



Commonwealth Edison  
1400 Opus Place  
Downers Grove, Illinois 60515

February 7, 1992

Mr. J. Lieberman, Director  
Office of Enforcement  
U.S. Nuclear Regulatory Commission  
Washington, D. C. 20555

Attn: Document Control Desk

Subject: Dresden Nuclear Power Station Units 2 and 3 Response to Notice of  
Violation and Proposed Imposition of Civil Penalties  
NRC Docket Numbers 50-237 and 50-249  
(Inspection Reports 50-237/91027; 50-249/91028, 50-249/91032,  
50-237/91032; 50-249/91035, 50-237/91035; 50-249/91038)

References: A. Bert Davis letter to Cordell Reed dated January 9, 1992

This letter provides Commonwealth Edison Company's (CECo) response to the  
Notice of Violation and Proposed Imposition of Civil Penalties as transmitted  
by the referenced letter.

CECo recognizes the significance of the violations set forth in the Notice.  
As described at the December 10, 1991, Enforcement Conference, CECO has taken  
and continues to implement extensive corrective and preventive actions in  
response to them. These actions are summarized in the Response to the Notice  
of Violation (Attachment B), and reflect a dedication to fully incorporating  
the lessons learned from the events into Dresden's operational culture.

The cover letter transmitting the Notice identified four specific issues  
related to management control and cognizance in the conduct of operations. An  
overview of actions being taken to address the broader implications of the  
violations is provided in Attachment A.

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Pursuant to 10 CFR 2.205, enclosed is a check for the full amount of the penalty to close this matter.

If there are any questions or comments regarding this response, please contact Mr. T. J. Kovach (708) 515-7330.

Very truly yours,



T. Kovach  
Nuclear Licensing Manager

Enclosures: Check #70-222/719  
\$187,500.00

cc: A. Bert Davis, Regional Administrator - Region III  
B. L. Siegel, Project Manager, NRR  
W. G. Rogers, Senior Resident Inspector, Dresden

## ATTACHMENT A

### OVERVIEW OF CORRECTIVE ACTIONS

The cover letter transmitting the Notice identified four specific issues related to management control and cognizance in the conduct of operations. We share your concern and are dedicated to ensure that performance in these areas is significantly improved.

Specific actions taken to address these NRC concerns are summarized as follows:

1. Proper respect for adhering to established procedures, communications, and awareness of plant conditions is being improved/enhanced on several fronts:
  - Established a clear, concise written statement of management expectations regarding procedure adherence.
  - Communicated procedure expectations to station personnel through multiple meetings and written communications.
  - Operations has implemented a policy providing guidance on when procedures are to be used 'in-hand'.
  - Operations management met one-on-one with licensed operators discussing performance expectations regarding procedure adherence, communications, log keeping and stressing a questioning attitude toward anomalous plant conditions.
  - Operations has implemented a policy on communications expectations including the use of repeat-backs and use of the phonetic alphabet.
  - Improvements to the operations shift turnover process are underway to ensure oncoming personnel are fully aware of current plant conditions for both normal shift changes and interim turnovers.
  - Heightened Level of Awareness briefings are being monitored by station management to ensure effective communications.
  - A program is being developed for implementation to provide for rapid communication of significant station events to station personnel.

- An Operations Improvement Team, established in October 1991, reviews operating processes to identify issues and promote changes from within. Improvements have been identified with respect to out-of-service board changes, control panel items and increased simulator training for in-plant operators.
  - Operating shift performance is being overviewed both in-house by Operating Engineers and Shift Engineers and by other CECO SROs. Aspects of procedure adherence, communications and plant awareness are being evaluated with feedback provided on individual and crew performance.
2. The quality of station procedures is the focus of a procedures upgrade program. Other actions taken include:
    - Specific procedure enhancements were made, as appropriate, in response to identified events.
    - The position of Procedures Manager has been established to effect short term, high impact changes in the procedure revision process.
  3. Supervision of personnel to ensure that procedure requirements are met is being provided:
    - Focussed and frequent senior management plant presence is regularly occurring. Overviews of plant operations, briefings, shop activities, etc., provides management the opportunity to give meaningful, timely feedback to plant personnel.
    - As events occur that involve personnel performance deficiencies, the individuals involved are counselled with respect to performance expectations by a senior station manager.
  4. Aggressive identification and followup of equipment deficiencies is being pursued:
    - Many equipment-related issues have been resolved during the recent Unit 2 and Unit 3 outage.
    - A prioritized master recurring equipment problem database is being developed. This will be used as a tool that will identify, assemble, organize, and track items relative to equipment reliability.

Dresden Station is committed to overall, improved performance. Many actions have been taken, and are continuing, to improve the team, improve the process and improve the plant. The Dresden Situational Review Team (DSRT), a focused group tasked to identify deficiencies, cited ten areas needing improvement. Strategies have been developed to address these deficiencies and are being incorporated into the Dresden Management Action Plan (DMAP). DMAP is a management tool for developing, implementing and tracking action plans. Additional financial resources, as well as personnel, have been allocated to ensure successful implementation of the DSRT's recommendations. For example, an engineering special project team has been established to focus on high impact projects scheduled for 1992 completion.

