Indiana Michigan
Power Company
500 Circle Drive
Buchanan, MI 49107 1395

AEP
INDIANA
MICHIGAN
POWER

June 5, 2002

AEP:NRC:2075
10 CFR 50.90

Docket No.: 50-315
50-316

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Mail Stop O-P1-17
Washington, DC 20555-0001

Donald C. Cook Nuclear Plant Units 1 and 2
FINAL RESPONSE TO SECOND NUCLEAR REGULATORY COMMISSION REQUEST FOR ADDITIONAL INFORMATION AND VERBAL CONCERNS REGARDING LICENSE AMENDMENT REQUEST FOR CONTROL ROOM HABITABILITY

References:

1) Letter from R. P. Powers, Indiana Michigan Power Company (I&M), to U. S. Nuclear Regulatory Commission (NRC) Document Control Desk, "License Amendment Request for Control Room Habitability and Generic Letter 99-02 Requirements," C0600-13, dated June 12, 2000

2) Letter from J. F. Stang (NRC) to R. P. Powers (I&M), "Donald C. Cook Nuclear Plant, Units 1 and 2 – Request for Additional Information, License Amendment Request for Control Room Habitability, (TAC Nos. MA9394 and MA9395)," dated March 29, 2001

3) Letter from M. W. Rencheck (I&M) to NRC Document Control Desk, "Partial Response to Nuclear Regulatory Commission Request for Additional Information Regarding License Amendment Request for Control Room Habitability, (TAC Nos. MA9394 and MA9395)," C0601-03, dated June 19, 2001

A001

4) Letter from M. W. Rencheck (I&M) to NRC Document Control Desk, "Final Response to Nuclear Regulatory Commission Request for Additional Information Regarding License Amendment Request for Control Room Habitability (TAC Nos. MA9394 and MA9395)," C0801-02, dated August 17, 2001

5) Letter from J. F. Stang (NRC) to R. P. Powers (I&M), "Donald C. Cook Nuclear Plant, Units 1 and 2 – Request for Additional Information, License Amendment Request for Control Room Habitability (TAC Nos. MA9394 and MA9395)," dated August 16, 2001

6) Letter from A. C. Bakken (I&M) to NRC Document Control Desk, "Partial Response to Second Nuclear Regulatory Commission Request for Additional Information Regarding License Amendment Request for Control Room Habitability," C0102-04, dated January 15, 2002

7) Regulatory Guide (R.G.) 1.183, "Alternative Radiological Source Terms for Evaluating Design Basis Accidents at Nuclear Power Reactors," dated July 2000

8) Regulatory Guide DG-1081, "Alternative Radiological Source Terms for Evaluating Design Basis Accidents at nuclear Power Reactors," dated December 1999

This letter provides Indiana Michigan Power Company's (I&M) responses to remaining Nuclear Regulatory Commission (NRC) questions and verbal concerns regarding a previously proposed license amendment to address control room habitability issues at Donald C. Cook Nuclear Plant (CNP).

In Reference 1, I&M proposed to amend Facility Operating Licenses DPR-58 and DPR-74 for CNP Unit 1 and Unit 2 to address control room habitability issues. Reference 2 transmitted an NRC Request for Additional Information (RAI) regarding the proposed amendment. References 3 and 4 transmitted I&M's responses to that RAI. Reference 5 transmitted a second RAI pertaining to the proposed amendment. Reference 6 transmitted a partial response to the second RAI and to NRC concerns identified in phone conferences with members of the NRC staff. In Reference 6, I&M committed to provide additional information in a subsequent letter.

This letter fulfills I&M's commitment made in Reference 6 to provide additional information. Attachment 1 to this letter provides the remainder of the information requested by the second RAI (Reference 5). Attachment 2 addresses the remainder of the NRC concerns identified in phone conferences with members of the NRC staff as documented in Reference 6. Attachments 3 and 4 provide supporting information for Attachment 2 regarding the analysis of a locked rotor event. Attachment 4 contains information proprietary to Westinghouse Electric Company, LLC. Attachment 5 provides an affidavit setting forth the basis on which the proprietary information contained in Attachment 4 may be withheld from public disclosure pursuant to 10 CFR 2.790. Attachment 6 contains a non-proprietary version of Attachment 4. There are no new commitments in this letter.

The information provided in this letter consists of supporting information for the amendment request previously submitted by References 1 and 4. The information provided in this letter does not alter the requested amendment and does not affect the validity of the original evaluation of significant hazards considerations performed in accordance with 10 CFR 50.92 as documented in Attachment 4 to Reference 1. The environmental assessment provided in Attachment 5 to Reference 1 also remains valid.

Should you have any questions, please contact Mr. Gordon P. Arent, Manager of Regulatory Affairs, at (616) 697-5553.

Sincerely,

J. E. Pollock
Site Vice President

/dmb

Attachments:

1. Final Response to Second RAI
2. Final Response to Verbal Concerns
3. Locked Rotor Rods-in-DNB Transient Analysis Information
4. DNBR Margins and Allocations (Proprietary)
5. Affidavit for Withholding Attachment 4 from Public Disclosure
6. Non-Proprietary Version of Attachment 4

c: K. D. Curry, w/o attachments
J. E. Dyer
MDEQ - DW & RPD, w/o attachments
NRC Resident Inspector
R. Whale, w/o attachments

AFFIRMATION

I, Joseph E. Pollock, being duly sworn, state that I am Site Vice President of Indiana Michigan Power Company (I&M), that I am authorized to sign and file this request with the Nuclear Regulatory Commission on behalf of I&M, and that the statements made and the matters set forth herein pertaining to I&M are true and correct to the best of my knowledge, information, and belief.

Indiana Michigan Power Company

J. E. Pollock
Site Vice President

SWORN TO AND SUBSCRIBED BEFORE ME

THIS 5 DAY OF June, 2002

Jennifer L Kernosky
Notary Public

My Commission Expires 5/26/05

JENNIFER L KERNOSKY
Notary Public, Berrien County, Michigan
My Commission Expires May 26, 2005

ATTACHMENT 1 TO AEP:NRC:2075

FINAL RESPONSE TO SECOND NUCLEAR REGULATORY COMMISSION
REQUEST FOR ADDITIONAL INFORMATION REGARDING
PROPOSED CONTROL ROOM HABITABILITY AMENDMENT

The documents referenced below are identified in the cover letter for this transmittal.

