Houston
Lighting
& Power
Company

Electric Tower
P.O. Box 1700
Houston, Texas 77001

November 20, 1979
ST-HL-AE-390
SFN: V-0100

Mr. H. 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
REFERENCE: CAW 79-37

SUBJECT: Docket No. 50-498 and 50-499, South Texas

Dear Mr. Denton:

Enclosed are one (1) copy of the Response to NRC Question 221.2 (Proprietary) and one (1) copy of the Response to NRC Question 221.2 (Non-Proprietary). Also enclosed is one (1) copy of Application for Withholding, CAW-79-37 (Non-Proprietary).

As this submittal contains information proprietary to Westinghouse Electric Corporation, it is supported by an affidavit signed by Westinghouse, the owner of the information. The affidavit sets forth the basis on which the information may be withheld from public disclosure by the Commission and addresses specifically the considerations listed in paragraph (b) (4) of Section 2.790 of the Commission's regulations.

Accordingly, it is respectfully requested that the information which is proprietary to Westinghouse be withheld from public disclosure in accordance with 10CFR Section 2.790 of the Commission's regulations. Correspondence with respect to the proprietary aspects of this application for withholding or the supporting Westinghouse affidavit should reference CAW-79-37, and should be addressed to R. A. Wiesemann, Manager, Regulatory and Legislative Affairs, Westinghouse Electric Corporation, P. O. Box 355, Pittsburgh, Pennsylvania 15230.

Very truly yours,

E. A. Turner
Vice President
Power Plant Construction
& Technical Services

SSR:bf

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PROP ENCL TO:
FILES
PM
ANALYSIS BR(2)
OTHERS RECEIVE
NP
ADD:

1397 330

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cc: Director, NRC Office of Inspection & Enforcement
M. D. Schwarz (Baker & Botts)
R. Gordon Gooch (Baker & Botts)
J. R. Newman (Lowenstein, Newman, Reis, Axelrad & Toll)
D. G. Barker
A. J. Granger
R. A. Frazar

Westinghouse Electric Corporation

Water Reactor Divisions

Nuclear Technology Division

Box 355
Pittsburgh Pennsylvania 15230

October 18, 1979
CAW-79-37

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

APPLICATION FOR WITHHOLDING PROPRIETARY

INFORMATION FROM PUBLIC DISCLOSURE

SUBJECT: South Texas Projects, Units 1 and 2 (Docket Numbers 50-498 and 50-499) Responses to NRC Question 221.2

REF: Houston Lighting and Power Company Letter from E. A. Turner to H. R. Denton dated November 20, 1979.

Gentlemen:

This application for withholding is submitted by Westinghouse Electric Corporation pursuant to the provisions of paragraph (b)(1) of 10CFR Section 2.790 of the Commission's Regulations.

The accompanying affidavit identifies the information sought to be withheld from public disclosure, 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 Section 2.790 of the Commission's regulations.

The undersigned has reviewed the information sought to be withheld and is authorized to apply for its withholding on behalf of Westinghouse, WRD, notification of which was sent to the Secretary of the Commission on April 19, 1976.

It is requested, therefore, that the Westinghouse proprietary information being transmitted by the Houston Lighting and Power Company letter referenced above be withheld from public disclosure in accordance with the provisions of 10CFR Section 2.790 of the Commission's regulations.

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Correspondence with respect to the proprietary aspects of this application for withholding or the accompanying affidavit should reference CAW-79-37 and should be addressed to the undersigned.

Very truly yours,

Robert A. Wiesemann, Manager
Regulatory & Legislative Affairs

/bek
Attachment

cc: J. A. Cooke, Esq.
Office of the Executive Legal Director

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CAW-79-37

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

Robert A. Wiesemann, Manager
Regulatory & Legislative Affairs

Sworn to and subscribed
before me this 22 day
of October 1979.

Notary Public

My Commission Expires Apr. 15, 1982
Member, Pennsylvania Association of Notaries

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(1) I am Manager, Regulatory and Legislative Affairs, in the Nuclear Technology 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 rulemaking 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 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 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.

In determining whether information in a document or report is proprietary, the following criteria and standards are utilized in Westinghouse. Information is proprietary if any one of the following are met:

(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 of 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.

