



UNITED STATES
 NUCLEAR REGULATORY COMMISSION
 REGION II
 101 MARIETTA ST., N.W., SUITE 3100
 ATLANTA, GEORGIA 30303

Report Nos. 50-250/81-10 and 50-251/81-10

Licensee: Florida Power and Light Company
 9250 West Flagler Street
 Miami, FL 33101

Facility Name: Turkey Point

Docket Nos. 50-250 and 50-251

License Nos. DPR-31 and DPR-41

Inspection at Turkey Point site near Homestead, Florida

Inspectors: M. B. Shymlock for May 29, 1981
 A. J. Ignatonis Date Signed

M. B. Shymlock for May 29, 1981
 W. C. Marsh Date Signed

Accompanying Inspector: M. B. Shymlock May 29, 1981
 M. B. Shymlock Date Signed

Approved by: H. C. Dance 5/29/81
 H. C. Dance, Section Chief, Division of Resident and Reactor Project Inspection Date Signed

SUMMARY

Inspection on March 26, thru April 25, 1981

Areas Inspected

This routine inspection involved 213 resident inspector-hours and 35 regional based inspector-hours on site in the areas of (1) followup on previous inspection findings; (2) followup on licensee event reports; (3) surveillance test observations; (4) followup on IE Bulletins; (5) followup on implementation of post-TMI requirements; (6) plant operations; and (7) plant tours.

Results

Of the seven areas inspected, no violations or deviations were identified in six areas; one apparent violation was found in one area (Violation -failure to follow control of maintenance on Nuclear Safety-Related Systems procedure - Administrative Procedure (AP) 019.19 paragraph 9).

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DETAILS

1. Persons Contacted

Licensee Employees

H. E. Yaeger, Site Manager
J. K. Hays, Plant Manager - Nuclear
J. E. Moore, Operations Superintendent - Nuclear
*D. W. Haase, Acting Plant Manager - Nuclear
J. P. Mendieta, Maintenance Superintendent
*V. B. Wager, Operations Supervisor
W. R. Williams, Assistant Superintendent - Electrical
*D. W. Jones, QC Supervisor
B. A. Abrishami, Systems Test Engineer
W. A. Klein, Licensing Engineer
C. J. Baker, Construction Coordinator
D. C. Bradford, Outage Management Plant Supervisor

Other licensee employees contacted included construction craftsmen, technicians, operators, security force members, and office personnel.

*Attended exit interview

2. Exit Interview

The inspection scope and findings were summarized on April 30, 1981, with those persons indicated in Paragraph 1 above. The licensee acknowledged the violation and stated that appropriate corrective action would be taken.

3. Licensee Action on Previous Inspection Findings

(Closed) Failure to Follow Administrative Procedure on Control of Valves, locks, and switches as required per Technical Specification 6.8.1 (250/80-38-01). The inspector reviewed changes to Administrative Procedure 0103.5 which were made as a corrective action to the inspector's previous finding of a violation. The inspector had no further questions.

(Closed) Failure to Implement Administrative Procedure on Nuclear Turbine Operators as required per Technical Specification 6.4.1 (250, 251/80-38-02 and 80-37-01). The inspector reviewed licensee's corrective action in administering the non-licensed operator training program. The inspector has no further questions.



4. Unresolved Items

Unresolved items were not identified during this inspection.

5. Licensee Event Report (LER) Followup

During this inspection the following Licensee Event Reports were reviewed to assure the accuracy and completeness of the report, that the regulatory requirements had been met, the causes had been properly identified, and that appropriate corrective actions were being taken. Additionally, for the LERs identified by asterik below, a more in depth review was performed on site to verify that no unreviewed safety questions were involved, and no violations had been identified. Comments are added as appropriate.

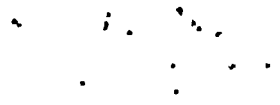
- *250-79-39 Foreign Material in Reactor Coolant System,
Update No. 1
- *250-81-03 GE-HFA Relays and update No. 1; 10 CFR Part 21 Report
- 251-80-13 Fire Detection System, Update No. 1
- *250-81-02 Boric Acid Flowpath Blockage
- *251-81-02 Boric Acid Flowpath Blockage

For LER 250-81-03, the licensee committed to perform quarterly inspection of all safety-related GE-HFA relays. This inspection was performed on April 14, 1981, for both units using the new Maintenance Procedure 0735 issued on April 13, 1981. Also, the licensee received replacement relays as recommended by General Electric, and are presently in the licensee's QC department. The above inspection procedure is for interim use until all the relays are replaced with qualified parts.

