Luminant

Mike Blevins
Executive Vice President
& Chief Nuclear Officer
Mike.Blevins@Luminant.com

Luminant Power
P O Box 1002
6322 North FM 56
Glen Rose, TX 76043

T 254 897 5209
C 817 559 9085
F 254 897 6652

CP-200900283
Log # TXX-09032

Ref. # 10 CFR 50.90

February 17, 2009

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

SUBJECT: COMANCHE PEAK STEAM ELECTRIC STATION
DOCKET NOS. 50-445 AND 50-446
RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION REGARDING SPENT FUEL POOL CRITICALITY LICENSE AMENDMENT REQUEST
(TAC NOS. MD8417 AND MD8418)

REFERENCES:
1. Letter logged TXX-07106 dated August 28, 2007 from Mike Blevins of Luminant Power to the NRC submitting License Amendment Request (LAR) 07-004.
2. Letter logged TXX-08087, dated June 30, 2008, from Mike Blevins of Luminant Power to the NRC submitting a supplement to the Spent Fuel Pool Criticality Analysis.
3. Letter dated November 19, 2008, from Balwant Singal of NRR to Mr. Blevins.
4. Letter logged TXX-08148, dated December 10, 2008, from Mike Blevins of Luminant Power to the NRC submitting responses to request for additional information regarding Spent Fuel Pool Criticality License Amendment Request.
5. Letter logged TXX-09001, dated January 16, 2009, from Mike Blevins of Luminant Power to the NRC submitting responses to request for additional information regarding Spent Fuel Pool Criticality License Amendment Request.

Dear Sir or Madam:

Per Reference 1, Luminant Generation Company LLC (Luminant Power) requested changes to the Comanche Peak Steam Electric Station, herein referred to as Comanche Peak Nuclear Power Plant (CPNPP), Units 1 and 2 Operating Licenses and to Technical Specification 1.0, "USE AND APPLICATION" to revise rated thermal power from 3458 MWT to 3612 MWT. As part of the request to increase rated thermal power, Luminant Power requested to revise Technical Specifications 3.7.17, "Spent Fuel Assembly Storage," for the spent fuel pool criticality analysis for CPNPP Units 1 and 2. In Reference 2, Luminant Power supplemented the information supporting the spent fuel pool criticality analysis.

A001
NRR

On November 19, 2008, the NRC provided Luminant Power with a request for additional information (Reference 3) regarding the proposed changes to rated thermal power. The responses to these questions were provided in References 4 and 5. Per Reference 5, the final question (26) and supporting revised Technical Specifications pages are provided by this letter.

Attachment 1 contains information proprietary to Westinghouse Electric Company LLC, and is supported by an affidavit signed by Westinghouse, the owner of the information. Attachment 2 is the non-proprietary version of Attachment 1. The enclosed affidavit 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 2.390 of the Commissions' regulations. Accordingly, it is respectfully requested that the information which is proprietary to Westinghouse be withheld from public disclosure in accordance with 10 CFR Section 2.390 of the Commission's regulations.

Correspondence with respect to the copyright or proprietary aspects of Attachment 1 or the supporting Westinghouse affidavit should reference CAW-09-2531 and should be addressed to J. A. Gresham, Manager, Regulatory Compliance and Plant Licensing, Westinghouse Electric Company LLC, P.O. Box 355, Pittsburgh, Pennsylvania 15230-0355.

Proprietary information is indicated in [brackets], followed by a superscript code. The codes are defined 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.
(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.

In accordance with 10CFR50.91(b), Luminant Power is providing the State of Texas with a copy of this proposed amendment supplement.

Attachment 3 contains updated Technical Specification Markups for the figures in Technical Specification 3.7.17 reflecting the revised analysis. These updated figures should replace the original curves provided in LAR-07-004. In addition, the design basis features section of the Technical Specifications has been included in the Markup, reflecting the renumbering of the figures in Technical Specification 3.7.17 for acceptable spent fuel storage locations.

This communication contains no new or revised commitments. Should you have any questions, please contact Mr. J. D. Seawright at (254) 897-0140.

I state under the penalty of perjury that the foregoing is true and correct.

Executed on February 17, 2009.

Sincerely,

Luminant Generation Company LLC

Mike Blevins

By: _____
Fred W. Madden
Director, Oversight & Regulatory Affairs

Attachments:
1. Response to NRC Request for Additional Information (Proprietary)
2. Response to NRC Request for Additional Information (Non-Proprietary)
3. Revised Markup of Technical Specification pages

Enclosure: Westinghouse authorization letter CAW-09-2531 with accompanying affidavit, Proprietary Information Notice and Copyright Notice.

c - E. E. Collins, Region IV
B. K. Singal, NRR
Resident Inspectors, CPNPP

Ms. Alice Rogers
Environmental & Consumer Safety Section
Texas Department of State Health Services
1100 West 49th Street
Austin, Texas 78756-3189

ATTACHMENT 2 TO TXX-09032

Response to NRC Request for Additional Information
Question 26
(Non-Proprietary)

Question 26

In determining the soluble boron requirements for CPSES, Units 1 and 2, WCAP-16827-P states, "...soluble boron credit methodology utilized here is identical to that followed in Reference 1." Reference 1 is Reference 14 herein. However, it does not appear to be true. While there are some similarities between what was done in WCAP-16827-P and Reference 14, they certainly are not identical and there are enough significant differences such that the Reference 14 is not an appropriate precedent for what was done in WCAP-16827-P. WCAP-16827-P determined the soluble boron requirements for the "4-out-of-4" storage configuration using 5.0 w/o enriched fuel assembly with 75,759 MWD/MTU of burnup. An implicit assumption is that this storage configuration with this burnup/enrichment is limiting with respect to all other storage configurations and burnup/enrichment combinations within WCAP-16827-P. Rather than an infinite array of "4-out-of-4" storage configurations, the soluble boron credit methodology is modeled as the SFP Region II full of "4-out-of-4" storage configurations. The WCAP-16827-P soluble boron credit methodology determines the k_{eff} of the model at eleven points ranging from 0 PPM to 1024 PPM. A Δk_{eff} term is determined for the ten soluble boron amounts with respect to 0 PPM. The Δk_{eff} terms are fit to a second order polynomial with respect to soluble boron concentration. That polynomial is used to individually find the soluble boron concentration to accommodate three separate Δk_{eff} factors. Those factors are 0.05 Δk_{eff}, a Δk_{eff} for uncertainties, and the Δk_{eff} required to offset the largest reactivity increase due to worst case accident/abnormal conditions. The soluble boron required to maintain the SFP k_{eff} less than 0.95 under nominal conditions is the summation of the first two factors. The licensee must be able to demonstrate the ability to detect and terminate a SFP boron dilution event before reaching this soluble boron concentration. This value is typically located in the Design Features section of the Technical Specifications. The soluble boron required to maintain the SFP k_{eff} less than 0.95 under accident/abnormal conditions is the summation of all three. This value is typically the basis for a SFP minimum soluble boron concentration limiting condition for operation (LCO). The first factor in the WCAP-16827-P soluble boron methodology has several implicit assumptions. One is that the storage configuration is already at a k_{eff} less than 1.0. A second is that the total 'rackup' of biases and uncertainties is unchanged by the presence of soluble boron in the moderator. The second factor includes a 'depletion uncertainty' and a 'burnup measurement uncertainty.' The 'burnup measurement uncertainty is identical to that used previously. The 'depletion uncertainty' is a new item, used only in the soluble boron credit determination. The third factor accounts for accident/abnormal conditions. The staff previously identified several non-conservative aspects of this methodology. Those were discussed with the licensee during April 24th conference call. WCAP-16827-P, Addendum 1 provided some additional information regarding the soluble boron credit methodology. It indicates that the above soluble boron credit methodology was applied to each storage configuration, but ultimately simulations were performed with soluble boron present with the biases and uncertainties applied afterward. The WCAP-16827-P, Addendum 1 method indicates that > 1900 PPM of soluble boron is required to maintain keff ≤ 0.95 under all conditions, as compared to the 1600 PPM

