

March 13, 2007

MEMORANDUM TO: Stacey L. Rosenberg, Chief
Special Projects Branch
Division of Policy and Rulemaking
Office of Nuclear Reactor Regulation

FROM: Michelle C. Honcharik, Project Manager /RA/
Special Projects Branch
Division of Policy and Rulemaking
Office of Nuclear Reactor Regulation

SUBJECT: SUMMARY OF NOVEMBER 16, 2006, OPEN PRE-SUBMITTAL
MEETING WITH THE BOILING WATER REACTOR OWNERS' GROUP
(BWROG) ON DRAFT LICENSING TOPICAL REPORT (LTR) BASED
ON THE METHODOLOGY CONTAINED IN IEEE STANDARD 497-2002
(TAC NO. MD3430)

On November 16, 2006, a Category 2 public meeting was held between the U.S. Nuclear Regulatory Commission (NRC) staff and representatives of the BWROG at NRC Headquarters, Two White Flint North, 11545 Rockville Pike, Rockville, Maryland. The purpose of the meeting was to discuss a draft LTR which is based on the methodology contained in IEEE Standard 497-2002 for establishing accident monitoring instrumentation requirements. A list of attendees is provided as Enclosure 1.

The BWROG representatives presented an overview of the BWROG Regulatory Guide (RG) 1.97 Committee, including the purpose of the committee, the committee's work scope, and future direction (see Enclosure 2). The BWROG representatives also presented an overview of the draft LTR of the BWR application to IEEE-497. This presentation included a discussion of the IEEE-497 requirements, the BWROG evaluation methodology, typical BWR variables, and application guidelines (see Enclosure 3). The BWROG representatives summarized the key results and findings from the BWROG RG 1.97 Committee activities (see Enclosure 4).

The NRC staff provided comments to the BWROG representatives to be addressed when preparing the LTR for submittal (see Enclosure 5). The BWROG representatives thanked the NRC staff for the feedback.

Members of the public were not in attendance.

Project No. 691

Enclosures:

1. List of Attendees
2. BWROG RG 1.97 Committee Overview
3. BWR Application to IEEE-497
4. BWROG RG 1.97 Committee Implementation of Findings
5. NRC Staff Comments

cc w/encls: See next page

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Notice Accession No. ML063040048

Enclosure 2 Accession No. ML070640518

Enclosure 3 Accession No. ML070640519

Enclosure 4 Accession No. ML070640523

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BWROG

Dated: March 13, 2007

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BWR Owners' Group

Project No. 691

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2/23/07

Public Meeting with Boiling Water Reactor Owners' Group (BWROG)

November 16, 2006

Meeting Attendees

NAME	ORGANIZATION
Michelle Honcharik	NRC
Barry Marcus	NRC
Roger Pedersen	NRC
Timothy Frye	NRC
George Thomas	NRC
George Tartal	NRC
Subinoy Mazumdar	NRC
Amar Pal	NRC
Gary Armstrong	NRC
R. Brad Harvey	NRC
Jerome Bettel	NRC
Dinesh Taneja	NRC
Kathryn Brock	NRC
Nick Trikouros	NRC
Jim Kenney	BWROG
A. Klemptner	DTE Enegery/BWROG
Wes Bowers	Exelon/BWROG
Ron Engel	GE/BWROG

ENCLOSURE 1

NRC Staff Comments Concerning the BWROG Pre-Submittal Meeting on the
BWR Application of IEEE 497-2002 Draft Licensing Topical Report (LTR)

The draft LTR addresses IEEE 497-2002, "IEEE Standard Criteria for Accident Monitoring Instrumentation for Nuclear Power Generating Stations." Since Regulatory Guide (RG) 1.97, Revision 4, "Instrumentation for Light Water Cooled Nuclear Power Plants To Assess Plant and Environs Conditions During and Following an Accident," endorses, with exceptions, IEEE 497-2002, the LTR should address RG 1.97, Revision 4, and its regulatory positions.

