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SUBJECT: Responds to Generic Ltr 89-13, "Svc Water Sys Problems Affecting Safety-Related Equipment."

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DUKE POWER

January 26, 1990

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555

Subject: Oconee Nuclear Station, Units 1, 2, and 3; Docket Nos. 50-269, 270, and 287
McGuire Nuclear Station, Units 1 and 2; Docket Nos. 50-369 and 370
Catawba Nuclear Station, Units 1 and 2; Docket Nos. 50-413 and 414

Response to NRC Generic Letter 89-13, Service Water System Problems Affecting Safety-Related Equipment

Gentlemen:

By letter dated July 18, 1989, the NRC staff requested holders of operating licenses to supply information about their respective service water systems to assure the NRC of compliance with the requirements referenced in the Generic Letter 89-13, and to confirm that the safety functions of their respective service water systems are being met.

The attachment to this letter provides Duke Power Company's response to the Generic Letter. However, there are three items for which we request extension to complete. These items are as follows:

1) Under Action I, Flushing and Flow Testing for stagnant and and infrequently used loops, McGuire does not currently have a program to perform this requirement. A review has indicated that there are restrictive valves in the lines which would preclude effective flushing at this time. Therefore, it appears that plant modifications will be needed to implement this requirement. We will provide a comprehensive schedule for implementation of this portion of our program by the requested implementation date (September 5, 1990 based on McGuire Unit 2 projected outage date).

2) Also under Action I, Flushing and Flow Testing, as outlined in our response, a hydraulic model is being developed for Oconee to verify flow under all required conditions. This model needs to be validated against plant data requiring plant modifications to obtain much of the benchmark information. We will provide a comprehensive schedule for implementation of this portion of our program by the requested implementation date (April 26, 1990 based on Oconee Unit 1 projected outage date).

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3) Under Action III, Inspection and Maintenance Program, the Oconee inspection program is not completed implemented at this time. Currently, a Design Study is underway to determine recommendations for implementation of a program. Although the Design Study should be completed by the requested implementation date, (April 26, 1990) the results will not be known until that time. Accordingly, we cannot commit to a specific schedule for implementation at this time.

Additionally, it should be noted that Service Water System Program Manual referred to in our response is under development and will be completed by the requested implementation date for each station, and may not be maintained as a controlled document, but serves as a reference to identify relevant controlled information, procedures, etc.

In summary, for each of the above items we will provide a comprehensive schedule to the staff for implementation of these aspects of our program by the dates indicated.

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

If there are any questions, please contact S.E. LeRoy at 704-373-6233.

Very truly yours,

Hal B. Tucker

SEL509

Attachment

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Oconee Nuclear Station

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
January 26, 1990

NRC GENERIC LETTER 89-13 ON SERVICE WATER SYSTEMS
DUKE POWER RESPONSE
ACTION I: SURVEILLANCE AND CONTROL

INTAKE STRUCTURE INSPECTION

NRC RECOMMENDATION:

(Enclosure 1, Item A) Visually inspect the intake structure once per refueling cycle for Asiatic clams, sediment, and corrosion. Inspections should be performed by scuba divers or by dewatering the intake structure or by other comparable methods. Any fouling accumulations should be removed.

McGUIRE AND CATAWBA RESPONSE:

A program will be developed to sample and analyze all intake structures for Asiatic clams. An inspection will be performed at least once per refueling cycle to visually inspect all intake structures for sediment and corrosion. An intake structure cleaning will be performed as needed based on the combined results. This will be implemented in accordance with the requested schedule.

OCONEE RESPONSE:

A program will be developed to sample and analyze all intake structures for Asiatic clams. An inspection program for the intake structure has been in existence since 1981. Previous inspection results indicate very little accumulation of debris, sediment, or corrosion products. The frequency of inspections is specified based on these findings. An intake structure cleaning will be performed as needed based on the results.

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
January 26, 1990

NRC GENERIC LETTER 89-13 ON SERVICE WATER SYSTEMS
DUKE POWER RESPONSE
ACTION I: SURVEILLANCE AND CONTROL

BIOCIDE ADDITION

NRC RECOMMENDATION:

(Enclosure 1, Item B) Continuously chlorinate the service water system whenever the potential for Asiatic clam fouling exists. An equally effective biocide may be used in lieu of chlorination. Chlorination or equally effective treatment should be used even in plants without clams because it can help prevent microbiologically influenced corrosion. In these plants, treatment does not need to be as stringent.