indicated by WCAP-16827-P. WCAP-16827-P, Addendum 1 also indicates that the "2-out-of-4" storage configuration requires a higher soluble boron concentration rather than the "4-out-of-4" storage configuration, as was assumed in WCAP-16827-P. To further evaluate the soluble boron credit requirements for CPSES, Units 1 and 2, the licensee is requested to provide the following information. (Note storage configurations crediting RCCA or RackSavers are not included in this request for additional information.)

a) **WCAP-16827-P, Addendum 1 continues to assume the biases and uncertainties are unaffected by the presence of a large amount of soluble boron. What affect does the presence of 1600 PPM and 1900 PPM of soluble boron have on the biases and uncertainties?**

b) **The analysis states that increased temperature induced a negative reactivity effect. Was that determination made with or without soluble boron present in the SFP?**

c) **WCAP-16827-P, Addendum 1 discusses additional simulations that were performed to support the analysis, which differed from the WCAP-16827-P methodology, and provides the keff results in Table 3-4. Please provide a description of those simulations. Include the parameters used and any modeling differences with respect to WCAP-16827-P. Also, clarify if the results stated in Table 3-4 are for 1600 PPM or 1900 PPM of soluble boron.**

d) **WCAP-16827-P, Addendum 1 discusses the results of the simulations performed on two storage configuration. One contains two RCCAs; the other is the "2-out-of-4" storage configurations, which resulted in the largest soluble boron requirement. The biases and uncertainties for each are handled differently. Please state the reasons.**

   - **The discussion of the "2-out-of-4" storage configuration applies the "standard" biases and uncertainties from WCAP-16827-P, Table 4-16 and the 'burnup measurement uncertainty' from WCAP-16827-P, Table 4-16, but does not apply the 'depletion uncertainty.' Also, should a 'depletion uncertainty' be applied it is likely that any remaining reserved analytical margin would be completely eroded. Please justify.**

e) **WCAP-16827-P, Addendum 1 indicates that > 1900 PPM of soluble boron is required to maintain keff ≤ 0.95 under all conditions. As CPNPP, Units 1 and 2 TS 4.3.1.1.c lists the amount of soluble boron required to maintain keff ≤ 0.95 under nominal conditions. What is the amount of soluble boron required to maintain keff ≤ 0.95 under nominal conditions using the methodology of WCAP-16827-P, Addendum 1? If necessary, provide a revised TS proposal that incorporates this value.**

WCAP-16827-P, Addendum 1 credits a portion of the 0.005 Δk_{eff} reserved analytical margin to offset the amount of soluble boron required above 1900 PPM. 1900 PPM is close to the CPSES, Units 1 and 2, TS 3.7.16 minimum SFP soluble boron requirement of 2000 PPM. Please describe the process used to determine that SFP is at the proper soluble boron concentration.

Response

WCAP-16827-P concluded that 280 ppm and 363 ppm of soluble boron are necessary to offset reactivites equal to the burnup measurement and depletion uncertainties and 5% Δk_{eff} respectively. The sum of these two values is the boron concentration necessary to maintain the $k_{eff} \leq 0.95$ under normal operating conditions. WCAP-16827-P also concluded that an additional 964 ppm was necessary to offset the reactivity associated with the worst postulated accident.

The biases and uncertainties considered in WCAP-16827-P were recalculated with soluble boron concentrations of approximately 650 ppm and 1600 ppm present to represent the concentrations necessary to maintain the appropriate margin to criticality for normal operation and accident scenarios. The limiting biases and uncertainties from the two borated scenarios were selected and appropriately combined to determine an enrichment-dependent, borated target k_{eff} for each unique configuration. The borated sum of biases and uncertainties and target k_{eff} values are presented in the tables below. Noting that the 5 w/o case is the limiting condition because the higher required burnup decreases soluble boron worth, it is demonstrated that the sum of biases and uncertainties is considerably lower for the borated case than the unborated case presented in the response to question 17.

Blanketed configurations were not considered here even though they produced slightly lower unborated target k_{eff} values in the response to question 17. This is more than offset by the increased burnup limits associated the unblanketed fuel. The more depleted fuel required to meet the higher burnup limits of the unblanketed configurations has a higher energy neutron spectrum which decreases the soluble boron worth and ultimately leads to higher boron concentrations necessary to meet the borated target k_{eff}.

Borated Burnup Dependent Uncertainties for the "4-out-of-4" Storage Configuration

Initial Enrichment (w/o ^{235}U)	Enrichment Uncertainty	BU Measurement Uncertainty	Depletion Uncertainty	Total Biases and Uncertainties	Borated Target k_{eff}
1.02	0.01882	[ ] a,c	0	0.02442	0.92058
2	0.00996		0.00665	0.01946	0.92554
3	0.00650		0.01375	0.02267	0.92233
4	0.00506		0.01827	0.02632	0.91868
5	0.00357		0.02131	0.02890	0.91610

Borated Burnup Dependent Uncertainties for the "3-out-of-4" Storage Configuration

Initial Enrichment (w/o ^{235}U)	Enrichment Uncertainty	BU Measurement Uncertainty	Depletion Uncertainty	Total Biases and Uncertainties	Borated Target k_{eff}
1.47	0.01145	[ ] a,c	0	0.01990	0.92510
2	0.00844		0.00469*	0.01878	0.92622
3	0.00493		0.00592	0.01804	0.92696
4	0.00523		0.00985	0.02096	0.92404
5	0.00367		0.01263	0.02315	0.92185

*5% decrement method resulted in a U depletion uncertainty so the unborated depletion uncertainty from Question 17 was used.

Borated Burnup Dependent Uncertainties for the "2-out-of-4" Storage Configuration

Initial Enrichment (w/o ^{235}U)	Enrichment Uncertainty	BU Measurement Uncertainty	Depletion Uncertainty	Total Biases and Uncertainties	Borated Target k_{eff}
3.67	0.00407	[ ] a,c	0	0.01382	0.93118
4	0.00350		0.00084*	0.01364	0.93136
5	0.00288		0.00281*	0.01391	0.93109

*5% decrement method resulted in a 0 depletion uncertainty so the unborated depletion uncertainty from Question 17 was used.