(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 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 are the responses to NRC Question 221.1 related to the South Texas Projects fuel design. The responses provide thermal and hydraulic design data. The basis for requesting this information is cited to be the conduct of a detailed technical audit of the fuel design.

Public disclosure of this information is likely to cause substantial harm to the competitive position of Westinghouse as it would reveal the basis of the Westinghouse fuel thermal-hydraulic design for South Texas and similar plants, which is recognized by the Staff to be of competitive valve and because of the large amount of effort and money expended by Westinghouse in development of this design.

This information is valuable to Westinghouse because:

(a) Information resulting from this design 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.

This information enables Westinghouse to:

(a) Justify the design basis for the fuel

(b) Assist its customers to obtain licenses

(c) Meet warranties

Further, this information has substantial commercial value as follows:

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

(b) Westinghouse uses the information to perform and justify analyses which are sold to customers.

(c) Westinghouse uses the information to sell nuclear fuel and related services to its customers.

Public disclosure of this information is likely to cause substantial harm to the competitive position of Westinghouse in selling nuclear fuel and related services.

Competitors could obtain the equivalent information, with difficulty, by investing similar sums of money and provided they had the appropriate resources available and the requisite experience.

Further the deponent sayeth not.

Question 221.2

The South Texas 1 and 2 thermal hydraulic design is the first proposed design to use the Westinghouse 14 foot fuel on an operating license application. It is also the first operating license application at a power level of 3800 MWt for a Westinghouse design. The following design information is therefore required so that a detailed audit of the South Texas design can be undertaken. Provide this information.

Input Values

1. Bundle by Bundle Radial Power Distribution

2. Pin by Pin Power Distribution Within the Hot Assembly

Output Values

1. Hot Assembly Differential Pressure vs. Axial Position

2. Hot Assembly Mass Flux vs. Axial Position

3. Hot Assembly Enthalpy vs. Axial Position

4. Hot Assembly Quality vs. Axial Position

5. Hot Assembly Void Fraction vs. Axial Position

6. Hot Channel Differential Pressure vs. Axial Position

7. Hot Channel Mass Flux vs. Axial Position

8. Hot Channel Enthalpy vs. Axial Position

9. Hot Channel Quality vs. Axial Position

10. Hot Channel Void Fraction vs. Axial Position

11. Hot Channel DNB Ratio vs. Axial Position

Response:

The response to this question was transmitted to the NRC via letter (ST-HL-AE-390 11-20-79) and contains Westinghouse proprietary information.

TABLE Q221.2-1

HOT ASSEMBLY OUTPUT

Heated Length (fractional)	Differential Pressure (PSI)	Mass Flux ($lb_m/hr.ft^2 x 10^{-6}$)	Enthalpy (BTU/lb_m)	Quality (Percent)	Void Fraction (Percent)
0.000	[				+ (a,b,c)]
0.036					
0.071					
0.107					
0.143					
0.179					
0.214					
0.250					
0.286					
0.321					
0.357					
0.393					
0.429					
0.464					
0.500					
0.536					
0.571					
0.607					
0.643					
0.679					
0.714					
0.750					
0.786					
0.822					
0.857					
0.893					
0.929					
0.964					
1.000	]				

