ARKANSAS POWER & LIGHT COMPANY
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November 11, 1982

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Mr. Darrell G. Eisenhut, Director
Division of Licensing
Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

SUBJECT: Arkansas Nuclear One - Units 1 & 2
Docket No. 50-313 & 50-368
License No. DPR-51 & NPF-6
Request for Additional Information
to Appendix R Compliance Submittal

Gentlemen:

On October 6, 1982, we met with Mr. Bob Ferguson, Mr. Randy Eberle, and Ms. Jan Stevens, et al, to discuss the status of the NRC's review of our July 1 Appendix R submittal and to examine the reasons certain exemption requests were being considered for denial. Concerning those exemptions, we were requested to review other alternatives or modifications which might facilitate the approval of those fire zones and to provide that information in writing to the NRC. Accordingly, we are providing the following information to facilitate your approval of those fire zones for which the exemption is being considered for denial. These are: Intake Structures (Units 1 & 2), 20Y (Unit 1), 98J (Unit 1), 2006 Unit 2), 2007 (Unit 2), 2040 (Unit 2), 2055 (Unit 2), and Yard Manholes (Units 1 & 2).

Intake Structure:

ANO-1

At elevation 354', a 1-hour barrier will be provided for the conduit and trays providing power for one of the two sets of three valves constituting one complete path from the swing pump (see Figure 1, INTAKE-3). As stated in our July submittal, power cabling for the pumps will be rerouted. Our exemption request for this elevation now is:

At elevation 354', the pump power cabling will be separated by greater than 20' but a suppression/detection system will not be provided.

A006

At elevation 351', cabling for the crossover valves will be separated by less than 20' (but greater than 16'), a 1-hour barrier will be provided as stated above, but a suppression/detection system will not be provided.

ANO-2

In clarification to the information provided in our July submittal, at elevation 366', separation of all four crossover valves (2CV1422-2, 1421-2, 1419-1 and 1418-1) is not necessary since loss of all four valves will not cause loss of service water (see Figure 2, INTAKE-3). Furthermore, these valves are separated from the three service water pumps by a full height concrete wall (see Figure 2, INTAKE-1). It is improbable that a fire on the valve side of the wall would spread to the pump side and destroy all three pumps. Nevertheless, an automatic suppression system will be provided to protect the three service water pumps. At this elevation our exemption request is now:

Omission of a 1-hour fire barrier, or omission 20' separation, for the service water pump motors when a sprinkler system and partial shielding is provided.

At elevation 354', one train of pump power cabling will be protected by a 1-hour barrier. As stated in our July submittal, these cables will be rerouted to provide at least 20' separation. Therefore, our exemption request for elevation 354' is now:

Omission of a sprinkler system where redundant safe shutdown cables are separated by greater than 20' and a 1-hour barrier is provided.

Zone 20Y:

Cabling associated with the A makeup pump suction valve (EB1004) will be rerouted to provide greater than 20' separation. Additionally, 1-hour barriers will be provided for the trays and conduits associated with power for the pump and suction valve of the swing and one other pump within each individual pump room. A 1-hour barrier will not be required for the corridor east of the makeup pump rooms because the rerouting of EB1004 will eliminate redundancy problems and an exemption is not required. Our exemption request is now:

Omission of an automatic suppression system for the makeup pump rooms with the installed provisions stated above. These rooms contain redundant components separated by less than 20'.

Zone 98J:

Modifications to this zone will be made as stated in our July submittal except for those designed to "separate" the corridor area from the "red" D.C. equipment room. This separation will be accomplished by the

addition of a 3-hour rated fire door and fire dampers in the ventilation ducts. Modifications 1 and 2 as stated on page 23 of 52 of Section 4 of our July submittal are no longer required. (These modifications were to coat cable trays on each side of this doorway without providing a door).

With this modification, no exemptions are required for zone 98J.

Zones 2006LL and 2007LL:

Each zone will be provided with automatic sprinkler protection (in addition to those modifications specified in our July submittal) to protect the service water pump power cables in those areas. As a result of these modifications an exemption is not required for these zones.

Zone 2040JJ:

One-hour barriers will be provided for the trays and conduits associated with power for the swing and one other charging pump within each individual pump room. Additionally, one of the two trays located at the junction of the two corridors in this zone will be provided with a 1-hour barrier over approximately 10' of its length (greater than 20' between unprotected cables in the two trays). Our exemption request is now:

> Omission of an automatic suppression system for the charging pump rooms with the installed provisions stated above. These rooms contain redundant components separated by less than 20'.