LER 250-81-02, Boric Acid Flowpath Blockage was identified in the previous inspection report (250, 251/81-07) as an open item due to a similar occurrence on Unit 4 as mentioned in LER 251/81-02. Both LERs were of a similar nature. The inspector reviewed these LERs and had no further questions.

6. Surveillance Test Observations

The inspectors observed portions of several surveillances to verify that the following objections were being met: testing is scheduled in accordance with technical specification requirements, procedures are being followed, testing



is by qualified personnel, LCOs are being met, and system restoration is correctly accomplished following testing. The surveillances observed were:

Test	Procedure No.	Date
125V DC Battery Load Test for 3B and 4A Batteries (Units 3 & 4)	OP9654.2	March 31, 1981
Post Accident Containment Vent System Absorber Cell Performance Test (Unit 3)	OP5504.2	April 1, 1981
Post Accident Containment Vent System HEPA Filter Performance Test (Unit 3)	OP5504.3	April 1, 1981
Control Room Post MHA Air Conditioning System - Absorber Cell Test (Units 3 & 4)	OP10304.1	April 2, 1981
Control Room Post MHA Air Conditioning System - Absorber Cell Test (Units 3 & 4)	OP10304.2	April 2, 1981
Containment Spray Pumps - Periodic Test (Unit 3)	OP4004.1	April 9, 1981
Engineered Safeguards and Emergency Power Systems - Integrated Test (Unit 3)	OP4104.2	April 10, 1981
Overpressure Mitigating System Functional Test of Nitrogen Back-Up System (Unit 3)	OP1004.4	April 13, 1981

During observation of the Overpressure Mitigating System Nitrogen back-up system functional test, the inspector noted that the N2 isolation valves for both trains were shut. Investigation into this apparent inadvertent isolation of the N2 backup system from the Overpressure Mitigating System Power Operated Relief valves revealed an apparent violation which is discussed in paragraph 9.

7. IE Bulletins

The following IE Bulletins were reviewed to determine whether they had been received and reviewed by appropriate management, responses, where necessary,



were accurate and complete, and that action taken, if required, was complete.

- a. (Closed) IEB 79-03A - Longitudinal Weld Defects in ASME SA-312 TP-304 Stainless Steel Pipe. This bulletin is closed based on the review of FPL response L-80-362 dated October 31, 1980, by the Region II Engineering Inspection Branch.
- b. (Closed) IEB 80-21 Valve Yokes Supplied by Malcomb Foundry Company, Inc. This bulletin is closed based on the review of FPL responses L-80-403 and L-81-34 dated December 11, 1980 and February 2, 1981, respectively and verification that negative responses have been obtained by FPL from all its valve suppliers.
- c. (Closed) IEB 80-23 Failures of Solenoid Valves Manufactured by Valcor Engineering Corporation. This bulletin is closed based on the review of FPL responses L-80-409 dated December 17, 1980. These specific valves were not in use at Turkey Point.

8. Followup on Implementation of Post-TMI Requirements

During this inspection period the inspector reviewed and verified certain TMI Action Plan activities performed by the licensee. Listed below is the status of the TMI Action Plan requirements addressed in the NUREG-0578 and NUREG-0737 documents.

(Open) Item II.B.2. (NUREG 0578 item 2.1.6.b) Plant Shielding. In the Office of Nuclear Reactor Regulation (NRR) evaluation of the licensee's compliance with TMI Lessons Learned Category "A" items, dated April 7, 1980, it was stated that IE would verify licensee's commitment for performing an evaluation of radiological environmental qualification of safety equipment (ie, pump seals) to be completed by August 29, 1980, and complete all necessary modifications by January 1, 1981. NUREG 0737 implementation date is January 1, 1982. The licensee has not completed this study due to unavailable response from one of the pump vendors queried. The basic component requiring pump vendor's response is the qualification of the mechanical seals. The inspector will continue to followup on this item. Future modifications for post accident shielding will include the installation of reach rods combined with piping reroute for RHR valves 741A&B; hinged radiation doors in the containment spray rooms and sample rooms; modification of the floor drain system such that post-accident leakage from pumps will be pumped back to the containment; installation of reach rods for Component Cooling System valves; and shielding a portion of Unit 4 High Head Safety Injection piping. During the March/April 1981, outage of Unit 3 RHR valve 741A has been relocated and associated piping with hangers rerouted. Licensee is awaiting delivery of reach rods. Similar modifications are planned for Unit 4 scheduled to start in late October, 1981.

