WBN2Public Resource

From: Boyd, Desiree L [dlboyd@tva.gov]
Sent: Wednesday, June 06, 2012 8:31 AM
To: Epperson, Dan; Poole, Justin; Raghavan, Rags; Milano, Patrick; Campbell, Stephen
Cc: Arent, Gordon; Hamill, Carol L; Boyd, Desiree L
Subject: TVA letter to NRC_06-05-12 Fuel Storage TS Submittal
Attachments: 06-05-12 Fuel Storage TS Submittal_Final.pdf

Please see attached TVA letter that was sent to the NRC today.

Thank You,

~*~*~*~*~*~*~*~*~*~*~*~

Désireé L. Boyd

WBN Unit 2 Licensing

dlboyd@tva.gov

423-365-8764

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From: Boyd, Desiree L

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Recipients:
"Arent, Gordon" <garent@tva.gov>
Tracking Status: None
"Hamill, Carol L" <clhamill@tva.gov>
Tracking Status: None
"Boyd, Desiree L" <dlboyd@tva.gov>
Tracking Status: None
"Epperson, Dan" <Dan.Epperson@nrc.gov>
Tracking Status: None
"Poole, Justin" <Justin.Poole@nrc.gov>
Tracking Status: None
"Raghavan, Rags" <Rags.Raghavan@nrc.gov>
Tracking Status: None
"Milano, Patrick" <Patrick.Milano@nrc.gov>
Tracking Status: None
"Campbell, Stephen" <Stephen.Campbell@nrc.gov>
Tracking Status: None

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June 5, 2012

U.S. Nuclear Regulatory Commission
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Watts Bar Nuclear Plant, Unit 2 — 10 CFR 50.36
NRC Docket No. 50-391

Subject: Watts Bar Nuclear Plant (WBN) Unit 2 – Submittal of Revised Section 4.3, "Fuel Storage," Developmental Revision G of the Unit 2 Technical Specification (TS)

Reference: TVA Letter to NRC dated February 12, 2012, "Watts Bar Nuclear Plant (WBN) Unit 2 – Submittal of Developmental Revision G of the Unit 2 Technical Specification (TS) and Technical Specification Bases"

This letter provides a correction to TS Section 4.3 on Fuel Storage previously submitted by the referenced letter. Also provided is a change to the title of Figure 4.3.3. This change was not made previously and is being made to clarify that the figure also applies to new fuel stored in fuel pool.

Enclosure 1 provides a mark-up of the two changed pages. Enclosure 2 provides a final version with the changes incorporated.

There are no new regulatory commitments associated with this letter.

I declare under penalty of perjury that the foregoing is true and correct. Executed on the 5th day of June, 2012.

Respectfully,

R. A. Hruby, Jr.

Raymond A. Hruby, Jr.
General Manager, Technical Services
Watts Bar Unit 2

Enclosures:

1. WBN Unit 2 TS Section 4.3 Mark-up

2. WBN Unit 2 TS Section 4.3 Clean Version of Changed Pages

cc (Enclosures):

U. S. Nuclear Regulatory Commission
Region II
Marquis One Tower
245 Peachtree Center Ave., NE Suite 1200
Atlanta, Georgia 30303-1257

NRC Resident Inspector Unit 2
Watts Bar Nuclear Plant
1260 Nuclear Plant Road
Spring City, Tennessee 37381

bcc (Enclosures):

Stephen Campbell
U.S. Nuclear Regulatory Commission
MS 08H4A
One White Flint North
11555 Rockville Pike
Rockville, Maryland 20852-2738

Fred Brown, Deputy Regional Administrator for Construction
U. S. Nuclear Regulatory Commission
Region II
Marquis One Tower
245 Peachtree Center Ave., NE Suite 1200
Atlanta, Georgia 30303-1257

Enclosure 1

WBN Unit 2 TS Section 4.3 Mark-up

4.0 DESIGN FEATURES

4.3 Fuel Storage

4.3.1 Criticality

4.3.1.1 The spent fuel storage racks (shown in Figure 4.3-1) 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 Sections 4.3.2.7 and 9.1 of the FSAR;

c. Distances between fuel assemblies are a nominal 10.375 inch center-to-center spacing in the twenty-four flux trap rack modules.

~~d. Fuel assemblies with enrichments less than or equal to 3.80 weight percent U-235 are allowed unrestricted storage.~~

d. Fuel assemblies with initial enrichments ~~greater than 3.80 weight percent and~~ less than a maximum of 5 percent enrichment (nominally 4.95 ± 0.05 percent) may be stored in the spent fuel racks in one of four arrangements with specific limits as identified below:

1. New and spent fuel assemblies may be stored in the racks in an all cell arrangement provided the burnup of each assembly is in the acceptable domain identified in Figure 4.3-3, depending upon the specified initial enrichment.

