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May 21, 1985

C. E. MacDonald, Chief
Transportation Certification Branch
Office of Nuclear Material Safety and Safeguards
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

REFERENCES: 1) Application For Certification of The GE Model 2000 Container, 10/31/84
2) Modification to Application, NEDE-30779, 12/10/84.
3) Letter, C. E. MacDonald to G. E. Cunningham, 4/17/85.

Dear Mr. MacDonald:

General Electric requests that you review your decision not to withhold the stress report for the Model 2000, NEDE-30779, from the Public Document Room. General Electric still believes that the public release of this document would give an unfair advantage to potential competitors. In support of this contention General Electric hereby submits the attached supplementary affidavit.

Sincerely,

G. E. Cunningham

G. E. Cunningham
Senior Licensing Engineer

GEC:sl
Attachment

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DESCRIPTION:

requests that you review your decision not to withold the stress report for the Model 2000 from PDR

05/24/85 INITIAL CEC

GENERAL ELECTRIC COMPANY

SUPPLEMENTARY AFFIDAVIT

I, R. Villa, being duly sworn, depose and state as follows:

1. I am Manager, Products 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 proprietary document, "Model 2000 Radioactive Material Transport Package Stress Report", NEDE-30779, Class II, August 1984 issued in support of the analytical results reported in the Safety Analysis Report (NEDO-30778) for the Model 2000 transport package. The Stress Report describes the analytical methods used and detail calculations for the design of Type B packages. Also, it presents listing of computer subroutine employed in the analyses.

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 information mentioned in paragraph 2 provides additional information in support of the licensing of the Model 2000 Transport Package.

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 of 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:

    a. It was developed with the expenditure of resources exceeding $200,000.

    b. Public availability of this information would deprive General Electric of the ability to seek reimbursement, and would permit competitors to utilize this information to General Electric's detriment.

    c. Public availability of the information would allow competitors, to obtain information at no cost which General Electric developed at substantial cost. Use of this information by competitors would have given them a competitive advantage over General Electric by allowing competitors to design Type B packages at lower cost than General Electric.

The above initial evidential justification requesting that the information contained in the proprietary document be withheld from public disclosure is further supplemented by the additional following information.

The NEDE-30779 document, "Model 2000 Radioactive Material Transport Package Stress Report" presents a detailed account of the analytical method developed by General Electric (GE) for the design of Type B radioactive packages in accordance with 10CFR71. This method, developed over a two year period, includes a substantial amount of developmental computer calculations and prototype testing at a cost to GE in excess of $200,000.

The basis of the analytical method is finite element (FE) computational techniques. A LIBRA FE computer program was used to perform all of the required analyses. However, as indicated above GE developed the unique application of LIBRA to shipping container design as described in NEDE-30779. The applications of FE techniques depends on the following parameters: the computer program used; the geometrical representation of the structure or model; material properties assignment; and the application of boundary and loading conditions to the model to represent the design case. GE believes that those sections within NEDE-30779 document that would significantly assist a competitor in applying these techniques in analyzing a similar package are proprietary to GE and should be protected accordingly. These sections are:

1) Section 4.0, "Analysis": This section contains the description of the finite element models employed in the thermal and structural analyses, development of the material property functions, and development of boundary and loading conditions. This information represents the bulk of the computational techniques developed by GE to analyze shipping packages using the LIBRA computer program. Public disclosure of it would allow GE competitors to apply the LIBRA program in their packaging program with minimal developmental cost.

2) Section 5.2.1, "Energy Absorbing Characteristics of Overpack Toroidal Shell": GE feels this section is proprietary because, the method employed and results to determine the deformation characteristic of the toroidal shell are presented. GE competitors, with little effort on their part, could apply this method to employ a toroidal shell as an energy absorbing device.

3) Appendix B, "User Defined Subroutine CHGPROP": This appendix presents the computer listing of the LIBRA program subroutine developed by GE. This subroutine contains the material properties relationship of the thermal model as a function of temperature and represents a significant portion of the developmental work performed by GE.

4) Appendices C, D, and E: These appendices show in detail the FE models employed throughout the analyses. This information includes element size, type and material assignation. These appendices were included on the report, not only to present the reviewer with a detailed description of the three major FE

models employed but also as a permanent record for GE to use. Disclosure of this information would allow GE competitors to short cut development of similar models for the analysis of their packages.

5) Appendix F: This appendix shows how the two major FE models employed in the structural analyses correspond to each other despite difference in the element selection and mesh density. Disclosure of this information would allow GE competitors to employ hereto for unavailable substructuring techniques in analyzing their packaging.

6) Appendix G: This appendix describes how the loading produced by the side drop event is transferred from the package overpack onto the cask surface and how the cask is then analyzed. The non-symmetric nature of this loading condition makes its analysis complex and costly. Therefore the simplified approach developed by GE and presented in this Appendix is of significant value to GE. Disclosure of it would allow GE competitors to employ this approach without the use of substantial resources.

7) Appendix H: This appendix shows how the cask bolt stresses were determined from the results of FE analysis with the model representing the seal region. Disclosure of this section would give GE competitors a new methodology to treat similar problems in their package program.

8) Appendix J: The top and bottom parts of the package overpack are joined together with a stainless steel function designed to withstand the forces developed in the overpack during the hypothetical accident conditions. This appendix presents the model and the FE analysis conducted. GE believes that in view of the considerable resources that were employed by GE in developing the analytical technique presented in this Appendix that its disclosure would give significant advantage to GE competitors.

GE feels that all the information, sought to be withheld, is truly proprietary in nature. Public disclosure of this information, sought to be withheld, would permit GE's competitors in need of similar Type B packaging design to apply the unique analytical procedure and methods outlined in this document without incurring significant development cost. This would place GE at a competitive disadvantage in providing design services and in making these Type B containers available to industry.

STATE OF CALIFORNIA)
COUNTY OF SANTA CLARA) ss:

R. Villa, 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 21st day of May, 1985.

Rudolph Villa
R. Villa
General Electric Company

Subscribed and sworn before me this 21st day of MAY 1985

OFFICIAL SEAL
KAREN S VOGELHUBER
NOTARY PUBLIC - CALIFORNIA
SANTA CLARA COUNTY
My comm. expires DEC 30, 1988

Karen S. Vogelhuber
NOTARY PUBLIC, STATE OF CALIFORNIA