



Westinghouse  
Electric Corporation

Water Reactor  
Divisions

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February 20, 1986  
CAW-86-017

Mr. Harold R. Denton, Director  
Office of Nuclear Reactor Regulation  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

APPLICATION FOR WITHHOLDING PROPRIETARY  
INFORMATION FROM PUBLIC DISCLOSURE

Subject: RdF RTD Installation Safety Evaluation for D. C. Cook Unit 2, WCAPS 11080  
and 11081.

Reference: American Electric Power Service Corporation Letter of February, 1986.

Dear Mr. Denton:

The proprietary material for which withholding is being requested in the reference letter by the American Electric Power Service Corporation for the D. C. Cook Plant Unit 2 is further identified in an affidavit signed by the owner of the proprietary information, Westinghouse Electric Corporation. The affidavit, which accompanies this letter, sets forth the basis on which the information may be withheld from public disclosure by the Commission and addresses with specificity the considerations listed in paragraph (b)(4) of 10CFR Section 2.790 of the Commission's regulations.

The proprietary material for which withholding is being requested is of the same technical type as that proprietary material previously submitted with Application for Withholding CAW-76-060.

Accordingly, this letter authorizes the utilization of the accompanying affidavit by American Electric Power Service Corporation.

Correspondence with respect to the proprietary aspects of the application for withholding or the Westinghouse affidavit should reference this letter, CAW-86-017, and should be addressed to the undersigned.

Very truly yours,

8603200301 860314  
PDR ADDCK 05000316  
P PDR

Robert A. Wieseemann, Manager  
Regulatory & Legislative Affairs

LVT/dmr  
Enclosure(s)

cc: E. C. Shomaker, Esq.  
Office of the Executive Legal Director, NRC



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 10CFR2.790 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 (g) 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)(11)(a) through (4)(11)(g) OF THE AFFIDAVIT ACCOMPANYING THIS TRANSMITTAL PURSUANT TO 10CFR2.790(b)(1).

AFFIDAVIT

COMMONWEALTH OF PENNSYLVANIA:

SS

COUNTY OF ALLEGHENY:

Before me, the undersigned authority, personally appeared Robert A. Wiesemann, 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 Corporation ("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:



Robert A. Wiesemann, Manager  
Licensing Programs

Sworn to and subscribed  
before me this 2 day  
of December 1976.

  
Notary Public

- (1) I am Manager, Licensing Programs, in the Pressurized Water Reactor Systems Division, of Westinghouse Electric Corporation 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 or rule-making proceedings, and am authorized to apply for its withholding on behalf of the Westinghouse Water Reactor Divisions.
- (2) I am making this Affidavit in conformance with the provisions of 10 CFR 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 Westinghouse Nuclear Energy Systems 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.
- (g) It is not the property of Westinghouse, but must be treated as proprietary by Westinghouse according to agreements with the owner.

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 in 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 10 CFR Section 2.790, it is to be received in confidence by the Commission.
- (iv) The information is not available in public sources 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 the attachment to Westinghouse letter number NS-CE-1298, Eicheldinger to Stolz, dated December 1, 1976, concerning information relating to NRC review of WCAP-8567-P and WCAP-8568 entitled, "Improved Thermal Design Procedure," defining the sensitivity of DNB ratio to various core parameters. The letter and attachment are being submitted in response to the NRC request at the October 29, 1976 NRC/Westinghouse meeting.

This information enables Westinghouse to:

- (a) Justify the Westinghouse design.
- (b) Assist its customers to obtain licenses.
- (c) Meet warranties.
- (d) Provide greater operational flexibility to customers assuring them of safe and reliable operation.
- (e) Justify increased power capability or operating margin for plants while assuring safe and reliable operation.

- (f) Optimize reactor design and performance while maintaining a high level of fuel integrity.

Further, the information gained from the improved thermal design procedure is of significant commercial value as follows:

- (a) Westinghouse uses the information to perform and justify analyses which are sold to customers.
- (b) Westinghouse sells analysis services based upon the experience gained and the methods developed.

Public disclosure of this information concerning design procedures is likely to cause substantial harm to the competitive position of Westinghouse because competitors could utilize this information to assess and justify their own designs without commensurate expense.

The parametric analyses performed and their evaluation represent a considerable amount of highly qualified development effort. This work was contingent upon a design method development program which has been underway during the past two years. Altogether, a substantial amount of money and effort has been expended by Westinghouse which could only be duplicated by a competitor if he were to invest similar sums of money and provided he had the appropriate talent available.

Further the deponent sayeth not.

Attachment 5 to AEP:NRC:09161

LETTER REPORT DESCRIBING SUPPLEMENTARY CALCULATIONS  
TO PREVIOUSLY SUBMITTED ANALYSES FOR  
D.C. COOK UNIT 2 CYCLE 6 OPERATION



THIS ATTACHMENT WILL BE SUPPLIED DIRECTLY  
BY EXXON NUCLEAR CO. IN THEIR LETTER

NO. RAC:022:86



Attachment 6 to AEP:NRC:0916I

REQUEST FOR WITHHOLDING PROPRIETARY INFORMATION

ASSOCIATED WITH

EXXON SUPPLEMENTARY CALCULATIONS

DESCRIBED IN ATTACHMENT 5



THIS ATTACHMENT WILL BE SUPPLIED DIRECTLY

BY EXXON NUCLEAR CO. IN THEIR LETTER

NO. RAC:022:86



Attachment 7 to AEP:NRC:0916I

SUMMARY OF ALLOWANCES  
NOT ADDRESSED IN ATTACHMENT 3

Attachment 7 is provided as an aid to assist the reviewer in understanding the development of certain values cited in the Technical Specifications. The included calculations supplement information provided in XN-NF-85-64(P), XN-NF-85-64(P) Rev. 1, and WCAP 11080. Reference to Attachment 7 is indicated in the Remarks column of Attachment 10 for those Technical Specification items which require the additional explanation so provided.

Item A of this attachment demonstrates the development of the Reactor Coolant System (RCS) Analysis Flow Value.

Item B of this attachment demonstrates the derivation of the required minimum indicated RCS Flow in lbm/hr.

Item C of this attachment demonstrates the conversion of the minimum indicated RCS flow obtained in Item B from lbm/hr to gpm.

Item D1 provides the minimum indicated pressurizer pressure indication value in psig for Mode 1 operation.

Item D2 provides the minimum indicated pressurizer pressure indication value in psig for Modes 2 & 3 operation.

