



**CP&L**

A Progress Energy Company

John S. Keenan  
Vice President  
Brunswick Nuclear Plant

10 CFR 50.90

**NOV 28 2001**

SERIAL: BSEP 01-0136  
TSC-2001-04

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

BRUNSWICK STEAM ELECTRIC PLANT, UNIT NOS. 1 AND 2  
DOCKET NOS. 50-325 AND 50-324/LICENSE NOS. DPR-71 AND DPR-62  
RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION REGARDING  
REQUEST FOR LICENSE AMENDMENTS TO ADOPT ALTERNATIVE  
RADIOLOGICAL SOURCE TERM (NRC TAC NOS. MB2570 AND MB2571)

Ladies and Gentlemen:

On August 1, 2001, Carolina Power & Light (CP&L) Company requested a revision to the Technical Specifications for the Brunswick Steam Electric Plant (BSEP), Units 1 and 2. The proposed license amendments would allow a full-scope implementation of an Alternative Radiological Source Term (AST). Subsequently, by letter dated August 9, 2001, CP&L requested a revision to the Operating Licenses and Technical Specifications for BSEP, Units 1 and 2, to increase the maximum licensed power level from 2558 megawatts thermal (Mwt) to 2923 Mwt. In order to support the power uprate of BSEP, Units 1 and 2, the AST analyses were performed at 102 percent of the uprated power level (i.e., 2981 Mwt).

During an October 24, 2001, meeting with the NRC to regarding the license amendment application for the power uprate, CP&L was requested to provide copies of the calculations supporting the AST radiological consequence analyses. The following calculations are enclosed:

BNP-RAD-001	Accident Offsite Radiological Atmospheric Dispersion Factors (Chi/Q)
BNP-RAD-002	Accident Control Room and TSC Radiological Atmospheric Dispersion Factors (Chi Over Q)
BNP-RAD-003	Suppression Pool Post-LOCA pH Calculation With Alternate Source Term
BNP-RAD-006	NUREG-0737 Item II.B.2 - Mission Dose Assessment For AEP and AST
BNP-RAD-007	DBA LOCA Radiological Dose With Alternate Source Term

P.O. Box 10429  
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AP01

BNP-RAD-008      Non-LOCA Radiological Consequence Dose With  
Alternate Source Term

The information contained in these calculations was prepared by Applied Analysis Corporation (AAC); this information is considered to be proprietary to AAC and should be withheld from public disclosure in accordance with 10 CFR 9.17(a)(4) and 10 CFR 2.790(a)(4). An affidavit attesting to this fact is provided in Enclosure 1. A non-proprietary version of these calculations is not being provided because each calculation, in its entirety, is considered proprietary to AAC.

Please refer any questions regarding this submittal to Mr. David C. DiCello, Manager - Regulatory Affairs, at (910) 457-2235.

Sincerely,

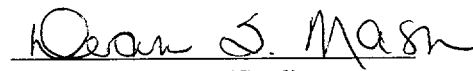
  
John S. Keenan

WRM/wrm

Enclosures:

1. Applied Analysis Corporation Affidavit Regarding Withholding From Public Disclosure
2. Calculations Supporting Alternative Radiological Source Term (**Proprietary Information**)

John S. Keenan, having been first duly sworn, did depose and say that the information contained herein is true and correct to the best of his information, knowledge and belief; and the sources of his information are officers, employees, and agents of Carolina Power & Light Company.

  
Notary (Seal)

My commission expires: August 29, 2004

cc (with Enclosure 1 only):

U. S. Nuclear Regulatory Commission, Region II  
ATTN: Dr. Bruce S. Mallett, Regional Administrator  
Sam Nunn Atlanta Federal Center  
61 Forsyth Street, SW, Suite 23T85  
Atlanta, GA 30303-8931

U. S. Nuclear Regulatory Commission  
ATTN: Mr. Theodore A. Easlick, NRC Senior Resident Inspector  
8470 River Road  
Southport, NC 28461-8869

U. S. Nuclear Regulatory Commission  
ATTN: Mr. Donnie J. Ashley (Mail Stop OWFN 8G9)  
11555 Rockville Pike  
Rockville, MD 20852-2738

