



ARKANSAS POWER & LIGHT COMPANY
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July 15, 1983

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Director of Nuclear Reactor Regulation
ATTN: Mr. J. F. Stolz, Chief
Operating Reactors Branch #4
Division of Licensing
U. S. Nuclear Regulatory Commission
Washington, DC 20555

Director of Nuclear Reactor Regulation
ATTN: Mr. Robert A. Clark, Chief
Operating Reactors Branch #3
Division of Licensing
U. S. Nuclear Regulatory Commission
Washington, DC 20555

SUBJECT: Arkansas Nuclear One - Units 1 & 2
Docket Nos. 50-313 and 50-368
License Nos. DPR-51 and NPF-6
10CFR50.71 and 10CFR50.59
Amendment No. 1 to the ANO Updated
SARs

Gentlemen:

We have freighted to you, under separate cover, twelve copies each of the first amendment (Amendment No. 1) of the updated ANO-1 and ANO-2 Safety Analysis Reports. This submission is made in accordance with the requirements of 10CFR50.71. As required by 10CFR50.71(e)(2), I hereby certify that to the best of my knowledge and belief, the information contained in this SAR amendment package accurately represents changes made since the previous SAR submittal which reflect information and analyses submitted to the Commission or prepared pursuant to Commission requirements, and identifies changes made under 10CFR50.59 not previously submitted to the Commission.

Also, in accordance with 10CFR50.59, attached is a report containing a brief description of our safety evaluation for design changes made to ANO-1 and 2 which were completed during 1982 and early 1983, and which required a safety evaluation.

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Mr. J. F. Stolz
Mr. Robert A. Clark

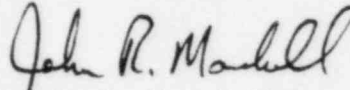
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July 15, 1983

The amendment package itself contains a brief cover letter, replacement page instruction listing and the revised SAR materials pertaining to each unit.

This letter and the required number of copies of the amendments to our updated Safety Analysis Reports are submitted on July 15, 1983, in advance of, and in compliance with, the requirements of 10CFR50.71.

Very truly yours,

A handwritten signature in dark ink, appearing to read "John R. Marshall". The signature is fluid and cursive, with the first name "John" being the most prominent.

John R. Marshall
Manager Licensing

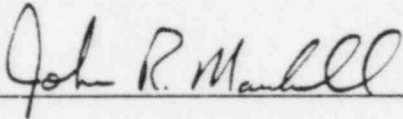
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Attachment

STATE OF ARKANSAS)
)
COUNTY OF PULASKI)

SS

I, John R. Marshall, being duly sworn, subscribe to and say that I am Manager, Licensing for Arkansas Power & Light Company; that I have full authority to execute this oath; that I have read the document numbered ØCANØ783Ø4 and know the contents thereof; and that to the best of my knowledge, information and belief the statements in it are true.



John R. Marshall

SUBSCRIBED AND SWORN TO before me, a Notary Public in and for the County and State above named, this 15th day of July, 1983.



Notary Public

My Commission Expires:

-4-1-85

ARKANSAS NUCLEAR ONE - UNITS 1 AND 2
DOCKET NOS. 50-313 AND 50-368
LICENSE NOS. DPR-51 AND NPF-6
ANNUAL 10CFR50.59 REPORT FOR 1982

Introduction

This report, in accordance with 10CFR50.59, contains a brief description of reportable design changes made to Arkansas Nuclear One - Units One and Two (ANO-1&2). Only those design changes which required a safety evaluation and were completed in 1982 are contained in this submittal. Additionally, it was determined that none of these changes created the possibility of any unanalyzed accident, nor was there any increase in the probability or consequences of any previously analyzed accident. In no case was any margin of safety reduced as related to the health and safety of the public.

1982 10CFR50.59 DESIGN CHANGES FOR ANO-1

Design
Change
Number

Descriptive Summary

80-1016

This DCP upgraded the level control system for the Unit 1 vacuum degasifier (T-14). Due to occasional leaks experienced in the vacuum system, two root valves, instrument tubing fittings, and the differential pressure transmitter were replaced with components of increased reliability. In addition, heat tracing was added on the low pressure impulse line to the transmitter to minimize the formation of condensate. This DCP affected FSAR Figure 11-3.

