



UNITED STATES
ATOMIC ENERGY COMMISSION
DIRECTORATE OF REGULATORY OPERATIONS
REGION III
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JAN 13 1975

Commonwealth Edison Company
ATTN: Mr. Byron Lee, Jr.
Vice President
P.O. Box 767
Chicago, Illinois 60690

Docket No. 50-237
Docket No. 50-249

Gentlemen:

This refers to the inspection conducted by Messrs. Johnson, Brown, and Maura of this office on October 21-25, 29, and November 1, 1974, of activities at Dresden Units 2 and 3 authorized by AEC Operating License No. DPR-19 and No. DPR-25 and to the discussion of our findings with Mr. Stephenson and members of his staff at the conclusion of the inspection.

A copy of our report of this inspection is enclosed and identifies the areas examined during the inspection. Within these areas, the inspection consisted of a selective examination of procedures and representative records, interviews with plant personnel, and observations by the inspectors.

During this inspection, it was found that certain of your activities appear to be in violation of AEC requirements. The item and reference to the pertinent requirements are listed under Enforcement Action in the Summary of Findings Section of the enclosed inspection report.

This notice is sent to you pursuant to the provisions of Section 2.201 of the AEC's "Rules of Practice", Part 2, Title 10, Code of Federal Regulations. Section 2.201 requires you to submit to this office within twenty days of your receipt of this notice, a written statement or explanation in reply, including: (1) corrective steps which have been taken by you, and the results achieved; (2) corrective steps which will be taken to avoid further violations; and (3) the date when full compliance will be achieved.

JAN 13 1975

Commonwealth Edison Company

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In accordance with Section 2.790 of the AEC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this notice, the enclosed inspection report, and your response to this notice will be placed in the AEC's Public Document Room. If this report contains any information that you or your contractors believe to be proprietary, it is necessary that you make a written application to this office, within twenty days of your receipt of this notice, to withhold such information from public disclosure. Any such application must include a full statement of the reasons for which it is claimed that the information is proprietary, and should be prepared so the proprietary information identified in the application is contained in a separate part of the document. Unless we receive an application to withhold information or are otherwise contacted within the specified time period, the written material identified in this paragraph will be placed in the Public Document Room.

Should you have any questions concerning this inspection, we will be glad to discuss them with you.

Sincerely yours,

Gaston Fiorelli, Chief
Reactor Operations Branch

Enclosure:

RO Inspection Report No. 050-237/74-10
and 050-249/74-12

cc: (w/encl)

Mr. B. B. Stephenson
Superintendent

bcc: RO Chief, FS&EB
RO:HQ (4)
Licensing (4)
DR Central Files
RO Files
PDR
Local PDR
NSIC
TIC
A. Roisman, Esq.

U. S. ATOMIC ENERGY COMMISSION
DIRECTORATE OF REGULATORY OPERATIONS

REGION III

Report of Operations Inspection

RO Inspection Report No. 050-237/74-10 and
050-249/74-12

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

Dresden Nuclear Power Station
Units 2 and 3
Morris, Illinois

License No. DPR-19
License No. DPR-25
Category: C
Category: C

Type of Licensee: GE BWR, 810 MWe

Type of Inspection: Routine, Unannounced

Dates of Inspection: October 21-25, 29, and November 1, 1974

Dates of Previous Inspection: September 10-12, 14, 18, 21, 23-25;
October 1, 2, 21, and 29, 1974-Unit 2 (Operations)
September 18-20, 1974-Unit 3 (Security)

Principal Inspector: P. H. Johnson

RC Knop for

1/11/75
(Date)

Accompanying Inspectors: C. H. Brown

F. A. Maura
(November 1 only)

Other Accompanying Personnel: None

Reviewed By: R. C. Knop
Senior Reactor Inspector
Projects Unit 1

RC Knop

1/11/75
(Date)

SUMMARY OF FINDINGS

Enforcement Action

The following violation is considered to be of Category III severity:

Paragraph 3.7.A.5.b of the Dresden 3 Technical Specifications states that containment atmosphere oxygen concentration shall be reduced to less than 4% by volume within 24 hours subsequent to placing the reactor in the run mode.