# ATTACHMENT 7

## A. ANALYSIS VALUE OF REACTOR COOLANT SYSTEM (RCS) FLOW

Nominal RCS Flow with 10% Steam Generator Tube Plugging	141.3 X 10 <sup>6</sup> lbm/hr
Flow Measurement Uncertainty (3.5%)	5.0 X 10 <sup>6</sup> lbm/hr
Flow Measurement Repeatability	3.4 X 10 <sup>6</sup> lbm/hr
Analysis Flow: 141.3 E6 - 5.0 E6 - 3.4 E6 -	132.9 X 10 <sup>6</sup> lbm/hr

## B. TECHNICAL SPECIFICATION MINIMUM INDICATED REACTOR COOLANT SYSTEM (RCS) FLOW (lbm/hr)

Nominal RCS Flow with 10% Steam Generator Tube Plugging	141.3 X 10 <sup>6</sup> lbm/hr
Flow Measurement Repeatability	3.4 X 10 <sup>6</sup> lbm/hr
Correction to Flow Measurement Repeatability to Support Larger Pressure Allowance (Section 15.0.2, XN-NF-85-64(P) Rev. 1)	0.7 X 10 <sup>6</sup> lbm/hr
Modified Flow Measurement Repeatability: 3.4 E6 - 0.7 E6 -	2.7 X 10 <sup>6</sup> lbm/hr
Minimum Indicated RCS Flow: 141.3 E6 - 2.7 E6 -	138.6 X 10 <sup>6</sup> lbm/hr

## C. TECHNICAL SPECIFICATION MINIMUM INDICATED REACTOR COOLANT SYSTEM (RCS) FLOW (gpm)

Minimum Indicated RCS Flow	138.6 X 10 <sup>6</sup> lbm/hr
RCS Pressure	2250 psia
T <sub>cold</sub>	542.3°F
1 Gallon -	0.13368 cu.ft.
Specific Volume of Water at Stated Pressure and Temperature Conditions (1967 ASME Steam Tables)	0.021119 ft <sup>3</sup> /lbm
RCS Flow - (138.6 E6 lbm/hr) X (1 hr/60 min) X (0.021119 ft <sup>3</sup> /lbm) X (1 gal/0.13368 ft.)	
Minimum Indicated RCS Flow -	364,940 gpm
Minimum Indicated RCS Flow/Loop -	91,240 gpm

D. INDICATED PRESSURIZER PRESSURE DNB LIMIT (TABLES 3.2-1 AND 3.2-2)

The method of determining the allowance for pressure readability is similar to that provided in WCAP 11080 for the indicated  $T_{avg}$ . Actual values for the terms used in the calculation, with the exception of the rack calibration allowance and the indicator readability, were also obtained from WCAP 11080 Page viii. The value used for the rack calibration allowance was obtained from the pressurizer pressure channel calibration procedure; the value used for indicator readability was determined from a review of the indicator span and scale.

The total pressurizer pressure channel allowance was determined to be 3.41% of span which equates to 27.29 psia.

Assuming a minimum of 3 channels available for averaging, the allowance may be reduced by the square root of 3. This yields a final pressurizer pressure readability allowance of 15.8 psia.

1) Minimum Indicated Pressure in Mode 1

Nominal Pressure -	2250 psia
Pressure Control Allowance (WCAP 11080, Page 3) -	Proprietary
Indication Allowance -	15.8 psi
Allowance assumed in Analysis -	40 psi
Additional Pressure Allowance accounted for by .5% increase in minimum RCS Flow (Section 15.0.2 XN-NF-85-64(P) Rev. 1) -	7.5 psi
Analysis Pressure: 2250 - 40 - 7.5 -	2202.5 psia
Minimum Indicated Pressurizer Pressure: 2202.5 + 15.8 -	2218.3 psia
Table 3.2-1 Value for Minimum Indicated Pressure in Mode 1: 2220 psia -	2205 psig

2) Minimum Indicated Pressure in  
Modes 2 & 3

Analysis Pressure	2175 psia
Minimum Indicated Pressure: 2175 + 15.8 -	2190.8 psia
Table 3.2-2 Value for Minimum Indicated Pressure in Modes 2 & 3: 2191 psia -	2176 psig



Attachment 8 to AEP:NRC:0916I

LIST OF PREVIOUSLY SUBMITTED ANALYSES FOR  
D.C. COOK UNIT 2 CYCLE 6 OPERATION



LIST OF PREVIOUSLY SUBMITTED ANALYSES/DOCUMENTS

Item	Applicable Document No.	AEP:NRC: Letter No.
<u>I. POWER DISTRIBUTION CONTROL - PHASE 2</u>		
1. Technical Specification changes to incorporate PDCII power distribution control technique	XN-NF-77-57 XN-NF-77-57 Supp 1	AEP:NRC:0575 dated: 8/24/81
2. Technical Specification changes to include $\pm 3\%$ $\Delta I$ band	XN-NF-77-57 Supp 2	AEP:NRC:0710 dated: 7/12/82
<u>II. D. C. COOK UNIT 2, CYCLE 5 LICENSING</u>		
1. Inadvertent boron dilution at shutdown while on RHR.	Donald C. Cook Nuclear Plant Updated FSAR Section 14.1.5	AEP:NRC:0860I dated: 5/17/84
<u>III. D. C. COOK UNIT 2, ENC FUEL EXAMINATION</u>		
1. Examination of ENC Fuel Irradiated at D.C. Cook Unit 2	XN-NF-84-69(P)	AEP:NRC:0860U dated: 11/21/84

LIST OF PREVIOUSLY SUBMITTED ANALYSES/DOCUMENTS (Continued)

Item	Applicable Document No.	AEP:NRC: Letter No.
V. <u>D.C. COOK UNIT 2, CYCLE 6 LICENSING</u>		
1. Exxon Nuclear Methodology for PWRs: Analyses of Chapter 15 events	XN-NF-84-73 (P)	AEP:NRC:0916B dated: 9/18/85
2. D.C. Cook Unit 2 Limiting Break LOCA/ECCS Analysis; 10% Steam Generator Tube Plugging and K(Z) Curve	XN-NF-85-68 (P)	AEP:NRC:0916H dated: 10/8/85
3. D.C. Cook Unit 2 Safety Analysis Report	XN-NF-85-28	AEP:NRC:0916G dated: 10/18/85
4. D.C. Cook Unit 2 Safety Analysis Report: Disposition of Standard Review Plan Chapter 15 Events	XN-NF-85-28 (P) Supplement 1	AEP:NRC:0916G dated: 10/18/85
5. Plant Transient Analysis for D.C. Cook Unit 2 with 10% Steam Generator Tube Plugging	XN-NF-85-64 (P)	AEP:NRC:0916C dated: 11/15/85
6. Additional information requested by the NRC regarding the D.C. Cook Unit 2 Cycle 6 reload, responses to questions 1, 2, 3, 4, 7, and 11	N/A	AEP:NRC:0916M dated: 3/5/86
7. Additional information requested by the NRC regarding the D.C. Cook Unit 2 Cycle 6 reload, responses to questions 5, 6, 8, 9, and 10	N/A	TO BE SUBMITTED

