



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

Report Nos.: 50-325/84-13 and 50-324/84-13

Licensee: Carolina Power and Light Company
 411 Fayetteville Street
 Raleigh, NC 27602

Docket Nos.: 50-325 and 50-324

License Nos.: DPR-71 and DPR-62

Facility Name: Brunswick 1 and 2

Inspection Dates: May 15 - June 23, 1984

Inspection at Brunswick site near Southport, North Carolina

Inspectors:	<u>[Signature]</u>	7/19/84
	D. O. Myers, Senior Resident Inspector	Date Signed
	<u>[Signature]</u>	7/19/84
	L. W. Garner, Resident Inspector	Date Signed
	<u>[Signature]</u>	7/19/84
	T. E. Hicks, Resident Inspector	Date Signed
Approved by:	<u>[Signature]</u>	
	P. Bemis, Section Chief	Date Signed
	Division of Reactor Projects	

SUMMARY

Areas Inspected

This routine safety inspection involved 212 inspector-hours on site in the areas of surveillance, maintenance, operational safety verification, ESF System walk-down, in-office Licensee Event Reports review, independent inspection, plant transients.

Results

Of the areas inspected, 2 violations were identified. (Failure to follow procedures discussed in paragraph 8).

REPORT DETAILS

1. Person Contacted

Licensee Employees

J. Boone, Engineering Supervisor
L. Boyer, Director - Administrative Support
T. Brown, I&C/Electrical Maintenance Supervisor (Unit 1)
G. Campbell, Mechanical Maintenance Supervisor (Unit 2)
*J. Chase, Manager - Operations
*G. Cheatham, Manager - Environmental & Radiation Control
J. Cook, Senior Specialist - Environmental & Radiation Control
R. Creech, I&C/Electrical Maintenance Supervisor (Unit 2)
*C. Dietz, General Manager - Brunswick Nuclear Project
*W. Dorman, QA - Supervisor
*K. Enzor, Director - Regulatory Compliance
W. Hatcher, Security Specialist
A. Hegler, Superintendent - Operations
R. Helme, Director - Onsite Nuclear Safety - BSEP
*M. Hill, Manager - Administrative & Technical Support
*B. Hinkley, Manager - Technical Support (Acting)
J. Holder, Manager - Outages
P. Hopkins, Director - Training
*P. Howe, Vice President - Brunswick Nuclear Project
*L. Jones, Director - QA/QC
D. Novotny, Senior Regulatory Specialist
G. Oliver, Manager - Site Planning and Control
R. Poulk, Senior NRC Regulatory Specialist
*C. Treubel, Acting Manager - Maintenance
L. Tripp, Radiation Control Supervisor
V. Wagoner, Director - IPBS/Long Range Planning
J. Wilcox, Principle Engineer - Operations
B. Wilson, Engineering Supervisor

Other licensee employees contacted included technicians, operators and engineering staff personnel.

*Attended exit interview.

2. Exit Interview

The inspection scope and findings were summarized on May 25 and June 20, 1984 with those persons indicated in paragraph 1 above. Meetings were also held with senior facility management periodically during the course of this inspection to discuss the inspection scope and findings.

3. Licensee Action on Previous Inspection Findings (92702)

(Closed) Violation (324/81-14-02 and 325/81-14-02), failure to follow procedure OP-5A. Licensee response to the violation, dated August 26, 1981,

committed to develop a revised procedure which would be clearly written and be administratively functional. Operating instruction OI-05, Abnormal Annunciator Status, has superceded OP-5A. OI-05 requires that an alarm status sheet be reviewed and appropriate additions, deletions or corrections be made by each on-shift control operator. The updated copies are then distributed to the control operators, operations superintendent and manager of operations. Annunciators which have been disabled are tracked on the plant nuclear safety committee weekly action item list. As part of the routine inspection program, the inspector randomly reviews the alarm status sheet and operator knowledge of alarms. The program appears to work satisfactorily. This item is closed.

4. Unresolved Items

Unresolved items were not identified during this inspection.

