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March 30, 1983

Docket No. 50-364

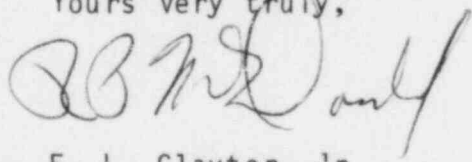
Mr. James P. O'Reilly, Administrator  
U. S. Nuclear Regulatory Commission  
Region II  
101 Marietta Street, N.W.  
Suite 3100  
Atlanta, Georgia 30303

Dear Mr. O'Reilly:

Attached for your review is the annual report required by 10CFR50.59 for 1982 which summarizes changes to the plant performed in accordance with the provisions of 10CFR50.59 for Joseph M. Farley Nuclear Plant, Unit 2. Also, in accordance with 10CFR50.59(b), 39 additional copies are provided for your use.

If you have any questions, please advise.

Yours very truly,

  
for F. L. Clayton, Jr.

FLCJr/RWS:ddr-D41

Attachment

cc: Mr. R. A. Thomas  
Mr. G. F. Trowbridge  
Mr. E. A. Reeves  
Mr. W. H. Bradford  
Director, Office of Inspection and  
Enforcement, Washington, D.C.  
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Washington, D. C. 20555

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ALABAMA POWER COMPANY  
JOSEPH M. FARLEY NUCLEAR PLANT  
UNIT 2 - ANNUAL REPORT  
REQUIRED BY 10CFR50.59 (1982)

Section 50.59 of Part 50, Licensing of Production and Utilization Facilities, of the regulations of the United States Nuclear Regulatory Commission, states that the holder of a license authorizing operation of a production or utilization facility may (1) make changes in the facility as described in the safety analysis report, and (2) make changes in the procedures as described in the safety analysis report, and (3) conduct tests or experiments not described in the safety analysis report, without prior commission approval, unless the proposed change, test or experiment involves a change in the technical specifications incorporated in the license or an unreviewed safety question (as defined in 10CFR50.59).

The licensee is required to maintain records of such changes, tests or experiments, and those records are required to include written safety evaluations which provide the basis for the determination that the change, tests or experiment does not involve any unreviewed safety questions.

Brief descriptions and a summary of the safety evaluations of the changes, tests or experiments as described above, for the Joseph M. Farley Nuclear Plant Unit 2 which were completed in 1982, are provided in the following:

1. Subject: PCR/PCN 78-247 (SM78-247)

Description: Added two pressure gauges to the River Water System to aid in data taking.

Safety Evaluation: In the unlikely event that a failure of the pressure gauges/tubing should occur, an inadvertent low header pressure alarm could be generated. Should this occur, the operators could readily check the validity of the alarm by observing the alternate instrumentation. This check would allow ample time for operator action in the event of a valid alarm.

PORC Review: PORC Meeting 979, 4/27/82

2. Subject: PCR/PCN 80-662 (P80-662)

Description: Installed a spare 230 kv startup transformer, a spare 230 kv bus, a 230 kv motor operated disconnect and new 230 kv breaker and bus connections.

Safety Evaluation: These changes reduce the possibility of an extended outage as a result of failure of one of the startup transformers or an oil pipe cable.

PORC Review: PORC Meeting 791, 4/10/81  
PORC Meeting 852, 7/15/81  
PORC Meeting 879, 9/01/81  
PORC Meeting 907, 10/27/81

3. Subject: PCR/PCN 81-934 (SM81-934)

Description: Replaced River Water System valves QSP25V515  
and QSP25V516 with 60" weld-in spool pieces.

Safety Evaluation: These are header isolation valves which are normally  
open. It has been determined that these valves  
are no longer required.

PORC Review: PORC Meeting 739, 2/27/81

4. Subject: PCR/PCN 81-939 (SC81-939, SE81-939 & SM81-939)

Description: Added a Service Water System return line to the  
wet pit.

Safety Evaluation: This change eliminates the need for operator  
action to balance service water flow rates.