This attachment provides Indiana Michigan Power Company's (I&M) final response to a Nuclear Regulatory Commission (NRC) request for additional information (RAI) transmitted by Reference 5. I&M provided a partial response to NRC Question 1 and full responses to all other NRC questions from the RAI in Reference 6. The remainder of the response to NRC Question 1 is provided below.

NRC Question 1

The meteorological data set (ARCON96 format) provided by I&M as an attachment to the June 19, 2001, letter appears to contains data which are questionable. For example:

- *For the year 1996, stability class A was reported for 4912 hours out of the available 8760 hours; 4404 hours in 1997; and 4653 hours in 1998. These appear to be unusually large fractions and are inconsistent with historic data reported in Table 2.2-4 of the Updated Final Safety Analysis [Report] (UFSAR).*

- *There are periods in the data set in which the reported stability class did not change for numerous hours; 56 hours in one case. Given that this encompasses two diurnal cycles, the constant stability class suggests a potential instrumentation or data processing problem resulting in invalid data that perhaps should have been flagged as such.*

- *Over 25 percent of the observations of stability class A for the 3 years were reported between the evening hours of 1900 to 0700. This appears to be an untypically large fraction.*

The I&M response to Question 9 indicates that the data were validated by a meteorologist on I&M's contractor's staff to ensure that the wind speed and direction were within normal operating ranges. The response also states that invalid data were not used. The response does not explicitly state that a similar validation was performed on the stability class data. (The staff did determine that a wind rose prepared using the submitted wind speed and wind direction data showed a good correlation to the 1992 data reported in the UFSAR.)

Although the staff recognizes that local temporal meteorological conditions can often result in observations that appear askew, the large quantity of stability class A observations in the D. C. Cook data set raises a question regarding the representativeness of the reported data. Since

stability class A is generally more favorable with regard to dispersion than the other classes, the reported χ/Q values may not be adequately conservative.

Please provide a suitable explanation of the conditions identified above. If the conditions described above cannot be reasonably explained, or are deemed to be the result of instrumentation or processing problems, please provide a justification of why these data are appropriate for use in determining short-term dispersion estimates for design-basis calculations.

I&M Response to NRC Question 1

I&M's partial response to this question, provided in Reference 6, described two errors that were identified in the processing of the meteorological data transmitted to the NRC. I&M provided a computer disc containing new data and provided new atmospheric dispersion (χ/Q) values calculated from that data. Using the new χ/Q values, I&M determined bounding doses for the events identified in the original amendment request, except for the dose from a large break loss of coolant accident (LOCA). I&M committed to provide the recalculated dose from a large break LOCA in a subsequent letter. The large break LOCA dose has since been recalculated by revising the original analysis documented in Reference 1 to address the χ/Q errors, to address the NRC concern described in Attachment 2 to this letter regarding the value assumed for the fraction of emergency core cooling system (ECCS) leakage that becomes airborne, and to modify other assumptions for consistency with Regulatory Guide (RG) 1.183 (Reference 7). The specific changes are as follows:

- New χ/Q values are used as described in Reference 6.

- The fraction of iodine in ECCS leakage that becomes airborne during the recirculation phase is assumed to be 0.1. In the original analysis, a value of 0.0001 was assumed. However, the guidance in RG 1.183 (Reference 7), Appendix A, Paragraph 5.5, states that a value of 0.1 should be assumed. Therefore, the analysis was revised accordingly.

- The procedurally controlled ECCS effective leak rate limit is assumed to be 0.1 gallons per minute. In the original analysis, the procedurally controlled effective leak rate was assumed to be 0.2 gallons per minute. However, this did not provide the factor of two conservatism that RG 1.183, Appendix A, Paragraph 5.2 states should be included in the value used in the dose calculation. Since the value of 0.2 gallons per minute used in the dose calculation has not been changed, the procedurally controlled ECCS effective leak rate limit has been reduced to 0.1 gallons per minute to provide the factor of two conservatism specified in RG 1.183.

- The failure of a containment spray pump is no longer postulated. In the original analysis, a simultaneous, independent failure of both a containment spray pump and a control room

emergency ventilation system (CREVS) emergency inlet damper was assumed. However, RG 1.183, Paragraph 5.1.2, states that only the single active failure that results in the most limiting radiological consequences should be assumed. I&M has determined that a failure of a CREVS emergency inlet damper is the most limiting single active failure, and has revised the analysis accordingly.

- The passive failure of an ECCS recirculation piping pressure boundary is no longer assumed. In the original analysis, a passive failure resulting in a leak rate of 50 gallons per minute for half an hour starting 24 hours into the event was assumed in accordance with draft RG DG-1081 (Reference 8), Appendix A, Paragraph 5.3. However, the assumption of a passive failure in ECCS piping is not required by RG 1.183, which superceded DG-1081. Therefore, the analysis was revised accordingly.

- The radioactive release from the fuel gap is assumed to be a linear release of 5 percent of the noble gases, halogens, and alkali metals in the core over the duration of the release phase of thirty minutes, starting at 30 seconds after accident initiation. In the original analysis, the fuel gap release was assumed to be a release of 3 percent of these radionuclides 30 seconds after accident initiation, followed by a linear release of 2 percent of these radionuclides over 30 minutes. The timing of the release in the revised analysis was changed to be consistent with the guidance in RG 1.183, Table 2, Paragraph 3.3, and Table 5.

With the changes described above, the revised analysis determined that the dose to control room operators from a large break LOCA would be less than or equal to 4.2 rem total effective dose equivalent (TEDE). This is below the 10 CFR 50, Appendix A, General Design Criterion 19 limit of 5 rem TEDE.

ATTACHMENT 2 TO AEP:NRC:2075

FINAL RESPONSES TO NUCLEAR REGULATORY COMMISSION CONCERNS IDENTIFIED IN PHONE CONFERENCES

The documents referenced below are identified in the cover letter for this transmittal.

The following provides Indiana Michigan Power Company's (I&M) final responses to Nuclear Regulatory Commission (NRC) verbal concerns regarding I&M's response (Reference 4) to the first NRC Request for Additional Information (Reference 2). These concerns were identified in telephone discussions conducted August 28, 2001, October 12, 2001, and November 13, 2001, between members of the NRC staff and I&M personnel. Responses to all identified NRC concerns, except those regarding I&M's responses to NRC Questions 10 and 21, were transmitted by Reference 6. The responses to NRC concerns regarding I&M's responses to NRC Questions 10 and 21 are provided below.

