

RS-01-209

September 27, 2001

U. S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, DC 20555-0001

Dresden Nuclear Power Station, Units 2 and 3  
Facility Operating License Nos. DPR-19 and DPR-25  
NRC Docket Nos. 50-237 and 50-249

Quad Cities Nuclear Power Station, Units 1 and 2  
Facility Operating License Nos. DPR-29 and DPR-30  
NRC Docket Nos. 50-254 and 50-265

Subject: Additional Testing Information Supporting the License Amendment Request to Permit Up-rated Power Operation at Dresden Nuclear Power Station and Quad Cities Nuclear Power Station

References: (1) Letter from R. M. Krich (Commonwealth Edison Company) to U. S. NRC, "Request for License Amendment for Power Uprate Operation," dated December 27, 2000

(2) Letter from R. M. Krich (Exelon Generation Company, LLC) to U. S. NRC, "Additional Testing Information Supporting the License Amendment Request to Permit Up-rated Power Operation at Dresden Nuclear Power Station and Quad Cities Nuclear Power Station," dated May 18, 2001

In Reference 1, Commonwealth Edison Company, now Exelon Generation Company (EGC), LLC, submitted a request for changes to the operating licenses and Technical Specifications (TS) for Dresden Nuclear Power Station, Units 2 and 3, and Quad Cities Nuclear Power Station, Units 1 and 2, to allow operation at up-rated power levels. In Reference 2, we provided information regarding the planned testing at the up-rated power levels. In a telephone conference on August 30, 2001, between representatives of EGC and Mr. S. S. Bajwa and other members of the NRC, the NRC requested additional information regarding data showing that General Electric (GE) Company's transient modeling computer code ODYN demonstrates agreement with actual plant data for units that have experienced power uprates. The NRC also requested information that demonstrates that reactor parameters during a generator load rejection transient do not change significantly for a 17% increase in reactor thermal power. The attachment to this letter provides a letter from GE containing the requested information.

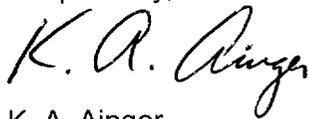
We have reviewed the information in the attached letter and concur with GE's assessment that the ODYN code predicts plant parameters and performance in an

acceptable manner when compared against actual plant data. We have also determined that the information supports our statements in Reference 2 that large transient testing following power uprate will not provide significant new information about plant response.

The information in the attached letter is proprietary information to GE, and EGC requests that it be withheld from public disclosure in accordance with 10 CFR 2.790(a)(4), "Public Inspections, Exemptions, Requests for Withholding." The attached letter contains the affidavit supporting the request for withholding the letter from public disclosure, as required by 10 CFR 2.790(b)(1).

Should you have any questions related to this letter, please contact Mr. Allan R. Haeger at (630) 657-2807.

Respectfully,



K. A. Ainger  
Director – Licensing  
Mid-West Regional Operating Group

Attachments:

Affidavit

Letter from G. C. Nelson (GE) to J. M. Nosko (Exelon), "Follow-up Information Requested by NRC on ELTR Transient Testing Requirements for EPU," dated September 6, 2001

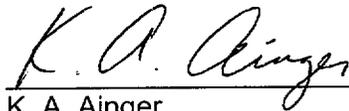
cc:           Regional Administrator – NRC Region III  
              NRC Senior Resident Inspector – Dresden Nuclear Power Station  
              NRC Senior Resident Inspector – Quad Cities Nuclear Power Station  
              Office of Nuclear Facility Safety – Illinois Department of Nuclear Safety

STATE OF ILLINOIS	)	
COUNTY OF DUPAGE	)	
IN THE MATTER OF	)	
EXELON GENERATION COMPANY, LLC	)	Docket Numbers
DRESDEN NUCLEAR POWER STATION, UNITS 2 AND 3	)	50-237 AND 50-249
QUAD CITIES NUCLEAR POWER STATION, UNITS 1 AND 2	)	50-254 AND 50-265

**SUBJECT:** Additional Testing Information Supporting the License Amendment Request to Permit Upgraded Power Operation, Dresden Nuclear Power Station and Quad Cities Nuclear Power Station

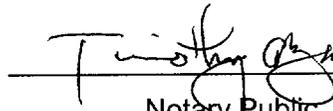
**AFFIDAVIT**

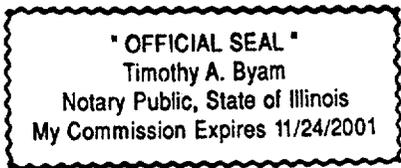
I affirm that the content of this transmittal is true and correct to the best of my knowledge, information and belief.

  
 \_\_\_\_\_  
 K. A. Ainger  
 Director – Licensing  
 Mid-West Regional Operating Group

Subscribed and sworn to before me, a Notary Public in and

for the State above named, this 27<sup>th</sup> day of  
September, 2001.

  
 \_\_\_\_\_  
 Notary Public



**Attachment**

**Letter from G. C. Nelson (GE) to J. M. Nosko (Exelon), "Follow-up Information Requested by NRC on ELTR Transient Testing Requirements for EPU," dated September 26, 2001**



Sept 26, 2001  
GE-DQC EPU-00-484  
DRF A22-000103-00

**Action Requested by:** Al Haeger  
**Response to:** N/A  
**Project Deliverable:** RAI Response  
cc: E.C. Connell (Exelon)  
A. Haeger (Exelon)  
A. Koslow (GE)

**To:** John Nosko (Exelon)  
**Author:** E. C. Eckert and Arnold Koslow (GE)  
**From:** G. C. Nelson (GE)  
**Subject:** Follow-up Information Requested by NRC on ELTR Transient Testing Requirements for EPU

**References:** N/A

Attachments 1 and 2 contain GE's input in response to the NRC request, from the conference call between them, Exelon and GE of August 30, 2001, for more information related to the basis for taking exception to performing large transient tests as part of the EPU test program.

