

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Report Nos. 50-454/92015(DRP); 50-455/92015(DRP)

Docket Nos. 50-454; 50-455

License Nos. NPF-37; NPF-66

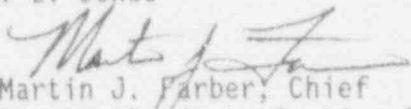
Licensee: Commonwealth Edison Company
Opus West III
1400 Opus Place
Downers Grove, IL 60515

Facility Name: Byron Station, Units 1 and 2

Inspection At: Byron Site, Byron, Illinois

Inspection Conducted: August 4, 1992 through September 15, 1992

Inspectors: W. J. Kropp
C. H. Brown
D. E. Jones

Approved By: 
Martin J. Farber, Chief
Reactor Projects Section 1A

10/2/92
Date

Inspection Summary

Inspection from August 4, 1992 through September 15 1992 (Report Nos. 50-454/92015(DRP); 50-455/92015(DRP)).

Areas Inspected: Routine, unannounced safety inspection by the resident inspectors of action on previous inspection findings, operational safety verification, current material condition, housekeeping and plant cleanliness, radiological controls, security, safety assessment/quality verification, maintenance activities, surveillance activities, engineering and technical support, emergency preparedness and report review.

Results: Of the twelve areas inspected, one non-cited violation was identified for failure to enter a LCO (paragraph 3a). Also, two unresolved items and one inspection followup item were identified. The unresolved items pertained to the failure to identify an event as reportable (paragraph 3a) and the other for apparent falsification of records during non-licensed operator rounds (paragraph 9). The inspection followup item pertained to the installation of Agastat relays (paragraph 6). The following is a summary of the licensee's performance during this inspection period:

Plant Operations

The licensee's performance continues to be good with involvement by the operating engineers contributing to the good communications between station departments. There was one instance during this inspection period where the licensed operators failed to enter a Technical Specification LCO. The failure to enter a LCO also occurred in April, 1992. A review by the inspectors of

the causes for these two events could not identify any similarity. Therefore, a non-cited violation was issued. Also, during control board walkdowns, the inspectors noted there was a problem with the ID reactor containment fan cooler dew point outlet temperature indicator which was not identified in a timely manner by the licensee. The licensee's response to the failure to test residual heat and component cooling pump discharge check valves was well managed, responsive and coordinated which resulted in expeditious testing of the check valves.

Safety Assessment/Quality Verification

The LERs reviewed during this inspection period appeared to have the appropriate corrective actions to preclude similar events. Based on the review of the LERs, the licensee's performance was considered good. The Human Performance Enhancement System (HPES) investigation performed for the event pertaining to the failure to test discharge check valves in accordance with Generic Letter 89-04 was considered thorough. The HPES investigation identified additional enhancements in the operation of the station's technical staff.

Maintenance and Surveillance

The licensee's performance in maintenance and surveillance during this inspection period was considered good. There was one LER issued (454/92006) that documented the failure to test residual heat and component cooling pump discharge valves in accordance with Generic Letter 89-04.

Engineering and Technical Support

The inspectors reviewed one Onsite Review (OSR) that pertained to a problem with Agastat relays installed in the emergency diesel generator control panels. The OSR was thorough and adequately addressed the technical issue. As demonstrated by the resolution of this relay problem, there continues to be good interface and support from corporate engineering on operability concerns. The licensee has continued to show improvement in this area.

DETAILS

1. Persons Contacted

Commonwealth Edison Company (CECo)

- *R. Pleniewicz, Station Manager
- *K. Schwarz, Production Superintendent
- *M. Burgess, Technical Superintendent
- *T. Gierich, Planning
- *D. Brindle, Regulatory Assurance Supervisor
- *E. Zittle, NRC Coordinator
- *D. St. Clair, ENC Project Manager
- *T. Tulon, Assistant Superintendent, Maintenance
- *P. Johnson, Technical Staff Supervisor
- *W. Dran, Senior Engineer
- *W. Vijnstelbergen, Site Engineering Supervisor
- *K. Grundman, SQV Superintendent

*Denotes those attending the exit interview conducted on September 15, 1992.

The inspectors also had discussions with other licensee employees, including members of the technical and engineering staffs, reactor and auxiliary operators, shift engineers and foremen, and electrical, mechanical and instrument maintenance personnel, and contract security personnel.

