

U.S. NUCLEAR REGULATORY COMMISSION
REGION I

Report No. 86-18
Docket No. 50-410
License No. CPPR-112 Category B
Licensee: Niagara Mohawk Power Corporation
300 Erie Boulevard
Syracuse, New York 12302
Facility: Nine Mile Point, Unit 2
Location: Scriba, New York
Dates: April 19, 1986 to May 31, 1986
Inspectors: W. A. Cook, Senior Resident Inspector
R. A. Gramm, Senior Resident Inspector
H. W. Kerch, Lead Reactor Engineer
A. J. Lodewyk, Reactor Engineer
A. J. Luptak, Senior Resident Inspector
C. S. Marschall, Resident Inspector
G. W. Meyer, Project Engineer
J. R. Stair, Reactor Engineer

Approved by: J. C. Linville for 6-25-86
J. C. Linville, Chief, Reactor Date
Projects Section 2C, DRP

Inspection Summary: Inspection on April 19, 1986 to May 31, 1986 (Report No. 50-410/86-18)

Areas Inspected: Routine inspection by resident and regional inspectors of work activities, procedures and records relative to TMI Action Plan items, IE Bulletins, and Circulars, Generic Letters, NRR open items, preoperational test procedure review, test witnessing, and test results review. The inspectors also reviewed licensee action on previously identified items and performed plant inspection tours. The inspection involved 358 hours by the inspectors.

Results: No violations were identified.

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DETAILS

1. Summary

One inspector followup item was identified regarding the potential use of Brown Boveri K600 circuit breakers onsite. Twenty eight (28) items out of the twenty nine (29) previous inspection items reviewed were closed. Twenty one (21) TMI action plan items were reviewed and closed. Also fifteen (15) IE Bulletins or Circulars out of seventeen (17) IE Bulletins or Circulars reviewed were closed. The licensee program to process NRR Generic Letters was reviewed. The status of Region I followup of selected NRR open items was summarized. Two (2) preoperational test procedures and portions of two (2) additional test procedures were reviewed without comment. Four (4) preoperational tests including the Loss of Offsite Power Test were witnessed. The Reactor Pressure Vessel hydrostatic test results were satisfactorily reviewed. Review of the Region I inspection program showed that preoperational test results reviews remained incomplete, selected operational readiness inspection items remained, and numerous open item closeouts were yet to be accomplished.

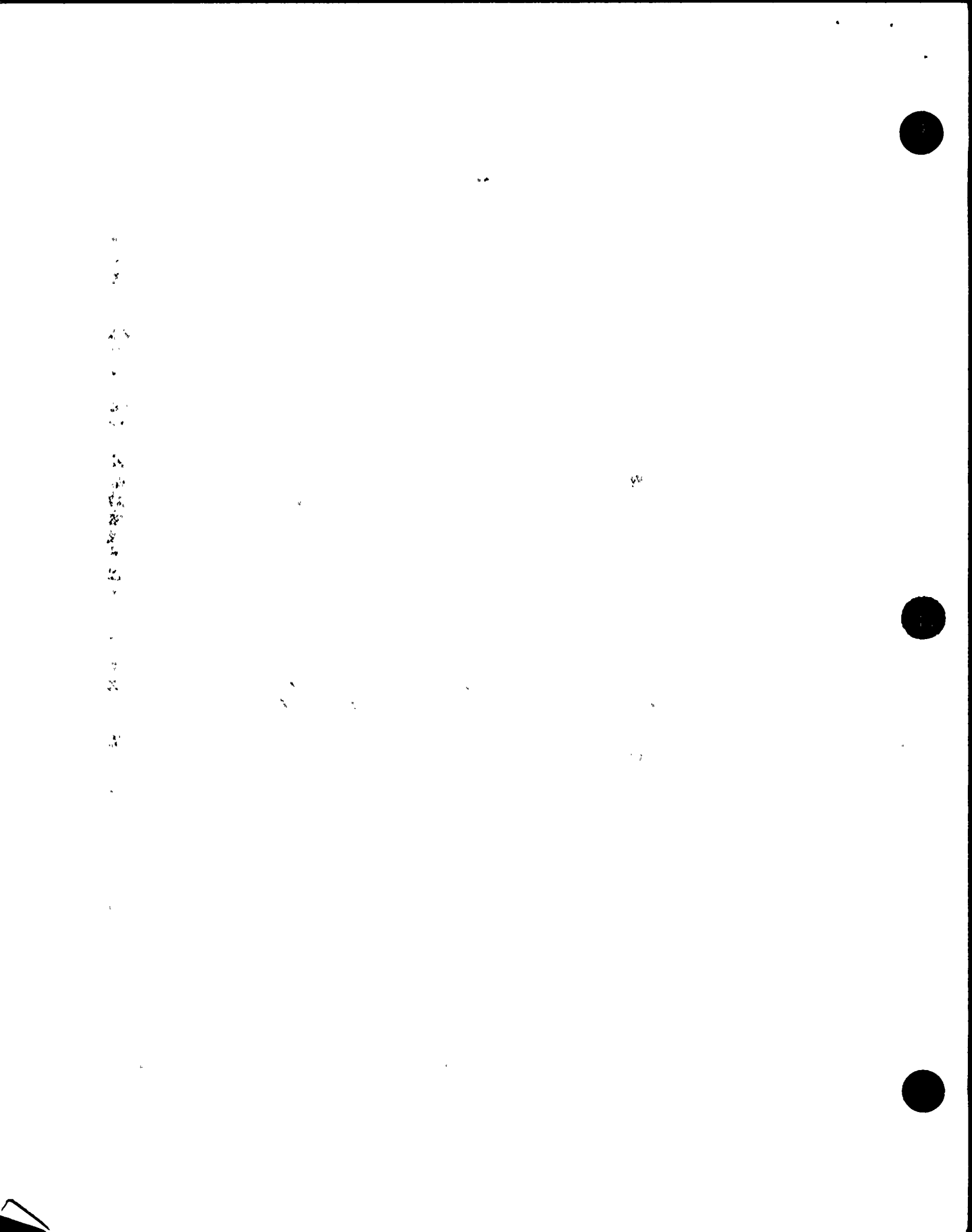
Project Organizations:

Niagara Mohawk Power Corporation (NMPC)
Nuclear Energy Services (NES)
Stone and Webster Engineering Corporation (SWEC)
ITT-Grinnell (ITT)
General Electric Company (GE)
Reactor Controls Incorporated (RCI)

2. Plant Inspection Tours

The inspector observed work activities in-progress, completed work and plant status in several areas during general inspection tours. Work was examined for any obvious defects or noncompliance with regulatory requirements or license conditions. Particular note was taken of the presence of quality control inspectors and quality control evidence such as inspection records, material identification, nonconforming material identification, housekeeping and equipment preservation. The inspector interviewed craft supervision personnel and quality inspection personnel in the work areas. Observations are noted below:

The inspector was notified that Anchor Darling 150 psig and 300 psig swing check valves had been delivered to the Vogtle 1 site without requisite lock welds. The inspector reviewed Anchor Darling correspondence dated July 31, 1985 that described the problem related to a lock weld for a hinge support set screw. The inspector was provided NMPC Quality Control Inspection Report (QCIR) 2-86-R-P-0215 which verified proper lock welds for the four applicable check valves on site. The inspector had no further questions.



The inspector was informed of BISCO cable penetration sealant problems at the Hope Creek site. The inspector was informed that the NMPC sealant contractor applies Dow Corning 3-6548-RTV silicone foam on small openings and an elastomer on large openings. The licensee stated that no problems have been detected with the sealant separating from the adjacent penetration surfaces. The inspector visually examined several penetrations and confirmed proper sealing. The inspector had no further questions.

The inspector was informed that defective Brown/Boveri K600 circuit breakers had been found at the Millstone 3 site. The inspector was informed that the licensee would ascertain if similar breakers are used onsite.

The inspector observed the performance of portions of the Emergency Preparedness communications demonstration. The inspector had no questions.