ATTACHMENT B

Commonwealth Edison Company  
Response to Notice of Violation  
Inspection Reports 237/91027; 249/91028, 249/91032,  
237/91032; 249/91035 and 237/91035; 249/91038

Admission or Denial of Alleged Violations

Commonwealth Edison acknowledges the violations as identified in the subject Notice of Violation. The following details our reasons for the violations and the corrective steps taken.

VIOLATION I

10 CFR Part 50, Appendix B. Criterion XI, "Test Control," requires, in part, that a test program be established to assure that all testing required to demonstrate that systems and components will perform satisfactorily in service is identified and performed in accordance with written test procedures which incorporate the requirements and acceptance limits contained in applicable design documents. The test program shall include operational test of systems and components during nuclear power plant operation, and the test results shall be documented and evaluated to assure that test requirements have been satisfied.

Table 3.7.1 of the Technical Specifications lists Unit 3 Drywell Vent Valve No. 3-1601-24 as a primary containment isolation valve which is normally in the closed position.

Contrary to the above, the Dresden Test Control program failed to demonstrate that Unit 3 Drywell Vent Valve No. 3-1601-24, a primary containment isolation valve which is normally in the closed position, would perform satisfactorily in service. Specifically, the operator piston rod for Unit 3 Drywell Vent Valve No. 3-1601-24, was replaced on February 3, 1990, leaving the valve partially open, and the licensee failed to test Unit 3 Drywell Vent Valve No. 3-1601-24 to ascertain if the valve was in the closed position.

Reason for the Violation

On January 27, 1990, a work request was initiated to rebuild the valve operator cylinder of the 3-1601-24 drywell vent valve. Subsequently, the maintenance crew performed work on the valve including replacement of the piston rod. Rod position was dimensionally established during disassembly and restored during reassembly. However, due to a maintenance error, the new piston rod was inserted one and three quarters turns too far (about 1/8 inch).

Maintenance correctly completed the applicable portion of the DAP 15-06 "Post Maintenance Checklist". The line item for "Were Primary Containment Isolation Valves disturbed?" was checked "Yes". The package was then forwarded to operations.

Operations completed the applicable portion of the DAP 15-06 "Post Maintenance Checklist", where four tests were listed to be completed prior to declaring the equipment operable. The Shift Engineer erroneously believed that one of those four tests included a local leak rate test (LLRT). However, no LLRT was conducted and the mispositioning of the piston rod was not identified.

On February 5, 1990, an Integrated Leak Rate Test (ILRT) was completed for Unit 3. The 3-1601-24 valve deficiency was not identified during ILRT because the inboard isolation valves of that volume were closed during the test.

On September 9, 1991 a LLRT identified the 3-1601-24 valve to be leaking. A work request was initiated, necessary adjustments were made, a LLRT was performed, and the valve's integrity was restored on October 1, 1991.

#### **Corrective Steps Taken and Results Achieved**

A comprehensive review was initiated of the primary containment isolation valves which had maintenance performed on them during the last Unit 2 refuel outage (D2R12). A review of 207 work requests was completed on October 10, 1991 and two other valves (2-205-27, Reactor Head Cooling Inlet Check Valve and 2-1601-63, Drywell Vent to Standby Gas Treatment Valve) were identified which did not have the required post maintenance LLRT performed. LLRTs were successfully performed verifying valve integrity.

#### **Corrective Steps Taken to Avoid Further Violation**

Work requests are now reviewed by the Technical Staff ISI/IST Group to determine appropriate post-maintenance ISI/IST/LLRT test requirements. This review is documented on the work request.

An extensive matrix has been developed of components included in the IST, MOV, and LLRT Programs. The matrix includes the EPN number and name, the valve and actuator type, the types of tests required for that component (i.e. LLRT, stroke tests, etc.) and the procedure reference for each test cited. This matrix has been issued to maintenance and operations for use in determining required post-maintenance testing.

A comprehensive review of the current Unit 3 outage safety-related work is being performed to ensure that appropriate post-maintenance testing has been conducted. This will be completed prior to start up of Unit 3. A comprehensive review for Unit 2 was completed prior to start up on February 6, 1992.

Pending proceduralization of corrective actions identified above, work requests involving the primary containment boundary will initially require a post-maintenance LLRT. Any exception will require documented approval by the Technical Staff ISI/IST Group.

Training programs for Technical Staff, Operating, and Maintenance were evaluated for inclusion of material on LLRT requirements. Appropriate program changes have been initiated.

Maintenance Memo 800.02, "Post Maintenance Testing Program Interim Implementation", was revised on November 27, 1991, detailing the requirements for assembling post-maintenance tests for primary containment isolation valves. Work requests for components cited in the Post Maintenance Test Matrix or identified as part of the containment boundary on color-coded P&IDs are routed to the Technical Staff ISI/IST Group for concurrence on post-maintenance tests for primary containment volumes.