Ms. Jo A. Sanford  
Chair - North Carolina Utilities Commission  
P.O. Box 29510  
Raleigh, NC 27626-0510

Mr. Mel Fry  
Director - Division of Radiation Protection  
North Carolina Department of Environment and Natural Resources  
3825 Barrett Drive  
Raleigh, NC 27609-7221

ENCLOSURE 1

BRUNSWICK STEAM ELECTRIC PLANT, UNIT NOS. 1 AND 2  
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Applied Analysis Corporation Affidavit  
Regarding Withholding From Public Disclosure

# APPLIED ANALYSIS CORP.

## AFFIDAVIT

I, Juan M. Cajigas, being duly sworn, depose and state as follows:

- 1) I am the President of Applied Analysis Corp. ("AAC") and have reviewed the information described in paragraph (2) and sought to be withheld.
- 2) The information sought to be withheld is contained in the AAC proprietary calculations listed in Attachment A.
- 3) In making this application for withholding of proprietary information, AAC 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 AAC competitors without license from AAC 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, preparation, assurance of quality, or licensing of a similar service;
  - c) Information which reveals cost or price information, production capacities, budget levels, or commercial strategies of AAC, its customers, or its suppliers;
  - d) Information which reveals aspects of past, present, or future AAC customer-funded development plans and programs, of potential commercial value to AAC;
  - 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 AAC, 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 AAC, 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 AAC 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 AAC 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 detailed methods and processes, which AAC has developed for the preparation of detailed safety analyses in support of the design and licensing of nuclear facilities.**

The development of these methods and processes was achieved at a significant cost to AAC and derived from company experience that constitutes a major AAC asset.

- 9) Public disclosure of the information sought to be withheld is likely to cause substantial harm to AAC's competitive position and foreclose or reduce the availability of profit-making opportunities. The information is part of AAC's nuclear safety analysis and technology base, and its commercial value includes development of the expertise to determine and apply the appropriate evaluation processes.**

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.

AAC's competitive advantage will be lost if its competitors are able to use the results of the AAC 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 results and conclusions.

The value of this information to AAC 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 AAC of the opportunity to exercise its competitive advantage to seek an adequate return on its investment in developing these analytical processes.

STATE OF PENNSYLVANIA

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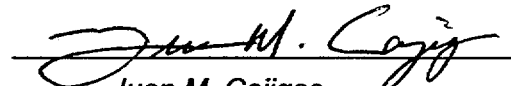
COUNTY OF BERKS

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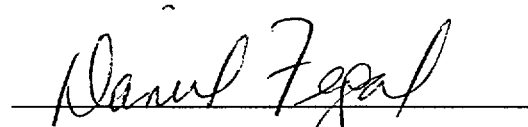
Juan M. Cajigas, being duly sworn, deposes and says:

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 Reading, Pennsylvania, this 15<sup>th</sup> day of JUNE 2001.

  
Juan M. Cajigas  
Applied Analysis Corp.

Subscribed and sworn before me this 15<sup>th</sup> day of JUNE 2001.

  
Notary Public, State of Pennsylvania

Notarial Seal  
Daniel Fegal, Notary Public  
Shillington Boro, Berks County  
My Commission Expires May 12, 2003  
Member, Pennsylvania Association of Notaries

## **ATTACHMENT A**

1. BNP-RAD-001, Accident Offsite Radiological Atmospheric Dispersion Factors (Chi/Q).
2. BNP-RAD-002, Accident Control Room and TSC Radiological Atmospheric Dispersion Factors (Chi Over Q).
3. BNP-RAD-003, Suppression Pool Post-LOCA pH Calculation With Alternate Source Term.
4. BNP-RAD-006, NUREG-0737 Item II.B.2 - Mission Dose Assessment For AEP and AST.
5. BNP-RAD-007, DBA LOCA Radiological Dose With Alternate Source Term.
6. BNP-RAD-008, Non-LOCA Radiological Consequence Dose With Alternate Source Term.



ENCLOSURE 2

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Calculations Supporting Alternative Radiological Source Term  
(Proprietary Information)