The inspector reviewed Deficiency Report (DR) 17885 regarding the Main Steam Isolation Valve (MSIV) actuator cylinders. The licensee had detected abnormal wearing of the cylinders and pistons. The inspector performed a boroscope examination of MSIV 6A with licensee test personnel and observed a chip out of the piston head. The licensee has sent eleven of the actuator cylinders to the vendor for analysis. The MSIV stroke testing has been incorporated into preoperational test procedure N2-POT-1. The inspector had no further questions.

3. Licensee Action on Previously Identified Items

- a. (Closed) FOLLOWUP ITEM (83-01-09): Preventive Maintenance (PM) and housekeeping program implementation. The licensee instituted the following actions:
- Restricted food and newspapers from the primary containment on November 1982.
 - Developed a site training program regarding housekeeping requirements.
 - Restricted food, newspapers, smoking and other combustibles from the PGCC areas.
 - Reduced the time lag for unsatisfactory findings to be addressed by construction.
 - Issued a Training Bulletin regarding project housekeeping requirements.
 - Identified additional access control measures for critical areas in February 1984.
 - Performed a boroscope examination of a feedwater heater.

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- Performed an NMPC and SWEC engineering evaluation regarding heat exchanger internal corrosion control.

The inspector has observed that further plant areas have been turned over to NMPC and provided proper access and level controls. This item is closed.

- b. (Closed) UNRESOLVED (83-12-11): Inspection of pipe support sway strut. Procedure MW.GENE.005 was written to verify the support clearances for snubbers and sway struts. SWEC issued Engineering and Design Coordination Reports (E&DCRs) C02087 and C02286 to revise the inspection and erection tolerances for the sway struts. ITT inspection procedure FQC 4.2-14 was revised to incorporate the new inspection criteria. ITT was directed by SWEC to reinspect all previously examined supports to ensure conformance with the revised design documents. This item is closed.
- c. (Closed) UNRESOLVED (83-15-01): Diesel generator bay cleanliness conditions. SWEC issued Training Bulletin 7 that addressed permanent plant equipment protection. On June 12, 1984 the diesel generator buildings were defined as a controlled area, which prohibits food and newspapers. SWEC reviewed Category 1 specifications to ensure that during internal maintenance that a clean environment is maintained in the equipment general vicinity. The inspector was informed that construction personnel were directed to prepare checklists in accordance with procedure CMP-1.4 to control the removal of protective covers or to disassemble mechanical equipment. SWEC developed a training program regarding protection of permanent plant equipment. SWEC issued unsatisfactory Inspection Report M3021920 that documented the dust contamination of the diesel generator components. The inspector was informed that the adjacent work activities were promptly halted. The engine was examined by a vendor representative and SWEC QC. No evidence of adverse contamination or damage was identified. The inspector was informed that the fuel oil and lube oil systems were flushed prior to diesel generator operation. This item is closed.
- d. (Closed) FOLLOWUP ITEM (83-18-41): Performance of ASME nondestructive weld examinations. Based upon the review of NRC item 83-18-74 as discussed in section 3.h of this report, this item is closed.
- e. (Closed) FOLLOWUP ITEM (83-18-42): ITT shop and field weld radiographs. Based upon the review of NRC open item 83-18-70 as discussed in section 3.g of this report, this item is closed.
- f. (Closed) FOLLOWUP ITEM (83-18-43): ITT retention of repair weld radiographic film. Based upon the review of NRC open item 83-18-70 as discussed in section 3.g of this report, this item is closed.

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- g. (Closed) VIOLATION (83-18-70): ITT radiographic film interpretation. The licensee instituted the following corrective actions:

- ITT and SWEC performed 100% radiographic film reviews for ASME Section III code compliance.
- Radiographic procedures were enhanced.
- Additional training was conducted for radiographic personnel.
- NMPC, SWEC and ITT surveillances were performed at more frequent intervals.
- ITT policies regarding retention of repair weld film were amended.

The inspector has performed independent reinterpretation of licensee radiographs as documented within NRC Inspection Reports 84-08, 84-18 and 85-43. The reinterpretation efforts verified the adequacy of the licensee corrective actions. This item is closed.

- h. (Closed) VIOLATION (83-18-74): Performance of ASME nondestructive weld examinations. The licensee instituted the following corrective actions:

- Site ITT Liquid Penetrant (LPT) inspectors were re-trained and re-qualified.
- Site Nondestructive Examination (NDE) procedures were reviewed and revised to assure compatibility with the ASME code.
- All ITT previously LPT examined welds were re-examined and reworked as necessary.
- Site audits and surveillances of NDE activities were increased.

The inspector reviewed documents associated with licensee corrective actions. Personnel certification records were reviewed. The augmented audits and surveillance reports were reviewed. The adequacy of site LPT activities has been independently verified by the NRC during the course of inspections 84-08 and 85-43. This item is closed.

- i. (Closed) VIOLATION (83-18-83): Performance of ASME nondestructive weld examinations. Based upon the review of NRC item 83-18-74 as discussed in section 3.h of this report, this item is closed.
- j. (Closed) VIOLATION (83-18-95): Documentation for ITT radiographic film indications. Based upon the review of NRC open items 83-18-70 as discussed in section 3.g of this report, this item is closed.



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- k. (Closed) FOLLOWUP ITEM (83-18-96): Timely QC inspection conduct. The licensee developed the Quality Performance Management Program (QPMP). The program specifically tracked the backlog of items that had not received the appropriate QC inspection. Project management assigned QC inspection resources to reduce the outstanding backlog. Associated NRC open item 83-18-88 was closed in NRC inspection report 85-44. This item is closed.
- l. (Closed) FOLLOWUP ITEM (83-18-99): Inspection report documentation of applicable drawing revisions and engineering change documents. The appropriate site inspection procedures were revised to require that design document information be noted on the appropriate QC inspection report. Reinspections by the licensee of selected hardware installations confirmed that the design changes had been properly implemented. Associated NRC open items 83-18-03, 83-18-04 and 83-18-75 were closed in NRC inspection reports 85-17, 85-10 and 86-09 respectively. This item is closed.
- m. (Closed) FOLLOWUP ITEM (83-18-112): Quality Assurance (QA) and Quality Control (QC) program management. The licensee instituted the following actions in response to the NRC Construction Appraisal Team (CAT) inspection findings:
- Provided new management personnel for NMPC, SWEC, ITT and RCI QA organizations.
 - Revised site QA and QC programs.
 - Performed hardware reinspections.
 - Performed additional QC personnel training.
 - Performed enhanced audits and surveillances.
- This item is closed.
- n. (Closed) FOLLOWUP ITEM (83-18-117): ASME Class 1 support material traceability. The licensee revised the applicable Bergen-Paterson support designations to component standard supports in accordance with GE Field Deviation Disposition Request (FDDR) KG1-0191. Associated NRC open items 83-18-80 and 84-18-59 were closed in NRC Inspection Report 85-06 based upon review of the revised drawings. The inspector identified that supports HA8, HB8, HA9 and HB9 include a riser clamp that remain classified as a linear item. The inspector reviewed the following documents.

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- Bergen-Paterson drawing HB8, HB9 sheets 1, 2 and 3.
- GE Product Quality Certification PQC No. QQ879.
- NF-2 ASME data reports for supports HA8, HB8, HA9 and HB9.
- Code Case N225 "Certification and Identification of Material for Component Supports, Section III, Div 1".
- SWEC drawing BZ-70K-2.
- GE drawing 767E722 Rev. 10 Sheets 1,2 and 3.
- ASME Section III, Division 1, subsections NF4122, NF2150, NF2130, and NA3766.

The inspector ascertained that the linear support members had been properly controlled. This item is closed.

- o. (Closed) CONSTRUCTION DEFICIENCY (84-00-06): Pacific Air Products linear converter excessive wear. The inspector reviewed the following documents:

- Pacific Air Products letters to NMPC dated 2/1/84, 3/7/84, 3/26/84, 4/24/84.
- Pacific Air Products telex dated 4/19/85.
- Test procedure IE.GENE.042, "Dampers with Hydramotor Actuators".
- Mechanical Maintenance procedure N2-MMP-57.1 "Maintenance of Diesel Generator Room Standby Exhaust Fans and Dampers".
- Loop Calibration Report IL2HVP-005.
- Preoperational test procedure 57 test matrix.

