

MAR 27 1985

ENCLOSURE 2

APPENDIX TO DUKE POWER COMPANY

McGUIRE NUCLEAR STATION

UNITS 1 AND 2

SALP BOARD REPORT

(Dated December 31, 1984)

8507170742 650327  
PDR ADOCK 05000269  
Q PDR

Enclosure 2

I. MEETING SUMMARY

- a. A meeting was held at 10:00 a.m. on January 8, 1985, at Duke Power Company's Charlotte, North Carolina corporate offices to discuss the SALP Board Report for the McGuire facility.

b. Licensee Attendees:

D. W. Booth, President and Chief, Executive Officer  
W. H. Owen, Executive Vice President, Engineering Construction and Production  
R. B. Priority, Vice President, Design Engineering  
H. Tucker, Vice President, Nuclear Production  
R. Dick, Vice President, Construction  
M. D. McIntosh, Manager, McGuire  
M. S. Tuckman, Manager, Oconee

c. NRC Attendees

J. N. Grace, Regional Administrator, Region II (RII)  
J. A. Olshinski, Deputy Regional Administrator, RII  
J. P. O'Reilly, Former Regional Administrator, RII  
V. L. Brownlee, Chief, Projects Branch 2, Division of Reactor Projects (DRP), RII  
J. C. Bryant, Senior Resident Inspector, Oconee, DRP, RII  
L. King, Resident Inspector, Oconee, DRP, RII  
K. Sasser, Resident Inspector, Oconee, DRP, RII  
W. T. Orders, Senior Resident Inspector, McGuire, DRP, RII  
R. Pierson, Resident Inspector, McGuire, DRP, RII  
D. Hood, Project Manager, Licensing Branch 4, Division of Licensing (DL), Office of Nuclear Reactor Regulation (NRR)  
H. Nicolaras, Project Manager, Operating Reactor Branch 4, DL, NRR

Enclosure 2

II. ERRATA SHEET

Page	Line	Now Reads	Should Read
7	16	Severity Level III	Severity Level IV

Basis for Change: This violation was issued as a Severity Level IV violation, not a Severity Level III violation.

8	27, 30, 36, 39	Severity Level	Proposed Severity Level
---	-------------------	----------------	-------------------------

Basis for Change: The violations identified were denied by the licensee. NRC has rejected three of the denials and is evaluating the fourth. Because resolution of these items has not yet been reached, a more appropriate characterization of each item is that of a "Proposed" violation.

9	1	Deviation	Proposed Deviation
---	---	-----------	--------------------

Basis for Change: The deviation identified was denied by the licensee. Although NRC has rejected the denial, resolution of this item has not yet been reached. A more appropriate characterization of the item would be that of a "Proposed" Deviation.

15	1-5	...use of an inadequate procedure and drawing with the following two examples given: (1) failure to restore an auxiliary containment spray system vent valve to its normally closed position following completion of an upstream check valve surveillance test; and (2) use of a misleading electrical drawing that contributed...	...use of an inadequate drawing in that use of a misleading electrical drawing contributed...
----	-----	--	---

Basis for Change: The licensee denied and the NRC accepted one of the two examples previously denoted in this violation.

26	4	1	3	7	3	1*	3**	8***	2
----	---	---	---	---	---	----	-----	------	---

Basis for Change: The changes to this summary page reflect the individual changes discussed above.

Thirteen violations and one deviation were identified during this evaluation period. The violations can be categorized in three general areas: failure to follow procedures, failure to use procedures, and inadequate procedures.

The identified violations and the deviation were:

