



GE ENERGY

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GE Proprietary Information

Proj 710

MFN 06-065
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U.S Nuclear Regulatory Commission
Document Control Desk
Washington, D.C. 20555-0001

Subject: Licensing Topical Report, NEDC-33264P, General Electric Boiling Water Reactor, GE Analysis of OPRM Noise

The Detect and Suppress Solution – Confirmation Density (DSS-CD) stability solution has been installed at Brunswick Units 1 and 2 using NUMAC based Oscillation Power Range Monitor (OPRM) hardware. To evaluate the DSS-CD OPRM system performance prior to placing the system in operation, data was collected and analyzed at rated EPU power at Brunswick 1. GE has evaluated and discussed the data with the NRC during various meetings and phone calls. The NRC has requested that GE provide a report analyzing the data. The requested report is enclosed.

GE has determined that the data indicates unexpected coherent periodic noise resulting in high counts for multiple OPRM cells, in the absence of coupled thermal-hydraulic/neutronic instability. The cause of the coherent periodic noise is not known, but does not appear to be EPU related, or related to whether the reactor is operating at rated or off-rated power levels.

This report shows that the observed coherent periodic noise pattern has no safety significance but could result in spurious alarms and trip if periodic noise occurred inside the OPRM scram enabled region, the DSS-CD system was operable and armed, and the setpoints were based on the generic values proposed in Reference 1. However, the DSS-CD system installed at BSEP was not operable and armed so no spurious trips occurred. Further, Reference 1, Section 3.3.1.9, provides for an evaluation of the applicability of the generic setpoints based on intrinsic plant noise such as was observed at Progressive Energy's Brunswick Steam Electric Plant (BSEP).

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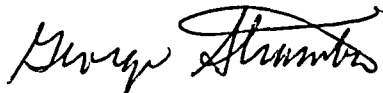
The enclosed report is applicable to BSEP. The report is provided to the NRC by GE because Progress Energy has withdrawn its BSEP MELLLA Plus licensing application.

The report is provided for NRC information only. GE does request approval of the report. Further, the NRC review and approval of Reference 1 should not be based on the enclosed report because it represents data from a single plant only.

Please note that Enclosure 1 contains proprietary information of the type that GE maintains in confidence and withholds from public disclosure. The information has been handled and classified as proprietary to GE as indicated in the affidavit, also included in the report. The affidavit contained in Enclosure 3 identifies that the information contained in Enclosure 1 has been handled and classified as proprietary to GE. GE hereby requests that the information in Enclosure 1 be withheld from public disclosure in accordance with the provisions of 10 CFR 2.390 and 9.17. Enclosure 2 is a non-proprietary version of Enclosure 1.

If you have any questions, please contact, Mike Lalor at (408) 925-2443 or myself.

Sincerely,



George Stramback
Manager, Regulatory Services

Project No. 710

Reference:

1. NEDC-33075P, Revision 5, Licensing Topical Report, *General Electric Boiling Water Reactor Detect and Suppress Solution – Confirmation Density*, November 2005.

Enclosures:

1. GE Licensing Topical Report, NEDC-33264P, *General Electric Boiling Water Reactor, Brunswick Nuclear Power Station Unit 1, GE Analysis of OPRM Noise*, February 2006 - Proprietary
2. GE Licensing Topical Report, NEDO-33264, *General Electric Boiling Water Reactor, Brunswick Nuclear Power Station Unit 1, GE Analysis of OPRM Noise*, February 2006 – Non-Proprietary
3. Affidavit, George B. Stramback, dated February 24, 2006

cc: JF Harrison (GE/Wilmington)
JF Klapproth (GE/Wilmington)

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eDRF 0000-0048-4552

ENCLOSURE 1

MFN 06-065

GE Licensing Topical Report, NEDC-33264P, BSEP Noise Report

IMPORTANT NOTICE

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GE proprietary information is identified by a double underline inside double square brackets. In each case, the superscript notation⁽³⁾ refers to Paragraph (3) of the affidavit provided in Enclosure 3, which documents the basis for the proprietary determination. [[This sentence is an example.⁽³⁾]] Specific information that is not so marked is not GE proprietary.