

Dominion Nuclear Connecticut, Inc.
Millstone Power Station
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April 19, 2005

United States Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, DC 20555-0001

Serial No.: 05-147
LR/DEA: R0
Docket Nos.: 50-336/423
License Nos.: DPR-65
NPF-49

DOMINION NUCLEAR CONNECTICUT, INC.
MILLSTONE POWER STATION UNITS 2 AND 3
LICENSE RENEWAL – COMMENTS ON THE SER WITH OPEN ITEMS

In a letter dated February 24, 2005, the NRC provided Dominion Nuclear Connecticut, Inc. (DNC) the Safety Evaluation Report (SER) with Open Items for license renewal of Millstone Power Station, Units 2 and 3.

In the transmittal letter with the SER with Open Items, the NRC staff described their plans to review the format of the SER to further improve the content, while incorporating comments and responses. To that end, DNC has reviewed the SER with Open Items for consistency with the License Renewal Applications (LRAs), LRA supplements, and subsequent information provided in response to NRC requests for additional information. Dominion's comments are limited to items that, if not resolved for consistency with the License Renewal Applications, are considered to have implications on the bases of the conclusions presented in the SER.

Should you have any questions regarding this letter, please contact Mr. William D. Corbin, Director, Nuclear Engineering, Dominion Resources Services, Inc., at (804) 273-2365.

Very truly yours,

A handwritten signature in black ink, appearing to read "E. S. Grecheck", written over a white background.

E. S. Grecheck
Vice President – Nuclear Support Services

Attachment: Comments on SER with Open Items

Commitments made in this letter: None

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Attachment

Comments on SER with Open Items

Millstone Power Station Units 2 & 3

Comments on SER with Open Items
for Millstone Power Station Units 2 and 3
License Renewal Applications

Comment # 1

Table 3.0.3-1
Page 3-9
1st line of the table

Add "XI.M3" to the GALL AMP(s) applicable to the Inservice Inspection Program: Systems, Components And Supports (B2.1.18). This GALL AMP is addressed by the program and is discussed in LRA Section B2.1.18.

Comment # 2

Section 3.0.3.1.1
Page 3-11
1st paragraph:

Add "with Boraflex panels" following "Since the applicant did not credit spent fuel racks" in the last sentence. This change makes the SER consistent with LRA Section B2.1.2.

Comment # 3

Section 3.0.3.1.2
Page 3-11
1st paragraph:

Replace "cracking" with "loss of material" in the second sentence. As identified in Section B2.1.3, the Boric Acid Program manages the aging effect of loss of material.

Comment # 4

Section 3.0.3.1.2
Page 3-14
1st partial paragraph:

Replace “For all other nickel-based” with “For other susceptible nickel-based” in the third sentence and “all” with “susceptible” in the sixth sentence. The program description in the SER should be consistent with the program description in LRA Section B2.1.3.

Comment # 5

Section 3.0.3.1.2
Page 3-14
1st partial paragraph:

Add the words “surge nozzle and the pressurizer” following “However, Millstone Unit 3 does have nickel-based alloy welds attaching the safe ends to the pressurizer” in the fifth sentence. This provides an accurate description of the weld locations and is consistent with the response to RAI 3.1.3-3B.

Comment # 6

Section 3.0.3.1.4
Page 3-23
Detection of Aging Effects

Add “Typically,” prior to “The tubesheet in Millstone Unit 2 SGs is inspected” in the third sentence. This revision makes the program element description consistent with the response to RAI B2.1.22-2 in letter dated January 15, 2005 (Serial No. 04-720A).

Comment # 7

Section 3.0.3.1.4
Page 3-23
Detection of Aging Effects

Add “may” following “The applicant” in the sixth sentence. This revision makes the program element description consistent with the program basis document.

Comment # 8

Section 3.0.3.1.4
Page 3-24
Operating Experience, 1st paragraph:

Delete “periodically” in the last sentence. The response to RAI B2.1.22-2 in letter dated January 15, 2005 (Serial No. 04-720A) does not state that periodic inspection of these tubes will be performed.

