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## APPENDIX A COMMITMENTS FOR LICENSE RENEWAL

During the development and review of the Vermont Yankee Nuclear Power Station License Renewal Application, Entergy made commitments to provide aging management programs to manage the effects of aging on structures and components during the extended period of operation. The following table lists these license renewal commitments, along with the implementation schedule and the source of the commitment.

ITEM	COMMITMENT	IMPLEMENTATION SCHEDULE	SOURCE	Related LRA Section No./ Comments
1	Guidance for performing examinations of buried piping will be enhanced to specify that coating degradation and corrosion are attributes to be evaluated.	March 21, 2012		B.1.1
2	The VYNPS top guide fluence is projected to exceed the threshold for IASCC ( $5 \times 10^{20}$ n/cm <sup>2</sup> ) prior to the period of extended operation. Therefore, ten (10) percent of the top guide locations will be inspected using enhanced visual inspection technique, EVT-1, within the first 12 years of the period of extended operation, with one-half of the inspections (50 percent of locations) to be completed within the first 6 years of the period of extended operation. Locations selected for examination will be areas that have exceeded the neutron fluence threshold.	50% inspections completed within the first 6 years of the period of extended operation and the remaining 50% within the first 12 years of the period of extended operation.		B.1.7
3	The Diesel Fuel Monitoring Program will be enhanced to ensure ultrasonic thickness measurement of the fuel oil storage tank bottom surface will be performed every 10 years during tank cleaning and inspection.	March 21, 2012		B.1.9
4	The Diesel Fuel Monitoring Program will be enhanced to specify UT measurements of the fuel oil storage tank bottom surface will have acceptance criterion $\geq 60\%$ Tnom.	March 21, 2012		B.1.9

ITEM	COMMITMENT	IMPLEMENTATION SCHEDULE	SOURCE	Related LRA Section No./ Comments
5	The Fatigue Monitoring Program will be modified to either require periodic update of cumulative fatigue usage factors (CUFs), or to require update of CUFs if the number of accumulated cycles approaches the number assumed in the design calculation.	March 21, 2012		B.1.11
6	A computerized monitoring program (e.g., FatiguePro) will be used to directly determine cumulative fatigue usage factors (CUFs) for locations of interest.	March 21, 2012		B.1.11
7	The allowable number of effective transients will be established for monitored transients. This will allow quantitative projection of future margin.	March 21, 2012		B.1.11
8	Procedures will be enhanced to specify that fire damper frames in fire barriers shall be inspected for corrosion. Acceptance criteria will be enhanced to verify no significant corrosion.	March 21, 2012		B.1.12.1
9	Procedures will be enhanced to state that the diesel engine sub-systems (including the fuel supply line) shall be observed while the pump is running. Acceptance criteria will be enhanced to verify that the diesel engine did not exhibit signs of degradation while it was running; such as fuel oil, lube oil, coolant, or exhaust gas leakage.	March 21, 2012		B.1.12.1
10	The Fire Water System Program will be enhanced to specify that a sample of sprinkler heads will be inspected using guidance of NFPA 25 (2002 edition), Section 5.3.1.1. NFPA 25 also contains guidance to repeat this sampling every 10 years after initial field service testing.	Within ten years after entering the period of extended operation		B.1.12.2

ITEM	COMMITMENT	IMPLEMENTATION SCHEDULE	SOURCE	Related LRA Section No./ Comments
11	The Fire Water System Program will be enhanced to specify that wall thickness evaluations of fire protection piping will be performed on system components using non-intrusive techniques (e.g., volumetric testing) to identify evidence of loss of material due to corrosion. These inspections will be performed before the end of the current operating term and at intervals thereafter during the period of extended operation. Results of the initial evaluations will be used to determine the appropriate inspection interval to ensure aging effects are identified prior to loss of intended function.	March 21, 2012		B.1.12.2
12	Implement the Heat Exchanger Monitoring Program as described in LRA Section B.1.14.	March 21, 2012		B.1.14
13	Implement the Non-EQ Inaccessible Medium-Voltage Cable Program as described in LRA Section B.1.17.	March 21, 2012		B.1.17
14	Implement the Non-EQ Instrumentation Circuits Test Review Program as described in LRA Section B.1.18.	March 21, 2012		B.1.18
15	Implement the Non-EQ Insulated Cables and Connections Program as described in LRA Section B.1.19.	March 21, 2012		B.1.19
16	Implement the One-Time Inspection Program as described in LRA Section B.1.21.	March 21, 2012		B.1.21
17	Enhance the Periodic Surveillance and Preventive Maintenance Program as necessary to assure that the effects of aging will be managed as described in LRA Section B.1.22.	March 21, 2012		B.1.22
18	Enhance the Reactor Vessel Surveillance Program to proceduralize the data analysis, acceptance criteria, and corrective actions described in the program description in LRA Section B.1.24.	March 21, 2012		B.1.24
19	Implement the Selective Leaching Program as described in LRA Section B.1.19.	March 21, 2012		B.1.25