PORC Review: PORC Meeting 749, 3/05/81  
PORC Meeting 758, 3/11/81  
PORC Meeting 765, 3/16/81  
PORC Meeting 768, 3/20/81  
PORC Meeting 769, 3/21/81  
PORC Meeting 776, 3/26/81  
PORC Meeting 777, 3/27/81  
PORC Meeting 780, 3/31/81  
PORC Meeting 782, 4/02/81  
PORC Meeting 786, 4/03/81  
PORC Meeting 787, 4/06/81

PORC Meeting 789, 4/08/81  
PORC Meeting 792, 4/10/81  
PORC Meeting 793, 4/12/81  
PORC Meeting 797, 4/15/81  
PORC Meeting 800, 4/17/81  
PORC Meeting 805, 4/22/81  
PORC Meeting 808, 4/27/81  
PORC Meeting 815, 5/12/81  
PORC Meeting 820, 5/20/81  
PORC Meeting 834, 6/16/81  
PORC Meeting 837, 6/23/81  
PORC Meeting 862, 7/30/81  
PORC Meeting 867, 8/10/81  
PORC Meeting 884, 9/15/81  
PORC Meeting 889, 9/24/81  
PORC Meeting 896, 10/08/81  
PORC Meeting 929, 12/17/81  
PORC Meeting 932, 12/19/81  
PORC Meeting 969, 3/26/82  
PORC Meeting 994, 6/10/82

5. Subject: PCR/PCN 81-967 (SM81-967)

Description: Installed additional instrumentation in the Meteorological Monitoring System.

Safety Evaluation: These additions will meet the requirements of proposed Revision 1 to Regulatory Guide 1.23.

PORC Review: PORC Meeting 893, 10/01/81  
PORC Meeting 920, 11/19/81  
PORC Meeting 968, 3/23/81

6. Subject: PCR/PCN 81-1078 (S81-1078)

Description: Installed additional smoke detectors in the service water structure.

Safety Evaluation: This modification will improve the early warning capability of the service water structure fire protection system.

PORC Review: PORC Meeting 987, 5/18/82  
PORC Meeting 993, 6/08/82  
PORC Meeting 999, 6/25/82



7. Subject: PCR/PCN 81-1090 (B81-1090)

Description: Wrapped raceways AEN251, AEN252, AHP850, AHS376, AHS419, AEN007, AEN008, AHS126 and AHS127 with Kaowool.

Safety Evaluation: This change satisfies a commitment to comply with 10CFR50 Appendix R Paragraph III.6.2.

PORC Review: PORC Meeting 931, 12/22/81  
PORC Meeting 962, 3/09/82  
PORC Meeting 971, 4/01/82  
PORC Meeting 976, 4/20/82

8. Subject: PCR/PCN 81-1091 (B81-1091)

Description: Wrapped raceways BHP093, BHRC42, BHRC45, BHRC48, BHQ108, CDN002, BDN132, BDN133, BHT061, BHS063, BDN129, BHP094, BHT130, AHS376, AHS421, AHS419, AEN251, AEN252, AEP320, AHP850, AHZ281, AEP310, ADN390, ADN391 and AHP448 with Kaowool. Rerouted safe shutdown conduit BEN008.

Safety Evaluation: This change satisfies a commitment to comply with 10CFR50 Appendix R Paragraph III.6.2.

PORC Review: PORC Meeting 932, 12/29/81  
PORC Meeting 962, 3/09/82  
PORC Meeting 965, 3/16/82  
PORC Meeting 969, 3/26/82  
PORC Meeting 976, 4/20/82

9. Subject: PCR/PCN 81-1094 (B81-1094)

Description: Installed new conduits AHP216 and AHT287 while  
sparing conduits AHT073 and AHT323.

Safety Evaluation: This change satisfies a commitment to comply with  
10CFR50 Appendix R Paragraph III.G.2.

PORC Review: PORC Meeting 932, 12/29/81  
PORC Meeting 944, 1/26/81  
PORC Meeting 963, 3/11/82

10. Subject: PCR/PCN 81-2001 (SE81-2001)

Description: Provided automatic actuation of the service water  
return to the wet pit upon LoLo service water  
pond level indication.

Safety Evaluation: This change eliminates the need for operator  
action to balance service water flow rates.