Attachment 9 to AEP:NRC:0916I

PRINCIPAL CHARACTERISTICS FOR NUCLEAR ANALYSIS  
OF CYCLE 6 FUEL

D.C Cook Unit 2, Principal Characteristics  
for Nuclear Analysis of Cycle 6 Fuel

	<u>Region 5</u>	<u>Region 6</u>	<u>Region 7</u>	<u>Region 8</u>
Nominal Enrichment (w/o)	3.40	3.65	3.64	3.83
Nominal Density (% TD)	95	94	94	94
Pellet OD (in)	0.3225	0.3030	0.3030	0.3030
Clad OD (in)	0.374	0.360	0.360	0.360
Diametral Gap (in)	0.0065	0.0070	0.0070	0.0070
Clad Thickness (in)	0.0225	0.0250	0.0250	0.0250
Rod Pitch (in)	0.496	0.496	0.496	0.496
Spacer Material	Inconel	Bi-Metallic	Bi-Metallic	Bi-Metallic
Fuel Supplier	<u>W</u>	ENC	ENC	ENC
Fuel Stack Height Nominal (in)	144	144	144	144
Number of Assemblies	1	12	92	88
Regionwise Loading (MTU)	0.458	4.822	36.906	35.300
Exposure (MWd/MTU)				
BOC6	24,713	27,690	19,421	0
EOC6	39,453	37,791	36,449	19,633
Incremental	14,740	10,101	17,028	19,633



Attachment 10 to AEP:NRC:0916I

SUMMARY OF  
D.C. COOK UNIT 2 CYCLE 6  
PROPOSED TECHNICAL SPECIFICATION CHANGES



PAGE	SECTION	#	DESCRIPTION	REMARKS
I-A, III, IV, X	INDEX	001	Modifications to Index, corresponding to changes in the body of Technical Specifications.	Editorial change.
1-8	Definition 1.38	002	Definition of APL is added.	Editorial change; definition included for clarity.
2-1	2.1.1	003	Removed reference to Figure 2.1-2 and three loop operation.	Three loop operation in Modes 1 and 2 will be prohibited.
2-2	Figure 2.1-1	004	Revised reactor core safety limits.	New limits are based on analysis for 10% steam generator tube plugging. See Figure 15.0.7-2 of XN-NF-85-64(P).
		005	Removed reference to Power Range Neutron Flux Trip and associated dashed line on graph.	Editorial change to achieve greater consistency between units.
		006	Added table of figure break-points.	Editorial change to provide more precise information.
2-3	Figure 2.1-2	007	Figure is removed.	Three loop operation in Modes 1 and 2 will be prohibited.

NOTE: Pound sign (#) is reference number to each change referred to in Attachment 1.



PAGE	SECTION	#	DESCRIPTION	REMARKS
2-5	Table 2.2-1	008	The allowable value for Overpower $\Delta T$ is directed to Note 4.	This value is revised to reflect the value used in the analysis for 10% steam generator tube plugging and revisions to allowances to permit operation with RdF RTDs. See Table 15.0.7-3 of XN-NF-85-64(P) and Attachment 3.
		009	Allowable value for loss of flow trip changed.	Change to provide greater consistency between units. New value more conservative than current value and is supported by Attachment 3.
		010	Design flow value in footnote is changed.	This value is changed to reflect the value used in the analysis for 10% steam generator tube plugging and revisions to allowances to permit operation with RdF RTDs. See Table 15.0.2-1 of XN-NF-85-64(P). An increase in required flow to accommodate a pressure readability allowance is described in Attachment 5. The relationship between analysis flow and Technical Specification flow is discussed in Attachment 7.
2-6	Table 2.2-1	011	Allowable value for steam generator low-low level trip changed.	Changed to value resulting from new analysis of trip allowances performed by Westinghouse. See Attachment 3.
2-7	Table 2.2-1 (Note 1)	012	"t" is replaced by " $\tau$ " in the equation.	Editorial change; to achieve greater consistency with STS, Rev. 4 and Unit 1 Technical Specifications.
		013	T' is changed to $\leq 574.1^{\circ}\text{F}$ .	This value is revised to reflect the value used in the analysis for 10% steam generator tube plugging. See Table 15.0.7-2 of XN-NF-85-64(P).

PAGE	SECTION	#	DESCRIPTION	REMARKS
3/4 1-3	3.1.1.2 4.1.1.2	023	Revised to include MODE 4 and MODE 5 in the same specification. Revised Technical Specification requirements based on new dilution accident analysis in MODES 4 and 5.	A new analysis of the dilution accident for MODES 4 and 5 was performed. See section 15.4.6.3.1 of XN-NF-85-64(P) and Attachment 5.
3/4 1-3a; 3/4 1-3b	3.1.1.2 4.1.1.2	024	Pages added due to length of new specification.	Editorial change.
3/4 1-4	3.1.1.3	025	Footnote added.	The Technical Specification boron concentration in the RWST is sufficient to provide adequate shutdown margin from expected operating conditions.
3/4 1-11	3.1.2.3.a	026	Footnote added.	The Technical Specification boron concentration in the RWST is sufficient to provide adequate shutdown margin from expected operating conditions.
3/4 1-13	3.1.2.5	027	Footnote added.	The Technical Specification boron concentration in the RWST is sufficient to provide adequate shutdown margin from expected operating conditions.
3/4 1-15	3.1.2.7	028	Changed minimum RWST volume.	A new analysis of dilution accident for MODE 5 was performed. See Attachment 5.
3/4 1-23	3.1.3.4	029	ACTION statement b removed.	Three loop operation in Modes 1 and 2 will be prohibited.
3/4 1-25	3.1.3.6	030	Reference to Figure 3.1-2 is removed.	Three loop operation in Modes 1 and 2 will be prohibited.
3/4 1-27	Figure 3.1-2	031	Figure is removed.	Three loop operation in Modes 1 and 2 will be prohibited.