(Open) Item II.B.4 Training for Mitigating Core Damage. The inspector verified licensee's implementation of the training program. Review of records has shown that the licensee had written a purchase order on April 1,



1981 for Westinghouse to conduct training of their personnel scheduled for July 13-17, 1981. This will be the first class. Thereafter, licensee plans to complete training for the remainder of the personnel by October 1, 1981, using Westinghouse test material. Implementation dates are in agreement with NUREG-0737 criteria. The licensee's letter showing compliance with this item is forthcoming.

(Closed) Item II.E.1.2. (NUREG 0737 item 1a and 2a). Auxiliary Feedwater System Automatic Initiation and Flow Indication. These two items have been closed on 10/24/80 but not documented in the inspection report. The inspector verified that the system is auto-initiated and that the hand control stations for the feedwater discharge valves are pre-set to 50% prior to starting the AFW pump. The instructions for pre-setting valves are addressed in licensee procedures numbered 0202.1, Reactor Startup, Cold Conditions to Hot Shutdown Conditions; 0202.2, Unit Startup, Hot Shutdown to Power Operation; 1506.2, Steam Generator Pressure Test/Hydrostatic Test; and 7304.1, Auxiliary Feedwater System - Periodic Test. Auxiliary Feedwater System Flow indication is provided in the control room. NRR concluded in their evaluation report, dated April 7, 1980, that the licensee has satisfied implementation requirements of NUREG-0578, Section 2.1.7.b.

(Open) Item II.E.1.2 (NUREG-0737 items 1.b and 2.c.) Auxiliary Feedwater System Initiation and Flow Indication. The licensee submitted the required documentation on February 3, 1981, which provides design information and a discussion of compliance with the IEEE 279-1971 standard. Per NUREG-0737 this licensee submittal should have been in by January 1, 1981. The licensee stated in their December 26, 1980, letter L-80-419 that they would not be able to complete all the modifications to the AFW system by the NUREG-0737 implementation date of 7/1/81. Modifications are expected to be completed by no earlier than September, 1981.

(Closed) Item II.E.3.1 Emergency Power for Pressurizer Heaters. The inspectors verified on 10/24/80 the implementation requirements of this position. This inspection report closes this matter. The NRR evaluation report, dated April 7, 1980, stated that the licensee has satisfied the implementation requirements.

(Closed) Item II.E.4.1 (NUREG-0578 item 2.1.5.a) Dedicated Hydrogen Penetrations. The Post-Accident Containment Vent System (PACVS) is designed to provide controlled venting of the containment and maintain the hydrogen concentration below combustible levels following an accident. In the NRR evaluation report, dated April 7, 1980, it was stated that the licensee has agreed to reevaluate the flow requirements of the system in order to determine the adequacy of the filters, and if modifications were required they should be completed prior to January 1, 1981. Based on discussion with the licensee, Bechtel (licensee's architectural engineering firm) has reviewed the PACVS flow requirements and concluded that the system flow will not exceed the design of the filtration system. This was stated in the Bechtel letter to the licensee dated August 22, 1980.



(Open) Item II.E.4.2 (NUREG-0578 item 2.1.4) Containment Isolation Dependability. NRR has determined in their evaluation report dated April 7, 1980, that the licensee had satisfied all Category "A" requirements of NUREG-0578 based on plans for upgrading three penetrations to provide redundant isolation barriers on each penetration with no operator action required. Two of the penetrations (P5 and P25) required interim administrative procedures to assure closure in the interim under two conditions: (1) Upon receipt of a non-spurious safety injection signal, and (2) When operation is complete. Part of the administrative control specified the assignment of a dedicated operator. Paragraph 5 of inspection report 250/80-33, 251/80-32 documented an apparent discrepancy between the administrative controls described in the safety evaluation report (SER) and those actually implemented by FPL. The licensee committed to resolve the apparent discrepancy via correspondence with NRR, and issued a letter L-80-378 dated November 10, 1980, to Operating Reactors Branch #1. The item remains open pending resolution of the apparent discrepancy, or acceptable completion of the upgrades to the penetrations. Work on those upgrades is scheduled for completion on Unit 3 during the current prolonged outage. The evaluation report also documented a commitment by licensee to install 5 separate valve control switches to replace the present single ganged switch. Material and procedures are in hand to install three of the five switches this outage on Unit 3. The licensee is awaiting delivery for the remaining switches and plans to complete all work on both units by the end of this year.