Procedure DMP 1600-02 "Drywell and Torus Air Operated Butterfly Valve Maintenance" was revised to require Technical Staff ISI/IST concurrence for testing following valve maintenance.

Work packages developed after November 1, 1991, involving the primary containment boundary will initially require a post maintenance LLRT. Work packages developed before November 1, 1991, will be reviewed by the Post Maintenance Testing Coordinator for applicability of this requirement. The requirement will be continued pending implementation of a computerized data base. This data base will list the required post maintenance testing for component specific maintenance. Limited use of this program is expected to be implemented by April 1, 1992.

**Date When Full Compliance is Achieved**

Full Compliance was achieved on October 1, 1991, when valve integrity was restored and the appropriate LLRT was successfully performed.

## **VIOLATION II.A.1**

10 CFR Part 50, Appendix B, Criterion V requires, in part, that activities affecting quality shall be prescribed by documented instructions, procedures, or drawings, and shall be accomplished in accordance with these instructions, procedures, or drawings.

Technical Specification Limiting Condition for Operation 3.7.A.1.c. requires the torus maximum bulk water temperature to be 95 degrees F. No action statement is specified in 3.7.A.1.c. for torus maximum bulk water temperature greater than 95 degrees F.

Technical Specification 3.0.A states, in part, in the event a Limiting Condition for Operation cannot be satisfied because of circumstances in excess of those addressed in the specification, the unit shall be placed in at least hot shutdown within 12 hours and in cold shutdown within the following 24 hours unless corrective measures are completed that satisfy the Limiting Conditions for Operation.

Operations Department Technical Specification Interpretation No. 2, "Technical Specification 3.0.A Implementation," approved July 25, 1988 requires, in part, that if no action statement is specified, then Technical Specification 3.0.A action statement governs and a shutdown be initiated immediately with recirculation flow.

Contrary to the above, on September 1, 1991, at approximately 7:59 p.m., when the Technical Specification Limiting Condition for Operation 3.7.A.1.c. for unit 2 torus maximum bulk water temperature was exceeded and no action statement was specified, licensed operators failed to initiate a shutdown of Unit 2 immediately with recirculation flow.

### **Reason for the Violation**

This event is attributed to personnel error by the shift 3 Shift Engineer (SE) and Station Control Room Engineer (SCRE) in failing to recognize a torus bulk temperature of 95°F as a Technical Specification limit. They were aware that Technical Specifications permitted 105°F torus bulk water temperature during testing. They erroneously used this as the next action limit.

### **Corrective Steps Taken and Results Achieved**

The Assistant Superintendent of Operations counseled the shift personnel involved in this event on the need for closer attention to annunciator alarms for safety systems, and on the station policy with respect to entry into Technical Specification 3.0.A.

### **Corrective Steps Taken to Avoid Further Violation**

During requalification training, Licensed Operators reviewed Technical Specification 3.0.A., Technical Specification 3.7, Technical Specification Interpretations, and management's expectation to directly reference Technical Specifications. This training included a discussion of this event, and was completed by November 15, 1991. Procedures DOA 902(3)-4 A-18 and C-18 are being revised to clarify the alarm setpoint and to add the proper Technical Specification references. The procedure revisions are currently in On-Site Review and are expected to be issued by March 1, 1992.



Date When Full Compliance is Achieved

Full compliance was achieved when the Torus maximum bulk water temperature cooled to 95°F and the LCO was exited.

## **VIOLATION II.A.2**

Dresden Administrative Procedure (DAP) 7-05, "Operating Logs and Records," Revision 9, approved August 30, 1990, Step B.2.b(3), requires the Unit Log to contain a list of all alarms and abnormal conditions found upon assuming the shift or occurring during the course of the shift, except those denoting normal conditions, a brief narrative of unusual performance of the plant and any efforts made to determine the cause, and Technical Specification Limiting Conditions for Operation that occur during the shift.

Contrary to the above, from the afternoon of August 30, 1991, through day shift September 1, 1991, the Unit 2 operating log did not document the receipt or presence of the "High Pressure Coolant Injection Turbine Inlet Drain Pot High Level" alarm, an off-normal condition, or provide a brief narrative of the efforts to determine the cause of the alarm (three separate instances of cycling the bypass valve, placement of the drain pot in abnormal lineup, and two occurrences of checking local equipment) and the afternoon shift log entry of September 1, 1991, did not identify that a Technical Specification Limiting Condition for Operation 3.7.A.1.c was applicable to the 95°F torus temperature.

### **Reason for the Violation**

Shift personnel failed to comply with DAP 7-05 "Operating Logs and Records". Personnel failed to record the alarm in the log book, although at various times during the event they did take appropriate action to try to identify its cause.

Management's review of the log book did not recognize that the alarm was not documented.

### **Corrective Steps Taken and Results Achieved**

The Assistant Superintendent of Operations counseled personnel involved in this event on the need to adhere to DAP 7-05 "Operating Logs and Records."

The Assistant Superintendent of Operations will address each operating crew, emphasizing logging requirements, the use of a narrative log, and adherence to DAP 7-05. These discussions are expected to be completed by March 6, 1992.

