

DRAFT REQUEST FOR ADDITIONAL INFORMATION
PROPOSED REVISION TO TECHNICAL SPECIFICATIONS
REPORTING REQUIREMENTS
EXELON GENERATION COMPANY, LLC
THREE MILE ISLAND NUCLEAR STATION, UNIT 1
DOCKET NO. 50-289

By letter dated February 4, 2013 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML13037A051), Exelon Generation Company, LLC (Exelon, the licensee), submitted a License Amendment Request (LAR) for Three Mile Island Nuclear Station, Unit 1 (TMI-1). The LAR relates to proposed deletion of various reporting requirements contained in the current TMI-1 Technical Specifications (TSs). In order for the U.S. Nuclear Regulatory Commission (NRC) staff to complete its review of the LAR, a response to the following Requests for Additional Information (RAIs) is requested.

1. The licensee proposes to delete TS 3.10.1, "Miscellaneous Radioactive Materials Sources Special Report." The licensee states, "The limitations on removable contamination for sources requiring leak testing are based on 10 CFR 70.39(c), 'Special licenses for the manufacture or initial transfer of calibration or reference sources' which states:

Each person licensed under this section shall perform a dry wipe test upon each source containing more than 0.1 micro curie of plutonium prior to transferring the source to a general licensee under § 70.19. This test shall be performed by wiping the entire radioactive surface of the source with a filter paper with the application of moderate finger pressure. The radioactivity on the paper shall be measured by using radiation detection instrumentation capable of detecting 0.005 micro curies of plutonium. If any such test discloses more than 0.005 micro curie of radioactive material, the source shall be deemed to be leaking or losing plutonium and shall not be transferred to a general licensee under § 70.19.

The licensee further explains,

The focus of the requirement as specified above is to ensure that leakage from byproduct, source, and special nuclear material sources will not exceed allowable intake values. Additionally, TMI, Unit 1 TS requires that if the test reveals the presence of 0.005 micro curies or more of removable contamination, it shall immediately be withdrawn from use, decontaminated, and repaired, or be disposed of in accordance with the regulation.

The regulation prohibits the transfer of such material and current TMI, Unit 1 TS controls the potential for exposure and contamination of a leaking source. Additionally, identification of a source exceeding the allowable limits would be entered into the corrective action program, which would drive the determination

of the cause and identify corrective actions. The proposed amendment would delete the requirement to submit a special report in the event radioactive material sources exceed the allowable limits for transfer. There is no requirement in 10 CFR 70 to submit the results of sealed source leak testing. Since the test results are general information in nature, and are not required by statute, the means and frequency of submittal of the sealed source leakage data is not restricted by 10 CFR 70. Accordingly, this proposed change to delete the reporting requirement in TS 3.10.1 does not alter or change any existing reporting obligation required by 10 CFR and maintains consistency with applicable regulatory requirements.

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The submittal states that the basis for leak testing sealed radioactive sources is 10 CFR 70.39(c). However, 70.39(c) applies to the manufacture and initial transfer of plutonium calibration and reference sources.

- RAI-1.a Verify that the manufacture of plutonium sources is not authorized under the TMI Unit 1 operating license.
 - RAI-1.b Verify that the TS change is intended to apply to all byproduct, source, and special nuclear sealed sources in your possession at TMI Unit 1.
 - RAI-1.c Provide a technical rational why you do not consider 10 CFR 30.53, and 70.32(c) the basis for leak testing of your sealed sources.
2. The LAR proposes deletion of TS 6.9.1.B.3, relating to the reporting of periodic Leak Reduction Program Tests. The licensee provides the following explanation for deletion of the requirement:

By letter dated April 28, 1982, the NRC issued Amendment No. 77 for TMI, Unit 1 (Reference 5). This amendment added the requirement to report the results of the periodic leak reduction program testing on the basis that it satisfied the guidance provided in NUREG-0737, Item 111.0.1.1 (Reference 6). Item III 0.1.1 specifies that the results of the initial leak test performed under the leak reduction program for systems outside containment be submitted to the NRC. Although Item III.D.1.1 does require on-going periodic leak tests, it does not indicate that the periodic test results be submitted to the NRC.