Shared wall between zones 2055JJ and 2040JJ:

As stated in our July submittal, the wall separating zones 2055JJ and 2040JJ will be upgraded to a 3-hour fire rating. However, we are providing the following clarifying information and exemption request:

> There are actually two doors which must be opened for passage between these zones. The first door (door number 359 on zone 2055JJ side) is a fully louvered, hollow metal door. This door is equipped with a surface type intrusion alarm switch. The second door (door number 210 on zone 2040JJ side) is an air tight door. This door is designed such that it blows open with a pressure buildup in zone 2055JJ of 0.25 psig to limit peak pressure within that zone. This door is normally kept closed. We will replace this outer metal door with a 3-hour rated fire door. However, we will modify the latch in order to permit the door to open on 0.25 psig internal pressure. We request an exemption for this modified door because of the unique design considerations. As stated in our July submittal, greater than 20' exists between redundancies.

Yard Manholes (1MH04, 1MH06, 2MH01E, 2MH02E, 2MH03E):

These manholes will be filled with a nonflammable material such as sand or vermiculite.

We request an exemption for these zones for separation of less than 20' between redundancies and no suppression/detection system, but with the above stated modification made to each zone.

Additionally, we were informed that Section III.G.3 of Appendix R requires a fixed fire suppression/detection system be installed in the zones provided with alternate shutdown capability, and that our July submittal does not contain specific exemption requests. Although specific requests were not made, it is our understanding that since alternate shutdown means are required (in two instances), it follows that those affected zones cannot otherwise meet Appendix R and, therefore, it is implied an exemption request is necessary.

However, in clarification to our July submittal, the following specific exemptions are requested. Our two alternate shutdown capabilities are discussed separately below and are referred to as Appendix A and Appendix B. These designations refer to their locations within our July, Appendix R submittal.

Appendix A:

This capability is provided as additional protection in case of substantial fire damage to fire zones 97R, 129F of Unit 1 and 2098L, 2199G, 2150C, 2136I of Unit 2. Several of these zones (97R, 129F, 2199G, 2098L) do contain fixed suppression systems and detectors. However, we request exemptions for the following zones.

Zone 2150C - This is the Core Protection Calculator Panel Room. The zone contains portable extinguishers and smoke detectors which alarm in the control room. We request an exemption for not providing a suppression system. We feel that addition of a suppression system will not enhance the protection features otherwise provided.

Zone 2136I - This zone is a controlled access area, Health Physics and locker area, and contains redundancies for the CPCs and certain reactor protection equipment. The zone is adjacent to the control room and contains portable extinguishers and a fire hose. Although a suppression system is installed, we are currently investigating drainage problems associated with that system and would prefer to delete the system. We request an exemption for not providing detectors and a suppression system. We feel that addition of a detection/suppression system will not enhance the protection features otherwise provided.

Appendix B:

Alternate shutdown capability has been provided for zones 53Y, 1MH09, 1MH10 of Unit 1 and 2081HH, 2096M, 2091BB, 2107N, 2223KK, 2106R, 2109U of Unit 2 because of the potential for a fire in any of these zones to disable the two diesel generator fuel oil transfer pumps of either unit. Of those zones, 53Y, 1MH09 and 2081HH do not have detectors which alarm in the control room and only 2109U has a suppression system. However, as stated in our July submittal, only two people are required to make the necessary cross-connections for alternate shutdown