5. Operational Safety Verification (71707, 71710)

The inspector verified conformance with regulatory requirements throughout the reporting period by direct observations of activities, tours of facilities, discussions with personnel, reviewing of records and independent verification of safety system status. The following determinations were made:

- Technical Specifications. Through log review and direct observation during tours, the inspector verified compliance with selected Technical Specifications Limiting Conditions for Operation.
- By observation during the inspection period, the inspector verified the control room manning requirements of 10 CFR 50.54(k) and the Technical Specifications were being met. In addition, the inspector observed shift turnovers to verify that continuity of system status was maintained. The inspector periodically questioned shift personnel relative to their awareness of plant conditions.
- Control room annunciators. Selected lit annunciators were discussed with control room operators to verify that the reasons for them were understood and corrective action, if required, was being taken.
- Monitoring instrumentation. The inspector verified that selected instruments were functional and demonstrated parameters within Technical Specification limits.
- Safeguards system maintenance and surveillance. The inspector verified by direct observation and review of records that selected maintenance and surveillance activities on safeguards systems were conducted by qualified personnel with approved procedures, acceptance criteria were met and redundant components were available for service as required by Technical Specifications.

- Major components. The inspector verified through visual inspection of selected major components that no general condition existed which might prevent fulfillment of their functional requirements.
- Valve and breaker positions. The inspector verified that selected valves and breakers were in the position or condition required by Technical Specifications for the applicable plant mode. This verification included control boards indication and field observation (Safeguard Systems).
- Fluid leaks. No fluid leaks were observed which had not been identified by station personnel and for which corrective action had not been initiated, as necessary.
- Plant housekeeping conditions. Observations relative to plant housekeeping identified no unsatisfactory conditions.
- Radioactive releases. The inspector verified that selected liquid and gaseous releases were made in conformance with 10 CFR 20 Appendix B and Technical Specification requirements.
- Radiation Controls. The inspector verified by observation that control point procedures and posting requirements were being followed. The inspector identified no failure to properly post radiation and high radiation areas.
- Security. During the course of these inspections, observations relative to protected and vital area security were made, including access controls boundary integrity, search, escort, and badging.

No violations or deviations were identified.

6. Followup on Inspection and Enforcement Circulars (92717)

The inspector verified that the circular was received, reviewed for applicability and appropriate action taken, as necessary. The following were reviewed:

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|-------|---|
| 79-13 | Replacement of Diesel Fire Pump Starting Contactors. Licensee determined that their diesel was not one of the affected models. |
| 79-17 | Contact Problem in SB-12 Switches on General Electric Metalclad Circuit Breakers. New SB-12 auxiliary switches were installed as recommended. |
| 79-18 | Proper Installation of Target Rock Safety-Relief Valves. New diaphragms were installed as recommended. Installation of insulation is in accordance with vendor recommendations. |

- 79-20 Failure of GTE Sylvania Relay, Type PM Bulletin 7305, Catalog 5U12-11-AC with a 120V AC coil. The licensee determined that the subject relay is not in use at Brunswick.
- 79-22 Stroke Times for Power Operated Relief Valves. Item deemed not applicable to a BWR.
- 79-23 Motor Starters and Contactors Failed to Operate. The referenced model numbers were determined not to be installed at Brunswick.
- 80-09 Problems with Plant Internal Communications Systems. The plant PA system and "NRC Red Phone", is powered from the emergency bus. Use of radios in the control room is banned by procedure and a notice to that effect is posted on the control room doors.
- 80-12 Valve-Shaft-to-Actuator Key May Fall Out of Place When Mounted Below Horizontal Axis. Inspection of valves completed in July, 1981.
- 80-21 Regulation of Refuel Crews. The licensee has incorporated recommendations in their procedures.
- 81-12 Inadequate Periodic Test Procedure of PWR Protection System. The licensee determined that breakers, which function as described in the circular, are not installed at Brunswick. Hence, a similar procedure inadequacy does not exist at Brunswick.
- 81-13 Torque Switch Electrical Bypass Circuit for Safeguards Service Valve Motors. The field verification of installed bypass circuitry has been completed on Unit 1. The Unit 2 inspection should be completed during the current refueling outage.
- 81-14 Main Steam Isolation Valve Failures to Close. Operating history review revealed no problem with the type of valve installed at Brunswick.

The above items are considered closed. No violations or deviations were identified.

7. Independent Inspection (92706)

(Closed) Open Item (324/78-18-05 and 325/78-18-05), followup on corrective actions for Bulletin 78-03. The loop seal redesign reference in the inspection report was completed per modifications 80-228A and 80-228B.

Because the licensee is in the process of replacing the previous augmented off-gas system with one of more conventional design, the inspector requested the licensee to review the subject bulletin for applicability to the new system. The re-review was completed in January, 1984. The inspector reviewed the report (FACTS - COMNO 83B0225), and has no further questions. This item is closed.