### **Corrective Steps Taken to Avoid Further Violation**

The Training Department has developed a module to address improved log keeping. Training is expected to be completed by March 6, 1992.

At the February 19, 1992 shift engineer's meeting, the Assistant Superintendent of Operations will reinforce the requirement that shift supervisors review the operating log for compliance with DAP 7-05, "Operating Logs and Records."

### **Date when Full Compliance is Achieved**

Full compliance was achieved upon reinforcing log keeping expectations with the personnel involved.

### **VIOLATION II.A.3**

DAP 7-02, "Conduct of Operations," Revision 16, approved August 9, 1991, Step B.2.b(4) requires for the Station Control Room Engineer (SCRE) shift turnover to include a discussion of unit status.

Contrary to the above, during SCRE shift turnover at approximately 7:00 a.m. on September 1, 1991, the offgoing SCRE did not adequately discuss Unit 2 status with the oncoming SCRE in that the offgoing SCRE did not mention the high pressure coolant injection (HPCI) drain pot abnormal lineup.

#### **Reason For the Violation**

The Midnight shift NSO informed the Midnight SCRE that the status of the HPCI drain pot lineup had been turned over to his relief, the day shift NSO. The SCRE's turnover focused on Unit 2 startup and did not include the HPCI status. The significance of the HPCI alarm was not recognized by the SCRE.

#### **Corrective Steps Taken and Results Achieved**

The Assistant Superintendent of Operations counseled the SCRE on this event with emphasis on the shift's failure to fulfill management's performance expectations.

#### **Corrective Steps Taken to Avoid Further Violations**

Dresden Station Operations Department will review its current policy on turnovers and incorporate lessons learned from this event. Emphasis will be placed on providing instructions on the scope of turnovers. This policy is expected to be issued by April 2, 1992.

#### **Date When Full Compliance is Achieved**

Full compliance was achieved when the Assistant Superintendent of Operation's counseled the SCRE on performance expectations related to this event.

#### **VIOLATION II.A.4**

DAP 7-01, "Operations Department Organization," Revision 15, approved August 19, 1991, Step B.5.d and e, requires the Station Control Room Engineer (SCRE) to assist the Shift Engineer (SE) in interpreting and applying the requirements of Technical Specifications and to notify the SE of any abnormal operating conditions.

Contrary to the above, during the afternoon shift of September 1, 1991, the SCRE did not assist the SE in interpreting and applying the requirements of Technical Specifications for notifying the SE of an abnormal operating condition in that the SCRE did not inform the SE that the Technical Specification limit/emergency operating procedure entry condition for high torus temperature was reached and, when the SE independently noted the high torus temperature, the SCRE did not inform the SE that 95 degrees F was a Technical Specification limit. Also, on the midnight shift of September 2, 1991, a significant delay (at least two hours) occurred prior to the SCRE interpreting the abnormal operating condition and informing the SE of Technical Specification concerns associated with high torus temperature.

#### **Reason for the Violation**

Operators recognized that Torus Bulk water temperature of 95°F was a Dresden Emergency Operating Procedure (DEOP) entry condition and took appropriate action by initiating the action specified in annunciator procedure DOA 902(3)-4 A-18. This requires Torus Cooling to be initiated. They failed to recognize the Technical Specification LCO, but were aware that Technical Specifications permitted 105°F torus bulk water temperature during testing. They erroneously used 105°F as the next limit for action. When the operators realized the 95°F limit, the torus temperature was approaching the Technical Specification LCO, therefore a Unit Shutdown was not initiated.

#### **Corrective Steps Taken and Results Achieved**

The HPCI drain pot alarm was cleared, the torus water temperature was cooled to below 95°F, and the LCO was exited.

The Assistant Superintendent of Operations counseled the shift personnel involved in this event on the need for awareness of Technical Specification requirements, on the need for closer attention to annunciator alarms for safety systems, and on the station policy with respect to Technical Specification 3.0.A.

During requalification training, licensed operators reviewed Technical Specification 3.0.A., Technical Specification Section 3.7, Technical Specification Interpretations and management's expectation to directly reference Technical Specifications. This training included a discussion of this event and was completed on November 15, 1991.

**Corrective Steps Taken to Avoid Further Violation**

Procedures DOA 902(3)-4 A-18 and C-18 were revised by the Operations Department to clarify the alarm setpoint and to add the proper Technical Specification references. The procedure revisions were issued on February 7, 1992.

The Regulatory Assurance Department will initiate a request to amend Technical Specification 3.7.A.1.c.(1) to add remedial action requirements.

Operations management will review Technical Specification Interpretations 1 and 2, and rewrite or combine them in order to clarify when an LCO requiring shutdown is required. This will be completed by May 31, 1992.

**Date When Full Compliance was Achieved**

Full compliance was achieved when the individuals involved in this event were counseled on performance expectations.

