72-1027

TRANSNUCLEAR
AN AREVA COMPANY

Jan 14, 2005 E-21645

Ms. Mary Jane Ross-Lee
Spent Fuel Project Office, NMSS
U. S. Nuclear Regulatory Commission
11555 Rockville Pike M/S 0-6-F-18
Rockville, MD 20852

Subject: Application for Amendment 1, TN-68 CoC 72-1027

Dear Ms. Ross-Lee:

In accordance with 10 CFR 72.244, Transnuclear, Inc. (TN) herewith submits its application to amend the Certificate of Compliance (CoC) for the TN-68 Spent Fuel Dry Storage Cask. This application proposes to revise the allowable contents of the TN-68 according to the following table, and to reduce the cask spacing on the storage pad from 16 to 14 feet on center.

	Current	Proposed
Maximum burnup, GWd/MTU	40	60
Minimum cooling time, year	10	7
Maximum total decay heat, kW	21.2	30
Lattice average enrichment, wt% U235	3.7 max	4.7 max
Damaged fuel	none	8 assemblies

The increase in burnup and heat load and the decrease in cooling time are based on revised analyses of the existing TN-68 design; the physical design remains essentially unchanged. Therefore, a new TN-68 model designation is not required for TN-68 casks that will store higher burnup or higher heat load fuel. The following physical changes are included to accommodate higher enrichment and damaged fuels:

(a) end caps are added to fuel compartments for damaged fuel,
(b) the basket hold-down ring is modified to accommodate the end caps, and
(c) the specified neutron absorbing materials are revised, including increased B10 areal density for higher enrichment fuels.

The TN-68 thermal design basis is revised to conform to Interim Staff Guidance Memo ISG-11 rev 3. The damaged fuel design basis conforms to ISG-1 rev 1 with a minor exception described and justified in the application.

The current user of the TN-68 casks, Peach Bottom Atomic Power Station (PBAPS) has a need to accommodate higher burnup fuel to continue with spent fuel storage operations in the longer term. Transnuclear requests priority for review of this application by the NRC Spent Fuel Project Office consistent with PBAPS's desire to begin loading higher burnup fuel in the second quarter of 2006. This will allow them to manage their fuel storage program to achieve the overall lowest practical radiation exposure to plant workers and the public. The reduction in cask spacing is intended to

FOUR SKYLINE DRIVE, HAWTHORNE, NEW YORK 10532
Phone: 914-347-2345 • Fax: 914-347-2346

NMSS01

increase the capacity of PBAPS's spent fuel installation due to the limited space available on their site.

The application, enclosure 3, is organized in the following format:

Part A: Description of amendment changes
Part B: Proposed changes to the CoC and Technical Specifications
Part C: Proposed changed pages to the TN-68 FSAR, based on FSAR rev 2

This submittal includes proprietary information. In accordance with 10 CFR 2.390, an affidavit is enclosed for withholding the proprietary information from public disclosure. The proprietary information consists of Appendix 4A and the computer files identified in "Supplemental Data" sections 4.12.1, 5.5, and 6.6, enclosed on a compact disc.

Transnuclear looks forward to working with you and your staff on this amendment application. Should you or your staff require additional information to support your timely review of this application, please contact me.

Sincerely,

William Bracey

William Bracey
Project Engineer

cc:

Alan Hanson, TN
Tara Neider, TN
Michael Mason, TN
Jayant Bondre, TN
Mark Dedrich, PBAPS

encl:

1. Affidavit for withholding proprietary information.
2. One (1) compact disc containing the proprietary parts of the submittal, including computer files for thermal analysis
3. Ten (10) printed copies of the non-proprietary TN-68 CoC 72-1027 Amendment 1 Application
4. One (1) compact disc of the non-proprietary TN-68 CoC 72-1027 Amendment 1 Application in pdf format

AFFIDAVIT

STATE OF NEW YORK }
}
}
}
COUNTY OF WESTCHESTER }

Before me, the undersigned authority, personally appeared Alan Hanson who, being by me duly sworn according to law, deposes and says that he is authorized to execute this Affidavit on behalf of Transnuclear, Inc. and that the averments of fact set forth in this Affidavit are true and correct to the best of his knowledge, information, and belief:

Alan S. Hanson

ALAN HANSON

Sworn to and subscribed

before me this 12 day

of January, 2004.

REGINA GREAGOR
Notary Public, State of New York
No. 4959351
Qualified in Westchester County
Commission Expires November 27, 2005

Regina Greagor (R. Nunez)

(1) I am President of Transnuclear, Inc. and my responsibilities include reviewing the proprietary information sought to be withheld from public disclosure in connection with the licensing of spent fuel transport cask systems or spent fuel storage cask systems. I am authorized to apply for its withholding on behalf of Transnuclear, Inc.

(2) I am making this Affidavit in conformance with the provisions of 10 CFR Section 2.390 of the commission's regulations and in conjunction with the Transnuclear application for withholding accompanying this Affidavit.

(3) I have personal knowledge of the criteria and procedures utilized by Transnuclear in designating information as a trade secret, privileged or as confidential commercial or financial information.

(4) The following information is furnished pursuant to the provisions of paragraph 10 CFR 2.390(b)(4) to determine whether the information sought to be withheld from public disclosure should be withheld.

(i) The information sought to be withheld from public disclosure is owned and has been held in confidence by Transnuclear.

(ii) The information is of a type customarily held in confidence by Transnuclear, is not customarily disclosed to the public and is transmitted to the commission in confidence.

(iii) The information sought to be protected is not now available in public sources to the best of our knowledge and belief and the release of such information might result in a loss of competitive advantage as follows:

(a) It reveals the distinguishing aspects of a storage system where prevention of its use by any of Transnuclear's competitors without license from Transnuclear constitutes a competitive economic advantage over other companies.

(b) It consists of supporting data, including analytical models, relative to a component or material, the application of which secures a competitive economic or technical advantage.

(c) Its use 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 a similar product.

(5) The information is being transmitted to the commission in confidence and, under the provision of 10 CFR Section 2.390, it is to be received in confidence by the Commission.

(6) The information sought to be protected is not available in public sources to the best of our knowledge and belief.

(7) The proprietary information sought to be withheld is information contained in the application for amendment 1 of the TN-68 CoC 72-1027, specifically,

a) the finite element thermal model supplied with the application
b) supplementary information for the thermal evaluation, identified in Section 4.12.1 of the application
c) Appendix 4A of the application
d) supplementary information for the shielding evaluation, identified in Section 5.5.1 of the application
e) supplementary information for the criticality evaluation, identified in Section 6.6.5 of the application

(8) This information should be held in confidence because it provides details of analytical methods and basket design features that were developed at significant expense. This information has substantial commercial value to Transnuclear in connecting with competition with other vendors for contracts.

The subject information could only be duplicated by competitors if they were to invest time and effort equivalent to that invested by Transnuclear provided they have the requisite talent and experience.

Public disclosure of this information is likely to cause substantial harm to the competitive position of Transnuclear, because it would simplify design and evaluation tasks without requiring a commensurate investment of time and effort.