

October 16, 2000

Mr. Oliver D. Kingsley
President, Nuclear Generation Group
Commonwealth Edison Company
ATTN: Regulatory Services
Executive Towers West III
1400 Opus Place, Suite 500
Downers Grove, IL 60515

SUBJECT: BYRON - NRC INSPECTION REPORT 50-454/2000017(DRS)

Dear Mr. Kingsley:

On October 5, 2000, the NRC completed a routine inspection at your Byron Generating Station, Unit 1. The results were discussed on October 5, 2000, with Mr. Lopriore and other members of your staff. The enclosed report presents the results of that inspection.

This inspection was an examination of activities conducted under your license as they relate to the effectiveness of your program for monitoring degradation of vital system boundaries. Specifically, the inspector evaluated the implementation of your inservice inspection program for monitoring degradation of the reactor coolant system boundary, risk significant piping system boundaries, and the containment boundary. Within these areas, the inspection consisted of selected examination of procedures and representative records, and interviews with personnel.

Based on the results of this inspection, there were no findings identified.

In accordance with 10 CFR 2.790 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)*. ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/NRC/ADAMS/index.html> (the Public Electronic Reading Room).

Sincerely,

/RA/

John M. Jacobson, Chief
Mechanical Engineering Branch
Division of Reactor Safety

Docket No. 50-454
License No. NPF-37

Enclosure: Inspection Report 50-454/2000017(DRS)

See Attached Distribution

cc w/encl: D. Helwig, Senior Vice President, Nuclear Services
C. Crane, Senior Vice President, Nuclear Operations
H. Stanley, Vice President, Nuclear Operations
R. Krich, Vice President, Regulatory Services
DCD - Licensing
W. Levis, Site Vice President
R. Lopriore, Station Manager
P. Reister, Regulatory Assurance Manager
M. Aguilar, Assistant Attorney General
State Liaison Officer
State Liaison Officer, State of Wisconsin
Chairman, Illinois Commerce Commission

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DATE	10/11/00	10/16/00	10/16/00	

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State Liaison Officer, State of Wisconsin
Chairman, Illinois Commerce Commission

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U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket No: 50-454
License No: NPF-37

Report No: 50-454/2000017(DRS)

Licensee: Commonwealth Edison Company (ComEd)

Facility: Byron Generating Station, Unit 1

Location: 4450 North German Church Road
Byron, IL 61010

Dates: October 2 - 5, 2000

Inspector: Donald Jones, Reactor Inspector

Approved by: John M. Jacobson, Chief
Mechanical Engineering Branch
Division of Reactor Safety

NRC's REVISED REACTOR OVERSIGHT PROCESS

The federal Nuclear Regulatory Commission (NRC) recently revamped its inspection, assessment, and enforcement programs for commercial nuclear power plants. The new process takes into account improvements in the performance of the nuclear industry over the past 25 years and improved approaches of inspecting and assessing safety performance at NRC licensed plants.

The new process monitors licensee performance in three broad areas (called strategic performance areas) reactor safety (avoiding accidents and reducing the consequences of accidents if they occur), radiation safety (protecting plant employees and the public during routine operations), and safeguards (protecting the plant against sabotage or other security threats). The process focuses on licensee performance within each of seven cornerstones of safety in the three areas:

Reactor Safety	Radiation Safety	Safeguards
● Initiating Events ● Mitigating Systems ● Barrier Integrity ● Emergency Preparedness	● Occupational ● Public	● Physical Protection

To monitor these seven cornerstones of safety, the NRC uses two processes that generate information about the safety significance of plant operations: inspections and performance indicators. Inspection findings will be evaluated according to their potential significance for safety, using the Significance Determination Process, and assigned colors of GREEN, WHITE, YELLOW or RED. GREEN findings are indicative of issues that, while they may not be desirable, represent very low safety significance. WHITE findings indicate issues that are of low to moderate safety significance. YELLOW findings are issues that are of substantial safety significance. RED findings represent issues that are of high safety significance with a significant reduction in safety margin.

Performance indicator data will be compared to established criteria for measuring licensee performance in terms of potential safety. Based on prescribed thresholds, the indicators will be classified by color representing varying levels of performance and incremental degradation in safety: GREEN, WHITE, YELLOW, and RED. GREEN indicators represent performance at a level requiring no additional NRC oversight beyond the baseline inspections. WHITE corresponds to performance that may result in increased NRC oversight. YELLOW represents performance that minimally reduces safety margin and requires even more NRC oversight. And RED indicates performance that represents a significant reduction in safety margin but still provides adequate protection to public health and safety.

