U. S. NUCLEAR REGULATORY COMMISSION

REGION III

Report Nos. 50-237/90023(DRP); 50-249/90023(DRP)

Docket Nos. 50-237; 50-249 License Nos. DPR-19; DPR-25

Licensee: Commonwealth Edison Company
P. O. Box 767
Chicago, IL 60690

Facility Name: Dresden Nuclear Power Station, Units 2 and 3

Inspection At: Dresden Site, Morris, IL

Inspection Conducted: September 29 through November 16, 1990

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12/6/90
Date

Inspection Summary

Inspection during the period of September 29 through November 16, 1990 (Reports No. 50-237/90023(DRP); 50-249/90023(DRP)).
Areas Inspected: Routine unannounced resident inspection of previously identified inspection items, licensee event reports followup, plant operations, maintenance and surveillances, engineering and technical support, safety assessment/quality verification and report review.

Results:

Three violations were identified with numerous examples. One involved the failure to follow procedures and instructions and included five examples. These examples permeated different disciplines and involved failing to utilize or ignoring procedures and instructions or inattention to detail in implementing these requirements. Specifics are described in paragraphs 4.a, 4.c, 4.e, 5.a.2 and 5.b.1. The second violation involved

inadequate corrective actions in regard to fuel bundle mispositioning events with two examples. Specifics are described in paragraph 7.a. The third violation involved inadequate training to assure adequate knowledge of plant administrative requirements with two examples. Specifics are described in paragraph 2.

One violation was identified which concerned an inadequate out of service checklist. However, a Notice of Violation was not issued in accordance with the discretionary enforcement policy described in 10 CFR 2, Appendix C, Section V.A. Specifics are described in paragraph 4.b.

Five unresolved items were identified. An unresolved item involving a possibly inoperable source range monitor while moving fuel in that core quadrant is pending further NRC review of the event (paragraph 4.f). An unresolved item involving the licensee's policy of not declaring equipment inoperable and not entering corresponding limiting conditions for operation when equipment was purposely rendered inoperable for surveillance testing is pending further clarification of requirements (paragraph 4.g). An unresolved item involving licensee maintenance practices on Appendix R fire protection emergency lighting is pending completion of a licensee investigation report (paragraph 5.b.3). An unresolved item involving the licensee's discovery that the filter media in the Unit 3 Reactor Building Ventilation Air Particulate Sampler had been misalligned is pending further review by NRC regional specialists (paragraph 5.b.2). Finally, an unresolved item involving the licensee's usage of Quality Control Inspection Feedback Sheets is pending further NRC review of that area (paragraph 7.c).

Plant Operations

A number of events occurred during the current Unit 2 refueling outage indicative of personnel performance problems such as communications and inattention to detail. Although they were spread across several disciplines, noteworthy events involving the plant operations functional area included two fuel bundle mispositioning events, a reactor cavity overflow event, inadvertent draining of a diesel generator fuel oil day tank and an inadvertent diesel generator automatic start. Although the safety significance in all cases was minimal, the number of events represent an adverse trend.

Maintenance/Surveillance

In addition to the events above, other adverse events occurred in the Maintenance/Surveillance functional area. Noteworthy among these were an inadvertent automatic start of a core spray pump, disassembly of the wrong feedwater containment isolation check valve and calibration adjustments to the wrong torus to reactor building vacuum breaker pressure transmitter. These were indicative of personnel performance problems such as communications and attention to detail.

Engineering/Technical Support

Review of a modification and associated field work did not identify any problems. One of the violations described in the report involved the lack of a formal training program to assure appropriate technical staff personnel were trained on applicable administrative requirements.

Safety Assessment/Quality Verification

Licensee management recognized the adverse trend in the number of events indicative of personnel performance problems. Management involvement was highly evident in the review of these events and the determination of corrective actions. In addition, generic corrective actions were implemented as described in paragraph 7.b. However, one violation concerned inadequate corrective actions in regard to fuel bundle mispositioning events. Another involved failure of technical staff personnel to recognize procedural nonadherence as a condition adverse to quality such that corrective actions to address the root cause was not taken. This was indicative of a personnel training deficiency. It must be noted however that the inspectors regard licensee corrective actions to normally be thorough and comprehensive.

DETAILS

1. Persons Contacted

Commonwealth Edision Company

*E. Eenigenburg, Station Manager
*L. Gerner, Technical Superintendent
E. Mantel, Services Director
*D. Van Pelt, Assistant Superintendent - Maintenance
*J. Kotowski, Production Superintendent
J. Achterberg, Assistant Superintendent - Work Planning
*G. Smith, Assistant Superintendent-Operations
K. Peterman, Regulatory Assurance Supervisor
M. Korchynsky, Operating Engineer
B. Zank, Operating Engineer
J. Williams, Operating Engineer
R. Stobert, Operating Engineer
M. Strait, Technical Staff Supervisor
L. Johnson, Q.C. Supervisor
J. Mayer, Station Security Administrator
D. Morey, Chemistry Services Supervisor
D. Saccomando, Health Physics Services Supervisor
*K. Kociuba, Quality Assurance Superintendent
*D. Wheeler, Engineering and Construction
*B. Viehl, Engineering and Construction
*G. Kusnik, Quality Control
*K. Yates, Onsite Nuclear Safety Group Administrator

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

*Denotes those attending one or more exit interviews conducted informally at various times throughout the inspection period.

2. Previously Identified Inspection Items (92701 and 92702)

(Closed) Violation 50-237/89019-01(DRP): Failure to place isolated emergency core cooling system (ECCS) level switch in tripped condition resulting in Technical Specification (TS) violation.

In addition to interim actions taken by the licensee, the inspector verified that the licensee had developed and placed in the control room a Technical Specification Instrumentation Operability Manual. This provided guidance on the preferred method of placing Technical Specification instrumentation in the tripped condition and assistance in locating the proper controlled documents to be used in this regard. Operations Policy Statement No. 23 was issued on July 31, 1990, to provide instructions regarding usage of this manual. The inspector has no other concerns in this area.

(Closed) Unresolved Item 50-237/90019-01(DRP): Review shift operations failure to maintain the Control Rod Drive (CRD) Accumulator High Water/Low Pressure Alarm Log (AHWLPAL) for the period between April 1990 and August 30, 1990. The AHWLPAL was used to document CRD accumulators that become degraded due to either a low pressure or high water level condition and facilitated as a tracking tool to determine if a particular accumulator exhibited a recurring problem. During the period in question, no record of CRD accumulators degraded by a low pressure or high water level condition could be located by the licensee. The average frequency of accumulator alarms was approximately once per shift per unit.