In addition, the results of the tests performed on systems outside of primary containment are readily available to the NRC for inspection by the NRC Resident Inspectors. Significant leakage identified would be captured in the corrective action program which would drive a determination of cause and action to prevent reoccurrence; therefore, annual reporting is no longer warranted.

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RAI-2 Please describe the program in place to insure that the portion of identified leakage, which is the subject of an associated Reactor oversight Program (ROP) Performance Indicator (PI), that is in systems outside containment, is maintained as low as is reasonably achievable per the requirements of the TMI Lessons Learned item III.D.1.1.

3. The LAR proposes deletion of TS 6.9.1.B.5, "Specific activity analysis in which the primary coolant exceeded limits of TS 3.1.4.1." As justification for this change, the LAR specifies:

TMI, Unit 1, TS 6.9.1.B.5 requires annual reporting of the results of specific activity analysis in which the primary coolant exceeds the limits of TS 3.1.4.1. However, specific activity analysis pertaining to primary coolant limits is reported to the NRC by means of the PI Program, under the Reactor Oversight Program (ROP). As part of the ROP PI Program, TMI, Unit 1 currently provides monthly reactor coolant specific activity data on a quarterly basis to the NRC in accordance with Regulatory Issue Summary (RIS) 2000-08, Revision 1, 'Voluntary Submission of Performance Indicator Data,' (Reference 8) following the guidelines provided in NEI 99-02, "Regulatory Assessment Performance Indicator Guideline," (Reference 9).

The reactor coolant specific activity concentration is provided more frequently than required by the TS, regardless of whether or not the TS limit is exceeded. Additionally, if the limit is exceeded, this would be evaluated within the corrective action program, which would drive a determination of the cause and identify appropriate corrective actions to prevent recurrence. Therefore, annual reporting of specific activity analysis in accordance with TS 6.9.1.B.5 is no longer warranted.

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RAI-3 The NRC staff concurs that that reactor coolant specific activity data is reported to the NRC via the PI program under the ROP. While the PI program reports reactor coolant specific activity, it does not report all of the information contained in TS 6.9.1.B.5, under the circumstances where activity exceeds the limits of TS 3.1.4.1. Therefore, please provide justification for all of the proposed deletions under this TS section.

4. The licensee proposes to delete TS 6.17, "Major changes to radioactive waste treatment system." The licensee states,

The radioactive waste treatment systems (gaseous, liquid and solid) are described in chapter 11 of the TMI, Unit 1 Updated Final Safety Analysis Report (USFAR). Major changes to the radioactive waste treatment systems would require an evaluation in accordance with 10 CFR 50.59, "Changes, tests, and experiments[.]" If the changes are significant enough to be evaluated against the eight criteria specified in 50.59(c)(2), but do not require prior NRC approval, then a summary of the changes must be provided to the

NRC in accordance with 50.59(d)(2), which states that "the licensee shall submit...a report containing a brief description of any changes, tests, and experiments, including a summary of the evaluation of each. A report must be submitted at intervals not to exceed 24 months." Major changes to radioactive waste treatment systems will be reported to the NRC via compliance with 10 CFR 50.59, and therefore, annual reporting is no longer warranted. Accordingly, this proposed change to delete TS 6.17 does not alter or change any existing reporting obligations required by 10 CFR and maintains consistency with applicable regulatory requirements.

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RAI-4 Are significant changes to the radioactive waste treatment systems reported in the TMI annual effluent report? If not, please supplement the LAR with a statement that the TMI Updated Final Safety Analysis Report will be revised to include these changes in the annual effluent report per the guidance in regulatory Guide 1.21 rev. 2, Section 8.5.3.