McGUIRE RESPONSE:

The source water for the service water system normally has very low dissolved oxygen content most of the year because of the depth of the intake. This creates an unsuitable environment for Asiatic clams to accumulate in any significant population densities. However, to address any potential biofouling problems in the future, a pilot program of non-oxidizing biocide application at Catawba Nuclear Station is currently underway to assess its effectiveness in controlling clam infestations. Application of this biocide will be reviewed for McGuire based on Catawba's results.

CATAWBA RESPONSE:

A pilot program of non-oxidizing biocide treatment for Asiatic clam control is currently being evaluated to assess its effectiveness. This biocide treatment program is complementary to the existing flushing, cleaning, and inspection activities conducted on components as part of normal maintenance. Once this pilot biocide addition program is concluded, the results will be evaluated to determine long range plans for biofouling control.

OCONEE RESPONSE:

Currently, a program does not exist for biocide application in safety-related service water for Asiatic clam control. The station's monitoring program has not shown a level of clam infestation which warrants a control program. However, in case the current levels of infestation rise significantly, the pilot biocide addition program for Asiatic clam control presently underway at Catawba Nuclear Station will be reviewed for applicability.

NRC GENERIC LETTER 89-13 ON SERVICE WATER SYSTEMS
DUKE POWER RESPONSE
ACTION I: SURVEILLANCE AND CONTROL

FLUSHING AND FLOW TESTING

NRC RECOMMENDATION:

(Enclosure 1, Item C) Periodically flush and flow test redundant (stagnant) and infrequently used cooling loops at maximum design flow to ensure no fouling or clogging. Test other service water system components to ensure no fouling or clogging. Fill service water loops with chlorinated or equivalently treated water before layup.

McGUIRE RESPONSE:

Flow testing (flow balance testing) is performed as part of our periodic test program at the design basis flow rates to ensure that all components are not fouled or clogged and that they will be able to receive their design basis flow rates simultaneously. This is documented in the Service Water System Program Manual, and includes test frequencies, procedure numbers, etc. A periodic flushing program is being established for infrequently used and redundant cooling loops served by the Service Water System in compliance with Enclosure 1, Section C, of the Generic Letter. Design modifications will be required in order to implement the desired flushing. Therefore, it is not practical to have this activity completed by the requested implementation date of the Generic Letter. Instead, by the implementation date a comprehensive schedule for completion of this work will be provided.

CATAWBA RESPONSE:

Flow testing (flow balance testing) is performed as part of our periodic test program at the design basis flow rates to ensure that all components are not fouled or clogged and that they will be able to receive their design basis flow rates simultaneously. This is documented in the Service Water System Program Manual, and includes test frequencies, procedure numbers, etc. A periodic flushing and flow testing program has been established for infrequently used and redundant cooling loops served by the Service Water System in compliance with Enclosure 1, Section C, of the Generic Letter.

OCONEE RESPONSE:

Generally, safety related service water flow loops are continually in service or are placed in service periodically during testing of systems. Loops not tested periodically have their components heat transfer tested at least once each fuel cycle from which degradation rates are determined. This is documented in the Service Water System Program Manual. A comprehensive hydraulic computer model is being developed for Oconee. This model will be validated against plant data under achievable test conditions, and will then be used to verify emergency system performance. This effort is underway, but plant modifications will be needed in order to obtain much of the benchmark information. Therefore, it is not practical to have this activity completed by the requested implementation date of the Generic Letter. Instead, by the implementation date a comprehensive schedule for completion of this work will be provided.

NRC GENERIC LETTER 89-13 ON SERVICE WATER SYSTEMS
DUKE POWER RESPONSE
ACTION II: TEST PROGRAM

OPEN-CYCLE SYSTEMS

NRC RECOMMENDATION:

Conduct both an initial and a periodic retest program "to verify the heat transfer capability of all safety-related heat exchangers" connected to or cooled by one or more open-cycle service water systems (defined as "the system or systems that transfer heat from safety-related structures, systems, or components to the UHS", including any intermediate systems). This program may either (a) follow the guidance provided in Enclosure 2 to Generic Letter 89-13, or (b) consist of an "equally effective program (such as frequent regular maintenance) to ensure satisfaction of the heat removal requirements of the service water system".

