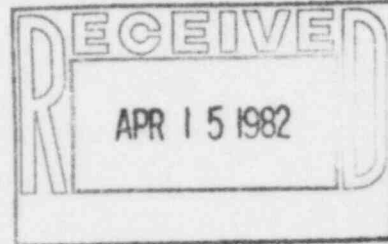




ARKANSAS POWER & LIGHT COMPANY
 POST OFFICE BOX 551 LITTLE ROCK, ARKANSAS 72203 (501) 371-4000
 March 31, 1982

ØCANØ382Ø1

Mr. John T. Collins
 Regional Administrator
 U.S. Nuclear Regulatory Commission
 Region IV
 611 Ryan Plaza Drive, Suite 1000
 Arlington, Texas 76011



Subject: Arkansas Nuclear One - Units 1 & 2
 Docket Nos. 50-313 and 50-368
 License Nos. DPR-51 and NPF-6
 10CFR50.59 Design Changes in 1981
 (File: 0520.2, 2-0520.2)

Gentlemen:

In accordance with 10CFR50.59, attached is a report containing a brief description of design changes made to Arkansas Nuclear One - Units One and Two (ANO-1 and 2). This report contains only those design changes which required a safety evaluation and were completed in 1981. 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.

Very truly yours,

John R. Marshall
 John R. Marshall
 Manager, Licensing

JRM:DET:nak

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Attachment

cc: Mr. Richard C. DeYoung, Director
 Office of Inspection & Enforcement
 U.S. Nuclear Regulatory Commission
 Washington, D.C. 20555

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ATTACHMENT TO ØCANØ382Ø1

Arkansas Nuclear One - Units 1 & 2
 Docket Nos. 50-313 and 50-368
 License Nos. DPR-51 and NPF-6
 10CFR50.59 Design Changes in 1981

DESIGN CHANGE NUMBER	DESCRIPTIVE SUMMARY
79-1034 (ANO-1)	This change raised the gaseous radwaste discharge filter (F-16) to a higher elevation and fitted it with a drain line and trap for the removal of condensate.
79-1077 (ANO-1)	This change provided a means of local as well as remote indication of water level in the waste gas surge tank T-17. High water level alarms were also provided on C115 and in the control room (common alarm for C115).
79-1081 (ANO-1)	This change provided pressure regulation for the reactor building vent header to assure against over-pressurization of the surge tank.
79-2068 (ANO-2)	This design change facilitated analyzing the sodium level in the condenser hotwell to determine leakage between circulating water and the secondary side coolant.
79-2078 (ANO-2)	To prevent the possibility of any future water damage to the differential pressure indicating switches on the condensate pump suction strainers, this change relocated these switches above the pit grating.
79-2126 (ANO-2)	This change installed a prohibit interlock on start-up transformer #2. As this transformer is shared by both units at ANO, the purpose of this change was to prohibit one unit from inappropriately accessing the transformer.
79-2129 (ANO-2)	This change provided for the installation of a redundant Critical Applications Program Computer System in the Unit 2 computer room in order to assure that the plant operators are provided with necessary information.
79-2135 (ANO-2)	This modification involved the addition of a deluge water sprinkler system to the corridor north of the cable spreading room. This was done to comply with the ANO-2 Fire Protection SER, Item 3.5 which required the protection of redundant safe shutdown cables in the hallway with a deluge system.
79-2149 (ANO-2)	This change provided for the installation of two additional containment pressure indicators and a containment pressure recorder to provide redundancy to the existing system. This was in response to NUREG-0578.
79-2150 (ANO-2)	This change provided for modifications to the containment hydrogen monitoring system pursuant to NUREG-0737 requirements. Specifically, the modifications provided

