



GE ENERGY

Proprietary Notice

This letter forwards proprietary information in accordance with 10CFR2.390. Upon removal of Enclosure 1, the balance of this letter may be considered non-proprietary.

George B. Stramback
GE Nuclear Energy
Mgr., Regulatory Services
1089 Little Orchard Street
San Jose, CA 95125

T 408-779-2317
F 910-341-2618
C 408-205-9515
George.Stramback@ge.com

Project 710

MFN 06-415
October 24, 2006

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

Subject: Presentation of GE Precipitant Mitigation in a PWR Post LOCA Containment Environment - Proprietary

Enclosure 1 contains the presentation materials from the GE Precipitant Mitigation in a PWR Post LOCA Containment Environment – Proprietary presentation given at the October 19, 2006 meeting with the NRC.

Enclosure 1 contains proprietary information of the type that GE customarily maintains in confidence and withholds from public disclosure. The Enclosure 3 affidavit identifies that the designated information has been handled and classified as proprietary to GE. In combination with the affidavit, this information is provided for review by the NRC. GE hereby requests that the designated information in Enclosure 1 be withheld from public disclosure in accordance with the provisions of 10 CFR 2.390 and 9.17. A non-proprietary version is provided as Enclosure 2.

If you have any questions, please contact, Larry Fleischer at (408) 925-2919 or myself.

Sincerely,

George B. Stramback
Manager, Regulatory Services

D065

MFN 06-415

Page 2

Enclosures:

1. Presentation of GE Precipitant Mitigation in a PWR Post LOCA Containment Environment - Proprietary
2. Presentation of GE Precipitant Mitigation in a PWR Post LOCA Containment Environment – Non-Proprietary
3. Affidavit, George B. Stramback, dated October 24, 2006

cc: BE Brown (GE/Wilmington)
LS Fleischer (GE/San Jose)
RE Gamble (GE/San Jose)
JA Golla (NRC)
MC Honcharik (NRC)

ENCLOSURE 1

MFN 06-415

Presentation of GE Precipitant Mitigation in a PWR Post LOCA Containment Environment - Proprietary

IMPORTANT NOTICE

GE Proprietary Information

PROPRIETARY INFORMATION NOTICE

This enclosure, contains proprietary information of the General Electric Company (GE), and is furnished in confidence solely for the purpose(s) stated in the transmittal letter. No other use, direct or indirect, of the document or the information it contains is authorized. Furnishing this document does not convey any license, express or implied, to use any patented invention or, except as specified above, any proprietary information of GE disclosed herein or any right to publish or make copies of the document without prior written permission of GE. The footer of each page in this document carries the notation "GE Proprietary Information."

GE proprietary information is identified by a single red right sidebar as shown here for example. For black-grayscale printed copies, the sidebar is visible. In each case, the superscript notation, e.g., {3}, refers to, in this example, Paragraph (3) of the enclosed affidavit, which provides the basis for the proprietary determination. Specific information that is not so marked is not GE proprietary.

ENCLOSURE 2

MFN 06-415

**Presentation of GE Precipitant Mitigation in a PWR Post LOCA
Containment Environment – Non-Proprietary**

NRC Strainer Vendor Meeting on Chemical Effects

Precipitant Mitigation In a PWR
Post-LOCA Containment
Environment

Davood Abdollahian

October 19-20, 2006



imagination at work

Information Notice

NON-PROPRIETARY INFORMATION NOTICE

This is a non-proprietary version of the proprietary presentation given on October 19, 2006, and as such, has the proprietary information removed. A single red right sidebar as shown indicates the portions of the document that have been removed.

Background

- Preliminary testing on the impact chemical products has shown a significant increase in head loss.
- Introduction of less than a few percent of the amount predicted by WCAP-16530-NP has resulted in large head loss values, exceeding plant allowable in many cases.