Contrary to this requirement, the Unit 3 drywell was not inerted to less than 4% oxygen concentration within 24 hours after going into the run mode at 0935 on July 15, 1974. This violation was reported to the Commission by the licensee, although corrective actions to prevent recurrence had not been taken at the time of the inspection. (Paragraph 4.e)

Licensee Action on Previously Identified Enforcement Items

- A. The corrective actions listed in the licensee's response to the RO:HQ enforcement letter dated February 21, 1974, were reviewed during this inspection. Items I.A, I.B.2, I.C, I.E.1, and II.F are considered to be resolved. (Paragraphs 6 through 14)
- B. The corrective actions taken by the licensee concerning the items of noncompliance identified in the inspection report enclosed with our letter of May 13, 1974, were reviewed during this inspection. Items A.1.(a) and A.5.(a) are considered to be resolved. (Paragraphs 6 through 14)

Unusual Occurrences

Selected unusual occurrences were reviewed during the inspection, as identified in paragraph 4 of the Report Details.

Other Significant Findings

A. Current Findings

In general the commitment dates in the Lee to Davis letter dated March 15, 1974, were not met, although the review showed the main causes of the delays to be lack of equipment availability and expansion of the committed programs. Completion dates for each item, as applicable, are included in the report.

B. Unresolved Matters

The Fenwal series 17000 thermoswitch used to monitor MSL and HPCI steamline leaks appears to be a misapplication of the switch and

the licensee is reviewing an alternate system:

C. Status of Previously Reported Unresolved Matters

Not reviewed.

Management Interview

The inspectors conducted a management interview with Messrs. Stephenson (Station Superintendent), Roberts (Assistant Superintendent), and Diederich (Administrative Assistant) at the conclusion of the inspection. Other members of the staff were also present. The following matters were discussed:

- A. The inspector discussed his observations from a tour of portions of Units 2 and 3. He stated that observations in the Unit 2 HPCI room and the 2B LPCI room gave reason to question the frequency or thoroughness of tours made in these areas by operating personnel. (Paragraph 3) The inspector also questioned whether better house-keeping practices would contribute to the effectiveness of the radiation control program.
- B. The inspector stated that several abnormal occurrences had been reviewed, with the following comments:
 - (1) A schedule for completion of pressure switch precycling should be established. (Paragraph 4.c)
 - (2) Failure to complete inerting of the Unit 3 primary containment within the required 24 hours after going into the run mode (on July 14, 1974) represented a violation of Technical Specifications requirements. The inspector stated that the enforcement letter to follow would request that corrective actions be identified to prevent recurrence. (Paragraph 4.e)
- C. The inspectors stated that Mr. Johnson would be the assigned Project Inspector until further notice. The licensee was asked to consider the use of his telecopier for transmission of 24-hour written notification of abnormal occurrences to the Region III office. The licensee stated that this alternative would be considered, although Western Union would still be used pending further study.
- D. The inspector stated that in the review of actions taken to prevent recurrence of the seal-in circuits being left disconnected on motor operated valve breakers, it was noted that the HPCI system procedures were the only ones that had been revised to check the seal-in circuits.

The licensee agreed to review the systems and make revisions where applicable.

- E. The inspector stated that in the review of programs to reduce the failure rate of Limitorque motor operated valves it was noted that a safety review had been completed for breaker and overload replacement on a specific number of valves. A number of valves were then added to the program. The intent of the safety analysis still covered the valves, but the procedure was faulty in that it allowed a change to an approved work package. (Paragraph 8)

The licensee stated that a deficiency in the procedure had been noted during an internal audit and had been corrected. A review of the procedure, revision of March 1974, revealed that any change to an approved work package must be reapproved by all personnel that had previously reviewed it.

- F. The inspector stated that in the review of the flooding protection modification work package it was noted that the review sheet had indicated no procedure revisions were necessary. The inspector indicated he disagreed with this conclusion and pointed out two modifications; the condensate pumps which are now separated from the condenser pit, and the new flood switches which trip the circulating water pumps. There were no procedures covering these two modifications.

The licensee agreed that procedure revisions were in order and stated that they would issue the procedures shortly. (Paragraph 12)

REPORT DETAILS

Part I - Prepared by P. H. Johnson

1. Persons Contacted

B. Stephenson, Superintendent
G. Diederich, Administrative Assistant
T. Watts, Technical Staff Supervisor
G. Abrell, Operating Engineer, Unit 2
D. Scott, Operating Engineer, Unit 3
E. Meintel, Maintenance Engineer
W. Hildy, Instrument Engineer
J. Lamping, Master Mechanic
R. Williams, Lead Engineer, Unit 2
T. Lang, Lead Engineer, Unit 3
L. Dimmock, Engineer
R. Cozzi, Engineering Assistant
R. Crandall, Rad/Chem. Engineer

2. General

Units 1, 2, and 3 were operating at the time of the inspection. Unit 2 was scheduled to commence a refueling outage in early November.