The amount of soluble boron necessary to meet the 10CFR50.68 requirement of $k_{eff} \leq 0.95$ for normal operations was determined by generating a quadratic fit of k_{eff} at the nearest three boron concentrations and interpolating to the target k_{eff} values developed above. The required boron concentrations are presented below. These calculations show that there is considerable margin to the 800 ppm value of TS 4.3.1.1.c.

Steady State Soluble Boron Requirement for the "4-out-of-4 Storage Configuration"

Boron Concentration (ppm)	$k_{eff} \pm \sigma$	5 w/o Borated Target k_{eff}	Required Boron Concentration (ppm)
200	0.93119 ± 0.00030	0.91610	317
300	0.91742 ± 0.00026		
400	0.90479 ± 0.00028		

Steady State Soluble Boron Requirement for the "3-out-of-4 Storage Configuration"

Boron Concentration (ppm)	$k_{eff} \pm \sigma$	5 w/o Borated Target k_{eff}	Required Boron Concentration (ppm)
100	0.94298 ± 0.00030	0.92185	228
200	0.92566 ± 0.00033		
300	0.90907 ± 0.00034		

Steady State Soluble Boron Requirement for the "2-out-of-4 Storage Configuration"

Boron Concentration (ppm)	$k_{eff} \pm \sigma$	5 w/o Borated Target k_{eff}	Required Boron Concentration (ppm)
100	0.96132 ± 0.00039	0.93109	246
200	0.93908 ± 0.00042		
300	0.91993 ± 0.00037		

The 5% margin to criticality under the limiting postulated accident for the Comanche Peak spent fuel pools, namely the fresh 5 w/o assembly misload, was demonstrated by quadratic interpolation amongst the nearest three boron concentrations necessary to meet the borated target k_{eff}. The results for the "2-out-of-4" configuration are presented in the table below.

Fresh 5 w/o Misload Event Soluble Boron Requirement for the "2-out-of-4 Storage Configuration"

Boron Concentration (ppm)	$k_{eff} \pm \sigma$	5 w/o Borated Target k_{eff}	Required Boron Concentration (ppm)
1607	0.94277 ± 0.00019	0.93109	1751
1700	0.93244 ± 0.00019		
1800	0.92127 ± 0.00019		

The "3-out-of-4" and "4-out-of-4" storage configuration misload events were simulated with 1607 ppm of soluble boron present. The results presented in the table below show that there is significant reactivity margin to target k_{eff} values presented above. From this it is concluded that the 1751 ppm boron concentration found in this analysis is still well below the LCO of 2000 ppm cited in TS 3.7.16.

Fresh 5 w/o Misload Event Eigenvalues for the "4-out-of-4 and 3-out-of-4 Storage Configurations in the presence of 1607 ppm of Soluble Boron"

Configuration	Calculated $k_{eff} \pm \sigma$	Configuration Target k_{eff}
"4-out-of-4"	0.85964 ± 0.00022	0.91610
"3-out-of-4"	0.90027 ± 0.00021	0.92185

ATTACHMENT 3 TO TXX-09032

Revised Markup of Technical Specification pages

LAR-07-007 Original Markup (Attachment 4 to TXX-07106)	Revised Markup (Attachment 3 to TXX-09032)
Page 5 of 19	Page 1 of 10
Page 6 of 19	Page 2 of 10
Page 7 of 19	Page 3 of 10
Page 8 of 19	Page 4 of 10
Page 9 of 19	Page 5 of 10
Page 10 of 19	Page 6 of 10
Page 11 of 19	Page 7 of 10
Page 12 of 19	Page 8 of 10
- -	Page 9 of 10
- -	Page 10 of 10

Insert New Figure 3.7.17-1 here

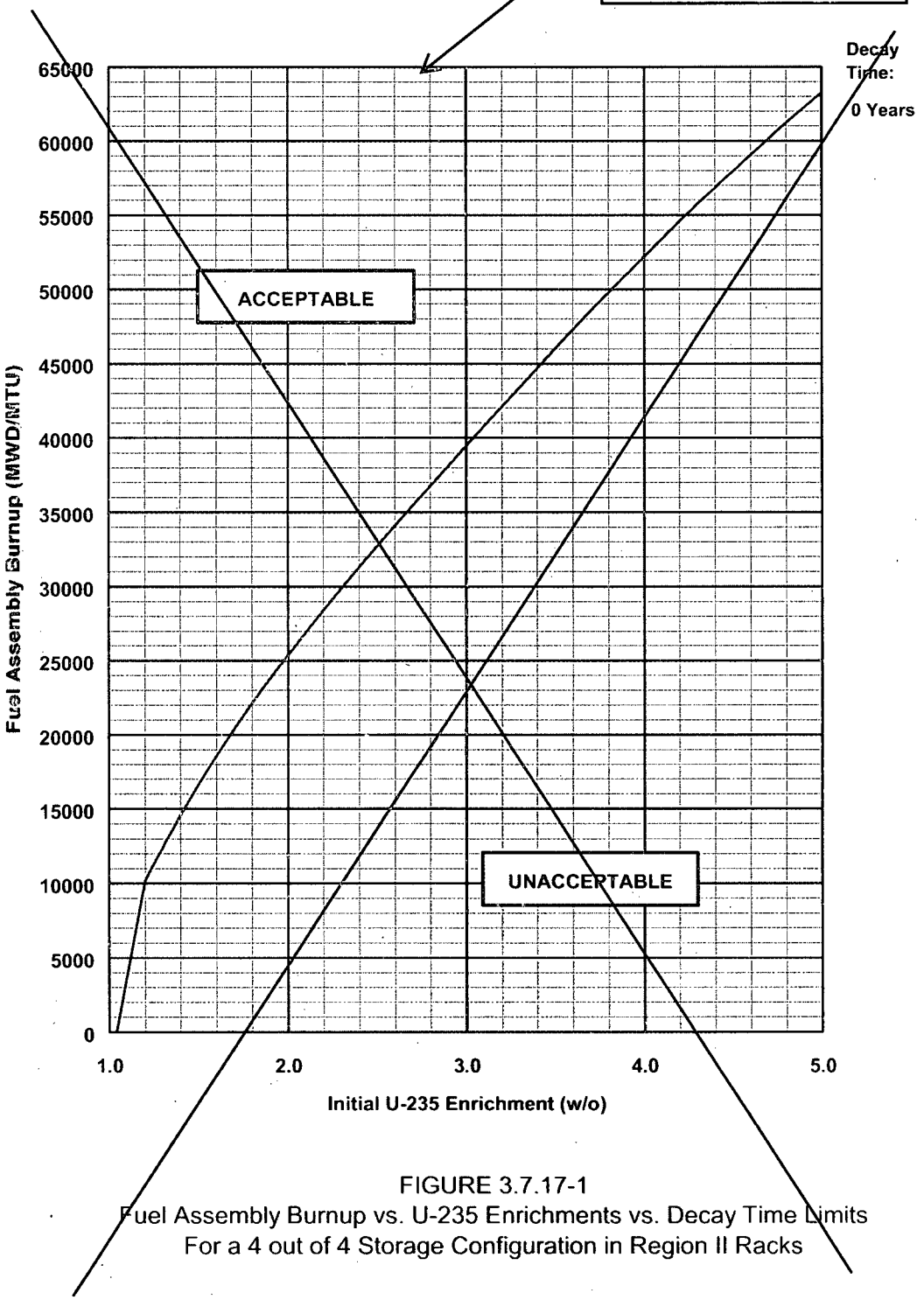

FIGURE 3.7.17-1
Fuel Assembly Burnup vs. U-235 Enrichments vs. Decay Time Limits
For a 4 out of 4 Storage Configuration in Region II Racks