McGUIRE AND CATAWBA RESPONSE:

In lieu of the program described in Enclosure 2 to Generic Letter 89-13, items I, II, III, and IV, EPRI's Heat Exchanger Performance Monitoring Guidelines for Service Water Systems was used to assist us in defining an "equally effective" program to verify the heat transfer capability of all safety-related heat exchangers cooled by our open-cycle service water system (referred to as the Nuclear Service Water system). This program has been implemented and maintained since April 1, 1986. Heat exchangers that cannot be tested for heat transfer capability are tested for flow and differential pressure characteristics or are on a regular preventative maintenance schedule for cleaning, or a combination of these. This program is addressed under Action III, and is also documented in the Service Water System Program Manual.

OCONEE RESPONSE:

Oconee has established a heat exchanger test program for testable safety related heat exchangers, based on EPRI's Heat Exchanger Performance Monitoring Guidelines for Service Water Systems. For safety related heat exchangers not readily testable (such as oil and motor coolers), either periodic maintenance is performed, or an "equally effective" program consisting of flow and/or temperature monitoring is used to verify the component is operating within design limits. This program is addressed under Action III, and is also documented in the Service Water System Program Manual.

NRC GENERIC LETTER 89-13 ON SERVICE WATER SYSTEMS
DUKE POWER RESPONSE
ACTION II: TEST PROGRAM

CLOSED-CYCLE SYSTEMS

NRC RECOMMENDATION:

If either (a) the adequacy of chemistry control programs for closed-cycle service water systems (defined as "a part of the service water system that is not subject to significant sources of contamination, one in which water chemistry is controlled, and one in which heat is not directly rejected to a heat sink") cannot be confirmed over the total operating history of the plant or (b) any unexplained downward trends in open-cycle service water system heat exchanger performance cannot be remedied by maintenance of the open-cycle service water system, then selectively extend the test program and the routine inspection and maintenance program to the closed-cycle service water system.

McGUIRE AND CATAWBA RESPONSE:

The closed-cycle service water system (referred to as the Component Cooling Water system) is not subject to significant sources of contamination. Heat from the system is not directly rejected to a heat sink, although it is indirectly rejected through the intermediate Component Cooling heat exchanger to the open-cycle system. Water chemistry is strictly controlled and monitored, and has been confirmed to be adequate over the total operating history of the plant. Representative tubes from the Component Cooling Heat Exchanger have been subjected to metallurgical analysis and have shown no evidence of fouling on the Component Cooling Water side. Since 1986, the Chemistry Chemplot database has maintained a record of closed-cycle water chemistry, and these parameters are regularly trended. All downward trends in the performance of the intermediate heat exchanger have been correctable by maintenance of the open-cycle system, as evidenced by open-cycle cleaning. Thus, it has not been necessary to extend our test program (or the routine inspection and maintenance program addressed in Action III) to any of our closed-cycle service water heat exchangers.

OCONEE RESPONSE:

There are no closed-cycle safety related service water systems at Oconee.

NRC GENERIC LETTER 89-13 ON SERVICE WATER SYSTEMS
DUKE POWER RESPONSE
ACTION II: TEST PROGRAM

INSTRUMENTATION

NRC RECOMMENDATION:

"Testing should be done with necessary and sufficient instrumentation, though the instrumentation need not be permanently installed."

McGUIRE, CATAWBA, AND OCONEE RESPONSE:

The instrumentation used for testing is described within each of the procedures used to test each component. In general, the instrumentation used is precision test equipment or calibrated process instrumentation, which may or may not be permanently installed.

NRC GENERIC LETTER 89-13 ON SERVICE WATER SYSTEMS
DUKE POWER RESPONSE
ACTION II: TEST PROGRAM

DESIGN LIMITS

NRC RECOMMENDATION:

"The relevant temperatures should be verified to be within design limits."

McGUIRE, CATAWBA, AND OCONEE RESPONSE:

Verification of proper performance is either performed through use of the acceptance criteria in the testing procedure or by Design Engineering evaluation of test data to verify the component will perform its intended safety function.

NRC GENERIC LETTER 89-13 ON SERVICE WATER SYSTEMS
DUKE POWER RESPONSE
ACTION II: TEST PROGRAM

TESTING AND CORRECTIVE ACTIONS

NRC RECOMMENDATION:

For the initial test program, tests need not be performed before taking corrective actions. For the periodic retest program, however, tests should be performed both before any corrective actions (to assist in determining the appropriate testing frequency) and after any corrective actions (to establish baseline data).