2. Action on Previous Inspection Findings (92701 & 92702)

- a. (Closed) Open Item 454/92012-02(DRP); 455/92012-02(DRP): The coordination in the performance of surveillances OBVS 3.3.1-4 and OBOS 7.6.b-1(2) would decrease the number of starts on the control room ventilation (CRV) systems. The licensee has revised surveillance procedures OBOS 7.6.b-1 and OBOS 7.6.b-2 to add a prerequisite to notify the Technical Staff that Operations has started the CRV system. This would allow the Technical Staff to perform surveillances OBVS 3.3.1-4 without unnecessarily starting the makeup fan. The inspectors have no further concerns in this area.
- b. (Closed) Unresolved Item 454/91003-02(DRS); 455/91003-02(DRS): VOTES MOV diagnostic equipment overall end-to-end system error analysis. The documents provided by the licensee were reviewed and found to provide the necessary system error information for inclusion in the torque switch setting calculations. The licensee will also be responsible for incorporating any subsequent vendor information into the calculations. This item is closed.
- c. (Closed) Open Item 454/91019-01: Failure to adequately direct available personnel and ensure procurement of supplies to expedite the response of the ambulance crew. A medical drill held on

August 20, 1992 demonstrated good on-scene command and control which expedited the response of the ambulance crew.

3. Plant Operations

Unit 1 operated at power levels up to 100% in the load following mode since January 30, 1992.

Unit 2 operated at power levels up to 100% in the load following mode since July 25, 1992.

a. Operational Safety Verification (71707)

The inspectors verified that the facility was being operated in conformance with the licenses and regulatory requirements, and that the licensee's management control system was effectively carrying out its responsibilities for safe operation.

On a sampling basis the inspectors verified proper control room staffing and coordination of plant activities; verified operator adherence with procedures and technical specifications; monitored control room indications for abnormalities; verified that electrical power was available; and observed the frequency of plant and control room visits by station management.

During a Unit 1 main control board walkdown by the inspectors, the 1D reactor containment fan cooler (RCFC) dew point outlet temperature was indicating slightly higher than the dew point inlet temperature with the 1D RCFC fan secured. The inspector compared the dew point inlet and outlet temperature indicators for the 2D RCFC, which was also secured. The dew point temperatures were indicating the same temperature. The inspector informed the Nuclear Station Operator (NSO) about the potential problem with the 1D RCFC dew point outlet temperature indicator. During a subsequent Unit 1 main control board walkdown by the inspector several days later, the 1D RCFC outlet dew point temperature indicator was indicating significantly higher than previously noted. The inspector informed the Shift Control Room Engineer of the problem with the 1D RCFC dew point outlet temperature indicator and a nuclear maintenance work request (NWR) was initiated. The inspectors were concerned that the problem with the 1D RCFC dew point outlet temperature indicator on the Unit 2 main control board was not identified on a NWR in a timely manner. The malfunctioning of the 1D RCFC dew point outlet temperature did not affect operability of the 1D RCFC.

On August 14, 1992, the licensee identified that a Technical Specification (TS) Limiting Condition of Operation (LCO) was not entered for Unit 2 when maintenance to repair a packing leak was performed on non-return check valve, ES002. A valve stroke test (2BOS 3.4.2.c-1) was immediately performed to verify post maintenance operability of 2ES002. The surveillance was

successfully completed and ES002 was declared operable. Review of NWR B93935 determined that the work consisted of tightening the packing on valve ES002 to stop leakage. The work was signed off as completed by the maintenance worker on August 13, 1992. However, the post maintenance verification was signed as completed August 12, 1992 on form BMP 3100-12T, "Adjusting and Repacking Valves with Graphite Type Packing Checkoff List." There appears to be an inconsistency in the completion date of the work based on the NWR records. Based on these records, the licensee should have identified on the Problem Identification Form (PIF) that the failure to enter LCO 3.3.4.a was a reportable event in accordance with 10CFR50.73(a)(2)(i)(B) which requires an LER if there is any operation or condition prohibited by the plant's TS. However, the PIF did not identify this event as reportable. The failure to identify this event as reportable is considered an Unresolved Item pending further review by the licensee and the NRC (455/92015-01(DRP)). Also, there was another event on April 2, 1992 when a TS LCO was not entered during a surveillance activity. This event was reported in LER 454/92-002. The inspectors are concerned with the failure of the station to enter the appropriate TS LCO during two different work activities on equipment within a four month time span. A review of the causes in LER 454/92-002, by the inspectors, with the recent valve ES002 event did not identify any apparent correlation between the two events. The inspectors consider the failure to enter an LCO for the work activities associated with valve ES002 on August 13, 1992 as a violation of TS, however, because the criteria in the NRC Enforcement Policy in Section V.G for licensee identified violations were met, a Notice of Violation was not issued.

b. Onsite Event Follow-up (93702)

On July 28, 1992, the Byron Technical Staff personnel discovered that several pump discharge check valves in the component cooling and residual heat removal systems were not being tested as required by the licensee's response to Generic Letter 89-04. As a result, both Units entered TS LCO 3.0.3. For further details see paragraph 4 of this report which discusses LER 454/92006.