NRC Concern Regarding I&M Response to Question 10

I&M's response provided justification for use of an iodine airborne fraction of 10^{-4} in the proposed large break LOCA analysis to determine the iodine released from ECCS leakage, rather than the 10^{-1} value given in RG 1.183. I&M's justification was based on laboratory experiments described in the original CNP FSAR and a theoretical study of the same vintage. The NRC considers that justification for use of an iodine airborne fraction that differs so greatly from that given from the value given in RG 1.183 requires a numeric argument linked to the actual conditions in the plant.

I&M Response to NRC Concern

As described in Attachment 1 to this letter, the dose from a large break loss of coolant accident has been recalculated using a value of 10^{-1} for the iodine airborne fraction in accordance with Regulatory Guide 1.183 (Reference 7). The recalculated dose was determined to be below the limit stated in 10 CFR 50, Appendix A, General Design Criterion 19.

NRC Concern Regarding I&M Response to Question 21

In order for the staff to continue its review of the locked rotor event described in your application, the staff will need the following additional information: (1) a description of and justification for the initial assumptions used in the new analysis, (2) a comparison of the differences in assumption between the previous and new analyses, (3) the sequence of events for the new analysis, and (4) the results of the analysis including plots of important parameters to show plant response and minimum DNBR.

I&M Response to NRC Concern

The specific items identified in the NRC concern are addressed below.

(1) A description of and justification for the initial assumptions used in the new analysis.

The initial assumptions are shown in Table 1 of Attachment 3 to this letter. They are based on and bound values in the Updated Final Safety Analysis Report (UFSAR).

(2) A comparison of the differences in assumption between the previous and new analyses.

As noted in Reference 4, the previous UFSAR analyses for both units were based on a power shape that bounded all expected core reloads. The new (cycle-specific) analyses use cycle-specific power shape rather than a bounding power shape.

The acceptance criterion for the number of rods experiencing departure from nucleate boiling (DNB) also changed. The acceptance criteria in previous analyses allowed some rods to experience DNB. The acceptance criterion for the new analysis is that no rods experience DNB. Unused DNB ratio (DNBR) margin may be used to meet the new acceptance criterion.

All other assumptions used in the new analyses are the same as those used in the previous analyses.

(3) The sequence of events for the new analysis.

Table 3 in Attachment 3 to this letter provides a sequence of events for the new locked rotor DNB analyses. The sequence of events is not cycle-specific. It is based on the system transient analysis, which is not repeated on a cycle-specific basis.

(4) The results of the analysis including plots of important parameters to show plant response and minimum DNBR.

Figures 1 through 5 in Attachment 3 to this letter show the plant response for a Unit 2 locked rotor event. These figures are also representative of the Unit 1 plant response.

Table 2 in Attachment 3 to this letter provides the state points for the minimum DNBR.

Attachment 4 to this letter provides tables showing available DNBR margins, allocations for the locked rotor analyses, other allocations, and remaining margins for the current Unit 1 and Unit 2 fuel cycles, Cycle 18 and Cycle 13, respectively. Attachment 4 contains information proprietary to Westinghouse Electric Company, LLC. Attachment 5 provides an affidavit setting forth the basis on which the proprietary information contained in Attachment 4 may be withheld from

public disclosure pursuant to 10 CFR 2.790. Attachment 6 contains a non-proprietary version of Attachment 4.

ATTACHMENT 3 TO AEP:NRC:2075

LOCKED ROTOR RODS-IN-DNB TRANSIENT ANALYSIS INFORMATION FROM WESTINGHOUSE LETTER LTR-TA-02-157, DATED MAY 28, 2002

Introduction

The non-loss-of-coolant-accident Locked Rotor Rods-in-DNB (departure from nucleate boiling) reload limit is revised to establish, for the locked rotor event, that no rods are in a DNB condition (0% Rods-in-DNB). The core coolant flow transient, overpressure, and overtemperature portion of the analysis (transient analysis) has not changed. The DNB ratio (DNBR) calculation confirms, on a cycle-specific basis, that the 0% Rods-in-DNB limit continues to be met. The following information, pertaining to the Locked Rotor Rods-in-DNB transient analysis of record is provided.

Locked Rotor Rods-in-DNB Transient Analysis

The DNB acceptance criterion for a locked rotor event at Donald C. Cook Nuclear Plant (CNP) is that no rods are in a DNB condition (no rods-in-DNB). DNBR calculations confirm, on a cycle-specific basis, that the no-rods-in-DNB limit is met. Results of the cycle specific analysis for CNP Unit 1 Cycle 18 and Unit 2 Cycle 13 are provided in Attachment 4 to letter AEP:NRC:2075. The Nuclear Regulatory Commission has requested additional information pertaining to the locked rotor rods-in-DNB transient analysis of record. Specifically, information on the transient analysis done to generate the state points for the DNB analysis that is not provided in the Updated Final Safety Analysis Report for CNP is requested.

The locked rotor transient analysis is performed using the LOFTRAN and FACTRAN computer programs. Several cases are analyzed to generate limiting overpressure, overtemperature (heat flux), and core coolant flow transient conditions during the event. The core coolant flow conditions and peak heat flux are captured as state points in the Reload Safety Analysis Checklist and do not normally change every cycle. A Reload Safety Evaluation report is generated for each cycle. As part of the Reload Safety Evaluation, locked rotor transient analysis state points and cycle-specific core design parameters are input into the THINC computer program. THINC calculates a cycle-specific minimum DNBR for comparison with the DNB acceptance criterion. The DNB analysis is performed using the Revised Thermal Design Procedure (RTDP) described in WCAP-11397-P-A.

The initial conditions used as input to LOFTRAN and FACTRAN are provided in Table 1 for each unit. Performing the Unit 2 analysis at an Nuclear Steam Supply System thermal power of 3608 MWt is conservative relative to its licensed power of 3411 MWt. The state points calculated by LOFTRAN and FACTRAN, including core coolant flow conditions and peak core heat flux during the transient, are provided in Table 2. The sequence of events for the locked rotor transient analysis is presented in Table 3. Figures 1 through 5 illustrate the transient response during the Locked Rotor DNB analyzed event, which include power, pressure, temperature, and flow conditions versus time. These figures from the Unit 2 analysis of record are also representative of the transient conditions generated in the Unit 1 locked rotor analysis of record.

