AmerGen SM

Michael P. Gallagher, PE
Vice President
License Renewal Projects

AmerGen
200 Exelon Way
KSA/2-E
Kennett Square, PA 19348

Telephone 610.765.5958
www.exeloncorp.com
michaelp.gallagher@exeloncorp.com

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10 CFR 50
10 CFR 51
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May 15, 2006

U. S. Nuclear Regulatory Commission
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Oyster Creek Generating Station
Facility Operating License No. DPR-16
NRC Docket No. 50-219

Subject: Supplemental Information for Response to NRC Request for Additional Information, dated March 30, 2006, Related to Oyster Creek Generating Station License Renewal Application (TAC No. MC7624)

Reference: (1) "Request for Additional Information for the Review of the Oyster Creek Nuclear Generating Station, License Renewal Application (TAC No. MC7624)," dated March 30, 2006

(2) Response to NRC Request for Additional Information related to Sections 4.2 and 4.7 of the Oyster Creek Generating Station License Renewal Application (TAC No. MC7624), dated April 26, 2006

In the reference (1) letter, the NRC requested additional information related to Sections 4.2 and 4.7 of the Oyster Creek Generating Station License Renewal Application (LRA). Reference (2) provided the information requested by the NRC staff, however, as noted in the response to RAI 4.2.2-1, AmerGen planned to supplement the response with the results of the calculations of the Upper Shelf Energy equivalent margin analysis for non-limiting reactor vessel beltline materials. The results of these additional calculations are provided in the enclosure.

If you have any questions, please contact Fred Polaski, Manager License Renewal, at 610-765-5935.

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

Respectfully,

Executed on 05-15-06

Michael P. Gallagher
Vice President, License Renewal
AmerGen Energy Company, LLC

A117

Enclosure: Upper Shelf Energy Equivalent Margin Analysis Results For Non-limiting Reactor Vessel Beltline Materials.

cc: Regional Administrator, USNRC Region I, w/o Enclosure
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USNRC Project Manager, NRR - License Renewal, Environmental, w/o Enclosure
USNRC Project Manager, NRR - OCGS, w/o Enclosure
USNRC Senior Resident Inspector, OCGS, w/o Enclosure
Bureau of Nuclear Engineering, NJDEP, w/Enclosure
File No. 05040

Enclosure

Upper Shelf Energy Equivalent Margin Analysis Results

For

Non-limiting Reactor Vessel Beltline Materials

OCGS RPV Plate Equivalent Margin Analysis

R/2 PLATE
(OCGS Plate Number 564-03A)
(OCGS Code Number G-8-7)

Surveillance Plate USE:

%Cu =	0.17	
Capsule Fluence =	0.746×10^{18} n/cm^2	
Measured % Decrease =	0.6	(Charpy Curves)
R.G. 1.99 Predicted % Decrease =	14	(R.G. 1.99, Figure 2)

Lower Intermediate Beltline Plate USE:

%Cu =	0.21	
50 EFPY Peak ID Fluence =	6.97×10^{18} n/cm^2	
50 EFPY 1/4T Fluence =	4.39×10^{18} n/cm^2	
R.G. 1.99 Predicted % Decrease =	24.8	(R.G. 1.99, Figure 2)
Adjusted % Decrease =	N/A	(R.G. 1.99, Position 2.2)

24.8% ≤ 29.5%, so plate is bounded by equivalent margin analysis.

OCGS RPV Plate Equivalent Margin Analysis

BWR/2 PLATE
(OCGS Plate Number 564-03B)
(OCGS Code Number G-8-8)

Surveillance Plate USE:

%Cu =	0.17	
Capsule Fluence =	0.746×10^{18} n/cm^2	
Measured % Decrease =	0.6	(Charpy Curves)
R.G. 1.99 Predicted % Decrease =	14	(R.G. 1.99, Figure 2)

Lower Intermediate Beltline Plate USE:

%Cu =	0.18	
50 EFPY Peak ID Fluence =	6.97×10^{18} n/cm^2	
50 EFPY 1/4T Fluence =	4.39×10^{18} n/cm^2	
R.G. 1.99 Predicted % Decrease =	22.3	(R.G. 1.99, Figure 2)
Adjusted % Decrease =	N/A	(R.G. 1.99, Position 2.2)

22.3% ≤ 29.5%, so plate is bounded by equivalent margin analysis.