c. Current Material Condition (71707)

The inspectors performed general plant as well as selected system and component walkdowns to assess the general and specific material condition of the plant, to verify that NWRs had been initiated for identified equipment problems, and to evaluate housekeeping. Walkdowns included an assessment of the buildings, components, and systems for proper identification and tagging, accessibility, fire and security door integrity, scaffolding, radiological controls, and any unusual conditions. Unusual conditions included but were not limited to water, oil, or other liquids on the floor or equipment; indications of leakage through ceiling, walls or floors; loose insulation; corrosion; excessive

noise; unusual temperatures; and abnormal ventilation and lighting. The material condition continues to be very good for both units.

d. Housekeeping and Plant Cleanliness

The inspectors monitored the status of housekeeping and plant cleanliness for fire protection and protection of safety-related equipment from intrusion of foreign matter. The housekeeping and plant cleanliness continues to be very good.

e. Radiological Controls (71707)

The inspectors verified that personnel were following health physics procedures for dosimetry, protective clothing, frisking, posting, etc. and randomly examined radiation protection instrumentation for use, operability, and calibration.

f. Security

Each week during routine activities or tours, the inspectors monitored the licensee's security program to ensure that observed actions were being implemented according to the approved security plan. The inspectors noted that persons within the protected area displayed proper photo-identification badges and those individuals requiring escorts were properly escorted. The inspectors also verified that checked vital areas were locked and alarmed. Additionally, the inspectors also observed that personnel and packages entering the protected area were searched by appropriate equipment or by hand.

One non-cited violation was identified.

4. Safety Assessment/Quality Verification (40500, 90712, 92700)

Through direct observations, discussions with licensee personnel, and review of records, the following licensee event reports were reviewed to determine that reportability requirements were fulfilled, that immediate corrective action was accomplished, and that corrective action to prevent recurrence had been or would be accomplished in accordance with Technical Specifications (TS):

(Closed)454/92005-LL: Results of final degraded voltage setpoint study for the safety related buses determined some equipment required to mitigate an accident may not have been able to operate during a degraded voltage event. An interim setpoint for the degraded setpoint was established at 3935 Vac, plus or minus 5 Vac. This interim setpoint, established in May 1992 will remain in effect with contingency actions until modifications to transformer taps and the installation of smaller tolerance degraded voltage relays are completed during refueling outages in February 1993 (Unit 1) and September 1993 (Unit 2).

(Closed) 454/92006-LL: Several pump discharge check valves in the component cooling (CC) and residual heat removal (RHR) systems were not tested as required by the response to Generic Letter 89-04. As a result, the station entered Technical Specification (TS) Limiting Condition for Operation 3.0.3 for CC and RHR for both units. The licensee immediately initiated testing of the check valves as required by the Inservice Testing (IST) program. The tests were successful and TS LCO 3.0.3 was exited for both units without the need for a Temporary Waiver of Compliance. The licensee's response to this event was well managed and coordination between the station and corporate departments, including licensing, was very good. The inspectors have reviewed the proposed corrective actions with no problems noted. The inspectors also reviewed the licensee's Human Performance Enhancement System (HPES) investigation, 92-09. The inspectors considered HPES 92-09 thorough and identified additional enhancements in the operation of the station's technical staff.

(Closed) 455/92003-1L: Supplemental report to manual reactor trip on June 10, 1992, when feedwater regulating valve, 2FW530, failed closed. The supplemental report added corrective actions pertaining to performing work outside the work instructions. Examples of the effects of performing work outside the work instructions will be reviewed with all maintenance departments. Also, adherence to current work instructions will be reviewed with the maintenance supervisors who will also be informed of the need to enforce these adherence policies. The inspectors have no concerns with this additional corrective action.

In addition to the foregoing, the inspector reviewed the licensee's Problem Identification Forms (PIF) generated during the inspection period. This was done in an effort to monitor the conditions related to plant or personnel performance, potential trends, etc. The PIFs were also reviewed to ensure that they were generated appropriately and dispositioned in a manner consistent with the applicable procedures.

No violations or deviations were identified.

5. Maintenance/Surveillance (62703 & 61726)

a. Maintenance Activities (62703)

Routinely, station maintenance activities were observed and/or reviewed to ascertain that they were conducted in accordance with approved procedures, regulatory guides and industry codes or standards, and in conformance with technical specifications.

The following items were also considered during this review: approvals were obtained prior to initiating the work; functional testing and/or calibrations were performed prior to returning components or systems to service; quality control records were maintained; and activities were accomplished by qualified personnel.