Table 1

Summary of Locked Rotor – Rods-in-DNB
Analysis Initial Conditions

	Initial NSSS Thermal Power Output (MWt)	Initial Core Average Heat Flux (Btu/hr-ft^2)	Reactor Vessel Coolant Flow (gpm)	Pressurizer Pressure (psia)	Temperature		Reactivity Coefficients Assumed	
					Vessel Average (°F)	Core Inlet (°F)	Moderator Temp Coef (pcm/°F)	Doppler Power Coef (pcm/%power)**
Unit 1 FSAR Table 14.1-3	3270	207827	339,100	2100	576.3	544.0	Maximum (+5)	Maximum (-19.4 + 0.065Q)
Unit 2 FSAR Table 14.1.0-2*	3608	207414	366,400	2100	581.3	548.6	Maximum (+5)	Maximum (-19.4+0.07176Q)

Notes:

* Similar to Peak Pressure case without uncertainty application (RTDP Methodology)

**Q is in % power

Table 2

Summary of Locked Rotor – Rods-in-DNB
Analysis Statepoint Conditions

Unit 1 Statepoint Results

Initial Conditions

Core power level, MWt	3250
Initial core heat flux, Btu/hr-ft^2	207827
Initial core mass flow rate, gpm	339100

Statepoint Conditions

Statepoint time, seconds	2.6
Core heat flux, fraction of initial	1.0280
Core mass flow rate, fraction of initial	0.6921
Pressurizer pressure, psia	2100
Core inlet temperature, °F	544.0

Unit 2 Statepoint Results

Initial Conditions

Core power level, MWt	3588
Initial core heat flux, Btu/hr-ft^2	207414
Initial core mass flow rate, gpm	366400

Statepoint Conditions

Statepoint time, seconds	2.2
Core heat flux, fraction of initial	1.0288
Core mass flow rate, fraction of initial	0.70544
Pressurizer pressure, psia	2100
Core inlet temperature, °F	548.6

Table 3

Summary of Locked Rotor Rods-in-DNB
Analysis Sequence of Events

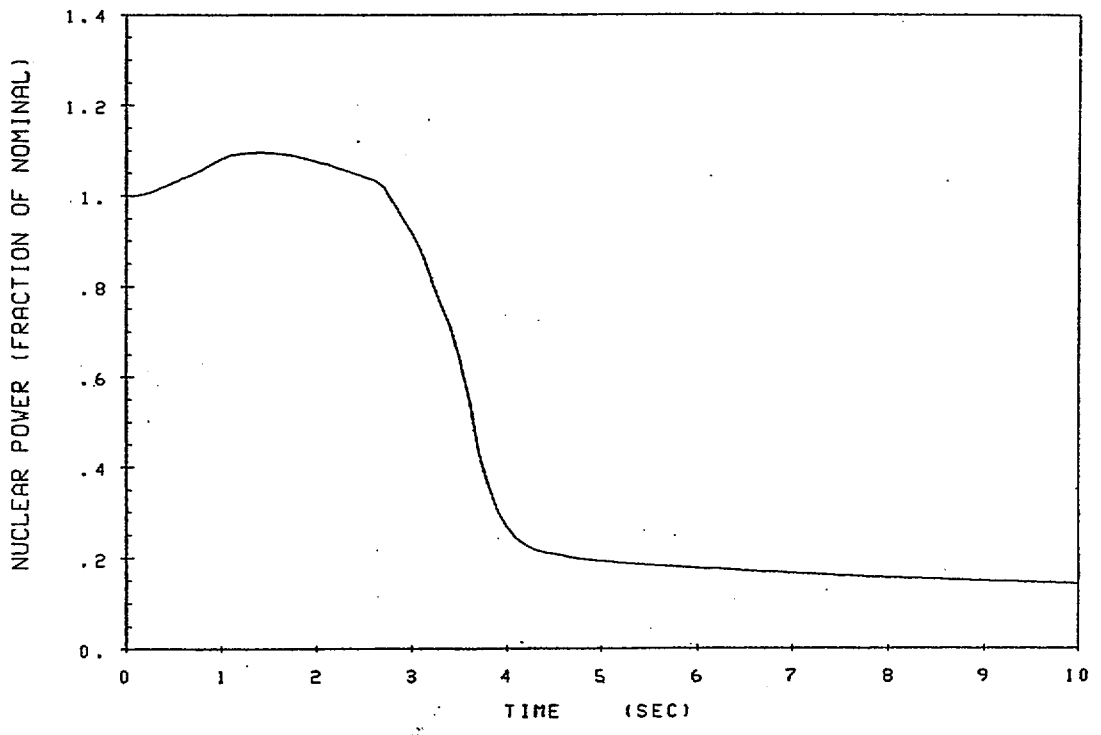
(includes time of maximum pressure and temperature)

	Event	Time (seconds)
Unit 1	Rotor in one pump locks	0.0
	Low reactor coolant flow trip setpoint reached in faulted loop	0.04
	Rods begin to drop	1.04
	Maximum percentage of rods-in-DNB predicted	2.6
	Maximum RCS pressure occurs (Max pressure/temp case)	3.20
	Maximum clad temperature occurs(Max pressure/temp case)	3.49
Unit 2	Rotor in one pump locks	0.00
	Low reactor coolant flow trip setpoint reached in faulted loop	0.02
	Rods begin to drop	1.02
	Maximum percentage of rods-in-DNB predicted	2.2
	Maximum RCS pressure occurs (Max pressure/temp case)	3.10
	Maximum clad temperature occurs(Max pressure/temp case)	3.60