DESIGN
CHANGE
NUMBER

DESCRIPTIVE SUMMARY

- remote operation from the control room, increased the range of the hydrogen monitors from 0-5% to 0-10%, and provided indications of containment hydrogen in the control room.
- 79-2160
(ANO-2) This modification changed six valve operators from electric modutronic operators to pneumatic operators for the purpose of reducing valve susceptibility to vibration damage and possible premature failure without affecting system function.
- 79-2168
(ANO-2) It was determined that the blocking of the U/V Protection System during RCP starting did not fully comply with an IEEE-279 requirement. Consequently, this change installed an alarm circuit in the control room to alert the operator should the U/V Protection System become defeated.
- 80-1007
(ANO-1) Upon re-analysis of as-built piping/hanger configurations resulting from IEB 79-14 walkdowns, 33 separate modifications were completed in 1981 to various pipe hangers. None of these modifications affected unit operations in any way.
- 80-1044
(ANO-1) This change allowed for continuous venting of the vacuum degasifier drain pumps to allow for automatic starting of the pumps.
- 80-1049
(ANO-1) This change replaced the reactor vessel vent valve jackscrew with a more reliable locking device. The design of the original locking device was subject to an unacceptable level of flow-induced wear.
- 80-1124
(ANO-1) This change provided rated fire barriers between redundant service water pump cables. This was in response to Item 3.2 of the Fire Protection SER.
- 80-1180
(ANO-1) This change added an isolation valve in the service water supply line to the "A" Decay Heat Cooler Room to facilitate addition of corrosion resistant spool pieces for future ultrasonic flowmeter transducers.
- 80-2047
(ANO-2) This design change replaced a nitrogen regulator in the waste gas system with a newer model and also reset the start/stop switch settings for the waste gas compressors. This modification will keep a compressor from opening the nitrogen regulator under normal conditions. Additionally, if either (or both) compressor fails to stop, the regulator will then function to assure that a slight nitrogen pressure is kept in the tank to further reduce the possibility of pulling air into the system.
- 80-2049
(ANO-2) This change provided for the installation of two flow elements to measure feedwater flow during startup. The

DESIGN
CHANGE
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DESCRIPTIVE SUMMARY

- purpose was to provide a better indication of feedwater flow, other than reliance on steam generator water level.
- 80-2050
(ANO-2) This change provided for transferring control and indication of the cooling tower bypass valve and de-icing service gate controls to the control room. Also installed was a cooling tower basin level recorder. These modifications will provide better operator response in the unlikely event of an accident as the operator would not need to leave the control room to realign the valves. The cooling tower basin level recorder will provide more information to the operator than the simple level indicator.
- 80-2083
(ANO-2) This design change supplied electrical power to the new sewage lift station installed for the Emergency Response Center.
- 80-2088
(ANO-2) It was determined that a low point in the containment vent header should be provided with a drain line to the reactor drain tank to keep water from collecting and possibly impairing venting operations. Improving the waste management system was the basis for this design change.
- 80-2122
(ANO-2) Pursuant to NUREG-0578 and NUREG-0696, this design change provided for a raceway ductbank to connect the Emergency Response Center and the plant site.
- 80-2131
(ANO-2) This change provided for the installation of additional 120V instrument ac panels to supply power to the fire protection system, CAPS computer and other TMI-2 related changes.
- 80-2140
(ANO-2) This design change added six RTD indications of reactor building temperature to the plant computer. This modification will provide the operators with a more efficient method of obtaining information concerning containment building temperature in the unlikely event of an accident, as the indicators were not at the time located in the control room, and our Technical Specifications require monitoring these temperatures once per shift (8 hours).
- 80-2177
(ANO-2) This design change converted the control room visitor viewing area into a shift supervisor's office, thus allowing the shift supervisor to be even more responsive to the needs of the operators. The shift supervisor will have a clear view of the control room while in his office.
- 80-2182
(ANO-2) This design change installed rated fire barriers between redundant cables in the Switchgear Room, MCC Room and Electrical Equipment Room.

DESIGN CHANGE NUMBER	DESCRIPTIVE SUMMARY
80-2191 (ANO-2)	This design change added a 3/4" globe valve to the gas collection header as it exits the seal area for each charging pump to facilitate venting of the suction stabilizers to the gas collection header.
80-2195 (ANO-2)	As a result of IEB 80-11, masonry wall 24-B-217/218 was re-evaluated and it was determined that additional supports were needed to ensure structural integrity of the wall during a seismic event. Consequently, 5 additional braces were provided from the top of the concrete block wall to the adjacent reinforced concrete wall for this purpose.
80-2201 (ANO-2)	This design change replaced 16 existing EPG electrical ball valves on the safety injection tank piping with solenoid valves specifically designed to prevent RCS leakage.
81-2022 (ANO-2)	This design change provided for control room indication of RCP controlled bleed-off flow via the plant computer.
81-2045 (ANO-2)	This design change separated the dc power supply to the ESF load centers 2B5 and 2B6. The purpose of this change was to facilitate the testing of the undervoltage relays and to prevent a "Millstone Trip" in the event of the loss of dc power as the dependency upon one breaker is eliminated.
81-2046 (ANO-2)	This design change provided for independence between dc control power for breakers 2A309 and 2A409 (offsite power to ESF busses) and the blocking of the undervoltage protection circuitry when the ESF busses are powered by the diesel generators. As diesel generator power may be supplied during an accident, this will assure the undervoltage blocking and prohibit the load shedding of the ESF busses in the unlikely event of degraded voltage from the emergency diesel generator.