The assessment process integrates performance indicators and inspection so the agency can reach objective conclusions regarding overall plant performance. The agency will use an Action Matrix to determine in a systematic, predictable manner which regulatory actions should be taken based on a licensee's performance. The NRC's actions in response to the significance (as represented by the color) of issues will be the same for performance indicators as for inspection findings. As a licensee's safety performance degrades, the NRC will take more and increasingly significant action, which can include shutting down a plant, as described in the Action Matrix.

More information can be found at: <http://www.nrc.gov/NRR/OVERSIGHT/index.html>.

SUMMARY OF FINDINGS

IR 50-454/2000017(DRS); on 10/16-19/2000; Commonwealth Edison Company, Byron Generating Station, Unit 1; Inservice Inspection (ISI) report.

This report covers the initial annual baseline inspection of the effectiveness of the licensee's inservice inspection program for monitoring degradation of the reactor coolant system boundary, risk significant piping system boundaries, and the containment boundary. This inspection was conducted by a Region III reactor engineer. No findings were identified during this inspection.

Report Details

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems and Barrier Integrity

1R08 Inservice Inspection (Inspection Procedure 71111.08)

a. Inspection Scope

The inspector reviewed the implementation of the licensee's inservice inspection program for monitoring degradation of the reactor coolant system boundary, risk significant piping system boundaries, and the containment boundary. Specifically, the inspector observed in-process radiography and ultrasonic activities, and reviewed one modification package, including radiographs.

b. Findings

No findings were identified.

4. OTHER ACTIVITIES

4OA2 Identification and Resolution of Problems

a. Inspection Scope

The inspector reviewed eight condition reports related to inservice inspection issues to verify the identification of problems at an appropriate threshold. The inspector also verified that the corrective actions were appropriate.

b. Findings

No findings were identified.

4OA6 Management Meetings

Exit Meeting Summary

The inspector presented the inspection results to Mr. Lopriore, Station Manager, and other members of licensee management at the exit meeting held on October 5, 2000. The licensee acknowledged the results of the inspection. No proprietary information was identified.

PARTIAL LIST OF PERSONS CONTACTED

Licensee

R. Lopriore, Station Manager
D. Wozniak, Engineering Director
G. Contrady, Engineering Programs Supervisor
J. Smith, Engineering Programs Engineer
T. Green, Braidwood NDE Level III
P. Reister, Regulatory Assurance Manager
R. Colglazier, Regulatory Assurance Engineer
G. Stauffer, NRC Coordinator

NRC

E. Cobey, Senior Resident Inspector
B. Kemker, Resident Inspector

LIST OF NONDESTRUCTIVE EXAMINATION ACTIVITIES OBSERVED

Ultrasonic Examination (Procedure NDT-C-78/Rev. 0) of Weld FW-2 in component 1FW86AC-16"

Radiographic Examination (Procedure NDT-A/Rev. 21) of Weld FW-2 in component 1FW86AC-16"

PARTIAL LIST OF DOCUMENTS REVIEWED

The following is a list of licensee documents reviewed during the inspection, including documents prepared by others for the licensee. Inclusion on this list does not imply that NRC inspectors reviewed the documents in their entirety, but rather that selected sections or portions of the documents were evaluated as part of the overall inspection effort.

Reports

B1RO9 Inservice Inspection Summary Report, July 21, 1999
Quality Assurance Program Topical Report CE-1-A, Revision 67a, April 11, 2000

Procedures

Procedure No. NDT-A, "Radiographic Examination," Revision 21, August 1, 1999

Procedure No. NDT-A1, "Radiographic Acceptance Criteria for Welds, ASME Section III Class 1, Prior to Summer 1977 Addendum," Revision 12, August 1, 1999

Procedure No. NDT-C-78, "Manual Ultrasonic Examination of Ferritic Pipe Welds,"
Revision 0, May 2000

Procedure No. NDT-C-66, "Manual Ultrasonic Through Wall sizing in Pipe Welds,"
Revision 3, May 2000

Procedure No. 1-1-0, "Certification of Nondestructive Examination Personnel,"
Revision 37, May 16, 2000

Procedure No. 1-1-0 Addendum, "Certification of Ultrasonic Test Examiners in
Accordance with ASME Section XI, 1995 Edition, 1996 Addenda," Revision 4,
May 16, 2000

Modification Package

Work Request No. 990156863-01, Feedwater Check Valve Replacement

Radiographs

1FW86 AA-16, Welds 1, 2, and 3
1FW86 AB-16, Welds 1, 2, and 3
1FW86 AC-16, Welds 1, 2, and 3
1FW86 AD-16, Welds 1, 2, and 3

Condition Report Nos.

B2000-02495, B2000-02608, B2000-02731, B2000-02738, B2000-02862, B2000-02878,
B2000-02879, B2000-02937