

July 31, 2006

MEMORANDUM TO: Timothy J. Kobetz, Chief  
Technical Specifications Branch  
Division of Inspection and Regional Support  
Office of Nuclear Reactor Regulation

FROM: T. R. Tjader, Senior Reactor Engineer /RA/  
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Technical Specifications Branch  
Division of Inspection and Regional Support  
Office of Nuclear Reactor Regulation

SUBJECT: SUMMARY OF JULY 13, 2006, PUBLIC MEETING WITH NUCLEAR ENERGY INSTITUTE (NEI), AND EXELON NUCLEAR CORPORATION TO DISCUSS RISK MANAGEMENT TECHNICAL SPECIFICATIONS (RMTS) INITIATIVE 5B, "SURVEILLANCE FREQUENCY CONTROL PROGRAM"

On July 13, 2006, a public meeting was held between the U.S. Nuclear Regulatory Commission (NRC) and representatives of the Nuclear Energy Institute (NEI) and Exelon Nuclear Corporation at Exelon Nuclear's offices located in Kennett Square, Pennsylvania. Enclosure 1 lists the meeting attendees. Exelon submitted on June 11, 2004, a license amendment request (LAR) to change Appendix A, the Technical Specifications (TS), for Limerick Generating Station (LGS), Units 1 and 2, to relocate selected surveillance test intervals (STIs) from the TS to a new licensee program, the "Surveillance Frequency Control Program (SFCP)." The SFCP is being added to the licensee's Administrative Controls section of TS. This LAR proposes LGS as a pilot plant in support of the RMTS Initiative 5b owners groups Technical Specifications Task Force (TSTF) change, TSTF-425, "Relocate Surveillance Test Intervals to Licensee Control."

The purpose of the meeting was to discuss the Staff's comments and Requests for Additional Information (RAI) related to this proposal (see Enclosure 2).

The following is a brief summary of the Exelon's response to the Staff's concerns.

**Staff's concern 1: Integrated Decision Making Panel (Expert Panel) Review of Surveillance Frequencies Based on Codes and Standards**

Provide deterministic criteria in the basis document that would be used to approve revisions to surveillance frequencies that are based upon approved Codes and Standards.

**Exelon's response:**

Exelon stated that the deterministic criteria suggested by the NRC in the

RAI are in fact already contained in the steps of their (Exelon's) evaluation process. The process includes a thorough evaluation of vendor recommendations, performance history, maintenance practices, industry codes and standards, all of which are considered by a plant expert panel in conjunction with the risk information. However, in order to provide additional emphasis on this consideration, Step 7 in the methodology (NEI-04-10, Enclosure 3) will be supplemented as indicated below:

Step 7 of the methodology contains the following bulleted item:

- Consider applicable ASME, IEEE, and other code-specified test intervals.

This item in Step 7 will be changed to the following to provide clarity and direction:

- Test intervals specified in applicable industry codes and standards, e.g., ASME, IEEE, etc.
- Review both committed and current codes and standards.
- Align the considerations for change with the ~~technical bases, if any, provided for~~ test intervals in the codes and standards. Any deviations from codes and standards shall be reviewed and justified.

**Staff's concern 2: Technical Specification Surveillance Frequencies vs Acceptance Criteria**

Provide deterministic criteria in the basis document to address whether more conservative acceptance criteria will be necessary for an extended surveillance frequency. Specifically, discuss when a surveillance frequency extension would require a change in the acceptance criteria, such as the as-found and as-left allowable values.

**Exelon's response:**

Licensee surveillance procedures may contain acceptance criteria that are not specified in the TS. These non-TS values may be revised, as appropriate, to reflect or support a revised surveillance frequency as long as the revised acceptance criteria remains valid when reviewed against the accident analyses.

To capture this idea, Step 7 of the methodology document (NEI 04-10) will be revised to include the following statement:

"Confirm that assumptions in the plant licensing basis would not be invalidated when performing the surveillance at the bounding interval limit for the proposed STI change. For example, if the assumptions in the plant

licensing basis would be invalidated at the bounding STI, the STI could be limited accordingly, or ~~for acceptance criteria not specified in the Technical Specifications~~; a more conservative acceptance criteria could be established, ~~as appropriate~~. The STI changes approved by the IDP are documented appropriately per step 17 (see Enclosure 4 for a completed example of Exelon's STI Evaluation form)."

**Staff's concern 3: Monitoring for Conditioning/Exercising**

Provide deterministic criteria in the basis document that evaluates the degree that a surveillance provides a conditioning exercise to maintain equipment operability, prior to changing the surveillance frequency.

**Exelon's response:**

Exelon stated that the deterministic criteria suggested by the NRC in the RAI are in fact already contained in the steps of their (Exelon's) evaluation process. The process includes a thorough evaluation of vendor recommendations, performance history, and maintenance practices. However, Step 7 of the methodology document (NEI 04-10) will be supplemented to include the following statement:

"The degree to which the surveillance provides a conditioning exercise to maintain equipment operability, for example, lubrication of bearings or electrical contact wiping (cleaning) of built up oxidation, and limit the STI accordingly."

**Staff's concern 4: Controls on the Time of Permitted Surveillance Frequency Extensions**

Provide deterministic criteria in the basis document of a minimum number of surveillance intervals that would be required to establish a database to further extend a previously extended surveillance frequency.