**NOTE: Violations II.A.5, II.A.6 and II.A.7 will be responded to collectively.**

**VIOLATION II.A.5**

DAP 7-01, "Operations Department Organization," Revision 15, approved August 19, 1991, Steps B.4.j and B.5.c(3), require that the SE be responsible for direct observations of each unit by overview of the control boards at least twice a shift in the control room and keeping informed of any off-normal conditions that may exist or occur during the shift and that the SCRE maintain an in-depth knowledge of plant and equipment status.

DAP 7-02, "Conduct of Shift Operations," Revision 16, approved August 9, 1991, Steps B.2.a(5) and B.2.b(4), require that on turnover the SE walk the unit panels and the SCRE walk the unit panels, performing a thorough review of system configurations, alarms, and indications.

Contrary to the above, the SE and SCRE for the day shift of September 1, 1991, did not maintain adequate overview of the control boards, perform adequate panel walkdowns, keep informed of off-normal conditions, perform a thorough review of system configurations and alarms, and maintain an in-depth knowledge of plant equipment and status, in that the SE and the SCRE were not cognizant of the HPCI drain pot alarm or drain pot abnormal system lineup (which occurred on the previous shift).

**VIOLATION II.A.6**

DAP 7-01, "Operations Department Organization," Revision 15, approved August 19, 1991, Step B.6.c(1), requires the Shift Supervisor (Licensed) to ensure that the SE and the SCRE were properly informed of all conditions which could adversely affect plant operations.

Contrary to the above, on the afternoon shift of August 30, 1991, the Shift Supervisor (Licensed) did not notify or inform the SE or SCRE of the HPCI drain pot alarm on Unit 2, a condition which could adversely affect plant operations.

**VIOLATION II.A.7**

DAP 7-01, "Operations Department Organization," Revision 15, approved August 19, 1991, Step B.9.1, requires the Nuclear Station Operator (NSO) to notify the proper authorities regarding unusual conditions.

Contrary to the above, on the day shift of September 1, 1991, upon receipt of a torus high temperature alarm on Unit 2, the NSO did not inform the proper authority, the SE, who had temporarily relieved the SCRE, of the unusual condition of the HPCI drain pot abnormal lineup.

**Reason for the Violation (Violation II.A.5, II.A.6 and II.A.7)**

On August 30, 1991, Unit 2 was in a startup mode. The afternoon Shift Supervisor (SS) walked down the control room panels and recognized the HPCI drain pot alarm. It was not unusual for this alarm to occur during operations. The SS intended to investigate the alarm further after a special turbine test was performed. However, the reactor scrammed as a result of the turbine test and the shift was occupied in scram response during the remainder of the shift. The SS failed to notify the SE or the SCRE of the HPCI drain pot alarm.

On September 1, 1991, the dayshift SCRE and SE were preoccupied with events concerning a turbine trip. During that shift the NSO also failed to inform the SE of the HPCI drain pot abnormal lineup.

The operations personnel involved in this event did not meet management's expectations with regards to communications and performance of duties as outlined in DAP 8-01 "Operations Department Organization". They failed to recognize the significance of the alarm and completely communicate its status. The shift was preoccupied with the status of the Unit 2 turbine and did not maintain in-depth knowledge of plant and equipment status.

#### **Corrective Steps Taken and Results Achieved**

The Assistant Superintendent of Operations counseled the shift personnel involved in this event on the need for awareness of Technical Specification requirements, on the need for closer attention to annunciator alarms for safety systems, and on complete communications.

#### **Actions Taken to Avoid Further Violations**

Training is being provided to operators during Continuing Training Cycle 1. This module, conducted by the Assistant Superintendent of Operations, includes a review of the event with emphasis on DAP 7-01, DAP 7-02, attention to detail, complete and comprehensive communications, and shift turnover. This training is expected to be completed by March 6, 1992.

Additionally, training on communication skills will be provided to both licensed and non-licensed operators. This is expected to be completed by April 17, 1992.

#### **Date When Full Compliance is Achieved**

Full compliance was achieved when the individuals involved were counseled with regard to management's expectations.

## **VIOLATION II.B**

10 CFR Part 50, Appendix B, Criterion V requires, in part, that activities affecting quality shall be prescribed by documented instructions, procedures, or drawings, and shall be accomplished in accordance with these instructions, procedures, or drawings.

DAP 7-02, "Conduct of Shift Operations," Revision 16, approved August 9, 1991, Step B.21.b(3), requires operations personnel reference and follow the procedure for the entire evolution for complex or infrequently performed evolutions.

DOP 500-4, "Reactor Mode Switch to Shutdown When all Drives are Fully Inserted," Revision 0, approved October, 28, 1988, Step F.2, requires, in part, discharge each accumulator as follows: when water stops flowing out the drain and accumulator pressure reads approximately 600 psig, close the drain valve 3-0305-107 on the accumulator being discharged.

Contrary to the above, on September 23, 1991, operations personnel did not reference and follow DOP 500-4, Revision 0, for the entire infrequently performed evolution required to place the mode switch to shutdown for Unit 3, in that all hydraulic control units drain valves were left open.

### **Reason for the Violation**

This event resulted from personnel error on the part of an equipment attendant (EA) who did not correctly follow procedure DOP 500-4 which required the drain valves to be reclosed after accumulator discharge.

