

December 1, 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 50-454/00-18(DRS); 50-455/00-18(DRS)

Dear Mr. Kingsley:

On November 17, 2000, the NRC completed a routine inspection at your Byron Generating Station. The results were discussed on November 17, 2000, with Mr. Levis and members of your staff. The enclosed report presents the results of that inspection.

The inspection was an examination of activities conducted under your license as they relate to the Safeguards Strategic Performance Area and compliance with the Commission's rules and regulations and with the conditions of your license. Within this area, the inspection consisted of a selected examination of procedures and representative records, observation of activities, and interviews with personnel. Specifically, this inspection focused on performance involving implementation of four revisions to the security plan, access authorization, and behavioral observation and access control.

Based on the results of the inspection, no findings of significance were 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).

O. Kingsley

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We will gladly discuss any questions you have concerning this inspection.

Sincerely,

***/RA/***

James R. Creed  
Safeguards Program Manager  
Division of Reactor Safety

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

Enclosure: Inspection Report 50-454/00-018(DRS);  
50-455/00-018(DRS)

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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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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U.S. NUCLEAR REGULATORY COMMISSION

REGION III

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

Report No: 50-454/00-18(DRS); 50-455/00-18(DRS)

Licensee: Commonwealth Edison Company

Facility: Byron Generating Station, Units 1 and 2

Location: 4450 N. German Church Road  
Byron, IL 61010

Inspection Dates: November 13-17, 2000

Inspector: James Belanger, Senior Physical Security Inspector

Approved by: James R. Creed, Safeguards Program Manager  
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

- Initiating Events
- Mitigating Systems
- Barrier Integrity
- Emergency Preparedness

## Radiation Safety

- Occupational
- Public

## Safeguards

- 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 0500454-00-18(DRS); 0500455-00-18(DRS); on 11/13-17/2000, Commonwealth Edison, Byron Generating Station, Units 1 and 2, Routine Physical Protection Baseline Inspection.

This report covers the initial annual baseline inspection of the licensee's access authorization (behavioral observation) and access control programs. This inspection was conducted by a Region III physical security inspector. No findings of significance were identified.

## Report Details

### **3. SAFEGUARDS**

Cornerstone: Physical Protection

#### 3PP1 Access Authorization (AA) (Behavior Observation)

##### a. Inspection Scope

The inspector interviewed five supervisors and five non-supervisors (both licensee and contractor employees) to determine their knowledge of fitness-for-duty and behavior observation responsibilities. Procedures pertaining to the Behavior Observation Program and fitness-for-duty semi-annual test result reports were also reviewed.

The inspector reviewed a sample of the licensee's records to verify the implementation of the licensee's identification and resolution of problems program. Specifically, three security department quarterly self-assessments, four monthly self-assessments, and three calendar quarters of logged security events were reviewed.

Additionally, the inspector interviewed security managers to evaluate their knowledge and use of the licensee's corrective action system.

##### b. Findings

No findings of significance were identified.

#### 3PP2 Access Control (Identification, Authorization and Search of Personnel, Packages, and Vehicles)

##### a. Inspection Scope

The inspector reviewed the licensee's protected area access control testing and maintenance procedures. The inspector observed licensee testing of all access control equipment to determine if testing and maintenance practices were performance based. On three occasions during peak ingress periods, the inspector observed in-processing search of personnel, packages, and vehicles to determine that search practices were conducted in accordance with regulatory requirements. Interviews were conducted and records were reviewed to verify that staffing levels were consistently implemented. Also the inspector reviewed the licensee's process for limiting access to only authorized personnel to the protected area or vital equipment by a sample review of quarterly access authorization reviews performed by managers. The inspector reviewed the licensee's program to control hard-keys and computer input of security-related personnel data.

The inspector reviewed a sample of licensee self-assessments, audits, and security logged events (see attached list of documents reviewed). In addition, the inspector interviewed security managers to evaluate their knowledge and use of the licensee's corrective action system.

b. Findings

No findings of significance were identified.

3PP4 Security Plan Changes (IP 71130.04)

a. Inspection Scope

The inspector reviewed Revisions 54, 55, 56 and 57 of the Byron Station Security Plan which were submitted by licensee letters dated June 30, 2000, July 31, 2000, October 31, 2000 and October 31, 2000 respectively, to verify that the changes did not decrease the effectiveness of the security plan. The security plan revisions were submitted in accordance with 10 CFR 50.54(p)

b. Findings

No findings of significance were identified.

(Note: Revision 54 contained a clarification to the definition of bullet resistant that included a height limitation. The change was made by the licensee to all of their nuclear stations' security plans. During NRC's review of the Quad Cities Security Plan Revision 47, (NRC Inspection Report 50-254/00-014(DRP); 50-265/00-014(DRP)), the NRC identified that this new limitation was not included in NRC guidance documents. This issue was discussed with the licensee on September 27, 2000 and the licensee agreed to resubmit a plan change that will eliminate the bullet-resisting height limitation for all of their security plans. This issue is being tracked as an unresolved item until the removal of the height limitation from the security plans under the Quad Cities docket numbers 50-254/00-14-03; 50-265/00-14-03.

**4. OTHER ACTIVITIES**

4OA6 Management Meetings

Exit Meeting Summary

The inspector presented the inspection results to Mr. Lopriore, Station Manager and Mr. W. Levis, Site Vice President, and other members of licensee management at the exit meeting held on November 17, 2000. The licensee acknowledged the results of the inspection. No proprietary or safeguards information was identified.



PARTIAL LIST OF PERSONS CONTACTED

R. Lopriore, Station Manager  
W. Levis, Site Vice President  
D. Anderson, Training Coordinator, The Wackenhut Corporation (TWC)  
G. Bowers, Assistant Security Manager  
R. Cassidy, Assistant Security Manager  
M. Cavanaugh, Shift Leader, TWC  
D. Combs, Security Manager,  
D. Harden, Training Supervisor, TWC  
H. Horton, Access Control Supervisor (TWC)  
R. Lane, Security Director  
M. Mareth, Security Force Manager, TWC  
D. Minor, Operations Coordinator, TWC  
D. Pallansch, Manager, Training and Compliance, The Wackenhut Corporation

ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

None

Closed

None

Discussed

None

## LIST OF ACRONYMS USED

CFR	Code of Federal Regulation
DRP	Division of Reactor Projects
DRS	Division of Reactor Safety
TWC	The Wackenhut Corporation

## PARTIAL LIST OF DOCUMENTS REVIEWED

Semi Annual FFD Reports for Periods ending December 31, 1999, June 30, 2000  
NGG Training Module FFD(General Employee Training) Revision 5 dated August 2000  
ComEd Procedure: "Control of Security Keys and Cores," SY-AA-101-120, Revision 0  
ComEd Nuclear General Employee Training Study Guide, Revision 23, June 2000  
NGG Security Training Program, Appendix B Drill Program, Training Module APPC dated  
June 30, 1999  
Byron Station Quarterly Self-Assessments (March, June, September 2000)  
Byron Station Monthly Self-Assessments April, May, July, August, October 2000)  
Records of Appendix B Drills: Fourth Quarter 1999, First, Second, and Third Quarters of 2000  
Safeguards Log: Fourth Quarter 1999, First, Second and Third Quarters of 2000  
Procedure SY-AA-103-512, Revision 1, Behavior Observation Program  
Procedure SY-AA-103-511, Revision 3, Request for Unescorted Access  
Quarterly Unescorted Excess List and Authorization Matrix Review, September 2000