PORC Review: PORC Meeting 800, 4/17/81  
PORC Meeting 820, 5/20/81



11. Subject: PCR/PCN 81-2026 (B81-2026)

Description: Added a flow monitoring loop to the shared discharge line from steam jet air ejectors A and B.

Safety Evaluation: This change enhances the plant's ability to measure condenser air inleakage.

PORC Review: PORC Meeting 892, 9/29/81

12. Subject: PCR/PCN 81-2035 (S81-2035 & B81-2035)

Description: Installed high density spent fuel storage racks to increase the capacity of the spent fuel pool.

Safety Evaluation: Detailed analyses insure that  $K_{eff}$  will be maintained less than 0.95 and that the increased decay heat load will not exceed the design capacity of the Spent Fuel Pool Cooling System.

PORC Review: PORC Meeting 988, 5/20/82  
PORC Meeting 994, 6/10/82  
PORC Meeting 995, 6/15/82  
PORC Meeting 999, 6/25/82

13. Subject: PCR/PCN 81-2042 (B81-2042)
- Description: Replaced the 18 inch containment mini-purge isolation valves with 8 inch valves and new operators.
- Safety Evaluation: This modification complies with NRC restrictions on containment purging.
- PORC Review: PORC Meeting 995, 6/15/82
14. Subject: PCR/PCN 81-2080 (B81-2080)
- Description: Replaced excess flow check valves with swing check valves and relocated high energy line break pressure switches associated with Steam Generator Blowdown piping.
- Safety Evaluation: This change will provide for more efficient SGBD operation and ensure that, in the event of a high energy line break, the affected lines will be isolated preventing excessive room pressures.
- PORC Review: PORC Meeting 1030, 9/28/82
15. Subject: PCR/PCN 81-2090 (B81-2090)
- Description: Added an electronic filter to the steam flow signal.
- Safety Evaluation: This filter will reduce electrical noise. The addition of this filter does not adversely affect FSAR accident analyses.
- PORC Review: PORC Meeting 897, 10/09/81

16. Subject: PCR/PCN 81-2111 (B81-2111)

Description: Rerouted B train safe shutdown circuit 2VBDG07K out of room 2168.

Safety Evaluation: This change will comply with 10CFR50, Appendix R.

PORC Review: PORC Meeting 1042, 11/2/82

17. Subject: PCR/PCN 81-2121 (B81-2121)

Description: Sealed penetrations 24-100-32, 25-100-32, 26-100-32 and 27-100-32.

Safety Evaluation: This change satisfies a commitment to comply with 10CFR50 Appendix R Paragraph III.G.2.

PORC Review: PORC Meeting 947, 1/28/82

18. Subject: PCR/PCN 81-2125 (B81-2125)

Description: Provided an uninterruptable power supply for control of the valves associated with the turbine driven auxiliary feedwater pump and modified the Control-Protection System logic to allow automatic full opening of the motor driven auxiliary feedwater pump discharge valves in response to all Auxiliary Feedwater System initiation signals.

Safety Evaluation: This change enhances plant safety and satisfies a commitment to comply with 10CFR50 Appendix R Paragraph III.G.2.

PORC Review: PORC Meeting 965, 3/16/82  
PORC Meeting 989, 5/25/82  
PORC Meeting 994, 6/10/82

19. Subject: PCR/PCN 81-2127 (B81-2127)

Description: Added two 5 kVA Solatron voltage regulators to provide an alternate power supply to balance of plant process instrument cabinets J and K.

Safety Evaluation: This change will prevent the loss of the indications and control functions generated in these cabinets upon loss of one power source.

PORC Review: PORC Meeting 965, 3/16/82

20. Subject: PCR/PCN 81-2139 (B81-2139)

Description: Separated the waste processing system discharge from the steam generator blowdown discharge and rerouted the lines.

Safety Evaluation: This change will allow waste processing system discharges without securing steam generator blowdown.

PORC Review: PORC Meeting 1038, 10/19/82

21. Subject: PCR/PCN 81-2153 (B81-2153)

Description: Installed a radiation shield door in the doorway of electrical penetration room 2334. Relocated electrical conduits, smoke detectors and light switches adjacent to the doorway.

