

DUKE POWER COMPANY

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July 25, 1986

Dr. J. Nelson Grace, Regional Administrator  
U.S. Nuclear Regulatory Commission  
Region II  
101 Marietta Street, NW, Suite 2900  
Atlanta, Georgia 30323

Re: IE Inspection Report Nos. 50-269/86-02  
50-270/86-02  
50-287/86-02  
50-369/86-07  
50-370/86-07

Dear Dr. Grace:

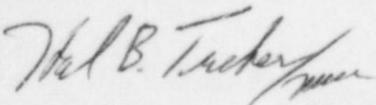
By letter dated June 19, 1986, NRC transmitted the Systematic Assessment of Licensee Performance (SALP) report for Oconee and McGuire. The period of assessment was September 1, 1984 through February 28, 1986. A meeting was held to discuss this report on June 27, 1986.

Attached please find our comments on the evaluation. As requested, specific comments have been made in response to the Category 3 rating in the plant operations functional area at McGuire. Also included are comments on the area of McGuire Fire Protection, which was also rated Category 3.

Duke requests that a Category 2 rating be assigned to the McGuire Fire Protection functional area. The fact that only two violations and one deviation are valid for the entire report period and the fact that no fire protection specialists made site inspections since September 1984 indicate a more favorable rating in this area.

Duke believes that on the whole, this SALP adequately represents the quality of performance at our stations with the notable exception of the characterization of McGuire plant operations and fire protection.

Very truly yours,



Hal B. Tucker

RLG/74/jgm

Attachments

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Dr. J. Nelson Grace  
July 25, 1986  
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xc: W.T. Orders  
NRC Resident Inspector  
McGuire Nuclear Station

J.C. Bryant  
NRC Resident Inspector  
Oconee Nuclear Station

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ATTACHMENT I

DUKE POWER COMPANY  
McGUIRE NUCLEAR STATION

RESPONSE TO SALP REPORT  
DATED JUNE 19, 1986

1. INTRODUCTION

Duke Power Company has reviewed the SALP Report for McGuire Nuclear Station and, in general, endorses the observations and findings made in the report regarding McGuire's performance. Two functional areas of McGuire were rated Category 3 - Plant Operations and Fire Protection. NRC specifically requested a response to the Category 3 rating in the plant operations functional area. In addition, Duke is providing comments regarding the Category 3 rating in the fire protection functional area.

2. RESPONSE TO PREVIOUS SALP REPORT

The SALP Board review for the period May 1, 1983 through August 31, 1984 indicated the following major deficiencies in the Plant Operations functional area:

1. Excessive number of reactor trips caused by personnel error.
2. Notable weakness in procedural compliance; specifically, failure to follow and properly implement operations and administrative procedures.
3. Excessive number of personnel errors by Instrument & Electrical technicians.
4. Failure to properly and fully implement independent verification of operating activities.

Duke personnel undertook many actions to correct these deficiencies. These are as follows:

(A) "Human Factors" upgrade to I&E Critical Procedures

- o In 1983 Biotechnology, Inc. was contracted to develop "Guidelines for the Development of Nuclear Maintenance Procedures". A manual was developed, for the first time, and established a comprehensive guide for developing procedures. This manual was developed with "Human Factors" concept in mind.
- o In 1983 an I&E procedure group was formed initially with two full time technicians. This group now has three full time technicians and a supervisor.

- o In 1984 General Physics was contracted to develop a training course for procedure writers. To date this training has been given to a limited number of personnel and has been budgeted for 1986 to train all personnel in I&E.
- o During a procedure review conducted from October through December 1984, over 220 procedure changes were implemented requiring approximately 700 man-hours.
- o In September 1984, a procedure validation program was implemented. This program consisted of a team comprised of a design engineer experienced with "Human Factors", a G.O. maintenance engineer and a I&E technician. The validation program focused on procedures that were most critical to plant safety and reliability. An average of one month is required to process one procedure including rewrite with an estimated 300 man-hour effort.
- o I&E management has stressed to all personnel that they are expected to follow procedures as written and correct any procedures that are in error.
- o Approximately 40 procedure changes per month are implemented to correct procedure errors, revise information, include trouble shooting, broader scope of testing, and improve procedures. Approximately four new procedures per month are implemented to upgrade existing procedures, resolve deficiencies or to include new equipment.
- o An estimated 4 man-years will be required to rewrite the 7300 Process Protection and Control procedures. This will be implemented in the near future.

(B) Independent Verification (IV) Implementation

- o A Nuclear Production Department (NPD) Directive was implemented to establish "Department" standards on I.V.
- o The Administrative Policy Manual (APM) was revised to include a definition of I.V. and its use in station procedures.
- o In 1983 NPD management held meetings with all station employees concerning I.V.
- o Follow-up meetings were conducted by station management with all station employees concerning I.V.
- o Video tape presentation concerning I.V. and the proper use of station procedures was shown to all station employees.

