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Director  
Office of Inspection & Enforcement  
U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555

Subject: McGuire Nuclear Station  
Docket Nos. 50-369 and -370  
Response to Inspection Report Nos.  
50-369/83-39 and 50-370/83-46  
Response to Proposed Imposition of Civil Penalty: EA 84-37

Dear Sir:

By letters dated June 8, 1984, NRC transmitted a Notice of Violation and Proposed Imposition of Civil Penalty for violations reported in Inspection Reports 50-369/83-39 and 50-370/83-46. This letter contains the Duke Power Company response to both of these documents. By attachment to this letter, Duke is providing a description of its actions taken relative to the McGuire incidents, a response to the Notice of Violation, and a response to the Proposed Imposition of Civil Penalty.

The NRC has identified three violations, one of which provides the basis for the proposed civil penalty.

The first violation involved the mispositioning of the Unit 2 containment spray recirculation valve. During the conclusion of the Containment Spray Performance Test on September 14, 1983, or at some later date, this valve was locked open instead of closed. This error was not detected by the independent verification program. The violation was categorized as a Severity Level III violation and a civil penalty of \$40,000 has been proposed.

The second violation involved Unit 1 operating with both trains of the Containment Spray System inoperable. Train B had been declared inoperable due to loss of power indication to the Containment Pressure Control System pressure transmitter. While Train B was inoperable, Nuclear Service Water Train A was declared inoperable due to water in the oil reservoir of a Nuclear Service Water pump. This violation was categorized as a Severity Level III violation.

The third violation concerned a mispositioned Fire Protection System valve. Surveillance to verify the annulus sprinkler supply valve position was not performed between March and October 1983, resulting in an undetected closed valve rather than a locked open valve. This violation was categorized as a Severity Level IV violation. No civil penalty was proposed for these last two violations.

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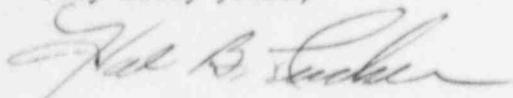
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The NRC letter requested that Duke specifically address the corrective actions taken or planned with regard to satisfying NUREG-0737 requirement I.C.6. Duke letters in response to Notice of Violations on Oconee dated July 23, 1982 and July 1, 1983 address actions taken previously at Oconee with respect to independent verification. Actions taken at McGuire following these incidents are documented in LER/RO-370/83-53 dated November 4, 1983 and in the information provided during an Enforcement Conference of October 19, 1983. A description of the actions taken in response to this incident at McGuire to improve the effectiveness of the independent verification program is provided herein.

The NRC has indicated that the improvements and lessons learned from Oconee were not effective when incorporated into operational activities at McGuire. At the time of these incidents, Duke Power had in place at McGuire an effective independent verification program. The incident concerning the containment spray valve was due to a personnel error in executing the procedure, rather than a defect in the overall independent verification program. Additionally, Duke Power identified each incident, took immediate corrective actions, and performed extensive program reviews which resulted in a number of administrative and procedural changes. The actions taken were above and beyond those committed to as a result of the incidents at Oconee and as prescribed by NUREG-0737. By stating that the proposed civil penalty is intended to emphasize a need to provide additional attention to the administrative controls for operation, the NRC has appeared to overlook the independent verification program that was in effect and the efforts that were in progress at the time of the incidents which were completed prior to issuance of the proposed civil penalty. Duke Power considers the self-initiated corrective actions taken for the McGuire and Oconee incidents as a positive and complete effort to improve program effectiveness.

I declare under penalty of perjury, that the statements set forth herein are true and correct to the best of my knowledge.

Very truly yours,



Hal B. Tucker  
Vice President, Nuclear Production

RLG/WHM/sfc

Attachments

cc: Mr. James P. O'Reilly, Regional Administrator  
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Mr. W. T. Orders  
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Duke Power Company  
McGuire Nuclear Station

Response to Inspection Reports 50-369/83-39 and 50-370/83-46  
Response to Proposed Imposition of Civil Penalty EA 84-37

I. Introduction

By letters dated June 8, 1984, the NRC transmitted a Notice of Violation and Proposed Imposition of Civil Penalty for violations reported in inspection Reports 50-369/83-39 and 50-370/83-46. This letter contains the Duke Power Company response to both of these documents. In addition, Duke Power is providing a detailed discussion of the actions taken relative to the alleged infractions.