Safety Evaluation: This change will reduce radiation exposure to plant personnel performing post accident sampling.

PORC Review: PORC Meeting 946, 1/26/82

22. Subject: PCR/PCN 82-2210 (S82-2210)
- Description: Changed the input signal source for the Refueling Water Storage Tank level alarms from the A and B train pressure switches to the A and B train level transmitters already installed.
- Safety Evaluation: This change will provide a more reliable input signal to the level alarms.
- PORC Review: PORC Meeting 1039, 10/21/82
23. Subject: PCR/PCN 82-2247 (B82-2247)
- Description: Updated FSAR figure 9.2-7 to include a pipe cap in the demineralized water system.
- Safety Evaluation: This is a drawing change only and has no effect on plant safety.
- PORC Review: PORC Meeting 1034, 10/05/82
24. Subject: FCR 2C-2058 (2BC-940)
- Description: Six 1½" core drills were made in the Auxiliary Building roof hatches to allow remote lubrication of the Hittman Disposable Demineralization System.
- Safety Evaluation: This change will have no impact on the seismic analysis of the plant.
- PORC Review: PORC Meeting 751, 3/06/82



25. Subject: CN 2BM-2589
- Description: Installed piping to route the evaporator bottoms, spent resins and the contents of the chemical drain tank to either the Unit I Drumming Station or the Bulk Loading Facility.
- Safety Evaluation: This change enhances waste handling flexibility.
- PORC Review: PORC Meeting 751, 3/06/81
26. Subject: CN 2BM-4099
- Description: Installed additional new fuel storage racks.
- Safety Evaluation: The criticality analysis assures that  $K_{eff}$  will be less than or equal to 0.95 under normal and postulated accident conditions.
- PORC Review: PORC Meeting 889, 9/24/81
27. Subject: OCR 2-4261 (2BM-4424)
- Description: Installed a sample sink with a demineralized water supply in the Hittman Disposable Demineralization System valve gallery.
- Safety Evaluation: The addition of this extra capacity will have no impact on the Demineralized Water System nor will the increased loading affect the seismic analysis of the plant.
- PORC Review: PORC Meeting 751, 3/06/81



28. Subject: OCR 2-4262 (2BM-4428)

Description: Installed brackets to support the lubricators for the air lines to the Hittman Disposable Demineralization System pumps.

Safety Evaluation: This change will have no impact on the seismic analysis of the plant.

PORC Review: PORC Meeting 751, 3/06/81

29. Subject: OCR 2-4296 (2BM-4464)

Description: Added isolation valves to the Demineralized Water System.

Safety Evaluation: This change will allow portions of the Demineralized Water System to be isolated for repairs without disabling the entire system.

PORC Review: PORC Meeting 857, 7/22/81

30. Subject: OCR 2-4348 (2BM-4499)

Description: Revised the FSAR to indicate that a minimum shielding water depth of 10 feet will be maintained above the fuel rods instead of the fuel assembly during the handling of spent fuel.

Safety Evaluation: This change clarifies the FSAR statement and complies with the intent to maintain operator exposure less than or equal to 2.5 mrem/hr.

PORC Review: PORC Meeting 1035, 10/08/82

31. Subject: OCR 2-4300 (2BM-4509)

Description: Added check valves to the Demineralized Water System.

Safety Evaluation: This change will enhance plant safety by preventing the introduction of radioactive material into the Demineralized Water System.

