

December 16, 1991

Docket Nos. 50-327
and 50-328

Mr. Dan A. Nauman
Senior Vice President, Nuclear Power
Tennessee Valley Authority
6N 38A Lookout Place
1101 Market Street
Chattanooga, Tennessee 37402-2801

Dear Mr. Nauman:

SUBJECT: ISSUANCE OF AMENDMENTS (TAC NOSM 79301/79302) (TS 90-22)

The Commission has issued the enclosed Amendment No. 156 to Facility Operating License No. DPR-77 and Amendment No. 145 to Facility Operating License No. DPR-79 for the Sequoyah Nuclear Plant, Units 1 and 2, respectively. These amendments are in response to your application dated December 14, 1990 and supplemented by letter of October 15, 1991.

This amendment changes the title of the person on the Operations Department staff holding a Senior Operator License from the Operations Manager to the Operations Superintendent.

In addition, page 6-21 of the Unit 1 Technical Specifications is enclosed to correct an amendment number referenced at the bottom of the page.

A copy of the Safety Evaluation is also enclosed. Notice of Issuance will be included in the Commission's biweekly Federal Register notice.

Sincerely,

Original signed by

David E. LaBarge, Senior Project Manager
Project Directorate II-4
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Enclosures:

- 1. Amendment No. 156 to License No. DPR-77
- 2. Amendment No. 145 to License No. DPR-79
- 3. Safety Evaluation

cc w/enclosures:
See next page

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Mr. Dan A. Nauman

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

TENNESSEE VALLEY AUTHORITY

DOCKET NO. 50-327

SEQUOYAH NUCLEAR PLANT, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 156
License No. DPR-77

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Tennessee Valley Authority (the licensee) dated December 14, 1990 and supplemented October 15, 1991, complies 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 Operating License No. DPR-77 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No.156, 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 its date of issuance, with implementation within 30 days.

FOR THE NUCLEAR REGULATORY COMMISSION



Frederick J. Hebdon, Director
Project Directorate II-4
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: December 16, 1991

ATTACHMENT TO LICENSE AMENDMENT NO. 156

FACILITY OPERATING LICENSE NO. DPR-77

DOCKET NO. 50-327

Revise the Appendix A Technical Specifications by removing the pages identified below and inserting the enclosed pages. The revised pages are identified by the captioned amendment number and contain marginal lines indicating the area of change.

REMOVE

6-2
6-21

INSERT

6-2
6-21

ADMINISTRATIVE CONTROLS

- c. A Radiological Control technician# shall be onsite when fuel is in the reactor.
- d. All CORE ALTERATIONS shall be observed and directly supervised by either a licensed Senior Reactor Operator or Senior Reactor Operator Limited to Fuel Handling who has no other concurrent responsibilities during this operation.
- e. A Fire Brigade of at least 5 members shall be maintained onsite at all times.# The Fire Brigade shall not include the Shift Supervisor and 2 other members of the minimum shift crew necessary for safe shutdown of the unit or any personnel required for other essential functions during a fire emergency.
- f. The Operations Superintendent shall hold a Senior Reactor Operator license. |
- g. Administrative procedures shall be developed and implemented to limit the working hours of unit staff who perform safety-related functions (i.e., senior reactor operators, reactor operators, assistant unit operators, Radiological Control, and key maintenance personnel).

Adequate shift coverage shall be maintained without routine heavy use of overtime. The objective shall be to have operating personnel work a normal 8-hour day, 40-hour week while the unit is operating. However, in the event that unforeseen problems require substantial amounts of overtime to be used, or during extended periods of shutdown for refueling, major maintenance, or major plant modification, on a temporary basis the following guidelines shall be followed:

- 1. An individual should not be permitted to work more than 16 hours straight, excluding shift turnover time.
- 2. An individual should not be permitted to work more than 16 hours in any 24-hour period, nor more than 24 hours in any 48-hour period, nor more than 72 hours in any 7-day period, all excluding shift turnover time.
- 3. A break of at least 8 hours should be allowed between work periods, including shift turnover time.
- 4. Except during extended shutdown periods, the use of overtime should be considered on an individual basis and not for the entire staff on a shift.