74
87

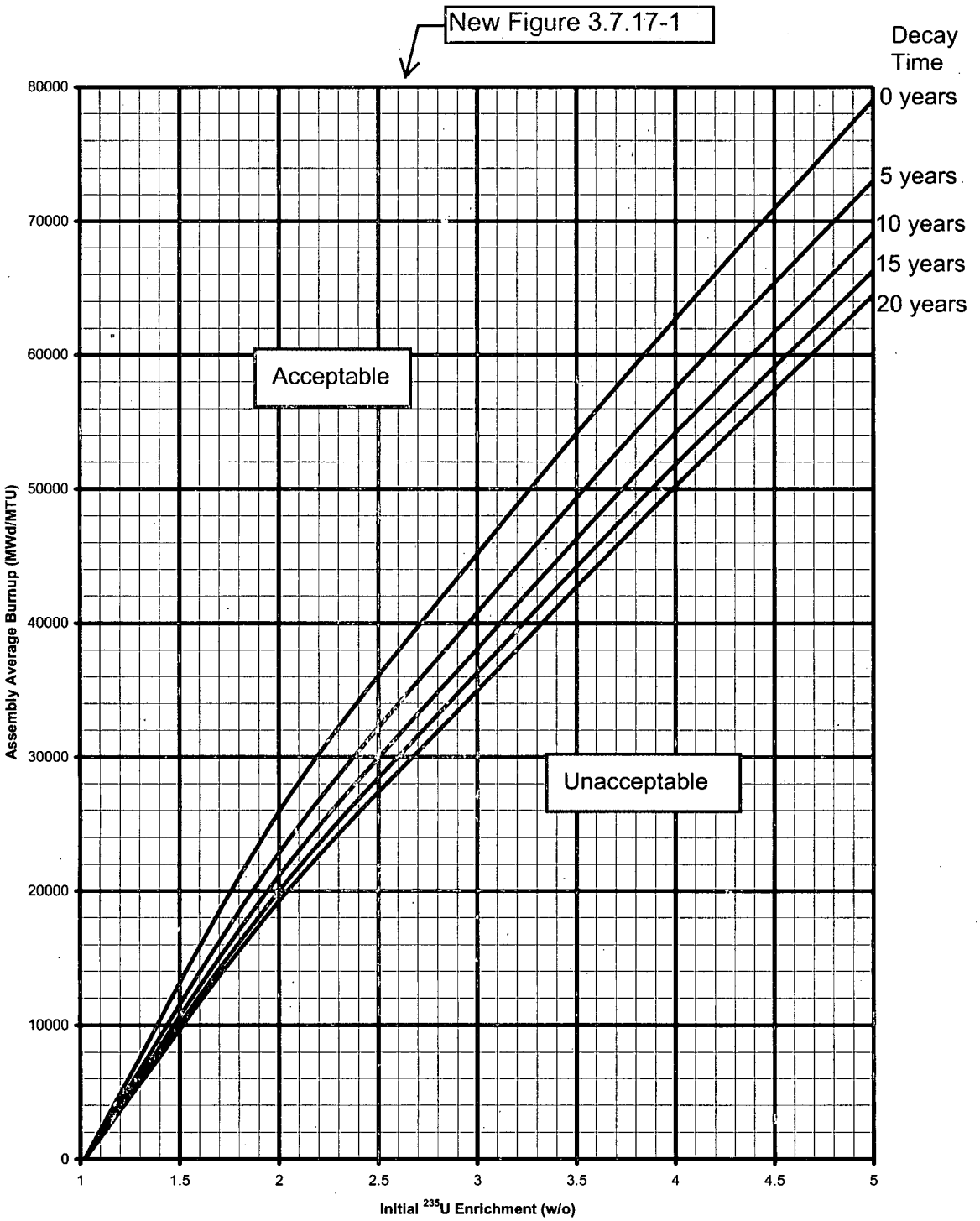

Figure 3.7.17-1
Minimum Required Fuel Assembly Burnup versus Initial ^{235}U Enrichment for the "4-out-of-4" Storage Configuration