Pacific Air Products Company (PAPCO) and the licensee determined that the linear converters had not been operated and that excessive wear was not present on the site components. PAPCO additionally reviewed the SWEC thermostat controls for the dampers and found them satisfactory. The preliminary test procedure verified that excessive hunting does not occur. The inspector was informed that all PAPCO diesel generator dampers have been satisfactorily tested. The inspector reviewed test data for 2HVP*MOD7A. The NMPC maintenance procedure addresses precautions for reassembly of the linear converter and actuator units. This item is closed.



- p. (Closed) CONSTRUCTION DEFICIENCY (84-00-09): Service Water pump hydraulic transient. The inspector reviewed SWEC pipe stress calculation AX-19AA. The calculation included hydraulic transient loads associated with pump trip and restart. The system stress levels were within allowable limits. The inspector was informed that thirty seven Engineering and Design Coordination Reports (E&DCRs) had been issued for pipe support modifications resulting from the system stress reconciliation. The licensee indicated that all modifications have been completed. This item is closed.
- q. (Closed) CONSTRUCTION DEFICIENCY (84-00-40): Seismic qualification of containment purge system valves. The inspector reviewed the following documents:
- Portions of SWEC pipe stress calculation AX-515A Revision 1 and 2.
 - Advance Change Notice (ACN) approval cover sheets for 39174, 38809 and 47024.
 - ACNS 38809, 39174, 47024, 34145 and 6471.
 - Engineering and Design Coordination Report (E&DCR) P13718 and F13591.
 - Specification P304D, "Motor Operated, Air Operated, and Manual Butterfly Valves".
 - Work Control Report 14761.
 - Drawing BZ-515T-3 and BZ-515BC-1.

The inspector discussed with SWEC engineering personnel the seismic analysis that had been performed on the Containment Purge System (CPS). Several QA Category II pipe supports were added to the piping system to reduce the acceleration values on the four valves in question. The inspector examined the added supports and identified that a weld detail was inaccurate for support BZ-515T and that two beam stiffener plates had not been installed for BZ-515BC. A design change was issued to correct drawing BZ-515T and SWEC installed the requisite stiffener plates. The inspector was informed by SWEC engineering that this was an isolated error. This item is closed.

- r. (Closed) CONSTRUCTION DEFICIENCY (84-00-49): Minimum wall requirements for ITT welds. Weld preparation for Inservice Inspection (ISI) had resulted in weldments with less than manufacturer minimum wall thickness. The site program was revised to include a weld thickness verification after ISI grinding. The licensee evaluated the minimum wall thickness welds with respect to system design pressure and the associated pipe stress analysis. None of the welds were under the



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design minimum wall thickness requirements. The inspector reviewed the licensee correspondence, QA records and data sheets associated with this problem. This item is closed.

- s. (Closed) UNRESOLVED ITEM (84-13-02): Communication between SWEC Quality Control (QC) personnel. The following actions were implemented:
- The memorandum from the QC inspector regarding electrical installation inspection conduct was responded to by the appropriate supervisor.
 - SWEC policy regarding draft Engineering and Design Coordination Reports (E&DCRs) was clarified that the supervisor would ascertain the need to issue the E&DCR. If a decision were made to not issue the E&DCR, supervisors were to explain the reasons why to the E&DCR originator.
 - SWEC supervisors were instructed to respond to inquiries in writing and in a timely manner.
 - NMPC QA interviewed QC personnel and determined that draft E&DCRs and other questions were properly resolved.

The inspector interviewed several QC personnel and ascertained that their questions were appropriately resolved. This item is closed.

- t. (Open) INFORMATION NOTICE 84-83 (84-IN-83): Various battery problems. Pending licensee revision of site Preventive Maintenance (PM) procedures to preclude the use of cleaning solvents or hydrocarbon based grease on the batteries, this item remains open.
- u. (Open) CONSTRUCTION DEFICIENCY (85-00-02): Primary containment liner Carbo-Zinc 11 primer application. The inspector reviewed the following documents:
- Licensing Document Change Notices 2145, 1696 and 2093.
 - Nonconformance and Disposition (N&D) reports 10692, 12127, and 12345.
 - Carboline test report for project 2294 dated April 1, 1985.
 - SWEC Inspection Report S5A60087.
 - SWEC Calculation 135, "Post Accident H₂/O₂ Concentrations within the primary containment".

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- NMPC Surveillance Reports (SRs) C-85-00434, C-85-00593, and C85-00740.

The licensee has identified the following conditions within primary containment.

| <u>Type</u> | <u>Primer</u> | | <u>Topcoat</u> | | <u>Qualified</u> |
|-------------|------------------|--------------|----------------|---------------------|--------------------|
| | <u>Thickness</u> | <u>(mil)</u> | <u>Type</u> | <u>Area (sq.ft)</u> | |
| CZ-11 | 2-3.3 | | None | 11,520 | Yes |
| CZ-11 | 3.5-6.0 | | None | 6,720 | No |
| CZ-11 | <2 | | None | 5,760 | Rework required |
| CZ-11 | | | | | |
| 193-LF | 2-6 | | 191-HB | 3,000 | Yes |
| None | - | | 191-HB | 5,000 | Yes |
| CZ-11 | 2-6 | | 191-HB | 5,000 | No |

The licensee performed Design Basis Accident (DBA) tests to qualify certain combinations of primer and topcoated conditions. Selected areas of previously applied coating were removed and recoated with a DBA qualified system. The FSAR has been revised to document the quantities of qualified and unqualified coatings that exist in the primary containment. The licensee has obtained test results that show untopcoated CZ-11 will fail in a granular mode and, based upon SWEC engineering judgement, would not pose detrimental situations for the shutdown cooling systems. The inspector discussed the status of the coating qualification testing with the NRR licensing project manager. Pending NRR review of the coating qualification status, this item remains open.

- v. (Closed) UNRESOLVED ITEM (85-06-03): Inconsistent welding fit-up gap requirements. The inspector verified that RCI drawing NMP-008 and RCI welding procedure GWS-1-01 both require that fillet weld leg length be increased by the fit-up gap dimension for gaps in excess of 1/16 inch. The procedure requirements are consistent with the AWS D.1.1 welding code. The licensee performed additional training to ensure that QC inspection personnel were familiar with the requisite fit-up requirements. This item is closed.
- w. (Closed) UNRESOLVED ITEM (85-10-04): Technical adequacy of preoperational test procedures. The inspector reviewed test procedures MP.0001.002, Reactor Vessel Pressure Test and POT-35, Reactor Core Isolation Cooling System, and assured that the previously identified procedure shortcomings had been rectified. Consistency of preoperational test procedures and FSAR information will be reviewed under NRC open item 86-01-02. This item is closed.

- x. (Closed) UNRESOLVED ITEM (85-11-01): Reactor pressure vessel hydrostatic test conduct. The hydrostatic test deficiencies, reviewed in section 10 of this report, were resolved. This item is closed.
- y. (Closed) UNRESOLVED ITEM (85-13-03): Preoperational testing of Division III battery system. The inspector reviewed procedure N2-POT-74-3, Rev. 1, Div. III Emergency D.C. Systems. The load profile for the battery test was consistent with FSAR Table 8.3-10 Amendment 23. The test procedure was revised to include the battery capacity tests. This item is closed.
- z. (Closed) UNRESOLVED ITEM (85-46-01): Acceptance of Preservice Inspection (PSI) weld data. Procedure 80A7717, UT Examination General Requirements, has been revised to clarify the responsibilities of NMPC, SWEC and NES with regards to acceptance of ultrasonic (UT) examination data. The UT data form has been revised to clearly identify the organization that accepted the data, in accordance with ASME Section XI requirements. UT data sheets that were previously generated were similarly clarified. This item is closed.
- aa. (Closed) UNRESOLVED ITEM (86-01-01): Setpoint for Diesel Generator jacket water heater energization. The setpoint tolerance was not provided in the FSAR. The inspector was informed that the +/- 5 degree tolerance was acceptable to engineering. This setpoint is not identified within the Technical Specifications. As the tolerance is within the bounds of the engineering analysis, and there is no deviation from the Technical Specifications, this item is closed.
- bb. (Closed) FOLLOWUP ITEM (86-02-01): Time Delay Verification in RCIC Preop Test. Revision 0 of Preoperational Test Procedure N2-POT-35 specified that the time delay of the high steam flow isolation be "approximately 3 seconds" instead of the 3-13 second criteria of TS Table 3.3.2-2. The inspector reviewed the results of the test as performed under Revision 1, which specified an acceptance criteria of 3-13 seconds. This item is closed.
- cc. (Closed) FOLLOWUP ITEM (86-02-02): Incorrect Valve Stroke Times in RCIC Preop Test. Revision 0 of Preoperational Test Procedure N2-POT-35 specified stroke times which were incorrect compared to TS Table 3.6.3-1. The inspector reviewed the results of the test as performed under Revision 1, which specified the correct stroke times for motor operated valves 2ICS*MOV-121,-128,-148,-164, and-170. This item is closed.