Comment # 9

Section 3.0.3.2.1
Page 3-30
1st paragraph:

Delete the paragraph that starts with the words “Internal tank inspections...”.

This discussion on operating experience is not included in the program description in the LRA and is not appropriate to this program. Additionally, the tanks referenced are not underground tanks.

Comment # 10

Section 3.0.3.2.3
Pages 3-32 and 3-33
Summary of Technical Information, 2nd paragraph and Staff Evaluation,
2nd paragraph:

Replace “Revision 4, dated November 1996” with “Revision 5, dated May 3, 2000”. Replace “Revision 4” with “Revision 5”. These changes are necessary to reference the correct guideline revision.

Comment # 11

Section 3.0.3.2.5
Page 3-40
1st full paragraph:

Replace “using the guidance cited in” with “consistent with” and “articulated” with “considering the technical information and guidance contained” in the first sentence. With this change the SER program description will be consistent with the LRA program description.

Comment # 12

Section 3.0.3.2.5
Page 3-43
5th full paragraph:

Delete “and will be removed in a revision to the FSAR supplement that will be forwarded in a future letter”. In order to preserve the numbering of the commitments in Table A6.0-1, this commitment will be noted as complete but not removed. This is consistent with the response in the February 15, 2005 letter (Serial No. 05-047A).

Comment # 13

Section 3.0.3.2.6
Page 3-46
2nd paragraph:

Replace “every 10 years” with “not to exceed a 10 year frequency” in the last sentence. With this change the testing frequency will be consistent with Table A6.0-1, Item 7 for Unit 2 and Unit 3.

Comment # 14

Section 3.0.3.2.6
Page 3-47
FSAR Supplement:

Add “used in instrumentation circuits” at the end of the first sentence. This change corrects the title of the program being addressed in this section of the SER.

Comment # 15

Section 3.0.3.2.10
Page 3-62
Next to last paragraph:

Add “This commitment is identified in Appendix A, Table A6.0-1 License Renewal commitments, Item 11.” at the end of the paragraph. This commitment was not identified in the program section of this document.

Comment # 16

Section 3.0.3.2.12
Page 3-68
Exception Number 1, 2nd paragraph:

Replace “use its participation in the electric power research institute materials reliability program’s (EPRI MRP’s) studies and activities on PWR RV internal components as the basis for determining which aging effects and mechanisms are applicable to the RV internal components and which methods of examination and frequency of examinations are needed for these components” with “follow the industry efforts on reactor vessel internals regarding such issues as thermal or neutron irradiation embrittlement (loss of fracture toughness), void swelling (change in dimensions), stress corrosion cracking (PWSCC and IASCC), and loss of pre-load for baffle and former-assembly bolts and will implement the appropriate recommendations resulting from this guidance” in the first sentence. With this change the SER description of the commitment will be consistent with the LRA commitment.

Comment # 17

Section 3.0.3.2.13
Page 3-74
Exception Number 1, 1st paragraph:

Replace “Unit 3” with “Unit 2” and “July 25, 2000” with “November 10, 2003” in the second sentence. Replace “This submittal was reviewed and approved by the” with “Unit 3 has received” in the third sentences. With these changes the SER will accurately reflect the status of the RI-ISI programs for both Unit 2 and Unit 3.

Comment # 18

Section 3.0.3.2.13
Page 3-74
Exception Number 1, 1st paragraph:

Add “and, for Unit 3 only, base metal locations” at the end of the fourth sentence. With this change, the SER program description will be consistent with the LRA.

Comment # 19

Section 3.0.3.2.13
Page 3-80
1st full paragraph:

Delete “Unit 3” from the first sentence. Add “of the LRAs” following “in Appendix A” and “for Unit 2 and Item 15 for Unit 3” following “Item 14” in the second sentence. Millstone made the commitment to follow the industry nickel based alloy efforts on both Unit 2 and 3.