Figure 1

Nuclear Power and Pressurizer Pressure vs. Time

For the Locked Rotor Event



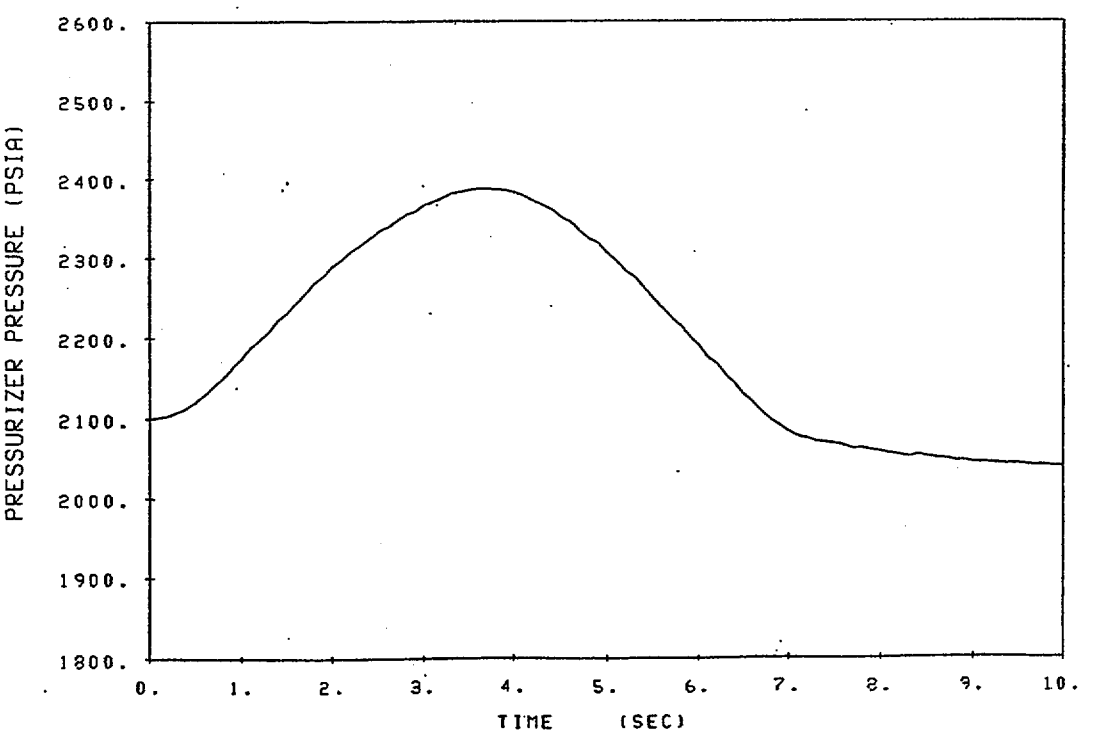
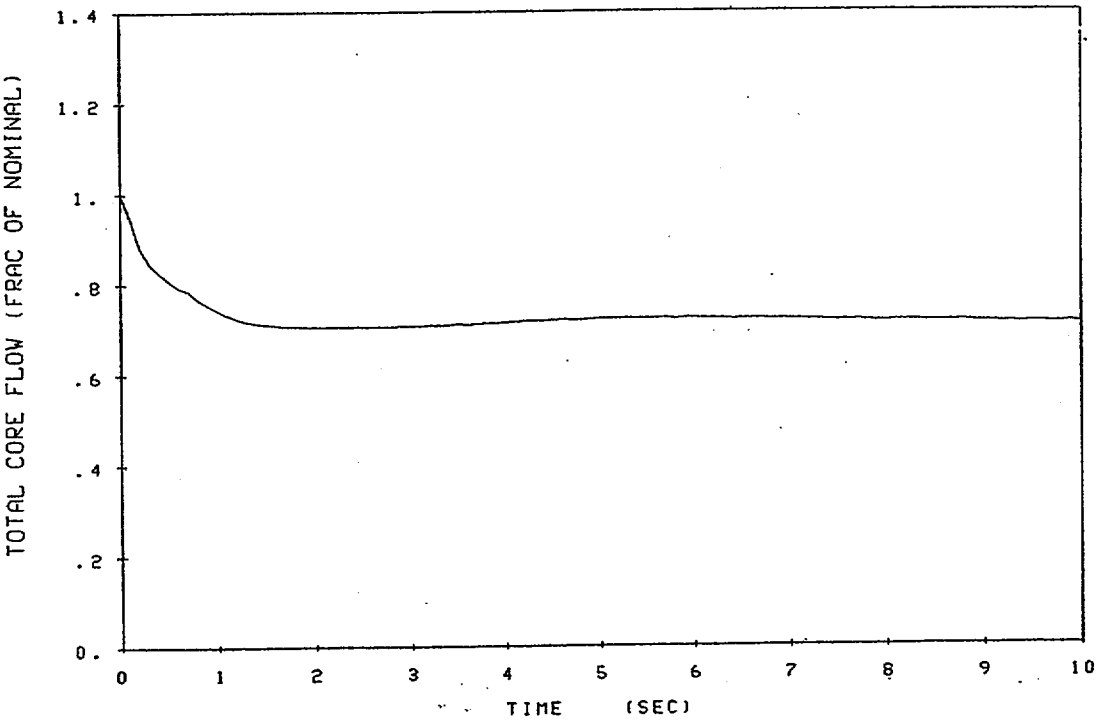


