria for post-accident neutron monitoring which could serve as a focal point for further discussion with and review by the Staff. Reaching agreement with the Staff on the design criteria will give the BWR utilities the bases to confirm whether the available neutron monitors meet the criteria, which is a prerequisite for their purchase decision. We look forward to proceeding with this on a high priority basis so that this issue may be promptly resolved. Pending approval of the BWROG utilities, we will inform the Staff of our program and schedule.

Very truly yours,



Stephen D. Floyd, Chairman
BWR Owners' Group

cc: GJ Beck, BWROG Vice Chairman
DN Grace, RRG Chairman
T Price, NUMARC
SJ Stark, GE
RG 1.97/NMS Committee
BWROG Primary Representatives

