May 2, 2002

Mr. John L. Skolds, President
and Chief Nuclear Officer
Exelon Nuclear
Exelon Generation Company, LLC
200 Exelon Way, KSA 3-E
Kennett Square, PA 19348

SUBJECT: LIMERICK GENERATING STATION, UNITS 1 AND 2, EVALUATION OF RELIEF REQUEST RR-12, TABLE RR-12-6, RE: ROTATION OF SNUBBERS AND RELIEF VALVES (TAC NOS. MB1018 AND MB1019)

Dear Mr. Skolds:

By letter dated January 9, 2001, PECO Energy Company (PECO), the then licensee, submitted proposed alternatives to the requirements of Title 10 of the *Code of Federal Regulations* (10 CFR), Section 50.55a, concerning the second 10-year inservice inspection (ISI) programs. PECO was succeeded by Exelon Generation Company, LLC (EGC or the licensee), as the licensed operator of Limerick Generating Station, Units 1 and 2, on January 12, 2001. By letter dated January 30, 2001, EGC requested that the Nuclear Regulatory Commission's (NRC's) staff continue to process and disposition licensing actions previously docketed and requested by PECO.

This NRC staff safety evaluation applies to relief request (RR) RR-12, Table RR-12-6. RR-12, Tables RR-12-9 through RR-12-11, and RR-24 through RR-31 were evaluated and approved in a letter to the licensee dated September 12, 2001. RR-12, Table RR-12-7 was evaluated and approved in a letter to the licensee dated February 14, 2002. The NRC staff will provide their evaluation of the remaining relief requests from the January 9, 2001, letter under separate cover.

Subsection IWA-7000 of Section XI of the American Society of Mechanical Engineers Code (ASME Code) requires that the rotation of snubbers and relief valves be treated as an ASME Code replacement. The licensee has proposed adoption of Code Case N-508-1, "Rotation of Serviced Snubbers and Pressure Relief Valves for the Purpose of Testing," which would eliminate the burdensome administrative controls and documentation required by Section XI of the ASME Code.

Based on the information provided, the NRC staff concludes that for RR-12, Table RR-12-6, the proposed alternative will provide an acceptable level of quality and safety. Therefore, the use of the proposed alternative is authorized pursuant to 10 CFR 50.55a(a)(3)(i) for the second 10-year ISI interval. The NRC staff's safety evaluation is enclosed.

If you have any questions, please contact your Project Manager, Christopher Gratton, at 301-415-1055.

Sincerely,

/RA/

James W. Clifford, Chief, Section 2
Project Directorate I
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket Nos. 50-352 and 50-353

Enclosure: Safety Evaluation

cc w/encl: See next page

If you have any questions, please contact your Project Manager, Christopher Gratton, at 301-415-1055.

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/RA/

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Enclosure: Safety Evaluation

cc w/encl: See next page

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Limerick Generating Station, Units 1 & 2

cc:

Edward J. Cullen, Jr.
Vice President & General Counsel
Exelon Generation Company, LLC
300 Exelon Way
Kennett Square, PA 19348

Manager-Limerick Licensing
Exelon Generation Company, LLC
Nuclear Group Headquarters
Correspondence Control
P.O. Box 160
Kennett Square, PA 19348

Mr. William Levis, Site Vice President
Limerick Generating Station
P.O. Box 2300
Sanatoga, PA 19464

Mr. R. Braun
Plant Manager
Limerick Generating Station
P.O. Box 2300
Sanatoga, PA 19464

Regional Administrator, Region I
U.S. Nuclear Regulatory Commission
475 Allendale Road
King of Prussia, PA 19406

Senior Resident Inspector
U.S. Nuclear Regulatory Commission
Limerick Generating Station
P.O. Box 596
Pottstown, PA 19464

Chairman
Board of Supervisors
of Limerick Township
646 West Ridge Pike
Linfield, PA 19468

Chief-Division of Nuclear Safety
PA Dept. of Environmental Resources
P.O. Box 8469
Harrisburg, PA 17105-8469

Library
U.S. Nuclear Regulatory Commission
Region I
475 Allendale Road
King of Prussia, PA 19406

Dr. Judith Johnsrud
National Energy Committee
Sierra Club
433 Orlando Avenue
State College, PA 16803

Mr. Jeffrey A. Benjamin
Licensing - Vice President
Exelon Corporation
1400 Opus Place, Suite 900
Downers Grove, IL 60515