2. New and spent fuel assemblies may be stored in a checkerboard arrangement of 2 new and 2 spent assemblies, provided that each spent fuel assembly has accumulated a minimum burnup in the acceptable domain identified in Figure 4.3-4.

3. New fuel assemblies may be stored in 4-cell arrays with 1 of the 4 cells remaining empty of fuel (i.e. containing only water or water with up to 75 percent by volume of non-fuel bearing material.

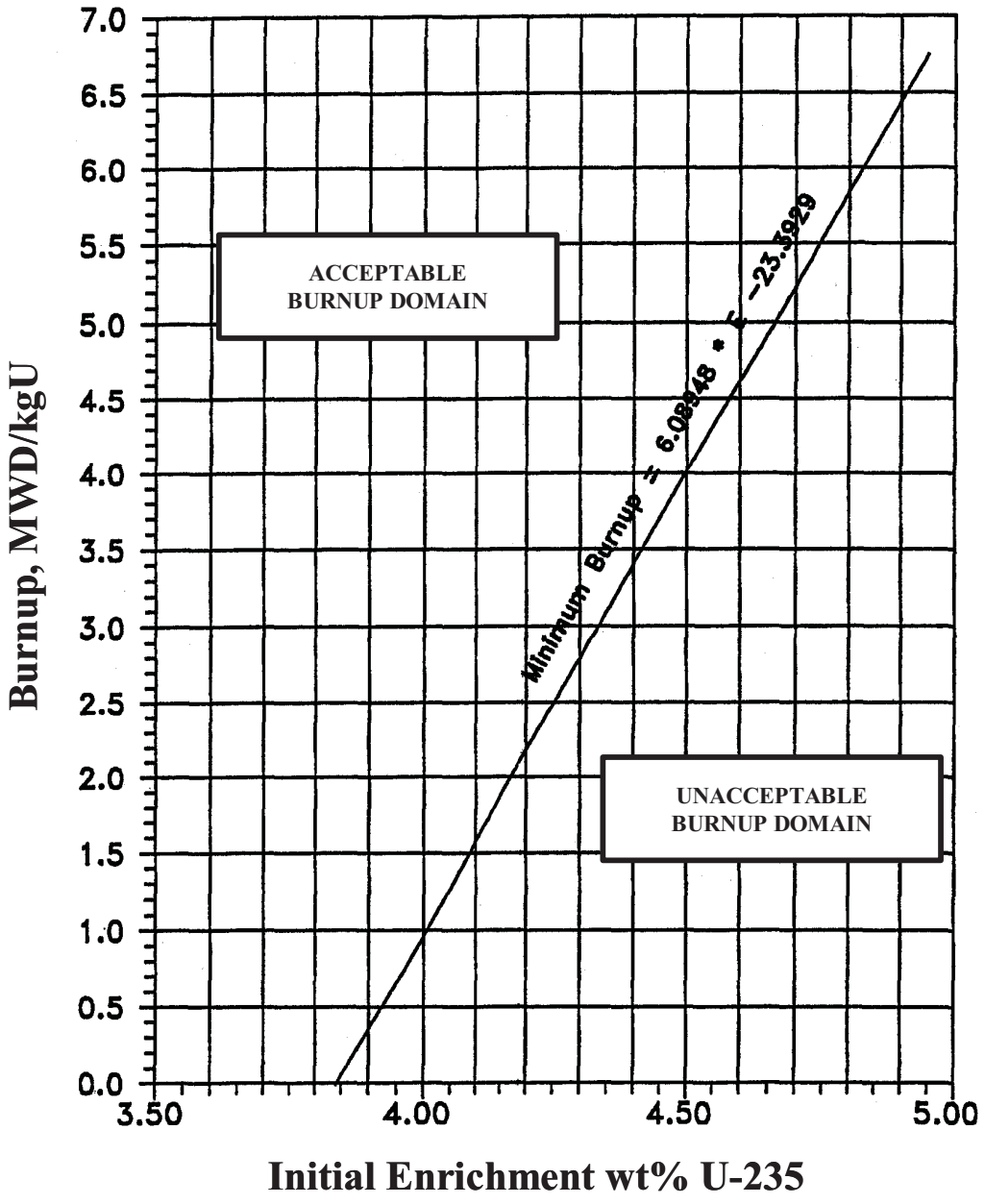

FIGURE 4.3-3

MINIMUM REQUIRED BURNUP FOR UNRESTRICTED STORAGE
OF NEW AND SPENT FUEL OF VARIOUS INITIAL ENRICHMENTS

ENCLOSURE 2
WBN Unit 2 TS Section 4.3 Clean Version of Changed Pages

4.0 DESIGN FEATURES

4.3 Fuel Storage

4.3.1 Criticality

4.3.1.1 The spent fuel storage racks (shown in Figure 4.3-1) 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 Sections 4.3.2.7 and 9.1 of the FSAR;

c. Distances between fuel assemblies are a nominal 10.375 inch center-to-center spacing in the twenty-four flux trap rack modules.

d. Fuel assemblies with initial enrichments less than a maximum of 5 percent enrichment (nominally 4.95 ± 0.05 percent) may be stored in the spent fuel racks in one of four arrangements with specific limits as identified below:

1. New and spent fuel assemblies may be stored in the racks in an all cell arrangement provided the burnup of each assembly is in the acceptable domain identified in Figure 4.3-3, depending upon the specified initial enrichment.