(Closed) Inspector Followup Item (325/79-38-03), Licensee review of RWCU maintenance policies. The licensee has completed modification on Unit 1 and is in the process of modifying Unit 2 to upgrade the reactor water cleanup system. The modifications involve re-routing of major pipes, installation of more reliable valves and other major components in the system. Ease of maintenance and increased reliability are major goals of the modifications. Performance of Unit 1 has indicated a marked improvement in these areas of concern. The inspector considers the subject item to be adequately addressed by the modifications. This item is closed.

(Closed) Inspector Followup Item (325/79-38-04), Licensee review of RWCU isolation valve close circuit. The licensee has determined that no change to the circuitry is required. The inspector reviewed the Final Safety Analysis Report and discussed the matter with other inspectors at similarly designed facilities. It appears that this is one of several designs provided by the nuclear steam supply system vendor for this system. The inspector concurs with the licensee's position. This item is closed.

(Closed) Open Item (325/79-44-01), followup on source of water in relief valve F013A discharge line that caused pipe support damage during valve opening. Cause of the event or source of water could not be conclusively determined. A torus modification has been issued to re-arrange the relief valve exhaust lines such that each will have a separate tee quencher. It is anticipated that this should preclude a similar event. The modification has been completed on Unit 1 and will be completed on Unit 2 prior to restart from the current outage. This item is closed.

(Closed) Inspector Followup Item (324/81-06-01 and 325/81-06-05), alarms used for other than design purpose. This item has been included by the licensee in the human factors upgrade of the control room. A new item incorporating the inspector's concerns for this item as well as items 324/81-06-02, 325/81-06-03 and 325/81-06-06, is being opened (IFI 324/84-13-03 and 325/84-13-03). This new item will track the licensee's progress to upgrade annunciation in the control room to eliminate unnecessary alarms and correct nuisance alarms which results from poor design. In addition, the licensee is attempting to reduce the number of normally lit annunciators at 100% power to zero. The subject item is closed.

(Closed) Inspector Followup Item (324/81-06-02 and 325/81-06-06), Licensee to evaluate lit annunciators in control room. The licensee has substantially reduced the number of normally lit annunciators during power operation, i.e., from 80 to 90 per unit to approximately 25 per unit. Additional

reduction is anticipated as part of the human factors control room upgrade project. See item 324/81-06-01 closeout elsewhere in this report. The subject item is closed.

(Closed) Inspector Followup Item (325/81-06-03), annunciators with design deficiencies. See item 324/81-06-01 closeout elsewhere in this report. This item is closed.

(Closed) Inspector Followup Item (324/81-14-03 and 325/81-14-03), procedure inadequacies - OP-5A. The inadequacies noted in the report were corrected as part of corrective action associated with violation 325/81-14-02. This item is closed.

(Closed) Inspector Followup Item (324/81-27-01 and 325/81-27-01), QA final document surveillance not completed in timely manner. The reference item included two subjects: 1) supervisory personnel holding completed documents until the end of an outage and 2) QA personnel allowing mitigating circumstances to downgrade significance of available documentation. The former subject was discussed with the QA supervisor. He indicated that personnel were now submitting, in most cases, completed documents to QA within 2 or 3 weeks of work completion. This is considered reasonably timely. In the later matter, the inspector is unaware of any similar problems. The item was discussed with appropriate QA personnel at the time of the problem. This item is considered closed.

(Closed) Inspector Followup Item (324/81-31-03 and 325/81-31-03), evaluate pathways into service building to reduce possibility of bringing contaminated material into clean areas. Procedure E&RC-0215, Release of Materials, has been revised to specify that contaminated materials are to be brought into the service building through designated entrances. The inspector verified that the service building doors are appropriately labeled. This item is closed.

(Closed) Inspector Followup Item (324/82-08-06 and 325/82-08-06), installation of plant modifications 82-030 and 82-031. The subject modifications are to help prevent spurious actuations of the emergency core cooling systems (ECCS) when voltage transients occur on the D-C system supplying the ECCS initiation logic. Modification 82-031 for Unit 2 is complete. The Unit 1 modification 82-030, is scheduled for the November, 1984 outage. In addition, a modification is being developed by TAR B84-025 to provide additional reliability. This proposed modification would supply power to the initiation logic from two separate battery buses instead of the single battery bus supply currently in use. Completion of 82-030 and TAR B84-025, is an Inspector Followup Item (324/84-13-04 and 325/84-13-04). The subject item is closed.

(Closed) Inspector Followup Item (324/81-31-02 and 325/81-31-02), evaluate need to have protective clothing at frisking stations. The licensee agrees this is good industry practice. Procedure E&RC-0100, has been revised to incorporate this practice. This item is closed.

No violations or deviations were identified.