OCGS RPV Plate Equivalent Margin Analysis

BWR/2 PLATE
(OCGS Plate Number 564-03C)
(OCGS Code Number G-8-6)

Surveillance Plate USE:

%Cu =	0.17	
Capsule Fluence =	0.746×10^{18} n/cm^2	
Measured % Decrease =	0.6	(Charpy Curves)
R.G. 1.99 Predicted % Decrease =	14	(R.G. 1.99, Figure 2)

Lower Intermediate Beltline Plate USE:

%Cu =	0.20	
50 EFPY Peak ID Fluence =	6.97×10^{18} n/cm^2	
50 EFPY 1/4T Fluence =	4.39×10^{18} n/cm^2	
R.G. 1.99 Predicted % Decrease =	24.0	(R.G. 1.99, Figure 2)
Adjusted % Decrease =	N/A	(R.G. 1.99, Position 2.2)

24.0% ≤ 29.5%, so plate is bounded by equivalent margin analysis.

OCGS RPV Plate Equivalent Margin Analysis

BWR/2 PLATE
(OCGS Plate Number 564-03D)
(OCGS Code Number G-307-1)

Surveillance Plate USE:

%Cu =	0.17	
Capsule Fluence =	0.746×10^{18} n/cm^2	
Measured % Decrease =	0.6	(Charpy Curves)
R.G. 1.99 Predicted % Decrease =	14	(R.G. 1.99, Figure 2)

Lower Beltline Plate USE:

%Cu =	0.17	
50 EFPY Peak ID Fluence =	3.76×10^{18} n/cm^2	
50 EFPY 1/4T Fluence =	2.37×10^{18} n/cm^2	
R.G. 1.99 Predicted % Decrease =	18.6	(R.G. 1.99, Figure 2)
Adjusted % Decrease =	N/A	(R.G. 1.99, Position 2.2)

18.6% ≤ 29.5%, so plate is bounded by equivalent margin analysis.

OCGS RPV Plate Equivalent Margin Analysis

BWR/2 PLATE
(OCGS Plate Number 564-03E)
(OCGS Code Number G-308-1)

Surveillance Plate USE:

%Cu =	0.17	
Capsule Fluence =	0.746×10^{18} n/cm^2	
Measured % Decrease =	0.6	(Charpy Curves)
R.G. 1.99 Predicted % Decrease =	14	(R.G. 1.99, Figure 2)

Lower Beltline Plate USE:

%Cu =	0.17	
50 EFPY Peak ID Fluence =	3.76×10^{18} n/cm^2	
50 EFPY 1/4T Fluence =	2.37×10^{18} n/cm^2	
R.G. 1.99 Predicted % Decrease =	18.6	(R.G. 1.99, Figure 2)
Adjusted % Decrease =	N/A	(R.G. 1.99, Position 2.2)

18.6% ≤ 29.5%, so plate is bounded by equivalent margin analysis.

OCGS RPV Plate Equivalent Margin Analysis

BWR/2 PLATE
(OCGS Plate Number 564-03F)
(OCGS Code Number G-307-5)

Surveillance Plate USE:

%Cu =	0.17	
Capsule Fluence =	0.746×10^{18} n/cm^2	
Measured % Decrease =	0.6	(Charpy Curves)
R.G. 1.99 Predicted % Decrease =	14	(R.G. 1.99, Figure 2)

Lower Beltline Plate USE:

%Cu =	0.27	
50 EFPY Peak ID Fluence =	3.76×10^{18} n/cm^2	
50 EFPY 1/4T Fluence =	2.37×10^{18} n/cm^2	
R.G. 1.99 Predicted % Decrease =	26.0	(R.G. 1.99, Figure 2)
Adjusted % Decrease =	N/A	(R.G. 1.99, Position 2.2)

26.0% ≤ 29.5%, so plate is bounded by equivalent margin analysis.

