



Commonwealth Edison  
1400 Opus Place  
Downers Grove, Illinois 60115

January 9, 1992

U.S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
Washington, DC 20555

Subject: Byron Nuclear Power Station Units 1 and 2  
Response to Notice of Violation  
Inspection Report Nos. 50-454/91026; 50-455/91026  
NRC Docket Numbers 50-454 and 50-455

Reference: B. Clayton letter to Cordell Reed dated  
December 12, 1991 transmitting NRC Inspection Report  
50-454/91026; 50-455/91026

Attachment A provides Commonwealth Edison Company's (CECo) response to the Notice of Violation (NOV) which was transmitted with the reference letter and Inspection Report. The NOV cited one Severity Level IV violation. The violation concerned the failure to document valve performance data of the 25X173 and 25X169B valve on the Technical Specification Data Package Cover Sheet.

Additional information that you requested in the reference letter is provided in Attachment A.

If your staff has any questions or comments concerning this letter, please refer them to Denise Saccomundo, Compliance Engineer at (708) 515-7285.

Very truly yours,

T.J. Kovach  
Nuclear Licensing Manager

#### Attachments

cc: A. Bert Davis, NRC Regional Administrator - RIII  
A. Hsia, Project Manager - WRR  
W. Kropp, Senior Resident Inspector

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## Attachment A

### RESPONSE TO NOTICE OF VIOLATION 454/91026; 455/91026

Technical Specification 6.8.1 requires that written procedures shall be established, implemented, and maintained covering the activities referenced in Appendix A of Regulatory Guide 1.33, Revision 2, February 1978.

Contrary to the above, failure of valve 1SX173 on April 17, 1989, and September 26, 1990, and a failure of valve 2SX169B on April 18, 1991, during Technical Specification surveillances were not documented on the Technical Specification Surveillance Data Package Cover Sheet as required by procedure BAP 1400-9, "Technical Specification Data Package Cover Sheet Completion and Use", Revision 10, paragraph 4.b.2. Valve 1SX173 is the essential service water inlet valve to various coolers for the Unit 1 diesel driven auxiliary feedwater pump, and valve 2SX169B is the essential service water inlet valve for the 2B emergency diesel generator jacket water heat exchanger.

#### RESPONSE

##### Reason for the Violation

There is a lack of understanding by Technical Staff personnel on the detail of information to be placed on the Surveillance Data Package Cover Sheet.

##### CORRECTIVE STEPS TAKEN AND RESULTS ACHIEVED

A task force was formed to review the SX173 problem. An action plan was developed. Those actions were detailed in a letter to the NRC on 12/6/91 in response to the Notice of Violation 454/91024; 455/91024 (provided in Attachment C). Valve 2SX169B was repaired by replacing the solenoid within 24 hours of the time the problem was discovered.

On 1/7/92 a memo containing interim instructions has been issued by the Assistant Superintendent of Operating to Department Heads with directions to ensure their personnel understand the intent of documenting actions taken for a degraded or failed component.

##### CORRECTIVE STEPS THAT WILL BE TAKEN TO AVOID FURTHER VIOLATION

The Byron Administrative Procedures (1400 Series) are being reviewed to determine the clarifications needed to provide appropriate direction on the disposition and documentation of degraded or failed support equipment discovered during the performance of Technical Specification surveillances. These procedures are expected to be revised by 2-1-92.

##### DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED

Full compliance was achieved on 1/7/92 with the issuance of the memo which provided interim instructions on documenting action taken for a degraded or failed component.

## Attachment B

The following information was requested in the Reference letter.

"If failures of the SX supply valve to the EDG 1(2)SX169A(B), occur when these valves are stroked immediately prior to the performance of EDG TS surveillances, would the failures be considered as a EDG failure per TS table 4.8.1.?"

### RESPONSE

The stroking of the Essential Service Water (SX) supply valves is done to ensure service water is available for cooling of the Emergency Diesel Generators (EDG). Revision 3 of the Byron/Braidwood UFSAR, Section 8.3.1.2, states "Lack of essential service water flow at the time the diesel generator starts will not prevent accomplishment of its safety function." In the event the valve should fail to open the function would be assessed.

If the valve is not able to be opened, the surveillance would be failed and the EDG declared inoperable. If the valve can be failed open then the surveillance would be continued and passed providing that acceptance criteria are met. A work request would be written to repair the degraded SX supply valve.

As directed by BEP.O "Reactor Trip or Safety Injection", step 15, an operator is also dispatched when starting the EDG to verify the EDG operability and that the SX169 valve has opened. A low cooling flow local alarm would actuate if the valve had not opened and appropriate action would be taken by the operator. This is an "immediate action" which is expected to be completed within ten minutes. The B/B UFSAR states, "An engine has been tested under load with the closed cycle cooling system functioning but without service water. The engine was started from a "Keep Warm" condition and operated for 20 minutes at an average load of 4000 kW without reaching the temperature alarm setpoints."

"The method(s) to be utilized to assess failures identified during surveillance that do not pertain to the Acceptance Criteria identified in the surveillance procedure but clearly affect operability of a system."

### RESPONSE

A review of the surveillance results by an SRO will continue to be the method used to assess failures. The SRO's are instructed to contact the Operating Engineer if there is any concern regarding plant status. The information provided to the SRO must be complete and all failures need to be noted on the Surveillance package cover sheet. Methods to improve this documentation are being reviewed. As an interim measure, a memo has been issued to all Department Heads instructing them to ensure their personnel understand the intent of documenting actions taken for a degraded or failed component.