8. Untimely Surveillance Testing

On May 21, 1984, while reviewing procedure OI-18, for possible changes associated with recent Technical Specification (TS) changes, a shift technical advisor realized that surveillance periods specified in the TS change had passed and that no evidence existed that the indicated monthly surveillances had been performed. Conservative actions were taken by operations personnel in declaring that the surveillance had not been performed, in that the system was declared technically inoperable and appropriate TS action statements were followed. The affected unit (Unit 1) was at full power. Following the operations actions, a plant investigation of the event took place. The results of the plant's investigation revealed that 4 monthly surveillances, added to the TS by the recent change, had not been performed in a timely manner. The TS was issued on March 20, 1984, by NRR, received by the plant on March 30, 1984 and, as of May 22, 1984, the surveillances were still not performed on the operating unit.

NRC investigation of the event further revealed that onsite and corporate quality assurance activities designed to detect the plant's failures to promptly implement the TS changes, were very weak. This was illustrated by onsite QA procedures that appeared not to have been followed in a verbatim manner and corporate quality assurance audit check sheets that were not fully understood by the auditors.

The site groups met with NRC personnel on May 25, to discuss their investigation findings. The inspectors found the licensee's investigation to have been very thorough and revealed a number of mitigating circumstances surrounding the program deficiencies discovered. During the course of this meeting, weaknesses in the QA involvement were perceived and further review of the events from the QA aspect followed. On June 20, QA personnel met with NRC inspectors to discuss the QA activities designed to diagnose the plants implementation of TS changes. QA group review revealed that procedures existed to directly inspect the plant's handling of TS changes but did not appear to have been followed fully. However, the review also indicated that, although not a direct method, other procedures provided for inspection of a significant portion of TS amendments.

The licensee's actions and investigation results were considered in determining the following inspection results. The inspectors found weaknesses in three areas surrounding the processing of technical specification changes that, left unchecked, could have led to more significant problems than the minor deficiencies that occurred. Violation of NRC requirements are cited in each of these areas: a) the plant regulatory compliance group failed to adequately implement procedure AI-9.1, Requesting Change to Technical Specification, designed to provide for timely implementation of TS changes, b) the onsite QA group failed to adequately implement Procedure QAP-302,

Technical Specification Surveillance, as required by Confirmatory Order EA 82-106, in that QA surveillance of TS changes, designed to assure plant implementation, had not been performed as described in the procedure, and c) the corporate performance evaluation unit (PEU), appeared to inadequately implement audit check lists designed to insure compliance to procedures, in that the site QA performance of QAP-302 was audited on two occasions and detection of a significant deficiency was not noted.

Details of the inspection follow.

Site regulatory compliance group was notified by plant operations that there appeared to be no surveillance test for condensate storage tank level switches (E51-LSL-4463 and 4464). These switches were added by the most recent TS change. Amendments 68 and 94 to the operating license of Unit 1 and Unit 2, modified the TS by adding Limiting Condition for Operations and Surveillance Requirements to the pertinent instrumentation associated with the modification to the reactor core isolation cooling (RCIC) system (TS No. 4.3.7.1). The TS change required a monthly surveillance of the level switches. Since greater than 30 days had expired since issuance on March 20, and no surveillance was performed to date (May 22), the system was considered technically inoperable.

Valves in the RCIC system suction that use the CST level switches for automatic actions were transferred to the torus as required by TS Table 3.3.7-1. Further investigation indicated that the surveillance for the RCIC-reactor vessel high water level trips associated with instrument B21-LTM-NO17 A-2, C-2, (TS No. 4.3.7.1), similarly did not have monthly surveillance tests in place. Regulatory compliance review determined that a deficiency existed in the routing of "procedure identification change forms". These forms were designed to capture requirement changes in procedures and the need for new procedures used by the various groups onsite. This error combined with the untimely issuance of the change forms to plant groups, led to the late implementation of the new TS requirements. The inspector verified that testing (PT 03.1.3, A27-1) of the RCIC instruments had taken place prior to restart of the affected unit after a shutdown had occurred during the investigation period. The amendment was issued on March 20, 1984 and the first monthly testing was completed satisfactorily on May 28, 1984.

The licensee had already taken action for assuring that new surveillance requirements identified in TS amendments initiated after January, 1984, would have the surveillance tests identified and approved prior to the issuance of the change. This action should assure timely implementation of new surveillances in the future. However, for amendments initiated before January, 1984, the licensee relied on the post-issuance implementation that led to this event. The licensee's failure to adequately implement procedure AI-9.1 is a violation of TS 6.8.1, (324/84-13-01 and 325/84-13-01).