PAGE	SECTION	#	DESCRIPTION	REMARKS
2-8	Table 2.2-1 (Note 1)	014	The values of $K_1$ , $K_2$ , and $K_3$ are changed.	These values are revised to reflect the values in the analysis for 10% steam generator tube plugging and revisions to allowances to permit operation with RdF RTDs. See Table 15.0.7-2 of XN-NF-85-64(P) and Attachment 3.
		015	The definition of $f_1(\Delta I)$ is changed: -40 percent is changed to -31 percent and 1.8 percent is changed to 2.9 percent.	Most conservative values based upon Tables 15.0.7-2 and 15.0.7-3 of XN-NF-85-64(P). The OP $\Delta$ T and OT $\Delta$ T share one $f(\Delta I)$ module.
		016	Parameters for three loop operation are removed.	Three loop operation in Modes 1 and 2 will be prohibited.
2-9	Table 2.2-1 (Notes 2,3,4)	017	T" is changed to $\leq 574.1^\circ\text{F}$ .	This value is revised to reflect the value used in the analysis for 10% steam generator tube plugging. See Table 15.0.7-3 of XN-NF-85-64(P).
		018	The definition of $f_2(\Delta I)$ is revised.	Most conservative values based upon Tables 15.0.7-2 and 15.0.7-3 of XN-NF-85-64(P). The OP $\Delta$ T and OT $\Delta$ T share one $f(\Delta I)$ module.
		019	Note 3 is revised and Note 4 is added.	Revisions to allowable values to permit operation with RdF RTDs. See Attachment 3.
3/4 1-1	3.1.1.1	020	APPLICABILITY changed to MODES 1, 2, and 3.	Editorial change to move MODE 4 SHUT-DOWN MARGIN Specification to Specification 3.1.1.2.
3/4 1-2	4.1.1.1.1	021	Surveillance changed to MODE 3 only.	Editorial change to move MODE 4 SHUT-DOWN MARGIN Surveillance to Surveillance 4.1.1.2.b.
	4.1.1.1.2 4.1.1.1.3	022	Add shutdown margin surveillance.	This surveillance required in Section 15.1.3.4 of XN-NF-85-28(P), Supp. 1.

PAGE	SECTION	#	DESCRIPTION	REMARKS
3/4 2-2	3.2.1.a.2.c	032	Exemption from AFD requirements for APDMS calibration is removed.	The Axial Power Distribution Monitoring System (APDMS) is not used. The plant will operate below the Allowable Power Level (APL).
3/4 2-3	4.2.1.3 4.2.1.4	033	$F_O^M(Z)$ is changed to APL. Referenced specification number has changed.	The combined $F_O(Z)$ - target flux surveillance changed to combined APL - target flux surveillance. See Technical Specification 3.2.6.
3/4 2-5	3.2.2	034	The $F_O$ limit values of 2.04 and 4.08 are changed to 2.10 and 4.20 respectively for Exxon Nuclear Co. fuel.	This reflects new $F_O$ limits from XN-NF-85-68(P): "Donald C. Cook Unit 2 Limiting Break LOCA/ECCS Analysis, 10% Stean Generator Tube Plugging, and K(Z) Curve." The new analysis used reflood correlations based on FCTF data. See Table 2.2 of XN-NF-85-68(P).
		035	Description of $F_O(Z)$ penalties moved from surveillance to LCO.	Editorial change for clarity.
		036	"where" removed from definition "and" removed from definition of K(Z).	Editorial change for clarity.
		037	Modified ACTION existing statement a.1 to remove the requirement to lower the Overpower $\Delta T$ ( $OP\Delta T$ ) in hot standby.	In the current Technical Specification 3.2.2, ACTION a.1 requires that the $OP\Delta T$ trip setpoint reduction be performed when the reactor is in hot standby. This has been deleted. The change in the ACTION statement for specification 3.2.2 is consistent with the draft version of the Westinghouse Standardized Technical Specifications, Revision 5. Our evaluation indicated that the reduction of the Overpower $\Delta T$ setpoint can be done while the reactor is in Mode 1.
	3.2.2.a	038	ACTION 3.2.2.a.2 is removed.	The APDMS is not used. The plant will operate below APL.

PAGE	SECTION	#	DESCRIPTION	REMARKS
3/4 2-6; 3/4 2-7	4.2.2.2	039	Much of this surveillance requirement has been moved to APL Specification 3.2.6.	Specification is simplified. The PDC-II requirements that were in this specification are now incorporated in specification 3.2.6. No provisions of current Technical Specifications other than those pertaining to APDMS and the modification to existing ACTION statement a.1 are described in XN-NF-77-57; XN-NF-77-57, Supplement 1; and XN-NF-77-57, Supplement 2, "Exxon Nuclear Power Distribution Control for Pressurized Water Reactors, Phase 2".
3/4 2-8(a)	Figure 3.2.2(a)	040	The figure is renormalized to 2.10 from 2.04 for Exxon Nuclear Co. fuel.	This reflects new $F_0$ limits from XN-NF-85-68(P): "Donald C. Cook Unit 2 Limiting Break LOCA/ECCS Analysis, 10% Steam Generator Tube Plugging, and K(Z) Curve." The new analysis used reflood correlations based on FCTF data. See Figure 2.1 of XN-NF-85-68(P).
3/4 2-9; 3/4 2-10; 3/4 2-11; 3/4 2-12	3.2.3 4.2.3.1 Figure 3.2-4 Figure 3.2-5	041	These Technical Specifications are converted to Unit 1 Technical Specification format.	Flow rate and $F_{\Delta H}$ are separated in the Technical Specifications to achieve greater consistency between units. The trade-off between flow and $F_{\Delta H}$ is eliminated. Flow limit moved from Specification 3.2.3 to 3.2.5.1. See Tables 15.0.3-1 of XN-NF-85-64(P) and 3.5 of XN-NF-85-68(P) for $F_{\Delta H}$ .