9. Plant Operations

The inspector kept informed on a daily basis of the overall plant status and any significant safety matters related to plant operations. Discussions were held with plant management and various members of the operations staff on a regular basis. Selected portions of daily operating logs and operating data sheets were reviewed daily during the report period.

The inspector conducted various plant tours and made frequent visits to the control room. Observations included witnessing work activities in progress, status of operating and standby safety systems, confirming valve positions, instrument readings and recordings, annunciator alarms, housekeeping, radiation area controls, and vital area controls.

Informal discussions were held with operators and other personnel on work activities in progress and status of safety-related equipment or systems.

Prior to startup of Unit 3 following the refueling and equipment maintenance outage the inspectors observed low-power core physics testing on April 18 and 19, 1981, covering such areas as flux mapping and control rod worth measurements. The inspectors ascertained that the licensee activities were conducted in accordance with the licensee requirements. No violations or deviations were identified within the areas inspected.

On April 20, 1981 while performing low-power core physics testing, operations noted that all reactor protective bystates associated with power range channel N-43 were not in their tripped mode. This instrument was used



as an input to the reactivity computer. This constituted a reportable occurrence and was not observed by the inspector.

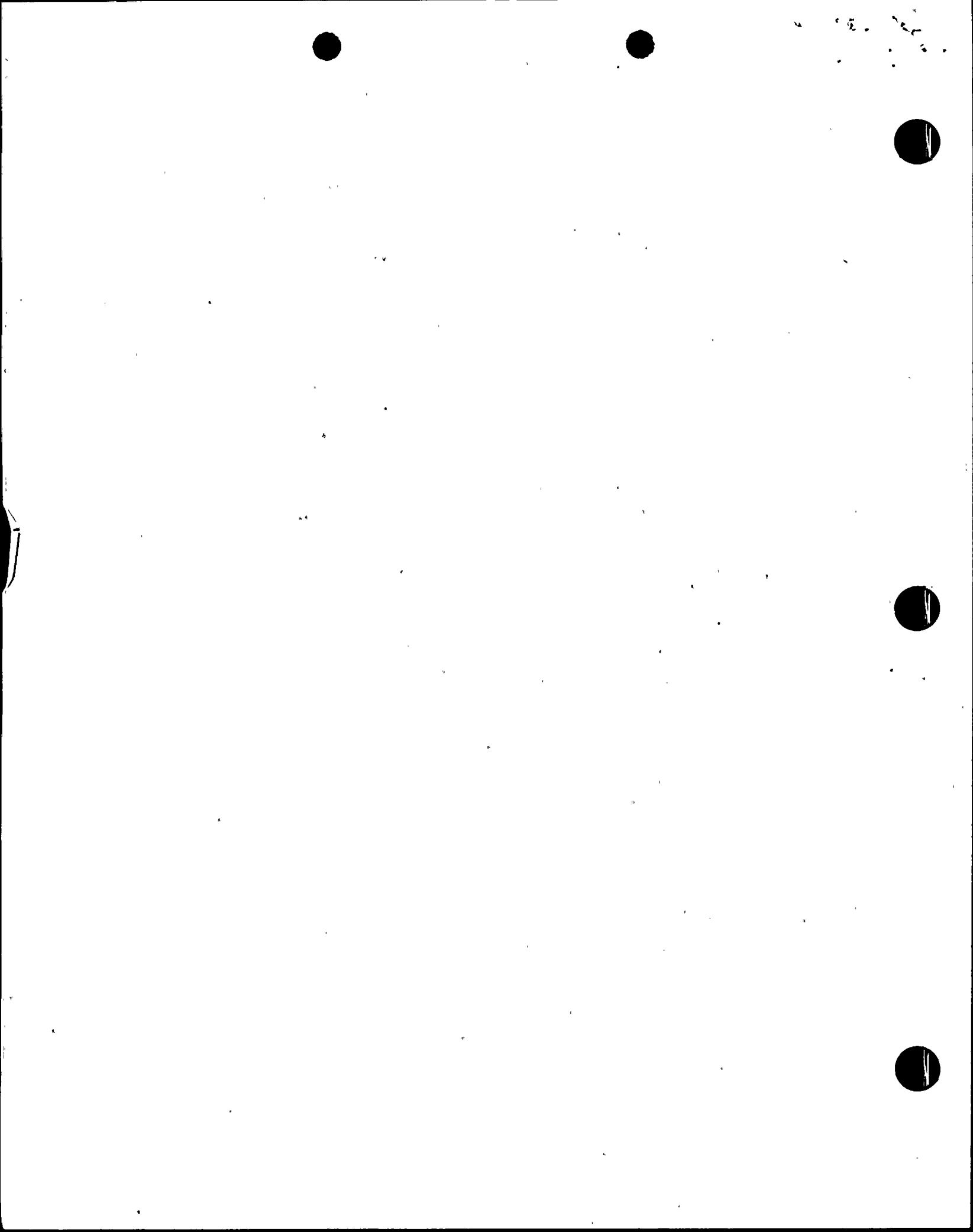
On April 13, 1981, while observing the functional test of the Unit 3 Over-pressure Mitigating System (OMS) using the back-up nitrogen (N₂) system the inspector noted inadvertent isolation of the two N₂ system trains. The two N₂ isolation valves labeled by number 103 in both trains were shut. The backup N₂ system used for pressurizes relief valve operation is a nuclear safety-related system. Investigation into the cause of the occurrence led the inspector to believe it was most likely the results of a mechanical maintenance error. Based on discussions with licensee personnel the inspector found out that the high pressure N₂ bottles were changed out during the morning of April 13, 1981, prior to the performance of the OMS functional test. Review of records indicated that no Plant Work Order (PWO) was issued pertaining to this maintenance work. Maintenance was performed per verbal