Comment # 20

Section 3.0.3.2.13
Pages 3-82 and 3-83
Staff Evaluation, 2nd paragraph, 3rd paragraph, and 5th paragraph,

Replace “RAI B2.1.18-2” and “RAI B2.1.18-1” with “RAI B2.1.18-8”. With this change, the SER will reference the correct RAI.

Comment # 21

Section 3.0.3.2.13
Page 3-86
Summary of Technical Information, 1st paragraph and Staff Evaluation, 1st paragraph:

Replace “be leaking through cracks” with “show evidence of leakage”. The statement should accurately reflect the statement in the LRA.

Comment # 22

Section 3.0.3.2.18
Page 3-100
Exception 1, 2nd paragraph:

Replace “EPRI NP-104213” with “EPRI TR-104213” in the next to the last sentence.

Comment # 23

Section 3.0.3.3.1
Page 3-103
Item (6), 1st paragraph:

Delete “during a seismic event or maintain its integrity for general operation” in the next to the last sentence. This change will make the statement accurately reflect the statements made in the LRA.

Comment # 24

Section 3.0.3.3.2
Pages 3-106 and 3-107
3rd full paragraph and 1st full paragraph:

Replace “monthly” with “quarterly” in the sentence that starts with “These conditions are observable...”. Since the time of the LRA audits, evaluations of the results of the system engineer walkdowns determined that the frequency could be extended without loss of quality. Changes to the system engineer guidelines and general condition monitoring AMP have resulted in the walkdown frequency being changed to quarterly.

Comment # 25

Section 3.0.3.3.3
Page 3-111
Section (6):

Delete the sentence that starts with the words “Engineering evaluations determine”. This statement is true only if, after entry into the corrective action program, an engineering evaluation is deemed necessary.

Comment # 26

Section 3.0.3.3.4
Page 3-116
1st paragraph:

Replace “structures and component supports” with “containment structures (personnel hatch and reactor cavity seal)”. Delete “components (doors and barrier penetration seals) and concrete structures in fire protection”. This change will make the statement accurately reflect the components addressed in the LRA. Penetration seals are already listed elsewhere in this same paragraph. Additionally, the Fire Protection AMP monitors the fire door seals.

Comment # 27

Section 3.1B.2.2.2
Page 3-179
3rd paragraph:

Delete the words, “supplemented by the steam generator integrity program,”. As indicated in LRA Table 3.1.2-4, the steam generator structural integrity program is not an aging management program credited for managing loss of material for the steam generator shell.

Comment # 28

Sections 3.5A.2.1 and 35B.2.1
Pages 3-443 and 3-510
5th paragraph and 8th paragraph:

Revise the sentence, “However, the applicant stated that the localized concrete temperature in the vicinity of high energy piping containment penetrations is maintained below the threshold value by the containment penetration cooling system, which consists of a ventilation system in Unit 2 (the containment penetration cooling system described in LRA Section 2.3.3.18) and a water cooling system in Unit 3 (as part of the reactor plant component cooling system described in LRA Section 2.3.3.6)”. The statement should accurately reflect how insulation and the containment cooling systems work together to maintain the containment concrete temperature below the threshold value as indicated in Dominion’s response to RAI 2.4-3 provided by letter dated November 9, 2004 (Serial No. 04-673).

Comment # 29

Sections 3.5A.2.2.1 and 3.5B.2.2.1
Pages 3-448 and 3-516
Last paragraph and 4th paragraph:

Delete the words, "On the basis of interviews with the applicant's technical staff, the staff determined that the environment at the time of construction was not aggressive and on the basis of subsequent testing it has remained within the limits identified in the GALL Report." Dominion did not convey information related to the below-grade environment at the time of construction for structures. Although changes at or near the site that could have affected the below-grade environment have not been identified, no groundwater chemistry evaluations were documented at the time of construction and such information was not provided to the NRC during audits with Millstone technical staff. However, groundwater testing is currently being performed and the results substantiate that the groundwater chemistry is within the limits identified in the GALL Report.