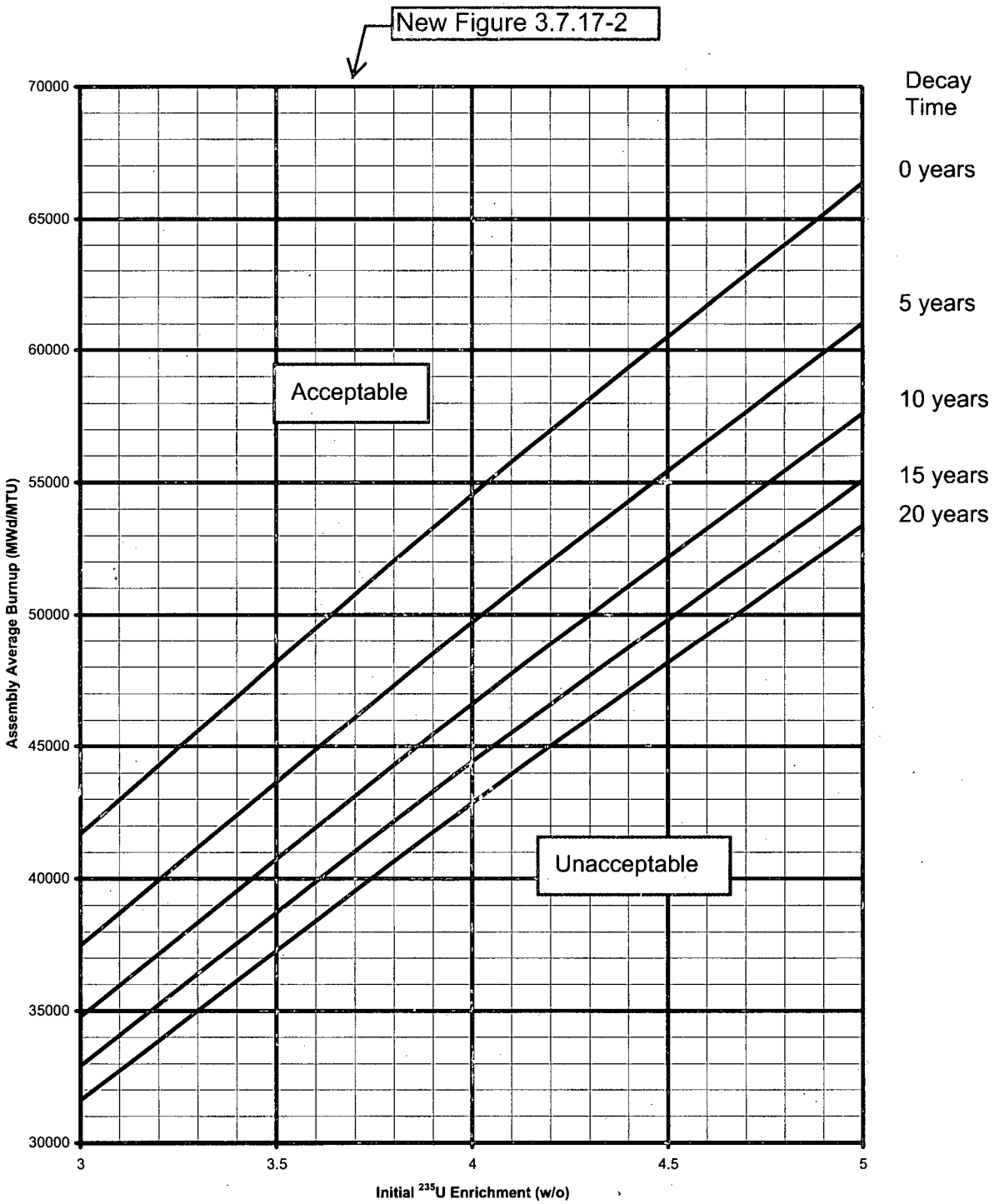

Figure 3.7.17-2
Minimum Required Fuel Assembly Burnup versus Initial ^{235}U Enrichment for the "4-out-of-4 with Axial Blankets" Storage Configuration

Insert Figure 3.7.17-3 here

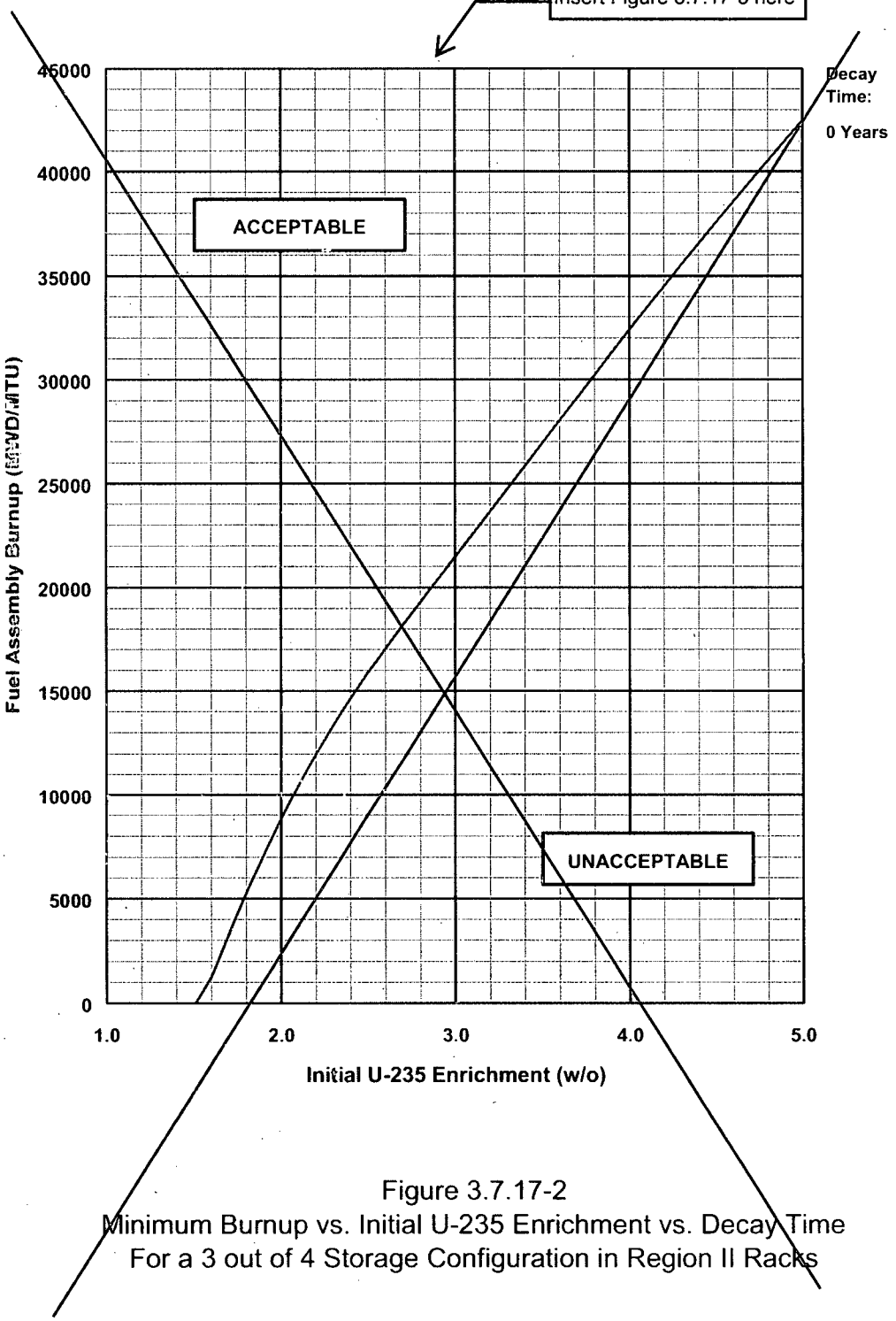

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Figure 3.7.17-2
Minimum Burnup vs. Initial U-235 Enrichment vs. Decay Time
For a 3 out of 4 Storage Configuration in Region II Racks

