



September 19, 2001

2CAN090108

U. S. Nuclear Regulatory Commission
Document Control Desk
Mail Station OP1-17
Washington, DC 20555

Subject: Arkansas Nuclear One – Unit 2
Docket No. 50-368
License No. NPF-6
Request for Additional Information Relating to the One Time Request
Regarding Emergency Diesel Generator Allowed Outage Time Extension

Gentlemen:

By letter dated June 12, 2001 (2CAN060101), Entergy Operations, Inc (Entergy) proposed a change to the Arkansas Nuclear One Unit 2 (ANO-2) Technical Specifications (TSs) for a one time extension of the allowable outage time (AOT) for the emergency diesel generators (EDGs). A follow-up letter dated July 31, 2001 (2CAN070108), was submitted in response to specific questions related to the risk assessment portion of the submittal. On August 31, 2001, Entergy and members of your Staff held an additional call to discuss specific electrical system questions and comments. As a result of the call, one question was determined to require a formal response. Please find Entergy's response to the question in Attachment 1. Attachment 2 provides a modification to the proposed TS pages based on the comments received during the August 31, 2001, phone conversation.

The following changes were made to pages 3/4 8-1 and 3/4 8-2 for the purpose of human factors:

- relocated the proposed note below action b.3 and added a reference to the note in action b.3;
- deleted the previously proposed wording in steps 4 and 5 of action c and added a new step 4 using the last sentence of the current action c and referenced Note 1;
- replaced the proposed wording in action d.3 with the last sentence of the current action d;
- replaced the proposed wording in action e.3 with the last sentence of the current action e and referenced Note 1.

No technical changes are proposed.

No new or additional commitments are contained in this letter.

U. S. NRC
September 19, 2001
2CAN090108
Page 2 of 2

I declare under penalty of perjury that the foregoing is true and correct. Executed on September 19, 2001.

Very truly yours,



Glenn R. Ashley
Manager, Licensing

GRA/dm
Attachments

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ATTACHMENT 1

TO

2CAN090108

REQUEST FOR ADDITIONAL INFORMATION

Response to Electrical System RAIs on ANO-2 EDG AOT Extension

QUESTION:

Please state that the emergency diesel generator (EDG) will not be taken out of service if severe weather and or grid instability is predicted.

RESPONSE:

It is a current practice at ANO to assess weather and grid conditions prior to performing EDG surveillance activities. If severe weather and / or grid instability is predicted, ANO will delay any planned maintenance activities.

ATTACHMENT 2

REVISED MARKUP OF TECHNICAL SPECIFICATION PAGES

REACTOR COOLANT SYSTEM

PRESSURIZER

LIMITING CONDITION FOR OPERATION

3.4.4 The pressurizer shall be OPERABLE with a water volume of ≤ 910 cubic feet (equivalent to $\leq 82\%$ of wide range indicated level) and both pressurizer proportional heater groups shall be OPERABLE.

APPLICABILITY: MODES 1, 2 and 3.

ACTION:

- (a) With the pressurizer inoperable due to water volume ≥ 910 cubic feet, be in at least HOT SHUTDOWN with the reactor trip breakers open within 12 hours.
- (b) With the pressurizer inoperable due to an inoperable emergency power supply to the pressurizer heaters, either restore the inoperable emergency power supply within 72 hours as required by TS 3.8.1.1 action b.3 or be in at least HOT SHUTDOWN within 12 hours.

SURVEILLANCE REQUIREMENTS

4.4.4.1 The pressurizer water volume shall be determined to be within its limits at least once per 12 hours.

4.4.4.2 The pressurizer proportional heater groups shall be determined to be OPERABLE.

- (a) At least once per 12 hours by verifying emergency power is available to the heater groups, and
- (b) At least once per 18 months by verifying that the summed power consumption of the two proportional heater groups is ≥ 150 KW.

3/4.8 ELECTRICAL POWER SYSTEMS

3/4.8.1 A.C. SOURCES

LIMITING CONDITION FOR OPERATION

3.8.1.1 As a minimum, the following A.C. electrical power sources shall be OPERABLE:

- a. Two physically independent circuits between the offsite transmission network and the onsite Class 1E distribution system and
- b. Two separate and independent diesel generators each with:
 1. A day fuel tank containing a minimum volume of 280 gallons of fuel (equivalent to 50% of indicated tank volume),
 2. A separate fuel storage system containing a minimum volume of 22,500 gallons of fuel (equivalent to 100% of indicated tank level), and
 3. A separate fuel transfer pump.

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

- ~~a. With one offsite A.C. circuit of the above required A.C. electrical power sources inoperable, demonstrate the OPERABILITY of the remaining offsite A.C. circuit by performing Surveillance Requirement 4.8.1.1.1.a within 1 hour and at least once per 8 hours thereafter. Restore the offsite A.C. circuit to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. Startup Transformer No. 2 may be removed from service for up to 30 days as part of a preplanned preventative maintenance schedule. The 30-day allowance may be applied not more than once in a 10-year period. The provisions of Specification 3.0.4 are not applicable to Startup Transformer No. 2 during the 30-day preventative maintenance period.~~
- a. With one offsite A.C. circuit of the above required A.C. electrical power sources inoperable, perform the following:
 1. Demonstrate the OPERABILITY of the remaining offsite A.C. circuit by performing Surveillance Requirement 4.8.1.1.1.a within 1 hour and at least once per 8 hours thereafter, and
 2. Restore the offsite A.C. circuit to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. Startup Transformer No. 2 may be removed from service for up to 30 days as part of a preplanned preventative maintenance schedule. The 30-day allowance may be applied not more than once in a 10-year period. The provisions of Specification 3.0.4 are not applicable to Startup Transformer No. 2 during the 30-day preventative maintenance period.