Background

- Method of incorporating the impact of chemical effects is being evaluated.
 - WCAP model conservatism
 - Input refinements
 - Design changes
 - Testing protocol

GE Status of Chemical Effects Testing

- Initial approach was to evaluate plant specific “bump-up” factors based on tests performed at Alion facilities.
- Integrated chemical effects testing is planned for Diablo Canyon.
 - Considerable debris reduction is planned and the strainers are designed to assure open strainer areas.
 - Plant specific fiber bypass tests and fuel grid downstream testing are also planned.

Alternative Precipitant Mitigation Approach

Approaches to Handling Post-LOCA Precipitation Issues



Requirements for Success



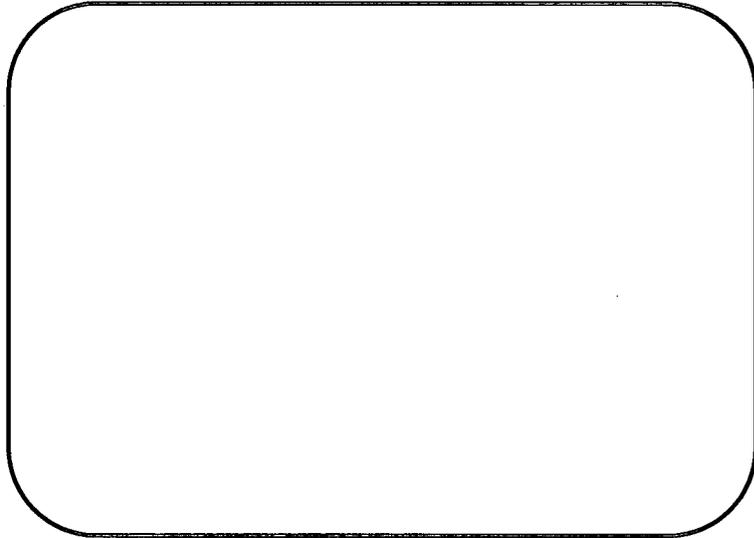
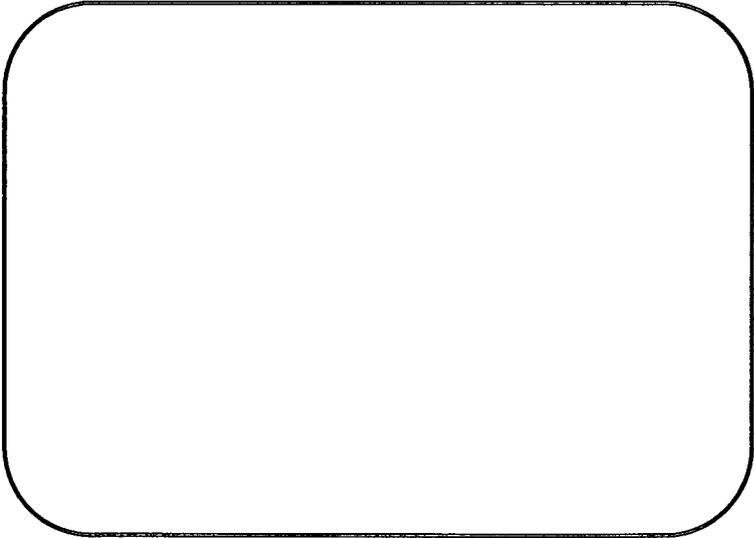
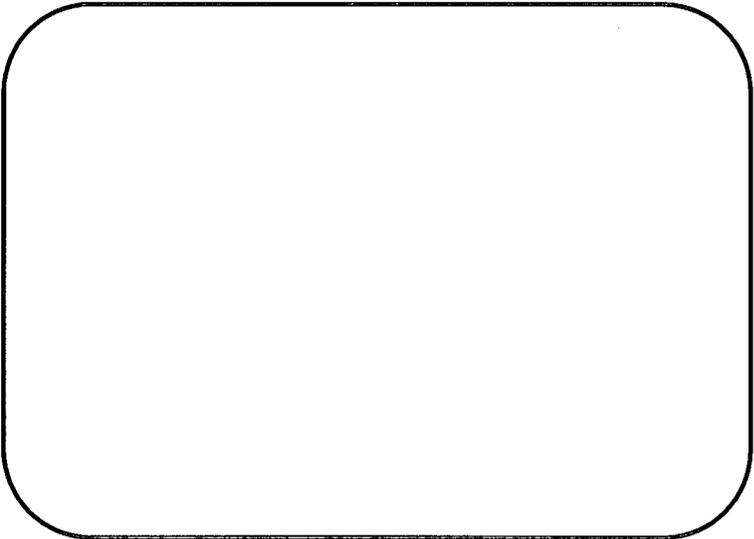
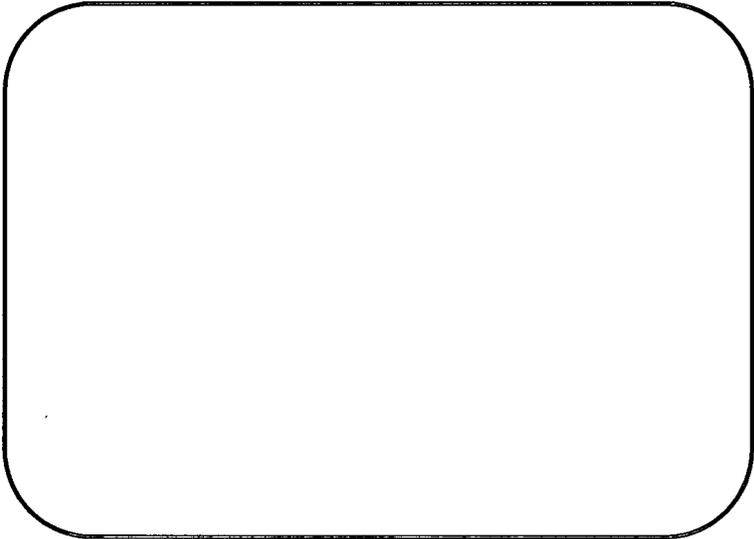
Method of Application