During the investigation, the inspectors questioned the involvement of the onsite quality assurance surveillance group in diagnosing deficiencies in the issuance of TS amendments. It was determined that onsite QA had a procedure, QAP-302, Technical Specification Surveillance Program, that required a surveillance of operating license amendments/changes. Revision 4 of the procedure, Section 7.1, read as follows:

7.1 Surveillance of Operating License Amendments/Changes.

- 7.1.1 Amendments/changes received to the Operating License(s) will be reviewed to determine what actions, if any, are required to be taken and date(s) of implementation of any such actions.
- 7.1.2 A surveillance will be performed of such amendments/changes to determine:
- a. Operating Plant procedures for incorporating such amendments/changes were implemented.
 - b. Revisions to procedures, e.g., PT's, OWP's, GP-1, etc., were implemented in accordance with the time frame indicated in the amendment/change.
 - c. Other plant procedures, e.g., cross-reference, used to provide overall control of Operating License are revised.

This procedure, issued on August 25, 1982, was designed to provide prompt and direct verification of the plant's implementation of new TS requirements. This procedure was developed as part of the Brunswick Improvement Plan and, subsequently, become a licensee requirement as a result of Confirmation Order EA-82-106, issued on December 22, 1982.

Since the issuance of QAP-302 in 1982, there have been a total of 39 amendments issued by the NRC. The licensee indicated 3 surveillance reports had been issued covering 6 amendments, (3 for each unit). Seventeen amendments received a review through overlapping surveillance provided in other procedures, and 16 amendments issued since December 12, 1983, have received no surveillances. The inspectors determined that the licensee's implementation of QAP-302 to be inadequate in that surveillances of new TS requirements were not being performed in a timely and effective manner.

Further review of the QA involvement by NRC and the onsite QA group, revealed that, while a direct approach to this requirement appeared not to have been provided, a series of other surveillances and efforts by QA indicated that changes did receive a review that could have alerted QA personnel of errors on behalf of the plant staff. This indirect method, when reviewed by the inspectors, did appear to provide some confidence that major errors would have been diagnosed but was not part of the program intended to detect such personnel errors.

The inspectors further considered that the checklist used by corporate QA Performance Evaluation Units (PEU) as required by procedure CQA-80-1 in audits of onsite QA had been ill-understood. PEU audited the onsite QA group's implementation of QAP-302 on 2 occasions. PEU audit QAA 126-3, conducted August 8-12, 1983, provided a finding that stated site QA was not adequately meeting the requirements of QAP-302. This finding was closed in a subsequent audit, QAA 126-4, in March 1984, when there appeared to be some 7 amendments outstanding with no surveillance reports to document their review. In interviews with QA personnel, the inspectors determined that procedure CQA-80-1 utilized by the auditors was not fully understood and, therefore, was inadequately implemented in that TS surveillance reports, covering the entire Technical Specifications was reviewed instead of surveillance reports of only TS changes.

These two examples of inadequate implementation of procedures by QA constitute a violation of 10 CFR 50, Appendix B, Criteria V which states the QA "Activities affecting quality shall be prescribed by documented instructions, procedures, or drawings, of a type appropriate to the circumstances and shall be accomplished in accordance with these instructions, procedures or drawings." (Violation 324/84-13-02 and 325/84-13-02).

9. Followup of Plant Transients and Safety System Challenges (93702)

During the period of this report, a followup of plant transients and safety system challenges was conducted to determine the cause; ensure that safety systems and components functioned as required; corrective actions were adequate; and the plant was maintained in a safe condition.

On May 25, 1984, Unit 1 was removed from service to locate the source of unidentified drywell leakage which, from May 8, had gradually increased from 0.5 gpm to 4.5 gpm. The cause of the increased leakage was determined to be a packing leak on the inboard isolation valve of the reactor water cleanup system. The valve was repacked and the unit returned to service on May 30.

On June 9, 1984, a leak developed on the Unit 1 common discharge header of the heater drain pumps. A mixture of steam and water was observed discharging from a small crack in the weld affected area where the pipe is attached to a support. On June 10, the licensee reduced power and initiated a manual scram in accordance with procedures. No engineered safeguards features (ESF) were required. The line was repaired and the unit returned to service on June 14.

No violations or deviations were identified.

10. Surveillance Testing (61726)

The surveillance tests were analyzed and/or witnessed by the inspector to ascertain procedural and performance adequacy.

The completed test procedures examined were analyzed for embodiment of the necessary test prerequisites, preparations, instructions, acceptance criteria and sufficiency of technical content.