McGUIRE, CATAWBA, AND OCONEE RESPONSE:

The periodic retest program is established and in-place. Testing frequencies were established by monitoring degradation between tests during the initial test program. Since testing frequencies and cleaning frequencies are already established and have been confirmed to be adequate, pre-maintenance testing is not now required. Testing frequencies are adequate to assure continued operability of the component from one test to the next, so there is no reason to perform a test prior to regularly scheduled preventative maintenance during that interval. If normal testing reveals a problem which leads to maintenance being performed on a component, the component is tested after the maintenance to verify that the corrective action was successful. For normal preventative maintenance, the work performed is reviewed to determine if a potential exists for the work to have caused a degradation in component performance. If so, the component is tested following maintenance. If such a potential does not exist, a retest is not required to be performed.

NRC GENERIC LETTER 89-13 ON SERVICE WATER SYSTEMS
DUKE POWER RESPONSE
ACTION II: TEST PROGRAM

TESTING FREQUENCY

NRC RECOMMENDATION:

For the periodic retest program, the initial testing frequency should be at least once each fuel cycle, but after three tests, the testing frequency should be determined "to provide assurance that the equipment will perform the intended safety functions during the intervals between tests and meet the requirements of GDC 44, 45, and 46. The minimum final testing frequency should be once every 5 years."

McGUIRE, CATAWBA, AND OCONEE RESPONSE:

The initial test program has established appropriate testing frequencies by performing tests both before and after cleaning and at different times of the year. These testing frequencies are adjusted as indicated by current test results.

NRC GENERIC LETTER 89-13 ON SERVICE WATER SYSTEMS
DUKE POWER RESPONSE
ACTION II: TEST PROGRAM

SCHEDULE

NRC RECOMMENDATION:

"If similar or equivalent tests have not been performed during the past year, the initial tests should be completed before plant startup following the first refueling outage beginning after April 18, 1990".

McGUIRE, CATAWBA, AND OCONEE RESPONSE:

A heat exchanger testing program has been in effect since 1986.

NRC GENERIC LETTER 89-13 ON SERVICE WATER SYSTEMS
DUKE POWER RESPONSE
ACTION II: TEST PROGRAM

DOCUMENTATION

NRC RECOMMENDATION:

"A summary of the program should be documented, including the schedule for tests, and all relevant documentation should be retained in appropriate plant records."

McGUIRE, CATAWBA, AND OCONEE RESPONSE:

General descriptions of Duke Power's position with respect to the recommendations made in Generic Letter 89-13 are documented in the Duke Power Response (this document). Further details concerning the initial test program and the periodic retest program for each of the safety-related heat exchangers connected to or cooled by the open-cycle service water system (including equipment lists, testing philosophies, periodic maintenance frequencies, pre and post maintenance testing guidelines, etc) are documented in the Service Water System Program Manual. Test schedules are maintained in the PM/PT program. The final levels of detail are documented in the station procedures, station work requests, etc.

NRC GENERIC LETTER 89-13 ON SERVICE WATER SYSTEMS
DUKE POWER RESPONSE
ACTION III: INSPECTION AND MAINTENANCE PROGRAM

OPEN-CYCLE SERVICE WATER SYSTEM PIPING AND COMPONENTS

NRC RECOMMENDATION:

Establish a routine inspection and maintenance program for open-cycle service water system piping and components to ensure that corrosion, erosion, protective coating failures, silting, and biofouling cannot degrade the performance of safety-related systems supplied by service water.

McGUIRE RESPONSE:

Design Study MGDS-0143 is in progress to evaluate the condition of the Nuclear Service Water system piping. Pursuant to the study, a program will be developed for the routine inspection of the piping. A program of piping replacement from carbon steel to stainless steel for degraded piping is in effect for small diameter piping. Present inspection and maintenance procedures for the service water safety related heat exchangers include visual inspection and cleaning of the service water side. These procedures are performed periodically and as deemed necessary by heat exchanger performance testing or system flow balances.

CATAWBA RESPONSE:

An annual ultrasonic testing inspection program of service water system piping has been established where corrosion rates are monitored and documented. A program of piping replacement from carbon steel to stainless steel for degraded piping is in effect for small diameter piping. Present inspection and maintenance procedures for the service water safety related heat exchangers include visual inspection and cleaning of the service water side. These procedures are performed periodically and as deemed necessary by heat exchanger performance testing or system flow balances.

