



Commonwealth Edison  
1400 Opus Place  
Downers Grove, Illinois 60515

September 2, 1994

Mr. William T. Russell, Director  
Office of Nuclear Reactor Regulation  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Attn: Document Control Desk

Subject: Dresden Nuclear Power Station Units 2 and 3  
Quad Cities Nuclear Power Station Units 1 and 2  
Response to NRC Request for Information: TRAC-G 3D  
Model Results; Recirculation Pipe Break  
NRC Docket Nos. 50-237/249 and 50-254/265

- References:
- (1) Teleconference between ComEd and the NRC on July 11, 1994
  - (2) P.L. Piet to W.T. Russell letter dated July 12, 1994
  - (3) Teleconference between ComEd (P. Piet) and the NRC (J.Stang) on August 18, 1994

Dear Mr. Russell:

In the Reference (1) teleconference, the NRC Staff requested the revised schedule for delivery of the TRAC-G 3D model results for the Dresden Station and Quad Cities Station core shroud. In the Reference (2) letter, Commonwealth Edison (ComEd) indicated that the requested information would be provided by August 19, 1994.

In the subsequent Reference (3) teleconference, ComEd provided an updated schedule for submittal of the TRAC-G 3D model results. During that teleconference, ComEd indicated that the information would be provided by September 2, 1994. This letter transmits the TRAC-G 3D model results for the Dresden Station and Quad Cities Station core shroud in Enclosure 1.

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*Apol Change: NRC PDR 1 Hr Encl w/out Prof*

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PDR ADDCK 05000237  
P PDR

The information in Enclosure 1 which is marked with side bar lines (pages i, ii, 3, 4, 6, 8, and 10) is considered to be Proprietary Information to General Electric, and is supported by an affidavit signed by General Electric, the owners of the information. Enclosure 2 contains the affidavit that sets forth the basis on which the information may be withheld from public disclosure by the NRC and addresses the considerations listed in paragraph (b)(4) of 10 CFR 2.790 of the NRC regulations. Accordingly, ComEd requests that the information contained in Enclosure 1 be withheld from public disclosure in accordance with 10 CFR 2.790. Enclosure 3 provides the applicable pages from Enclosure 1 (pages i, ii, 3, 4, 6, 8, and 10), with all proprietary information removed.

The asymmetric blowdown load calculations performed as part of this analysis are the first step of the BWR-VIP Assessment Subcommittee project to review and further define the loads induced on the core shroud due to a recirculation line break. The BWR-VIP is currently working on a subsequent project to extend the results of this TRACG modeling for Dresden and Quad Cities Stations to the rest of the BWR's. The asymmetric blowdown loads calculated in this analysis are larger than those used by ComEd for the flaw evaluations, but will not effect the conclusions stated regarding the required remaining ligament. ComEd is actively participating in the BWR-VIP efforts to develop an industry approach to the core shroud cracking and will incorporate the results of this, and any subsequent BWR-VIP projects, into our December 1994 update to the NRC. We are currently working with the BWR-VIP to prepare the "BWR Core Shroud Inspection and Flaw Evaluation Guidelines". This document will define a comprehensive approach for the evaluation of core shroud flaws and is currently in a final review cycle prior to submittal to the NRC.

To the best of my knowledge and belief, the statements contained in this response are true and correct. In some respects, these statements are not based on my personal knowledge, but obtained information furnished by other Commonwealth Edison employees, contractor employees, and consultants. Such information has been reviewed in accordance with company practice and I believe it to be reliable.

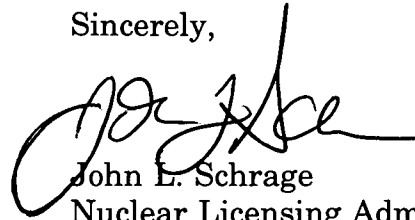
Mr. Russell

- 3 -

September 2, 1994

Please direct any questions you may have concerning this response to this office.

Sincerely,



John L. Schrage  
Nuclear Licensing Administrator

Enclosures

- (1) GE-NE-L12-00819-05, Core Shroud Blowdown Load Calculation During Recirculation Suction Line Break by TRACG Analysis for Dresden Nuclear Power Station, Units 2 and 3, and Quad Cities Nuclear Power Station, Units 1 and 2, August 1994 (with pages i, ii, 3, 4, 6, 8, and 10 marked "Proprietary").
- (2) General Electric Company Affidavit
- (3) Non-Proprietary version of pages associated with GE-NE-L12-00819-05 (pages i, ii, 3, 4, 6, 8, and 10)

cc: J. B. Martin, Regional Administrator - RIII  
C. Miller, Senior Resident Inspector - Quad Cities  
M. Leach, Senior Resident Inspector - Dresden  
R. Pulsifer, Project Manager - Quad Cities  
J. Stang, Project Manager - Dresden  
Office of Nuclear Facility Safety - IDNS