The selected tests witnessed were examined to ascertain that current, written approved procedures were available and in use, that test equipment in use was calibrated, that test prerequisites were met, system restoration was completed and test results were adequate.

The selected procedures attested conformance with applicable Technical Specifications, they appeared to have received the required administrative review and they apparently were performed within the surveillance frequency prescribed.

The inspector employed one or more of the following acceptance criteria for evaluating surveillance tests.

10 CFR
ANSI N18.7
Technical Specifications

Of the areas inspected, no violations or deviations were identified.

11. Maintenance Observations (62703)

Maintenance activities were observed and reviewed throughout the inspection period to verify that activities were accomplished using approved procedures or the activity was within the skill of the trade and that the work was done by qualified personnel. Where appropriate, limiting conditions for operation were examined to ensure that, while equipment was removed from service, the Technical Specification requirements were satisfied. Also, work activities, procedures, and work requests were reviewed to ensure adequate fire, cleanliness and radiation protection precautions were observed, and that equipment was tested and properly returned to service. Acceptance criteria used for this review were as follows:

Maintenance Procedure
Technical Specifications

Outstanding work requests that were initiated by the operations group for Units 1 and 2 were reviewed to determine that the licensee is giving priority to safety-related maintenance and not allowing a backlog of work items to permit a degradation of system performance.

Of the areas inspected, no violations or deviations were identified.

12. Onsite Review Committees (40700)

The inspectors attended the regular monthly Plant Nuclear Safety Committee (PNSC) Meeting and several special PNSC meetings conducted during the inspection period.

The inspectors verified the following items:

- Meetings were conducted in accordance with Technical Specification requirements regarding quorum membership, review process, frequency and personnel qualifications;
- Meeting minutes were reviewed to confirm that decisions/recommendations were reflected and followup of corrective actions were completed.

No violations or deviations were identified.

13. In-Office Review of Outstanding Items

The following items were evaluated by the Reactor Safety, Radiation Safety and Safeguards, and Reactor Projects regional staff. Based on this review and the results of the latest Resident and Region based inspection activities in the affected functional areas, the following items were determined to require no additional specific followup and are closed.

a. Licensee Event Reports (LERs)

Docket No. 50-324

LER Nos.	80-24	80-41	80-56
	80-25	80-42	80-57
	80-26	80-43	80-58
	80-27	80-44	80-59
	80-28	80-45	80-60
	80-29	80-46	80-61
	80-31	80-47	80-62
	80-32	80-48	80-63
	80-33	80-49	80-64
	80-34	80-50	80-65
	80-35	80-51	80-66
	80-36	80-52	80-67
	80-38	80-53	80-68
	80-39	80-54	80-69
	80-40	80-55	80-70
	80-71	81-09	81-40
	80-72	81-10	81-41
	80-74	81-11	81-42
	80-75	81-12	81-43
	80-77	81-13	81-44
	80-78	81-14	81-45
	80-78	81-15	81-46
	80-80	81-16	81-47
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			81-115
			81-122
			81-125
			81-126
			81-129
			81-130
			81-136

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80-82	81-18	81-49	81-141
80-83	81-20	81-50	81-142
80-86	81-21	81-51	81-146
80-87	81-23	81-52	82-02
80-88	81-24	81-53	82-03
80-89	81-25	81-54	82-04
80-91	81-26	81-55	82-05
80-93	81-27	81-56	82-07
80-94	81-28	81-60	82-09
80-95	81-29	81-61	82-11
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81-01	81-31	81-69	82-14
81-02	81-32	81-82	82-15
81-03	81-33	81-91	82-18
81-04	81-34	81-96	82-21
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81-06	81-36	81-100	82-25
81-07	81-37	81-102	82-26
81-08	81-39	81-104	82-27

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82-29	82-111
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82-109	

Docket No. 50-325 Licensee Event Reports

LER No.	79-56	79-98	80-24
	79-70	79-99	80-25
	79-71	79-100	80-26
	79-72	79-101	80-27
	79-73	79-102	80-28
	79-74	79-103	80-29
	79-75	80-01	80-30
	79-76	80-02	80-31
	79-77	80-03	80-32
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	79-79	80-05	80-34
	79-80	80-06	80-35
	79-81	80-07	80-36
	79-82	80-08	80-37
	79-83	80-09	80-38
	79-84	80-10	80-39
	79-85	80-11	80-40
	79-86	80-12	80-41
	79-87	80-13	80-42
	79-88	80-14	80-43
	79-89	80-15	80-44
	79-90	80-16	80-45
	79-91	80-17	80-46
	79-92	80-18	80-47
	79-93	80-19	80-48
	79-94	80-20	80-49
	79-95	80-21	80-50
	79-96	80-22	80-51
	79-97	80-23	80-52
	80-53	81-30	82-05
	80-54	81-31	82-06
	80-55	81-32	82-26
	80-56	81-33	82-27
	80-65	81-34	82-32
	81-01	81-35	82-33
	81-02	81-36	82-38
	81-03	81-37	82-41
	81-04	81-38	82-45
	81-05	81-39	82-47
	81-06	81-40	82-50
	81-08	81-41	82-53
	81-09	81-42	82-61
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b. Inspector Followup Items