Any deviation from the above guidelines shall be authorized by the Plant Manager (or Duty Plant Manager), or higher levels of management, in accordance with established procedures and with documentation of the basis for granting the deviation. Controls shall be included in the procedures such that individual overtime shall be reviewed monthly by the Plant Manager or his designee to assure that excessive hours have not been assigned. Routine deviation from the above guidelines is not authorized.

#The Radiological Control technician and fire brigade composition may be less than the minimum requirements for a period of time not to exceed 2 hours in order to accommodate unexpected absence provided immediate action is taken to fill the required positions.

ADMINISTRATIVE CONTROLS

MONTHLY REACTOR OPERATING REPORT

6.9.1.10 Routine reports of operating statistics and shutdown experience, including documentation of all challenges to the PORVs or Safety Valves, shall be submitted on a monthly basis no later than the 15th of each month following the calendar month covered by the report.

CORE OPERATING LIMITS REPORT

6.9.1.14 Core operating limits shall be established and documented in the CORE OPERATING LIMITS REPORT before each reload cycle or any remaining part of a reload cycle for the following:

1. Moderator Temperature Coefficient BOL and EOL limits and 300 ppm surveillance limit for Specification 3/4.1.1.3,
2. Shutdown Bank Insertion Limit for Specification 3/4.1.3.5,
3. Control Bank Insertion Limits for Specification 3/4.1.3.6,
4. Axial Flux Difference Limits for Specification 3/4.2.1,
5. Heat Flux Hot Channel Factor, $K(z)$, and $W(z)$ for Specification 3/4.2.2, and
6. Nuclear Enthalpy Hot Channel Factor and Power Factor Multiplier for Specification 3/4.2.3.

6.9.1.14.a The analytical methods used to determine the core operating limits shall be those previously reviewed and approved by NRC in:

1. WCAP-9272-P-A, "WESTINGHOUSE RELOAD SAFETY EVALUATION METHODOLOGY", July 1985 (W Proprietary).
(Methodology for Specifications 3.1.1.3 - Moderator Temperature Coefficient, 3.1.3.5 - Shutdown Bank Insertion Limit, 3.1.3.6 - Control Bank Insertion Limits, 3.2.1 - Axial Flux Difference, 3.2.2 - Heat Flux Hot Channel Factor, and 3.2.3 - Nuclear Enthalpy Hot Channel Factor.)
2. WCAP-10216-P-A, "RELAXATION OF CONSTANT AXIAL OFFSET CONTROL F_Q SURVEILLANCE TECHNICAL SPECIFICATION", JUNE 1983 (W Proprietary).
(Methodology for Specification 3.2.1 - Axial Flux Difference (Relaxed Axial Offset Control) and 3.2.2 - Heat Flux Hot Channel Factor ($W(z)$ surveillance requirements for F_Q Methodology).)
3. WCAP-10266-P-A Rev. 2, "THE 1981 REVISION OF WESTINGHOUSE EVALUATION MODEL USING BASH CODE", March 1987, (W Proprietary).
(Methodology for Specification 3.2.2 - Heat Flux Hot Channel Factor).



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

TENNESSEE VALLEY AUTHORITY

DOCKET NO. 50-328

SEQUOYAH NUCLEAR PLANT, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 145
License No. DPR-79

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Tennessee Valley Authority (the licensee) dated December 14, 1990 and supplemented October 15, 1991, complies 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.

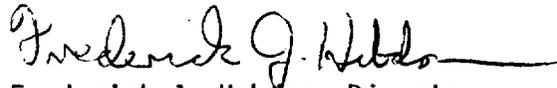
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and paragraph 2.C.(2) of Facility Operating License No. DPR-79 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 145, 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 its date of issuance, with implementation within 30 days.