Method of Application

Method of Application

Method of Application

Method of Approach



ENCLOSURE 3

MFN 06-415

Affidavit

General Electric Company

AFFIDAVIT

I, **George B. Stramback**, state as follows:

- (1) I am Manager, Regulatory Services, General Electric Company (“GE”), have been delegated the function of reviewing the information described in paragraph (2) which is sought to be withheld, and have been authorized to apply for its withholding.
- (2) The information sought to be withheld is contained in Enclosure 1 to GE letter MFN 06-415, *Presentation of Precipitant Mitigation In A PWR Post-LOCA Containment Environment*, dated October 24, 2006. The Enclosure 1, *GE Presentation of Precipitant Mitigation In A PWR Post-LOCA Containment Environment*, proprietary information is delineated by a single red right sidebar. The footer of each presentation slide contains “GE Proprietary Information^{3}.” In each case, the superscript notation^{3} refers to Paragraph (3) of this affidavit, which provides the basis for the proprietary determination.
- (3) In making this application for withholding of proprietary information of which it is the owner, GE relies upon the exemption from disclosure set forth in the Freedom of Information Act (“FOIA”), 5 USC Sec. 552(b)(4), and the Trade Secrets Act, 18 USC Sec. 1905, and NRC regulations 10 CFR 9.17(a)(4), and 2.390(a)(4) for “trade secrets” (Exemption 4). The material for which exemption from disclosure is here sought also qualify under the narrower definition of “trade secret”, within the meanings assigned to those terms for purposes of FOIA Exemption 4 in, respectively, Critical Mass Energy Project v. Nuclear Regulatory Commission, 975F2d871 (DC Cir. 1992), and Public Citizen Health Research Group v. FDA, 704F2d1280 (DC Cir. 1983).
- (4) Some examples of categories of information which fit into the definition of proprietary information are:
 - a. Information that discloses a process, method, or apparatus, including supporting data and analyses, where prevention of its use by General Electric's competitors without license from General Electric constitutes a competitive economic advantage over other companies;
 - b. Information which, if used by a competitor, would reduce his expenditure of resources or improve his competitive position in the design, manufacture, shipment, installation, assurance of quality, or licensing of a similar product;
 - c. Information which reveals aspects of past, present, or future General Electric customer-funded development plans and programs, resulting in potential products to General Electric;
 - d. Information which discloses patentable subject matter for which it may be desirable to obtain patent protection.