Docket Number 50-324

- 78-SB-06 TI2515/13 Environmental Qualification of Safety Related Electrical Equipment Review and Document in Report and Memorandum.
- 79-SB-06 Petroleum jelly in certain GE induction relays ref Jordan memo dtd 1-15-79
- 79-SB-11 TI 2515/17 Rev. 1 provides for temporary reduction in operations (MC 2515) inspection program due to resource constraints
- 79-SB-12 TI 2515/18 Rev. 1 provides guidance on inspection program during periods of long term reactor shutdown
- 79-SB-13 TI 2515/19 requires critical fire areas identified by NRR are inspected in conjunction with module 71710B or C annually until modifications in SER are implemented.
- 79-SB-15 TI 2515/21 allows the use of IE personnel to review proposed amendments to licensee emergency plans for NRR. Correspondence to be sent to Cunningham FFMSI. Project code is 80004
- 79-SB-17 TI 2800/2 requires information to be forwarded to IE HQ for reconciliation of materials license files

- 79-SB-18 TI 2595/2 which supercedes TI 2595/1 requires continuing involvement with licensee implementation of IEB 79-05 and its supplements record inspection effort against module 2592C
- 79-SB-19 TI 1000/5 requires that if documents are sent from IE to licensees listed in II copies must be sent to coordinators of government agencies
- 79-SB-20 TI 830/1 describes a detailed operational guidance to all organization elements of IE
- 79-07-03 Licensee to investigate water leakage under spent fuel pool
- 80-BP-01 Followup of licensee review of electrical power system adequacy as per Bryan memo of March 6, 1980
- 80-24-02 Verification of lockout of non-essential load during D/G sequential loading
- 80-24-03 NRC concerns over testing the diesels under simultaneous loss of offsite power for both units
- 80-24-04 Review of diesel generator testing requirements per IE HQ's request
- 81-06-01 Alarms used for other than design purpose
- 81-06-02 Licensee to evaluate lit annunciators in control room
- 80-18-01 Clarification of IE Bulletin 79-01B 45-day response Ruff
- 80-18-02 Missing electrical penetration cover screws Ruff
- 80-18-03 Environmental qualification of terminal boxes Ruff
- 80-00-01 Review implementation of Brunswick inservice inspection program for nozzle safe ends
- 80-07-01 Resolution of weld no. 3 primary steam line B
- 81-26-07 Identify OSC areas of rooms in service building section 4.1
- 81-26-11 Improved EOF habitability per NUREG 0696 Section 4.1.1.4
- 81-26-15 Improvements for liquid radwaste/effluent sampling capability Section 4.1.1.8
- 81-26-40 Revise information procedures to identify a program for familiarization of the news media Section 6.3

- 82-12-01 Initial emergency response in control room
- 82-12-04 Public address system for TSC and EOF
- 82-12-05 Verification of emergency controller messages
- 82-12-06 Conference room noise problems in TSC and EOF
- 82-12-07 Posting emergency status in CR, TSC, EOF
- 82-12-08 CR management practices
- 82-12-09 TSC information problems

Docket No. 50-325, Inspector Followup Item

- 78-SB-05 TI 2515/13 Env qual safety related electric review and document in report and memo
- 78-SB-09 TI 2515/15 verify expansion of spent fuel storage capacity is done per regulatory requirements. Due 45 days after completion of modifications.
- 78-SB-10 Review license response to IEB 7804 to verify SMLS providing position indication of valves used for primary containment isolation are qualified for operation under LOCA conditions.
- 78-11-02 Verify that licensee submits schedule for relay replacement per IEB 78-01
- 78-13-01 Supplement to LER 78-39 covering stress analysis to be submitted
- 78-16-01 Determine exemption status for ASME Section XI testing
- 79-SB-06 Petroleum jelly in certain GE induction relays ref Jordan memo dated 1/15/79
- 79-SB-11 TI 2515/17 Rev. 1 provides for temporary reduction in operations (MC 2515) inspection program due to resource constraints
- 79-SB-12 TI 2515/18 Rev. 1 provides guidance on inspection program during periods of long term reactor shutdown
- 79-SB-13 TI 2515/19 requires critical fire areas identified by NRR are inspected in conjunction with module 71710B or C annually until modifications in SER are implemented.