Contributing to the event was an insufficient pre-job briefing by the Shift Supervisor. The supervisor's directions were improperly received by the EA and there was no repeat back by the EA of the actions to be accomplished.

Also, there was no procedural requirement for the EA to take the procedure with him while performing the task.

### **Corrective Steps Taken and Results Achieved**

The Assistant Superintendent of Operations counseled the individuals involved in this event on the requirements of a pre-job briefing and procedural adherence.

On October 2, 1991, the Operating Department revised policy #30 to provide written guidance on when procedures must be used in hand.

### **Corrective Steps Taken to Avoid Further Violation**

The Operations Department is revising procedures DOS 500-Q7 and DOP 500-04 to better delineate the steps required to discharge the HCU accumulators. The individuals involved in this event participated in this procedure enhancement process. The revisions are expected to be completed by March 31, 1992.

### **Date When Full Compliance was Achieved**

Full compliance was achieved upon isolation of the HCU drain valves.



## **VIOLATION II.C**

10 CFR Part 50, Appendix B, Criterion V requires, in part, that activities affecting quality shall be prescribed by documented instructions, procedures, or drawings, of a type appropriate to the circumstances.

Contrary to the above, plant administrative procedures were not appropriate to the circumstances in the following cases:

1. DAP 7-02, "Conduct of Shift Operations," Revision 16, approved August 9, 1991, did not give specific guidance regarding performance of interim turnovers, resulting in an inadequate SCRE interim turnover during the day shift of September 1, 1991, in that receipt of a Unit 2 high torus temperature alarm was not mentioned.
2. DAP 3-05, "Out-of-Service and Personal Protection Cards," Revision 23, approved September 7, 1991, failed to require valves used for an out-of-service (OOS) boundary to be placed in a controlled status. When OOS III-1306 dated September 25, 1991, was established to isolate the control air to the scram air header, it did not specify the hydraulic control unit drain valves as part of the OOS boundary to be in a controlled status. Failure to control the drain valves (tag them closed) resulted in a contaminated water spill in the Unit 3 reactor building on September 25, 1991.

### **Reason for the Violation**

DAP 7-02 Revision 16, "Conduct of Shift Operations," did not specifically address interim turnovers.

DAP 3-05, "Out of Service and Personnel Protection Cards", requires all points of isolation to be listed on the outage checklist, but does not specifically define what should be included as all points of isolation. When the planner made up the outage, he did not include the drain valves since they do not tie to another system and are normally closed during operation. Further, procedure DOP 500-4, "Reactor Mode Switch to Shutdown", requires the drain valves be reclosed after discharging the accumulators. This event occurred because the operator failed to close the drain valves as specified in DOP 500-4.

### **Corrective Steps Taken and Results Achieved**

Dresden Operating Department Policy No. 33 was issued on January 21, 1992, to detail the interim turnover process. Policy No. 33 requires a turnover which includes panel walkdowns, and reviews of operating logs, LCO Board, degraded Equipment Log, Fire Watch Log, Daily Orders, turnover sheets, and outage requests. The interim turnover applies to all licensed operating positions. The SCRE will review and authorize all turnovers under this policy. This policy was distributed for review by all Licensed Operators.

The Control Room Overview Program, and the NQP Department monitored Control Room turnovers and provided feedback on the process. NQP concerns were forwarded to operations management and did not identify any continuing problems with shift turnovers.

The Assistant Superintendent of Operations has expressed management's expectations to operations personnel on the establishment of OOS boundaries. These expectations are being documented in an Operation Department Memo to be issued by February 14, 1992. This memo will remain in effect pending changes to procedure DAP 3-05.

**Corrective Steps Taken to Avoid Further Violation**

Policy #33 and DAP 7-02 will be reviewed with operating personnel during operations continuing training which is expected to be completed by March 5, 1992.

The Operations Department will review its policies on establishment of OOS boundaries. The results of this review will be incorporated in a revision of DAP 3-05 "Out-of-Service and Personnel Protection Cards". This revision is expected to be issued by June 1, 1992.

**Date when Full Compliance is Achieved**

Full Compliance was achieved on January 21, 1992, when Operations Policy #33 was issued.

## **VIOLATION II.D**

Technical Specification 6.2.A.7 required detailed written procedures covering surveillance and testing requirements be adhered to.

DTS 300-02, "Control Rod Drive Scram Testing and Scram Valve Timing Test," Revision 14, approved January 22, 1991, Section F., steps 2 and 3, require the control rod selected for scrambling to be withdrawn to position 48 prior to closing its charging water valve. Steps 9 and 10 require the previously scrambled control rod be withdrawn to its intended position before repeating the scram sequence for the next control rod.

Contrary to the above:

1. At approximately 3:25 a.m., on October 6, 1991, a licensed operator did not adhere to the written surveillance procedure in that the charging water valve for control rod P-10, the control rod selected for scrambling, was closed before withdrawing the control rod to position 48.
2. At approximately 3:25 a.m., on October 6, 1991, a licensed operator did not adhere to the written surveillance procedure in that the previously scrambled control rod, L-11, was not withdrawn to its intended position before control rod P-10 was scrambled.