## II. Summary of Actions Taken

Within the Proposed Imposition of Civil Penalty, the NRC asserts that violations occurring at McGuire were associated with inadequacies in the Duke Power independent verification program. Duke Power admits that the violations occurred, however, the civil penalty serves no identifiable purpose because it is considered that McGuire had in place an effective independent verification program. This can be demonstrated by considering the details of the events and the extensive corrective actions which had been taken prior to issuance of the Notice of Violation.

In March 1983, two incidents occurred at Oconee Nuclear Station which were related to the personnel emergency airlocks. Duke Power provided a response to the Notice of Violation and Proposed Imposition of Civil Penalties concerning these events on July 1, 1983. Included in this response was a commitment to incorporate lessons learned into operational activities at McGuire on a schedule to be established. At the time of these events, as noted above, McGuire had in place an effective independent verification program, which had been developed in response to Action Plan Item I.C.6. Although certain aspects of the independent verification program were in place, the full implementation of all lessons learned from Oconee was not scheduled to be completed until January 1984, due to the implementation time required for such a commitment.

Following the Oconee incidents, Duke Power personnel undertook an extensive review of directives and procedures related to independent verification of the performance of operational activities affecting safety-related equipment. This effort included the following actions to strengthen the independent verification program. The Duke Power Administrative Policy Manual for Nuclear Stations (APM) was revised (APM Revision 21) to include a much broader independent verification program. Additional independent verification requirements included

- Expanding applicability to all types of components which could affect the ability of a system to perform a safety-related function,
- Expanding applicability to equipment which if improperly aligned could result in the release of radioactive liquids or gases from the site,
- Expanding applicability to cover removal of equipment from service,
- Expanding applicability to cover all station procedures which contain removal or restoration activities and,
- Establishing methods to be used during the independent verification process: (a) an independent qualified individual or (b) use of a diverse means for proper independent verification.

The schedule for implementation of the independent verification requirements was established when APM Revision 21 was issued on August 1, 1983. The general provisions of APM Revision 21 became effective October 1, 1983, while the independent verification requirements became effective January 1, 1984, due to the extensive lead time required to revise the

many station procedures and directives which were affected by the new independent verification requirements. Draft guidelines were written to further clarify and provide guidance in the following areas:

Definition of Independent Verification

Personnel Qualifications

Independency of Personnel Performing the Verification Process

Diverse Means of Verification

Applicability to Station Systems, Components, and Procedures

Subsequent to the initiation of the above actions, which were in the process of being incorporated into operational activities at both McGuire and Catawba, an incident occurred at McGuire involving the Containment Spray System. As described in LER 370/83-53, dated November 4, 1983, the Containment Spray System (NS) Pump 2B recirculation valve was found locked open on October 5, 1983. This was discovered during a monthly test of the containment spray pumps.

Water from the NS pump A was being diverted back through the NS pump B and through the NS pump B suction relief valve to the Pressurizer Relief Tank (PRT). The first indication of the problem was a rise in the PRT level and a high PRT pressure alarm. Thinking that the recirculation valve might be leaking, operators then opened a recirculation throttle valve to relieve pressure on the recirculation valve and continued the test. When the NS pump A test was completed, operators closed and locked the recirculation isolation valve for NS pump A, and started to open the NS pump B recirculation valve when they found it fully open and locked.

Unit 2 was operating in Mode 1 at the time, which resulted in a violation of Technical Specifications requiring two independent Containment Spray Systems to be operable in Modes 1, 2, 3, and 4.

This periodic test requires manipulation of the recirculation isolation valve such that the valve is unlocked and open at the beginning of the test, and closed and locked at the end of the test. The test procedure includes two initial/date blanks that are to be filled in upon verification of the final valve position. These blanks were initialed by a Control Operator and a Performance Technician upon notification by phone from a Nuclear Equipment Operator who was at the valve. This incident was attributed to personnel error due to the individual running the periodic test not personally verifying the position of the valve before initialing the independent verification blank in the September 14, 1983 test procedure.

