



**UNITED STATES**  
**NUCLEAR REGULATORY COMMISSION**  
**REGION I**  
475 ALLENDALE ROAD  
KING OF PRUSSIA, PA 19406-1415

March 5, 2012

Mr. Michael J. Pacilio  
Senior Vice President, Exelon Generation Company, LLC  
President and Chief Nuclear Officer, Exelon Nuclear  
4300 Winfield Rd.  
Warrenville, IL 60555

SUBJECT: ANNUAL ASSESSMENT LETTER FOR LIMERICK GENERATING STATION  
(REPORT 05000352/2011001 and 05000353/2011001)

Dear Mr. Pacilio:

On February 13, 2012, the U. S. Nuclear Regulatory Commission (NRC) completed its end-of-cycle performance review of the Limerick Generating station Units 1 and 2. The NRC reviewed the most recent quarterly performance indicators (PIs) in addition to inspection results and enforcement actions from January 1, 2011 through December 31, 2011. This letter informs you of the NRC's assessment of your facility during this period and its plans for future inspections at your facility. This performance review and enclosed inspection plan do not include security information. A separate letter will include the NRC's assessment of your performance in the Security Cornerstone and its security-related inspection plan.

The NRC determined the performance at Limerick Unit 1 during the most recent quarter was within the Licensee Response Column of the NRC's Reactor Oversight Process (ROP) Action Matrix because all inspection findings had very low (i.e., green) safety significance, and all PIs indicated that your performance was within the nominal, expected range (i.e., green). Therefore, the NRC plans to conduct ROP baseline inspections at Unit 1.

The NRC determined the performance at Limerick Unit 2 during the most recent quarter was within the Regulatory Response Column of the NRC's ROP Action Matrix because of a self-revealing finding of low to moderate safety significance (White) involving a failure by Exelon to ensure sufficient technical guidance was contained in operating procedures to: (1) ensure that a feedwater (FW) motor-operated valve (MOV) could close against expected system differential pressures; and (2) prevent operators from attempting to close FW MOVs out of sequence resulting in differential pressures for which they are not designed. As a result, two FW valves failed to fully shut resulting in a primary containment isolation valve and the reactor core isolation cooling system being inoperable for greater than their Technical Specification allowed outage time (ML113410132).

On February 14, 2012, your staff notified the NRC of your readiness for a supplemental inspection to be conducted during the week of June 11, 2012, to review the actions taken to address the performance issues associated with the White finding. Therefore, in addition to ROP baseline inspections at Unit 2, the NRC plans to conduct a supplemental inspection in

accordance with Inspection Procedure (IP) 95001, "Inspection for One or Two White Inputs in a Strategic Performance Area," to provide assurance that the root cause and contributing causes of the performance issues are understood, the extent of condition is identified, and the corrective actions are sufficient to prevent recurrence.

The enclosed inspection plan lists the inspections scheduled through June 30, 2013. Routine inspections performed by resident inspectors are not included in the inspection plan. The inspections listed during the last nine months of the inspection plan are tentative and may be revised at the mid-cycle performance review. The NRC provides the inspection plan to allow for the resolution of any scheduling conflicts and personnel availability issues. In addition to the baseline inspection program, we plan to conduct IP 71002, "Licensee Renewal Inspection," and Temporary Instruction (TI) TI-182, "Review of the Implementation of the Industry Initiative to Control Degradation of Underground Piping and Tanks." From January 1, 2011, to December 31, 2011, the NRC issued one severity level IV (SLIV) traditional enforcement violation associated with impeding the regulatory process related to a change in the Emergency Action Level basis (ML112550468). The NRC has already conducted an IP 92702, "Follow-up on Corrective Actions for Violations and Deviations," inspection to follow-up on this violation as documented in inspection report 50-352&353/2011005 (ML12020A071). The NRC will contact you as soon as possible to discuss changes to the inspection plan should circumstances warrant any changes.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Please contact Mr. Paul Krohn at (610) 337-5120 with any questions you have regarding this letter.

Sincerely,

**/RA/**

John R. Tappert, Acting Director  
Division of Reactor Projects

Docket Nos. 50-352, 50-353  
License Nos. NPF-39, NPF-85

Enclosure:  
Inspection Plan

cc w/encl: Distribution via ListServ

accordance with Inspection Procedure (IP) 95001, "Inspection for One or Two White Inputs in a Strategic Performance Area," to provide assurance that the root cause and contributing causes of the performance issues are understood, the extent of condition is identified, and the corrective actions are sufficient to prevent recurrence.

