



Exelon Generation

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TMI-17-034

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U. S. Nuclear Regulatory Commission
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THREE MILE ISLAND NUCLEAR STATION, UNIT 1 (TMI-1)
RENEWED FACILITY OPERATING LICENSE NO. DPR-50
NRC DOCKET NO. 50-289

SUBJECT: ANNUAL COMMITMENT REVISION REPORT FOR 2016

Enclosed is the 2016 Commitment Revision Report as required by SECY-00-0045 (NEI 99-04).

If you have any questions or require additional information, please contact Rick Miller, of
Regulatory Assurance, at 717-948-8485.

Respectively,

Thomas P. Haaf
Plant Manager, TMI-1 Exelon Generation Co., LLC

TH/rrm

Enclosure

cc: USNRC Regional Administrator, Region I
USNRC Project Manager, TMI
USNRC Senior Resident Inspector, TMI

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NRR

EXELON CORPORATION
THREE MILE ISLAND
UNIT 1
DOCKET NO. 50-289

ANNUAL COMMITMENT REVISION REPORT
JANUARY 1, 2016 THROUGH DECEMBER 31, 2016

Letter Source	IEB 89-01: Failure of Westinghouse SG Tube Mechanical Plugs
Exelon Tracking No.	1122355-49/1989T0022
Nature of Commitment	GPUN committed to the NRC that removed Westinghouse Steam Generator mechanical plugs would be examined in accordance with action 2E of IEB 89-01 to the extent possible.
Summary of Justification	Commitment Change Evaluation Form 16-01 revised this commitment: TMI examined the applicable plugs when this commitment applied. At this time, TMI no longer has Westinghouse plugs in the TMI-1 Once Through Steam Generators (OTSGs) following the replacement of the OTSGs in 2009. All mechanical plugs in use in the new Steam Generators are AREVA plugs.
Letter Source	GL 85-2: Resolution Unresolved Steam Generator Tube Integrity Safety Issues
Exelon Tracking No:	1122355-03/1985T0021
Nature of Commitment:	Provide accountability for components and parts removed from the internals by revision of administrative procedure AP 1030 rev 7 to specifically include a requirement for the reassembly of cut or removed components in so far as practical.
Summary of Justification:	<p>Commitment Change Evaluation Form 16-03 revised this commitment: In response to GL 85-02, these commitments were intended to provide a level of assurance that loose parts identified in the secondary side of the steam generators would be accounted for and addressed to eliminate the potential of damage to the steam generator tubes.</p> <p>Exelon has since committed to the implementation of NEI 97-06 as described in Tech. Spec Surveillance Requirement SR 4.19.1. This document invokes among other documents, the EPRI PWR Steam Generator Examination Guidelines and the EPRI Steam Generator Integrity Assessment Guidelines.</p> <p>The sampling plan requirements of the EPRI PWR Steam Generator Examination Guidelines paragraph 3.6 require that tubes with indications of possible loose parts and periphery tubes be subjected to examination when there is a possibility that loose parts may have been introduced into the steam generators.</p> <p>The EPRI Steam Generator Integrity Assessment Guidelines require a program to maintain the integrity of the steam generator secondary side as required by NEI 97-06. This includes addressing secondary side concerns in Degradation Assessments, Condition Monitoring and Operation Assessments performed during each refueling outage.</p> <p>These program requirements exceed the scope of the previous commitments.</p>