### **Reason for the Violation**

This event occurred because the Center Desk NSO and SCRE failed to communicate with the Unit NSO, yet scrambled rod P-10 based on overhearing a repeat back given over the radio from the Unit NSO to the "B" Operator at the CRD accumulators. These actions did not comply with procedure DTS 300-2.

The briefing given by the SCRE did not conform to Station policy because the briefing did not establish an individual that would be designated as the Scram Test Coordinator and did not establish a chain of command.

Procedure DTS 300-2 does not delineate the various responsibilities of the personnel performing the control rod scram timing test activities. It also does not require a second check of the control rod or scram toggle switch selection while control rod scram timing is in progress.

### **Corrective Steps Taken and Results Achieved**

The Assistant Superintendent of Operations met one-on-one with those individuals involved in this event to express management's expectations. Specifically addressed was the need for complete and accurate communications when performing a surveillance.

A Temporary Change was made to Procedure DTS 300-2, "Control Rod Drive Scram Testing and Scram Valve Timing Test" prior to resumption of scram testing. Major changes included assignment of a test coordinator and delineation of specific responsibilities of the personnel involved in the test.

### Corrective Steps Taken to Avoid Further Violation

Temporary Procedure Change number 91-260 was incorporated into a permanent change to procedure DTS 300-2 and was issued on November 26, 1991.

Dresden Policy Statement #39 "Heightened Level of Awareness Activities" was revised on February 7, 1992, to include the requirements that this policy be in the hands of the person conducting the HLA briefing and that all items in Attachment B (Guidelines for Pre-HLA Activity Briefing) be covered. Operating Management will continue to conduct effectiveness reviews of HLA briefings.

The Training Department has conducted training for all licensed operators to include reactivity management concerns and station procedure DAP 7-32, "Routine Plant Test Activities". This training was completed on November 15, 1991.

A control rod drive task force has been formed with General Electric to evaluate prior corrective actions and identify future enhancements.

### Date When Full Compliance is Achieved

Full Compliance was achieved when the individuals involved in the event were counseled and procedure DTS 300-2 "Control Rod Drive Scram Testing and Scram Valve Timing Test" was revised.

## **VIOLATION II.E.**

Dresden Technical Specification 6.2.A.2 requires, in part, that detailed written procedures covering refueling operations be prepared, approved, and adhered to.

Dresden Fuel Handling Procedure 800-32, "Fuel Movement Within the Spent Fuel Pools," Revision 3, approved July 31, 1990, step F.1.t, states that after unlatching the grapple, raise the grapple approximately 4 inches and attempt to rotate the mast. If the mast rotates, the fuel assembly has disengaged from the grapple.

Contrary to the above, on October 18, 1991, at approximately 10:15 p.m., subsequent to unlatching the grapple from a fuel assembly in location J-9 in the Unit 3 spent fuel pool, fuel handlers did not raise the grapple four inches or rotate the mast to verify that the grapple was disengaged from the fuel assembly.

### **Reason for the Violation**

This event resulted from personnel error on the part of the Fuel Handler "B" Operator who did not verify, as per procedure and training, that the grapple had cleared the bundle by rotating the mast to check for interference prior to initiating horizontal motion with the refueling bridge.

### **Corrective Steps Taken and Results Achieved**

The personnel involved in this event were counseled by the Assistant Superintendent of Operations. Specifically addressed were personnel performance, procedural adherence, and communications with upper station management. Appropriate disciplinary action was taken.

To help ensure that refueling activities are acceptably performed, Nuclear Quality Programs (NQP) performed periodic overviews of refueling activities for the Unit 3 core reload.

### **Corrective Steps Taken to Avoid Further Violation**

Operations Policy #31, "Fuel Handling Expectations" has been issued to communicate management expectations to the Fuel Handlers. These expectations included: procedure adherence, communication both on the refuel floor and with Station Management, a clear safety perspective, and conservatism with regards to operating practices.

Fuel Handling personnel have been instructed on the "Operations Department Initiatives," Policy No. 30 and on DAP 9-11 "Procedure Usage and Adherence." Both of these documents direct management expectations on procedure usage. This briefing was performed by Operations Management and will be incorporated into the permanent Fuel Handler Training course.

Training has been provided to all Fuel Handlers to ensure understanding of the Design Basis Accident concerning a dropped fuel assembly, emergency classifications, reactivity management, and reportability requirements. Permanent changes to continuing training lesson plans were completed on October 13, 1991. Initial training lesson plans are expected to be revised prior to the next refueling outage (D2R13).

The items in procedure DFP 800-1 Appendix B, although adequate in their current configuration, will be broken out and developed into a new series of Fuel Handling Abnormal Procedures to allow for easier recognition of abnormal events and the approved, expected actions. Completion of this enhancement is expected by September 1, 1992.

Procedure DFP 800-32, "Fuel Movements Within the Spent Fuel Pools," was revised to: ensure that action steps are not included in Caution statements, and to require the second verifier to ensure that the grapple is unlatched and free of the bail. This revision was issued prior to beginning fuel moves within the spent fuel pool.