3. Review of Plant Operations

No discrepancies were noted during a review of logs and other operating records. The following conditions were noted during a tour of portions of Units 2 and 3, and were conveyed to plant management during the management interview:

- a. Two chain falls were observed to be hanging over the housing of the turbine-pump coupling on the No. 2 HPCI unit.
- b. A loose junction and an open junction box were observed near the No. 2 HPCI turbine.
- c. Four of five local valve position indicators examined in the No. 2 HPCI room were observed to have burned-out bulbs.
- d. The indicator for a Unit 2 LPCI service water differential pressure switch was observed to have a bent needle, with no tag showing the indicator to be unreliable.
- e. Eleven of the 16 LPRM indicators on the Unit 3 control board were observed to be inoperable. The licensee was aware of the condition and had replacement indicators of a different type on order.

- f. A rod-select push button on the Unit 3 console was noted to have a burned-out indicator light.

4. Abnormal Occurrences

The following abnormal occurrences were reviewed during the inspection:

	<u>Event Title</u>	<u>Event Date</u>	<u>Report Date</u>
<u>Unit 2</u>			
1.	Premature actuation of 4E safety valve.	10/4/74	10/10/74
2.	Inspection of Bergen Paterson shock suppressors.	8/24/74	8/30/74
3.	Failure of main steam line radiation monitor to trip.	9/10/74	9/19/74
4.	Condensate booster pump vent line leak.	9/1/74	9/6/74
5.	Failure of 2/3 diesel generator to assume full load.	5/27/74	6/3/74
6.	HPCI pressure switch setpoint drift.	8/15/74	8/23/74
7.	Low SGTS efficiency.	6/25/74	7/2/74
<u>Unit 3</u>			
8.	2/3 Core height yarway calibration deficiency.	9/28/74	10/8/74
9.	Reactor high pressure switch drift.	6/11/74	6/19/74
10.	Feedwater pressure tap leak.	9/20/74	9/26/74
11.	Failure of 3B containment cooling service water pump to start.		
12.	Through-wall crack on torus/drywell purge line.	9/24/74	10/2/74
13.	Containment oxygen concentration out of limits.	7/16/74	7/22/74

The inspector's review included discussion of each event with a licensee representative and an examination of documents related to the licensee's evaluation and corrective action. The events listed above and related corrective actions were determined to have been as described in the referenced licensee reports, with comments as follows:

- a. Event No. 1: Station records showed that 4E safety valve to have been installed on October 2, 1971, vice October 2, 1972, as stated in the licensee's report.

- b. Event No. 2: The licensee's report discussed improper performance of shock suppressors containing both ethylene propylene and polyurethane sealed materials. A licensee representative stated that no material problems had been observed in those suppressors using ethylene propylene materials, but that improper performance in these cases had resulted from improper seal installation. He noted that some degradation of polyurethane seal material had been observed, and stated that all remaining polyurethane seal materials were scheduled to be replaced with ethylene propylene during the forthcoming refueling outage.
- c. A licensee representative stated that the same type pressure switch is used for both the HPCI low pressure cutout (Event No. 6) and the reactor high pressure trip (Event No. 9). He stated that the manufacturer had identified the cause of the observed setpoint drifts to be due to the lack of precycling. He stated that all pressure switches of this type (approximately 40) were to be returned to the vendor for precycling, although no schedule for completion of this action had been identified. Records showed the precycling to have been completed for 16 of the installed switches. The representative stated that only 4 spares were available for return to the vendor's facility at one time, and that this restricted the rate at which precycling of all switches could be completed. It was noted that none of the switches for which precycling has been accomplished have shown setpoint drift to values beyond Technical Specification limits. The inspector stated during the management interview at the conclusion of the inspection that a completion date for the precycling of all similar switches should be established.
- d. Event No. 12: Analysis to determine the cause of the failure is pending.
- e. Event No. 13: The inspector stated that a violation of Technical Specification requirements appeared to have occurred, in that the containment oxygen concentration had not been reduced to less than 4% within 24 hours after placing the reactor in the run mode as required by Technical Specifications. He stated that actions to prevent reoccurrence should be addressed in the licensee's response to the enforcement letter which would follow.