4. Review of TMI Action Plan Items

- a. (Closed) I.A.1.1, Shift Technical Advisors (86-09-01,-02). The licensee proposed to meet the NUREG-0737 requirements for the shift technical

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advisor (STA) by using the Assistant Station Shift Supervisor (ASSS) in a dual role, i.e., licensed Senior Reactor Operator (SRO) during normal operations and STA during Emergency Plan activation. This dual role has been approved in the NMP-2 Safety Evaluation Report (SER) and in SECY 84-355. The inspector reviewed the draft technical specifications and Administrative Procedure (AP-4.0), Administration of Operations, Revision 5, to verify that they were consistent with the above. The inspector reviewed the qualifications of the designated STAs to confirm that sufficient STAs existed to meet the requirements and that their qualifications met the requirements. As the STAs will have SRO licenses, their training and certification are being accomplished as part of initial qualification and requalification operator training. The inspector interviewed two designated STAs and found them to be knowledgeable. These items are closed.

- b. (Closed) I.A.1.2 and I.C.3, Shift Supervisor Responsibilities (86-09-03,-10). NUREG-0737 required that the responsibility and authority of the shift supervisor be clearly established and that the administrative duties of the shift supervisor be delegated. The licensee is implementing at Unit 2 those practices previously implemented at Unit 1, which have been reviewed and accepted by Region 1. The inspector reviewed the Final Safety Analysis Report (FSAR) position, the SER review, and the applicable Administrative Procedures, including the following:

AP-1.2, Composition and Responsibility of Site Organization

AP-1.3, Personnel Responsibility and Authority

AP-4.0, Administration of Operations

The inspector found that the procedures all clearly and consistently establish the shift supervisor's responsibility and that the administrative burden has been reduced to the minimum. These items are closed.

- c. (Closed) I.A.1.3, Shift Manning (86-09-04,-05). NUREG-0737, as revised by Generic Letter 82-12, increased the number of licensed operators needed on each shift and implemented guidelines for overtime of operating personnel. Currently, 10 CFR 50.54(m)(2)(i) specifies the minimum shift manning requirements. The inspector reviewed the FSAR position, the SER review, the draft technical specifications, and AP-4.0. The inspector found the above to be consistent and the licensee's commitment to be acceptable. These items are closed.
- d. (Closed) I.A.2.1, SROs to have one year of RO experience (86-09-06). NUREG-0737 provided equivalent means to meet the requirement for SRO applicants to have one year of RO experience and waived the requirement for cold license applicants. In the FSAR the licensee committed to meet the one year experience requirement or the equivalent for

license candidates after the cold license period. The SER approved the licensee's commitments. The operator license candidates will be reviewed for the required experience when it is applicable. This item is closed.

- e. (Closed) I.B.1.2, Independent Safety Engineering Group (ISEG) (86-09-07). NUREG-0737 required that an independent group of at least 5 engineers be assigned to review plant operations. The inspector reviewed the FSAR, the SER, and the draft technical specifications concerning ISEG. The inspector noted that the FSAR and the SER refer to a ten engineer group assigned to cover both units. However, the draft technical specifications for Unit 2 require 5 engineers, and the Unit 1 Technical Specifications have no ISEG requirements. In discussions with the inspector, the Supervisor Technical Support (to whom the ISEG will report) stated that the ISEG will be implemented with 5 engineers and will cover Unit 2 only (the ISEG functions will be performed at Unit 1 by other groups). He stated that an FSAR change has been submitted to correct the error.

The inspector reviewed the qualifications of the 5 designated engineers and reviewed Technical Department Procedure, TDP-9, Independent Safety Engineering Group, which describes their responsibilities. The ISEG was also reviewed in Inspection Report 50-410/86-11 and found acceptable. This item is acceptable.

- f. (Closed) I.C.2, Shift Turnover Procedures (86-09-09). NUREG-0737 required that plant procedures adequately address shift turnover. The inspector reviewed AP-4.0, Administration of Operations, which specifies the method for shift turnover and the checklists to document the turnovers, and reviewed at least four recently completed checklists each for Station Shift Supervisor, Assistant Station Shift Supervisor, and Nuclear Auxiliaries Operator E. These acceptably met the requirements and were consistent with the FSAR and the SER. This item is closed.
- g. (Closed) I.C.4, Control Room Access (86-09-11). NUREG-0737 required that access to the control room be controlled to maintain proper conditions for the operators. The inspector reviewed AP-4.0, which addresses access to the control room, conduct in the control room and the responsibilities for maintaining proper conditions there, and reviewed control room conduct during the inspection period. The above met the requirements and were consistent with the FSAR and the SER. This item is closed.
- h. (Closed) I.C.5, Operating Experience Assessment (86-09-12). NUREG-0737 required that operating information both within and outside the plant organization be reviewed and disseminated to the operating and training staffs. The licensee intends to utilize the same basic program established for Unit 1 on Unit 2, although the ISEG (described above) will perform part of the review function for Unit 2. The recommendations



for each item reviewed are submitted to both the onsite and offsite review committees for approval and review, respectively. The inspector reviewed AP-3.4.2, Operations Experience Assessment, TDP-5, Administration of Operational Engineering Assessment Items, and the minutes of three recent meetings of the Unit 2 Operations Experience Assessment Committee. The inspector concluded that the program met the requirements and was consistent with the FSAR and the SER. This item is closed.

- i. (Closed) I.C.6, Independent Verification (86-09-13). NUREG-0737 required that an effective system be implemented to verify that operational activities are correctly performed. The licensee has committed to meet the requirements by independent verifications of operating, testing, and maintenance activities. The inspector reviewed the following administrative procedures:

- AP-3.3.1, Control of Equipment Markups, Revision 1
- AP-3.3.2, Control of Equipment - Placement of Jumpers or Blocks or Lifting of Leads, Revision 1
- AP-5.0, Procedure for Repair, Revision 2
- AP-8.1, Preventive Maintenance, Revision 1

The inspector found that the above procedures specified that safety-related activities be independently verified and that operating personnel be informed of the activities being performed. Also, during Inspection 50-410/86-26 the inspectors found that independent verifications and notifications were incorporated into the specific maintenance and testing procedures. The inspector concluded that the above program met the requirements and was consistent with the FSAR and the SER. This item is closed.

- j. (Closed) I.C.7, NSSS Vendor Review of Procedures (86-09-14). NUREG-0737 required nuclear steam supply system (NSSS) vendor review of low power testing, power ascension, and emergency operating procedures. In the FSAR the licensee noted that the EOPs will be based on the NRC approved BWR Owners Group Emergency Procedure Guidelines and that General Electric (GE) representatives onsite will be directly involved in the preparation and review of low power and power ascension procedures. Based on this the SER waived any additional NSSS procedure review. The inspector reviewed AP-1.4, Startup Test Phase, and AP-8.7, Startup Test Procedures, to verify the involvement of GE representatives. This item is closed.
- k. (Closed) II.D.3, Direct Indication of Safety and Relief Valve Position (86-09-16). NUREG-0737 required the installation of a positive indication in the control room of the position of safety and relief valves.