Procedures DFP 800-9, "Fuel Movements From Spent Fuel Storage to the Reactor" and DFP 800-10, "Fuel Movements From Reactor to the Spent Fuel Storage", were reviewed and revised based on lessons learned from this event. These procedures were revised prior to resuming fuel handling activities following this event.

**Date When Full Compliance is Achieved**

Full Compliance was achieved when the individuals involved in the event were counseled.

### **VIOLATION III.A**

10 CFR Part 50, Appendix B, Criterion III, "Design Control," requires in part that measures be established to assure that applicable regulatory requirements and the design basis as specified in the license application for those structures, systems, and components to which this appendix applies, are correctly translated into specifications, drawings, procedures, and instructions.

Contrary to the above, on September 13, 1990, the licensee failed to assure that applicable regulatory requirements and design basis for the Unit 2 Reactor Building trackway outer door seal were correctly translated into procedures and instructions. Specifically, during replacement of the outer door seal. The licensee modified the applicable design basis from a passive seal to an active seal without revising the applicable operating procedures to specify the steps required to activate the seal.

### **Reason for the Violation**

Work instructions were written to repair the outer trackway door seal to reduce secondary containment leakage. During the repair process a decision was made to replace the seal with a new retractable style door seal. The maintenance work analyst and the Technical Staff engineer did not believe that the change to the intent of the original scope of work (to repair the seal) would constitute a plant modification; therefore, the minor plant change program was not utilized.

Quality Control and Nuclear Quality Programs reviews of the work request failed to identify that the Minor Plant Change Program had not been applied to the work request. Procedure changes were not made and training was not provided regarding door operations with the new seal design installed on the outer door.

### **Corrective Steps Taken and Results Achieved**

On June 26, 1991, a temporary Procedure Change to DAP 13-3 was made to specify the proper operation of the outer door sealing mechanism.

### **Corrective Steps Taken to Avoid Further Violation**

During August 1991, this event was reviewed by the Technical Staff, Quality Control, and Nuclear Quality Programs groups to heighten awareness on the need to review work requests for applicability of the Minor Plant Change Program.

On September 7, 1991, the retractable seal was replaced with the original passive type design.

The work request process will be reviewed to ensure appropriate criteria are in place to trigger a minor plant change when required. Necessary procedure changes are expected to be made and training completed by May 31, 1992. This review will also include a focused retrospective sampling of work requests. Additional Unit 2 and Unit 3 outage work impacted the initial schedule, and a change to the original completion date of March 31, 1992 will ensure a comprehensive evaluation of the work request process.

### **Date when Full Compliance Was Achieved**

Full compliance was achieved upon issuance of the procedure change for door seal operation.

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### **VIOLATION III.B**

Technical Specification Section 6.2, "Plant Operating Procedures," requires adherence to detailed written procedures, including normal operation of systems and components involving nuclear safety of the facility.

Dresden Administrative Procedure 13-3, "Unit 2 Reactor Building Trackway Interlock Door Access Control," Revision 1, dated August 22, 1989, which in part implements Technical Specification Section 6.2, requires the trackway inner door of the Unit 2 Reactor Building be continuously attended at all times when the door is in the open position.

Contrary to the above, from 8:45 a.m. to 2:00 p.m. on June 24, 1991, the trackway inner door of the Unit 2 Reactor Building was not continuously attended at all times when the door was in the open position.

### **Reason for the Violation**

On June 24, 1991, at about 8:45 a.m., the trackway inner door was opened for removal of equipment. The crew left the trackway area to assist in packaging the equipment. No monitor was posted at the interlock during this time period.

DAP 13-3 Rev. 1 "Unit 2 Reactor building Trackway Interlock Door Access Control (At the Reactor Building Railroad Door)" is posted on the door. The procedure requires that the inner door be continuously monitored at all times when it is in the open position. Also, the inner and outer doors must not be open at the same time. The crew did ask a security guard about the need to post a monitor at the inner door and were informed that it was not required for security purposes. The maintenance crew believed that the monitoring requirement applied only to the outer door and failed to read the posted procedure.

### **Corrective Steps Taken and Results Achieved**

The mechanics involved in this event were counseled by the Assistant Superintendent of Maintenance. Additionally, a tailgate training session was developed by those mechanics. Topics for discussion included door logging requirements, the list of posted procedures, and adherence to posted procedures. This training was accomplished during the September 12, 1991 tailgate sessions.

### **Corrective Steps Taken to Avoid Further Violation**

In July 1991, an Operating Memo was issued to licensed operations personnel on management's expectations regarding the need to verify the awareness by personnel receiving keys to trackway doors of procedure requirements associated with the door.

Procedure DAP 9-01 "Station Procedures" was reviewed with all mechanical maintenance personnel during the 91-02 continuous training cycle. Emphasis was placed on procedural adherence and control of posted procedure.

### **Date When Full Compliance was Achieved**

Full compliance was achieved on June 14, 1991, when a monitor was posted at the inner door in compliance with DAP 13-3.