Immediate corrective actions included the operators completing the Containment Spray System pump 2B part of the test and closing and locking the valve. A thorough check of the entire Unit 2 B train NS flow path was begun. This alignment check was completed on October 5, 1983. No other NS valve misalignments were identified.

Beginning the afternoon of October 5, 1983, a check was made of the flow path alignment of all Unit 1 and Unit 2 Safety Injection (NI) system, Residual Heat Removal (ND) system, Chemical and Volume Control (NV) system, and Containment Spray (NS) system valves that were accessible.

Since Unit 1 had tripped and remained down, valves located in Unit 1 containment were included in this check. Since some "locked open" valves were found not locked, even though they were open, the inspection was expanded to include all locked valves. Checks of the accessible locked valves in the NV, NI, ND, and NS systems were concluded by October 7, 1983. Next, the locked valves and valves requiring double verification in other vital systems were checked. All locked valves and those requiring independent verification were checked by October 14, 1983.

In the same time frame as this first incident, two other incidents were identified which involved variations of personnel error. On September 28, 1983, the Containment Spray System (NS) Train B was declared inoperable. This declaration was made following the identification of a loss of power indication for the DC power supply to the Train B Containment Pressure Control System (CPCS) pressure transmitter. Two trains of the NS System are required to be operable by Technical Specifications.

On September 29, 1983, in order to perform a retest of a Nuclear Service Water System (RN) valve following maintenance, an operator was sent to inspect Nuclear Service Water System Pump 1A. The operator noted water in the oil reservoir for the outboard pump bearing and reported this to the Control Room. The decision to declare the pump inoperable was made by the Shift Supervisor and the Assistant Operating Engineer. Both trains of the RN System are required to be operable by Technical Specifications.

The RN System provides support necessary to the operability of the NS System by cooling the NS heat exchanger and the air handling unit motor cooler for the NS pump. The inoperable declaration of RN Pump 1A therefore caused the NS Train A to be inoperable, resulting in no operable NS trains and placing the unit outside the Action Statement of the Technical Specification. This inoperability was confined to the recirculation mode of operation of the NS System.

The impact of the inoperable RN train upon the single remaining operable NS train was not realized when RN Pump 1A was tagged out. The discovery that both NS trains had in fact been inoperable was made when NS Train B was being cleared from the Technical Specification Action Item Log (TSAIL). This situation existed for approximately five hours while Unit 1 was in Mode 1.

While a new power supply was being obtained for the pressure transmitter, the relays controlled by the alarm module were energized by the use of jumpers. This restored NS Train B by simulating a constant open permissive for the two affected NS valves. The new power supply was installed and the jumpers removed on September 30, 1983. These actions restored the pressure transmitter for NS Train B to operable status.

The RN Pump 1A outboard seal catch basin drain line was cleared. The bearing was inspected for damage and flushed with oil. The oil reservoir was then refilled with clean oil.

In order to prevent future failures to identify inoperable dependent systems when a support system is declared inoperable, a memorandum was issued on September 30, 1983. This memorandum was addressed to all Senior Reactor Operator license holders, and stated the policy of declaring all dependent systems inoperable (and making the appropriate TSAIL entries) whenever a support system is declared inoperable. Technical Specification Reference Manual - Section IV was updated to include the impact of RN System on NS System operability.

The final incident cited as involving a personnel error occurred on October 9, 1983 when a fire protection valve was found closed. This valve, the Unit 2 Annulus Sprinkler System isolation valve, located in the annulus, is required to be locked open. This mispositioned valve was identified during the inspection in response to the mispositioned containment spray valve. A work request search was conducted for identification of any work on the fire protection valve or nearby components which may have accounted for the closing of the valve. No such work could be identified.