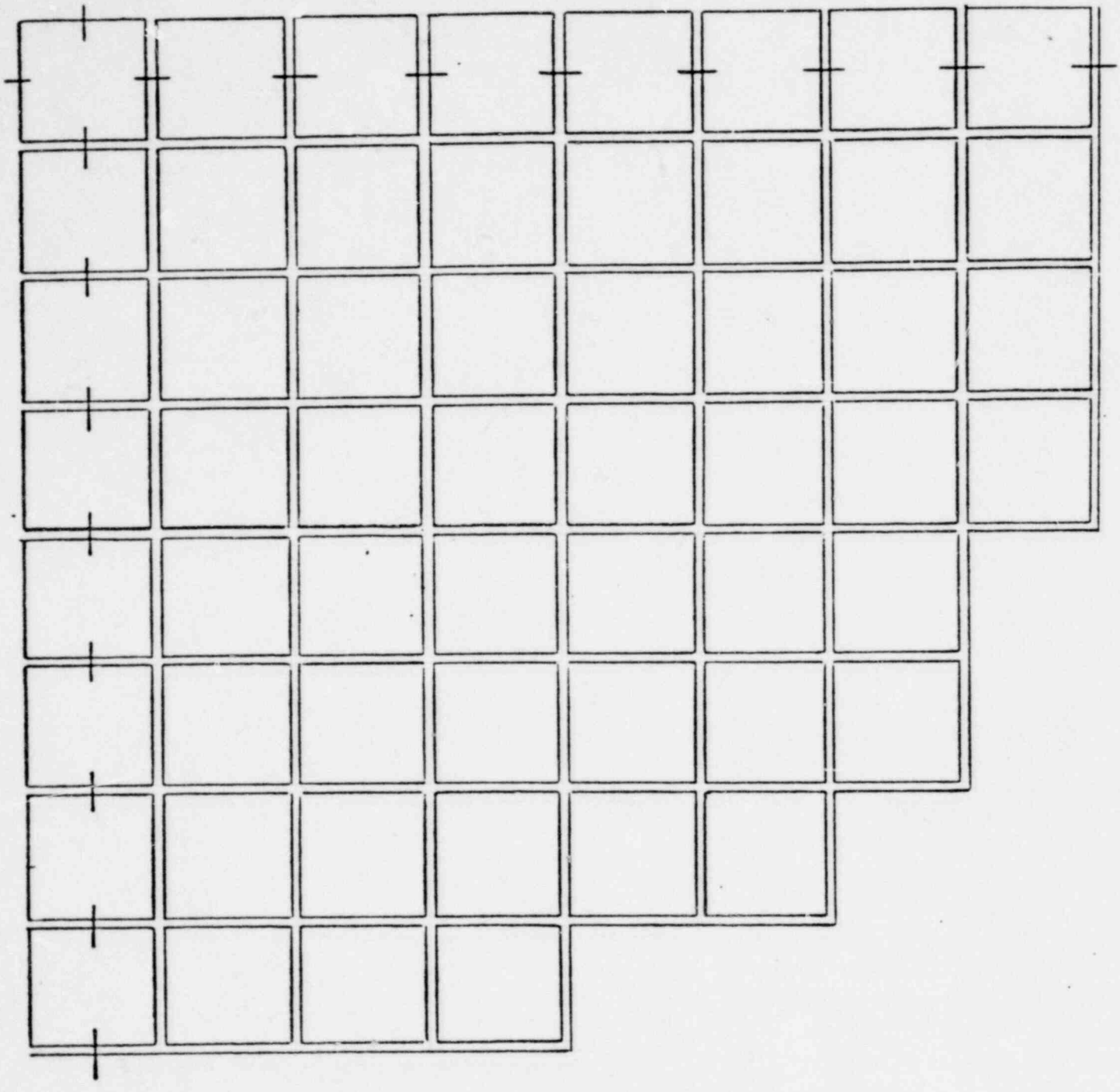
HOT TYPICAL CELL

Heated Length (fractional)	Differential Pressure (PSI)	Mass Flux ($lb_m/hr.ft^2 x 10^{-6}$)	Enthalpy (BTU/lb_m)	Quality (Percent)	Void Fraction (Percent)	DNBR
0.000	[					] ± (a,b,c)
0.036						
0.071						
0.107						
0.143						
0.179						
0.214						
0.250						
0.286						
0.321						
0.357						
0.393						
0.429						
0.464						
0.500						
0.536						
0.571						
0.607						
0.643						
0.679						
0.714						
0.750						
0.786						
0.822						
0.857						
0.893						
0.929						
0.964						
1.000	]					