Dresden Administrative Procedure (DAP) 7-5, "Operating Logs and Records", Revision 8, provided detailed instructions for the maintenance of records and logs which were administratively required to be maintained for the life of the plant. Step B.8 of DAP 7-5 required a AHWLPAL to be maintained for each unit as an ongoing record of CRD accumulator alarms. Additionally, the Accumulator High Water/Low Pressure annunciator response procedure, Dresden Operating Abnormal (DOA) 902-5 G-2, Revision 3, directed the Nuclear Station Operator (NSO) to review past entries in the AHWLPAL following a new alarm, and to initiate a maintenance work request if a particular accumulator was exhibiting a recurring problem. DOA 902-5 G-2 also required the NSO to document the new accumulator alarms in the AHWLPAL.

The requirements for the AHWLPAL were transferred into DAP 7-5 on December 8, 1989, from the Unit Operator's Daily Surveillance Log, Appendix A. The failure of shift personnel to complete the AHWLPAL during the period between April 1990 and August 30, 1990, was related, in part, to inadequate training of operations personnel at the time of the transfer such that some individuals were not aware of the administrative requirement. Review of the Unit 3 AHWLPAL (the Unit 2 AHWLPAL had been lost) indicated at least seven NSOs had followed the CRD logging requirements until April 1990. Interviews indicated that inadequate training also contributed to these NSOs ceasing performance of the logging requirements in that they were not aware that this was a continuing official requirement. However, the source document, DAP 7-5 was identified on each AHWLPAL page. Additionally, copies of the source document, sheathed in a clear plastic document protector and defining the requirements for the log, were found at the beginning of the log book. This is of concern because plant operations personnel, without proper direction from management, stopped the performance of documentation activities for records. Inadequate training of appropriate personnel as to administrative requirements concerning the AHWLPAL was considered to be an example of a violation (50-237/90023-01a (DRP)) of 10 CFR 50, Appendix B, Criterion II.

The inspectors found through interviews, that the technical staff CRD system engineer knew through independent review of the programmatic failure to maintain the AHWLPAL, per the administrative requirements of DAP 7-5 and DOA 902-5 G-2, since approximately May 1990. The system engineer was not cognizant of and had not been trained on the requirements of DAP 9-12, "Procedural Adherence Deficiencies," Revision 0, to document failures to meet the procedural intent or to

perform steps and activities contained within a procedure. Through additional interviews, the inspectors found that the problem of unfamiliarity and lack of training for the documentation of procedural adherence deficiencies was not limited to this single individual. This was significant in that the use of DAP 9-12 facilitates the identification, management review of, and resolution tracking including corrective actions of conditions adverse to quality associated with procedural inadherence. Although the system engineer knew a change in the method of documenting CRD accumulator alarms was planned and, as such, was not concerned, this did not correct the immediate problem nor did it address why the NSOs were not following an administrative requirement. Although other plant reporting and corrective action mechanisms existed that could have also provided these functions, these other plant deviation reporting programs were also not used. Inadequate training of appropriate personnel in regard to recognizing and processing this procedural inadherence as a condition adverse to quality such that adequate corrective action could be taken is considered an example of a violation (50-237/90023-01b (DRP)) of 10 CFR 50, Appendix B, Criterion II.

Both of these examples of violations would appear to be indicative of an overall problem involving personnel knowledge of plant administrative requirements and the significance of these requirements. Although some training on administrative requirements is given to personnel, there is an absence of an overall program to control and ensure appropriate personnel are trained on administrative requirements that they need to know to perform their duties.

(Closed) Unresolved Item 50-237/90022-03(DRP); 50-249/90022-03(DRP): Review licensee's incorporation of safety evaluation reports into the Updated Final Safety Analysis Report (UFSAR). In an Enforcement Conference conducted in the NRC Region III Office on October 12, 1990, the licensee described the schedule for reconstitution of the UFSAR and measures to ensure adequate 10 CFR 50.59 evaluations in the interim. The Enforcement Conference is documented in Inspection Report 50-237/90025; 50-249/90024. The inspector has no further concerns in this area.

(Closed) Open Item 50-249/86012-48: Observation 2.5.4 from Safety System Outage Modification Inspection (SSOMI). Concern regarding use of silicone grease on valve gaskets, seals and seats versus leak tightness. This item was reviewed in Inspection Report 50-237/89026; 50-249/89025, in response to the licensee's discovery of grease on the internals of the Unit 3 reactor building to torus vacuum breaker check valves. It was concluded that the grease discovered on the check valves was applied prior to the corrective actions to prevent greasing of valve seats to pass local leak rate tests. These corrective actions were described in that report. The inspector also reviewed the work request package for feedwater outboard check valve 220-62B which contained specific prohibitions against use of lubricant on valve seats including a quality control hold point to verify this. The inspector has no other concerns in this area.

(Closed) Allegation AMS No. RIII-90-A-0102 (Part B): Falsification of Training Records. An allegation was made to the NRC concerning

falsification of training records by "whiting-out" and backdating to show that training was received prior to performing work. According to the alleger, training was given on grinding and flapping of welds for generic use on October 10, 1990. The craft workers were told to backdate the training records to September 20, 1990, to show that training was given prior to starting the task. The alleger and two other workers refused to backdate the training record and entered October 10, 1990. These three entries were "whited-out" and changed to September 20, 1990.

The inspector interviewed employees of Fluor Contractors International, Inc., (FCII), and reviewed FCII Site Procedure SP-II-02, Revision 0, "Orientation, Indoctrination and Training." FCII Procedure SP-II-02 referenced the FCII training matrix for required training. Grinding and flapping are craft skills that would be performed either by a pipefitter or boilermaker. The required training for these crafts was FCII orientation and DAPs 1-4. Only the pipefitter and boilermaker foremen were required, by the FCII training matrix, to receive training in job specific procedures.

In order to reduce job errors, the foremen performed a walkdown of the job and reviewed the task to be performed with the craft prior to starting the work. To give the craft a sense of personal responsibility, this informal training was documented using the Training Report Form found in FCII training procedure SP-II-02. This work review and training documentation was not procedurally required.

The inspector reviewed work areas found in the "Outage Package Status Report." Three areas were identified that would include grinding and flapping as part of the work. These were Inservice Inspection (ISI), Erosion/Corrosion, and the Reactor Vessel Level Instrumentation System (RVLIS) Modification. The inspector reviewed the training report records associated with the following work packages:

ISI Work Package Nos. D93346-1 through 21
Erosion Corrosion Work Package Nos. D93350-1 through 7
RVLIS Work Package Nos. D94094-1 through 10

The allegation was partially substantiated, in that there were training report entries where the date had been altered by writing over the original date. In one instance, the training report was dated September 21, 1990, and the first three entries were originally dated October 10 or 20, 1990 and then written over to reflect September 20, 1990. No white-out was used to alter the entry.