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PAGE	SECTION	#	DESCRIPTION	REMARKS
3/4 2-15	3.2.5.1	042	Reactor Coolant System Total Flow Rate is added as a DNB limit.	Flow rate and $F_{\Delta H}$ are separated in the Technical Specifications to achieve greater consistency between units. The trade-off between flow and $F_{\Delta H}$ is eliminated. Flow limit moved from Specification 3.2.3 to 3.2.5.1. See Table 15.0.2-1 of XN-NF-85-64(P). An increase in required flow to accommodate a pressure readability allowance is described in Attachment 5. Justifications for the conservatism in the flow allowance and use of Rdf RTDs is contained in Attachment 3. The relationship between analysis flow and Technical Specification flow is discussed in Attachment 7.
	4.2.5.1.2 4.2.5.1.3	043	These surveillance requirements are added for the RCS Total Flow Rate. Converted to the Unit 1 Technical Specification format.	Flow surveillance requirements are taken from the old $F_{\Delta H}$ Technical Specification. Clarifications are added to the surveillance requirements.
	4.2.5.1.4	044	4.0.4 exemption is added for flow specifications.	Primary flow instrumentation is calibrated at or near full power.
	3.2.5.1 4.2.5.1.1 4.2.5.1.2 4.2.5.1.3 4.2.5.1.4	045	Specifications 3.2.5 and 4.2.5 have become 3.2.5.1 and 4.2.5.1.1, respectively. Specification 3.2.5.1 is retitled.	Editorial change; this reflects the addition of a new DNB specification 3.2.5.2 and the addition of surveillance requirements for 3.2.5.1.

PAGE	SECTION	#	DESCRIPTION	REMARKS
3/4 2-16	Table 3.2-1	046	The parameters and footnotes for three loop operation are removed.	Three-loop operation in Modes 1 and 2 will be prohibited.
		047	The value of RCS $T_{avg}$ is changed.	New limit based on analysis for 10% steam generator tube plugging and revisions to allowances to permit operation with RdF RTDs. See Tables 15.0.2-1 and 15.0.4-1 of XN-NF-85-64(P) and Attachment 3.
		048	RCS Total Flow Rate is added as a limit. Made more consistent with the Unit 1 Technical Specifications.	Flow rate and $F_{\Delta H}$ are separated in the Technical Specifications. The trade-off between flow and $F_{\Delta H}$ is eliminated. See Table 15.0.2-1 of XN-NF-85-64(P). An increase in required flow to accomodate a pressure readability allowance is described in Attachment 5. Justifications for the conservatism in the flow allowance and use of RdF RTDs is contained in Attachment 3. The relationship between analysis flow and Technical Specification flow is discussed in Attachment 7.
		049	Allowance for readability included for pressure limit. Technical Specification value remains the same. Analysis value reduced by the value of the allowance. The allowance was calculated consistently with footnote **.	An increase in required flow to accomodate a pressure readability allowance is described in Attachment 5. Calculation of the allowance for instrument error is discussed in Attachment 7.
		050	Table is rotated on the page.	Editorial change for clarity.



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PAGE	SECTION	#	DESCRIPTION	REMARKS
3/4 2-17	3.2.5.2 4.2.5.2	051	Specification added.	The limits on pressurizer pressure and $T_{avg}$ in Mode 2 or Mode 3 (with the reactor trip breakers closed and the control rod drive mechanism capable of rod withdrawal) provide protection against DNB resulting from an uncontrolled rod withdrawal accident from a subcritical condition. They are consistent with the assumptions given in Section 15.4.1 of XN-NF-85-64(P). When the reactor is critical, the limits of the remaining DNB analyses are conservatively applied. The instrument reading error is discussed in Attachment 7.
3/4 2-18	Table 3.2-2	052	Table added.	

PAGE	SECTION	#	DESCRIPTION	REMARKS
3/4 2-19; 3/4 2-20	3.2.6	053	This entire Technical Specification is changed to an Allowable Power Level (APL) Technical Specification.	<p>The APDMS, an option in current Technical Specifications, is not used. The plant will operate below APL. This specification is added to satisfy the requirements of the PDC-II power distribution control technique. No provisions of current Technical Specifications other than those pertaining to APDMS and the modification to existing ACTION statement a.1 of Technical Specification 3.2.2 were deleted. PDC-II is described in XN-NF-77-57; XN-NF-77-57, Supp.1; and XN-NF-77-57, Supp.2, "Exxon Nuclear Power Distribution Control for Pressurized Water Reactors, Phase 2." Requirements which were formerly in specification 3.2.2 have been incorporated in this specification.</p> <p>In the current Technical Specification 3.2.2, ACTION a.1 requires that the OPAT trip setpoint reduction be performed when the reactor is in hot standby. This has been deleted. The change in the action statement for specification 3.2.2 is consistent with the draft version of the Westinghouse Standardized Technical Specifications, Revision 5. Our evaluation indicated that the reduction of the Overpower <math>\Delta T</math> setpoint can be done while the reactor is in Mode 1.</p>
		054	F <sub>0</sub> Limit value changed from 2.04 to 2.10 for Exxon Nuclear Co. fuel.	<p>This reflects new F<sub>0</sub> limits from XN-NF-85-68(P): "Donald C. Cook Unit 2 Limiting Break LOCA/ECCS Analysis, 10% Steam Generator Tube Plugging, and K(Z) Curve." The new analysis used reflood correlations based on FCTF data. See Table 2.1 of XN-NF-85-68(P).</p>

PAGE	SECTION	#	DESCRIPTION	REMARKS
3/4 3-2	Table 3.3-1 Item 2	055	Power Range, Neutron Flux Functional Unit has an added applicable mode:*	The Plant Transient Analysis requires the Power Range, Neutron Flux Func- tional Unit to be operable with the reactor trip breakers in the closed position and the control rod drive mechanism capable of rod withdrawal. This is consistent with section 15.4.1.3 of XN-NF-85-28(P), Supp. 1.
	Items 7 and 8	056	References to three loop operation are removed.	Three loop operation in Modes 1 and 2 will be prohibited.
		057	Changed ACTION for functional units.	To achieve greater consistency with STS, Rev. 4 and Unit 1 Technical Specifications.
3/4 3-4	Table 3.3-1 Item 20B	058	Reactor Coolant Pump Breaker Position Trip Above P-7 has an added exemption from 3.0.4 applicability.	To achieve greater consistency with STS, Revision 4.
3/4 3-5	Table 3.3-1 Notation	059	Footnote ** is removed.	Three loop operation in Modes 1 and 2 will be prohibited.