FOR THE NUCLEAR REGULATORY COMMISSION



Frederick J. Hebdon, Director
Project Directorate II-4
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: January 16, 1991

ATTACHMENT TO LICENSE AMENDMENT NO. 145

FACILITY OPERATING LICENSE NO. DPR-79

DOCKET NO. 50-328

Revise the Appendix A Technical Specifications by removing the pages identified below and inserting the enclosed pages. The revised pages are identified by the captioned amendment number and contain marginal lines indicating the area of change.

REMOVE

6-2

INSERT

6-2

ADMINISTRATIVE CONTROLS

- c. A Radiological Control technician# shall be onsite when fuel is in the reactor.
- d. All CORE ALTERATIONS shall be observed and directly supervised by either a licensed Senior Reactor Operator or Senior Reactor Operator Limited to Fuel Handling who has no other concurrent responsibilities during this operation.
- e. A Fire Brigade of at least 5 members shall be maintained onsite at all times#. The Fire Brigade shall not include the Shift Supervisor and the 2 other members of the minimum shift crew necessary for safe shutdown of the unit or any personnel required for other essential functions during a fire emergency.
- f. The Operations Superintendent shall hold a Senior Reactor Operator license.
- g. Administrative procedures shall be developed and implemented to limit the working hours of unit staff who perform safety-related functions (i.e., senior reactor operators, reactor operators, assistant unit operators, Radiological Control, and key maintenance personnel).

Adequate shift coverage shall be maintained without routine heavy use of overtime. The objective shall be to have operating personnel work a normal 8-hour day, 40-hour week while the unit is operating. However, in the event that unforeseen problems require substantial amounts of overtime to be used, or during extended periods of shutdown for refueling, major maintenance, or major plant modification, on a temporary basis the following guidelines shall be followed:

- 1. An individual should not be permitted to work more than 16 hours straight, excluding shift turnover time.
- 2. An individual should not be permitted to work more than 16 hours in any 24-hour period, nor more than 24 hours in any 48-hour period, nor more than 72 hours in any 7-day period, all excluding shift turnover time.
- 3. A break of at least 8 hours should be allowed between work periods, including shift turnover time.
- 4. Except during extended shutdown periods, the use of overtime should be considered on an individual basis and not for the entire staff on a shift.

Any deviation from the above guidelines shall be authorized by the Plant Manager (or Duty Plant Manager), or higher levels of management, in accordance with established procedures and with documentation of the basis for granting the deviation. Controls shall be included in the procedures such that individual overtime shall be reviewed monthly by the Plant Manager or his designee to assure that excessive hours have not been assigned. Routine deviation from the above guidelines is not authorized.

The Radiological Control technician and fire brigade composition may be less than the minimum requirements for a period of time not to exceed 2 hours in order to accommodate unexpected absence provided immediate action is taken to fill the required positions.



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

ENCLOSURE 3

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 156 TO FACILITY OPERATING LICENSE NO. DPR-77
AND AMENDMENT NO. 145 TO FACILITY OPERATING LICENSE NO. DPR-79

TENNESSEE VALLEY AUTHORITY

SEQUOYAH NUCLEAR PLANT, UNITS 1 AND 2

DOCKET NOS. 50-327 AND 50-328

1.0 INTRODUCTION

By letter dated December 14, 1990, as supplemented October 15, 1991, the Tennessee Valley Authority (the licensee) submitted a request for changes to the Sequoyah Nuclear Plant, Units 1 and 2 Technical Specifications (TS). The requested amendment would change the title of the Operations Department staff person specified in Technical Specification (TS) Section 6.2.2.f. who must hold a Senior Reactor Operator (SRO) license, from the Operations Manager to the Operations Superintendent. The proposed change would reflect a change to the structure of the Operations Department staff organization which resulted in creation of an Operations Superintendent position between the Operations Manager and the Shift Operations Supervisors.

