

ARKANSAS POWER & LIGHT COMPANY

DOCKET NO. 50-313

ARKANSAS NUCLEAR ONE - UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 26
License No. DPR-51

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The applications for amendment by Arkansas Power & Light Company (the licensee) dated June 3 and June 7, 1977, as supplemented by letter dated June 8, 1977, comply with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

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2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and Paragraph 2.c(2) of Facility License No. [DPR-5] is hereby amended to read as follows:

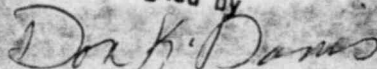
(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 26, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Original signed by



Don K. Davis, Acting Chief
Operating Reactors Branch #2
Division of Operating Reactors

Attachment:
Changes to the Technical
Specifications

Date of Issuance: JUN 9 1977

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ATTACHMENT TO LICENSE AMENDMENT NO. 26

FACILITY OPERATING LICENSE NO. DPR-51

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Accomplish page changes to the Appendix A portion of the Technical Specifications as noted below. The changed areas on the revised pages are identified by a marginal line.

Remove Existing Page

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Add Revised Page

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3.3 EMERGENCY CORE COOLING, REACTOR BUILDING COOLING AND REACTOR BUILDING SPRAY SYSTEMS

Applicability

Applies to the emergency core cooling, reactor building cooling and reactor building spray systems.

Objectivity

To define the conditions necessary to assure immediate availability of the emergency core cooling, reactor building cooling and reactor building spray systems.

Specification

- 3.3.1 The following equipment shall be operable whenever containment integrity is established as required by Specification 3.6.1:
- (A) One reactor building spray pump and its associated spray nozzle header.
 - (B) One reactor building cooling fan and its associated cooling unit.
 - (C) Two out of three service water pumps shall be operable, powered from independent essential buses, to provide redundant and independent flow paths.
 - (D) Two engineered safety feature actuated low pressure injection pumps shall be operable.
 - (E) Both low pressure injection coolers and their cooling water supplies shall be operable.
 - (F) Two BWST level instrument channels shall be operable.
 - (G) The borated water storage tank shall contain a minimum level of 35.9 feet (350,000 gallons) of water having a minimum concentration of 2270 ppm boron at a temperature not less than 40F. The manual valve on the discharge line from the borated water storage tank shall be locked open.
 - (H) The four reactor building emergency sump isolation valves to the LPI system shall be either manually or remote-manually operable.

- (I) The engineered safety features valves associated with each of the above systems shall be operable or locked in the ES position.
- 3.3.2 In addition to 3.3.1 above, the following ECCS equipment shall be operable when the reactor coolant system is above 350F and irradiated fuel is in the core:
- (A) Two out of three high pressure injection (makeup) pumps shall be maintained operable, powered from independent essential busses, to provide redundant and independent flow paths.
 - (B) Engineered safety features valves associated with 3.3.2.a above shall be operable or locked in the ES position.
- 3.3.3 In addition to 3.3.1 and 3.3.2 above, the following ECCS equipment shall be operable when the reactor coolant system is above 800 psig:
- (A) The two core flooding tanks shall each contain an indicated minimum of 13 ± 0.4 feet (1040 ± 30 ft³) of borated water at 600 ± 25 psig.
 - (B) Core flooding tank boron concentration shall not be less than 2270 ppm boron.
 - (C) The electrically operated discharge valves from the core flood tanks shall be open and breakers locked open and tagged.
 - (D) One of the two pressure instrument channels and one of the two level instrument channels per core flood tank shall be operable.
- 3.3.4 The reactor shall not be made critical unless the following equipment in addition to 3.3.1, 3.3.2, and 3.3.3 above is operable.
- (A) Two reactor building spray pumps and their associated spray nozzle headers and two reactor building emergency cooling fans and associated cooling units powered from operable independent emergency buses.
 - (B) The sodium thiosulfate tank shall contain an indicated 31 ft of 30 wt% solution sodium thiosulfate (37,500 lb). The sodium hydroxide tank shall contain an indicated 31 ft. of 20 wt% solution sodium hydroxide (20,500 lb.).
 - (C) All manual valves in the main discharge lines of the sodium thiosulfate and sodium hydroxide tanks shall be locked open.
 - (D) Engineered safety feature valves and interlocks associated with 3.3.1, 3.3.2, and 3.3.3 shall be operable or locked in the ES position.
- 3.3.5 Maintenance shall be allowed during power operation on any component(s) in the high pressure injection, low pressure injection, service water, reactor building spray and reactor building cooling

systems which will not remove more than one train of each system from service. Maintenance shall not be performed on components which would make the affected system train inoperable for more than 24 consecutive hours. Prior to initiating maintenance on any component of a train in any system, the redundant component of that system shall be demonstrated to be operable within 24 hours prior to the maintenance.

3.3.6 If the conditions of Specifications 3.3.1, 3.3.2, 3.3.3, 3.3.4 and 3.3.5 cannot be met except as noted in 3.3.7 below, reactor shutdown shall be initiated and the reactor shall be in hot shutdown condition within 36 hours, and, if not corrected, in cold shutdown condition within an additional 72 hours.

3.3.7 Exceptions to 3.3.6 shall be as follows:

- (A) If the conditions of Specification 3.3.1(F) cannot be met, reactor operation is permissible only during the succeeding seven days unless such components are sooner made operable, provided that during such seven days the other BWST level instrument channel shall be operable.
- (B) If the conditions of Specification 3.3.3(D) cannot be met, reactor operation is permissible only during the succeeding seven days unless such components are sooner made operable, provided that during such seven days the other CFT instrument channel (pressure or level) shall be operable.

Bases

The requirements of Specification 3.3.1 assure that below 350F, adequate long term core cooling is provided. Two low pressure injection pumps are specified. However, only one is necessary to supply emergency coolant to the reactor in the event of a loss-of-coolant accident.

The post-accident reactor building cooling and long-term pressure reduction may be accomplished by four cooling units, by two spray units or by a combination of one cooling unit and one spray unit. Post-accident iodine removal may be accomplished by one of the two spray system strings. The specified requirements assure that the required post-accident components are available for both reactor building cooling and iodine removal. Specification 3.3.1 assures that the required equipment is operational.

The borated water storage tank is used for three purposes:

- (A) As a supply of borated water for accident conditions.
- (B) As a alternate supply of borated water for reaching cold shutdown. (2)
- (C) As a supply of borated water for flooding the fuel transfer canal during refueling operation. (3)