40

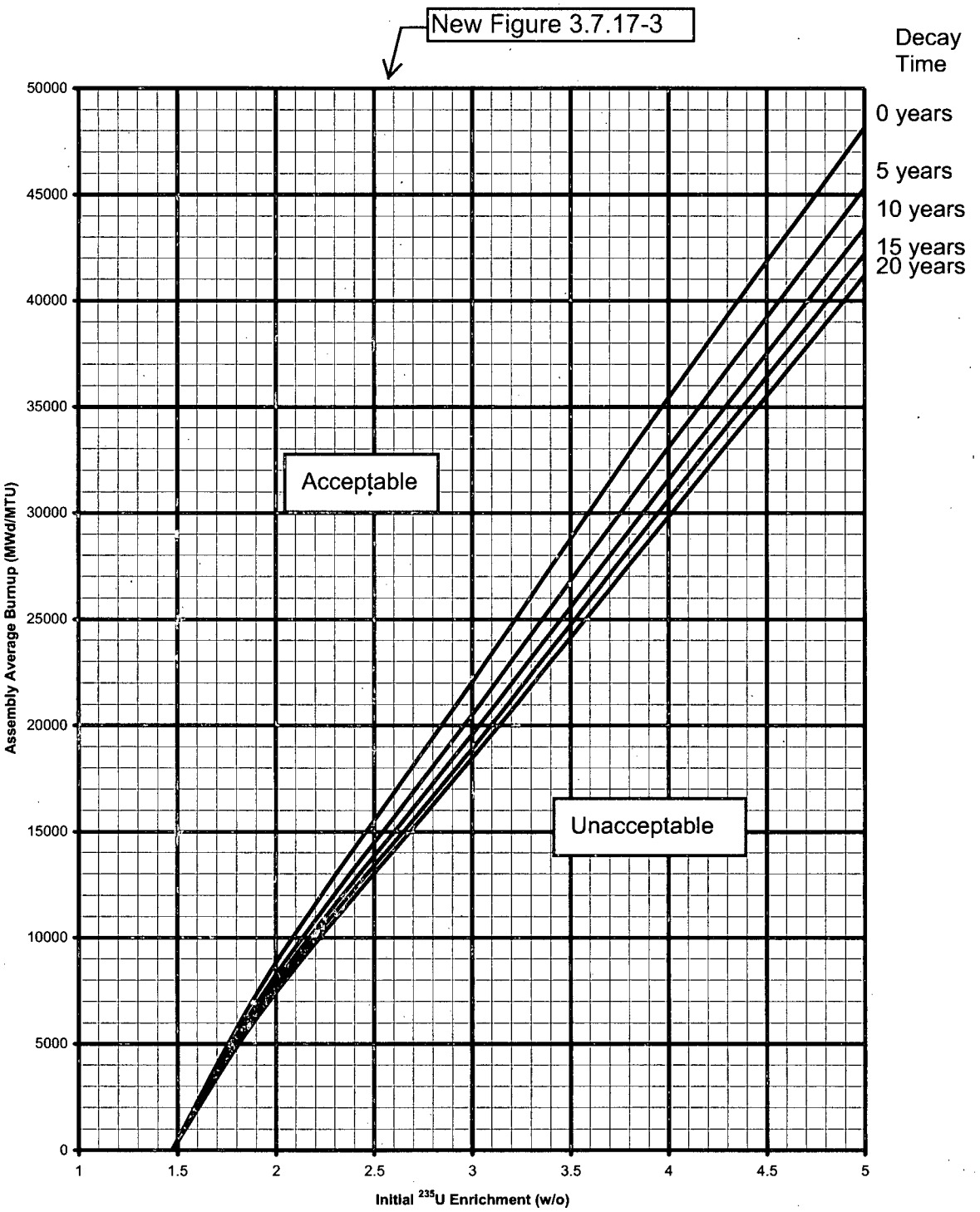

Figure 3.7.17-3
Minimum Required Fuel Assembly Burnup versus Initial ^{235}U Enrichment for the "3-out-of-4" Storage Configuration

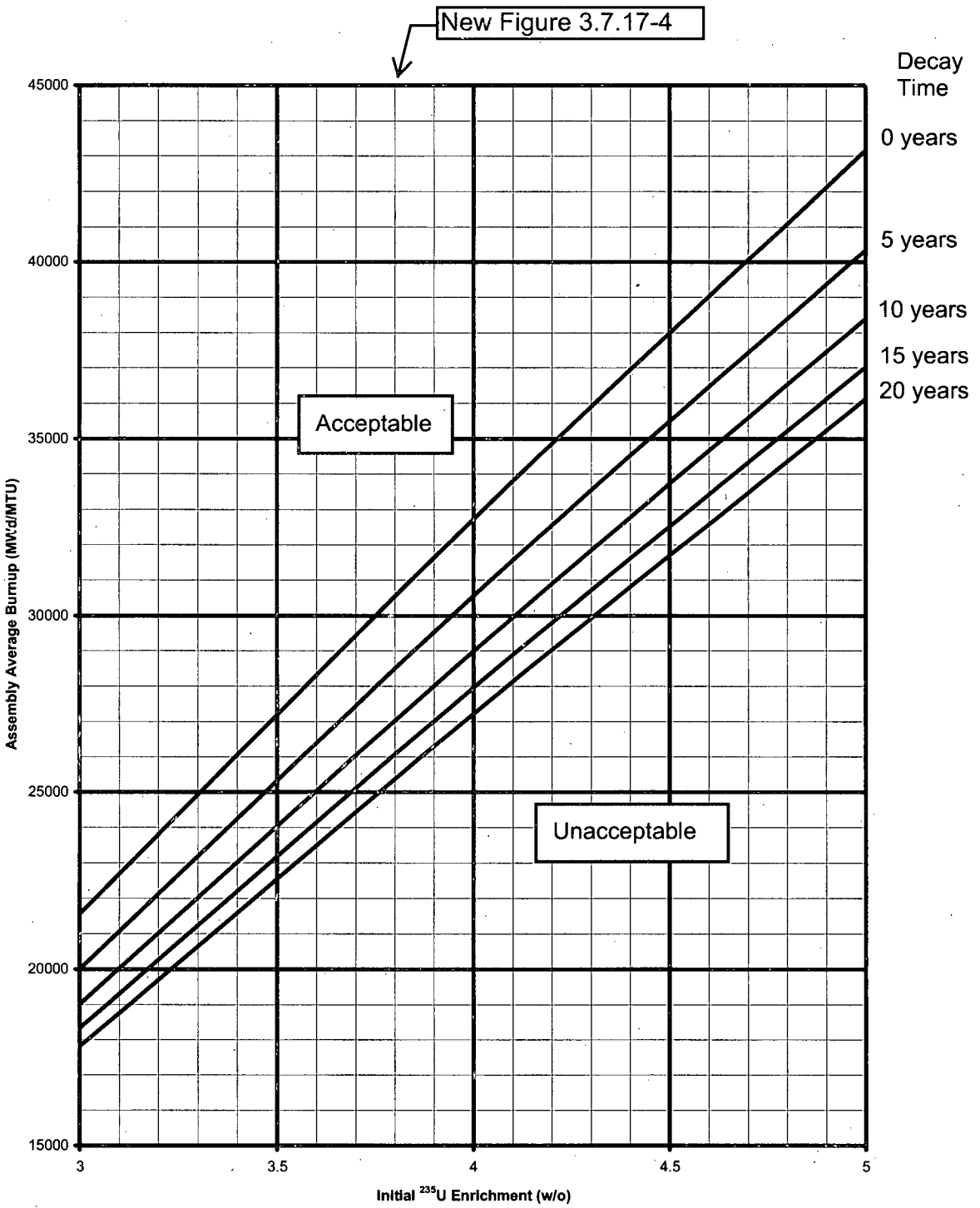

Figure 3.7.17-4
Minimum Required Fuel Assembly Burnup versus Initial ^{235}U Enrichment for the "3-out-of-4 with Axial Blankets" Storage Configuration