Letter Source	GL 88-05: Boric Acid Corrosion of Carbon Steel Reactor Pressure Boundary
Exelon Tracking No:	1122355-32/1988T0046
Nature of Commitment:	Improve the procedural guidance and provide a more formal documentation of the engineering evaluation prior to the removal of evidence of the leakage pathway and the extent of leakage for reactor coolant pressure boundary leakage.
Summary of Justification:	<p>Commitment Change Evaluation Form 16-04 revised this commitment: In response to GL 88-05, this commitment was intended to provide a level of assurance that boric acid leakage would not be removed prior to providing engineering the opportunity to inspect and evaluate the leak.</p> <p>Exelon has since implemented a Boric Acid Program (ER-AP-331) that encompasses the requirements Generic Letter (GL) 88-05. This program also encompasses the requirements of the Alloy 600/82/182 initiative, ASME Section XI (e.g., Pressure Testing, Borated Bolted Connections), NUREG-0737, ASME Code Case N-722-X and N-729-X, N-770-X, and applicable site Technical Specifications.</p> <p>The Evaluation and Assessments section of ER-AP-331 addresses requirement that boric acid leakage is evaluated by engineering prior to the removal of the boric acid deposit.</p> <p>The Boric Acid Corrosion Control Program requirements exceed the scope of the previous commitments.</p>
Letter Source	IEB 79-09: Failure of GE type AK-2 circuit breaker in safety related systems
Exelon Tracking No:	1122072-34/1997T0019
Nature of Commitment:	<ol style="list-style-type: none"> 1) TMI-1 used GE type ak-2 circuit breakers as the reactor Trip breakers in the control rod drive system. 2) Update by 6/15/79 the preventative maintenance procedure (PM) e-36 to include the new GE recommendations. 3) The breakers were functionally tested monthly during unit Operation. 4) Preventative maintenance was performed annually. 5) The electrical maintenance personnel received formal Training in electrical maintenance practices, including Maintenance of GE type AK circuit breakers.
Summary of Justification:	Commitment Change Evaluation Form 16-05 revised this commitment: Breakers were replaced with new style of breakers (Momter Pac Breakers).

Letter Source	NUREG 1019, Supplement 1 "Steam Generator Tube Repair and Return to Operation"
Exelon Tracking No:	1122072-87/1984T0122
Nature of Commitment:	<p>NRC stated in NUREG 1019 SUPP 1 that GPUN had completed the following: Actions to prevent the re-introduction of contaminants into the Reactor coolant system (RCS):</p> <ol style="list-style-type: none"> 1) The sodium thiosulfate tank was drained and the piping connecting it to the RCS was physically severed. (complete) 2) All RCS components which had contacted thiosulfate solutions were flushed to remove soluble sulfur compounds to a concentration of less than 0.1 ppm sulfate in the coolant. (complete) 3) Administrative controls were instituted on all pathways by which foreign chemical might be injected into the RCS to minimize the potential for reintroduction of contaminants. Those pathways included: Lithium hydroxide mix tank Boric acid mix tank Reactor coolant bleed tanks Borated water storage tank Sodium hydroxide tank (ongoing) 4) New analytical procedures were implemented to detect the Ingress of deleterious materials. The coolant was sampled Daily for sulfate analysis while Ph and conductivity was monitored five times per week. (ongoing) 5) New limits were placed on primary water chemistry to prevent the development of an aggressive coolant environment. (ongoing)
Summary of Justification:	<p>Commitment Change Evaluation Form 16-07 revised this commitment: The subject commitment was made, as part of the restart of TMI-1 in the 1980's, in order to operate the plant with repaired tubes in the original steam generators. However, the subject repaired steam generators are no longer installed in the plant. Both of the plant's steam generators were replaced with new steam generators during refueling Outrage T1R18 in Fall/Winter of 2009.</p> <p>TMI-1 committed to replace, and did replace, its repaired original steam generators as part of the License Renewal process. TMI-1 has also committed to adhere to the requirements of EPRI's <i>Pressurized Water Reactor Primary Water Chemistry Guidelines</i> and the <i>Pressurized Water Reactor Secondary Water Chemistry Guidelines</i>. These EPRI Guidelines were not available in 1984 and now form the bases of the plant's chemistry sampling and analysis procedures.</p> <p>In summary, much has changed since the 1984 commitment was authored. The plant's steam generators were replaced since 1984 and plant/industry requirements for the chemistry program have been altered since 1984.</p>