Portions of the following maintenance activities were observed and reviewed:

| | |
|--------|-------------------------------------|
| B49106 | Repair Right Angle Gear Drive |
| B85033 | Replace Drive on SX Make-up Pump |
| B94686 | Repair Weld on Pressure Gauge. |
| B93935 | Packing Leak on ES002 |
| B96321 | Temporary Alteration-1C Hot Leg RTD |

b. Surveillance Activities (61726)

During the inspection period, the inspectors observed technical specification required surveillance testing and verified that testing was performed in accordance with adequate procedures, that test instrumentation was calibrated, that results conformed with technical specifications and procedure requirements and were reviewed, and that any deficiencies identified during the testing were properly resolved.

The inspectors also witnessed portions of the following surveillances:

- 1BVS 0.5-3.AF.1-2, "Unit 1 ASME Surveillance Requirements For The Diesel Driven Auxiliary Feedwater Pump and B Train Auxiliary Feedwater Valves".
- 2BOS 3.1.1-20, "Train A Solid State Protection System"

No violations or deviations were identified.

6. Engineering & Technical Support (37700)

The inspectors reviewed Onsite Review (OSR) 92-102 that pertained to an operability assessment of the Unit 1 and Unit 2 emergency diesel generators (EDG). Personnel at the licensee's Braidwood facility identified installed Agastat relays in the EDG control panels had different relay part numbers than those identified on design drawings. Since Byron had the same EDG controls, an inspection of the Byron EDG panels by licensee personal was performed. Discrepancies were identified between the installed relays' part numbers and those specified on the design drawings. The discrepancies pertained to the utilization of standard duty relays (part number EGPDR-C2008-003) in applications where the design drawings were specifying a heavy duty relay (part number EGPDR-C2008-003). A corporate engineering evaluation of the discrepancies identified only one relay, 52T1, in the 2A EDG control panel that required replacement. The relay did not affect operability of the 2A EDG. The relay installed was a standard duty type. However, the application resulted in a resistive current rating of approximately 4-5 amps. The licensee installed a heavy duty relay on September 2, 1992. The remaining discrepancies were in the conservative direction or were used in non-safety related applications. The inspectors have no further concerns with the relays installed in the EDG control circuits.

However, there is a concern that other control circuits in the plant could have the wrong type of Agastat relay installed since the difference in the part number between a standard duty relay and a heavy duty relay is one letter (EGPDR-C008-003 vs. EGPDNR-C2008-003). This matter is considered an Inspector Followup Item pending further review by the licensee and NRC (454/92015-02(DRP); 455/92015-02(DRP)).

No violations or deviations were identified.

7. Emergency Preparedness (82701)

A medical drill was conducted on August 20, 1992. The scenario involved a laborer falling off a radwaste barrel in a contamination control area; injuring his right ankle and receiving a cut on his forehead. The initial response and on-scene command and control were very good; expediting the ambulance crew response. Contamination control on the scene was adequate with a few minor lapses. However, the radiation protection technicians recovered from the minor lapses and would have prevented any spread of contamination.

8. Report Review

The inspector reviewed the licensee's Monthly Plant Status Report for July 1992, and identified no adverse trends.

No violations or deviations were identified.

9. Temporary Instruction (TI) 2515/115 "Verification of Plant Rounds"

(Closed) TI 2515/115: Prior to the inspectors performing TI 2515/115, the licensee performed a similar evaluation paralleling the scope and time frame established in the TI. The licensee's review identified two instances where two non-licensed operators may have falsified rounds documentation. The two instances were non-verifiable tours through the Technical Support Center and a steam tunnel. These tours were not required by the Technical Specifications. Disciplinary actions resulted from these findings. In addition, there were several occurrences of "fast" tours which resulted in discussions with the personnel involved. The regulatory aspect of the apparent falsification of rounds is an Unresolved Item pending further NRC review (454/92015-03(DRP); 455/92015-03(DRP)).

10. Open Items

Open items are matters which have been discussed with the licensee, which will be reviewed by the inspector and which involve some action on the part of the NRC or licensee or both. An Open Item disclosed during the inspection is discussed in Paragraph 6.

11. Unresolved Items

Unresolved items are matters about which more information is required in order to ascertain whether they are acceptable items, violations, or deviations. Unresolved items disclosed during the inspection are discussed in paragraphs 3.a and 9.

12. Meetings and Other Activities

a. Management Meetings (3C702)

On August 11-13, 1992, Mr. M. J. Farber, Section Chief 1A, toured the Byron plant and met with licensee management to discuss plant performance and plant material condition.

b. Exit Interview (30703)

The inspectors met with the licensee representatives denoted in paragraph 1 during the inspection period and at the conclusion of the inspection on September 15, 1992. The inspectors summarized the scope and results of the inspection and discussed the likely content of this inspection report. The licensee acknowledged the information and did not indicate that any of the information disclosed during the inspection could be considered proprietary in nature.