Comment # 30

Sections 3.5A.2.2.2 and 3.5B.2.2.2
Pages 3-455 and 3-525
2nd paragraph and last paragraph:

Delete the words, "In the LRA, the applicant stated that the below-grade environment is not aggressive because the environment at the time of construction had a measured pH greater than 5.5, chlorides less than 500 ppm, and sulfates less than 1,500 ppm and subsequent testing has shown the environment has remained within these limits." Groundwater test results at the time of construction were not provided in the LRA. Additionally, although changes at or near the site that could have affected the below-grade environment have not been identified, no groundwater chemistry evaluations were documented at the time of construction and such information was not provided to the NRC during audits with Millstone technical staff. However, groundwater testing is currently being performed and results substantiate that the groundwater chemistry is within the limits identified in the GALL Report.

Comment # 31

Section 3.5A.2.2.2
Page 3-458
3rd paragraph:

Remove, "...and excavated concrete has been and will continue to be monitored..." from the 3rd paragraph since Dominion has not monitored excavated concrete in the past. Table A6.0-1, License Renewal Commitments, Item 21, identifies Enhancement 5 to the Structures Monitoring Program, which will ensure that inspections of inaccessible areas of below-grade concrete surfaces are performed when the areas become accessible by excavation or during maintenance or for any other reason. This will ensure future excavated concrete will be monitored, as inaccessible areas are made accessible.

Comment # 32

Section 4.2.1.1
Page 4-4
4th full paragraph:

Replace the words "for both Unit 2 and Unit 3" with "for Unit 2."
The discussion in paragraph is applicable to Unit 2 only.

Comment # 33

Section 4.2.1.2
Page 4-5
2nd paragraph:

Replace the RT_{NDT} value of "70 °F" with "7.0 °F". With this change the value will be consistent with Unit 2 LRA Table 4.2-2, page 4-12.

Comment # 34

Section 4.2.1.2
Page 4-5
3rd paragraph:

Replace “in 2005” with “at least two years prior to the period of extended operation” in the first sentence. With this change the SER will be consistent with the supplemental response to **RAI 4.2.1-3, Unit 2 in letter** dated February 8, 2005 (Serial No. 05-047) and with Unit 2 LRA Table A6.0-1, Commitment 37.

Comment # 35

Section 4.7B.3.2
Page 4-58
1st and 2nd paragraphs:

These paragraphs should be revised to reflect that the requested Unit 3 LBB information was provided to the NRC in a letter dated February 8, 2005 (Serial No.: 05-047).

Comment # 36

Unit 2 Appendix A and Unit 3 Appendix A
Pages A-5 and A-18
Item 9:

Replace the first paragraph of the schedule for this item with “Prior to The Sprinkler Heads Achieving 50 Years Of Service Life”. With this change, the SER will be consistent with the letter dated July 7, 2004 (Serial No. 04-320).

Comment # 37

Unit 2 Appendix A and Unit 3 Appendix A
Pages A-8 and A-21
Items 14 and 15:

Add “A2.1.22, Steam Generator Structural Integrity” in the column “LRA Appendix A”. The Unit 2 and Unit 3 LRA Table A6.0-1 for this commitment indicated that two programs, A2.1.18 and A2.1.22, were affected by this commitment.

Comment # 38

Unit 2 Appendix A and Unit 3 Appendix A
Page A-10 and A-23
Item 22 and 23:

Add "Appropriate" at the beginning of the commitment statement.
With this change the SER will be consistent with the LRA.

Comment # 39

Unit 3 Appendix A
Page A-27
Item 36:

Replace the commitment description in the "Commitment" column
with:

"Complete the SAMA evaluation of the ability to manually control
the Turbine Driven Auxiliary Feedwater Pump. If this SAMA is
cost beneficial (i.e., can be accomplished without a hardware
modification), a Severe Accident Management Guideline (SAMG)
addressing this mitigation strategy will be developed." With this
change the SER will have the correct Unit 3 SAMA commitment
instead of referencing the Unit 2 SAMA commitment in the Unit 3
table.