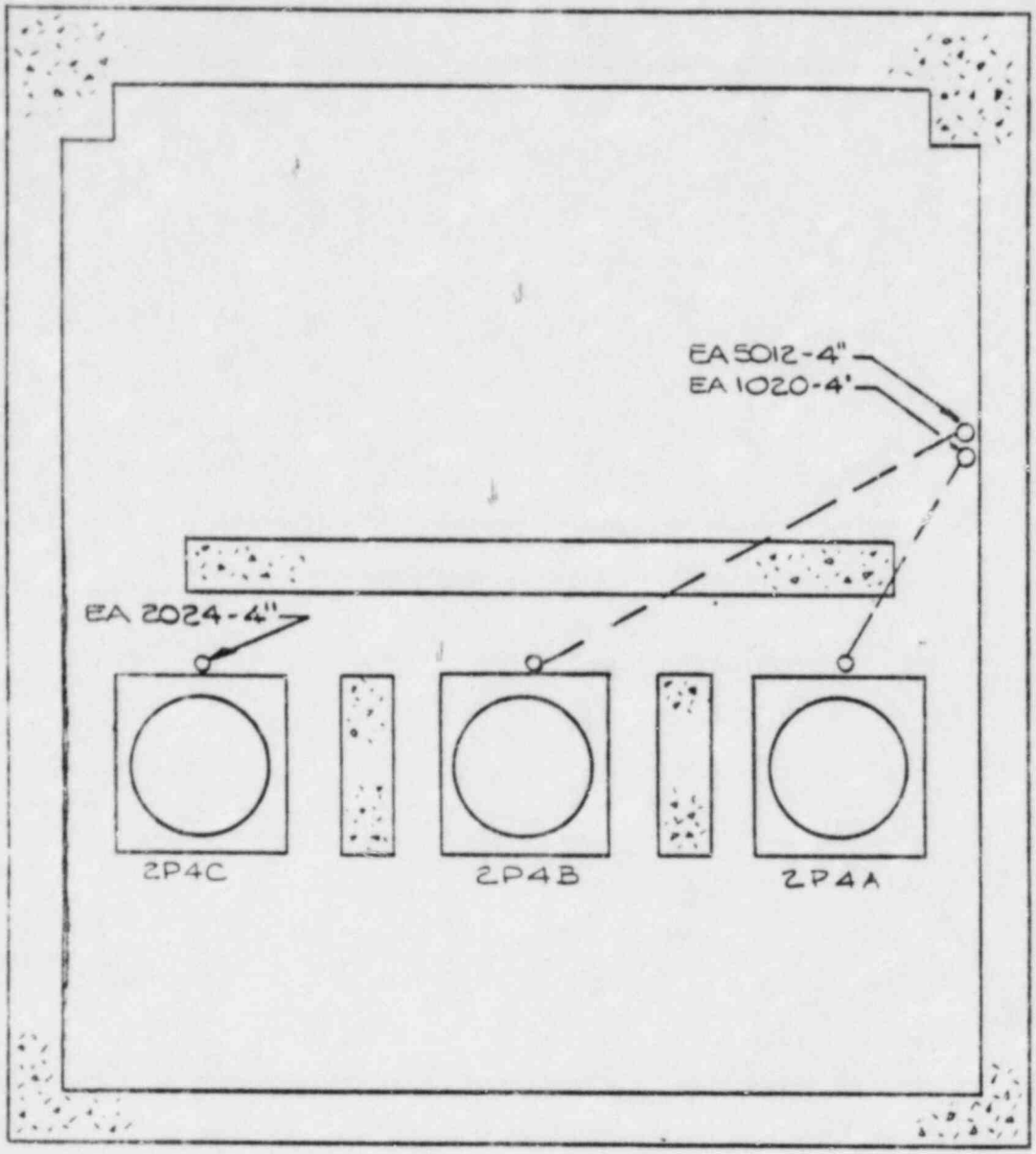
capability and this operation would not have to be completed until 2½ hours (Unit 2) and 1½ hours (Unit 1) into diesel generator operation due to the available contents in the day tanks. Additionally, a number of alarms and indications on diesel trouble are provided in the control room that will alert the operator to fuel oil system problems. We request an exemption for all these zones for omission of a suppression system (except zone 2109U) and an exemption for zones 53Y, 1MH09, 1MH10, and 2081HH for omission of a detection system. We feel that addition of a detection/suppression system to these fire zones will not enhance the notification or protection features otherwise provided.

Very truly yours,

John R. Marshall

John R. Marshall
Manager, Licensing

JRM:LVP:sl



ANO-2
INTAKE STRUCTURE
PLAN AT EL. 366'-0"