On October 19, 1983 representatives of Duke Power and the NRC, Region II, met to discuss these incidents which had occurred at McGuire. In an October 26, 1983 letter resulting from the October 19, 1983 meeting, several commitments were made by Duke Power concerning independent verification, surveillance requirements, training and safety analyses. It should be noted that these commitments were made above and beyond those changes due to the 1983 incident at Oconee Nuclear Station. The independent verification requirement changes due to the Oconee incident were to become effective on January 1, 1984. These changes were in the process of being implemented at McGuire during the time of the incident with the Containment Spray System pump 2B recirculation isolation valve.

Following these McGuire incidents, Duke Power Company management personnel including the Executive Vice President of Power Operations and the Vice President of Nuclear Production, conducted meetings with all station personnel during the week of October 10, 1983. The McGuire incidents were covered to illustrate the problems involved and the following points were emphasized.

- 1) Procedures will be used in any work on safety related systems and components.
- 2) Procedures will be followed and inadequacies will be corrected by procedure changes.
- 3) Unless other options are specifically allowed by the procedure, individuals must personally verify that an item is correct before signing a procedure step.

The meeting was followed up by a letter to all station employees to further emphasize these points.

Following the October 1983 incident at McGuire, an informal audit of the McGuire independent verification program was performed by General Office Licensing personnel during October 1983. The audit findings determined that station personnel had a clear understanding of the technical aspects

of applying independent verification to affected procedures which mainly consisted of the identification of required valves. The McGuire program in place at the time was narrowly applicable to safety-related valves only and was adequately covered by Station Directive 3.1.28 (Operations). Station personnel did not show a clear understanding of the acceptable methods of applying the independent verification process on an individual basis.

The following recommendations resulted from the General Office audit.

1. Directives for all station groups in addition to Operations be developed.
2. Review the application of independent verification requirements to Removal/Restoration Procedures.
3. Specific techniques for performing independent verification be included in station directives and procedures.
4. Personnel training on the proper performance of the independent verification process.
5. Develop comprehensive listing of affected station equipment requiring independent verification.

A working group composed of General Office Licensing personnel and one representative from each nuclear station developed a department directive on independent verification. This directive gives specific independent verification requirements to each nuclear station for use in writing station directives and was implemented December 22, 1983.

This directive primarily emphasizes:

- Purpose of independent verification
- Definition of independent verification
- Applicability of independent verification
- Precautions to Observe when Performing independent verification
- Implementation of independent verification
- Personnel Requirements
- Time requirements
- Exceptions
- Procedures

In developing this directive, the working group considered available reference material including INPO documents, industry codes and standards, Duke Power documents and experience, industry experience, and NRC regula-

tory guidance documents. Other changes to the Duke Power independent verification program as a result of the 1983 incidents at McGuire included the development of a comprehensive training program on independent verification, use of procedures, and quality of operations for new employee training and annual requalification training. Also, a Quality Assurance audit on independent verification implementation at McGuire was performed during March 1984.

Duke Power believes that the independent verification program currently in place is effective in reducing the number of significant incidents caused by personnel error. Although it is a reasonable goal to strive for, and Duke Power fully intends to continue its best efforts toward such a goal, zero personnel errors cannot realistically be sustained indefinitely.

In addition to the extensive attention given to the Duke Power independent verification program and other commitments, a probabilistic assessment was performed to demonstrate the effectiveness of independent verification. The determination was made that it is unrealistic to expect any independent verification program to provide 100% assurance of the correctness of a condition. This is true whether the system is totally hardware dependent, human dependent or a combination of the two. To illustrate this point, a probabilistic assessment of McGuire Nuclear Station's chance of not detecting an improper condition was performed.

The assessment was done by considering the number of verification actions that can be expected over a year's time (~4,600) for both units and the probability that a verification action would be improperly performed (a conservative failure probability of about once every 10,000 verifications was assumed). The result of this assessment was that an improperly conducted verification would occur about once every two years. Although the number of occurrences may be less than once in two years, the point is that to expect zero occurrences is totally unrealistic. This probabilistic analysis was used as the basis for a reassessment of independent verification requirements, which was performed in April 1984; the results of which follow. The reassessment of independent verification requirements:

- A. Reaffirmed the use of remote indicators.
- B. Eliminated reliance upon the use of one individual to perform the entire independent verification process.
- C. Reviewed Regulatory and INPO requirements/recommendations.
- D. Discussed the implementation of independent verification with other utilities (Especially Region II).