However, the training was not procedurally required and the training record was not a document required by the quality program. The contractor has indicated that a new form may be used in the future to document the work review. No further action is considered necessary in this area.

Duplicate Items

The following Unit 3 items are being closed because they are duplicates of corresponding Unit 2 items. These issues are still open and being tracked through the Unit 2 tracking numbers.

Two examples of a violation and no deviations were identified in this area.

3. Licensee Event Reports Followup (90712 and 92700)

Through direct observations, discussions with licensee personnel, and review of records, the following event report was reviewed to determine that reportability requirements were fulfilled, immediate corrective action was accomplished, and corrective action to prevent recurrence had been accomplished in accordance with Technical Specifications.

(Closed) LER 237/90010: Core Spray Pump 2B Automatic Start. This event including licensee corrective actions is discussed in paragraph 5.a.1.

No violations or deviations were identified in this area.

4. Plant Operations (60705, 60710, 71707, 71710, 71714 and 93702)

The inspectors observed control room operations, reviewed applicable logs and conducted discussions with control room operators during this period. The inspectors verified the operability of selected emergency systems, reviewed tagout records and verified proper return to service of affected components. Tours of Units 2 and 3 reactor buildings and turbine buildings were conducted to observe plant equipment conditions, including potential fire hazards, fluid leaks, and excessive vibrations and to verify that maintenance requests had been initiated for equipment in need of maintenance. The inspectors reviewed new procedures and changes to procedures that were implemented during the inspection period. The review consisted of a verification for accuracy, and correctness. These reviews and observations were conducted to verify that facility operations were in conformance with the requirements established under Technical Specifications, 10 CFR, and administrative procedures.

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

In addition, a general plant walkthrough inspection was performed by NRC, Region III, Division of Reactor Projects, Branch 2, on October 16, 1990.

Comments from that inspection including those concerning radiation practices were provided to the licensee for resolution.

Unit 2 was shutdown for refueling on September 23, 1990. The inspectors reviewed the technical adequacy of approved procedures and establishment of administrative controls for refueling activities through Dresden Fuel Procedure (DFP) 800-1, "Master Refueling Procedure," and other associated refueling and operating surveillance procedures. The inspector also verified implementation of these administrative controls prior to and during fuel movements by review of appropriate completed checklists, logs and surveillances, direct observation, personnel interviews, and verification that Technical Specification requirements for refueling were met. Observation of new fuel receipt and licensee inspection was documented in inspection report 50-237/90017; 50-249/90017. Activities prior to fuel movement were also observed including reactor shutdown and various aspects of removal of the shielding blocks, drywell head, reactor vessel head and dryer/separator. The inspectors verified that key personnel possessed an adequate understanding of their individual responsibilities and administrative requirements through direct observation and personnel interviews. Adequate staffing for refueling activities and adequate plant cleanliness conditions were also verified by the inspectors. Appropriate radiation protection controls were verified to have been implemented in conjunction with these activities. The inspectors also verified that steps were being taken for the fuel handling foremen to activate their senior reactor operator licenses in accordance with 10 CFR 55.53(f)(2).

Specific incidents involving fuel handling activities are discussed in paragraph 7.a.

The inspectors performed a detailed walkdown of the accessible portions of the Unit 2 high pressure coolant injection (HPCI) system and the Unit 3 core spray (CS) system. At the time of the walkdown, the Unit 2 HPCI system was out of service for maintenance and modifications. Several minor deficiencies regarding the HPCI and CS systems were noted by the inspectors which were quickly resolved by the plant staff to the inspectors' satisfaction.

The inspector reviewed the licensee's program and procedures relating to preventative measures taken for extreme cold weather. In response to IE Bulletin 79-24, the licensee stated that safety-related process, instrument and sampling lines had not experienced freezing and that the above ground ECCS lines entering the Dresden Unit 2/3 contaminated condensate storage tanks were well insulated, heat traced and contained in an insulated permanent enclosure. In addition, all other safety-related instrument and sampling lines were indoors and not exposed to sub-freezing temperatures. The inspector verified the material condition of the insulation on the ECCS lines, the presence of heat tracing and the adequacy of the insulated enclosure. The inspector verified the completion of Dresden Operating Surveillance (DOS) 010-9, Revision 2, which outlined equipment manipulations and inspections to be performed in preparation for seasonal weather changes. This surveillance specified the seasonal requirements for energizing tank heaters, heat

tracing and space heaters, and for inspecting steam heating coils and pipe insulation for signs of degradation.

Various operational occurrences were also reviewed as follows:

a. On October 14, 1990, while Unit 2 was defueled, approximately 1,300 gallons of contaminated condensate water were spilled onto the third and fourth floors of the reactor building. The spill was the result of overflow of water through the reactor cavity ventilation duct openings. The reactor cavity was being flooded to support reactor vessel internal inspection but level should not have been raised past the bottom of the duct openings. Cavity fill was accomplished with condensate flow from the condenser hotwell with makeup from the condensate storage tank. The fuel handlers were initially monitoring cavity level from the refuel floor but later left, and informed the NSO of their departure. The change in level from that last reported by the fuel handlers and that later reported by an Equipment Attendant (EA) was noted to differ from the change reflected on the control room indication. In addition, the NSO realized that control room indicated level had risen to where it had been maintained a week earlier. As such, the Shift Engineer and Shift Supervisor verified level to be below the ducts from the refuel floor. However, they did not approach close enough for positive verification since this would have necessitated changing into anti-contamination clothing. Therefore, they verified that the EA had gotten closer on his earlier check. Although the EA was later dispatched to again check level, the overflow occurred prior to the EA reaching the refuel floor.

   Further review indicated that a precaution in Dresden Operating Procedure (DOP) 1900-3, "Reactor Cavity-Dryer Separator Storage Pit Fill and Operation of the Fuel Pool Cooling and Cleanup System During Refueling," Revision 8, required constant communication between the refueling floor and the control room while filling the reactor vessel to prevent overflow into the ventilation ducting. However, neither of the two operating crews involved in the vessel filling actually utilized the procedure nor was the precaution followed. Failure to maintain constant communication between the refueling floor and control room while filling the reactor vessel in accordance with DOP 1900-3, is considered to be an example of a violation (50-237/90023-02a (DRP)) of 10 CFR 50, Appendix B, Criterion V. The operating crews were counselled in the significance of the event, the need for attention to detail and procedural adherence. All Operating Engineers were instructed to reference procedures when possible in Daily Orders. (The Daily Orders which prescribed filling the reactor vessel had not done this.) In addition, a misleading operator aid being used in the control room was revised as to ventilation opening level. The Shift Engineers were also instructed to ensure procedures were out and adhered to for all complex, unique or infrequent evolutions. Further corrective actions to address general concerns about events during the refueling outage are discussed in paragraph 7.b.