Mr. Michael P. Gallagher
Director-Licensing
Exelon Generation Company, LLC
Nuclear Group Headquarters
Correspondence Control
P. O. Box 160
Kennett Square, PA 19348

Correspondence Control Desk
Exelon Generation Company, LLC
200 Exelon Way, KSA 1-N-1
Kennett Square, PA 19348

Mr. John Skolds
Chief Operating Officer
Exelon Generation Company, LLC
1400 Opus Place, Suite 900
Downers Grove, IL 60515

Mr. William Bohlke
Senior Vice President, Nuclear Services
Exelon Generation Company, LLC
1400 Opus Place, Suite 900
Downers Grove, IL 60515

Limerick Generating Station, Units 1 & 2

cc:

Mr. John Cotton
Senior Vice President, Operations Support
Exelon Generation Company, LLC
1400 Opus Place, Suite 900
Downers Grove, IL 60515

Mr. Joseph Hagan
Senior Vice President
Mid-Atlantic Regional Operating Group
Exelon Generation Company, LLC
200 Exelon Way, KSA 3-N
Kennett Square, PA 19348

Ms. K. Gallogly
Regulatory Assurance Manager
Limerick Generating Station
P.O. Box 2300
Sanatoga, PA 19464

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO THE INSERVICE INSPECTION PROGRAM

RELIEF REQUEST RR-12-6

EXELON GENERATION COMPANY, LLC

LIMERICK GENERATING STATION, UNITS 1 AND 2

DOCKET NOS. 50-352 AND 50-353

1.0 INTRODUCTION

By letter dated January 9, 2001, as part of a submittal of proposed alternatives to the requirements of Title 10 of the *Code of Federal Regulations* (10 CFR), Section 50.55a, PECO Energy Company (PECO), the then licensee, submitted inservice inspection (ISI) program Relief Request (RR) RR-12, Table RR-12-6, for Limerick Generating Station (LGS), Units 1 and 2, for American Society of Mechanical Engineers (ASME) Code, Class 1, 2, and 3, snubbers and relief valves. PECO, now Exelon Generation Company, LLC (EGC), requested authorization from the Nuclear Regulatory Commission (NRC, the Commission) to implement ASME Code Case N-508-1, "Rotation of Serviced Snubbers and Pressure Relief Valves for the Purpose of Testing," at LGS Units 1 and 2. Pursuant to 10 CFR 50.55a(a)(3)(i), EGC proposed the implementation of ASME Code Case N-508-1 in lieu of the requirements in Article IWA-7000 in the 1989 Edition of the ASME *Boiler and Pressure Vessel Code* (ASME B&PV Code), Section XI, which is the current ASME Code of record for LGS Units 1 and 2.

2.0 BACKGROUND

It is required by 10 CFR 50.55a that licensees perform ISI and inservice testing (IST) of certain ASME Code, Class 1, 2, and 3, components in accordance with Section XI of the ASME B&PV Code, the ASME *Code for Operation and Maintenance of Nuclear Power Plants* (ASME OM Code), and applicable addenda, except when alternatives are authorized or relief is requested by the licensee and granted by the Commission pursuant to 50.55a(a)(3)(i), (a)(3)(ii), or (f)(6)(i). In proposing alternatives or requesting relief, the licensee must demonstrate that: (1) the alternatives will provide an acceptable level of quality and safety, (2) compliance would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety, or (3) conformance would be impractical for its facility. The regulations in 10 CFR 50.55a authorize the Commission to approve alternatives and to grant relief from ASME Code requirements upon making the necessary findings.

The staff has reviewed and evaluated the licensee's request and supporting information on the proposed alternative to the ASME Code requirements for LGS Units 1 and 2 pursuant to the provisions of 10 CFR 50.55a(a)(3)(i).

3.0 EVALUATION

3.1 EGC's Basis for Relief

EGC requested relief from the requirements of ASME Code, Section XI, IWA-7000, when rotating serviced snubbers and pressure relief valves for the purpose of testing at LGS Units 1 and 2. The licensee proposed to use ASME Code Case N-508-1 as an alternative to the requirements of the ASME Code pursuant to 10 CFR 50.55a(a)(3)(i). This ASME Code Case is not yet approved by the staff in NRC Regulatory Guide 1.147, "Inservice Inspection Code Case Acceptability, ASME Section XI, Division 1." This relief request is a result of EGC's update of their ISI program to the 1989 Edition of the ASME B&PV Code, Section XI. This update is required by 10 CFR 50.55a(g)(4)(ii). The relief request will be implemented during the second 10-year interval of the LGS Units 1 and 2 ISI program, which began on January 8, 2000.