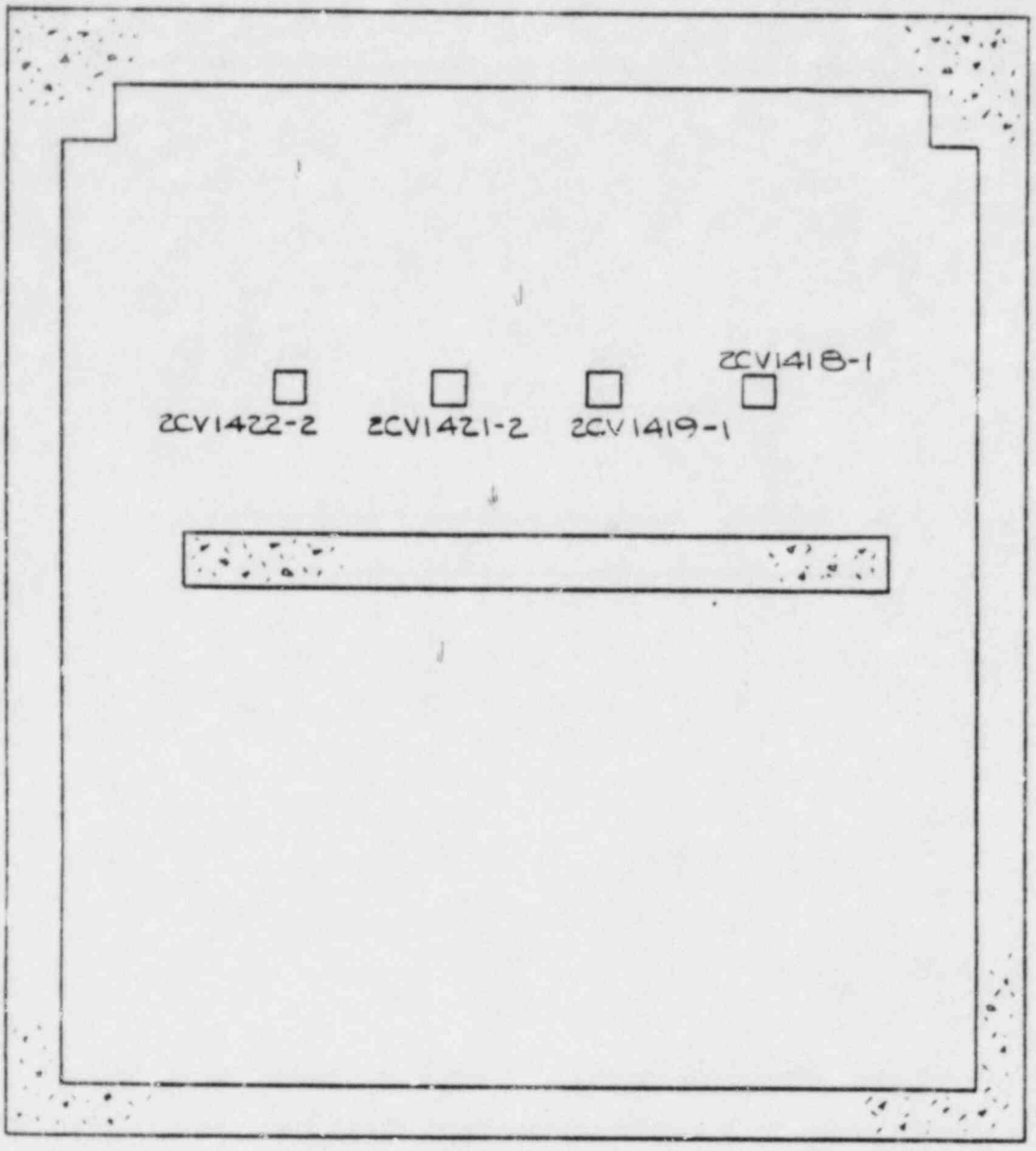
REV.	DATE	REVISION	BY	CH'K	ENG'R	SUPVR

ARKANSAS POWER AND LIGHT COMPANY
ARKANSAS NUCLEAR ONE
UNIT II

SCALE :
DRAWN :
DESIGN :

DRAWING NO. 2 INTAKE - 1

REV.



ANO-2
INTAKE STRUCTURE
PLAN AT EL. 366'-0"