In this proposed civil penalty the NRC is regulating by reviewing the adequacy of implementation after the fact and failing to recognize the essential sequence of events. The intended purpose of independent verification is to reduce human error and to improve the quality of normal operations. As described above, it is impossible to achieve zero human errors. While the violation is admitted to have occurred, it is not

considered that the safety significance of the violation has been adequately balanced by the staff against the corrective actions which have been implemented to accurately reflect the severity of the violation.

### III. Reponse to Notice of Violation

#### Violation I

Technical Specification 6.8.1 states in part:

Written procedures shall be established, implemented, and maintained covering the activities referenced below:

- a. The applicable procedures recommended in Appendix A of Regulatory Guide 1.33, Revision 2, February 1978;
- b. The applicable procedures required to implement the requirements of NUREG-0737;...

Plant test procedure PT/2/A4208/01B requires that the containment spray recirculation valve 2NS-8 be locked closed at the conclusion of the test, and a second independent verification by a second qualified individual of the valve position is required at the conclusion of the test.

Contrary to the above, on September 14, 1983, at the conclusion of test PT/2/A4208/01B, the Unit 2 containment spray recirculation valve, 2NS-8, was locked open instead of closed as required by plant test procedure PT/2/A4208/01B. The second independent verification by a second qualified operator of the position of valve 2NS-8 failed to detect that the valve was incorrectly positioned.

This is a Severity Level III violation (Supplemental I).  
(Civil Penalty - \$40,000)

#### Response to Violation I

- 1) The alleged violation is admitted.
- 2) The reasons for the violation were as reported in Licensee Event Report RO-370/83-53 dated November 4, 1984.

On October 5, 1983, Containment Spray System Pump 2B recirculation valve 2NS-8 was found locked open during a monthly test of the Containment spray (NS) pumps. Water from the A pump was being diverted back through the B pump and through the B pump suction relief valve to the Pressurizer Relief Tank (PRT). First indication of the problem was a rise in the PRT level and a high PRT pressure alarm. Thinking that 2NS-8 might be leaking, operators then opened recirculation throttle valve 2NS-70 to relieve pressure on 2NS-8, and continued the test. When the A pump test was completed, operators closed and locked 2NS-25, NS pump 2A recirculation isolation valve, and started to open 2NS-8. They found 2NS-8 fully open and locked.

The cause of the incident was attributed to personnel error, because valve 2NS-8 was mispositioned either at the end of the periodic test on September 14, 1983 or at some later date. The individual running the periodic test did not personally verify the position of the valve before initialing the independent verification blank in the September 14, 1983 test procedure.

- 3) Immediate corrective actions included the Operators completing the Containment Spray System pump 2B part of the test and closing and locking the valve. A thorough check of the entire Unit 2 B train NS flow path was begun. This alignment check was completed on October 5, 1983. No other NS valve misalignments were identified.
- 4) Corrective actions taken to prevent further violations included an immediate check of the flow path alignment of all Unit 1 and Unit 2 Safety Injection (NI) system, Residual Heat Removal (ND) system, Chemical and Volume Control (NV) system, and NS system valves that were accessible. Since Unit 1 had tripped and remained down, valves located in Unit 1 containment were included in this check. Since some "locked open" valves were found not locked, even though they were open, the inspection was expanded to include all locked valves. Checks of the accessible locked valves in the NV, NI, ND, and NS systems were concluded by October 7, 1983. Next, the locked valves and valves requiring double verification in other vital systems were checked.

All locked valves and those requiring independent verification were checked by October 14, 1983. As discussed at the October 19, 1983 enforcement conference, much effort was put into a review of the independent verification program including participation by upper management. The October 19, 1983 enforcement conference resulted in commitments for changes beyond those previously committed to for Oconee. Duke Power Company management personnel held meetings with all station personnel during the week of October 10, 1983. Recent incidents were covered to illustrate the problems involved.