Figure 2

Total Core Flow and Faulted Loop (Loop 4) Flow vs. Time

For the Locked Rotor Event



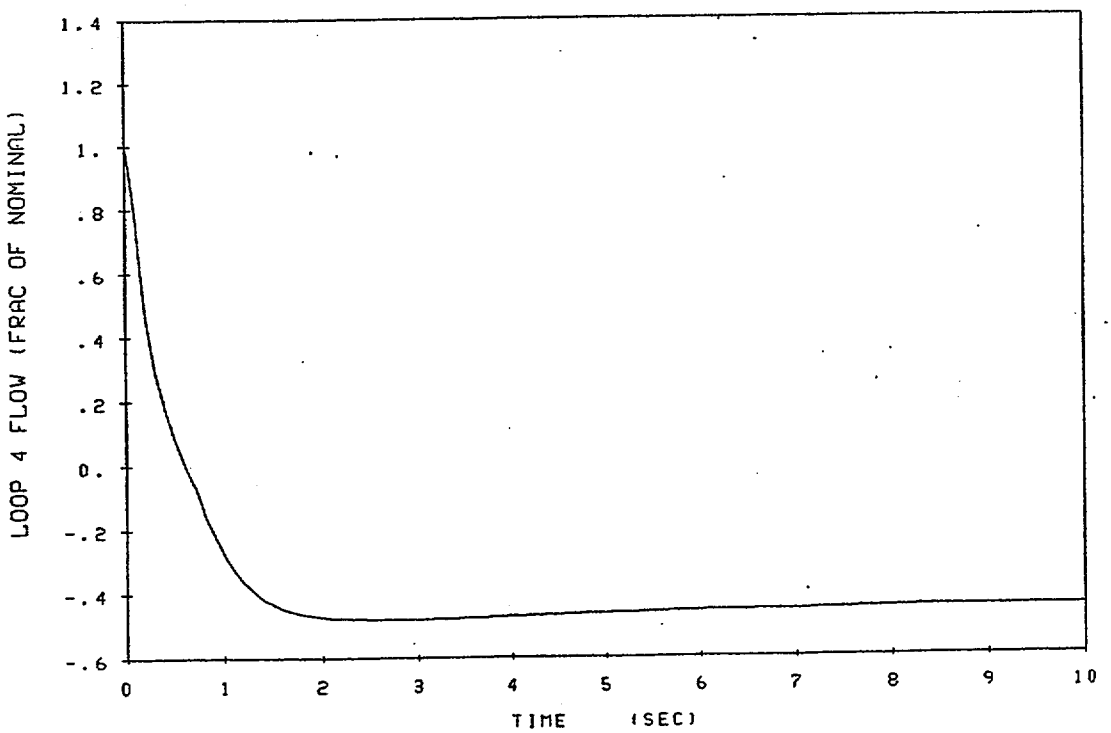


Figure 3

Core Average Temperature vs. Time

For the Locked Rotor Event

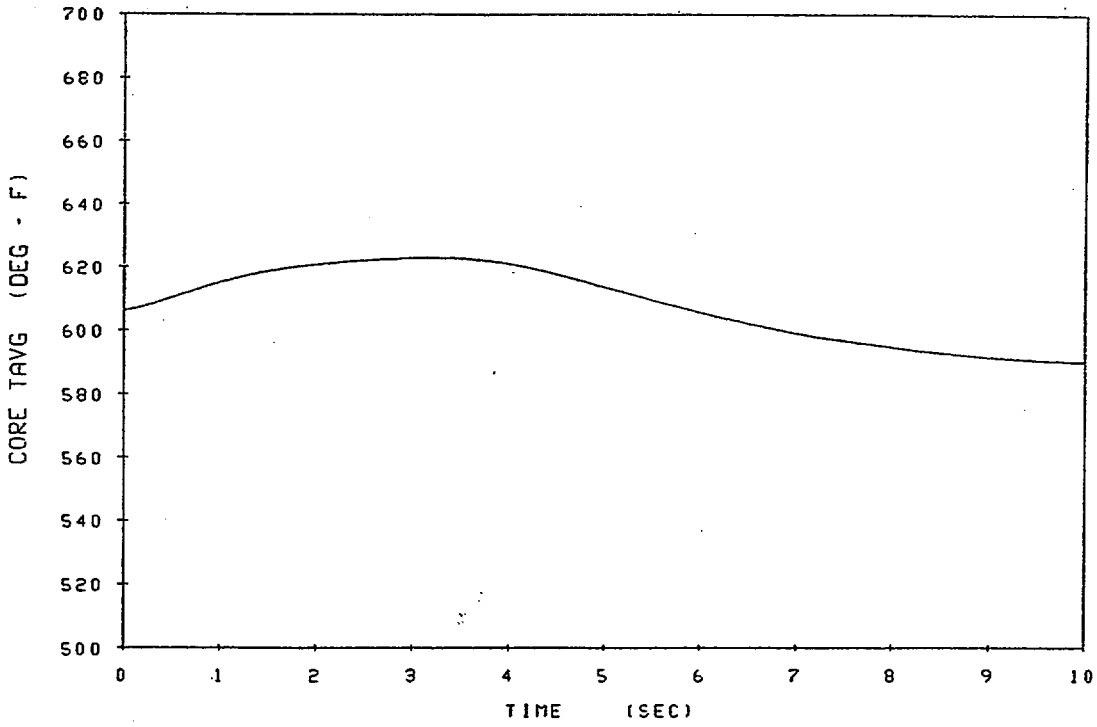
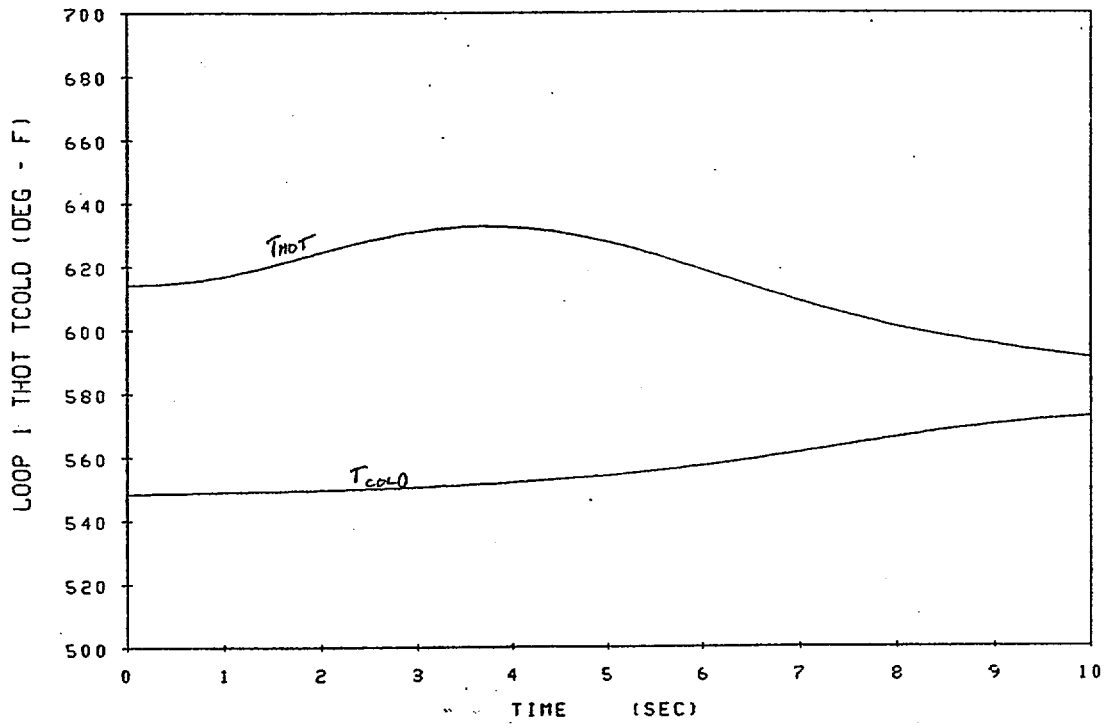