Additional longer term event specific corrective actions were being developed by the licensee.

b. On October 27, 1990, the Swing Unit 2/3 Diesel Generator (DG) received an unplanned automatic start and tied to Unit 2 ESF Bus 23-1. At the time of the event, Unit 2 was in a refueling outage and Unit 3 was in power operation. The event occurred while removing Busses 23 and 23-1 from service in accordance with out-of-service (OOS) request II-1549 to facilitate breaker and cubicle preventative maintenance work. The intent was to remove these buses from service while still allowing the swing DG to supply Unit 3 if required. Further review indicated that actions were accomplished with OOS II-1549; however, the OOS was incorrect. The individual who wrote the OOS, who held an inactive Senior Reactor Operator (SRO) license, correctly summarized by reviewing the applicable electrical schematic drawing that four knife switches had to be opened to accomplish the desired action. As this individual believed the drawing to be unclear as to the precise designation and location of the knife switches such as to make identification of the actual corresponding switches in the plant difficult, Dresden Operating Surveillance (DOS) 6600-6, "Bus Undervoltage and Emergency Core Cooling System Test for the Unit 2/3 DG" was referred to for clarification. Unfortunately, one of the switches in the procedure was not the same as to what that individual thought was the corresponding switch on the drawing. While the correct switch designated on the drawing was actually located on Bus 23-1, the one in the procedure was located on a small panel about 3 feet behind Bus 23-1. It was incorrect to use the procedure in this respect since it was designed for a different function. (In fact, in this test, the diesel generator was supposed to start.) DOP 6500-11, "De-energizing 4KV Bus 23-1 for Maintenance," referenced the proper knife switches but was also not utilized in preparing the OOS. The OOS was reviewed in accordance with the licensee's administrative program by a Shift Foreman (SF) with an active SRO license. The first individual had attached a copy of the relevant page from the procedure to the OOS which keyed the SF into using it in his review. Therefore, the OOS was incorrect due to referencing of inappropriate documents for clarification of the electrical schematics during its preparation. As such, the OOS was not appropriate to the circumstances in violation (50-237/90023-03 (DRP)) of 10 CFR 50, Appendix B, Criterion V.

The inspectors reviewed a recent previous violation involving incorrect OOS checklists with three examples and determined the root causes to be sufficiently dissimilar. Therefore, this event could not have reasonably been expected to have been prevented by the licensee's corrective action for the previous violation. The licensee initiated improvements to the undervoltage knife switches for all the Unit 2 and Unit 3 4 KV busses which had the potential for an unplanned DG start. The licensee also planned to develop specific procedures for de-energization of all Unit 2 and Unit 3 4 kv bus combinations which have the potential for an unplanned DG start. Additional plans were initiated for issuance of a policy statement clarifying types of situations in which Operations should

request assistance from other departments during OOS preparation and verification. As this was considered to be an isolated occurrence and appropriate corrective actions were initiated, a Notice of Violation is not being issued in accordance with 10 CFR 2, Appendix C, Section V.A. Safety significance was also minimal since all loads had already been removed from Bus 23-1. Opening of the incorrect switch defeated some interlocks for ECCS equipment that were already OOS for the outage.

c. On October 20, 1990, a fuel oil spill occurred in the Unit 2 diesel generator room. This was discovered by two members of the Technical Staff about the same time Unit 2 DG fuel oil day tank level alarm was received in the control room. Diesel fuel oil day tank drain valve 2-5212-500 was found partially open and was immediately closed. A fire watch was posted until the spill was cleaned up. Approximately 500 gallons of fuel was spilled to the oil separator tank with some drain funnel overflow onto the Unit 2 DG room floor. Safety significance was minimal since the DG was OOS for maintenance at the time. Further review indicated that this valve and diesel fuel oil transfer pump suction valve 2-5201B-500 were checked to be shut by a non-licensed Operations Supervisor on October 8, 1990, in preparation for cleaning the main fuel oil storage tank. "Do Not Operate" tags supplied by the cleaning vendor were placed on the valves. However, no Dresden OOS was written for this activity. On October 20, 1990, the Operations Supervisor opened both these valves to restore them to what he believed to be their previous positions and, thereby creating the drain path. The Operations Supervisor was aware of OOS administrative requirements but failed to follow them to expedite the process. These administrative requirements contained in DAP 3-5, "Out-of-Service and Personnel Protection Cards," prescribe specific practices for removing and returning equipment to and from service including preparation, review, approval, documentation and independent verification methodologies. Failing to follow DAP 3-5 in regards to OOS requirements is considered to be an example of a violation (50-237/90023-02b (DRP)) of 10 CFR 50, Appendix B, Criterion V. The Operations Supervisor was counseled as to the importance of interacting with Operations Department shift personnel and the necessity of following OOS administrative requirements. In addition, the day tank valves on all emergency DGs were locked shut.

d. During observation of the repair of the Unit 2 diesel generator service water (DG SW) Dezurik three-way valves (2-3905-525 and 2-3931-525) per Work Requests D90498 and D90499, the inspectors developed concerns regarding previous operations of the DG. In February, 1990, both valve stems were found sheered through at the bonnet separating the valve operators from the plugs. The valves are used for flow reversal through the DG cooling water heat exchangers (HX). If either one of the two valve positions were changed without the other, then cooling water flow would completely bypass the DG cooling HX.

When the Shift Supervisor (SS) was notified of the degraded DG SW valves on February 9, 1990 a determination of the Unit 2 DG

operability was appropriate. Although it was not clear through interviews with associated individuals what the licensee considered in the operability determination, through review of additional documentation the inspectors agree that the DG was operable.

However, as the determination of operability was not easily discernible, the inspectors were concerned that the justification for the operability determination was not documented. DAP 7-9, "Malfunction of Safety Related Equipment" discussed logging in the Shift Supervisor's Log significant information surrounding the circumstances so that a reasonable judgement can be made of the cause of the problem and its significance. However, DAP 7-9 was ambiguous as to the threshold for safety-related equipment problems for which this would apply. Review of the Shift Supervisor's log and interviews with licensee personnel indicated that documentation of the justification for operability calls was not a current practice at Dresden. As a result of a Corporate Nuclear Operations Directive issued prior to the inspector's concern, the licensee already had plans to address this as part of an equipment operability program. Specifically, the licensee planned to have a procedure that would prescribe documentation by December 31, 1990. The inspector has no further concerns in this area.