ITEM	COMMITMENT	IMPLEMENTATION SCHEDULE	SOURCE	Related LRA Section No./ Comments
20	Enhance the Structures Monitoring Program to specify that process facility crane rails and girders condensate storage tank (CST) enclosure, CO <sub>2</sub> tank enclosure, N <sub>2</sub> tank enclosure and restraining wall, CST pipe trench, diesel generator cable trench, fuel oil pump house, service water pipe trench, manway seals and gaskets, and hatch seals and gaskets are included in the program.	March 21, 2012		B.1.27.2
21	Guidance for performing structural examinations of wood to identify loss of material, cracking, and change in material properties will be added to the Structures Monitoring Program.	March 21, 2012		B.1.27.2
22	Guidance for performing structural examinations of elastomers (seals and gaskets) to identify cracking and change in material properties (cracking when manually flexed) will be enhanced in the Structures Monitoring Program procedure.	March 21, 2012		B.1.27.2
23	Guidance for performing structural examinations of PVC cooling tower fill to identify cracking and change in material properties will be added to the Structures Monitoring Program procedure.	March 21, 2012		B.1.27.2
24	System walkdown guidance documents will be enhanced to perform periodic system engineer inspections of systems in scope and subject to aging management review for license renewal in accordance with 10 CFR 54.4 (a)(1) and (a)(3). Inspections shall include areas surrounding the subject systems to identify hazards to those systems. Inspections of nearby systems that could impact the subject system will include SSCs that are in scope and subject to aging management review for license renewal in accordance with 10 CFR 54.4 (a)(2).	March 21, 2012		B.1.28
25	Implement the Thermal Aging and Neutron Irradiation Embrittlement of Cast Austenitic Stainless Steel (CASS) Program as described in LRA Section B.1.29.	March 21, 2012		B.1.29/ Audit Item 47

ITEM	COMMITMENT	IMPLEMENTATION SCHEDULE	SOURCE	Related LRA Section No./ Comments
26	Procedures will be enhanced to flush the John Deere diesel cooling water system and replace the coolant and coolant conditioner every three years.	March 21, 2012		B.1.30.1
27	<p>For each location that may exceed a CUF of 1.0 when considering environmental effects, VYNPS will implement one or more of the following:</p> <p>(1) further refinement of the fatigue analyses to lower the predicted CUFs to less than 1.0;</p> <p>(2) management of fatigue at the affected locations by an inspection program that has been reviewed and approved by the NRC (e.g., periodic non-destructive examination of the affected locations at inspection intervals to be determined by a method acceptable to the NRC);</p> <p>(3) repair or replacement of the affected locations.</p> <p>Should VYNPS select the option to manage environmental-assisted fatigue during the period of extended operation, details of the aging management program such as scope, qualification, method, and frequency will be provided to the NRC prior to the period of extended operation.</p>	March 21, 2012		4.3.3/ Audit Item 107
28	Revise program procedures to indicate that the Instrument Air Program will maintain instrument air quality in accordance with ISA S7.3	March 21, 2012		B.1.16
29	VYNPS will either install core plate wedges or complete a plant-specific analysis to determine acceptance criteria for continued inspection of core plate hold down bolting in accordance with BWRVIP-2S.	March 21, 2012		B.1.7/ Audit Item 9
30	Revise System Walkdown Program to specify CO2 system inspections every 6 months.	March 21, 2012		B.1.28/ Audit Items 30, 141, and 146

ITEM	COMMITMENT	IMPLEMENTATION SCHEDULE	SOURCE	Related LRA Section No./ Comments
31	Revise Fire Water System Program to specify annual fire hydrant gasket inspections and flow tests.	March 21, 2012		B.1.12.2/ Audit Item 40
32	Implement the Metal Enclosed Bus Program in accordance with a license renewal application amendment.	March 21, 2012		Audit Item 97
33	Enhance the Structures Monitoring Program to ensure an engineering evaluation is made on a periodic basis of groundwater samples to assess aggressiveness of groundwater to concrete.	March 21, 2012		B.1.27/ Audit Item 77
34	Implement the Bolting Integrity Program in accordance with a license renewal application amendment.	March 21, 2012		Audit Items 198 and 331

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