instructions. Since work was performed on a nuclear safety-related system it was done contrary to the guidelines of Administrative Procedure 0190.19. Paragraph 3.2 of A.P.0190.19 states that minimum documentation required for work on nuclear safety-related systems is the (PWO). The PWO shall define the work to be done, any inspections or hold points required, and the testing required by maintenance to ascertain completion of the job and the proper post maintenance functioning of the equipment.

The licensee failed to issue a PWO for replacement of the N₂ bottles which may have contributed to the cause of inadvertent isolation of the backup N₂ system. Failure to issue a PWO per the guidelines of A.P.0190.19 constitutes an apparent violation of Technical Specification 6.8.1 (250/81-10-01).

10. Plant Tours

On Easter Sunday, April 19, 1981, the inspector accompanied an intervenor group during a plant inspection authorized by the Atomic Safety and Licensing Board. The group arrived about 8:30 a.m. and actually entered the plant protected area about 10:00 a.m. The intervening time was spent talking with media representatives and obtaining whole body counts. The group had an Eberline E120 low range beta-gamma meter which apparently had not been calibrated.

The party toured the plant site both inside and out the Radiological Control Area (RCA). They collected about 10 smears (mostly from the outside of low specific activity waste containers), two dirt samples, several weed samples, and about twelve water and algae samples from the intake and discharge canals. One sample of demineralized water was taken from a drum in the Rad Waste Building. All samples were split with licensee representatives and frisked out of the RCA with the exception of one dirt sample which had been taken from the periphery of a posted contamination area which had detectable levels of C60. This sample and the animal biota samples were sent to a mutually agreed upon laboratory licensed to receive low levels of byproduct materials. The group left the protected area about 4:30 p.m. and the owner



controlled area about 5:00 p.m. after receiving their departure whole body counts. No violations in the handling and shipment of the dirt sample or escorting of the intervenors were noted.

The inspector observed receipt inspection activities of the Chem Nuclear resin liner storage tank and shipping cask used for radwaste shipments, and Unit 3 main steam safety valve pressure settings, on April 15 and 16, 1981, respectively. No violations were identified within the areas inspected.