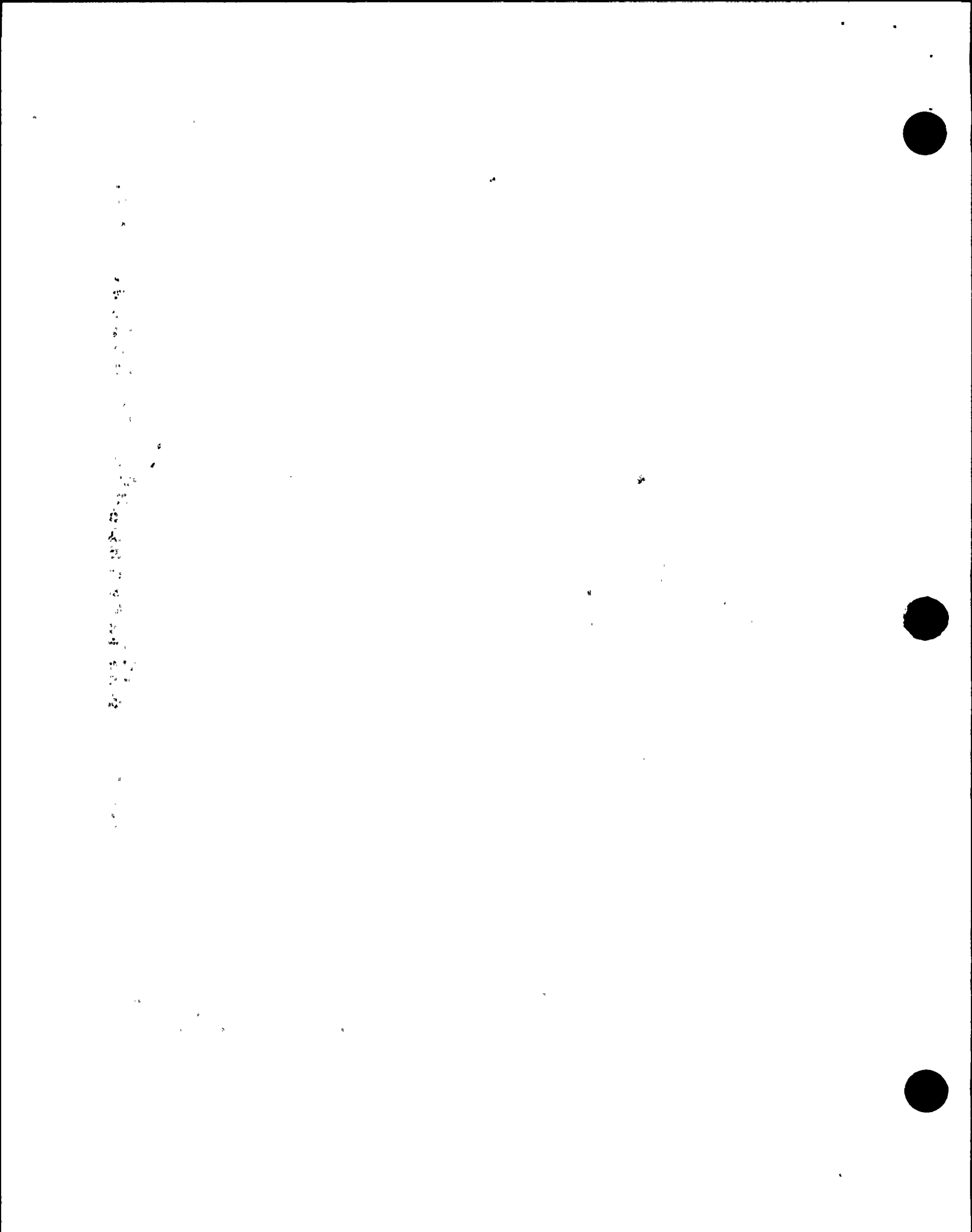


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The licensee has installed acoustic monitors on each valve to meet this requirement. The SER reviewed the design of the monitors and found them acceptable. The inspector reviewed the actual monitor indications in the control room and the relay room, the draft technical specifications, Interim Operating Procedure N2-IOP-34, Automatic Depressurization & Safety Relief Valve System, and the computer alarm listings and concluded that the system met the requirements and was consistent with the FSAR and the SER. This item is closed.

- l. (Closed) II.E.4.1, Dedicated Hydrogen Penetrations (86-09-17,-18). NUREG-0737 required that external recombiners have separate containment penetrations and procedures for their use. The licensee has installed two external hydrogen recombiners with dedicated containment penetrations. The SER reviewed the system design. The inspector reviewed Interim Operating Procedure N2-IOP-62, DBA Hydrogen Recombiner, drawings FSK-27-13.0, -13A, and -13B, and the draft technical specifications. The inspector inspected the system piping and valves outside of the wet well. The inspector concluded that the system and procedure met the requirements and was consistent with the FSAR and the SER. These items are closed.
- m. (Closed) II.F.1.4, Containment Pressure Monitor (86-09-38). NUREG-0737 required a wide range indicator of containment pressure. The licensee has installed two channels of instrumentation for drywell pressure and for suppression chamber pressure, covering the range from -5 to 150 psig. Both parameters have an indicator and a recorder with an indicator in the control room. The inspector reviewed the installed displays, the instrument loop diagrams for each parameter, procedure N2-IOP-82, Containment Atmospheric Monitoring, and the draft technical specifications. The inspector concluded that the instruments met the requirements and were consistent with the FSAR. This item is closed based on the above review. However, as the SER review of accident monitoring instrumentation is not complete, an open item (86-18-01) is opened for potential review of any issues resulting from the SER coverage of accident monitoring instrumentation, including containment pressure, level, and hydrogen.
- n. (Closed) II.F.1.5, Containment Level Monitor (86-09-39). NUREG-0737 required a wide range indicator of containment level. The licensee has installed two channels of instrumentation for suppression chamber level, covering the range from 192 to 218 feet elevation. The normal level is 199.5 to 201 feet, and the pump suction strainers are at 192 feet. An indicator and a recorder with an indicator are located in the control room. The inspector reviewed the installed displays, the instrument loop diagram, procedure N2-IOP-82, Containment Atmospheric Monitoring, and the draft technical specifications. The inspector concluded that the instruments met the requirements and were consistent with the FSAR. This item is closed. As noted above, the SER review of this area has not been issued.



- o. (Closed) II.F.1.6, Containment Hydrogen Monitor (86-09-40). NUREG-0737 required a wide range indication of containment hydrogen concentration. The licensee has installed two channels of instrumentation for containment hydrogen concentration, covering the required 10% range. An indicator and a recorder with an indicator are located in the control room. The inspector reviewed the installed displays, the instrument loop diagram, procedure N2-IOP-82, Containment Atmospheric Monitoring, and the draft technical specifications. The inspector concluded that the instruments met the requirements and were consistent with the FSAR. This item is closed. As noted above, the SER review of this area has not been issued.
- p. (Closed) II.K.3.13, Restart of Reactor Core Isolation Cooling (RCIC) (86-09-41). NUREG-0737 required the automatic restart of RCIC when a low reactor water level followed a previous high level trip. The licensee has installed a control system for RCIC which closes the steam supply valve on a high level signal and does not trip the RCIC turbine. This permits the steam supply valve to reopen on a subsequent low level signal and restart the RCIC system flow. The inspector reviewed the logic diagram (761E221TY) and the wiring diagram (807E173TY) to verify that the system design ensures the above described RCIC restart and reviewed the results of Preoperational Test Procedure N2-POT-35, Reactor Core Isolation Cooling, which adequately tested the restart. The inspector reviewed the draft technical specifications, which require testing of the automatic restart every 18 months. The SER review of this item concluded that no additional actions were necessary. The inspector reviewed procedure N2-IOP-35, Reactor Core Isolation Cooling. The inspector concluded that the system design met the requirements and was consistent with the FSAR and the SER. This item is closed.
- (Closed) SER Confirmatory Issue No. 52 (84-99-03). This issue covered TMI Item II.K.3.13 and is closed based on the above.
- q. (Closed) II.K.3.15, Spurious Isolation of RCIC (86-09-24). NUREG-0737 required that the line break detection logic of RCIC and HPCI have a time delay to prevent spurious isolation. This item does not apply to NMP-2 for HPCI, because the design utilizes a motor driven High Pressure Core Spray (HPCS) instead of HPCI. The licensee has installed a 3 second time delay in the RCIC break detection logic. The inspector reviewed the wiring diagram (807E173TY) to verify that the system design incorporates the above described RCIC time delay and reviewed the results of Preoperational Test Procedure N2-POT-35, Reactor Core Isolation Cooling, which adequately tested the time delay. The inspector reviewed procedure N2-IOP-35, Reactor Core Isolation Cooling. The inspector concluded that the system design met the requirements and was consistent with the FSAR and the SER. This item is closed.