OCGS RPV Weld Equivalent Margin Analysis

BWR/2 WELD, (OCGS Weld Numbers 2-564A, 2-564B, and 2-564C)
(OCGS Heat Number 86054B)

Surveillance Weld USE:

%Cu =	0.28	
Capsule Fluence =	0.746×10^{18} n/cm^2	
Measured % Decrease =	Not reported	(Charpy Curves)
R.G. 1.99 Predicted % Decrease =	Not reported	(R.G. 1.99, Figure 2)

Beltline Lower Intermediate Shell Axial Weld USE:

%Cu =	0.206	
50 EFPY Peak ID Fluence =	6.16×10^{18} n/cm^2	
50 EFPY 1/4T Fluence =	3.88×10^{18} n/cm^2	
R.G. 1.99 Predicted % Decrease =	28.6	(R.G. 1.99, Figure 2)
Adjusted % Decrease =	N/A	(R.G. 1.99, Position 2.2)

28.6% ≤ 39%, so weld is bounded by equivalent margin analysis.

OCGS Vessel RPV Welds Equivalent Margin Analysis

BWR/2 WELD, (OCGS Weld Numbers 2-564D, 2-564E, and 2-564F) (OCGS Heat Number 86054B)

Surveillance Weld USE:

%Cu =	0.28	
Capsule Fluence =	0.746×10^{18} n/cm^2	
Measured % Decrease =	Not reported	(Charpy Curves)
R.G. 1.99 Predicted % Decrease =	Not reported	(R.G. 1.99, Figure 2)

Beltline Lower Shell Axial Weld USE:

%Cu =	0.214	
50 EFPY Peak ID Fluence =	3.71×10^{18} n/cm^2	
50 EFPY 1/4T Fluence =	2.34×10^{18} n/cm^2	
R.G. 1.99 Predicted % Decrease =	25.5	(R.G. 1.99, Figure 2)
Adjusted % Decrease =	N/A	(R.G. 1.99, Position 2.2)

25.5% ≤ 39%, so weld is bounded by equivalent margin analysis.

OCGS Vessel RPV Weld Equivalent Margin Analyses

BWR/2 WELD, (OCGS Weld Number 3-564)
(OCGS Heat Number 1248)

Surveillance Weld USE:

%Cu =	0.28	
Capsule Fluence =	0.746×10^{18} n/cm^2	
Measured % Decrease =	Not reported	(Charpy Curves)
R.G. 1.99 Predicted % Decrease =	Not reported	(R.G. 1.99, Figure 2)

Beltline Lower Shell to Lower Intermediate Shell Circumferential Weld USE:

%Cu =	0.214	
50 EFPY Peak ID Fluence =	3.76×10^{18} n/cm^2	
50 EFPY 1/4T Fluence =	2.37×10^{18} n/cm^2	
R.G. 1.99 Predicted % Decrease =	25.0	(R.G. 1.99, Figure 2)
Adjusted % Decrease =	N/A	(R.G. 1.99, Position 2.2)

25.0% ≤ 39%, so weld is bounded by equivalent margin analysis.

Oyster Creek Document Distribution Sheet

TITLE/SUBJECT: **Supplemental Information for Responses to NRC RAI 4.2.2-1 Related to OCGS License Renewal Application (TAC No. MC7624)**

COGNIZANT INDIVIDUAL: Fred Polaski

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		2130-06-20332	**Supplemental Information for Responses to NRC RAI 4.2.2-1. Non-limiting Reactor Vessel Beltline Materials**	5/15/06