OCONEE RESPONSE:

Design Study ONDS-252 has been initiated to review the entire raw water system of the plant. This study will determine areas where water is stagnant or subject to intermittent flow. Once a complete "picture" is obtained, a monitoring/inspection plan will be formed and implemented with corrective actions taken as necessary. A program of piping replacement from carbon steel to stainless steel for degraded piping is in effect for small diameter piping.

Currently, a preventive maintenance program exists to inspect and maintain safety-related heat exchangers that have previously been identified as being subject to fouling. Some of these safety-related heat exchangers are not inspected and cleaned strictly on a frequency basis, but rather as performance testing indicates a degraded condition. Heat exchangers not in a PM program are either performance tested, or included in a program of flow and/or temperature monitoring to ensure that the component is operating as desired.

NRC GENERIC LETTER 89-13 ON SERVICE WATER SYSTEMS
DUKE POWER RESPONSE
ACTION III: INSPECTION AND MAINTENANCE PROGRAM

REMOVAL OF FOULING MATERIAL

NRC RECOMMENDATION:

Inspection and maintenance program should remove excessive accumulations of biofouling agents, corrosion products, and silt.

McGUIRE RESPONSE:

Heat Exchanger cleaning is maintained in the PM program and provides for the removal of fouling material either on a periodic basis or on an as-needed basis per performance tests or system flow balances. Visual inspections are also a part of this procedure.

CATAWBA RESPONSE:

A heat exchanger inspection and maintenance program has been established where the heat exchangers are periodically cleaned to remove excessive accumulation of biofouling agents, corrosion products, and silt. This is performed either on a periodic basis or on an as-needed basis per performance tests or system flow balances.

OCONEE RESPONSE:

The heat exchanger maintenance program includes a visual inspection and the removal of biofouling agents, silt, and corrosion products. The program accomplishes this through flushing, mechanical and/or chemical means either on a periodic basis or on an as-needed basis per performance tests or system flow balances. The program is in an ongoing review process for improvements.

NRC GENERIC LETTER 89-13 ON SERVICE WATER SYSTEMS
DUKE POWER RESPONSE
ACTION III: INSPECTION AND MAINTENANCE PROGRAM

REPAIR PROGRAM

NRC RECOMMENDATION:

Inspection and maintenance program should provide for repair of defective protective coatings and corroded service water system piping and components that could adversely affect performance of their intended safety functions

McGUIRE RESPONSE:

Design Study MGDS-0143 will establish minimum wall conditions for system piping replacement or repair, which will be monitored by an Ultrasonic Test (U/T) inspection program. Components are repaired as deemed necessary by performance tests, flow balances, or other means.

No internal protective coatings exist in service water piping.

CATAWBA RESPONSE:

Service water system piping is monitored by U/T inspection program and any degraded piping is effectively repaired or replaced. Components are repaired as deemed necessary by performance tests, flow balances, or other means.

No internal protective coatings exist in service water piping.

OCONEE RESPONSE:

Inspections for corrosion of service water system piping are performed as components and the pipe systems are opened for maintenance. Repairs are made as necessary in accordance with the ONS Welding Program. In cases where piping corrosion has been prevalent in small diameter piping, carbon steel material has been substituted with stainless steel.

Inspection of service water system pipe coatings are covered under the ONS Pipe Coatings Manual. The Condenser Circulating Water (CCW) system is the only internally coated raw water piping at Oconee Nuclear Station.

NRC GENERIC LETTER 89-13 ON SERVICE WATER SYSTEMS
DUKE POWER RESPONSE
ACTION III: INSPECTION AND MAINTENANCE PROGRAM

SCHEDULE

NRC RECOMMENDATION:

Program should be established before plant startup following the first refueling outage beginning after April 18, 1990.

McGUIRE RESPONSE:

The piping inspection and repair program developed as a result of Design Study MGDS-0143 will be completed in accordance with the above schedule.

CATAWBA RESPONSE:

U/T inspection and heat exchanger inspection and maintenance programs have been in place since 1988.

OCONEE RESPONSE:

Design Study ONDS-252 is scheduled to be completed in May of 1990. This Design Study is required for the implementation of the piping inspection program. Since the Design Study is not complete and its results are unknown, it is not feasible to commit to a specific schedule for implementation of the piping inspection program at this time. Instead, a schedule for implementation of this program will be provided prior to the recommended implementation date.