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(Closed) SER Confirmatory Issue No. 54 (84-99-04). This issue covered TMI Item II.K.3.15 and is closed based on the above.

- r. (Closed) II.K.3.16, Reduction of Challenges to Relief Valves (86-09-26). NUREG-0737 required actions to reduce the challenges to relief valves. The SER review accepted the design based on manual blowdown actions in the EOPs, a lower vessel level isolation setpoint for the MSIVs, the simmer margin, and valve preventive maintenance. The inspector reviewed the draft technical specifications, the EOPs, and procedure N2-OP-34 and confirmed the bases of the SER. The inspector noted that the 120 psi simmer margin of the SER was based on the safety setting of the valves. However, the relief settings of the valves are 72 psi below the safety setting on the first two valves and 89 psi below on the remaining valves. This would result in a 59 psi margin between the normal operating pressure of 1017 psig and the first relief valve setting of 1076 psig. This item is closed.
- s. (Closed) II.K.3.18, Modification of Automatic Depressurization System (ADS) Logic (86-09-25). NUREG-0737 required modification of the ADS logic design to provide improved diversity under different event sequences. The SER accepted the licensee's proposal to eliminate the high drywell pressure permissive and to add a manual inhibit switch and required that the modification be installed, be included in the technical specifications, and be addressed in the EOPs. The inspector reviewed the following:
- Two installed manual inhibit switches in the control room
 - Electrical diagram 807E155TY to verify the high drywell pressure permissive had been removed and the manual inhibit switches had been included in the logic circuit
 - Draft technical specifications to verify the inhibit switches had operability and surveillance requirements
 - Procedures N2-EOP-RQ and -C7 to verify the EOPs addressed the inhibit switches
 - Preoperational Test Procedure N2-POT-34, Revision 1 to verify the inhibit switches will be tested
 - Operating Procedure N2-OP-34 to verify the switches are properly covered

This item is closed.

(Closed) SER Confirmatory Issue No. 53 (84-99-05). This issue covered TMI Item II.K.3.18 and is closed based on the above.

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- t. (Closed) II.K.3.22, Switchover of RCIC Suction (86-09-27). NUREG-0737 required that an automatic switchover for RCIC suction occur from the condensate storage tank (CST) to the suppression chamber on CST low level. The licensee has installed the automatic switchover. As part of it, the CST suction valve closes once the suppression chamber suction valve is open. The inspector reviewed the logic diagram (761E221TY) and wiring diagram (ESK-11ICS02) to verify the above. The inspector reviewed the draft technical specifications, which require testing of the switchover every 18 months. The inspector reviewed the results of Preoperational Test Procedure N2-POT-35, Reactor Core Isolation Cooling, which adequately tested the automatic switchover, and procedure N2-IOP-35, Reactor Core Isolation Cooling. The inspector concluded that the system design met the requirements and was consistent with the FSAR and the SER. This item is closed.
- u. (Closed) II.K.3.24, Pump Room Cooling Systems (86-09-28). NUREG-0737 required that RCIC and HPCI systems be able to withstand a complete loss of offsite power to their cooling systems for two hours. The inspector reviewed the design of the HPCS System for the requirements as there is no HPCI, but noted that HPCS, being motor driven, has lower cooling demands than HPCI. Both HPCS and RCIC are in separate rooms, which have two 100% capacity, redundant, Class 1E powered unit coolers. On loss of offsite power the coolers would be powered from the diesel generators. Further, analysis has shown that without cooling the RCIC could operate for 8 hours with acceptable temperatures in the RCIC Room. The inspector reviewed the installed coolers and fans to verify the installation was in accordance with the Service Water System drawing 12177-FSK-9-10 and was supplied with Division I and II power. The inspector concluded that the system design met the requirements and was consistent with the FSAR and the SER. This item is closed.

5. Licensee Action on IE Bulletins and Circulars

The inspector reviewed licensee records related to the IE Bulletins and Circulars identified below to verify that: the IE Bulletins and Circulars were received and reviewed for applicability; a written response was provided if required; and the corrective action taken was adequate.

- a. IE Bulletin 72-3, Limitorque Valve Operator Failures. Procedure ED.GENE.031, Environmental Qualification Inspection Procedure, was amended to include a verification that no SMB-00 or SMB-000 operators were utilized with serial numbers less than 200,000. The inspector was informed that all two hundred and six (206) Category 1 operators were manufactured after August 1971. The inspector was further informed that site limitorque operators were procured after 1975. This item is closed.

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- b. IE Bulletin 74-5, Shipment of an Improperly Shielded Source. The inspector was informed that NMPC does not utilize Gamma Industries Model C-10 shipping containers. NMPC procedures RP-11 and RP-6 contain applicable provisions for packaging and transporting radioactive materials. This item is closed.
- c. IE Bulletin 74-11, Improper Wiring of Safety Injection Logic at Zion 1 and 2. The preoperational test program requires that all plant instrumentation and control devices will be functionally tested and calibrated. Installation inspections are performed to ensure the circuits are correctly wired and terminated. This item is closed.
- d. IE Bulletin 74-15, Misapplication of Cutler-Hammer Three Position Maintained Switch Model No. 10250T. The licensee determined that no Cutler-Hammer rotary switches are used in safety related applications. The Cutler-Hammer switch type 10250T was added to the SWEC Excluded Equipment List. This item is closed.
- e. IE Bulletin 76-02, Relay Coil Failures - GE Type HFA, HGA, HKA, and HMA Relays. The inspector reviewed GE Field Disposition Instruction (FDI) TYGZ that addressed only non-PGCC HFA series relays. The inspector asked the licensee how the other relay types were reviewed for both PGCC and non-PGCC applications. This item remains open.
- f. IE Bulletin 76-07, Crane Hoist Control - circuit modifications. In response to IE Circular 76-01, the licensee had committed to utilize a speed control which provides redundancy at normal and slow speeds. The inspector was informed the Reactor building crane was provided with an equivalent P&H Electrotorque control. This item is closed.
- g. IE Circular 78-01, Loss of Well Logging Source. This item is not applicable to Nine Mile Point 2 and is closed.
- h. IE Circular 79-11, Design and Construction Interface Problem. Project Guidelines 40 and 41 provide design interface control between the Architect Engineer (AE) and Nuclear Steam Supply System (NSSS) designer. SWEC provided installation documents to GE for the NSSS verification. This item is closed.
- i. IE Bulletin 79-15, Deep Draft Pump Deficiencies. The inspector requested the licensee to provide evidence that the installed pumps had been checked to assure proper installation through performing a hand turning of the pump shafts. The licensee was further asked to provide test data that the 100 hour runs had been completed for all pumps. This item remains open.
- j. IE Circular 79-24, Proper Installation and Calibration of Core Spray Pipe Break Detection Equipment on BWRs. The inspector reviewed the following documents.

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- GE Service Information Letter (SIL) 300, - "Instrumentation for Core Spray Sparger line break detection".
- GE drawing 184C4607 Sheet 1.

The inspector was informed that the SWEC design incorporated the GE recommendation to connect the high side connection to the core spray sparger sensing line and the low side connection to the above the core plate sensing line, and that the installation was complete. This item is closed.