- a. Severity Level III violation for failing to execute procedural documentation requirements for the removal from service of equipment which ultimately led to inoperability of both containment spray systems and one diesel generator on one unit.
- b. Severity Level III violation for failure by a second qualified individual to make an appropriate second independent verification for correct positioning of the containment spray recirculation valve upon completion of the monthly surveillance test.
- c. Severity Level III violation for failure to follow procedure during the removal and restoration of the 1-A centrifugal charging pump (CCP) breaker. Independent verification was not performed. Subsequent to CCP breaker restoration, the licensee failed to perform proper daily verification of breaker position. As a result, the 1-A CCP was inoperable for seven days.
- d. Severity Level IV violation for failure to adequately establish, implement, or maintain procedures for plant operations with the following three examples given: (1) failure to follow a procedure for the Unit 2 Solid State Protection System functional test which resulted in a reactor trip; (2) failure to isolate and tag the Unit 1B boric acid transfer pump as required by the Station Directives which resulted in a 30-40 gallon radioactive spill; and (3) failure to abide by Station Directives when incomplete operations surveillance procedures were signed off as complete with no discrepancies noted.
- e. Severity Level IV violation for failure to follow the controlling procedure for unit startup which resulted in a violation of withdrawal limits established to prevent a positive moderator temperature coefficient.
- f. Severity Level IV violation for failure to follow, maintain, and implement approved procedures with the following four examples given: (1) failure to follow a procedural step during the performance of protective system channel 1 functional test which resulted in a unit trip from full power; (2) failure to incorporate new setpoints for pressurizer safety discharge high temperature alarms when they

Thirteen violations and one deviation were identified during this evaluation period. The violations can be categorized in three general areas: failure to follow procedures, failure to use procedures, and inadequate procedures.

The identified violations and the deviation were:

- a. Severity Level III violation for failing to execute procedural documentation requirements for the removal from service of equipment which ultimately led to inoperability of both containment spray systems and one diesel generator on one unit.
- b. Severity Level III violation for failure by a second qualified individual to make an appropriate second independent verification for correct positioning of the containment spray recirculation valve upon completion of the monthly surveillance test.
- c. Severity Level IV violation for failure to follow procedure during the removal and restoration of the 1-A centrifugal charging pump (CCP) breaker. Independent verification was not performed. Subsequent to CCP breaker restoration, the licensee failed to perform proper daily verification of breaker position. As a result, the 1-A CCP was inoperable for seven days.
- d. Severity Level IV violation for failure to adequately establish, implement, or maintain procedures for plant operations with the following three examples given: (1) failure to follow a procedure for the Unit 2 Solid State Protection System functional test which resulted in a reactor trip; (2) failure to isolate and tag the Unit 1B boric acid transfer pump as required by the Station Directives which resulted in a 30-40 gallon radioactive spill; and (3) failure to abide by Station Directives when incomplete operations surveillance procedures were signed off as complete with no discrepancies noted.
- e. Severity Level IV violation for failure to follow the controlling procedure for unit startup which resulted in a violation of withdrawal limits established to prevent a positive moderator temperature coefficient.
- f. Severity Level IV violation for failure to follow, maintain, and implement approved procedures with the following four examples given: (1) failure to follow a procedural step during the performance of protective system channel 1 functional test which resulted in a unit trip from full power; (2) failure to incorporate new setpoints for pressurizer safety discharge high temperature alarms when they

were changed; (3) improperly declaring the loose parts monitor channel operable in the daily surveillance procedure when in fact it was inoperable; and (4) failure to utilize a procedure while working inside the Unit 1 solid state protection cabinets.

- g. Severity Level IV violation for failure to follow a procedure which requires that during surveillance testing of the Reactor Protection System, administrative control of affected equipment be maintained by placement of red tags. Failure to do so in this case resulted in the loss of decay heat removal capability.
- h. Severity Level IV violation for failure to abide by approved procedures with the following three examples given: (1) failure to follow operating procedure for operation of the chemical and volume control system by not verifying the suction header valve to be open prior to pump start resulting in destruction of the 2-B centrifugal charging pump; (2) failure to abide by Station Directives governing the conduct of operations in that 18 high volume control tank (VCT) pressure and/or high VCT level alarms were received over a 12 minute period immediately preceding the destruction of the 2-B centrifugal charging pump without the operators taking prompt corrective action; and (3) failure to follow surveillance procedures which resulted in an erroneous tripping of the main Train B reactor trip breaker instead of the bypass breaker and a subsequent unit trip from 89% power.
- i. Severity Level IV violation for reporting an event as a 30 day report, rather than a prompt report requiring a written followup within 14 days.
- j. Severity Level IV violation for failure to establish, implement and maintain procedures for NUREG-0737 requirements in such areas as administrative control of access to the control room surveillance area, sign-off of an operating procedure indicating review completion, and administrative control of overtime work for key personnel.
- k. Severity Level V violation for failure to issue an annual management directive designating the individual responsible for control room command functions.
- l. Severity Level V violation for failure of the Nuclear Safety Review Board to review revisions to required procedures.
- m. Severity Level V violation for failure to prepare and submit a special report on inoperability of a loose part detection system channel.



were changed; (3) improperly declaring the loose parts monitor channel operable in the daily surveillance procedure when in fact it was inoperable; and (4) failure to utilize a procedure while working inside the Unit 1 solid state protection cabinets.