80-1016A

This amendment to DCP 80-1016 added a backup level transmitter and indicator for the vacuum degasifier tank (T-14) to provide redundancy in the level control system of the tank. This amendment affected FSAR Figure 11-1.

80-1135

Due to leakage experienced as a result of corrosion, butterfly valves CV-3812 and CV-3813 (reactor building coolers isolation valves) were replaced with gate valves. The replacement gate valves were of higher quality steel than the original butterfly valves so corrosion problems were reduced and reliability was improved.

80-1135A

Due to the weight difference between the butterfly valves and the gate valves in DCP 80-1135, hangers were also installed and modified by seismic analysis. This DCP affected FSAR Sections 8.2.1.2, 8.2.2.2, and 8.2.2.5.

81-1021A

This DCP removed the HS-1056 selector switch which was used to preselect Unit 1 or Unit 2 for auto transfer to startup transformer #2 if preferred startup was not available. The removal of this switch allowed both Units 1 and 2 to transfer on startup transformer #2 simultaneously, but with auxiliary loads shed. This feature allows greater operating flexibility.

1982 10CFR50.59 DESIGN CHANGES FOR ANO-2

Design
Change
Number

Descriptive Summary

2-42

This DCP added a return duct from room #2150 to 2VUC-28 to allow recirculation of conditioned air. Also, it extended the supply duct such that it was flush with existing registers from 2VUC-25A and B. This DCP affected FSAR Figure 9.4-2, sheet 1.

2-79-17

This change allowed chemists the flexibility to safely adjust the pH of the contents of liquid waste tanks, 2T21-A & B, prior to discharge by the addition of a chemical addition pot. Chemists previously had to climb to the top of the tank and add chemicals within limited space using a filter unit. This DCP changed that procedure and thus increased personnel safety. This DCP affected FSAR Figure 11.2-1, Sheet 2.

2-79-52

This DCP reinstalled regulators 2PCV-0660, 2PCV-0661, 2PC-0660, and 2PC-0661 to assure that sufficient seal water will be supplied to the condensate pumps. This DCP affected FSAR Figure 10.4-2, Sheet 1.

79-2074

This DCP added a redundant (and independent) computer room heating and ventilation system to further decrease the probability of losing the computer functions due to a malfunction of the normal heating and ventilation system. This standby heating and ventilation system discharges cooled air into the computer room subfloor. This DCP affected FSAR Figures 1.2-4, 1.2-10, 8.3-69, 9.4-1, Sheets 1 and 2, and 3.2-3.

79-2080

This DCP corrected problems experienced with the Reactor Coolant System (RCS) dilution due to premature lifting of a pressurizer safety valve (PSV). This was accomplished by rerouting a discharge line around the PSV to a floor drain. This DCP affected FSAR Figure 9.3-4, Sheet 2.

79-2085

This DCP installed 13 manual fire hose stations (2HR-43 through 2HR-55) in the ANO Unit 2 containment building in order to fulfill a commitment made to the NRC concerning manual fire fighting capabilities. This DCP affected FSAR Figure 9.5-1.

79-2088

This DCP installed fire breaks on cable trays and in conduits which pass from one fire zone to another. This will help to prevent the propagation of fires between zones inside containment. The FSAR figures affected by this DCP were 8.3-69, 70, and 71.

79-2105D

This amendment incorporated an annunciator alarm into the system of redundant main feedwater isolation valves added under DCP 79-2105. The alarm will warn the operator in case a breaker for either valve is open. This amendment affected FSAR Sections 10.4.7.2, 7.3.1.1.11.4, 6.2.1.1.2.6; Tables 10.3-4, 6.2-26; Figure 10.2-3.

