

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401

400 Chestnut Street Tower II

November 4, 1981

Mr. Harold R. Denton, Director
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, DC 20555



Dear Mr. Denton:

In the Matter of the)
Tennessee Valley Authority)

Docket No. 50-296

This letter provides information regarding the planned use of Lead Test Assemblies (LTA's) at the Browns Ferry Nuclear Plant as part of unit 3 reload 4. The letter and enclosures are provided as supporting information for the Browns Ferry unit 3 reload 4 request for license amendment, currently planned for submittal on or about November 20, 1981. In accordance with a letter from T. A. Ippolito to R. E. Engel (General Electric), dated September 24, 1981 regarding Lead Test Assembly licensing, this letter and enclosures document the conformance of the analyses of these LTA's with current methods.

It is planned to load eight LTA's into Browns Ferry unit 3 as part of reload 4 during the fall 1981 refueling outage. Four test assemblies have an average bundle enrichment of 2.83 weight percent and four have an average of 3.14. The LTA's incorporate the improved features of a third water rod, increased prepressurization to five atmospheres, larger pellet diameter/thinner cladding/higher stack density, improved upper tie plate, improved spacer design, axial gadolinia distribution, and barrier fuel. The eight LTA's are described in more detail in Enclosure 1.

Please note that Enclosure 1 to this letter is General Electric Company Proprietary Information. An affidavit providing justification for the GE Proprietary status of the information is provided as Enclosure 2.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

L. M. Mills, Manager
Nuclear Regulation and Safety

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Subscribed and sworn to before
me this 4th day of November 1981.

Paulette H. White
Notary Public

My Commission Expires 9-5-84

Enclosures

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ENCLOSURE 1

Attachment 1 - Lead Test Assembly Bundle Descriptions

Attachment 2 - Lead Test Assembly Unique Inputs

ATTACHMENT 1

LTA BUNDLE DESCRIPTIONS

GENERAL ELECTRIC COMPANY

AFFIDAVIT

I, Glenn G. Sherwood, being duly sworn, depose and state as follows:

1. I am Manager Safety and Licensing Operation, General Electric Company, 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 attachments titled "LTA Bundle Descriptions" and "LTA Unique Inputs."
3. In designating material as proprietary, General Electric utilizes the definition of proprietary information and trade secrets set forth in the American Law Institute's Restatement Of Torts, Section 757. This definition provides:

"A trade secret may consist of any formula, pattern, device or compilation of information which is used in one's business and which gives him an opportunity to obtain an advantage over competitors who do not know or use it... A substantial element of secrecy must exist, so that, except by the use of improper means, there would be difficulty in acquiring information... Some factors to be considered in determining whether given information is one's trade secret are: (1) the extent to which the information is known outside of his business; (2) the extent to which it is known by employees and others involved in his business; (3) the extent of measures taken by him to guard the secrecy of the information; (4) the value of the information to him and to his competitors; (5) the amount of effort or money expended by him in developing the information; (6) the ease or difficulty with which the information could be properly acquired or duplicated by others."
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 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 consisting of supporting data and analyses, including test data, relative to a process, method or apparatus, the application of which provide a competitive economic advantage, e.g., by optimization or improved marketability;
 - c. 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;
 - d. Information which reveals cost or price information, production capacities, budget levels or commercial strategies of General Electric, its customers or suppliers;
 - e. Information which reveals aspects of past, present or future General Electric customer-funded development plans and programs of potential commercial value to General Electric;
 - f. Information which discloses patentable subject matter for which it may be desirable to obtain patent protection;
 - g. Information which General Electric must treat as proprietary according to agreements with other parties.
5. In addition to proprietary treatment given to material meeting the standards enumerated above, General Electric customarily maintains in confidence preliminary and draft material which has not been subject to complete proprietary, technical and editorial review. This practice is based on the fact that draft documents often do not appropriately reflect all aspects of a problem, may contain tentative conclusions and may contain errors that can be corrected during normal review and approval procedures. Also, until the final document is completed it may not be possible to make any definitive determination as to its proprietary nature. General Electric is not generally willing to release such a document to the general public in such a preliminary form. Such documents are, however, on occasion furnished to the NRC staff on a confidential basis because it is General Electric's belief that it is in the public interest for the staff to be promptly furnished with significant or potentially significant information. Furnishing the document on a confidential basis pending completion of General Electric's internal review permits early acquaintance of the staff with the information while protecting General Electric's potential proprietary position and permitting General Electric to insure the public documents are technically accurate and correct.
6. Initial approval of proprietary treatment of a document is made by the Subsection Manager of the originating component, the man most likely to be acquainted with the value and sensitivity of the information in relation to industry knowledge. Access to such documents within the Company is limited on a "need to know" basis and such documents at all times are clearly identified as proprietary.

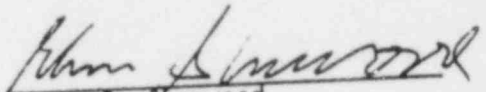
7. The procedure for approval of external release of such a document is reviewed by the Section Manager, Project Manager, Principal Scientist or other equivalent authority, by the Section Manager of the cognizant Marketing function (or his delegate) and by the Legal Operation for technical content, competitive effect and determination of the accuracy of the proprietary designation in accordance with the standards enumerated above. Disclosures outside General Electric are generally limited to regulatory bodies, customers and potential customers and their agents, suppliers and licensees only in accordance with appropriate regulatory provisions or proprietary agreements.
8. The document mentioned in paragraph 2 above has been evaluated in accordance with the above criteria and procedures and has been found to contain information which is proprietary and which is customarily held in confidence by General Electric.
9. The attachments herein are classified as proprietary because they contain details concerning fuel assembly design, mechanical analysis and calculated nuclear properties which were performed and developed at considerable expense to General Electric and which are not available to other parties. The information is of a type customarily held in confidence by General Electric since it reveals important features and contains valuable design information which were obtained at considerable expense to General Electric. In particular the following information is deemed proprietary.
 - a. Results from thermal and mechanical evaluations regarding bundle design. These designs are a result of extensive testing and development.

The design basis and methods have been developed over a long period of time and involves the expenditure of over \$75,000. The results could disclose valuable information regarding both the design and methods used.
 - b. Detailed hydraulic and nuclear characteristics based on water rods, spacers and other bundle design features.

These characteristics are a result of extensive development, analysis and out of reactor testing at a cost of over \$600,000.

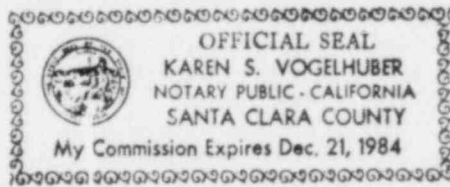
Glenn G. Sherwood, being duly sworn, deposes and says that he has read the foregoing affidavit and the matters stated therein are true and correct to the best of his knowledge, information, and belief.

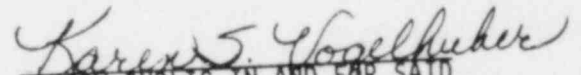
Executed at San Jose, California, this 8 day of OCTOBER, 1981.


Glenn G. Sherwood
General Electric Company

STATE OF CALIFORNIA)
COUNTY OF SANTA CLARA) ss:

Subscribed and sworn before me this 8 day of OCTOBER 1981.




NOTARY PUBLIC IN AND FOR SAID
COUNTY AND STATE

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