These meetings were followed up by a company audit on McGuire independent verification, development of department directives on independent verification, development of training on independent verification, a Q.A. audit, a reassessment of independent verification requirements, and a probability analysis to demonstrate the effectiveness of an independent verification program.

- 5) MNS is presently in full compliance.

Violation II A

Technical Specification 3.6.2 states:

Two independent containment spray systems shall be OPERABLE with each spray system capable of taking suction from the FWST on a Containment Spray Actuation Signal and transferring suction to the containment spray.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

With one containment spray train inoperable, restore the inoperable spray train to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours; restore the inoperable spray train to OPERABLE status within the next 48 hours or be in COLD SHUTDOWN within the following 30 hours.

Technical Specification Definitions define OPERABLE to mean:

A system, subsystem, train, component or device shall be OPERABLE or have OPERABILITY when it is capable of performing its specified function(s), and when all necessary attendant instrumentation, controls, a normal and an emergency electrical power source, cooling or seal water, lubrication or other auxiliary equipment that are required for the system, subsystem, train, component or device to perform its function(s) are also capable of performing their related support function(s).

Technical Specification 3.0.3 states in part:

When a Limiting Condition for Operation is not met, except as provided in the associated ACTION requirements, within one hour, action shall be initiated to place the unit in the MODE in which the specification does not apply by placing it, as applicable, in:

1. At least HOT STANDBY within the next 6 hours,
2. At least HOT SHUTDOWN within the following 6 hours, and
3. At least COLD SHUTDOWN within the subsequent 24 hours...

Contrary to the above requirements, on September 28, 1983, Unit 1 was in Operational Mode 1 for approximately 4 hours and 40 minutes with both trains of the containment spray system inoperable. During this time, no action was initiated pursuant to Technical Specification 3.0.3 to place Unit 1 in a mode which Technical Specification 3.6.2 did not apply.

This is a Severity Level III violation.

Response to Violation II A

- 1) The alleged violation is admitted.
- 2) The reasons for the violation were as reported in Licensee Event Report RO-369/83-84 dated October 14, 1983 and revised November 4, 1983.

On September 28, 1983, Containment Spray System (NS) Train B was declared inoperable. This declaration was made following the identification of a loss of power indication for the DC power supply to the Train B Containment Pressure Control System (CPCS) pressure transmitter.

On September 29, 1983, in order to perform a retest of Nuclear Service Water System (RN) valve 1RN-68 following maintenance, an operator was sent to inspect Nuclear Service Water System Pump 1A. The operator noted water in the oil reservoir for the outboard pump bearing and reported this to the Control Room. The decision to declare the pump inoperable was made by the Shift Supervisor and the Assistant Operating Engineer.

The RN System provides support necessary to the operability of the NS System by cooling the NS heat exchanger and the air handling unit motor cooler for the NS pump. The inoperable declaration of RN Pump 1A therefore caused the NS Train A to be inoperable, resulting in no operable NS trains and placing the unit outside the Action Statement of Technical Specifications.

Personnel did not realize the impact of the inoperable RN train upon the single remaining operable NS train when RN Pump 1A was tagged out. Therefore, the requirements of the Technical Specifications were not met. The discovery that both NS trains had in fact been inoperable was made when NS Train B was being cleared from the Technical Specification Action Item Log (TSAIL). This situation existed for less than five hours.

- 3) To correct the situation immediately, while a new power supply was being obtained for the pressure transmitter, the relays controlled by the alarm module were energized by the use of jumpers. This restored NS Train B by simulating a constant open permissive for the two affected NS valves. The new power supply was installed and the jumpers removed on September 30, 1983. These actions restored the pressure transmitter for NS Train B to operable status.

Also, the RN Pump 1A outboard seal catch basin drain line was cleared. The bearing was inspected for damage and flushed with oil. The oil reservoir was then refilled with clean oil.

- 4) In order to prevent future failures to identify inoperable dependent systems when a support system is declared inoperable, a memorandum was issued on September 30, 1983. This memorandum was addressed to all Senior Reactor Operator license holders, and stated the policy of declaring all dependent systems inoperable (and making the appropriate TSAIL entries) whenever a support system is declared inoperable. Technical Specification Reference Manual - Section IV was updated to include the impact of RN System on NS System operability.