(C) Personnel Error Follow-up

- o During the months of June and July, 1985, "Timeout" meetings were conducted by the Station Manager with all station exempt employees (supervisors) emphasizing the need to follow procedures and to take time to perform the tasks correctly.

- o A letter, signed by the General Manager, Nuclear Stations, and by the Station Manager, was given to each exempt employee in the above "Timeout" meeting and explained. The letter clearly established our work philosophy at McGuire, placing high quality, error free work and nuclear/personnel safety over and above plant schedules. The letter was subsequently explained to the hourly personnel by their immediate supervisor.
- o In 1985, the average rate of personnel error LERs was 1.67/month. Through April, 1986, the average rate is 0.75/month.

(D) Meetings with New Hourly Personnel

- o Meetings are conducted by the NPD General Manager Nuclear Stations with new hourly personnel emphasizing Operational Quality, Professionalism and Procedural Compliance.

(E) Abnormal Plant Event Meetings

- o Abnormal Plant Event Meetings were initiated in June 1984 to discuss the plant events with station management, determine the root cause of the event and to establish actions to preclude reoccurrence.

(F) Station Goals Established

- o A station goal has been established to keep the reactor trip frequency at least below the industry average and desirably to rank in the upper quartile of all commercial units in operation for greater than 3 years.
- o From August 31, 1984 to September 13, 1985, there have been two reactor trips on Unit 1 and twelve on Unit 2. Of these trips, there were no personnel error related trips on Unit 1 and only three trips on Unit 2 attributed to personnel error.
- o From September 13, 1985 to May 16, 1986 there have been:
  - 5 Reactor Trips on Unit 1
    - 0 caused by NPD personnel error
    - 0 caused by CMD/vendor personnel error
  - 6 Reactor Trips on Unit 2
    - 0 caused by NPD personnel error
    - 1 caused by CMD/vendor personnel error

(G) Additional Followup Actions Taken (As of 5/16/86)

- o On March 20, 1986, the Station Manager again encouraged strict adherence to defined programs and directives.

o The Station Manager met with all Line and Staff personnel on March 26, 1986 and discussed the following:

- (1) The need to be very conservative and thorough in making operability determinations.
- (2) The urgent need to assure compliance with our Tech Spec Surveillance requirements.
- (3) The need for line supervision to observe and enforce strict adherence to safety practices and station procedures.

In summary, Duke believes that positive results have been achieved as a result of actions taken over the past two years at McGuire.

### 3. PLANT OPERATIONS

The SALP Board noted a continued weakness in the plant operations functional area. The basis for the Category 3 rating is the Board's concern about the number of violations which occurred and particular concern that apparent operational deficiencies associated with the nuclear service water system would not have been promptly identified or corrected without NRC involvement.

Duke has prepared responses that are broken down into three areas: Reactor Trips, Violations, and Nuclear Service Water System Operability. We believe that while the Category 3 rating may have been justified, we do believe that an improving trend is being observed. The actions taken in response to events that occurred during the previous SALP report period are already providing positive results. We believe that the SALP report should reflect the positive trends in plant operations that occurred during the report period.

#### Reactor Trips

In a response to the previous SALP, Duke stated that a number of efforts were underway to reduce the number of reactor trips at McGuire. It appears that based upon a review of the number of trips that have occurred at McGuire, that positive results are being obtained:

	Number of Reactor Trips				
	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>	<u>1986*</u>
McGuire Unit 1	16	15	5	5	2
McGuire Unit 2	--	11* *	18	11	2

\*through 06/30/86

\* \*McGuire Unit 2 was not commercial for full year.

The cause breakdown for reactor trips is as follows:

	<u>1984</u>	<u>1985</u>	<u>1986*</u>
Personnel Error	20%	6%	0%
Procedural Deficiency	20%	13%	25%
Component Failure	47%	69%	75%
Other	13%	13%	0%

\*through 06/30/86

### Violations

A portion of the basis for the Category 3 rating is the number of violations in the plant operations functional area. The Board identified eleven violations and one deviation in this area. Duke has reviewed the identified violations and notes that of these eleven violations, Duke filed LER's in five instances where the violation incident was identical to the reported incident and four instances where the LER is identical to one or more of the multiple examples of incidents used to support the violation. In all but two instances, NRC/RII responded to our violation response, which referred to the previously submitted LER, by stating the response was acceptable and the implementation of corrective actions would be examined during future inspections. In the other two instances, no response has been received. It is also noted that all of these violations are Level IV.

Duke considers that the NRC should give some credit for licensee identified events. In this instance, it appears that a majority of the items cited were licensee identified. These licensee identified items became cited violations which then were used by NRC as a portion of the basis of the Category 3 rating.

### Nuclear Service Water System

A major contributor to the Category 3 rating is the Duke response to the apparent operational deficiencies associated with the nuclear service water system. The dialogue between Duke and NRC on this concern has been extensive. We do not intend to raise all relevant facts previously provided to NRC. However, a few comments are noteworthy.