A review of past performances of Dresden Operating Surveillance (DOS) 6600-2, "Reversal of Emergency Diesel Generator Cooling Water Flow" subsequent to the February 9, 1990 discovery of the degraded valves revealed a complete performance of the Unit 2 DG SW flow reversal on February 25, 1990. Due to the degraded condition, turning of the valve handwheel during the surveillance would not have resulted in actual valve position change although the plug position indicator would have shown a change. As a result, the failure to achieve actual flow reversal went unrecognized and the licensee's commitment to IE Bulletin 81-03, "Flow Blockage of Cooling Water to Safety System Components by Corbicula and Mytilus" was not fulfilled. However, the safety significance of not performing the flow reversal in this case was minimal since the DG surveillance indicated adequate HX differential pressure and DG cooling. Since the intent was to perform the flow reversal, the licensee's surveillance program accounted for the commitment, and the safety significance in this case was minimal, this failure to achieve the actual flow reversal is not being considered a deviation from the NRC commitment. Of more concern to the NRC is the fact that these valves were known to be degraded such that the handwheel could not be used to change valve position and yet the licensee did not ensure this knowledge was applied to the subsequent surveillance performance. These valves were not repaired until over eight months after discovery. In addition, if only one of the two DG SW valves had been degraded, the action by the operator on February 25, 1990, would have resulted in the isolation of cooling water to the DG. However, this condition would have been identified by step 9 of DOS 6600-2, which required the operator to stand by at the DG to confirm proper SW cooling flow during the monthly DG operating surveillance test run conducted on February 25, 1990. In this case, the licensee's administrative programs were ineffective in assuring

that the status and ramifications of degraded equipment was made known to appropriate personnel and reflected in decisions regarding subsequent activities.

e. DAP 7-14, "Control and Criteria For Locked Equipment and Valves," described the criteria for the selection of valves which were to be locked in position. Included in DAP 7-14 were manual valves which;

- Maintain or could compromise the operability of an Emergency Core Cooling System (ECCS). Step 2.a (2)
- Are in the flowpath of systems which are required for safe plant shutdown during post-accident situations. Step 2.a (3)

The inspectors observed that the DG SW Dezurik three-way valves on each of the three DGs were maintained in an unlocked condition. These valves were not listed in DOP 040-M3, "Locked Valve List: Accessible During Operations," Revision 13. The mispositioning of either one of the two DG SW valves would result in the isolation of the DG from cooling water flow. The DGs provided the emergency electrical power source for the ECCS systems. Based on the Technical Specification definition of operability, the status of the DG could compromise the functionality of the ECCS. Additionally, the DG, as defined in the UFSAR, was required for safe shutdown during design bases events, which included the simultaneous loss of offsite power. Although other manual valves were correctly locked in the DG system, an exception had been made in this case due to the design of these particular valves which make them more difficult to operate. However, the intent of locking valves was to provide a positive barrier to personnel to signify the importance of that particular valve's position. In this case, that barrier was not provided and the licensee's administrative procedure did not allow for that exception.

The inspectors noted that the manual containment isolation valves on the drywell manifold sample systems were also unlocked on both units. These valves were also not included in DOP 040-M3. The issue of locked manual containment isolation valves was addressed in the systematic evaluation program (SEP). As indicated in a Safety Evaluation Report dated September 24, 1982, the NRC position was that manual containment isolation valves should be administratively controlled and locked in a closed position such that the valves were not inadvertently opened during periods when containment integrity was required. This staff position on manual containment isolation valves at Dresden has been consistent with NRC 10 CFR 50, Appendix A, General Design Criteria, 55, 56, and 57. As part of the SEP process, CECo committed, per correspondence on November 18, 1982, from T. J. Rausch to P. O'Connor, to changing the appropriate procedures to implement administrative controls ensuring manual containment isolation valves would be locked closed. The licensee's administrative procedures were consistent with this commitment.

Failure to maintain the DG SW three-way valves and the drywell manifold sample system manual containment isolation valves in a locked condition in accordance with DAP 7-14 is considered an example of a violation (50-237/90023-02c (DRP)) of 10 CFR 50, Appendix B, Criterion V.

f. During fuel loading on November 12, 1990, fuel loading was suspended when abnormal indications were recognized on Source Range Monitor (SRM) 23. While investigating the cause of these indications from under the reactor vessel, instrument maintenance technicians noted that SRM 22 had dropped from its fully inserted position. Subsequently, SRM 22 failed a response test such that it appeared SRM 22 may not have been operable and responding for a short period while loading fuel in its corresponding core quadrant. This is considered an unresolved item (50-237/90023-04 (DRP)) pending further review of the extent and cause of this problem.

g. The inspectors noted that the licensee's policy was not to declare Technical Specification (TS) equipment inoperable and officially enter associated TS limiting conditions for operation when the equipment was purposely rendered inoperable for the purpose of TS surveillance testing. Examples included the standby liquid control system test in which the injection path was manually isolated, the diesel generator surveillance in which manual loading of the diesel generator rendered the load shedding feature inoperable, HPCI and isolation condenser isolation instrument surveillance in which an installed jumper prevented automatic isolation and a torus to reactor building vacuum breaker instrumentation surveillance in which the differential pressure transmitter was valved out-of-service. In addition, the inspectors noted that upon a control rod accumulator high water/low pressure alarm which indicated possible inoperability of the accumulator, the practice was to allow up to an entire shift prior to investigating the alarm. This permits a long delay during which the accumulator may be inoperable and action not taken to restore the accumulator to operability. These practices in regard to Technical Specification operability are considered an unresolved item (50-237/90023-05 (DRP)) pending further clarification of requirements.

Three examples of a violation, one example of a non-cited violation, and no deviations were identified in this area.

5. Maintenance and Surveillances (62703, 61726, and 93702)

a. Maintenance Activities

Station maintenance activities of systems and components listed below were observed 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 considered during this review:

The Limiting Conditions for Operation (LCO) were met while components or systems were removed from service; approvals were obtained prior to initiating the work; activities were accomplished using approved procedures and were inspected as applicable; functional testing and/or calibrations were performed prior to returning components or systems to service; quality control records were maintained; activities were accomplished by qualified personnel; parts and materials used were properly certified; radiological controls were implemented; and, fire prevention controls were implemented. Work requests were reviewed to determine status of outstanding jobs and to assure that priority is assigned to safety-related equipment maintenance which may affect system performance.