By letter dated December 14, 1990, the licensee originally proposed an amendment to, among other things, change the title of the staff person who must hold an SRO license from the Operations Manager to the Operations Superintendent. All proposed changes, except the request to change the title of the SRO-licensed staff person, were approved and issued by Amendment Numbers 152 and 142 for Units 1 and 2, respectively, by letter dated August 22, 1991. As stated in this letter, the SRO-license change was denied because the staff determined that an SRO license was needed for the individual who performs the duties and responsibilities of the Operations Manager, as they were described in the Organizational Topical Report and in the Final Safety Analysis Report (FSAR). This determination was made using the ANSI N18.1-1971 Standard.

The licensee has subsequently committed to revise the Organizational Topical Report to describe the duties and responsibilities of the Operations Manager and Operations Superintendent, in a letter dated October 15, 1991. The letter does not commit to a similar change to the FSAR, since the FSAR is being changed to reference the Organizational Topical Report, which will remove the description. Based on this commitment, the licensee requested that the staff reconsider the denial of the proposed change to Specification 6.2.2.f.

2.0 EVALUATION

ANSI Standard N18.1-1971, "Selection and Training of Nuclear Power Plant Personnel," states that the Operations Manager shall hold an SRO license at the time of appointment to the position. This standard, to which the Sequoyah Nuclear Plant is committed, defines a manager's function as one to which are assigned broad responsibilities for direction of major aspects of the operation of a nuclear power plant.

The FSAR and the Organizational Topical Report for the Sequoyah Nuclear Plant describe the Operations Manager as the person who has overall responsibility for plant operation and overall execution of plant operational activities. The staff has determined that these two functional descriptions are similar and, therefore, would require that the Operations Manager hold an SRO licensee at the time of appointment to the position.

By letter dated October 15, 1991, the licensee committed to revise the duties and responsibilities of the Operations Manager and Operations Superintendent in the Organizational Topical Report using wording similar to the following:

Operations Manager

The Operations Manager has responsibility for planning, organizing, setting policy, and motivation relating to the Operations, Chemistry, and Work Control Group personnel. These activities include operational strategies for generation, chemistry control, water and waste usage, approved authority for more system enhancements, and prioritization of maintenance activities. To meet these objectives, functions related to Operations, Work Control, and Chemistry are grouped under one manager responsible for facility generation (i.e., Operations Manager).

The Operations Manager has three principal reports:

Operations Superintendent
Work Control Superintendent
Chemistry Superintendent

Operations Superintendent

The Operations Superintendent is responsible for all plant operations. The superintendent, through the shift operations supervisors, manages the day-to-day operation of the facility, refueling operations, start-up, operational testing, water and waste processing, and plant operations. The superintendent is responsible for coordinating and scheduling the training program for all Operations personnel as well as providing the nucleus for emergency response teams.

The line management organization related to the Operations Department consists of the Plant Manager, the Operations Manager, and the Operations Superintendent. The proposed wording change to the Organizational Topical Report clearly indicates that the Operations Superintendent is responsible, through the Shift Operations Supervisors, for the day-to-day operation of the facility. and that

the Operations Manager has other Operations Department responsibilities and authorities. Therefore, based on this information and description, the staff has determined that the person performing the duties and responsibilities described in ANSI 18.1-1971 as requiring an SRO license, appropriately rests with the person holding the title of Operations Superintendent. Accordingly, the staff finds that the amendment is acceptable.

3.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Tennessee State official was notified of the proposed issuance of the amendment. The State official had no comments.

4.0 ENVIRONMENTAL CONSIDERATION

The amendment involves a change in administrative procedures or requirements. The Commission has previously issued a proposed finding that the amendment involves no significant hazards consideration, and there has been no public comment on such finding (56 FR 57704). Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(10). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

5.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: D. LaBarge

Dated: December 16, 1991

AMENDMENT NO.156 FOR SEQUOYAH UNIT NO. 1 - DOCKET NO. 50-327 and
AMENDMENT NO.145 FOR SEQUOYAH UNIT NO. 2 - DOCKET NO. 50-328
DATED: December 16, 1991

Docket File

NRC PDR

Local PDR

SQL Reading File

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