Duke notes that on page 4 of the report, third paragraph, states that "extensive interaction with NRC management transpired to agree upon the condition that cross-connecting the two units' RN systems was an unreviewed situation..." On the contrary, Duke did not agree that the situation was an unreviewed safety question. We did agree to return the system to a normal lineup.

The SALP report notes that extensive interaction between NRC and Duke occurred during the SALP report period. In fact, such interactions continued through April 1986 and are still continuing. By letter dated June 27, 1986, NRC issued inspection report 50-369/85-38 and 50-370/85-39 which identified several violations relative to the nuclear service water system. As the report is under NRC review for possible enforcement action, no response has been requested. Once the NRC review is complete, Duke will respond appropriately.

NRC states in the SALP report that "prior to NRC involvement the licensee was not vigilant with a program of performance monitoring of the RN system to detect early signs of fouling." Duke notes that McGuire was performing all technical specification surveillance requirements and monitoring in response to IE Bulletin 81-03. Duke initiated efforts beyond regulatory requirements in inspecting the component cooling heat exchangers beginning in late 1984 and in developing a Performance Monitoring Program. While in hindsight, it might be concluded that Duke should have been more vigilant, such actions were not indicated at the time of the early events.

It appears that the fundamental concern identified by NRC is the determination of system operability. This is evident through a review of several incidents at McGuire, particularly the Auxiliary Building Ventilation concern and the operation of McGuire Unit 2 with two valves open (NV-141, -142) and inoperable in addition to the nuclear service water system concerns. Throughout the past year, both Duke and Region II Staff have had extensive discussion regarding operability. It is Duke's position that to avoid numerous unnecessary transients on nuclear units, we think it is responsible to maintain the option to expeditiously test before declaring a system inoperable due to minor concerns. If we believe a system or component is operable, but have concerns related to it, we will take whatever actions are necessary, in a timely manner, to resolve the concerns and confirm operability. These actions include additional testing, engineering calculations, and inspections, as appropriate. However, if we believe that a system or component is not operable, Duke will, as we have in the past, take actions as provided in technical specifications and expeditiously correct the problem. On ten occasions during the SALP report period, McGuire units were either shutdown or held at less than full power as a direct result of a system being inoperable in accordance with the requirements of technical specifications.

Duke is taking actions on two fronts to improve implementation of the operability definition. First, Duke in concert with other interested utilities is actively supporting an industry initiative to improve technical specifications. One of the identified problem areas is the application of the definition of operability. This area was identified by both the industry and by a report dated September 30, 1985 prepared by the Technical Specification Improvement Project of the NRC. Duke continues to actively support resolution of this issue on an industry-generic front.

Second, Duke is developing a department directive that will provide additional guidance to all applicable personnel regarding operability concerns.

This directive will address the means by which a determination of operability or inoperability for a structure, system, or component should be made. It will also include examples, based on past experience where such determination has already been made. In the near future, Duke would be pleased to discuss this directive with NRC Staff. We believe that the process by which operability concerns are addressed is an important issue in which agreement between NRC and industry is needed.

4. FIRE PROTECTION

A second Category 3 rating was provided by the Board in the Fire Protection functional area. Duke disagrees with this rating on two counts. First, the Board states that a number of plant areas did not meet the 10 CFR Appendix R requirements during the SALP period. On the contrary, nearly all items listed as violations were corrected prior to or at the beginning of the report period. Second, a Category 3 rating indicates that both NRC and licensee attention should be increased. However, it is noted that Duke has maintained a high level of attention to Fire Protection at McGuire while NRC has reduced its attention. We agree that such a reduced level of NRC attention is acceptable for McGuire and request a Category 2 rating.

With respect to the number of areas that did not meet the 10 CFR 50 Appendix R requirements during the SALP period, Duke has reviewed the five violations and two deviations identified. Four items, as discussed below, were in compliance for essentially the entire SALP period.

(Item identification is the same as in the SALP report):

- A. Response: The Level III Violation was identified and corrected by Duke prior to the SALP Report period. Full compliance (including final documentation) was completed by September 28, 1984.
- B. Response: This issue is still under review. A meeting was held with Region II and ONRR on June 10, 1986 to discuss. As a result, there is indication that the violation will be withdrawn upon receipt of additional information for an ONRR review.
- C. Response: Although identified during the period on the report, noncompliance was for past events. The Standby Shutdown System Technical Specification which resolved this issue was implemented administratively in August, 1984.
- G. Response: The noncompliance for the battery powered lights was identified and corrected during the September, 1984 inspection.

For the remaining three items, D, E, and F, Duke considers these to be the only examples that "did not meet the 10 CFR Appendix R requirements during the SALP period".

Considering the mitigating circumstances as stated above, it would seem that a Category 3 rating was not warranted. Additionally, since items D, E, and F were cited in September 1984, February 1985, and April 1985, respectively, an improving trend should be noted in the SALP report.

In summary, Duke requests that a Category 2 rating be assigned to the McGuire Fire Protection functional area. The fact that only two violations and one deviation are valid for the entire report period and the fact that no fire protection inspections have occurred since September 1984 indicate a more favorable rating in this area.