REPORT DETAILS

PART II

Prepared by C. H. Brown and F. A. Maura

1/10/75
(Date)

Reviewed by H. C. Dance

1/10/75
(Date)

5. Persons Contacted

- T. Watts - Supervisory Engineer, Technical Staff
- D. Scott - Operating Engineer, Unit 3
- T. Long - Engineer, Technical Staff
- R. Meadows - Engineer, Technical Staff
- R. Williams - Engineer, Technical Staff
- J. Dolter - Engineer, Technical Staff
- J. Toscas - Engineer, Technical Staff
- M. Wright - Quality Control Engineer, Technical Staff
- N. Jackiw - Quality Assurance Engineer
- J. Brunner - Systems Electrical Engineer
- R. Thomas - Control and Instrument Technician
- W. Hildy - Instrument Engineer
- R. Cozzi - Engineering Assistant, Surveillance

6. Organization and Administration

a. Response to Items of Noncompliance - Units 2 and 3

The actions taken by the licensee in response to the RO Headquarters enforcement letter (Davis to Ayers) dated February 21, 1974, and the RO:III letter (Keppler to Lee) dated May 13, 1974, were reviewed as noted in paragraphs 6 through 14 of this report.

Instructions were given to plant personnel regarding (1) the importance of responding to control room annunciators; (2) reporting requirements; and (3) adherence to QA Manual and surveillance procedures and check lists - in particular the valving-in of the main steam line high flow sensors following surveillance testing, the proper actions for an inoperable vacuum breaker, and the improper replacement of a 25 amp breaker with a 30 amp breaker - were stated to have been given verbally.

Two positions had been created and staffed in the Maintenance Department to assist in the development of work packages for

safety related maintenance and to monitor such maintenance.

b. Management Controls on Commitments

Review of commitments showed that since March, 1974, the Station Superintendent has held monthly meetings with representatives of each Edison Department involved in meeting some part of the current outstanding commitments. These meetings are staggered over the month with one department at a time and the Assistant to the Superintendent has the responsibility to maintain any interface necessary.

A spot check was made of the Action Item (AI) log and it was noted that the AI sheet was dated at each review. A monthly review of the AI log is also made by the Assistant to the Superintendent and any status change is reported to the Station Superintendent. The Q.A. Engineer audits the status of commitments for timely completion of the items and reports in his routine report to the General Office.

Review of instrument set point records showed that the Instrument Department had completed the safety setting review in light of experienced set point drift. Three pressure setpoints had been changed to reduce the possibility of exceeding the Technical Specification limits.

A long-term trend log of equipment failures was initiated in June, 1974, to follow the frequencies of failures as an evaluation of the effectiveness of (or the need for) the corrective program that had been initiated. A review of the trend log showed that as of October, 1974, a downward trend in valve operation failures existed.

The former Quality Assurance training program implementation status 1/ was reviewed. It was noted that as of November 1, personnel had reviewed approximately 55% of the Quality Procedures for which they are responsible. The licensee commitment calls for completion of the program by 1/1/75.

c. Overdue Commitments

Commitments noted to be incomplete during February, 1974, 2/ were reinspected with the following results:

- (1) The Technical Specifications revision on the HCPI pressure switches had been completed on April, 1974. It was noted that the "basis" section still contained a reference to the HPCI pressure switches. The licensee stated that he would coordinate this with the General Office to complete

1/ Lee to Keppler, Letter dated 9/6/74.

2/ RO Inspection Report No. 050-237/74-02 and No. 050-249/74-02.

the deletion of reference to the HPCI pressure switches.

- (2) The Technical Specification change for routine control rod exercising is still under statistical evaluation. The responsibility for the evaluation was transferred to the Offsite Review function in May, 1974.
- (3) The weekly auditing, thru the use of the "Daily-Weekly Surveillance Discrepancy" sheet, is now formally completed via a revision to procedure 30-154 which was placed in effect June, 1974. This item is considered resolved.
- (4) The procedures for hot start up and scram recoveries were revised May, 1974, and March, 1974, respectively, to contain the requirement for APRM 15% scram and rod block tests. This item is considered resolved.
- (5) The startup and shutdown procedures were revised in May, 1974, to verify that the reactor vessel shell recorder was operating. The required corrective actions in case of recorder malfunction were added to the procedure by a revision in September, 1974. This item is considered resolved.