~~b. With one diesel generator of the above required A.C. electrical power source inoperable, demonstrate the OPERABILITY of both the offsite A.C. circuits by performing Surveillance Requirement 4.8.1.1.1.a within 1 hour and at least once per 8 hours thereafter. Demonstrate the OPERABILITY of the remaining OPERABLE diesel generator by performing Surveillance Requirement 4.8.1.1.2.a.4 within 24 hours unless it is determined that a common cause failure does not exist or, unless it is currently in operation or has been demonstrated OPERABLE within the previous 24 hours. Restore the diesel generator to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.~~

b. With one diesel generator of the above required A.C. electrical power source inoperable, perform the following:

1. Demonstrate the OPERABILITY of both the offsite A.C. circuits by performing Surveillance Requirement 4.8.1.1.1.a within 1 hour and at least once per 8 hours thereafter, and
2. Demonstrate the OPERABILITY of the remaining OPERABLE diesel generator by performing Surveillance Requirement 4.8.1.1.2.a.4 within 24 hours except when:
 - i. A common cause failure has been determined not to exist, or
 - ii. The remaining diesel generator is currently in operation, or
 - iii. The remaining diesel generator has been demonstrated OPERABLE within the previous 24 hours, and
3. Restore the diesel generator to OPERABLE status within 72 hours (See Note 1) or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

Note 1 - The requirement for diesel generator (EDG) restoration to OPERABLE status may be extended to ten days if the Alternate AC diesel generator (AACDG) is verified available. If the AACDG is found unavailable during this period, the 72 hour restoration period of condition b.3 is immediately applicable until either the AACDG or the EDG is returned to operable status (not to exceed ten days from the initial diesel generator inoperability). The 10-day allowance may be applied only once for each EDG.

ELECTRICAL POWER SYSTEMS

ACTION (Continued)

~~c. With one offsite A.C. circuit and one diesel generator of the above required A.C. electrical power sources inoperable, demonstrate the OPERABILITY of the remaining offsite A.C. circuit by performing Surveillance Requirement 4.8.1.1.1.a within 1 hour and at least once per 8 hours thereafter; and, if the diesel generator became inoperable due to any cause other than preplanned preventive maintenance or testing, demonstrate the OPERABILITY of the remaining OPERABLE diesel generator by performing Surveillance Requirement 4.8.1.1.2.a.4 within 8 hours (unless it is already operating or has been tested within the last 8 hours). Restore at least one of the inoperable sources to OPERABLE status within 12 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. Restore both offsite circuits and both diesel generators to OPERABLE status within 72 hours of the initiating event or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.~~

c. With one offsite A.C. circuit and one diesel generator of the above required A.C. electrical power sources inoperable, perform the following:

1. Demonstrate the OPERABILITY of the remaining offsite A.C. circuit by performing Surveillance Requirement 4.8.1.1.1.a within 1 hour and at least once per 8 hours thereafter; and,
2. If the diesel generator became inoperable due to any cause other than preplanned preventive maintenance or testing, then
 - i. Demonstrate the OPERABILITY of the remaining OPERABLE diesel generator by performing Surveillance Requirement 4.8.1.1.2.a.4 within 8 hours except when:
 - a. The remaining diesel generator is currently in operation, or
 - b. The remaining diesel generator has been demonstrated OPERABLE within the previous 8 hours, and
3. Restore at least one of the inoperable sources to OPERABLE status within 12 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours, and
4. Restore both offsite circuits and both diesel generators to OPERABLE status within 72 hours (see b. 3, Note 1) of the initiating event or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

~~d. With two offsite A.C. circuits of the above required A.C. electrical power sources inoperable perform Surveillance Requirement 4.8.1.1.2.a.4 on the diesel generators within the next 8 hours (unless the diesel generators are already operating or have been successfully tested within the past 8 hours). Restore one of the inoperable offsite A.C. circuits to OPERABLE status within 24 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. Restore both A.C. circuits within 72 hours of the initiating event or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.~~

d. With two offsite A.C. circuits of the above required A.C. electrical power sources inoperable, perform the following:

1. Perform Surveillance Requirement 4.8.1.1.2.a.4 on the diesel generators within the next 8 hours except when:
 - i. The diesel generator is currently in operation, or
 - ii. The diesel generator has been demonstrated OPERABLE within the previous 8 hours, and
2. Restore one of the inoperable offsite A.C. circuits to OPERABLE status within 24 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours, and
3. Restore both A.C. circuits within 72 hours of the initiating event or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

~~c. With two diesel generators of the above required A.C. electrical power sources inoperable, demonstrate the OPERABILITY of the two offsite A.C. circuits by performing Surveillance Requirement 4.8.1.1.1.a within 1 hour and at least once per 8 hours thereafter. Restore one of the inoperable diesel generators to OPERABLE status within 2 hours or be in a least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. Restore both diesel generators within 72 hours of the initiating event or be in a least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.~~

e. With two diesel generators of the above required A.C. electrical power sources inoperable, perform the following:

1. Demonstrate the OPERABILITY of the two offsite A.C. circuits by performing Surveillance Requirement 4.8.1.1.1.a within 1 hour and at least once per 8 hours thereafter, and
2. Restore one of the inoperable diesel generators to OPERABLE status within 2 hours or be in a least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours, and
3. Restore both diesel generators within 72 hours (see b.3, Note 1) of the initiating event or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.