PAGE	SECTION	#	DESCRIPTION	REMARKS
3/4 3-7	Table 3.3-1	060	Action 8 is removed.	Editorial change; Action 8 is not used.
		061	Action 9 is removed.	Three loop operation in Modes 1 and 2 will be prohibited.
3/4 3-8	Table 3.3-1	062	Converted Turbine Pressure setpoint portion of P-7 from 66 psia to 51 psig.	Editorial change.
3/4 3-9	Table 3.3-2	063	Response time is added for Pressurizer Pressure High Functional Unit.	Analysis value from Table 15.0.7-1 of XN-NF-85-64(P). Conservative Technical Specification value chosen to achieve greater consistency with Unit 1 Technical Specifications.
3/4 3-11	Table 4.3-1	064	Power Range, Neutron Flux Functional Unit has an additional Channel Function Test (S/U(1)) and an additional mode in which surveillances are required:*	The Plant Transient Analysis requires the Power Range, Neutron Flux Functional Unit to be operable with the reactor trip system breakers in the closed position and the control rod drive mechanism capable of rod withdrawal. See section 15.4.1.3 of XN-NF-85-28(P), Supplement 1.
		065	Power, Intermediate, and Source Range Neutron Flux and Loss of Flow Single Loop Functional Units have added exemptions from Specification 4.0.4. Overpower $\Delta T$ and Overtemperature $\Delta T$ Functional Units have added exemptions from Specification 4.0.4 for $f_1(\Delta I)$ and $f_2(\Delta I)$ penalties.	Exemptions are provided for surveillances which must be performed in the applicable mode.





PAGE	SECTION	#	DESCRIPTION	REMARKS
3/4 3-13	Table 4.3-1 Notation	066	Footnotes (8) and (9) are added.	See remarks for 3/4 3-11 above.
3/4 3-15; 3/4 3-16; 3/4 3-17; 3/4 3-18; 3/4 3-19; 3/4 3-20	Table 3.3-3	067	References to three loop operation in Modes 1 and 2 are removed.	Three loop operation in Modes 1 and 2 will be prohibited.
		068	Reference to ### footnote for Differential Pressure Between Steam Lines-High Functional Unit changed to #### footnote.	The Differential Pressure Between Steam Lines-High actuation differs from other ESF Actuation signals in that a signal from one loop is compared to signals in the other loops. Placing all channels associated with the idle loop in trip would result in an ESF actuation. This actuation would preclude 3 loop operation. Therefore, the appropriate channels to trip are the bistables which indicate low active steam pressure relative to the idle loop. This action reduces the ESF actuation logic for the active loop differential pressures from 2/3 to 1/2. An ESF actuation does not result because the three bistables, which indicate low idle loop steam pressure relative to the active loops, and which are in a 2/3 logic, are not tripped.



PAGE	SECTION	#	DESCRIPTION	REMARKS
3/4 3-15; 3/4 3-16; 3/4 3-17; 3/4 3-18; 3/4 3-19; 3/4 3-20 (Cont'd)	Table 3.3-3 (Cont'd)	069	References to the 1982 refueling outage are removed.	Editorial change; the 1982 refueling outage has already occurred.
		070	Steam Generator Water Level--High-High Functional Unit has an added applicable mode: \$.	Section 15.1.2.3 of the Disposition of Events, XN-NF-85-28(P), Supplement 1, requires the Steam Generator Water Level--High-High Functional Unit to be operable when operating with the main feedpumps feeding the steam generators in Modes 3 and 4. The availability of feedwater isolation on high-high steam generator level limits the volume of cold water that can be added to the steam generators in any feedwater malfunction. This limits reactivity addition to the core.
3/4 3-21	Table 3.3-3 Notation	071	Footnote ##### is added.	See remarks for footnote ##### for pages 3/4 3-15 through 3/4 3-20.
		072	Footnote \$ is added.	Section 14.1.2.3 of the Disposition of Events, XN-NF-85-28(P), Supplement 1, requires the Steam Generator Water Level--High-High Functional Unit to be operable when operating on the low flow feedwater preheating system.
	Footnotes # and ##	073	Conditions for blocking safeguards actuations are added.	These conditions are required in section 15.1.3.4 of XN-NF-85-28(P), Supp.1.



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PAGE	SECTION	#	DESCRIPTION	REMARKS
3/4 3-21a	Table 3.3-3 ACTION statements	074	ACTION statements moved from previous page to this new page.	Editorial change; expanded table notation necessitates additional page.
3/4 3-22	Table 3.3-3	075	Reworded Condition and Setpoint, Function description for P-12 interlock.	This change clarifies the definitions of the interlock and makes the definition less ambiguous. Patterned after STS, Rev.4.
		076	Setpoint limit values are revised.	New limits are based on revisions to allowances to permit operation with RdF RTDs. See Attachment 3.
		077	P-12 function description revised to remove reference to high steam line flow.	Editorial change; safety injection actuation occurs on low steam line pressure only. There has never been a coincidence with high steam flow on Unit 2.

PAGE	SECTION	#	DESCRIPTION	REMARKS
3/4 3-25	Table 4.3-2	078	Allowable value of low-low $T_{avg}$ changed.	Changed allowable value to be consistent with Unit 1. This change is supported by analysis performed by Westinghouse to permit operation with RdF RTDs. The Technical Specification value is more conservative than the analysis value. See Attachment 3.
3/4 3-25a	Table 4.3-2	079	Allowable values for auxiliary feedpump actuations on low-low steam generator level changed.	Changed to value resulting from new analysis of trip allowances performed by Westinghouse. See Attachment 3.
3/4 3-32	Table 4.3-2	080	Steam Generator Water Level--High-High Functional Unit has an additional required mode: \$.	Section 14.1.2.3 of the Disposition of Events, XN-NF-85-28(P), Supplement 1, requires the Steam Generator Water Level--High-High Functional Unit to be operable when operating with the main feedpumps feeding the steam generators in Modes 3 and 4.
		081	Loss of Main Feedwater Pumps Mode 3 Surveillance Requirement deleted.	Editorial change; Mode 3 applicability for Loss of Main Feedwater Pumps was deleted from Table 3.3-3 in Unit 2 License Amendment #77.
3/4 3-33	Table 4.3-2	082	Footnote \$ added for Steam Generator Water Level -- High-High Functional Unit.	See remark for p 3/4 3-32 above.
		083	References to the 1982 refueling outage are removed.	The 1982 refueling outage has already occurred.
3/4 3-38	3.3.3.2 4.3.3.2.c	084	The references to $F_{xy}$ are removed.	Editorial change; $F_{xy}$ is not used for core monitoring with PDC-II.
3/4 3-48; 3/4 3-49	3.3.3.7 4.3.3.7	085	This entire Technical Specification is removed.	The APDMS is not used. The plant will operate below APL.