The inspectors witnessed or reviewed portions of the following activities:

Rebuild of the 2A2 Diesel Generator Air Start Relief Valve
Welding of the "C" Recirculation System Riser Overlays
Unit 2 Diesel Generator Service Water Three-way Valve Repair
Control Rod Drive Replacement
Recirculation Pump 2A Suction Valve Repair
Unit 2 Diesel Generator Air Start Regulator Replacement

Various occurrences were also reviewed as follows:

(1.) On October 3, 1990, while the reactor was being defueled, core spray (CS) pump 2B automatically started. At the time, all low pressure coolant injection (LPCI) pumps were out of service and both CS pumps were operable. During refuel conditions, Technical Specifications only require operability of two CS pumps, two LPCI pumps, or a combination of one LPCI and one CS pump. Only one diesel generator was operable for Unit 2 in accordance with Technical Specifications for refuel conditions. This was the swing 2/3 diesel generator which supplied emergency power to CS pump 2A.

Electrical maintenance personnel were performing a preventive work package on the Unit 2 diesel generator output breaker. This involved removal of the breaker from the cubicle, cleaning of the cubicle and replacement of a contact switch inside the cubicle. This switch, in series with the CS pump actuation circuitry, was to provide information to the circuitry on whether the diesel generator output breaker was open. The CS circuitry upstream of the switch was de-energized since an actual initiation signal was not present. Changing out the switch did not render the pump inoperable since it was still capable of automatic start through the load sequence portion of the circuitry. This would have just resulted in a ten second start delay. If an actuation signal occurred, this portion of the circuitry picked up in parallel to the immediate start circuitry regardless of whether an undervoltage condition existed.

The most likely cause of the automatic start was that while changing out the switch a lead may have inadvertently been grounded allowing enough voltage from the downstream circuitry to pick up the pump start relay. After ensuring that an initiation signal was not present or needed, the operators took the pump control switch to pull-to-lock. No other portion of the system actuated except for the pump minimum flow valve. The CS pump was considered inoperable at that point and the appropriate action statement entered.

Electrical technicians were aware that although the breaker was out-of-service and removed from the cubicle, the circuitry involving the switch was not out-of-service. Therefore, the instrument technicians were aware that adverse actions could occur with this activity and, therefore, took precautions in accordance with the work package including utilization of a rubber mat. The work package was discussed with Operations personnel prior to receiving permission to begin the work. This included review of associated drawings that indicated the existence of core spray interlocks. However, it was not entirely clear from the work package and the reviewed drawings as to what the interlocks accomplished. As such, the licensee believed that if Operations personnel were aware of the nature of these interlocks they may have halted the work activity for a few days until the CS pump was scheduled to be removed from service. As such, the licensee's corrective action was to require listing in the work package of possible specific interactions for any equipment that may have interlocks that affect other systems or contacts that may energize or de-energize equipment or related circuits. In this way, Operations reviewers would have more information on which to base decisions as to whether to let work begin. It must be noted however, that this type of decision is dependent on the individual and the circumstances such that permission to proceed may be given anyway. Therefore, this corrective action may not be sufficient to preclude repetition. However, in this case, the inspectors believed the root cause to be difficult to address since reasonable precautions were taken in changing out the switch. In addition, arriving at this root cause was by process of elimination of any other causes but was still not conclusive beyond any doubt. Further corrective action to address general concerns about events during the refueling outage is discussed in paragraph 7.b.

(2.) On October 15, 1990, Unit 2 outboard containment isolation feedwater check valve 220-62A was mistakenly disassembled instead of the corresponding train B valve. Due to leakage problems, both the A and B valves were to be worked on sometime during the refueling outage. The B train had been correctly taken out-of-service in accordance with OOS II-1279 on October 6, 1990. The Mechanical Maintenance Foreman (MMF) responsible for the job, walked down the OOS on the correct train on October 11, 1990. However, the MMF later mistakenly directed work to be

performed on the A valve. Work package D81758 clearly designated the B valve. In addition, sufficient identification tagging existed on the A train such that the problem would have been apparent if the tags had been checked. Quality control hold points existed in the work package but were on later instructions involving re-assembly of the valve. In addition, Technical Staff engineers responsible for local leak rate testing examined the valve after the valve cover was removed. These individuals also failed to recognize that this was not the B valve. The Technical Staff system engineer was aware of the work but did not personally view the valve since other Technical Staff personnel were performing that function. As such, the lack of attention to detail on the part of the MMF, coupled with the unquestioning reliance of other personnel that the MMF was correct, caused the wrong valve to be disassembled and not discovered until October 9, 1990. DAP 15-6, "Preparation and Control of Work Requests," Revision 0, required work to be performed per repair manual(s), traveler/procedure, or work instructions provided in the work package. Failure to disassemble the correct valve in accordance with the work package is considered to be an example of a violation (50-237/90023-02d (DRP)) of 10 CFR 50, Appendix B, Criterion V.

On that date radiation protection personnel noted that doses to workers on that job were much less than expected since the B valve was known to be more highly contaminated than the A valve. A check as a result of this information identified the error. It must be noted that the disassembly actually occurred prior to the generic attention to detail corrective actions discussed in paragraph 7.b. It was fortunate that safety significance in this case was minimal. The A line had been used approximately two days earlier for filling the Unit 2 reactor vessel cavity. Therefore, if the valve had been in a disassembled state just two days earlier, the X-area (steam tunnel) would have been flooded. In addition, if the inboard containment isolation feedwater check valve hadn't held, the reactor vessel cavity could have partially drained back through this line. The licensee was still developing event specific corrective actions at the end of the inspection period.

(3.) On October 19, 1990, the inspectors identified six Appendix "R" emergency lights (required for safe shutdown in the event of a disabling fire) with the electrolyte level below the add line. The inspector observed electrolyte level varying from just below the add line to one inch below the add line.

The Emergency Lighting Monthly Inspection, Dresden Electrical Surveillance (DES) 4153-02, stated that "Electrolyte level shall be at the full line". However, contrary to the established procedure, the licensee indicated that a practice

had been followed such that the emergency lights need only be filled when the electrolyte level was at or below the add line. The licensee further indicated that also contrary to the established procedure, the determination to add distilled water was at the discretion of the maintenance personnel. Conversations with the emergency light vendor and review of the vendor technical manual indicated that allowing the electrolyte level to fall below the add line could cause damage to the battery.

After the inspector identified the low electrolyte level in the emergency lighting units, the licensee initiated immediate corrective actions which consisted of:

(1.) Inspected and provided maintenance on Unit 3 emergency lights requiring servicing (for example adding distilled water to a battery with low electrolyte level.) Unit 2 was defueled at the time.