PORC Review: PORC Meeting 837, 6/23/81  
PORC Meeting 876, 8/25/81  
PORC Meeting 882, 9/10/81

32. Subject: OCR 2-4400 (2BM-4528)
- Description: Added a system to monitor steam purity.
- Safety Evaluation: This change will enhance turbine longevity and reliability.
- PORC Review: PORC Meeting 884, 9/15/81
33. Subject: OCR 2-4226 (2BM-4584)
- Description: Installed sample tubing and a sample panel for use in waste gas decay tank sampling.
- Safety Evaluation: This change reduces sampling time and radiation exposure by making waste gas decay tank sampling independent of Waste Gas System operation.
- PORC Review: PORC Meeting 834, 6/16/81
34. Subject: FNP-0-CCP-102
- Description: Reduced the lower RCS hydrogen concentration limit to 15 cc/kg during low power physics testing and initial power operation. Also lowered the minimum lithium concentration to 0.2 ppm at the end of core life.
- Safety Evaluation: Westinghouse has reviewed these changes and concluded that no unreviewed safety question is involved.
- PORC Review: PORC Meeting 1054, 12/01/82

28. Subject: OCR 2-4262 (2BM-4428)

Description: Installed brackets to support the lubricators for the air lines to the Hittman Disposable Demineralization System pumps.

Safety Evaluation: This change will have no impact on the seismic analysis of the plant.

PORC Review: PORC Meeting 751, 3/06/81

29. Subject: OCR 2-4296 (2BM-4464)

Description: Added isolation valves to the Demineralized Water System.

Safety Evaluation: This change will allow portions of the Demineralized Water System to be isolated for repairs without disabling the entire system.

PORC Review: PORC Meeting 857, 7/22/81

30. Subject: OCR 2-4348 (2BM-4499)

Description: Revised the FSAR to indicate that a minimum shielding water depth of 10 feet will be maintained above the fuel rods instead of the fuel assembly during the handling of spent fuel.

Safety Evaluation: This change clarifies the FSAR statement and complies with the intent to maintain operator exposure less than or equal to 2.5 mrem/hr.

PORC Review: PORC Meeting 1035, 10/08/82

31. Subject: OCR 2-4300 (2BM-4509)

Description: Added check valves to the Demineralized Water System.

Safety Evaluation: This change will enhance plant safety by preventing the introduction of radioactive material into the Demineralized Water System.

PORC Review: PORC Meeting 837, 6/23/81  
PORC Meeting 876, 8/25/81  
PORC Meeting 882, 9/10/81

32. Subject: OCR 2-4400 (2BM-4528)

Description: Added a system to monitor steam purity.

Safety Evaluation: This change will enhance turbine longevity and reliability.

PORC Review: PORC Meeting 884, 9/15/81

33. Subject: OCR 2-4226 (2BM-4584)

Description: Installed sample tubing and a sample panel for use in waste gas decay tank sampling.

Safety Evaluation: This change reduces sampling time and radiation exposure by making waste gas decay tank sampling independent of Waste Gas System operation.

PORC Review: PORC Meeting 834, 6/16/81

34. Subject: FNP-0-CCP-102

Description: Reduced the lower RCS hydrogen concentration limit to 15 cc/kg during low power physics testing and initial power operation. Also lowered the minimum lithium concentration to 0.2 ppm at the end of core life.

Safety Evaluation: Westinghouse has reviewed these changes and concluded that no unreviewed safety question is involved.

PORC Review: PORC Meeting 1054, 12/01/82

35. Subject: FNP-0-RCP-803

Description: This document details the operation of the Low Level Radwaste Storage Facility.

Safety Evaluation: This procedure will ensure the safe operation of the Low Level Radwaste Storage Facility. All control measures and special cautions are included.

PORC Review: PORC Meeting 969, 3/26/82

36. Subject: Onsite Low Level Radwaste Storage Facility

Description: Documented the assessment of the construction and use of an onsite storage facility for low level radwaste.

Safety Evaluation: The facility was designed and built to meet all applicable regulatory codes. Operation of this facility will produce no significant increase in accident probabilities or radiation exposure.

PORC Review: PORC Meeting 934, 1/05/82



37. Subject: Unit 2 Cycle II Fuel Reload

Description: The Joseph M. Farley Unit 2 Cycle II fuel reload consisted of one Region 1, fifty-two Region 2, fifty-two Region 3 and fifty-two fresh Region 4 fuel assemblies.

Safety Evaluation: A Reload Safety Evaluation was conducted by Westinghouse. The reload design was found to be in compliance with current Technical Specifications and to involve no unreviewed safety question per 10CFR50.59.

PORC Review: PORC Meeting 1025, 9/09/82