



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001
July 7, 2009

LICENSEE: Exelon Generation Company

FACILITY: LaSalle County Station, Units 1 and 2, and Limerick Generating Station, Units 1 and 2

SUBJECT: SUMMARY OF JUNE 18, 2009, PRE-APPLICATION MEETING WITH EXELON GENERATION COMPANY, LICENSE AMENDMENT REQUEST FOR LASALLE AND LIMERICK MEASUREMENT UNCERTAINTY RECAPTURE POWER UPRATES

On June 18, 2009, a Category 1 public meeting was held between the U.S. Nuclear Regulatory Commission (NRC) and representatives of Exelon Generation Company (the licensee) at the NRC Headquarters, One White Flint North, 11555 Rockville Pike, Rockville, Maryland. The purpose of the meeting was to discuss a pre-application license amendment request (LAR) for the LaSalle County Station (LSCS), Units 1 and 2, and Limerick Generating Station (LGS), Units 1 and 2, Measurement Uncertainty Recapture (MUR) power uprates. A list of attendees is provided as Enclosure 1.

The licensee presented information on the proposed LAR (See Enclosure 2). This presentation provided background, schedules, LAR quality, technical evaluations, and LAR key elements pertaining to the proposed LAR. The LAR key elements identified by the licensee were the steam dryer evaluation, fuel evaluations and Technical Specification Task Force-493 interim guidance (setpoint methodology). It was noted during the presentation that there is a linked Alternate Source Term (AST) license amendment for LSCS currently under NRC staff review, which is anticipated for approval in October 2009. The MUR LAR will use data resulting from the AST license amendment. The licensee has requested a 10-month review time for approval of proposed submittals (January 2010, for LSCS, and February 2010, for LGS).

The NRC staff and the licensee discussed the need to review past requests for additional information to assure quality LARs, and also if the fuel change mentioned for LGS will affect the technical specifications and require a license amendment. The NRC staff and the licensee discussed the need to consider reviewing current Topical Reports (TR) with the LAR submittal; specifically a new TR on transducers.

Members of the public were in attendance. Public Meeting Feedback forms were not received.

Please direct any inquiries to me at 301-415-3154, or SPS1@nrc.gov.

A handwritten signature in black ink that reads "Stephen P. Sands". The signature is written in a cursive style with a large, stylized "S" at the beginning.

Stephen Sands, Project Manager
Plant Licensing Branch III-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Dockets No. 50-352, 50-353, 50-373 and 50-374

Enclosures:

1. List of Attendees
2. Licensee Handout

cc w/encl: Distribution via ListServ

LIST OF ATTENDEES

June 18, 2009, Meeting with Exelon to discuss proposed Measurement Uncertainty Recapture

License Amendment Request for Limerick and LaSalle

Name	Affiliation	Phone
S. Sands	NRC/NRR/DORL	301-415-3154
P. Bamford	NRC/NRR/DORL	301-415-2833
M. Mahoney	NRC/NRR/DORL	301-415-3867
R. Wolfgang	NRC/NRR/ADES/DCI/CPT	301-415-1624
W. Lyon	NRC/NRR/DSS/SRXB	301-415-2897
L. Benton	NRC/NRR/AADB	301-415-1088
J. White	NRC/NRR/AADB	301-415-3212
A. Boatright	NRC/NRR/AADB	301-415-1501
P. Chung	NRC/NRR/DC/EICB	301-415-2473
M. Hartzman	NRC/NRR/DE/EMCB	301-415-2755
T. Alexion	NRC/NRR/DPR	301-415-1326
I. Ahmed	NRC/NRR/DE	301-415-3252
A. Russell (via telephone)	NRC/NRR/DPR	301-415-8553
D. Helker	Exelon	610-765-5525
A. Haeger	Exelon	630-657-3359
A. Javorik	Exelon	630-657-3350
D. Galanis	Exelon	630-657-3351
M. Jesse	Exelon	610-765-5528
S. Shields	Exelon	815-415-2811
S. Gamble	Exelon	610-718-3404
J. Liggett	Exelon	610-718-3023
R. Pendergraft	Areva	434-832-2634
G. Longoni	Westinghouse	412-374-5218
D. Forsyth	Westinghouse	412-374-6638
P. Campbell	GE Hitachi	202-637-4239
E. Schrull (via telephone)	GE Hitachi	
J. Ferrante	Public	707-792-0449

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LaSalle County Station Limerick Generating Station

**Pre-Application Meeting
License Amendment Requests
for Measurement Uncertainty Recapture
Power Uprates**

June 18, 2009

- ✓ Alex Javorik – Senior Director, Power Uprate
- ✓ Dean Galanis – Engineering Director, Power Uprate
- ✓ Michael Jesse – Licensing Manager, Power Uprate
- ✓ David Helker – Corporate Licensing
- ✓ Stephen Shields – LaSalle County Station, Regulatory Assurance
- ✓ Stan Gamble – Limerick Generating Station, Regulatory Assurance
- ✓ Allan Haeger – Licensing support
- ✓ David Forsyth – Westinghouse Electric Corporation
- ✓ Gianluca Longoni – Westinghouse Electric Corporation
- ✓ Edward Schrull – General Electric-Hitachi (via telephone)