- k. IE Bulletin 79-28, Possible Malfunction of NAMCO Model EA180 Limit Switches at Elevated Temperatures. SWEC placed NAMCO EA180 switches with date codes from 02-79 to 08-79 on the Excluded Equipment List. SWEC and GE verified that none of the deficient limit switches were used in the plant areas subject to temperatures in excess of 175 degrees F. SWEC identified several NAMCO model EA740 switches with the asbestos gasket material. The gaskets were replaced with silicone cover gaskets in accordance with E&DCR YO4171. This item is closed.
- l. IE Bulletin 80-01, Operability of ADS Valve Pneumatic Supply. SWEC determined the ADS isolation check valves are provided with soft neoprene seats and that the entire ADS nitrogen supply and accumulator system inside and outside the drywell is seismically qualified. The inspector was informed that the valves would be leak rate tested in accordance with the Inservice Testing program. This item is closed.
- m. IE Circular 80-01, Service Advice for General Electric Induction Disc Relays. GE and startup personnel visually examined the Power Generation Control Complex (PGCC) and Balance of Plant (BOP) GE supplied equipment that contained induction disc type protective relays. None of the installed relays had the affected date codes. SWEC updated the Excluded Equipment List (EEL) to define the satisfactory relay types and associated date codes. The inspector was informed that SWEC utilized GE Service Advice 721-162.2 to clean any affected relays in the BOP. This item is closed.
- n. IE Circular 80-04, Securing of Threaded Locking Devices on Safety Related Equipment. SWEC reviewed mechanical erection specification P275D which specified that equipment anchor bolts are required to have locking devices such as lock nuts, lock wires, nut staking, lock washers or thread adhesive. SWEC additionally reviewed Category 1 equipment vendor documentation and ascertained appropriate provisions were made for incorporation of locking devices. This item is closed.
- o. IE Circular 80-10, Failure to Maintain Environmental Qualification of Equipment. The licensee training program for electricians includes

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sixteen hours of training associated with environmental qualification of equipment. The inspector reviewed maintenance instruction MI-4.0, Maintenance Instructions for Review and Implementation of Technical Requirements in Maintenance Procedures. The instruction provides assurance that the maintenance procedures are consistent with all applicable Equipment Qualification maintenance requirements. This item is closed.

- p.. IE Circular 80-25, Case histories of radiography events. The inspector reviewed NMPC procedure RP-11, Performance of Radiography with Licensed Sealed Sources. The radiography procedure addressed:

- Personnel training and licensing.
- Obtaining Radiation Work Permits.
- Personnel monitoring.
- Surveys, surveillance and access control.
- Storage of radiographic devices.
- Source leak testing.

This item is closed.

- q. IE Bulletin 82-02, Degradation of Threaded Fasteners in the Reactor Coolant Pressure Boundary of PWR Plants. SWEC reviewed installation specifications for valve bonnets, pump flange connections and CRD flange connections. The lubricants and sealants used for the flange connections were controlled through the RCI and SWEC approved material programs. SWEC ascertained that valve bonnet connections would not be subject to the corrosion problems identified. This item is closed.

6. Generic Letters

- a. The Generic Letter transmits information, interpretations, and requirements from NRR to licensees. The Generic Letter may request a written response from licensees.

The inspector reviewed the following procedures:

- PG34, Identifying, Tracking and Responding to Commitments made by NMPC to the NRC
- PPNM150, Information from the NRC NMPC Receipt, Response and Followup

The inspector found an adequate procedural framework in place to assure that the Generic Letters are reviewed by appropriate management personnel and that programs exist to track plant specific actions.

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- b. The inspector reviewed licensee records related to the Generic Letters identified below to verify that: the Generic Letters were received and reviewed for applicability; a written response was provided if required; and the site actions were consistent with the written response.
1. Generic Letter 79-54, Evacuation Time Estimates (After Notification) For Areas Near Nuclear Power Plants. The site emergency plan information has been reviewed and found acceptable by both the NRC and FEMA.
 2. Generic Letter 80-56, Control of Heavy Loads. The inspector reviewed FSAR amendment 17 which responded to the NRR Technical Evaluation Report dated September 1984.
 3. Generic Letter 81-04, Emergency Procedures and Training for Station Blackout Events. The inspector reviewed the GE prepared Nine Mile Point Unit 2 Station Blackout Study. The study concluded that the current plant will meet the intent of the proposed rule to remain operable for 8 hours under station blackout conditions.
 4. Generic Letter 81-32, NUREG-0737 item II.K.3.44, Evaluation of Anticipated Transients Combined with Single Failure. The inspector reviewed FSAR page 1.10-104 that stated the assumptions of the GE BWR owners group report, which concluded the core remains covered for any transient with the single worst failure.
 5. Generic Letter 81-35, Safety Concerns Associated with Pipe Breaks in the BWR Scram System. The inspector reviewed associated Generic Letter 86-01.
 6. Generic Letters 83-01, 84-30, 85-04, 85-18 Operator Licensing Examinations. The inspector reviewed NMPC letters NMP2L 0364 and NMP2L 0510 that provided the estimated schedule for Fiscal Year 1985, 1986, 1987 and 1988 licensing examinations.
 7. Generic Letter 83-24, TMI Task Action Plan Item I.G.1, Special Low Power Testing and Training, Recommendations for BWRs. The plant operations staff will utilize the simulator to supplement involvement with startup and preoperational test participation.
 8. Generic Letter 85-06, QA Guidance for ATWS Equipment that is Not Safety Related. The inspector was informed that NMPC has classified the ATWS equipment as safety related.



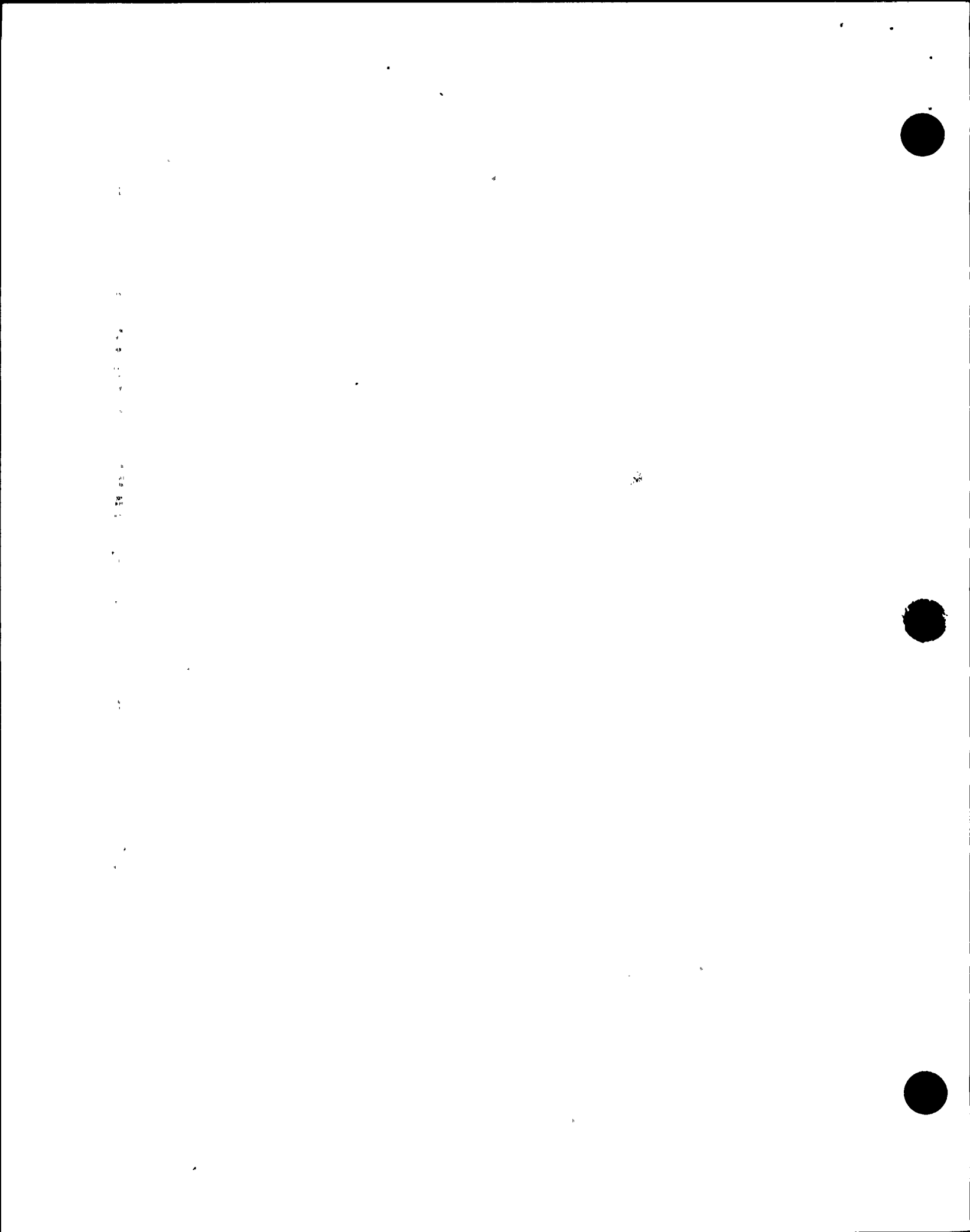
9. Generic Letter 86-04, Policy Statement on Engineering Expertise on Shift. The inspector reviewed NMPC letter NMP2L-0713 and the Nine Mile Technical Specifications which describes the role of the Assistant Station Shift Supervisor.