79-2126A

This DCP removed handswitch HS-1056. This is a selector switch used to preselect Unit 1 or Unit 2 for auto transfer to startup transformer #2 (ST #2) if preferred startup is not available. The removal of this switch will allow both Units 1 and 2 to transfer on ST #2 simultaneously, but with auxiliary loads shed. This feature will allow greater operating flexibility. This DCP affected FSAR Figure 8.3-34 and FSAR Sections 8.3.1.1.2, 8.3.1.1.8.4, 8.3.1.1.8.2, and 8.3.1.6.

79-2139A

This amendment was written to show a change in the pipe line class and numbers. The new line class reflects the specifications for which the system is built. The pipe sizes range from 1" to 4" and are supported nonseismically. This DCP affected FSAR Table 9.2-5 and FSAR Section 9.2.1.

79-2164A

This amendment replaced the installation procedure for the original DCP (79-2164), which allowed installation of pressurizer relief valve audio sensors. DCP 79-2164A also revised drawing E-2726 sheet 2 and added drawing E-2995 sheets 3 and 4. This equipment was installed as part of the post Three Mile Island requirements (NUREG 0578).

79-2164B

This DCP provided for installation of pressurizer relief valve audio sensors. Under this DCP was the procedure which pulled the cable from panel 2C18 to new panel 2C336. This equipment was installed as part of the post Three Mile Island requirements (NUREG 0578). The FSAR figure affected by this DCP was 8.3-67.

79-2164C

This DCP provided for installation of pressurizer relief valve audio sensors. Under this DCP was the procedure which pulled the cable from the valve transducers to panel 2C18. This equipment was installed as part of the post Three Mile Island requirements (NUREG 0578). The FSAR figure affected by this DCP was 8.3-72.

79-2164D

This revision provided for additional information to the operator and does not affect the operation of the pressurizer safety valves installed under DCP 79-2164. This amendment included the following changes: (1) revised drawing E-2726 sheet 2 to indicate two channel selector switches to a dual audio monitor; (2) revised drawing E-2995 sheets 1 and 2 to indicate all terminations for the internal wiring of the valve monitoring system; (3) revised drawing E-2069 to show all the information for each cable scheme number; (4) added vendor system interconnection wiring diagram (IC-2001-1); and (5) revised drawing E-2022 to indicate 120 V.A.C. (Safety Grade) power to the auxiliary equipment panels (2C336). This DCP affected FSAR Figure 8.3-18.

79-2195

This DCP installed a housing for the Atomic Absorption Spectrophotometer that had been purchased for sample analysis by the cold lab chemists. The cabinet and utility supplies were required for the proper installation and operation of the instrument. The counter provides a working area, and the cabinets provide needed storage space. This DCP affected FSAR Figures 1.2-4 and 8.3-61.

79-2221

This DCP disconnected and relocated a temperature switch that was mounted and wired in 2C15-2 to the wall of the Core Protection Calculator (CPC) room. The set point of the temperature switch is 85°F and annunciates on 2K10 (2C33) to indicate high temperature in the CPC room. This modification improved the safety margin of the system by providing an additional system alarm to the operators. The FSAR figure affected by this DCP was 9.4-2, Sheet 3.

80-2074

-- This DCP was part of the response to Item 3.15 of NUREG 0223. It provided isolation valves to the feedwater system for future system expansions. This DCP affected FSAR Figure 9.5-1.

80-2086

This DCP provided for reracking of the spent fuel pool. It allowed for removal of the existing rack to pool wall curtains, modification of light pods, removal of failed fuel can sipper and cooling lines, and removal of lead-in material in the storage locations adjoining the rack bumper pads. This DCP affected FSAR Section 9.1.3.2.

80-2086A

This amendment to DCP 80-2086 consisted of the relocation of valves 2FP-5A and 2FP-5B, removal of the fixed skimmer system, and removal of the cooling water inlet sprayer. The FSAR figures affected by this amendment were 3.5-9, 3.5-10, 3.5-13, 3.5-16, 3.5-17, 9.1-1, and 3.6-3.