Figure 4

Non-Faulted (Loop 1) and Faulted (Loop 4) Loop Temperature vs. Time

For the Locked Rotor Event



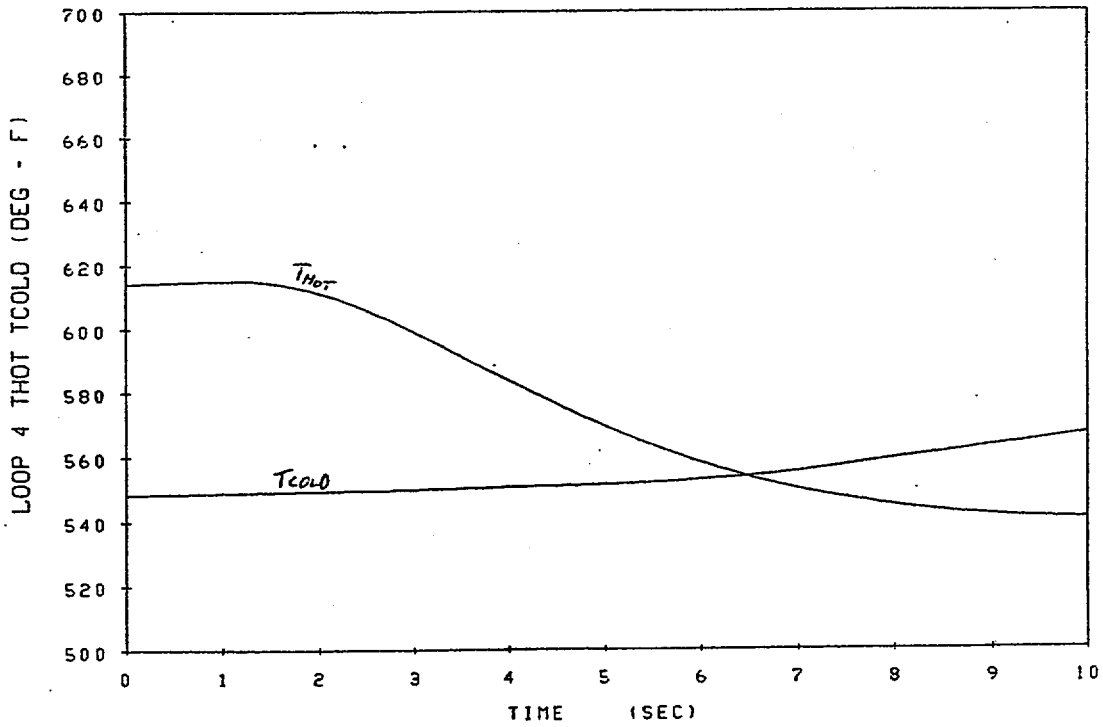
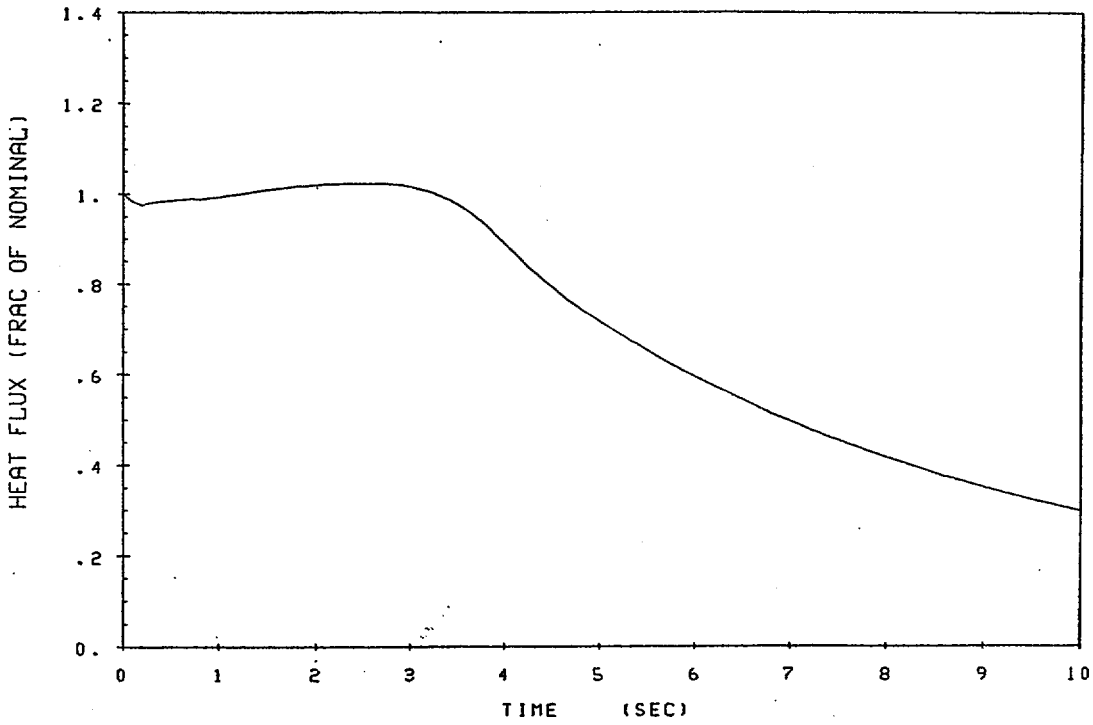


Figure 5

Average Channel Heat Flux vs. Time

For the Locked Rotor Event

(taken from the overtemperature case)



ATTACHMENT 5 TO AEP:NRC:2075

AFFIDAVIT SETTING FORTH THE BASIS ON WHICH INFORMATION CONTAINED IN ATTACHMENT 4 MAY BE WITHHELD FROM PUBLIC DISCLOSURE

CAW-02-1530

AFFIDAVIT

COMMONWEALTH OF PENNSYLVANIA:

ss

COUNTY OF ALLEGHENY:

Before me, the undersigned authority, personally appeared H. A. Sepp, who, being by me duly sworn according to law, deposes and says that he is authorized to execute this Affidavit on behalf of Westinghouse Electric Company LLC ("Westinghouse"), and that the averments of fact set forth in this Affidavit are true and correct to the best of his knowledge, information, and belief:

KAY E. GONGAWARE COMMONWEALTH OF PENNSYLVANIA NOTARY PUBLIC

H. A. Sepp, Manager
Regulatory and Licensing Engineering

Sworn to and subscribed
before me this 29th day
of May, 2002

Kay E. Gongaware
Notary Public

Notarial Seal
Kay E. Gongaware, Notary Public
Monroeville Boro, Allegheny County
My Commission Expires Feb. 7, 2005
Member, Pennsylvania Association of Notaries

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(1) I am Manager, Regulatory and Licensing Engineering, in Nuclear Services, Westinghouse Electric Company LLC ("Westinghouse"), and as such, I have been specifically delegated the function of reviewing the proprietary information sought to be withheld from public disclosure in connection with nuclear power plant licensing and rule making proceedings, and am authorized to apply for its withholding on behalf of the Westinghouse Electric Company LLC.