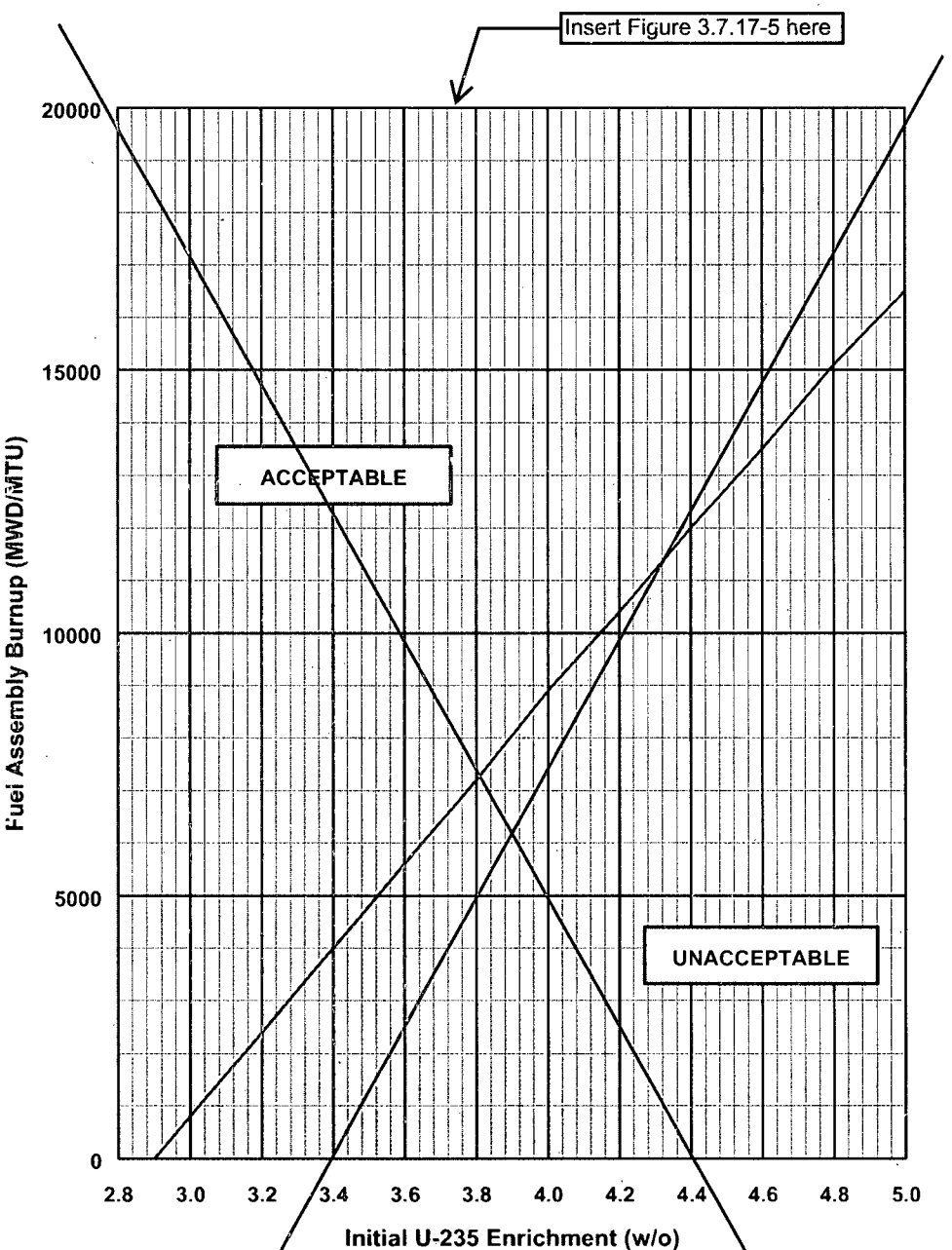

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Figure 3.7.17-3
Minimum Burnup vs. Initial U-235 Enrichment
For a 2 out of 4 Storage Configuration in Region II Racks

42

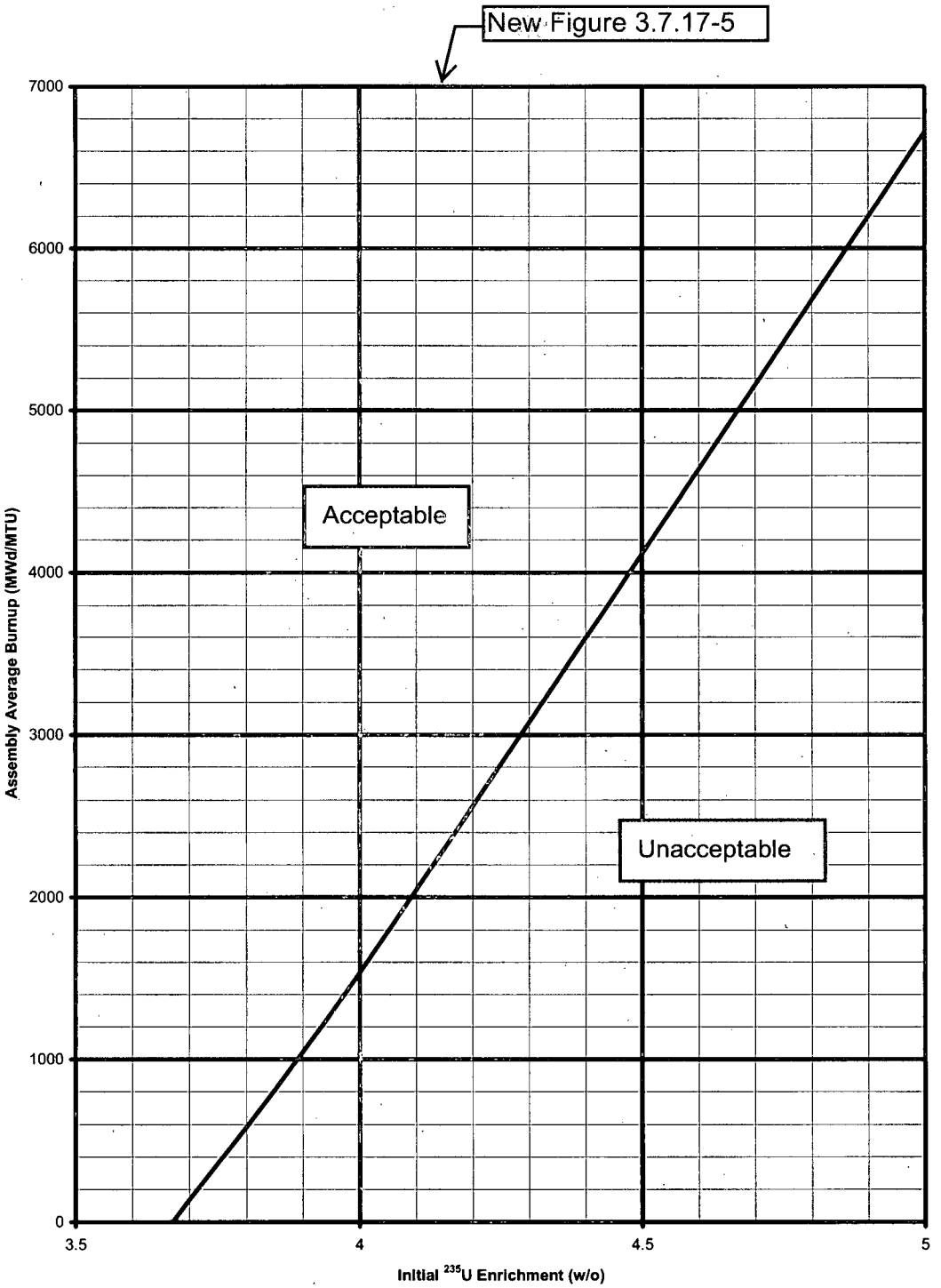

Figure 3.7.17-5
Minimum Required Fuel Assembly Burnup versus Initial ^{235}U Enrichment for the "2-out-of-4" Storage Configuration