The inspector had no further questions. Final resolution of Generic Letter issues is the responsibility of NRR, and NMPC will provide responses as needed to close any outstanding or confirmatory issues regarding the above Generic Letters.

7. Licensee Action on NRR Open Items

The office of Nuclear Reactor Regulation has requested the Region I office to perform followup verification on the following licensing issues:

| <u>Issue</u> | <u>NRR Item</u> | <u>Region I Item</u> | <u>Status</u> |
|--|-----------------|----------------------|--------------------------------|
| IE Bulletin 79-08 Item 6(II.K.1.5) | Confirm.51 | 86-09-20 | Open |
| IE Bulletin 79-08 Item 8(II.K.1.10) | Confirm.51 | 86-09-21 | Closed IR 86-26 |
| RCIC Auto Restart (II.K.3.13) | Confirm.52 | 86-09-41 | Closed IR 86-01 IR 86-18 |
| RCIC Pipe Break De- tection (II.K.3.15) | Confirm.54 | 86-09-24 | Closed IR 86-18 |
| ADS Logic (II.K.3.18) | Confirm.53 | 86-09-25 | Closed IR 86-18 |
| DG Fuel Oil Fill Procedure | Confirm.35 | 86-18-02 | Open |
| DG Minimum Loading Procedure | Confirm.41 | 86-18-03 | Open |
| I&C Site Audit Items | | 86-18-04 | Open |
| Degraded Voltage Relay Setpoint | | 86-13-xx | Open |



8. Preoperational Test Procedure Review

The inspector reviewed the following preoperational test procedures:

- N2-POT-30, Control Rod Drive Hydraulics
- N2-POT-78, Remote Shutdown System

The procedures were reviewed in preparation for test witnessing for technical and administrative adequacy, verification that the planned testing would satisfy regulatory guidance and licensee commitments, and verification of proper licensee review and approval, correct format, test objectives, prerequisites, initial conditions, test data recording requirements, and system restoration.

The inspector also reviewed portions of N2-POT-28, Nuclear Boiler Instrument, and N2-POT-83, Primary Containment Isolation, regarding LOCA signal inputs used for automatic actuation of the Standby Gas Treatment System. The inspector had no further questions.

No violations were identified.

9. Preoperational Test Witnessing

a. The inspector witnessed portions of the following preoperational tests:

- N2-POT-30, Control Rod Drive Hydraulics.
- N2-POT-61, Standby Gas Treatment.
- N2-POT-97, Reactor Protection System.
- N2-POT-300, Loss of Offsite Power/ECCS.

The inspector verified that the testing was conducted in accordance with the approved procedure, that calibrated test equipment was utilized, that temporary test signals or blocks were adequately controlled, that test exceptions were properly documented, and that NMPC Quality Assurance (QA) personnel provided an independent overview of the system tests. In addition, the inspector discussed the planned performance of N2-POT-78, Remote Shutdown System, with the Test Engineer during preparations for commencing the test.

b. The inspector reviewed the following documents related to the Loss of Offsite Power (LOOP) Test:



- FSAR Table 14.2-129.
- N2-POT-300, Loss of Offsite Power/ECCS, Revision 1
- N2-POT-300 Field Revision Form 1.
- N2-OSP-EGS-R008, Operating Cycle Diesel Generator Simulated Loss of Offsite Power with an ECCS Division III.
- NMPC QA checklist SQA-S-170.0-86.

The inspector witnessed the following portions of the LOOP Test:

- LOCA with offsite preferred power.
- LOCA with LOOP test and re-test.
- LOCA with Division I AC/DC Inop.
- LOCA with Division II AC/DC Inop.

The inspector reviewed test prerequisite completion, observed pre-test briefing, verified NMPC QA coverage, reviewed test exceptions, reviewed the test summary, observed operations personnel test involvement, observed data collection for system performance, reviewed Diesel Generator temperature parameters, and reviewed selected General Electric Transient Analysis Recorder (GETARs) data. The inspector had no questions.

No violations were identified.

10. Preoperational Test Results Review

The inspector reviewed the following documents related to the Reactor Pressure Vessel hydrostatic test:

- NMPC Procedure MP.0001.002, Reactor Vessel Pressure Test, including: instrument calibration list, RPV hydrostatic test boundary vent valve lineup, RPV hydrostatic test boundary valve lineup, electrical lineup sheet, instrumentation and controls lineup sheet, temporary modification sheet, leak identification sheet, cap removal/reinstallation sheet, water sample and analysis report, RPV pressure data sheet, RPV temperature data sheet, RPV head stud tensioning record, loop calibration reports for RPV pressure transmitters, review sheets from SWEC and GE, ASME form NA-1A manufacturer data report, CBIN hydrostatic test results, and the control room log.



- Field Revision Forms FRF-MP.0001.002-1/2/3/4/5.
- Deficiency Reports (DRs) M02085, M02113, M02109, M02017, M02067.
- ITT inspection Reports 85-04-04109/04110/04111/04113/04114 and 12501.
- Nonconformance and Disposition Report 11782 and RCI N&D - 102.
- Engineering Design Coordination Report P12418.
- SWEC Inspection Reports P5A13410, P5A13408, P5A13470, P5A13409, W5A30881, P5A13407, P5A13406 and P5A13405.

The test documentation recorded appropriate test and inspection hydrostatic test pressures. The portions of the piping system that were not properly exposed to the hydrostatic test pressure were retested. The inspector reviewed the resolution of arc strikes that were identified during the hydrostatic test walkdown.

No violations were identified.

11. Inspection Program Status

The Construction Inspection Program (MC 2512) is approximately 99 percent complete.

The approximate Preoperational Test Program (MC 2513) inspection completion status is as follows:

| <u>Area</u> | <u>Inspection % Complete</u> |
|------------------|------------------------------|
| Procedure Review | |
| Mandatory | 100 |
| Primal | 100 |
| Test Witness | |
| Mandatory | 90 |
| Primal | 100 |
| Results Review | |
| Mandatory | 40 |
| Primal | 80 |

The approximate status of operational readiness inspection is as follows:

| <u>Area</u> | <u>Inspection % Complete</u> |
|-------------------------------------|------------------------------|
| Operations Staffing & Procedures | 60 |
| Tech Spec Review | 75 |
| QA | 75 |



| <u>Area</u> | <u>Inspection % Complete</u> |
|--------------------|------------------------------|
| Maintenance | 50 |
| Fire Protection | 95 |
| Fuel Receipt | 100 |
| Surveillance | 25 |
| Rad. Controls | 90 |
| Rad. Waste | 70 |
| Security | 90 |
| Emergency Planning | 90 |

Additional inspections will be performed in each area to verify readiness for fuel load.

The approximate NRC open item status is listed below. Backlogged items have been presented for closure but have not yet been reviewed by NRC Region I.

| <u>Area</u> | <u>Total Number of Open Items</u> | <u>NRC Backlogged Items</u> |
|-------------------------------|-----------------------------------|-----------------------------|
| Construction Deficiencies | 41 | 24/58% |
| Violations | 15 | 3/20% |
| Unresolved/ Followup Items | 73 | 21/29% |
| Bulletins | 11 | 6/55% |
| TMI Items | 18 | 18/100% |
| SER Verifications | <u>6</u> | <u>4/67%</u> |
| Total | 164 | 67/46% |

12. Management Meeting

At periodic intervals during the inspection, meetings were held with senior plant management to discuss the scope and findings of this inspection. Based on the NRC Region I review of this report and discussions held with licensee representatives on June 2, 1986, it was determined that this report does not contain information subject to 10. CFR 2.790 restrictions.