7. Reactivity and Power Control

a. APRM Gain Adjustment

A review of the licensee's practice in the performance of APRM calibrations against heat balance calculations since March, 1974, revealed that:

- (1) On March 19 the Instrument Department lowered the flow-biased scram setpoint to $.65 W + 52$, and the rod block setpoint to $0.65 W + 40$, where $W = \% \text{ core flow}$. Therefore, at 100% core flow the new scram point is 117% rated power and the rod block occurs at 105% rated power, both 3% power below their respective limits. This allows the licensee some flexibility in setting the APRM gain without exceeding the limits routinely.
- (2) The Nuclear Station Operator conducts a daily surveillance of the gain adjustments factors (GAF) at approximately 0700 hours. A review of the records for both units covering the period from July 29 to September 1, 1974, showed that whenever more than one APRM per scram channel showed a GAF of 1.02 or greater the licensee took corrective action to reduce the GAF below 1.02. The records showed considerable improvement, by the licensee,

in maintaining APRM readings closer to the actual thermal power.

- (3) The Technical Staff is maintaining an APRM error trend record. This violation (I.A as identified in the RO:HQ enforcement letter (Davis to Ayers) dated 2/21/74) is considered resolved.

b. Reviews of APRM Hi Hi Scrams

A review of Units 2 and 3 scrams for 1974 showed three had been caused by high APRM indication due to reactivity increases generated by pressure spikes or recirculation flow increases. All had occurred on Unit 3 on the following dates: January 25, June 17, and July 22, 1974. In addition an APRM caused scram on Unit 2, which had occurred on September 29, 1973, was selected for review. The review included interviews with plant personnel. The results showed that:

- (1) Prior to May, 1974, the licensee did not review the scrams to verify, prior to unit restart, whether any safety limits had been exceeded. Since May, 1974, Revision 1 to the "Scram Recovery Check List" requires a review of the process computer printout to ensure the neutron flux did not exceed the Technical Specification limit for > 1.5 sec.
- (2) The review of the process computer print out for the four previously mentioned APRM scrams showed the neutron flux exceeding the limit for only ~ 0.2 sec.

8. Motor Operated Valves

A. Effectiveness of Motor Operated Valve Program

A review was made to check the effectiveness of the programs initiated to reduce the number of valve operational failures. A total of 110 motor operated valves were reviewed. As of the October, 1974, inspection the majority of the various programs had been completed for a short period of time, but the effect appeared to be a considerable reduction in valve failures. Only one overload device opening had occurred in the previous several months. The review revealed that this overload device for 1501-19B on Unit 2 had not yet been changed at the time of the event. This program was initiated in response to Violation II.E.2 as identified in the RO:HQ enforcement letter (Davis to Ayers) dated 2/21/74. Although portions of the program have been completed as indicated in the following paragraphs, the item remains open.

pending completion of remaining portions.

B. Torque Switch Settings on Limitorque Valves with Locking Gears

A list of recommended torque switch settings on the 60 safety related motor operated valves with locking gears for each unit was completed and issued in June, 1974, with a revision on September 27, 1974. A review of the recommended settings showed that the following criteria were used:

- (1) If the valve is a normally open valve, and must close, the manufacturer's recommended setting is used. The opening setting may be less than the manufacturer's value, if it has been found to be operationally adequate.
- (2) If the valve is a normally closed valve the opening torque setting may be higher than the manufacturer's recommended setting so that additional torque is available to open the valve. The closing setting is that which has been found to be operationally adequate.

Adjustments of the torque switches in both the increase and decrease directions has been completed on the 60 safety related motor operators for each unit. Similar valves in both Units now have the same setting. This item is considered resolved.

C. Torque Switch Settings on High Speed Valves and Motor Operators with Non-locking Gears

There are 20 safety related valves on each unit that do not have recommended torque switch settings. These valves have been classified as high speed valves or have operators with non-locking gears. Commonwealth Edison's Station Electrical Engineering and the vendor are evaluating the inertia of the high speed valves as a possible cause of the bent valve stems that have occurred. In conjunction with this review a circuit modification for valves with non-locking gear operators is being evaluated. The non-locking gear operator allows the torque switch spring to relax which restarts the motor and retorques the valve shut. This cycling is termed hammering and is being evaluated as a contributor to the bent valve stems. The three bent stems that have occurred were in valves with non-locking gear operators. In one case the failure was blamed on a defective mechanical brake ^{3/} but this is not always necessarily true since not all non-locking gear operators are supplied with mechanical brakes. At the time of the October 1974, inspection the licensee did not plan to change the torque switch settings on these 40 valve operators until

the evaluation was complete.

D. Worm Gear Replacement in SMB000 Operators

The gears in 50 SMB000 Limitorque valve operators were found to be wearing at a faster rate than expected due to improper gear manufacture.

