

GENERAL ELECTRIC

NUCLEAR POWER
SYSTEMS DIVISION

GENERAL ELECTRIC COMPANY, 175 CURTNER AVE., SAN JOSE, CALIFORNIA 95125
MC 682, (408) 925-5722
October 27, 1980

MFN-184-80
RHB-090-80

U.S. NRC
DISTRICT SERVICES
BRANCH

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DISTRICT
SERVICES UNIT

U.S. Nuclear Regulatory Commission
Office of Nuclear Reactor Regulation
Division of Safety Technology
Washington, D.C. 20555

Attention: Mr. Karl Kniel, Chief
Generic Issues Branch

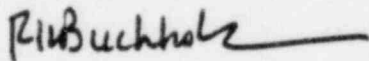
Gentlemen:

SUBJECT: MARK II CONTAINMENT PROGRAM
BURNS AND ROE, INC. PROPRIETARY REPORT, "AN ANALYTICAL
MODEL FOR LOCA WATER JET IN MARK II CONTAINMENTS (THE
RING VORTEX MODEL)"

Enclosed are seventy copies of the Burns and Roe, Inc. proprietary report, "Analytical Model for LOCA Water Jet in Mark II Containments (the Ring Vortex Model)" which are being provided by the General Electric Company on behalf of the Mark II Owners Group as part of the Mark II Containment Program. This report presents an analytical model (the ring vortex model) for calculation of water jets and the associated flow field induced in the suppression pool of a Mark II Containment during the downcomer water clearing phase of a postulated loss-of-coolant-accident.

The enclosed report contains information which General Electric Company customarily maintains in confidence and withholds from public disclosure. The information has been handled and classified proprietary by General Electric as indicated in the attached affidavit. Accordingly, we hereby request that the enclosed report be withheld from public disclosure in accordance with the provisions of 10CFR2.790.

Very truly yours,



R. H. Buchholz, Manager
BWR Systems Licensing
Safety and Licensing Operation

RHB:rf/755

Enclosure

cc: C. J. Anderson (NRC) H. Chau (Mark II Owners Group)
L. S. Gifford (GE-Bethesda) File: 3.2.7

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GENERAL ELECTRIC COMPANY

PROPRIETARY

AFFIDAVIT

I, William G. Gang, being duly sworn, depose and state as follows:

1. I am Manager of BWR Project Licensing, 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 Burns and Roe, Inc. document entitled "An Analytical Model for LOCA Water Jet in Mark II Containments (the Ring Vortex Model)."
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 listed below:
 - 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 obtaining patent protection may be desirable.
 - 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 a definitive determination as to its proprietary nature may not be possible. 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 General Electric believes that the public interest is served when the Staff is 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 ensure 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 person 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

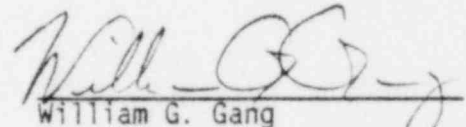
Operation for technical content, competitive effect and determination of the accuracy of the proprietary designation in accordance with the standards enumerated above. Disclosures outside General Electric are generally limited to regulatory bodies, customers and potential customers and their agents, suppliers and licensees 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 information presented in the document identified in Paragraph 2 above provides test results which have been identified as proprietary in previously submitted documentation.
10. The information, to the best of my knowledge and belief, has consistently been held in confidence by the General Electric Company, no public disclosure has been made, and it is not available in public sources. All disclosures to third parties have been made pursuant to regulatory provisions or proprietary agreements which provide for maintenance of the information in confidence.
11. Public disclosure of the information sought to be withheld is likely to cause substantial harm to the competitive position of the General Electric Company and deprive or reduce the availability of profit-making opportunities because of the following:
 - a. The Mark II Containment Study Program has been partially funded by General Electric, and the information is a significant part of the technological base which is sold in the form of license agreements by General Electric. The precise value of proprietary test data is difficult to separate from the total value of the license agreement, but it is clearly substantial.
 - b. It was developed with the expenditure of substantial resources as described in the previous submittals.
 - c. While General Electric shared these costs of developing the proprietary information in this report with domestic Mark II utilities, by contractual agreement, General Electric is entitled to all foreign and domestic proprietary rights to this information.
 - d. While none of General Electric's domestic competitors presently use pressure suppression containment systems similar to the Mark II, the availability of this information to them would enable domestic competitors to evaluate the Mark II system without expenditures of resources similar to those undertaken by General Electric. In addition, domestic competitors would be better able to evaluate and develop pressure suppression containment systems without similar expenditures of resources.

- e. A number of General Electric licensees currently utilize Mark II and other pressure suppression concepts, and this information can be, and has been, exchanged with some of them for technical data which they have and are developing on Mark II and other pressure suppression concepts.
- f. Public availability of this information would deprive General Electric and its customers of the ability to seek reimbursement from non-participating persons, would permit competitors to utilize this information to General Electric's detriment, and would impair General Electric's ability to maintain licensing agreements to the substantial financial and competitive disadvantage of General Electric.
- g. Public availability of the information would allow foreign competitors, including competing BWR suppliers, to obtain containment information at no cost which General Electric developed at substantial cost. Use of this information by foreign competitors would give them a competitive advantage over General Electric by allowing foreign competitors to produce their containment at lower cost than General Electric.

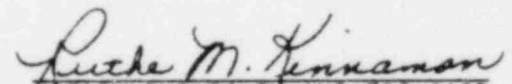
William G. Gang, being duly sworn, deposes and says that he has read the foregoing affidavit and the matters stated therein are true and correct to the best of his knowledge, information, and belief.

Executed at San Jose, California, this 24th day of October, 1980


William G. Gang
General Electric Company

STATE OF CALIFORNIA)
COUNTY OF SANTA CLARA) ss:

Subscribed and sworn before me this 24th day of October 1980.


NOTARY PUBLIC IN AND FOR SAID
COUNTY AND STATE

WGG:pes/317, 321-323



173 Currier Ave., San Jose, CA 95125