- g. Severity Level IV violation for failure to follow a procedure which requires that during surveillance testing of the Reactor Protection System, administrative control of affected equipment be maintained by placement of red tags. Failure to do so in this case resulted in the loss of decay heat removal capability.
- h. Severity Level IV violation for failure to abide by approved procedures with the following three examples given: (1) failure to follow operating procedure for operation of the chemical and volume control system by not verifying the suction header valve to be open prior to pump start resulting in destruction of the 2-B centrifugal charging pump; (2) failure to abide by Station Directives governing the conduct of operations in that 18 high volume control tank (VCT) pressure and/or high VCT level alarms were received over a 12 minute period immediately preceding the destruction of the 2-B centrifugal charging pump without the operators taking prompt corrective action; and (3) failure to follow surveillance procedures which resulted in an erroneous tripping of the main Train B reactor trip breaker instead of the bypass breaker and a subsequent unit trip from 89% power.
- i. Proposed Severity Level IV violation for reporting an event as a 30 day report, rather than a prompt report requiring a written followup within 14 days.
- j. Proposed Severity Level IV violation for failure to establish, implement and maintain procedures for NUREG-0737 requirements in such areas as administrative control of access to the control room surveillance area, sign-off of an operating procedure indicating review completion, and administrative control of overtime work for key personnel.
- k. Proposed Severity Level V violation for failure to issue an annual management directive designating the individual responsible for control room command functions.
- l. Proposed Severity Level V violation for failure of the Nuclear Safety Review Board to review revisions to required procedures.
- m. Severity Level V violation for failure to prepare and submit a special report on inoperability of a loose part detection system channel.

- n. Deviation for failure to maintain shift turnover checklists in the master file for a minimum of six years.

2. Conclusion

Category: 3

Trend: Same

3. Board Recommendations

Licensee management involvement in this area was acceptable, however, weaknesses were evident. Increased licensee management attention should be directed to this area. No decrease in NRC attention is warranted.

B. Radiological Controls

1. Analysis

During the evaluation period, inspections were conducted by regional and resident inspection staffs.

The licensee's health physics staffing level was adequate and compared well to other utilities having a facility of similar size. An adequate number of ANSI qualified licensee and contract health physics technicians were available to support routine and outage operations.

The performance of the health physics staff in support of routine operation and outages was generally adequate. A method for evaluating beta dose due to skin contamination, developed by the corporate staff, was implemented at the plant.

During the evaluation period, the licensee disposed of 14,119 cubic feet of solid radioactive waste. The radioactive material shipping area was generally well managed, although it accounted for a violation indicated below.

Exposure control was adequate. The licensee posted dose rate and contamination information on maps outside individual rooms. The facility man-rem total for the evaluation period was 456 man-rem which is comparable to other facilities of similar size and type. Personnel exposure record keeping accounted for two violations indicating the need for improvement in this area.

In the confirmatory measurements area, NRC identified the need to evaluate dead time effects on Ge(Li) detector efficiencies and the need for development of administrative control limits for the Interlaboratory Chemistry Cross Check Program. This area accounted for one violation when an inadequate review of gamma



- n. Proposed deviation for failure to maintain shift turnover checklists in the master file for a minimum of six years.

## 2. Conclusion

Category: 3

Trend: Same

## 3. Board Recommendations

Licensee management involvement in this area was acceptable, however, weaknesses were evident. Increased licensee management attention should be directed to this area. No decrease in NRC attention is warranted.

## B. Radiological Controls

### 1. Analysis

During the evaluation period, inspections were conducted by regional and resident inspection staffs.

The licensee's health physics staffing level was adequate and compared well to other utilities having a facility of similar size. An adequate number of ANSI qualified licensee and contract health physics technicians were available to support routine and outage operations.

The performance of the health physics staff in support of routine operation and outages was generally adequate. A method for evaluating beta dose due to skin contamination, developed by the corporate staff, was implemented at the plant.