Starting with ten spares the operators are being cycled to the vendor for gear replacement and then back into plant. To date 20 operators have been replaced with correct gears. The next shipment of repaired operators was expected in November, 1974, so it appeared that the June 1975, replacement completion date can be met.

The licensee stated that the gear wear had not caused any operational problem nor was any expected before June, 1975, with the wear experienced to date. The first operators replaced were on the more important valves and replacement in the future will be on any valve as it becomes available for work.

E. Valve Position Indicator Lamps Monitoring Overload Protection Devices

The primary containment isolation valve and ECCS valve position indicator lamp circuits were modified so that the overload protective devices were monitored, i.e., the light circuit is completed thru a contact that is closed if the overload device is closed. A review of the modification records showed that it was completed on March 4, 1974, and tested on April 1, 1974, in Unit 2 and completed on March 15, 1974, and tested on March 21, 1974, in Unit 3. This item is considered resolved.

F. Proper Sizing of Valve Operators

At the time of the October, 1974, inspection four of the eight recommended valve operators had been completed. The review of 66 valve operators was completed in June, with no further changes recommended. During the initial MO valve problem review the licensee determined that eight valves had undersized operators.

Valve operators for 1501-27 A&B were changed from SMBOO to SMBO:

	<u>Work Completed</u>	<u>Test Performed</u>
Unit 2	4/8/74	4/19/74
Unit 3	4/2/74	6/4/74

These SMBOO operators are to replace the SMBOOO operators on 1501-19 A&B when the new valve yokes are received and the systems are available. The yokes were ordered on March 21, 1974, and delivery was expected in November.

G. D. C. Breakers Auxiliary Contacts

A review of the licensee's action regarding motor operated valve D. C. breaker failures experienced during 1973 ^{4/} showed that breakers on Unit 2 had been rechecked and tested by May 21, 1974. The Unit 3 breakers were checked and modified by March 20, 1974, but some functional tests were not completed until August 20, 1974, due to other modifications in progress or plant conditions which did not permit valve operation. The reversal of the operating bar had been performed on 30 of the 59 D. C. breakers in Unit 2 and on 31 of the 59 D. C. breakers installed in Unit 3. The other breakers did not contain the auxiliary contacts. This item is considered resolved.

The functional check of the HPCI system valves following maintenance did not previously include a check of the seal-in circuitry. This led to subsequent valve failures during surveillance testing. The Procedure 2300-S-1 was revised in March, 1974, to include this check and is to be performed monthly. The control room operating switches for the valves were noted to have been marked "Throttle" if the controller had no seal-in circuitry. It was also noted that the HPCI system procedure was the only one that had been revised with this check although several other systems have seal-in circuitry in valve controllers.

The licensee stated that a review will be made and the surveillance procedures revised as necessary.

H. Breaker and Overload Sizing

Review of station records showed that Station Electric issued a list on June, 1974, of recommended breaker and overload sizing and settings for safety related motor operator valves. The replacement of breakers and overload devices and the setting of the magnetic trip points was completed on Unit 2

on October 7, 1974, and on Unit 3 on June 4, 1974, with the exception of 1501-19 A&B which are to be completed after new yokes are installed. The functional test, which included three open-close cycles on the valves, was completed for Units 2 and 3 on October 8, 1974, and June 3, 1974, respectively.

The modifications performed on the breakers and overloads are:

- (1) 84 sets of breakers and overloads were reviewed.
- (2) 29 breakers did not have an adjustable trip setting but were declared adequate.
- (3) 39 breakers in Unit 2 required trip point adjustment.
- (4) 41 breakers in Unit 3 required trip point adjustment.
- (5) The remaining breakers required new units to meet the necessary current and trip times.

The breakers and overloads (recommended) are now consistent on similar valves for both units with two exceptions as follows:

<u>Unit</u>	<u>Valve</u>	<u>Motor Torque (ft.-lb.)</u>	<u>Motor FL amp</u>	<u>Motor LR amp</u>	<u>Overload Relay Cat.#</u> <u>Overload Heater Cat.#</u>	<u>Breaker Cat.#</u>
2	202-4A	60	11.2	91.3	CR 124L022 CR 123K12.5B	TEF 136040
2	202-4B	60	18.5	91.3	CR 124L028 CR 123K19.4B	TEF 136030
3	202-4A	60	18.5	91.3		TEF 136040
3	202-4B	60	18.5	91.3		TEF 136040

It was noted from the review and discussions with the licensee that 2-202-4A was a newer type motor that apparently runs more efficiently as it meets the requirements of the operator. No torque switch setting had been recommended for these operators at the time of this inspection. The breakers were considered to be satisfactory and no change was planned. This item is considered resolved.