4.0 DESIGN FEATURES (continued)

4.3 Fuel Storage

4.3.1 Criticality

4.3.1.1 The spent fuel storage racks are designed and shall be maintained with:

a. Fuel assemblies having a maximum U-235 enrichment of 5.0 weight percent;

b. k_{eff} < 1.0 when fully flooded with unborated water which includes an allowance for uncertainties as described in Section 4.3 of the FSAR;

c. k_{eff} ≤ 0.95 if fully flooded with water borated to 800 ppm, which includes an allowance for uncertainties as described in Section 4.3 of the FSAR;

d. A nominal 9 inch center to center distance between fuel storage locations in Region II storage racks;

e. A nominal 10.6 inch by nominal 11 inch center to center distance between fuel assemblies placed in Region I fuel storage racks;

f. New or partially spent fuel assemblies may be allowed restricted storage in a 1 out of 4 configuration in Region II fuel storage racks (as shown in Figure ~~3.7.17-4~~ 3.7.17-6) or unrestricted storage in Region I fuel storage racks;

3.7.17-1 and Figure 3.7.17-2

g. New or partially spent fuel assemblies with a discharge burnup in the "acceptable" domain of Figure ~~3.7.17-1~~ 3.7.17-1 and Figure 3.7.17-2 may be allowed unrestricted storage in a 4 out of 4 configuration in Region II fuel storage racks as shown in Figure ~~3.7.17-4~~; 3.7.17-6

3.7.17-3 and Figure 3.7.17-4

h. New or partially spent fuel assemblies with a discharge burnup in the "acceptable" domain of Figure ~~3.7.17-2~~ 3.7.17-3 and Figure 3.7.17-4 may be allowed restricted storage in a 3 out of 4 configuration in Region II fuel storage racks as shown in Figure ~~3.7.17-4~~ 3.7.17-6; and

(continued)

4.0 DESIGN FEATURES

4.3.1.1 (continued)

3.7.17-5

i. New or partially spent fuel assemblies with a discharge burnup in the "acceptable" domain of Figure ~~3.7.17-3~~ may be allowed restricted storage in a 2 out of 4 configuration in Region II fuel storage racks as shown in Figure ~~3.7.17-4~~.

3.7.17-6

4.3.1.2 The new fuel storage racks are designed and shall be maintained with:

a. Fuel assemblies having a maximum U-235 enrichment of 5.0 weight percent;

b. $k_{eff} \leq 0.95$ if fully flooded with unborated water, which includes an allowance for uncertainties as described in Section 4.3 of the FSAR;

c. $k_{eff} \leq 0.98$ if moderated by aqueous foam, which includes an allowance for uncertainties as described in Section 4.3 of the FSAR; and

d. A nominal 21 inch center to center distance between fuel assemblies placed in the storage racks.

4.3.2 Drainage

The spent fuel storage pools are designed and shall be maintained to prevent inadvertent draining of the pool below elevation 854 ft.

4.3.3 Capacity

The spent fuel storage pools are designed and shall be maintained with a storage capacity limited to no more than 3373 fuel assemblies.

ENCLOSURE TO TXX-09032

Westinghouse authorization letter CAW-09-2531 with accompanying affidavit, Proprietary Information Notice and Copyright Notice.

Westinghouse Electric Company
Nuclear Services
P.O. Box 355
Pittsburgh, Pennsylvania 15230-0355
USA

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

Direct tel: (412) 374-4643
Direct fax: (412) 374-3846
e-mail: greshaja@westinghouse.com

Our ref: CAW-09-2531

February 10, 2009

APPLICATION FOR WITHHOLDING PROPRIETARY INFORMATION FROM PUBLIC DISCLOSURE

Subject: WPT-17289 (with attachments), "Power Uprate Project – SFP Criticality Analysis RAI, Response to NRC Request for Additional Information" (Proprietary)

The proprietary information for which withholding is being requested in the above-referenced report is further identified in Affidavit CAW-09-2531 signed by the owner of the proprietary information, Westinghouse Electric Company LLC. 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 10 CFR Section 2.390 of the Commission's regulations.

Accordingly, this letter authorizes the utilization of the accompanying affidavit by Luminant Generation Company LLC.

Correspondence with respect to the proprietary aspects of the application for withholding or the Westinghouse affidavit should reference this letter, CAW-09-2531, and should be addressed to J. A. Gresham, Manager, Regulatory Compliance and Plant Licensing, Westinghouse Electric Company LLC, P.O. Box 355, Pittsburgh, Pennsylvania 15230-0355.

Very truly yours,

J. A. Gresham, Manager
Regulatory Compliance and Plant Licensing

Enclosures

cc: G. Bacuta, NRC OWFN 12E-1

bcc: J. A. Gresham (ECE 4-7A) 1L
R. Bastien, 1L (Nivelles, Belgium)
C. Brinkman, 1L (Westinghouse Electric Co., 12300 Twinbrook Parkway, Suite 330, Rockville, MD 20852)
RCPL Administrative Aide (ECE 4-7A) 1L, 1A (letter and affidavit only)
T. J. Gerlowski (ECE-323B)

CAW-09-2531

AFFIDAVIT

COMMONWEALTH OF PENNSYLVANIA:

ss

COUNTY OF ALLEGHENY:

Before me, the undersigned authority, personally appeared J. A. Gresham, 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:

J. A. Gresham, Manager
Regulatory Compliance & Plant Licensing

Sworn to and subscribed before me
this 10th day of February, 2009

Notary Public

COMMONWEALTH OF PENNSYLVANIA
Notarial Seal
Sharon L. Markle, Notary Public
Monroeville Boro, Allegheny County
My Commission Expires Jan. 29, 2011
Member, Pennsylvania Association of Notaries

(1) I am Manager, Regulatory Compliance & Plant Licensing, 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 Westinghouse.

(2) I am making this Affidavit in conformance with the provisions of 10 CFR Section 2.390 of the Commission's regulations and in conjunction with the Westinghouse "Application for Withholding" accompanying this Affidavit.

(3) I have personal knowledge of the criteria and procedures utilized by Westinghouse 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 2.390 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 that 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 10 CFR Section 2.390, 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 attachments to WPT-17289, "Power Uprate Project – SFP Criticality Analysis RAI, Response to NRC Request for Additional Information" (Proprietary), dated February 11, 2009, for Comanche Peak Nuclear Power Plant Units 1 and 2, being transmitted by Luminant Generation Company LLC letter and Application for Withholding Proprietary Information from Public Disclosure, to the Document Control Desk. The proprietary information as submitted for use by Westinghouse for Comanche Peak Nuclear Power Plant Units 1 and 2 is expected to be applicable for other licensee submittals in response to certain NRC requirements for justification of spent fuel pool criticality safety analysis.

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

(a) Provide information in support of plant power spent fuel pool criticality safety analysis.

(b) Provide customer specific calculations.

(c) Provide licensing support for customer submittals.

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 associated with spent fuel pool criticality safety analysis submittals.

(b) Westinghouse can sell support and defense of the technology to its customer in the licensing process.

(c) The information requested to be withheld reveals the distinguishing aspects of a methodology which was developed by Westinghouse.

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 information 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.

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 2.390 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) 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 2.390(b)(1).

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