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PAGE	SECTION	#	DESCRIPTION	REMARKS
3/4 4-2	3.4.1.2.b 3.4.1.2.c	086	Criteria for the operability of reactor coolant loops are established based on the status of the reactor trip system breakers and/or the control rod system.	The Plant Transient Analysis requires these changes based on the uncontrolled control rod bank withdrawal from subcritical. See section 15.4.1.1 of XN-NF-85-64(P).
	3.4.1.2 ACTION b Footnote **	087	** is added to ACTION b; footnote added at bottom of page.	The Technical Specification boron concentration in the RWST is sufficient to provide adequate shutdown margin from expected operating conditions.
3/4 4-2a	4.4.1.2.1 4.4.1.2.2	088	Surveillances moved from previous page.	Editorial change; additional text requires moving this material.
3/4 4-3; 3/4 4-3a	3.4.1.3 ACTION b Footnote ***	089	**** is added to ACTION b; footnote **** is added on p 3/4 4-3a.	The Technical Specification boron concentration in the RWST is sufficient to provide adequate shutdown margin from expected operating conditions.
		090	ACTION statements moved from page 3/4 4-3 to page 3/4 4-3a.	Editorial change; additional footnote requires moving this material.



PAGE	SECTION	#	DESCRIPTION	REMARKS
3/4 4-3b; 3/4 4-3c; 3/4 4-3d	3.4.1.4 4.4.1.4	091	The entire Technical Specification is removed.	ACTION statements of Technical Specification 3.4.1.4 are currently addressed elsewhere in Technical Specifications or not needed as follows:  Below P-7: a. - 3.4.1.1 b. - 3.4.1.2 and 3.4.1.3 c. - Not needed. Since Mode 3 above P-12 is the only operation permitted for three loop operation which requires changes to safeguards or protection equipment, no mode changes dependent on ACTION statement will occur.
3/4 4-4	3.4.2	092	Additional ACTION statement is added.	Section 15.5.1 4 of the Disposition of Events, XN-NF-85-28(P), Supplement 1, requires this action to prevent overpressurization due to an inadvertent increase in the RCS inventory.
		093	Page 3/4 4-4 is submitted as a back page to a blank 3/4 4-3b.	This eliminates the need to submit blank pages for pages 3/4 4-3c and 3/4 4-3d.

PAGE	SECTION	#	DESCRIPTION	REMARKS
3/4 4-32	3.4.11	094	"operator" changed to "operated"	Editorial change; to use proper terminology.
		095	ACTION changed to only allow one PORV or block valve inoperable. Making more than one PORV inoperable without shutting down the reactor is not allowed.	NRC staff comments at December 13, 1984, meeting; the proposed changes are intended to ensure that the PORVs are available to assist in RCS depressurization following a steam generator tube rupture without offsite power.
		096	References to Section 6.9.1.9 are deleted.	To achieve greater consistency with STS, Rev.4 and draft STS, Rev.5.
3/4 4-33	4.4.11.1	097	Portions of expanded ACTION statement and surveillance requirements moved to p 3/4 4-33.	Editorial change; surveillance requirement moved from previous page to this page.
	4.4.11.3	098	References to surveillances in other sections changed.	Editorial change; the current references are incorrect.

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PAGE	SECTION	#	DESCRIPTION	REMARKS
3/4 7-1	3.7.1.1	099	ACTION b is modified to remove three loop operation in Modes 1 and 2.	Three loop operation in Modes 1 and 2 will be prohibited.
3/4 7-3	Table 3.7-2	100	Table is removed.	Three loop operation in Modes 1 and 2 will be prohibited.
3/4 7-5	4.7.1.2	101	Discharge pressures for auxiliary feedwater pump flow testing changed.	The value for pump discharge pressure is adequate to assure that in the event of a feedwater line break, at least 600 gpm will be delivered to the intact steam generators. See section 15.2.8.3 of XN-NF-85-64(P).

PAGE	SECTION	#	DESCRIPTION	REMARKS
3/4 7-10	3.7.1.5	102	ACTION statements are revised.	The provision of the ACTION statement for MODE 1 permitting operation in MODE 1 with a steam generator stop valve closed is deleted. Failure to restore the stop valve to operable status in MODE 1 results in MODE 2 instead of MODE 4 operation. The reference in the MODE 2, 3 ACTION statement to continued operation in MODE 1 is deleted. The terminology is consistently changed to Cook Plant terminology. The proposed Technical Specification achieves substantially greater consistency with STS, Rev.4.
	4.7.1.5	103	Exemption from Specification 4.0.4 is added for entry into Mode 3.	Exemptions are provided for surveillances which must be performed in the applicable mode.
3/4 9-8	3.9.8.1	104	Footnote * is added.	The Technical Specification boron concentration in the RWST is sufficient to provide adequate shutdown margin from expected operating conditions.
3/4 10-2	4.10.2.2	105	Referenced specifications are renumbered.	Editorial change; reflects simplification of F <sub>0</sub> and APL specifications, 3.2.2 and 3.2.6 respectively. See page 3/4 2-6.



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PAGE	SECTION	#	DESCRIPTION	REMARKS
B 2-1	2.1.1 (Bases)	106	References to Figure 2.1-2 are removed.	Three loop operation in Modes 1 and 2 will be prohibited.
B 2-4	2.2.1 (Bases)	107	Revision made to the basis of negative rate trip.	Reference was made to the "Interim Criteria for Single Dropped Rod" which was assumed in the analysis. See section 15.4.3.4 of XN-NF-85-28(P).
B 2-5	Overtemperature $\Delta T$ (Bases)	108	Paragraph referring to three loop operation is removed.	Three loop operation in Modes 1 and 2 will be prohibited.
	2.2.1 (Bases)	109	Corrected spelling of the word "operation".	Editorial change.
		110	Added reference to $f(\Delta I)$ penalty for $OP_{\Delta T}$ .	Cycle 6 analysis requires $f(\Delta I)$ penalty for $OP_{\Delta T}$ trip. See Table 15.0.7-3 of XN-NF-85-64(P).
		111	Added reference to the use of the pressurizer pressure high trip in the loss of load event.	This function was used in the Cycle 6 analysis. See section 15.2.1.3 of XN-NF-85-64(P).
B 2-5; B 2-6	2.2.1 (Bases)	112	Moved text from page B 2-6 to B 2-5.	Editorial change.
B 2-6	Loss of Flow (Bases)	113	The value of P-8 is changed to 31%.	Editorial change.
		114	Design flow is defined and used instead of nominal flow.	Revision describes Exxon DNB methodology.
		115	References to three loop operation are removed.	Three loop operation in Modes 1 and 2 will be prohibited.
B 2-6; B 2-7	2.2.1 (Bases)	116	Moved text from page B 2-7 to B 2-6.	Editorial change.