The information sought to be withheld is considered to be proprietary for the reasons set forth in paragraphs (4)a., (4)b., and (4)d. above.

- (5) To address 10 CFR 2.390 (b) (4), the information sought to be withheld is being submitted to NRC in confidence. The information is of a sort customarily held in confidence by GE, and is in fact so held. The information sought to be withheld has, to the best of my knowledge and belief, consistently been held in confidence by GE, no public disclosure has been made, and it is not available in public sources. All disclosures to third parties, including any required transmittals to NRC, have been made, or must be made, pursuant to regulatory provisions or proprietary agreements which provide for maintenance of the information in confidence. Its initial designation as proprietary information, and the subsequent steps taken to prevent its unauthorized disclosure, are as set forth in paragraphs (6) and (7) following.
- (6) Initial approval of proprietary treatment of a document is made by the manager of the originating component, the person most likely to be acquainted with the value and sensitivity of the information in relation to industry knowledge. Access to such documents within GE is limited on a "need to know" basis.
- (7) The procedure for approval of external release of such a document typically requires review by the staff manager, project manager, principal scientist, or other equivalent authority for technical content, competitive effect, and determination of the accuracy of the proprietary designation. Disclosures outside GE are limited to regulatory bodies, customers, and potential customers, and their agents, suppliers, and licensees, and others with a legitimate need for the information, and then only in accordance with appropriate regulatory provisions or proprietary agreements.
- (8) The information identified in paragraph (2) above is classified as proprietary because it contains results and details of analysis methods and techniques developed by GE for evaluations of a chemical and precipitant effects on a PWR containment sump following a LOCA. Development of these methods, techniques, and information and their application for the design, modification, and analyses methodologies and processes for the PWR Containment Sump Strainer Program was achieved at a significant cost to GE, on the order of a few million dollars.

The development of the evaluation process along with the interpretation and application of the analytical results is derived from the extensive experience database that constitutes a major GE asset.

- (9) Public disclosure of the information sought to be withheld is likely to cause substantial harm to GE's competitive position and foreclose or reduce the availability of profit-making opportunities. The information is part of GE's comprehensive BWR safety and technology base, and its commercial value extends beyond the original development cost. The value of the technology base goes beyond the extensive physical database and analytical methodology and includes development of the expertise to determine and apply the

appropriate evaluation process. In addition, the technology base includes the value derived from providing analyses done with NRC-approved methods.

The research, development, engineering, analytical and NRC review costs comprise a substantial investment of time and money by GE.

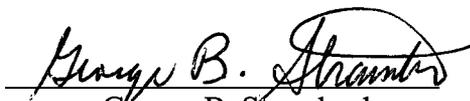
The precise value of the expertise to devise an evaluation process and apply the correct analytical methodology is difficult to quantify, but it clearly is substantial.

GE's competitive advantage will be lost if its competitors are able to use the results of the GE experience to normalize or verify their own process or if they are able to claim an equivalent understanding by demonstrating that they can arrive at the same or similar conclusions.

The value of this information to GE would be lost if the information were disclosed to the public. Making such information available to competitors without their having been required to undertake a similar expenditure of resources would unfairly provide competitors with a windfall, and deprive GE of the opportunity to exercise its competitive advantage to seek an adequate return on its large investment in developing these very valuable analytical tools.

I declare under penalty of perjury that the foregoing affidavit and the matters stated therein are true and correct to the best of my knowledge, information, and belief.

Executed on this 24th day of October 2006.


George B. Stramback
General Electric Company