2. New and spent fuel assemblies may be stored in a checkerboard arrangement of 2 new and 2 spent assemblies, provided that each spent fuel assembly has accumulated a minimum burnup in the acceptable domain identified in Figure 4.3-4.

3. New fuel assemblies may be stored in 4-cell arrays with 1 of the 4 cells remaining empty of fuel (i.e. containing only water or water with up to 75 percent by volume of non-fuel bearing material.

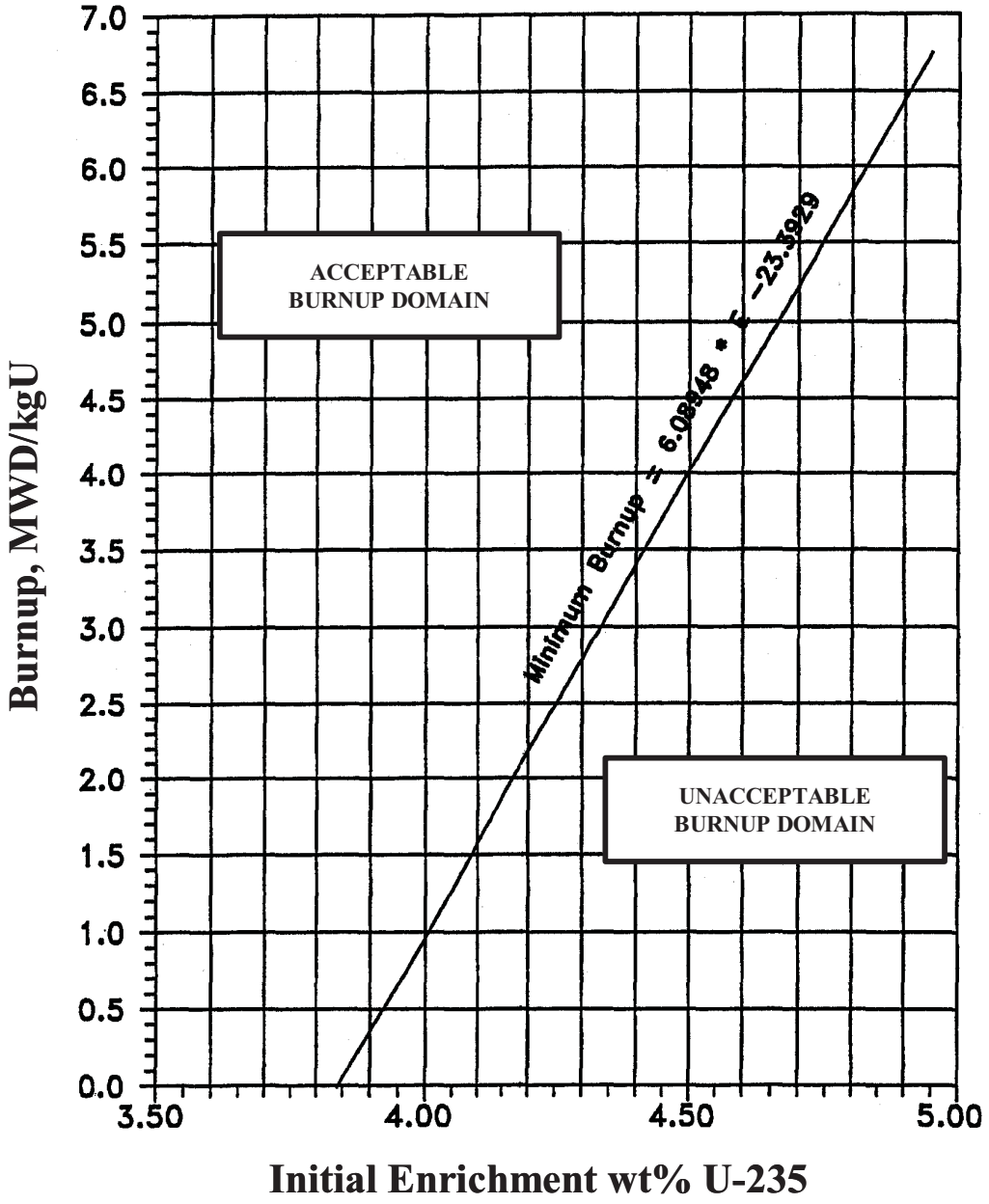

FIGURE 4.3-3

MINIMUM REQUIRED BURNUP FOR UNRESTRICTED STORAGE
OF NEW AND SPENT FUEL OF VARIOUS INITIAL ENRICHMENTS