(2.) Review of the emergency lighting maintenance procedure.

(3.) Conduct of an investigation.

On November 14, 1990, the licensee indicated that an investigation report was being developed and would include an event summary, root cause(s) and corrective action(s) which would also be implemented for Unit 2. In addition, the licensee would document the emergency lights in the as-found condition on emergency lighting drawings. The licensee also indicated the investigation report and the marked up drawings for Unit 3 will be tentatively completed by December 14, 1990. This is considered an unresolved item (50-237/90023-06 (DRP)) pending review of the licensee's submittal.

b. Surveillance Activities

The inspectors observed surveillance testing, including required Technical Specification surveillance testing, and verified for actual activities observed that testing was performed in accordance with adequate procedures. The inspectors also verified that test instrumentation was calibrated, that Limiting Conditions for Operation were met, that removal and restoration of the affected components were accomplished and that test results conformed with Technical Specification and procedure requirements. Additionally, the inspectors ensured that the test results were reviewed by personnel other than the individual directing the test, and that any deficiencies identified during the testing were properly reviewed and resolved by appropriate management personnel.

The inspectors witnessed or reviewed portions of the following test activities:

Unit 3 Rod Swapping
Emergency Light Eight Hour Discharge Test
Radwaste River Discharge SPING Calibration/Setpoint Adjustment

Unit 2 250 VDC Battery Discharge Test
Source Range Monitor Checklist

The following occurrences were also reviewed:

(1.) On August 8, 1990, while calibrating the Unit 3 Torus to Reactor Building Vacuum Breaker A Pressure Transmitter, DPT-1622A, the instrument technician inadvertently adjusted DPT-1622B causing Vacuum Breaker B to open. DPT-1622A calibration was being checked per Dresden Instrument Surveillance (DIS) 1600-20, "Torus to Reactor Building Differential Pressure Transmitter 1622A and B Calibration and Maintenance Inspection" in accordance with Work Request D94439. This and other prescribed testing was to collect data for a non-detectable failure evaluation of Rosemont (Model 1153) transmitters. During the check DPT-1622A was valved out-of-service in accordance with the procedure and was, therefore, inoperable. When the as-found readings were discovered to be outside the tolerance range described in the procedure, the instrument technician was to perform a re-calibration to correct the problem. The two transmitters were located approximately eight inches apart and access to the calibration adjustments were on the underside of the transmitters. Each of the transmitters were labelled with a small label under the transmitter. To adjust the calibration setting, the instrument technician had to turn backwards to where he was previously standing performing the calibration check in order to look up at the transmitter from below. Therefore, the transmitter that had previously been on the technician's left for the calibration check was then on the right for the adjustment. As such, the technician mistakenly adjusted the wrong transmitter. DAP 15-6, "Preparation and Control of Work Requests", Revision 0, required work to be performed per repair manual(s), traveler/procedure, or work instructions provided in the work package. Failing to follow the work request by adjusting the wrong transmitter is considered to be an example of a violation (50-237/90023-02e (DRP)) of 10 CFR 50, Appendix B, Criterion V. However, safety significance is considered to be minimal in this case since adjustments were made in a direction that were conservative to Technical Specifications and, therefore, Vacuum Breaker B was never inoperable as to its relief function during the event. In addition, although the vacuum breaker was open for a brief time and therefore unable to perform a containment isolation function, its corresponding check valve remained closed. The vacuum breaker was immediately restored. The licensee counseled the instrument technician on the need for total job awareness especially when working in congested areas such as this. This event was also tailgated to instrument department personnel. The licensee also enhanced the labeling of both the Unit 2 and 3 transmitters and planned to rotate the transmitters such that the adjustment screws could be viewed from the top.

(2.) On November 14, 1990, the licensee discovered that the filter media in the Unit 3 Reactor Building Ventilation Air Particulate Sampler had been misaligned in the filter holder. This allowed a portion of the sample flow to bypass the filter. This is considered to be an unresolved item (50-237/90023-07 (DRP)) pending further review for the cause and significance of this event.

Two examples of a violation and no deviations were identified in this area.

6. Engineering and Technical Support (37828)

The inspectors reviewed the modification package to alter the diesel generator air start system (M-12-2-88-06). The modification was the result of a design weakness identified as a result of the Safety System Functional Inspection conducted in 1988 by the licensee. The inspectors observed the physical work of the resupport of the air receiver drain piping and verified the work was performed by qualified workers and in accordance with approved instructions and drawings contained in the work package. Additionally, welder qualification records for those individuals welding the hanger supports were verified.

No violations or deviations were identified in this area.

7. Safety Assessment/Quality Verification (35502 and 40500)

a. On October 1, 1990, while Unit 2 was shutdown for a refueling outage and fuel was being moved from the vessel to the spent fuel pool, the licensee discovered that the fuel movement was out of sequence. Fuel moves were designated by the Nuclear Material Transfer Checklist (NMTC) in accordance with Dresden Technical Surveillance (DTS) 8471, "General Procedure For Fuel Transfers Involving the Reactor." Step 581 of the NMTC indicated that fuel assembly X2B067 at core location 45-46 was to be transferred to Spent Fuel Storage Pool (SFSP) location F2-A7. Instead, fuel assembly X2C113 at core location 43-46 was moved to that SFSP location during NMTC step 581. The error was noticed prior to movement of any other fuel assemblies and all fuel movement was halted. Safety significance was minimal since as this was offloading of fuel, a criticality concern did not exist. Further review indicated that poor communications and inattention to detail contributed to the event. The fuel assembly to be moved was the last fuel assembly in the control cell. The following step, 582, involved a transfer from a different core region. The Fuel Handling Supervisor went onto the fuel grapple to caution the fuel handling crew of this fact. The independent verifier and grapple operator were scheduled to swap duties starting with step 582. Therefore, following the caution just received about that step, the independent verifier was studying a core map in regard to step 582 instead of independently verifying step 581. The fuel handling error was discussed with the current and later the oncoming crew to emphasize the importance of attention to detail an proper independent verification. The independent verifiers were instructed to communicate to the grapple operator whether or not the

proper fuel assembly was grappled prior to moving the assembly. (Before the event, positive communication was necessary only if the wrong assembly was latched.) Increased supervision to confirm the effectiveness of the independent verification was initiated. In addition, the licensee decided to expedite repairs to the core position indication system (CPIS) on the grapple which would have aided the fuel handlers to identify the correct assembly had it been entirely operable.