9. Reactor Coolant System

A. Isolation Condenser Valve Breaker Replacement

During October, 1973, the Unit 2 isolation condenser MO Valve No. 1301-1, 25 amp breaker had been replaced with a 30 amp breaker without proper review. The licensee's actions on this occurrence were reviewed with the following comments:

The work request initiated in October, 1973, and marked urgent was completed on May 15, 1974, and the breaker sent out to the vendor for evaluation by a Station Electrical Engineer letter dated May 17, 1974. This was a like-for-like change out -- both breakers were TEF 136M1025. Although no work requests could be located the 30 amp breaker had apparently been removed and the original breaker reinstalled after the improper substitution was pointed out to the licensee. The original breaker was subsequently determined to have faulty time trips. The work request procedure was stated to have been verbally emphasized to all personnel involved in the breaker replacement. This violation, Item A.5(a) as identified in the RO:III enforcement letter (Keppler to Lee) dated 5/13/74, is considered to be resolved.

B. Failure to Remove Temporary Equipment When Maintenance is Completed

As a result of failures 5/ caused by temporary equipment being left following maintenance, Procedure 36-214 has been revised so that if a temporary device is used in the performance of maintenance or operation, the device is tagged with a list of components being used. When the work is completed each component is to be checked off the list. One work package was reviewed and it was noted that the procedure was followed. The jumper log was noted to have been reviewed daily for completeness by the Shift Engineer each mid shift during the month of September, 1974, as required by the procedure. This item (I.C.1 as identified in the RO:HQ enforcement letter (Davis to Ayers) dated 2/21/74) is considered resolved.

C. Logging Requirements for Inoperable Valves

The daily surveillance log sheets were modified with the statement "log closed operable isolation valves in line with inoperable isolation valve." The modified log sheets

5/ RO Inspection Report No. 050-237/73-05.

were confirmed to be in use and should prevent future violations of T/S 4.7.D.2 due to incorrect wording. This item (II.F as identified in the RO:HQ enforcement letter (Davis to Ayers) dated 2/21/74) is considered resolved.

10. Instrumentation

A. Fenwal Series 17000 Differential Expansion Thermostat

The facility's instrument department evaluation of the Fenwal thermostats was reviewed. These temperature switches (32 per unit) are used to monitor the main steam line tunnel and the HPCI turbine area for steam leaks and cause isolation of the steam supply if the switch setpoint of 200°F is reached. These switches have had a history of apparent random setpoint drift. 6/ The vendor informed the licensee that the switch should be exercised 10 times before the setpoint was checked. The licensee used the vendor's test fixture to perform the switch exercising with the addition of a thermocouple inside the test chamber. The switch actuation and temperature were monitored on a two pen recorder. The temperature at which the switch operated was erratic and did not appear to have a reproducible trip point.

The vendor has notified the licensee that this was a mis-application of this switch. The licensee presently has an alternate system under review and evaluation which makes use of thermocouples. The licensee stated that the present procedures will be used to set the switches until a new system is installed.

B. Relay Cover Installed Upside Down Preventing Relay Operation

The inspector examined four relay panels and noted that all relays were labeled to indicate right side up. The labels were on all operating relays, but on only some of the spare relays that were mounted in the panel. The relay cover design was reviewed prior to June 1, 1974, 7/ for possible modification to prevent installing the covers upside down. The recommendation was made and accepted by the site not to modify the covers. This item, (I.C.2 as identified in the RO:HQ enforcement letter (Davis to Ayers) dated 2/21/74) is considered resolved.

C. Micro Switch Support Bracket Surveillance

The micro switch support bracket bolt surveillance was found to be as stated in the March 15, 1974, (Lee to Davis) letter.

6/ RO Inspection Report No. 050-249/73-06.

7/ RO Inspection Report No. 050-249/73-06.

The vendor's recommended torque caused shearing of some of the bracket bolts, therefore per vendor's recommendation the site now ships the units back to the vendor for any required adjustment. This item is considered resolved.