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Docket Nos. 50-352, 50-353  
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Enclosure:  
Inspection Plan  
cc w/encl: Distribution via ListServ  
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**SUNSI REVIEW COMPLETE: AAR (Reviewer's Initials) ML12060A142**  
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NAME	E DiPaolo/ *AAR	AARosebrook/ AAR	PGKrohn/PGK	JTappert/JRT
DATE	02/ 22 /12	02/22 /12	02/22/12	02/28 /12

\* Per telcon

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Limerick  
Inspection / Activity Plan  
01/01/2012 - 06/30/2013

Unit Number	Planned Dates Start	Planned Dates End	Inspection Activity	Title	No. of Staff on Site
<b>HP - RADIATION SAFETY INSPECTIONS</b>					1
1,2	02/06/2012	02/10/2012	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
1,2	02/06/2012	02/10/2012	IP 71124.02	Occupational ALARA Planning and Controls	
1,2	02/06/2012	02/10/2012	IP 71124.03	In-Plant Airborne Radioactivity Control and Mitigation	
1,2	02/06/2012	02/10/2012	IP 71124.04	Occupational Dose Assessment	
1,2	02/06/2012	02/10/2012	IP 71124.05	Radiation Monitoring Instrumentation	
<b>71124 - RADWASTE</b>					1
1,2	02/13/2012	02/17/2012	IP 71124.08	Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and Transportation	
<b>7111108G - INSERVICE INSPECTION</b>					1
1	02/27/2012	03/02/2012	IP 7111108G	Inservice Inspection Activities - BWR	
<b>HP - RADIATION SAFETY INSPECTIONS</b>					1
1,2	02/27/2012	03/02/2012	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
1,2	02/27/2012	03/02/2012	IP 71124.02	Occupational ALARA Planning and Controls	
1,2	02/27/2012	03/02/2012	IP 71124.03	In-Plant Airborne Radioactivity Control and Mitigation	
1,2	02/27/2012	03/02/2012	IP 71124.04	Occupational Dose Assessment	
1,2	02/27/2012	03/02/2012	IP 71124.05	Radiation Monitoring Instrumentation	
<b>7111111B - LIM/PB LSRO REQUAL INSPECTION</b>					2
1,2	06/18/2012	06/22/2012	IP 7111111B	Licensed Operator Requalification Program	
<b>71002 - LR INSPECTION</b>					4
1,2	06/04/2012	06/08/2012	IP 71002	License Renewal Inspection	
1,2	06/18/2012	06/22/2012	IP 71002	License Renewal Inspection	
<b>10/08EXM - LIMERICK INITIAL OL EXAM</b>					4
1	09/10/2012	09/14/2012	U01858	FY13-LIMERICK INITIAL OPERATOR LICENSING EXAM	
1	10/08/2012	10/19/2012	U01858	FY13-LIMERICK INITIAL OPERATOR LICENSING EXAM	
<b>95001 - U2 RCIC WHITE SUPPLEMENTAL INSPECTION</b>					2
2	06/11/2012	06/15/2012	IP 95001	Supplemental Inspection for One or Two White Inputs in a Strategic Performance Area	
<b>HP - RADIATION SAFETY INSPECTIONS</b>					1
1,2	07/09/2012	07/13/2012	IP 60855	Operation Of An ISFSI	
1,2	07/09/2012	07/13/2012	IP 71124.05	Radiation Monitoring Instrumentation	
1,2	07/09/2012	07/13/2012	IP 71124.06	Radioactive Gaseous and Liquid Effluent Treatment	
1,2	07/09/2012	07/13/2012	IP 71151-PR01	RETS/ODCM Radiological Effluent	
<b>TI 182 - CONTROL DEGRADATION UNDERGROUND PIPING</b>					1
1,2	08/06/2012	08/10/2012	IP 2515/182	Review of the Implementation of the Industry Initiative to Control Degradation of Underground Piping	

This report does not include INPO and OUTAGE activities.  
This report shows only on-site and announced inspection procedures.