Attachment 1 provides information relative to the data taken at KKL during its EPU startup program and includes information that favorably compares the predicted ODYN runs with the actual plant response. This information was extracted from the GE BWR Power Uprate presentation made to the ACRS Thermal Hydraulic Phenomena Subcommittee on June 12, 2001. It should be noted that the predictions and tests at KKL, which has 100% bypass capability, were scram avoidance tests, however the events tested included complete turbine/generator trips from EPU conditions and the data is a good indicator of the ability of ODYN to favorably predict plant performance and confirmation of acceptable performance of plant equipment (some of which was changed prior to the tests).

Attachment 2 provides information relative to the ODYN predictions at the current power level and the EPU power level for Dresden and Quad Cities. It includes plots and data that compare the results at the current power level and EPU power level, as well as text explanation of the result comparison. The comparison shows that there is no significant difference between the predicted plots at the two power levels.

In conclusion, GE now feels that the large transient testing, as described in NEDC-32324P-A, no longer needs to be performed as part of a constant pressure EPU because:

1. The safety parameters remain within predictions using current models.
2. The equipment at Dresden and Quad Cities remains within existing pressure and temperature conditions for equipment utilized in mitigation of this transient.
3. There is now good EPU operating experience relative to plant performance, including nominal comparisons to large transient events.

GE DQC EPU-00-483, Sept 21, 2001  
DRF A22-00103-00

As a note, GE's Constant Pressure Power Uprate Licensing Topical Report, NEDC-33004P Rev. 1, that has been submitted to the NRC for review, does not include this testing requirement.

The verification for this information is included in DRF A22-00103-16.

This transmittal contains GENE proprietary information, which is provided under the Exelon/GE-NE proprietary information agreement. GENE customarily maintains this information in confidence and withholds it from public disclosure.

The enclosed affidavit, Attachment 3, identifies that the designated information has been handled and classified as proprietary to GENE. Along with the affidavit, this information is suitable for review by the NRC. GENE hereby requests that the designated information be withheld from public disclosure in accordance with the provisions of 10 CFR 2.790 and 9.17.

A signed copy of this Letter is included in DRF A22-00103-00.

Sincerely yours,

*Original signed by G. C. Nelson*  
George C. Nelson, Project Director  
BWR Asset Enhancement Service

Attachments:

1. EPU Startup Testing: KKL Experience
2. Comparison ODYN Predictions: Current Power Level vs. EPU Power Level for Dresden and Quad Cities
3. Proprietary Affidavit

# General Electric Company

## AFFIDAVIT

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

- (1) I am Project Manager, Regulatory 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 Attachment 1 & 2 to letter GE-DQC EPU-00-484, *Follow-up Information Requested by NRC on ELTR Transient Testing Requirements for EPU*, (GE Proprietary Information), dated September 26, 2001. The proprietary information is all of the material in Attachment 1, *EPU Startup Testing: KKL Experience*, and Attachment 2, *Comparison ODYN Predictions: Current Power Level vs. EPU Power Level*.
- (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.

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

- (5) 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, 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 in paragraph (2), above, is classified as proprietary because it contains further details regarding the GE proprietary report NEDC-32961P, *Safety Analysis Report for Quad Cities 1 & 2 Extended Power Uprate*, Class III (GE Proprietary Information), dated December 2000, and NEDC-32962P, *Safety Analysis Report for Dresden 2 & 3 Extended Power Uprate*, Class III (GE

Proprietary Information), dated December 2000, which contain detailed results of analytical models, methods and processes, 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 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.

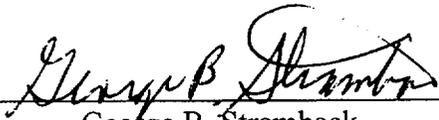
The value of this information to GE would be lost if the information were disclosed to the public. Making such information available to competitors without their having been required to undertake a similar expenditure of resources would unfairly provide competitors with a windfall, and deprive GE of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

STATE OF CALIFORNIA            )  
  )        ss:  
COUNTY OF SANTA CLARA    )

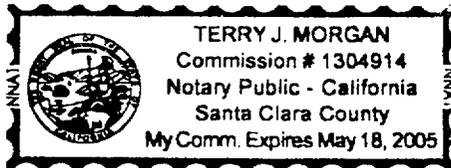
George B. Stramback, being duly sworn, deposes and says:

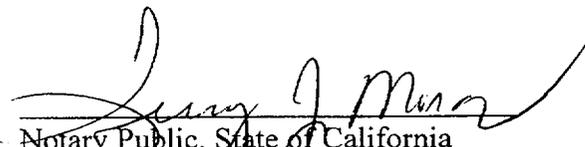
That he has read the foregoing affidavit and the matters stated therein are true and correct to the best of his knowledge, information, and belief.

Executed at San Jose, California, this 26<sup>th</sup> day of September 2001.

  
George B. Stramback  
General Electric Company

Subscribed and sworn before me this 26<sup>th</sup> day of September 2001.



  
Notary Public, State of California