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ATTACHMENT C

December 6, 1991

U.S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
Washington, DC 20555

Subject: Byron Nuclear Power Station Units 1 and 2  
Response to Notice of Violation  
Inspection Report Nos. 50-454/91024; 50-455/91024  
NRC Docket Numbers 50-454 and 50-455

Reference: E. Greenman letter to Cordell Reed dated November 6, 1991  
transmitting NRC Inspection Report  
50-454/91024; 50-455/91024

Enclosed is Commonwealth Edison Company's (CECo) response to the Notice of Violation (NOV) which was transmitted with the reference letter and Inspection Report. The NOV cited one Severity Level IV violation. The violation concerned the untimely resolution of failures associated with the essential service water supply valve. CECo's response is provided in the attachment.

If your staff has any questions or comments concerning this letter, please refer them to Denise Saccomando, Compliance Engineer at (708) 515-7285.

Very truly yours,

T.J. Kovach  
Nuclear Licensing Manager

Attachment

cc: A. Bert Davis, NRC Regional Administrator - RIII  
A. Hsia, Project Manager - NRR  
W. Kropp, Senior Resident Inspector

## RESPONSE TO NOTICE OF VIOLATION 454/91024; 455/91024

### VIOLATION

10 CFR Part 50, Appendix B, Criterion XVI requires that measures shall be established to assure conditions adverse to quality, such as failures and defective equipment are promptly corrected and that these measures shall assure that the cause of the condition is determined and corrective action taken to preclude repetition.

Contrary to the above, repetitive failures of the essential service water supply valve (1SX173) to open were not promptly corrected. Valve 1SX173 supplies essential service water to the oil cooler, cubicle cooler, right angle lube oil cooler and the engine closed cycle heat exchanger for the 1P diesel driven auxiliary feedwater pump. The failure of valve 1SX173 to either open or close has occurred four times since October 1990. Three previous problems with 1SX173 between December 1985 and October 1990 were identified as slow operation.

### RESPONSE

Since 1985 occasional performance anomalies with 1SX173 valve have occurred while performing surveillance BVS 7.1.2.1.a-2, "Diesel Driven Auxiliary Feedwater Pump Monthly Surveillance". The valve operation was not included as part of the acceptance criteria for the surveillance. Therefore performance problems with the 1SX173 valve were not consistently noted by a Deviation Report (DVR) or Discrepancy Report (DR).

In March of 1991 a Problem Analysis Data Sheet (PADS) 91-010 was generated to evaluate and correct the noted concerns with 1SX173 valve operation. A delay in processing resulted in untimely recommendation of corrective actions. This untimely response is not consistent with the Station's normal processing timeframe for PADS as outlined in Maintenance Memo 400-11, "Problem Analysis Processing Guidelines".

### CORRECTIVE STEPS TAKEN AND RESULTS ACHIEVED

On 10/25/91, procedures BOP AF-7, "Auxiliary Feedwater Pump B (Diesel) Start up on Recirc", and 1/2 BVS 7.1.2.1.a-2, "Diesel Driven Auxiliary Feedwater Monthly Pump Surveillance", were revised to include a requirement that the 1SX173 is stroked prior to performing the surveillance. This 1SX173 stroking is to ensure protection to the AF pump is maintained. The valve operation has also been added to the acceptance criteria for the surveillance. This will ensure that the as found condition of this valve is noted and that normal plant trending/tracking of its performance will take place.

The station will continue to evaluate the valve's performance, the application, and air configuration. This evaluation will be completed during the Byron U-2 refuel outage (B2R03). B2F J3 is scheduled for completion in May 1992.

In addition, Byron station and corporate engineering will evaluate the uses of predictive and preventative maintenance for these types of valves. The evaluation and associated recommendations will be completed by 12/31/91.



## CORRECTIVE STEPS THAT WILL BE TAKEN TO AVOID FURTHER VIOLATION

To improve trending of identified performance problems, an enhancement will be made to the cross-referencing of the Total Job Management (TJM) and the Nuclear Plant Reliability Data System (NPRDS) databases. Maintenance Memo 500-10 "Byron Equipment Name Plate Data Verification" will be initiated to continually collect and verify new and existing equipment nameplate data as part of normal maintenance. This enhancement is expected to be completed by 6/1/92.

Byron Station is in the process of reviewing the DVR threshold and other documentation initiation to facilitate the trending of equipment problems. This review is expected to be completed by 6/30/92.

It should be noted that the primary mechanism for resolution of safety-related failures at Byron continues to be the DVR program. Per BAP 1600-8 "Maintenance Problem Analysis Program" section D.6 "PADS are not intended to replace upper tier documents such as DR's, LER's, or DVR's. PADS may be closed out or completed by the upper tier document." At Byron, PADS will continue to be used at the discretion of the station to supplement safety-related problem analysis. The PADS cited in the notice of violation was generated pro-actively by the Assistance Superintendent of Maintenance to further investigate stroking problems identified by previous DVR's.

The following long term corrective actions are being implemented:

1. Revised PADS processing guidelines:
  - a. Maintenance Memo 400-11 "Problem Analysis Processing Guidelines" will be revised to incorporate a due date extension approval process that takes into account the safety significance of the equipment and the problem identified. At a minimum (for safety-related problems), the extension process will require the approval of an Operating Engineer or a Licensed Senior Reactor Operator Designee.
2. Review current PADS backlog to assure timely resolutions of important problems:
  - a. All outstanding Problem Analysis Data Sheets (PADS) will be reviewed and those actions not meeting the new guidance in Maintenance Memo 400-11 will be completed or extended as appropriate.

## DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED

Full compliance was achieved on 10/25/91 with the issuance of revised surveillance procedures.