On October 2, 1990, despite the previous corrective actions, another fuel assembly mispositioning event occurred. An Electrical Maintenance Supervisor (EMS) was on the fuel grapple to observe the operation of the CPIS in preparation for repairs as discussed above. The independent verifier was discussing its operation with the EMS. Step 12 of Revision 2 of Part 7 of the NMTC prescribed movement of fuel assembly X2C160 at core location 25-28 to SFSP location F2-E1. The grapple operator instead moved fuel assembly A2D109 in core location 27-28. The independent verifier gave a cursory inspection of the core location and latched condition, while engaging in conversation with the EMS, and gave verbal permission to move the fuel assembly. The error was noted when moving the grapple to the next fuel assembly to be relocated and fuel loading was again halted. This event was again related to inattention to detail and lack of self-checking. A discussion involving management and the fuel handlers themselves was conducted to determine the best method of independent verification. It was determined that confusion still existed regarding the process the independent verifier followed during fuel moves including communications and the process was inadequately defined in appropriate procedures. In addition, external distractions were not adequately controlled on the grapple during fuel movement. A meeting was held between licensee management and all fuel handlers to stress the importance of attention to detail, independent verification and good communications. A temporary change was issued to DAP 7-7, "Conduct of Refueling Operations" to restrict grapple access during fuel movement. The CPIS was also repaired prior to resuming fuel movement. The licensee also planned to revise fuel handling procedures prior to the next refueling outage on Unit 3, currently scheduled for April 1991, to clarify the duties and responsibilities of the independent verifier and to establish compensatory measures when the CPIS is inoperable. Further corrective actions to address general concerns about events during the outage is discussed is paragraph 7.b.

Further review of past events, found two previous and similar fuel loading errors on January 10 and 12, 1989 during the last Unit 2 refueling outage. The licensee had determined the root cause of these events to be fuel handler inattention to detail. As a result, a memorandum had been issued to ensure an independent verifier visually verified the correct storage and core locations in addition to verifying fuel assembly latching. It also emphasized clear and concise communication. It was evident that this corrective action was insufficient to prevent the later October 1, 1990 event. Furthermore, the corrective actions from the October 1, 1990 event

were also insufficient to prevent still another event on October 2, 1990. Inadequate corrective actions in response to the January 10 and 12, 1989 and October 1, 1990 fuel assembly mispositioning events is considered to be a violation (50-237/90023-08 (DRP)) of 10 CFR 50, Appendix B, Criterion XVI. The remaining unloading of fuel and the reloading of fuel during the current refueling outage following additional corrective actions did not result in any fuel assembly mispositioning errors.

b. As described elsewhere in this report, a number of events occurred during the Unit 2 refueling outage which were indicative of personnel performance problems such as poor communications and inattention to detail. These included two fuel bundle mispositioning events, an inadvertent automatic start of a core spray pump, a reactor cavity overflow event, disassembly of the wrong feedwater isolation check valve, inadvertent draining of a diesel generator fuel oil day tank, inadvertent diesel generator start and loading and several other events which are either covered in other inspection reports or were not related to reactor or radiation safety. It appears that the frequency of these types of problems increased dramatically during the Unit 2 refueling outage as compared to the last Unit 3 refueling outage. This was not a contractor control problem since the majority of events involved station personnel across several organizational boundaries. Licensee management recognized the adverse trend and instituted specific action to address personnel performance problems on a generic basis. These generic actions included special meetings to emphasis these events and management expectations of priorities to workers. Outage work activities were temporarily reduced (substantially on Sundays) to ensure workers were well rested and to emphasize attention to detail over schedule. In addition, a self-check program, recently implemented for operations personnel in response to a previous violation, was expanded to the entire site. A third party review team was requested to review past events for any new insights. The inspectors observed substantial management involvement to address the problems.

c. While observing performance of a quality control (QC) hold point in work request 95491, the inspector noted that the Q.C. inspector identified that the step was being performed incorrectly. The work request involved repairing of the air receiver tank relief valve 2A2 for the Unit 2 diesel generator. The particular QC hold point was on a step for bench setpoint adjustment of the relief valve. The mechanics had set the relief valve to "pop" fully open within the set pressure band delineated in the procedure. However, a relief valve will initially open part way in order to relieve pressure back to acceptable system pressure. If system pressure continues to rise the valve will fully open or pop. As it was set, the valve would have relieved below the specified tolerance band. The QC inspector explained this to the mechanics who then correctly adjusted the setpoint. Followup to this problem was provided by completion of a QC Inspection Feedback Sheet by the QC inspector. This document is sent to the involved department to inform departmental supervision of

the problem so that any actions they feel appropriate can be taken. However, this methodology did not provide a tracking mechanism to ensure that the root cause is identified and appropriate corrective action is taken. The licensee stated that this mechanism was instituted to address lesser problems that would not be important enough to identify through other available problem reporting programs such as deviation reports. This is considered to be an unresolved item (50-237/90023-09 (DRP)) pending further review of the administrative guidance regarding these feedback sheets, types of problems identified in these feedback sheets, threshold criteria for other deviation reporting methods and the adequacy of actions taken by various departments in response to these feedback sheets.

d. The inspector observed the scram/engineered safety features (ESF) actuation reduction main committee meeting held on November 2, 1990. The committee reviewed the status of corrective actions that were being instituted in response to previous scrams and ESF actuations to prevent further occurrences. In addition, a review and discussion of recent events was performed during the meeting to ensure adequacy of planned corrective actions from a scram/ESF reduction standpoint. The status of BWR Owners Group Scram Frequency Reduction Recommendation Tracking System items and a recent Owners Group conference report were also discussed. This was viewed by the inspectors as a genuine effort to incorporate lessons learned from other facilities to prevent adverse occurrences. The inspectors regarded the licensee's scram/ESF reduction activities to be beneficial in light of the smaller number of scram/ESF actuations occurring in 1990 compared to the previous year.

One violation and no deviations were identified in this area.

8. Report Review (90713)

During the inspection period, the inspector reviewed the licensee's Monthly Operating Report for September 1990. The inspector confirmed that the information provided met the requirements of Technical Specification 6.6.A.3 and Regulatory Guide 1.16.

9. Unresolved Items

Unresolved items are matters about which more information is required in order to ascertain whether it is an acceptable item, an open item, a deviation or a violation. Unresolved items disclosed during this inspection are discussed in paragraphs 4.f, 4.g, 5.a.3, 5.b.2 and 7.c.

10. Exit Interview

The inspectors met with licensee representatives (denoted in Paragraph 1) on November 16, 1990, and informally throughout the inspection period, and summarized the scope and findings of the inspection activities.

The inspectors also discussed the likely informational content of the inspection report with regard to documents or processes reviewed by the inspector during the inspection. The licensee did not identify any such documents/processes as proprietary. The licensee acknowledged the findings of the inspection.