11. Containment

A. High Torus Level During HPCI System Test

The corrective actions taken by the licensee to limit the possibility of recurrence of torus water level in excess of the Technical Specifications (TS) limit during a routine test were reviewed. The high level alarm setpoint had been reduced to a minus two inches and the low level alarm setpoint had been increased to a minus four inches so that the operator has time to respond and take corrective action before the TS limit is exceeded. Prior to this the alarm setpoint was at the TS limit. The procedure was revised on March 14, 1974, so that the test is commenced at the mid point of the operating level band of the torus and includes a requirement to terminate the test if the torus temperature or level approaches the TS limits. The procedure 900-AN-1 was revised on May 18, 1974, to amplify the corrective actions to be taken. The discussion with the operator that failed to take corrective action on the "Torus Level Hi/Lo" alarm was stated to have been given verbally. This item (A.1(a) as identified in the RO:III enforcement letter (Keppler to Lee) dated 5/13/74) is considered resolved.

B. Torus-to-Drywell Vacuum Breaker Position Indicating Switches

The results of the licensee's second modification to the position indicating switches have been reported previously in RO Inspection Report No. 050-249/74-05. The reliability remains questionable and therefore this item remains open.

Revision 4, dated August 1974, to Procedure 1600-S-XII was reviewed and noted to contain routine checks of switch actuation at less than 0.35°. The alarm actions, revised June 1974, refers back to this procedure which contains the limitation that only three of the twelve valves may be inoperable with the plant operating.

C. Standby Gas Treatment (SBGT) Demister Drain Valves

The SBGT demister drain valves were checked and found to be open during the October 1974, inspection. The licensee stated

that the valves would probably remain open as the preliminary information from the review of the SBT system indicated that the valves would be required to be in the open position for some operating conditions. No permanent revisions were completed at the time of the inspection.

12. Protection of Critical Equipment from Flooding

RO Inspection Reports No. 050-237/73-05 and 050-249/73-06 reference the nonfulfillment of commitments for installation and testing of alarms and pump trips associated with the protection of critical equipment. The licensee's letter (Lee to Davis) dated March 15, 1974, in response to RO:HQ letter (Davis to Lee) dated February 21, 1974, specifies dates that are not completely compatible with the following dates found in the status review of the protection from flooding modification:

The modification work packages M12-2-73-162 and M12-3-73-162 showed that the final installation and testing of the crib house, condensate pump room and the condenser pit level alarm switches were completed on March 13, 1974. The condenser pit level alarm and circulating pump trip switches (3 switches at the 5 foot level) were installed and functionally tested on October 8, 1973, for both units. During the October 1973, inspection the circulating pump trip switches had not been connected to the pump trip circuit, pending an outage to avoid the possibility of an accidental pump trip.

At the time of the October 1974, inspection the licensee did not have a program for surveillance of these switches.

A review of the applicable procedures revealed that there was no procedure covering flooding in the condenser pit and the associated circulating water pump trips. The condensate pump room flooding procedure still contained the reference to flooding from the circulating water system. The licensee stated that these cases would be reviewed and procedures developed as necessary. This item was to be entered into the licensee's Action Item Log.

13. Emergency Power

A. Lack of Appropriate Acceptance Criteria for Diesel Generator Cooling Water Flow

The diesel generator surveillance procedure revision was reviewed and noted to cover the acceptance criteria for a cooling water flow reversal with the requirement to have an

operator stand by at the diesel until the temperatures have stabilized during the test. The revision also contains a valve position listing for all cooling water flow modes. The addition of valve port marks adjacent to the reversing flow valves provides a more positive visual check and reduced confusion as to valve position. This item (I.B.2 as identified in the RO:HQ enforcement letter (Davis to Ayers) dated 2/21/74) is considered resolved.

B. Diesel Generator Start Circuit Modification

The diesel generator start circuit design deficiency was corrected as discussed in RO Inspection Report No. 050-237/74-02. The licensee has revised Q.C.P. 3-51.2 defining the system to acquire needed parts for a work package. The revision also requires a follow-up system to be set up for packages with parts on order. The mechanical maintenance and instrument maintenance sections were reviewed and found to have a workable follow-up system. This item (I.E.1 as identified in the RO:HQ enforcement letter (Davis to Ayers) dated 2/21/74) is considered resolved.

C. Modifications to Control Circuit Deficiencies in Breakers

During the inspection the status of control circuit deficiencies was reviewed. It was noted that the DG 2/3 breakers were in the process of being modified. Caution tags, where applicable, were in place.

14. Calibration of Offgas Monitors

The six-month calibration of the offgas monitors for Unit 3 was found to have been performed as stated in the March 15, 1974, (Lee to Davis) letter. The calibrations performed since June 1973, on the quarterly frequency had not shown any abnormal drift. This item is considered resolved.