TABLE Q221.2-3

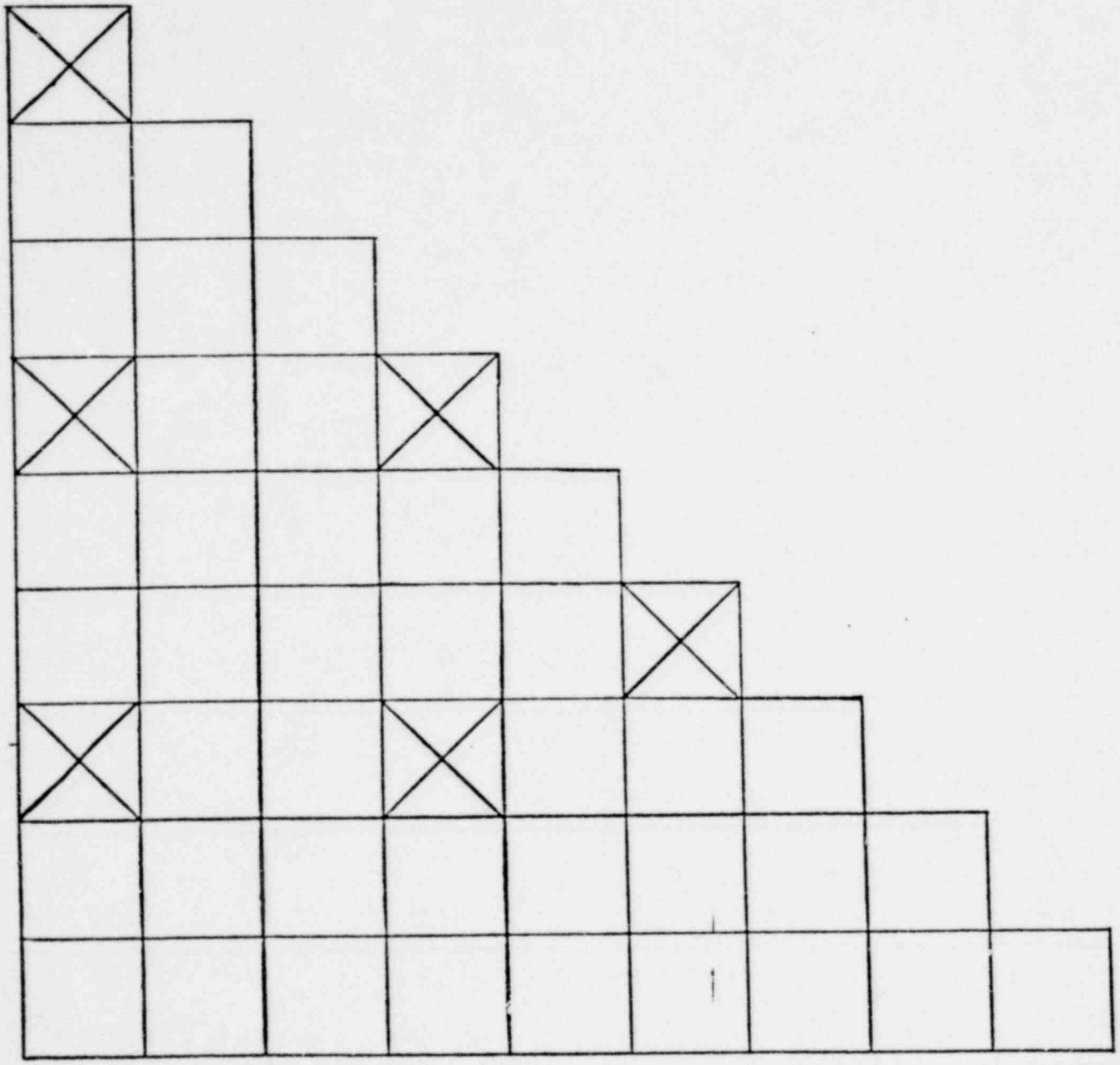
HOT THIMBLE CELL

Heated Length (fractional)	Differential Pressure (PSI)	Mass Flux ($lb_m/hr.ft^2 x 10^{-6}$)	Enthalpy (BTU/lb_m)	Quality (Percent)	Void Fraction (Percent)	DNBR
0.000	[					+ (a,b,c)]
0.036						
0.071						
0.107						
0.143						
0.179						
0.214						
0.250						
0.286						
0.321						
0.357						
0.393						
0.429						
0.464						
0.500						
0.536						
0.571						
0.607						
0.643						
0.679						
0.714						
0.750						
0.786						
0.822						
0.857						
0.893						
0.929						
0.964						
1.000	]					



Limiting Generic Assemblywise Radial Power Distribution
for South Texas Units 1 & 2

Limiting Generic Rodwise Power Distribution in the
not Assembly for South Texas Units 1 & 2



Peak-to-Average=