- 79-SB-15 TI 2515/21 allows the use of IE personnel to review proposed amendments to licensee emergency plans for NRR. Correspondence to be sent to Cunningham FFMSI. Project code is 80004
- 79-SB-17 TI 2800/2 requires information to be forwarded to IE HQ for reconciliation of materials license files
- 79-SB-18 TI 2595/2 which supercedes TI 2595/1 requires continuing involvement with licensee implementation of IEB 79-05 and its supplements record inspection effort against module 2592C
- 79-SB-19 TI 1000/5 requires that if documents are sent from IE to licensees listed in II copies must be sent to coordinators of government agencies
- 79-SB-20 TI 830/1 describes a detailed operational guidance to all organization elements of IE
- 79-38-03 Licensee review RWCU maint policies.
- 79-38-04 Licensee review RWCU isolation valve close circuit.
- 79-44-01 Followup on source of water in relief valve F013H discharge line that cause pipe support damage during valve opening
- 80-BP-01 Followup of licensee review of electric power system adequacy as per Bryan memo or March 6, 1980
- 81-27-01 QA final documents surveillance not completed in timely manner
- 82-37-03 Maintenance of sprinkler system deluge valves in the closed position
- 80-21-01 Clarification of IE Bulletin 79-01B 45-day response
- 80-21-02 Missing electrical penetration cover screws
- 80-21-03 Environmental qualification of terminal boxes
- 82-37-03 Maintenance of sprinkler system deluge valves in the closed position
- 80-00-01 Review implementation of Brunswick inservice inspection program for nozzle safe ends
- 79-33-03 Provide check out an labeling on in house computer programs used to evaluate data from tests PT50-3 and PT50-3.1

- 79-33-04 Licensee should evaluate need for tech spec related acceptance criterion on procedure PT50-12 in-sequence critical data
 - 82-38-02 Followup licensee's resolution to obtaining prior NRC approval before making modifications which require TS changes
 - 82-12-07 Posting emergency status in CR, TSC, EOF
 - 82-12-08 CR management practices
 - 82-12-09 TSC information problems
 - 82-12-01 Initial emergency response in control room
 - 82-12-02 Non-reactor incidents-emergency classification
 - 82-12-04 Public address system for TSC and EOF
 - 82-12-05 Verification of emergency controller messages
 - 82-12-06 Conference room noise problems in TSC and EOF
- c. IE Bulletins Docket number 50-324
- 79-BU-5A Nuclear incident at three mile island supplement
 - 79-BU-6B Review of operational errors and system misalignment identified during the Three Mile Island Incident
 - 78-BU-08 Close, not applicable to BWRs
- Docket number 50-325, Bulletins
- 79-BU-06 Review of operational errors and system misalignment identified during the Three Mile Island incident
 - 79-BU-5A Nuclear incident at three mile island supplement
 - 79-BU-6B Review of operational errors and system misalignment identified during the Three Mile Island Incident
 - 78-BU-12B A typical weld material in reactor pressure vessel welds
 - 78-BU-08 Close, not applicable to BWRs
- d. IE Circulars 50-324
- 79-CI-24 Proper installation and calibration of core spray pipe break detection equipment on BWRs

80-CI-08 BWR TS inconsistency - RPS response time

78-CI-18 UL fire test

Docket No. 50-325, Circulars

78-CI-18 UL Fire test

e. Unresolved Items docket Number 50-324

80-10-04 Storage of training and surveillance inspection/test records required by Technical Specifications

81-02-04 Followup on identified deficiencies resulting from emergency drill

Docket No. 50-325

Unresolved Items

79-22-03 Training plan for electricians

81-02-02 Followup on identified deficiencies resulting from emergency drill

f. Violations Docket No. 325

81-20-02 SL-4- Uncontrolled release of liquid waste

82-37-01 All personnel required to use respirators are not adequately qualified

82-37-02 Inadequate number of spare cylinders available for fire brigade self contained breathing apparatus

80-21-04 Failure to follow maintenance instruction MI 31-4-termination of electrical cables and internal wiring

Docket No. 50-324, Violations

82-32-02 Inadequate number of spare cylinders available for fire brigade self contained breathing apparatus

82-37-01 Failure to follow maintenance instruction MI 31-4-termination of electrical cables and internal wiring