- ✓ Background
- ✓ Schedules
- ✓ License amendment request (LAR) quality
- ✓ Technical evaluations
- ✓ LAR key elements
 - Steam dryer evaluation
 - Fuel evaluations
 - TSTF-493 interim guidance (setpoint methodology)
- ✓ Feedback

Background

- ✓ Exelon power uprates are managed by a dedicated project team, including technical, project management, and licensing personnel
- ✓ Measurement Uncertainty Recapture (MUR) LARs for LaSalle County Station (LSCS) and Limerick Generating Station (LGS) are planned for 2010
- ✓ LSCS, Units 1 and 2
 - BWR/5, Mark II containment
 - Current licensed thermal power - 3489 MWt
 - 5% uprate approved in May 2000
 - Caldon CheckPlus[®] Leading Edge Flow Meter (LEFM) currently installed on Unit 1
- ✓ LGS, Units 1 and 2
 - BWR/4, Mark II containment
 - Current licensed thermal power - 3458 MWt
 - 5% uprates approved in January 1996 (U-1) and February 1995 (U-2)

Schedules

- ✓ MUR LAR submittals
 - LSCS – January 2010
 - LGS – February 2010

- ✓ Installation of LEFM
 - LSCS Unit 1 – Complete (February 2008)
 - LSCS Unit 2 – March 2011
 - LGS Unit 1 – April 2010
 - LGS Unit 2 – April 2011

- ✓ Requested LAR approval
 - LSCS – November 2010
 - LGS – December 2010

*Two units will be ready for power ascension
upon LAR approval*

- ✓ LAR will meet criteria in NRC LIC-109, “Acceptance Review Procedures”
 - Use of approved guidance
 - GEH licensing topical report for thermal power optimization (TPO LTR)
 - Caldon LEFM topical reports (ER-80P, ER-157P) and NRC safety evaluation criteria
 - Linked submittals
 - LSCS alternative source term approval anticipated in October 2009
 - Completeness of information
 - Will provide cross-reference to guidance in RIS 2002-03, “Guidance on the Content of MUR Power Uprate Applications”
 - Will incorporate responses to applicable requests for additional information for MURs since issuance of RIS 2002-03

- ✓ Reactor safety evaluations
 - GEH evaluations in accordance with TPO LTR
 - Plant-specific ATWS evaluations required
 - LEFM calibration tests at Alden Labs
 - LSCS-1 – commissioned and in service
 - LSCS-2 – August 2009
 - LGS-1 – October 2009
 - LGS-2 – November 2009
- ✓ Grid stability assessment
- ✓ Balance of plant (BOP) evaluations
 - Preliminary equipment assessment completed
 - Based on previous industry experience and station interviews
 - Potential minor modifications to support reliable operation
 - Detailed evaluations in progress

Steam Dryer Evaluation

- ✓ Will address industry EPU experience with acoustic excitation
- ✓ Westinghouse will perform evaluation
 - Use elements of Continuum Dynamics, Inc. approach applied successfully on all recent BWR extended power uprates (EPUs)
- ✓ Major steps for MUR
 - Initial acoustic screening
 - Evaluate potential for resonance at uprated conditions
 - Scale model testing
 - Confirm results of acoustic screening
 - Compare to plant results at current licensed thermal power (CLTP)
 - Install strain gauges on selected MSLs
 - Instrument additional MSLs depending upon analytical/scale model test results
 - No further action if results indicate no acoustic resonance potential
 - Potential additional evaluations if flow velocities approach resonance regions
 - Monitor MSL pressure fluctuations during MUR power ascension
 - Acoustic circuit model and structural analysis
 - Power ascension monitoring plan and limit curves

*These additional evaluations will confirm
no acoustic excitation for MUR*

- ✓ Fuel evaluations
 - LSCS - GE14 and AREVA fuel
 - LAR will identify fuel-dependent evaluations performed, including methods, results, acceptance criteria
 - LGS - GE fuel
 - MUR evaluations will be performed on current GE14 cores for both units
 - LGS will introduce GNF-2 fuel in the cycles following MUR approval
 - o LGS-1 – April 2012
 - o LGS-2 – April 2011
- ✓ TSTF-493, Setpoint Methodology
 - Will comply with interim guidance for any revised technical specification setpoints

Questions or Feedback?

Members of the public were in attendance. Public Meeting Feedback forms were not received.

Please direct any inquiries to me at 301-415-3154, or SPS1@nrc.gov.

/RA/

Stephen Sands, Project Manager
Plant Licensing Branch III-2
Division of Operating Reactor Licensing
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Dockets No. 50-352, 50-353, 50-373 and 50-374

Enclosures:

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RidsNrrDorLpl3-2 Resource	RidsRgn1MailCenter Resource	M. Hartzman, NRR	M. Ferdas, EDO Region 3
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