As a result of the October 19, 1983 enforcement conference a commitment was made in on October 26, 1983 letter concerning a review of TSAIL effectiveness.

This incident was also included in the meetings which upper management held during the week of October 10, 1983 with station employees.

- 5) MNS is presently in full compliance.

## Violation II B

Technical Specification 4.7.10.2 states in part that:

... required Spray and/or Sprinkler Systems shall be demonstrated OPERABLE...

- a. At least once per 31 days, by verifying that each valve (manual, power-operated, or automatic) in the flow path is in its correct position,...

Contrary to the above, the 31 day surveillance for the annulus sprinkler supply valve was not performed on Unit 2 from March to October 1983. Failure to perform the surveillance resulted in fire protection supply valve 1RF989 being left mispositioned from February 8 to October 1983.

This is a Severity IV violation.

## Response to Violation II B

- 1) The alleged violation is admitted.
- 2) The reasons for the violation were as reported in Licensee Event Report RO-370/83-57 dated October 26, 1983, revised by letters dated January 16 and March 7, 1984.

Operability of the annulus sprinkler system was required at the time of Unit 2 initial fuel loading which commenced on March 1, 1983. Valve 1RF989, located in the annulus is a manual valve which provided for isolation of the sprinkler heads for installation or repair. Valve 1RF28 is an air-operated, normally closed, isolation valve which opens upon signal from the annulus fire detectors, thereby supplying water to the sprinklers.

In response to an earlier incident (Violation I) which involved a mispositioned containment spray valve, the position of all locked valves in the plant was verified. As a result of this corrective action, 1RF989 was discovered unlocked (chain and lock resting on the valve) and out of position, thus isolating water from the annulus sprinkler system.

The reason for the unlocked status of the valve when it was discovered on October 9, 1983 is unknown. The periodic test "Unit Two Fire Protection Containment Header Test", was performed initially on February 9, 1983. This procedure required cycling certain manual valves to verify their operability. Valve 1RF989 was erroneously required to be locked closed by this procedure, and the copy of the procedure used on February 8, 1983 indicated that the valve was closed at that time.

Valve 1RF989 is verified to be in position monthly. The same individual performed this test on each occasion after February 8, 1983 (the date when the "Unit Two Fire Protection Containment Header Test" was performed and the valve was verified locked closed). Each time, he initialled that the valve was correctly locked open. Subsequent to identification of the incorrect position of this valve, it was verified through Security access

logs that this individual did not enter the annulus on the dates of the test. Hence, no actual verification of the valve's position was made. Appropriate disciplinary action was taken against the individual involved.

- 3) Valve 1RF989 was correctly positioned and secured by lock and chain upon discovery of its mispositioning on October 9, 1983. The "Unit Two Fire Protection Containment Header Test" procedure was corrected to require 1RF989 to be locked open. The Fire Protection System monthly test was completely rerun and completed on October 14, 1983.
- 4) Additional corrective actions were taken in conjunction with the corrective actions for Violation I (refer to Part 4 of Response to Violation I for a more detailed description of these actions).
- 5) MNS is presently in full compliance.

#### IV. Response to Proposed Civil Penalty

In accordance with 10CFR2, 2.205, Duke Power Company hereby acknowledges the proposed civil penalty; however, the following points should be considered prior to imposition of the civil penalty:

1. An effective independent verification program at McGuire was in effect. No specific feature of the independent verification program is identified as being the cause of the incident. It appears that the sole bases for the proposed civil penalty is that the incident occurred as a result of personnel error.
2. Committed actions as a result of the Oconee incidents in early 1983 were in the process of being fully implemented at McGuire. As such, it is incorrect for the NRC to conclude that such actions were ineffective.
3. The NRC asserts that the proposed civil penalty is to emphasize the concern for an effective independent verification program and the need for Duke to provide additional attention to the administrative controls for operation. In light of the actions that have been taken by Duke in this matter well before the Notice of Civil Penalty was issued, and in view of the overall above average performance of McGuire personnel, the proposed civil penalty is punitive in nature rather than encouraging good licensee performance.