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PAGE	SECTION	#	DESCRIPTION	REMARKS
B 3/4 1-1	Shutdown Margin (Bases)	117	Revision to Shutdown Margin Basis.	Describes Exxon analyses of steam dump failure and Mode 5 dilution transient. Editorial clarifications made. See section 15.1.3.4 of XN-NF-85-28 (P), Supp.1 and 15.4.6.3.1 of XN-NF-85-64 (P).
B 3/4 1-1; B 3/4 1-2	3/4.1.1.4 (Bases)	118	Moved text from B 3/4 1-1 to B 3/4 1-2.	Editorial change.
B 3/4 1-2	Moderator Temperature Coefficient (Bases)	119	Revision to Moderator Temperature Coefficient (MTC) basis.	Revised material describes Exxon MTC methodology.
	Minimum Temp. for Criticality (Bases)	120	Revised discussion of interaction between minimum temperature for criticality requirement and P-12 reset point.	Bases were revised to more accurately reflect the operation of P-12 reset point.
B 3/4 1-3	3/4.1.2 (Bases)	121	Revisions were made to description of the RWST as a boration source.	

PAGE	SECTION	#	DESCRIPTION	REMARKS
B 3/4 2-1	Power Distribution Limits (Bases)	122	The $F_O$ limit value of 2.04 is changed to 2.10 for Exxon Nuclear Co. fuel.	This reflects new $F_O$ limits from XN-NF-85-68(P): "Donald C. Cook Unit 2 Limiting Break LOCA/ECCS Analysis, 10% Steam Generator Tube Plugging, and K(Z) Curve." The new analysis used reflood correlations based on FCTF data. See Table 2.2 of XN-NF-85-68(P)
		123	Tube plugging percentages are changed.	
		124	Cycle 5 margin reference deleted.	Future use of Westinghouse fuel expected to be minimal.
		125	Comma added.	Editorial change; grammatical error.
		126	"increase" changed to "increased"	Editorial change; typographical error.
	Axial Flux Difference (Bases)	127	The $F_O$ limit value of 2.04 is changed to 2.10 for Exxon Nuclear Co. fuel.	This reflects new $F_O$ limits from XN-NF-85-68(P): "Donald C. Cook Unit 2 Limiting Break LOCA/ECCS Analysis, 10% Steam Generator Tube Plugging, and K(Z) Curve." The new analysis used reflood correlations based on FCTF data. See Table 2.1 of XN-NF-85-68(P).
B 3/4 2-4	3/4.2.2 3/4.2.3 (Bases)	128	RCS flowrate is removed from these specifications. Including revised statement on $F_{\Delta H}^N$ measurement error.	Flow rate and $F_{\Delta H}$ are separated in the Technical Specifications. The trade-off between flow and $F_{\Delta H}$ is eliminated. See Table 15.0.3-1 of XN-NF-85-64(R) and Table 2.1 of XN-NF-85-68(P).
		129	References to $F_O$ and $F_{\Delta H}$ expanded to include proposed APL Technical Specification.	Editorial change.





PAGE	SECTION	#	DESCRIPTION	REMARKS
B 3/4 2-5	3/4.2.5 (Bases)	130	Revisions made to basis to distinguish between modes and refer to safety analysis.	Editorial changes.
		131	RCS flowrate added to this specification, including discussion of surveillances.	RCS flowrate is now a DNB parameter.
		132	Revised discussion of readability allowances to include pressurizer pressure and flow.	New allowance included for pressurizer pressure. Flow added to DNB specification. See Attachment 3 and Attachment 7.
		133	"thru" becomes "through".	Editorial change; typographical error correction.
		134	Added paragraph describing DNB limits for Modes 2 and 3.	The limits on pressurizer pressure and $T_{avg}$ in Mode 2 or Mode 3 (with the reactor trip breakers closed and the control rod drive mechanism capable of rod withdrawal) provide protection against DNB resulting from an uncontrolled rod withdrawal accident from a subcritical condition. They are consistent with the assumptions given in Section 15.4.1 of XN-NF-85-64(P).
	3/4.2.6 (Bases)	135	This section is changed to an Allowable Power Level (APL) Technical Specification.	The APDMS is not used. The plant will operate below APL.
B 3/4 3-1	3/4.3.1 3/4.3.2 (Bases)	136	Basis material added describing main feedpump operation in Modes 3 and 4 and the conditions for blocking ESF actuation.	Protection required for operation with a main feedpump feeding steam generators in Modes 3 and 4 is described in section 15.1.2.3 of XN-NF-85-28(P), Supp.1. Conditions for blocking safeguards actuations included in Table 3.3-3 are described in Section 15.1.3.4 of XN-NF-85-28(P).



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PAGE	SECTION	#	DESCRIPTION	REMARKS
B 3/4 3-1; B 3/4 3-2	3/4.3.3.1 (Bases)	137	Basis 3/4.3.3.1. moved to page B 3/4 3-2.	Editorial change.
B 3/4 3-2	3/4.3.3.7 (Bases)	138	This section is removed.	The APDMS is not used. The plant will operate below APL.
B 3/4 4-1	3/4.4.1 (Bases)	139	References to three loop operation are removed.	Three loop operation in Modes 1 and 2 will be prohibited.
		140	Additional operable loop is required with control rods capable of withdrawal.	The Plant Transient Analysis requires these changes based on the uncont- rolled control rod bank withdrawal from subcritical. See section 15.4.1.1 of XN-NF-85-64(P).
B 3/4 4-1a	3/4.4.2 3/4.4.3 (Bases)	141	All Safety Injection pumps and all but one charging pump will be rendered inoperable in Modes 4 and 5 if no safety valves are operable to prevent overpressurization due to an inadvertent increase in the RCS inventory.	See Section 15.5.1.4 of the Disposition of Events, XN-NF-85-28(P), Supplement 1.
B 3/4 4-11	3/4.4.11 3/4.4.12 (Bases)	142	Period converted to /.	Editorial change.
B 3/4 7-1	3/4.7.1.1 (Bases)	143	References to three loop operation are removed.	Three loop operation in Modes 1 and 2 will be prohibited.
		144	Reference to Table 3.7-2 is changed to Table 3.7-1. This basis is condensed to one page.	Editorial change; incorrect table reference.
B 3/4 7-2	3/4.7.1 (Bases)	145	Variable definitions are moved to previous page.	Editorial change; improve readability.

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