During the evaluation period, the licensee disposed of 14,119 cubic feet of solid radioactive waste. The radioactive material shipping area was generally well managed, although it accounted for a violation indicated below.

Exposure control was adequate. The licensee posted dose rate and contamination information on maps outside individual rooms. The facility man-rem total for the evaluation period was 456 man-rem which is comparable to other facilities of similar size and type. Personnel exposure record keeping accounted for two violations indicating the need for improvement in this area.

In the confirmatory measurements area, NRC identified the need to evaluate dead time effects on Ge(Li) detector efficiencies and the need for development of administrative control limits for the Interlaboratory Chemistry Cross Check Program. This area accounted for one violation when an inadequate review of gamma

- f. Severity Level IV violation for use of an inadequate procedure and drawing with the following two examples given: (1) failure to restore an auxiliary containment spray system vent valve to its normally closed position following completion of an upstream check valve surveillance test; and (2) use of a misleading electrical drawing that contributed to an erroneous lead lift while troubleshooting a circuit which resulted in main steam isolation valve closure and reactor trip.

2. Conclusion

Category: 2

Trend: Improved

3. Board Recommendations

Performance in this area was evaluated as Category 2 due to improvements which occurred in the latter part of the assessment period. Had performance continued at the level exhibited in the early part of the period, a Category 2 rating would not have been justified. The licensee should continue a high level of attention to this area.

E. Fire Protection

1. Analysis

Limited inspections were performed by region based and resident inspectors. One violation shown below in the fire protection area was identified. It should be noted that immediately following this assessment period, the Standby Shutdown Facility was inspected on September 4-6, 1984 and a special team inspection of Appendix R compliance was performed during the week of September 24, 1984. The findings were significant, resulting in apparent violations that will be addressed in the next assessment period.

The violation during this assessment period was:

Severity Level IV violation for failure to perform surveillance on valve positioning of the annulus sprinkler system.

2. Conclusion

Category: Not Rated

Trend: Not Determined

- f. Severity Level IV violation for use of an inadequate drawing in that use of a misleading electrical drawing contributed to an erroneous lead lift while troubleshooting a circuit which resulted in main steam isolation valve closure and reactor trip.

2. Conclusion

Category: 2

Trend: Improved

3. Board Recommendations

Performance in this area was evaluated as Category 2 due to improvements which occurred in the latter part of the assessment period. Had performance continued at the level exhibited in the early part of the period, a Category 2 rating would not have been justified. The licensee should continue a high level of attention to this area.

E. Fire Protection

1. Analysis

Limited inspections were performed by region based and resident inspectors. One violation shown below in the fire protection area was identified. It should be noted that immediately following this assessment period, the Standby Shutdown Facility was inspected on September 4-6, 1984 and a special team inspection of Appendix R compliance was performed during the week of September 24, 1984. The findings were significant, resulting in apparent violations that will be addressed in the next assessment period.

The violation during this assessment period was:

Severity Level IV violation for failure to perform surveillance on valve positioning of the annulus sprinkler system.

2. Conclusion

Category: Not Rated

Trend: Not Determined

TABLE 1  
INSPECTION ACTIVITY AND ENFORCEMENT

FUNCTIONAL AREA	DEV	NO. OF VIOLATIONS IN EACH SEVERITY LEVEL				
		V	IV	III	II	I
Operations	1	3	7	3		
Radiological Controls		3	5			
Maintenance			2			
Surveillance			6			
Fire Protection			1			
Emergency Preparedness						
Security and Safeguards			2			
Refueling						
Quality Assurance Program		1				
TOTAL	1	7	23	3		

SEE ERRATA SHEET

TABLE 1  
INSPECTION ACTIVITY AND ENFORCEMENT

FUNCTIONAL AREA	DEV	NO. OF VIOLATIONS IN EACH SEVERITY LEVEL				
		V	IV	III	II	I
Operations	1*	3**	8***	2		
Radiological		3	5			
Maintenance			2			
Surveillance			6			
Fire Protection			1			
Emergency Preparedness						
Security and Safeguards			2			
Refueling						
Quality Assurance		1				
TOTAL	1*	7**	24***	2		

\* This represents a proposed deviation.

\*\* Two of these violations are proposed.

\*\*\* Two of these violations are proposed.

### III. LICENSEE COMMENTS

Licensee comments submitted in response to the SALP Board Report follow.