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U.S. Nuclear Regulatory Commission (NRC) ATTN: Document Control Desk 11555 Rockville Pike Rockville, MD 20852-2738

Babcock & Wilcox Nuclear Energy, Inc. Docket Number-PROJ0776 Project Number-776

Subject: Submittal of Babcock & Wilcox Nuclear Energy Inc. (B&W NE) Instrument Setpoint Methodology Topical Report Revision 1 (Report Number 08-002089-001)

On October 28, 2010, B&W NE submitted to NRC Revision 0 of the above referenced topical report for technical staff review as part of our pre-application effort. Enclosed is Revision 1 of the referenced report for review. We have revised the report based on preliminary feedback from the NRC staff. Accordingly, limited portions of this report have been modified to:

- 1. clarify Section 4.2.1 of the report to describe the mathematical relationship between the nominal trip set point (NTSP) and the limiting trip set point (LTSP),
- 2. clarify the definition of margin,
- 3. add to the report a typical calculation (not design-specific) showing the determination of uncertainties, and application of the setpoint methodology for a typical instrument channel with resulting sample results for the analytical limit (AL), the channel uncertainty (CU),LTSP, NTSP, and the allowable value (AV),
- 4. remove references to use of a "graded approach",
- 5. clarify the relationships between design and safety analysis methods and methods applied during surveillance and calibration (Figure 5.1),
- 6. clarify that as-found tolerance is derived from the NTSP to establish the allowable value, (Figure 5.1), and
- 7. clarify that the allowable value is the limiting safety system setting (LSSS) in Figure 5.1.

Questions concerning this submittal may be directed to Jeff Halfinger at 434-316-7507 (email: jahalfinger@babcock.com) or T. J. Kim at 434-382-9791 (email: tjkim@babcock.com).

P, Technology Development

B&W NE

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Enclosure: Methodology Babcock & Wilcox Nuclear Energy Inc. (B&W NE) Instrument Setpoint
Topical Report Revision 1 (Report Number 08-002089-001)

cc: Joelle L. Starefos, NRC, TWFN 9-F-27

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