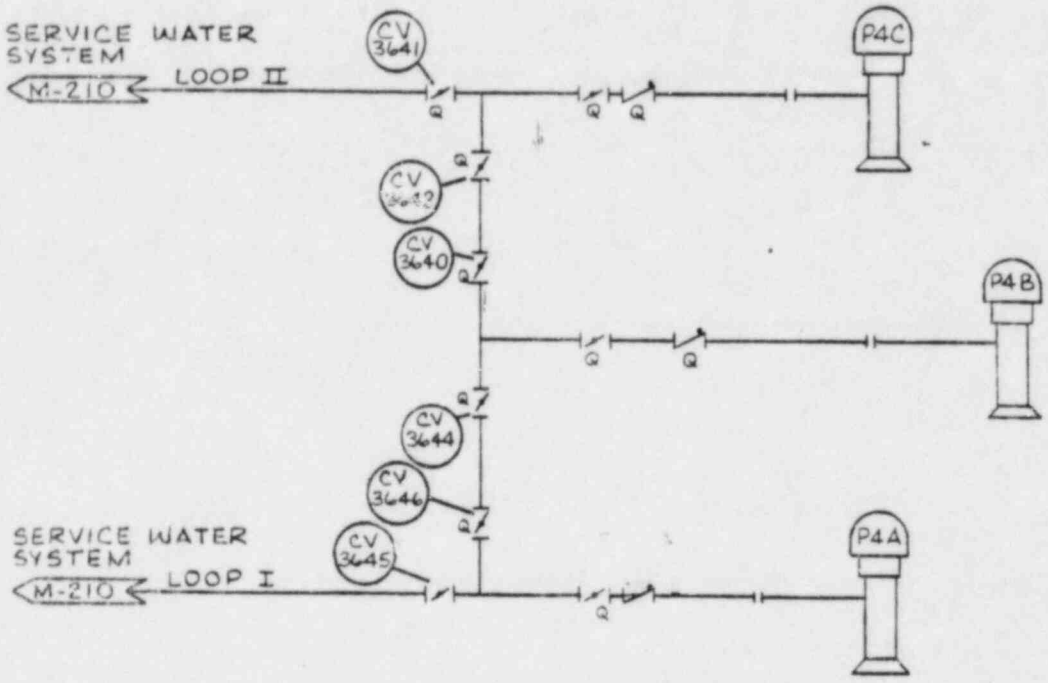
REV.	DATE	REVISION	BY	CH'K	ENG'R	SUPVR

ARKANSAS POWER AND LIGHT COMPANY
ARKANSAS NUCLEAR ONE
UNIT

SCALE :
DRAWN :
DESIGN :

DRAWING NO. 2 INTAKE - 1

REV.



SERVICE WATER PUMPS

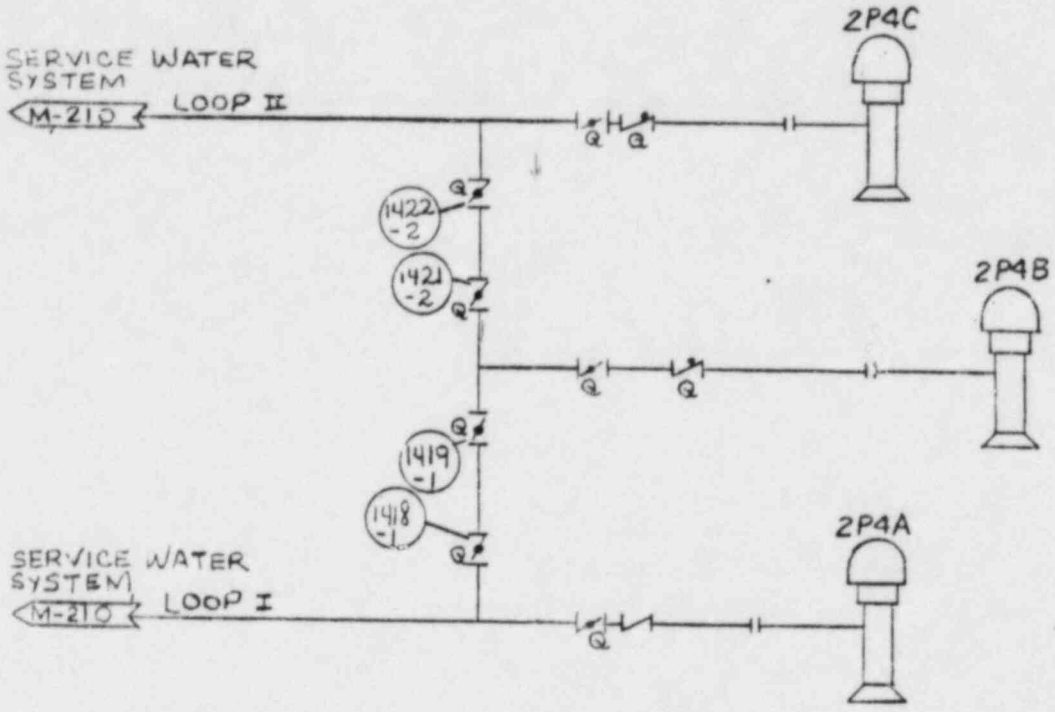
REV.	DATE	REVISION	BY	CH'K	ENG'R	SUPVR

ARKANSAS POWER AND LIGHT COMPANY
ARKANSAS NUCLEAR ONE
UNIT 1

SCALE :
DRAWN : RJ
DESIGN :

DRAWING NO. 1 INTAKE - 3

REV.



SERVICE WATER PUMPS

ANO-2
INTAKE STRUCTURE

REV.	DATE	REVISION	BY	CH'K	ENG'R	SUPVR

ARKANSAS POWER AND LIGHT COMPANY
ARKANSAS NUCLEAR ONE
UNIT II

A&L

SCALE :
DRAWN : K.W.
DESIGN :

DRAWING NO. 2 INTAKE-3

REV.