**Limerick**  
**Inspection / Activity Plan**  
**01/01/2012 - 06/30/2013**

Unit Number	Planned Dates		Inspection Activity	Title	No. of Staff on Site
Start	End				
			<b>7111121 - CDBI</b>		<b>7</b>
1, 2	08/27/2012	08/31/2012	IP 7111121	Component Design Bases Inspection	
1, 2	09/10/2012	09/14/2012	IP 7111121	Component Design Bases Inspection	
1, 2	09/24/2012	09/28/2012	IP 7111121	Component Design Bases Inspection	
			<b>711111B - LIMERICK ON-SITE RQL INSP W/ P/F RESULTS</b>		<b>2</b>
1, 2	11/05/2012	11/09/2012	IP 711111B	Licensed Operator Requalification Program	
			<b>71152B - PI&amp;R</b>		<b>7</b>
1, 2	10/22/2012	10/26/2012	IP 71152B	Problem Identification and Resolution	
1, 2	11/05/2012	11/09/2012	IP 71152B	Problem Identification and Resolution	
			<b>HP - RADIATION SAFETY INSPECTIONS</b>		<b>1</b>
1, 2	11/05/2012	11/09/2012	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
1, 2	11/05/2012	11/09/2012	IP 71124.02	Occupational ALARA Planning and Controls	
1, 2	11/05/2012	11/09/2012	IP 71124.05	Radiation Monitoring Instrumentation	
1, 2	11/05/2012	11/09/2012	IP 71151-PR01	RETS/ODCM Radiological Effluent	
			<b>EP PROGR - EP PROGRAM INSPECTION</b>		<b>1</b>
1, 2	12/03/2012	12/07/2012	IP 7111402	Alert and Notification System Testing	
1, 2	12/03/2012	12/07/2012	IP 7111403	Emergency Preparedness Organization Staffing and Augmentation System	
1, 2	12/03/2012	12/07/2012	IP 7111404	Emergency Action Level and Emergency Plan Changes	
1, 2	12/03/2012	12/07/2012	IP 7111405	Correction of Emergency Preparedness Weaknesses and Deficiencies	
			<b>7/15 EXM - LIMERICK LSRO INITIAL EXAM</b>		<b>2</b>
1	06/24/2013	06/28/2013	U01869	FY13-LIMERICK LSRO INITIAL OPERATOR LICENSING EXAM	
			<b>HP - RADIATION SAFETY INSPECTIONS</b>		<b>1</b>
1, 2	03/04/2013	03/08/2013	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
1, 2	03/04/2013	03/08/2013	IP 71124.02	Occupational ALARA Planning and Controls	
1, 2	03/04/2013	03/08/2013	IP 71124.03	In-Plant Airborne Radioactivity Control and Mitigation	
1, 2	03/04/2013	03/08/2013	IP 71124.04	Occupational Dose Assessment	
1, 2	03/04/2013	03/08/2013	IP 71124.05	Radiation Monitoring Instrumentation	
			<b>60855 - OPERATION OF AN ISFSI</b>		<b>2</b>
1, 2	03/13/2013	06/30/2013	IP 60855	Operation Of An ISFSI	
			<b>7111108G - U2 INSERVICE INSPECTION</b>		<b>1</b>
2	04/01/2013	04/05/2013	IP 7111108G	Inservice Inspection Activities - BWR	
			<b>HP - RADIATION SAFETY INSPECTIONS</b>		<b>1</b>
1, 2	04/01/2013	04/05/2013	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
1, 2	04/01/2013	04/05/2013	IP 71124.02	Occupational ALARA Planning and Controls	

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Start	End				
<b>HP - RADIATION SAFETY INSPECTIONS</b>					<b>1</b>
1,2	04/01/2013	04/05/2013	IP 71124.03	In-Plant Airborne Radioactivity Control and Mitigation	
1,2	04/01/2013	04/05/2013	IP 71124.04	Occupational Dose Assessment	
1,2	04/01/2013	04/05/2013	IP 71124.05	Radiation Monitoring Instrumentation	
<b>TRI FI - TRIENNIAL FIRE PROTECTION INSPECTION</b>					<b>3</b>
1,2	05/06/2013	05/10/2013	IP 7111105T	Fire Protection [Triennial]	
1,2	05/20/2013	05/24/2013	IP 7111105T	Fire Protection [Triennial]	