The ASME Code, Section XI, IWA-7000, provides technical and administrative requirements that must be implemented when an item within the scope of the ASME Code is replaced.

Currently, when a snubber or relief valve is removed for the purpose of testing at LGS Units 1 and 2, the following two options are available:

(a) Maintain the system or portion of the system in a degraded condition, while complying with the applicable LGS Units 1 and 2 Technical Specification, until the removed item is tested, refurbished if required, and reinstalled, or

(b) Replace the item being tested with a "like" item, and test the removed item at a later date.

Per ASME Code, Section XI, the rotation of snubbers and relief valves, as addressed in the second option, is required to be treated as an ASME Code replacement that must meet the requirements of IWA-7000. This entails the use of replacement programs, replacement plans, suitability evaluations, review and concurrence by the Authorized Nuclear Inservice Inspector, and maintenance of NIS-2 forms or other Section XI documentation to record the replacement. Such controls are appropriate when items are replaced for the purpose of design changes, failures, or expiration of component life, but are considered excessive for the removal and installation of snubbers and relief valves solely for the purpose of testing.

The use of the alternative approaches (ASME Code Case N-508-1) will eliminate the burdensome administrative controls and documentation requirements associated with an ASME Code replacement for these components.

In adopting this ASME Code Case, all other aspects of the replacement, such as design, manufacture, ASME Code, Section XI, pressure testing requirements, operational limits, and setting, will be maintained. In addition, the implementation of ASME Code Case N-508-1 does not change the testing requirements provided by LGS Units 1 and 2 Technical Specifications (TSs).

3.2 NRC Staff's Evaluation

EGC proposes to use ASME Code Case N-508-1, in lieu of ASME Code, Section XI, IWA-7000, for the rotation of snubbers and pressure relief valves for testing purposes at LGS Units 1 and 2.

ASME Code Case N-508-1 states that, for the purpose of testing, snubbers and relief valves may be rotated from stock and installed on components (including piping systems) within the Section XI boundary provided that the following requirements are met:

(a) Items being removed and installed shall be of the same design and construction;
(b) Items being removed shall have no evidence of failure at the time of removal;
(c) Items being rotated shall be removed and installed only by mechanical means;
(d) Items being installed shall have previously been in service;
(e) Preservice inspection and pressure tests shall be performed as required by IWA-7000;
(f) The owner shall maintain a method of tracking the items to ensure traceability of ISI and IST records;
(g) Use of an NIS-2 form is not required except as provided in (i) below;
(h) Testing of removed snubbers and pressure relief valves, including required sample expansions, shall be performed in accordance with the Owner's test program; and
(i) Repair or replacement of removed items, when required, shall be performed in accordance with IWA-7000.

The implementation of ASME Code Case N-508-1 does not change the testing requirements provided by LGS Units 1 and 2 TSs. Also, in the adoption of this Code Case, all other aspects of the replacement such as design, manufacture, ASME Section XI pressure testing requirements, operational limits, and setting will be maintained.

ASME Code Case N-508-1 does not alter any Section XI requirement if a removed item requires any repair or replacement of Code parts. As required by item (i) of the ASME Code Case, repair or replacement of the removed item, when required, shall be performed in accordance with IWA-4000 for repairs and IWA-7000 for replacements. Because of this requirement, if the removed item requires repair or replacement, this activity shall be treated as a Section XI repair or replacement, and the required Section XI documentation must be prepared.

The use of ASME Code Case N-508-1 as an alternative to IWA-7000 for the rotation of snubbers and relief valves for the purpose of testing provides a reasonable reduction in the administrative requirements and documentation for this specific activity. The reduction in the administrative requirements has no effect on the ability of the snubbers or relief valves to perform their safety functions. All technical requirements are maintained in a manner that provides an acceptable level of quality and safety. Therefore, RR-12, Table RR-12-6, which adopts ASME Code Case N-508-1 for the rotation of snubbers and relief valves for the purpose of testing at LGS Units 1 and 2, is acceptable.

4.0 CONCLUSION

The NRC staff concludes that EGC's request to use ASME Code Case N-508-1 provides an acceptable level of quality and safety and is, therefore, authorized pursuant to 10 CFR 50.55a(a)(3)(i) for the second 10-year ISI interval.

Principal Contributor: J. Arroyo

Date: May 2, 2002