(2) I am making this Affidavit in conformance with the provisions of 10CFR Section 2.790 of the Commission's regulations and in conjunction with the Westinghouse application for withholding accompanying this Affidavit.

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

(4) Pursuant to the provisions of paragraph (b)(4) of Section 2.790 of the Commission's regulations, the following is furnished for consideration by the Commission in determining 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 Westinghouse.

(ii) The information is of a type customarily held in confidence by Westinghouse and not customarily disclosed to the public. Westinghouse has a rational basis for determining the types of information customarily held in confidence by it and, in that connection, utilizes a system to determine when and whether to hold certain types of information in confidence. The application of that system and the substance of that system constitutes Westinghouse policy and provides the rational basis required.

Under that system, information is held in confidence if it falls in one or more of several types, the release of which might result in the loss of an existing or potential competitive advantage, as follows:

(a) The information reveals the distinguishing aspects of a process (or component, structure, tool, method, etc.) where prevention of its use by any of Westinghouse's competitors without license from Westinghouse constitutes a competitive economic advantage over other companies.

(b) It consists of supporting data, including test data, relative to a process (or component, structure, tool, method, etc.), the application of which data secures a competitive economic advantage, e.g., by optimization or improved marketability.

(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.

(d) It reveals cost or price information, production capacities, budget levels, or commercial strategies of Westinghouse, its customers or suppliers.

(e) It reveals aspects of past, present, or future Westinghouse or customer funded development plans and programs of potential commercial value to Westinghouse.

(f) It contains patentable ideas, for which patent protection may be desirable.

There are sound policy reasons behind the Westinghouse system which include the following:

(a) The use of such information by Westinghouse gives Westinghouse a competitive advantage over its competitors. It is, therefore, withheld from disclosure to protect the Westinghouse competitive position.

(b) It is information which is marketable in many ways. The extent to which such information is available to competitors diminishes the Westinghouse ability to sell products and services involving the use of the information.

(c) Use by our competitor would put Westinghouse at a competitive disadvantage by reducing his expenditure of resources at our expense.

(d) Each component of proprietary information pertinent to a particular competitive advantage is potentially as valuable as the total competitive advantage. If competitors acquire components of proprietary information, any one component may be the key to the entire puzzle, thereby depriving Westinghouse of a competitive advantage.

(e) Unrestricted disclosure would jeopardize the position of prominence of Westinghouse in the world market, and thereby give a market advantage to the competition of those countries.

(f) The Westinghouse capacity to invest corporate assets in research and development depends upon the success in obtaining and maintaining a competitive advantage.

(iii) The information is being transmitted to the Commission in confidence and, under the provisions of 10CFR Section 2.790, it is to be received in confidence by the Commission.

(iv) The information sought to be protected is not available in public sources or available information has not been previously employed in the same original manner or method to the best of our knowledge and belief.

(v) The proprietary information sought to be withheld in this submittal is that which is appropriately marked in letter CAA-02-96, Revision 2 (Proprietary), May 2002 for D. C. Cook Units 1 and 2 being transmitted by the American Electric Company letter and Application for Withholding Proprietary Information from Public Disclosure, to the Document Control Desk, Attention Mr. Samuel J. Collins. The

proprietary information as submitted for use by American Electric Company for D. C. Cook Units 1 and 2 is expected to be applicable in other licensee submittals in response to certain NRC requests for information to support the locked rotor rods-in-DNB analysis for D. C. Cook Unit 1 or 2.

This information is part of that which will enable Westinghouse to:

(a) Justify no rods-in-DNB for the locked rotor analysis.

(b) Assist the customer to respond to NRC requests for information.

Further this information has substantial commercial value as follows:

(a) Westinghouse plans to sell the use of similar information to its customers for purposes of meeting NRC requirements for licensing documentation.

(b) Westinghouse can sell support and justification for no rods-in-DNB for the locked rotor analysis.

Public disclosure of this proprietary information is likely to cause substantial harm to the competitive position of Westinghouse because it would enhance the ability of competitors to provide similar support documentation and licensing defense services for commercial power reactors without commensurate expenses. Also, public disclosure of the information would enable others to use the information to meet NRC requirements for licensing documentation without purchasing the right to use the information.

The development of the technology described in part by the information is the result of applying the results of many years of experience in an intensive Westinghouse effort and the expenditure of a considerable sum of money.

In order for competitors of Westinghouse to duplicate this information, similar technical programs would have to be performed and a significant manpower

effort, having the requisite talent and experience, would have to be expended for developing testing and analytical methods and performing tests.

Further the deponent sayeth not.

PROPRIETARY INFORMATION NOTICE

Transmitted herewith are proprietary and/or non-proprietary versions of documents furnished to the NRC in connection with requests for generic and/or plant-specific review and approval.

In order to conform to the requirements of 10 CFR 2.790 of the Commission's regulations concerning the protection of proprietary information so submitted to the NRC, the information which is proprietary in the proprietary versions is contained within brackets, and where the proprietary information has been deleted in the non-proprietary versions, only the brackets remain (the information that was contained within the brackets in the proprietary versions having been deleted). The justification for claiming the information so designated as proprietary is indicated in both versions by means of lower case letters (a) through (f) contained within parentheses located as a superscript immediately following the brackets enclosing each item of information being identified as proprietary or in the margin opposite such information. These lower case letters refer to the types of information Westinghouse customarily holds in confidence identified in Sections (4)(ii)(a) through (4)(ii)(f) of the affidavit accompanying this transmittal pursuant to 10 CFR 2.790(b)(1).

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ATTACHMENT 6 TO AEP:NRC:2075

WESTINGHOUSE PROPRIETARY CLASS 3

Donald C. Cook Nuclear Plant
Departure From Nucleate Boiling Ratio (DNBR)
Margins and Allocations for Revised Thermal Design Procedure Analyses (Locked Rotor) from
Westinghouse Letter CAA-02-96, Revision 2, dated May 29, 2002

(a, b, c)