80-2092

This DCP included paving and drainage modifications at ANO. It also provided for removal of the outer shield walls from the radwaste drumming station. These shield walls are necessary only if the drumming station is in operation or filled drums are in storage. Since it is unlikely this station will be operated in the future, removal of the shield walls presented no hazard. Appropriate temporary shielding is available in the event the station is operated in the future.

80-2092A

This amendment relocated the plant heating boiler propane tank and provided the design details for the pipe routing from the new tank location to the plant heating boiler. The FSAR figure affected by this amendment was 3.2-2.

80-2151

This DCP replaced the ANO-2 lakeside sluice gates. In the event of the loss of the Darnelle Reservoir, the new sluice gates will reduce water leakage from the Intake Structure to the Intake Canal and thus provide a greater quantity of water for the mitigation of an accident. This DCP affected FSAR Section 9.2.5.3 and FSAR Figures 8.3-11, 8.3-13, and 8.3-15.

80-2154

This DCP provided an Incore Instrument (ICI) Withdrawal and Cutting System and Auxiliary Gantry for ANO-2. The ICI withdrawal and cutting system is used during refueling outages to cut existing incore instruments for safe removal.

80-2154A

This amendment installed the Incore Instrument Cutter Tube support racks and provided mounting details for the terminal box which provides power to the gantry transformer.

80-2154B

This amendment provided the rigging and testing requirements for the ANO-2 Auxiliary Gantry.

80-2154C

This amendment erected the ANO-2 Auxiliary Gantry and drip pans for the ICI withdrawal tool winches. In conjunction with 80-2154 through 80-2154B, this DCP resolved major engineering concerns associated with the total system.

80-2154D

This amendment provided rigging requirements for movement of the ICI withdrawal tool.

80-2167

This DCP involved the rerouting of conduits (C-6272, C-6274, C-6253) and the relocation of a level transmitter (2LT-5640-4) in the area of the refueling water tank. This eliminated interference with the construction of the Post-Accident Sampling Building to meet the requirements of NUREG 0578. No changes were made to the circuit scheme as a result of this DCP. FSAR Figure 8.3-56 was affected by this DCP.

80-2203

This change provided for flushing the waste management system monitor (2RE-2330) and the waste gas monitoring system monitor (2RE-2429), thus facilitating the calibration and increasing the accuracy of the monitors. FSAR Figures 9.2-7, 11.2-1, 11.2-2, and 11.3-1 were affected by this DCP.

81-2026

This change replaced Victoreen radiation detectors, 2RE-8925-1 and 2RE-8925-2, and readout modules, 2RITS-8925-1 and 2RITS-8925-2, with equivalent detectors which are environmentally qualified to provide better radiation monitoring. This DCP affected FSAR Figures 8.3-67, 8.3-69, and 8.3-73.

82-2001

This DCP required installation of a seismic support which insures the section of HVAC duct housing the ANO-2 control room chlorine and radiation monitors will resist seismic forces. This action brought the as-built conditions into conformance with design.

82-2012

This DCP deactivated pump room coolers 2VUC-24A & B. This deactivation had no affect on the operation or shutdown capability of the plant, and the additional heat load on the Emergency Diesel Generator (EDG) room Heating Ventilation and Air Conditioning system had no effect on the operation of the EDG's. The coolers were not removed because of their location, but valves and instrumentation were removed for use as spares. The deactivation placed the coolers in a condition requiring no maintenance and removed any potential problems such as leaks, short circuits, grounds, etc. This DCP affected FSAR Sections 9.2-1, 8.3.1.1.10.1, 9.4.3.2.1; Tables 9.2-1 and 9.2-5; and Figures 9.2-1, 9.4-2, and 8.3-12.

82-2021

This DCP provided a feeder breaker and a power distribution panel specifically intended for the condenser waterbox cathodic protection sytem's four rectifiers. The existing spare feeder breaker 2B15A2 rated at 15 amperes was utilized for this purpose. A feeder breaker rated at 100 amperes replaced 2B15A2 as a spare. The existing breakers for the rectifiers at lighting panel 21PB were spared and a new power panel 52 pt. with four 20 ampere breakers was installed at elevation 363. FSAR Figure 8.3-17 was affected by this DCP.