NRC GENERIC LETTER 89-13 ON SERVICE WATER SYSTEMS
DUKE POWER RESPONSE
ACTION III: INSPECTION AND MAINTENANCE PROGRAM

DOCUMENTATION

NRC RECOMMENDATION:

A description of the program and the results of the maintenance inspections should be documented. All relevant documentation should be retained in the appropriate plant records.

McGUIRE RESPONSE:

All completed procedures and work requests for inspections and maintenance are kept in the plant Master File. Information concerning the U/T evaluations will be maintained in the MNS Erosion/Corrosion data file. Procedures and other pertinent references will be listed in the Service Water System Program Manual.

CATAWBA RESPONSE:

All U/T inspections are scheduled and documented per SWR (standing work request) program. The result of the annual inspection program is maintained in the CNS erosion/corrosion data file. Heat Exchanger inspection and maintenance programs are scheduled and documented per SWR program. Procedures and other pertinent references will be listed in the Service Water System Program Manual. Completed procedures and work requests for inspections and maintenance are kept in the plant Master File.

OCONEE RESPONSE:

Completed procedures and work requests for inspections and maintenance are kept in the plant Master File. Procedures and other pertinent references will be listed in the Service Water System Program Manual.

NRC GENERIC LETTER 89-13 ON SERVICE WATER SYSTEMS
DUKE POWER RESPONSE
ACTION IV: CONFIRMATION OF LICENSING BASIS

NRC RECOMMENDATION:

Conduct a review of the service water system to confirm the ability of the system to perform its required safety functions in the event of a failure of a single active component. Have completed a system walkdown inspection within the past 2 years to confirm that the as-built system is in accordance with licensing basis documentation. Licensing basis confirmation should be completed before plant startup following the first refueling outage beginning after April 18, 1990. Results of licensing basis review should be documented and retained in appropriate plant records.

DUKE POWER RESPONSE:

Design Studies to review the service water system for single, active failures have been initiated for all three of Duke's nuclear stations, and will be completed in accordance with the above schedule. The completed Design Studies will consolidate the single failure reviews for each station and will serve to document their findings.

McGUIRE AND CATAWBA RESPONSE:

The construction program required that all QA condition systems be as-built prior to initial criticality. The service water system was included in that program. The system has been maintained in that as-built condition in accordance with Duke Power's Nuclear Station Modification (NSM) program for configuration control. Accordingly, no walkdown inspection specifically for GL 89-13 is required.

OCONEE RESPONSE:

A SITA (Self Initiated Technical Audit) was completed on the service water system at Oconee Nuclear Station in 1987. This audit included a system walkdown. Since that time, the service water system has been maintained in the as-built condition in accordance with Duke Power's Nuclear Station Modification (NSM) program for configuration control. Accordingly, no walkdown inspection specifically for GL 89-13 is required.

NRC GENERIC LETTER 89-13 ON SERVICE WATER SYSTEMS
DUKE POWER RESPONSE
ACTION V: PROCEDURES AND TRAINING

NRC RECOMMENDATION:

Review (within the last 2 years) maintenance practices, operating and emergency procedures, and training modules involving the service water system to ensure that safety-related equipment cooled by the service water system will function as intended and that operators of the equipment will perform effectively. Procedure and training review should be completed before plant startup following the first refueling outage beginning after April 18, 1990. Results of the procedures and training review should be documented and retained in appropriate plant records.

McGUIRE, CATAWBA, AND OCONEE RESPONSE:

The following programs have been established per McGuire, Catawba, and Oconee Nuclear Stations' Station Directives and Nuclear Production's Administrative Policy Manual. These programs address all maintenance, operating, and emergency procedures, including training programs developed by the McGuire, Catawba, and Oconee Nuclear Station.

- ETQS Program
- 2 year Procedure Review Program
- Independent Verification Program
- 10CFR50.59 Evaluation Program
- Qualified Reviewer Program
- Operator Requalification Training Program
- Operating Experience Program

Since these procedures are reviewed on a continuing basis, the above schedule is acceptable. No specific review is required for Generic Letter 89-13. Documents related to procedures are maintained and kept on file in the plant Master File. Qualification and requalification training records are maintained by the Production Support Department.