**ENCLOSURE 2**

**General Electric Company Affidavit**

# General Electric Company

## AFFIDAVIT

I, **George B. Stramback**, being duly sworn, depose and state as follows:

- (1) I am Project Manager, Licensing Services, General Electric Company ("GE") and 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 the GE proprietary report GENE-L12-00819-05, *Core Shroud Blowdown Load Calculation During Recirculation Suction Line Break by TRACG Analysis for Dresden Nuclear Power Station, Units 2 and 3, and Quad Cities Nuclear Power Station, Units 1 and 2, Class 3* (GE Company Proprietary Information), dated September 1994. This document, taken as a whole, constitutes a proprietary compilation of information, some of it also independently proprietary, prepared by the General Electric Company. The independently proprietary elements are delineated by bars marked in the margin adjacent to the specific material.
- (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), 2.790(a)(4), and 2.790(d)(1) for "trade secrets and commercial or financial information obtained from a person and privileged or confidential" (Exemption 4). The material for which exemption from disclosure is here sought is all "confidential commercial information", and some portions 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 cost or price information, production capacities, budget levels, or commercial strategies of General Electric, its customers, or its suppliers;
- d. Information which reveals aspects of past, present, or future General Electric customer-funded development plans and programs, of potential commercial value to General Electric;
- e. Information which discloses patentable subject matter for which it may be desirable to obtain patent protection.

Both the compilation as a whole and the marked independently proprietary elements incorporated in that compilation are considered proprietary for the reason described in items (4)a. and (4)b., above.

- (5) The information sought to be withheld is being submitted to NRC in confidence. That information is of a sort customarily held in confidence by GE, and has, to the best of my knowledge, consistently been held in confidence by GE, has not been publicly disclosed, and 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, by the manager of the cognizant marketing function (or his delegate), and by the Legal Operation, 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 by bars in the margin is classified as proprietary because it contains detailed results and conclusions from these evaluations, utilizing analytical models and methods, including computer codes, which GE has developed, obtained NRC approval of, and applied to perform evaluations of transient and accident events in the GE Boiling Water Reactor ("BWR"). The development and approval of these system, component, and thermal hydraulic models and computer codes was achieved at a significant cost to GE, on the order of several million dollars.

The development of the evaluation process along with the interpretation and application of the analytical and inspection 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 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, including justifications for not including certain analyses in applications to change the licensing basis.

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

While some of the underlying analyses, and some of the gross structure of the process, may at various times have been publicly revealed, enough of both the analyses and the detailed structural framework of the process have been held in confidence that this information, in this compiled form, continues to have great competitive value to GE. This value would be lost if the information as a whole, in the context and level of detail provided in the subject GE document, were to be disclosed to the public. Making such information available to competitors without their having been required to undertake a similar expenditure of resources, including that required to determine the areas that are not affected by a power uprate and are therefore blind alleys, 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 its analytical process.

STATE OF CALIFORNIA )  
 )  
COUNTY OF SANTA CLARA )

ss:

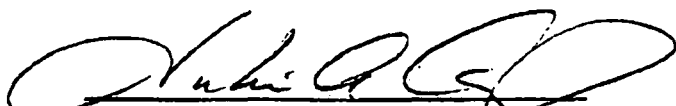
George B. Stramback, being duly sworn, deposes and says:

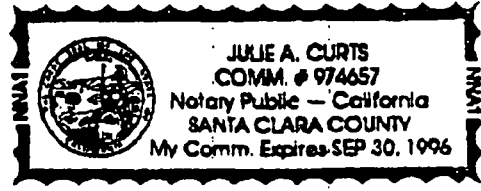
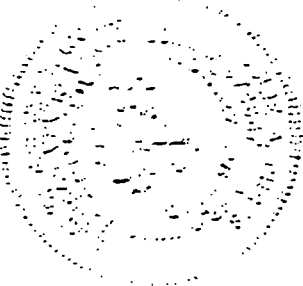
That he has read the foregoing affidavit and the matters stated therein are true and correct to the best of his knowledge, information, and belief.

Executed at San Jose, California, this 1st day of September 1993<sup>4</sup>.

  
George B. Stramback  
General Electric Company

Subscribed and sworn before me this 1st day of September 1993<sup>4</sup>.

  
Notary Public, State of California





**ENCLOSURE 3**

**Non-Proprietary version of pages associated with GE-NE-L12-00819-05  
(pages i, ii, 3, 4, 6, 8, and 10)**