Section 3.2, "Type B Variables," of the draft LTR, addresses contingency actions. However, the only discussion of contingency actions in IEEE 497-2002 is in regard to Type A variables. This discussion of contingency actions in IEEE 497-2002 has been modified by Regulatory Position 4 of RG 1.97, Revision 4. The LTR should be revised to relocate this discussion and should take into consideration Regulatory Position 4.

The topic of compliance with industry standards that are referenced by IEEE 497-2002 is addressed generically in the draft LTR. The LTR should be revised to state that plant-specific applications that would reference this LTR should address any deviations from the referenced standards.

The draft LTR appears to only address complete conversions to IEEE 497-2002 and not modifications as described in Regulatory Position 1 of RG 1.97, Revision 4. The LTR should indicate that it is also applicable for modifications as described in Regulatory Position 1 of RG 1.97, Revision 4. The LTR should also include clear descriptions of a complete conversion to RG 1.97, Revision 4, and a modification as allowed by Regulatory Position 1 of RG 1.97, Revision 4. It appears that what the BWROG representatives described during the meeting as a modification is actually a conversion with deviations from newer versions of industry standards.

Although during the meeting the BWROG representatives indicated that the LTR referenced NEDO-33160-A (relaxation of safety relief valve position indication), the NRC staff was unable to find this reference. A reference and appropriate discussion of NEDO-33160-A should be included in the LTR if appropriate.

Table A-1 in the draft LTR is hard to follow. The LTR should include information that clarifies that the column titled "BWR/4" describes an example of the current type and category classifications of instrumentation currently installed at a typical BWR/4 plant. The LTR should include information to clarify that this table includes all BWR variables listed in RG 1.97, Revision 3. This table should include the purpose of each variable (the bold text in the variable column of RG 1.97, Revision 3) and the equivalent purpose of each variable under RG 1.97, Revision 4. During the meeting, it was stated that the order that the variables are listed in this table was the order that they appear in RG 1.97, Revisions 3. However, it does not appear that this is the case. The order that variables are listed in this table should be the order that they appear in RG 1.97, Revision 3.

The LTR should include (either in Table A-1 or in a separate table) the following for each variable: the variable name, Revision 3 type, Revision 3 category, Revision 3 purpose,

ENCLOSURE 5

Revision 4 type, Revision 4 purpose, and comments including information about change of type, purpose, deletion from the list of variables, or addition to the list of variables.

The LTR should include an additional table that shows variables that under RG 1.97, Revision 4, have different types, purposes, deletion from the list of variables, addition to the list of variables, and why the change is appropriate, from what was provided under RG 1.97, Revision 3.

The LTR should include more details concerning the proposed change in the primary containment radiation monitoring variables going from both Type C, Category 1, and Type E, Category 1, variables (with different ranges) under RG 1.97, Revision 3, to only a Type E variable under RG 1.97, Revision 4. It is not clear to the NRC staff how this variable would not be considered a Type C variable under RG 1.97, Revision 4. The purpose of this variable under RG 1.97, Revision 3, is for detection of a breach of the reactor coolant pressure boundary and the verification of the level of radiation in the containment. The LTR should include a discussion of how Type C variables in the LTR meet all of the criteria of Clause 4.3 of IEEE 497-2002 and if the purpose of the Type C variables has changed from Revision 3 to Revision 4 of RG 1.97.

The LTR should include more details for other variables that would change types from Revision 3 to Revision 4 of RG 1.97. One example is containment isolation valve indication which is a Type B, Category 1, variable under RG 1.97, Revision 3, and would become a Type D variable under RG 1.97, Revision 4.

Although not included in the LTR, technical specifications (TSs) were discussed at the meeting. The BWROG would like to see changes to the Improved Standard TSs that would reflect the LTR. A discussion of this subject should be conducted with representatives of the TS Branch (ITSB) of the Division of Inspection and Regional Support.