



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

REGION III
2443 WARRENVILLE ROAD, SUITE 210
LISLE, IL 60532-4352

February 3, 2011

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

**SUBJECT: BYRON STATION UNITS 1 AND 2 - NOTIFICATION OF NRC INSPECTION
AND REQUEST FOR INFORMATION**

Dear Mr. Pacilio:

On April 25, 2011, the NRC will begin inspection of refueling and other outage activities (NRC Inspection Procedure 71111.20). This inspection will utilize NRC Operating Experience Smart Sample: (OpESS) FY2007-03, Revision 2, "Crane and Heavy Lift Inspection, Supplemental Guidance for IP 71111.20," issued September 12, 2008. This inspection will focus on the impact of load handling activities on the reactor core and its cooling and plant support systems. Specifically, this inspection will review the upgrade of the containment polar cranes to single-failure-proof equivalency using guidelines developed by the Nuclear Energy Institute (NEI) and contained in NEI 08-05, "Industry Initiative on Control of Heavy Loads," Revision 0, and NRC Regulatory Issue Summary 2008-28, "Endorsement of Nuclear Energy Institute Guidance for Reactor Vessel Head Heavy Load Lifts," dated December 1, 2008. The on-site inspection is scheduled to take place on April 25 through April 29, 2011, and May 23 through May 27, 2011.

Experience has shown that inspection of these activities is resource intensive both for the NRC inspector and licensee staff. In order to minimize the inspection impact to the site and to ensure a productive inspection for both parties, we have enclosed a request for information needed for the inspection. This information should be available in Region III by April 11, 2011, (preparation week). It is important that all of these documents are up to date and complete in order to minimize the number of additional documents requested during the preparation and/or the on-site portions of the inspection.

We have discussed the schedule for these inspection activities with your staff and understand that our regulatory contact for this inspection will be Ms. T. Hulbert, of your organization. If there are any questions about this inspection or the material requested, please contact the lead inspector Mr. J. Neurauter at (630) 829-9828.

This letter does not contain new or amended information collection requirements subject to the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.). Existing information collection requirements were approved by the Office of Management and Budget, control number 3150-0011.

The NRC may not conduct or sponsor, and a person is not required to respond to, a request for information or an information collection requirement unless the requesting document displays a currently valid Office of Management and Budget control number.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure 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), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

/RA/

David E. Hills, Chief
Engineering Branch 1
Division of Reactor Safety

Docket Nos. 50-454; 50-455
License Nos. NPF-37; NPF-66

Enclosure: REFUELING AND OTHER OUTAGE ACTIVITIES
INSPECTION DOCUMENT REQUEST

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REFUELING AND OTHER OUTAGE ACTIVITIES

INSPECTION DOCUMENT REQUEST

Inspection Report: 05000454/2011003; 05000455/2011003

Inspection Dates: April 25 – April 29, 2011, and May 23 – 27, 2011

Inspection Procedures: IP 71111.20, "Refueling and Other Outage Activities"

NRC Operating Experience Smart Sample: (OpESS) FY2007-03, Revision 2, "Crane and Heavy Lift Inspection, Supplemental Guidance for IP-71111.20," issued September 12, 2008 (available at NRC Web site at <http://www.nrc.gov/reactors/operating/ops-experience/opess/2007/index.html>)

Inspector: Jim Neurauter, Senior Reactor Engineer
(630) 829-9828
James.neurauter@nrc.gov

A. Information Requested for the In-Office Preparation Week

The following information (electronic copy CD ROM if possible) is requested to be available at the Region III office on April 11, 2011. If you have any questions regarding this information, please call the inspector as soon as possible.

A copy of the following documents related to heavy load control:

1. For heavy load lifts:
 - a. Design calculations and site procedures associated with control of heavy loads – "safe load paths";
 - b. Site procedures for removal and installation of the reactor pressure vessel head;
 - c. Implementation of industry standards related to training and qualification of crane operators;
 - d. Implementation of industry standards related to use of special lifting devices;
 - e. Implementation of industry standards related to use of slings;
 - f. Implementation of industry standards related to the inspection, testing, and maintenance of the polar crane;
 - g. Implementation of industry standards related to the design of the polar crane;

REFUELING AND OTHER OUTAGE ACTIVITIES

INSPECTION DOCUMENT REQUEST

- h. Polar crane vendor recommendations regarding preventative maintenance, and inspections and testing prior to use;
 - i. Site procedures associated with polar crane preventative maintenance, inspection, and testing prior to lifting the reactor pressure vessel head;
 - j. Documentation for polar crane preventative maintenance, inspection, and testing performed during last refueling outage prior to lifting the reactor pressure vessel head;
 - k. Documentation for visual inspections performed prior to use during last refueling outage on lifting device for the reactor pressure vessel head;
 - l. Site procedures associated with non-destructive examination (NDE) of the load bearing components for the reactor pressure vessel head lifting device; and
 - m. Documentation for the last non-destructive examination (NDE) performed for all load bearing components of the reactor pressure vessel head lifting device.
2. For reactor vessel head lifts, documentation that establishes use of an equivalent single-failure-proof crane system that bounds the planned lifts with respect to load weight.
- a. Completed Engineering Change (EC) for upgrade of polar crane heavy load handling structures, systems, and components to single-failure-proof equivalency;
 - b. Title 10 CFR 50.59 Evaluation for the upgrade of polar crane heavy load handling structures, systems, and components to single-failure-proof equivalency;
 - c. Matrix (if performed) that demonstrates the completed EC upgrade to single-failure-proof equivalency is in compliance with Nuclear Energy Institute (NEI) 08-05, "Industry Initiative on Control of Heavy Loads," Revision 0 (ADAMS Accession No. ML082180666) and the NRC Staff Safety Evaluation addressing NEI 08-05 (ADAMS Accession No. ML082410532);
 - d. Documents that establish the crane total lifted weight for movement of the reactor pressure vessel head;
 - e. Design calculations for the reactor pressure vessel head lifting device; and
 - f. Design calculations for interfacing lift points, i.e., reactor pressure vessel head lifting lugs.

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3. Documentation that demonstrates movement of heavy loads is treated as a configuration management activity in administrative controls established to implement paragraph (a)(4) of 10 CFR 50.65, "Requirements for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants."
4. UFSAR description of heavy load handling program (or UFSAR Change document).
5. A copy of the Byron UFSAR.

If you have questions regarding the information requested, please contact the lead inspector.

M. Pacilio

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