**Exelon's response:**

Exelon stated that for a surveillance frequency previously extended through the Surveillance Frequency Control Program, Step 0 of the methodology document (NEI 04-10) will be revised, consistent with the maintenance rule and the guidance provided in NUMARC 93-01, to include the following statement to ensure that sufficient surveillance data is collected before extending the frequency further:

"For an STI previously extended through the Surveillance Frequency Control Program, the minimum number of surveillance intervals required to establish an adequate database for further extending the STI shall be as follows:

1. a minimum of three successive satisfactory performances of the surveillance where the current STI is less than or equal to six months, or
2. a minimum of two successive satisfactory performances of the surveillance where the current STI is greater than six months. ~~but no greater than two fuel cycles, or~~

~~(2) another defined period of satisfactory performance(s) of the surveillance based on a documented technical justification."~~

NOTE: The criteria provided above do not apply to the concept of "phased" implementation as described elsewhere in the methodology document. If phased implementation is used, the schedule for the phased implementation is established based on the results of the evaluation and is determined by the Independent Decision Making Panel as part of their approval of the proposed STI change.

**Staff's concern 5: Monitoring Criteria For Returning to the Original Surveillance Frequency**

Provide deterministic criteria in the basis document that describes how monitoring and feedback of a surveillance with an extended frequency would result in a return to the original frequency when the number of surveillance test failures are determined to be too many.

**Exelon's response:**

Exelon stated that unsatisfactory performance of a surveillance can be the result of any number of factors. Each individual surveillance test failure would be captured in the Corrective Action Program and evaluated on a case-by-case basis to determine the cause of the test failure and the extent of the condition. The failures of particular concern within the Surveillance Frequency Control Program would be those where the time interval between performances of a surveillance is determined to be a factor in the cause of unsatisfactory performance of the surveillance, ~~i.e., time-based failures.~~

To address this issue, Step 19 of the methodology document (NEI 04-10) will be revised to include the following changes:

**Step 19:**

The SFCP contains provisions whereby component performance data is fed back periodically into the component test strategy determination (i.e., test interval and methods) process. This would include results of component or train level monitoring and results of Maintenance Rule (or §50.69 monitoring). The results of these periodic re-assessments are fed

back to the IDP (Integrated Decisionmaking Panel) in Step 20 for evaluation.

Measures should also be in place to identify the need for more emergent program updates (e.g., following a major plant modification or following a significant equipment performance problem). Failures are evaluated under the Corrective Action Program and STI adjustments under the SFCP may be appropriate, per Step 20. In addition, for a previously extended STI, if ~~two consecutive~~ unsatisfactory performances of the surveillance occur, than an assessment shall be performed to determine if the time interval between performances of the surveillance is a factor in the cause of the unsatisfactory performance of the surveillance. The results of these emergent assessments are presented to the IDP in a ~~more~~ timely manner in Step 20 for evaluation.

**Resulting Actions:**

The Staff concurs with the above responses. Exelon is to revise steps 7 and 19 in NEI-04-10, as stated above.

**Public attendance:**

The meeting included attendees by teleconference. Mr. Eric Epstein of the public (TMI Alert Group) was in attendance via teleconference. Mr. Epstein had four comments: (1) speakers should identify themselves each time they talk for the benefit of those on speaker phone; (2) an accurate vote count should be provided and those voting identified (note: no actual vote was taken, a member of industry jokingly asking for a show of hands regarding a proposed change to the methodology); (3) more than one comment period should be provided during the meeting; and, (4) clarification of an issue discussed regarding the tracking of cumulative risk impacts was requested. Mr Andrew Howe of the NRC discussed the details of item (4) by explaining the regulatory basis for cumulative risk and the guidance available.

Enclosures:

- 1: Attendees List
- 2: Draft (7/10/06) on NRC's concerns and Exelon's Response
- 3: NEI-04-10 Draft Rev, June, 2006
- 4: Exelon's RI-TS Surveillance Test Interval Evaluation

back to the IDP (Integrated Decisionmaking Panel) in Step 20 for evaluation.

Measures should also be in place to identify the need for more emergent program updates (e.g., following a major plant modification or following a significant equipment performance problem). Failures are evaluated under the Corrective Action Program and STI adjustments under the SFCP may be appropriate, per Step 20. In addition, for a previously extended STI, if ~~two consecutive~~ unsatisfactory performances of the surveillance occur, than an assessment shall be performed to determine if the time interval between performances of the surveillance is a factor in the cause of the unsatisfactory performance of the surveillance. The results of these emergent assessments are presented to the IDP in a ~~more~~ timely manner in Step 20 for evaluation.

### **Resulting Actions:**

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Distribution: See next page

ADAMS ACCESSION NO:

OFFICE	ITSB/DIRS:ADRO	ITSB/DIRS	FFEB/DE	ADRA/DRA
NAME	RTjader	TJKobetz/RTjader for	GWilson	MTschiltz
DATE	7/27	7/31/06	7/27/06	7/28/06

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**MEETING BETWEEN NRC, INDUSTRY AND PUBLIC REGARDING  
RMTS INITIATIVE 5B  
“SURVEILLANCE FREQUENCY CONTROL PROGRAM”**

**ATTENDANCE LIST**

**July 13, 2006**

**NRC**

Bob Tjader  
Ravi Grover  
George Wilson  
Andrew Howe  
George Morris  
Mike Tschiltz  
Carrie Bickett\*

**INDUSTRY & PUBLIC**

Glenn Stewart, Exelon Nuclear  
Don Vanover, Exelon Nuclear  
Phil Tarpinian, Exelon Nuclear  
Gene Kelly, Exelon Nuclear  
Mary Fowalski, Exelon Nuclear  
William Mindick, Exelon Nuclear  
Greg Krueger, Exelon Nuclear  
Roy Harding, Exelon Nuclear\*  
Pam Cowan, Exelon Nuclear  
Tom Carrier, BWROG  
Brian Mann, EXCEL  
Biff Bradley, NEI  
S. Visweswaran, GE/BWROG  
Eric Epstein, TMI Alert Group\*

\*participated via teleconference