September 30, 1983

Docket No: 50-328

Mr. H. G. Parris
Manager of Power
Tennessee Valley Authority
500A Chestnut Street, Tower II
Chattanooga, Tennessee 37401

Dear Mr. Parris:

Subject: Issuance of Amendment No. 23 to Facility Operating License No. DPR-79 - Sequoyah Nuclear Plant, Unit 2

The U.S. Nuclear Regulatory Commission has issued the enclosed Amendment No. 23 to Facility Operating License No. DPR-79 to the Tennessee Valley Authority for the Sequoyah Nuclear Plant, Unit 2, located in Hamilton County, Tennessee. Amendment No. changes the license conditions related to post accident sampling, additional accident monitoring instrumentation, instruments for inadequate core cooling, and upgrade of emergency support facilities. The amendment is in response to your letter dated June 16, 1983.

A copy of the related safety evaluation supporting Amendment No. 23 is enclosed.

Sincerely,

/s/

Elinor G. Adensam, Chief
Licensing Branch No. 4
Division of Licensing

Enclosures:
1. Amendment No. 23 to DPR-79
2. Safety Evaluation

cc w/enclosures:
See next page

OFFICE	LA:DL:LB.#4	DL:LB.#4	DL:LB.#4				
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DATE	9/16/83	9/16/83	9/28/83				

SEQUOYAH

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TENNESSEE VALLEY AUTHORITY

DOCKET NO. 50-328

SEQUOYAH NUCLEAR PLANT, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 23
License No. DPR-79

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment to the Sequoyah Nuclear Plant, Unit 2 (the facility) Facility Operating License No. DPR-79 filed by the Tennessee Valley Authority (licensee), dated June 16, 1983, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's regulations as set forth in 10 CFR Chapter I;

   B. The facility will operate in conformity with the license, as amended, 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, Facility Operating License DPR-79 is hereby amended as follows:

   A. Change paragraph 2.C.(16)g. to read as follows:

      g. Post Accident Sampling (Section 22.2, II.B.3)

      At the first outage of sufficient duration, but no later than startup following the second refueling outage, TVA shall complete corrective actions needed to provide the capability to promptly obtain and perform radioisotopic and chemical analyses of reactor coolant and containment atmosphere samples ~~under degraded core conditions with excessive exposure.~~

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B. Change paragraph 2.C.(16)l.(2) to read as follows:

(2) At the first outage of sufficient duration, but no later than startup following the first refueling outage, TVA shall install the following qualified monitoring instrumentation:

(a) Containment high range radiation monitor.
(b) Containment pressure monitor.
(c) Containment water level monitor.
(d) Containment hydrogen monitor.

C. Add paragraph 2.C.(16)l.(3) to read as follows:

(3) At the first outage of sufficient duration, but no later than startup following the second refueling outage, TVA shall install a qualified integrated monitoring assembly which will accomplish particulate, iodine and noble gas monitoring.

D. Change paragraph 2.C.(16)m.(2) to read as follows:

(2) At the first outage of sufficient duration, but no later than startup following the second refueling outage, TVA shall install reactor vessel water level instrumentation which meets NRC requirements.

E. Change paragraph 2.C.(16)q.(1) to read as follows:

(1) At the first outage of sufficient duration, but no later than startup following the second refueling outage, TVA shall update the Technical Support Facilities to meet NRC requirements.

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

FOR THE NUCLEAR REGULATORY COMMISSION

/s/

Darrell G. Eisenhut, Director
Division of Licensing
Office of Nuclear Reactor Regulation

Date of Issuance: September 30, 1983

Immediately before issuance check for Petitions or Comments. If any come back to OELD

LA:DL:LB #4 MDuncan/hmc 9/ /83
DL:LB #4 CStahle 9/ /83

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DATE	9/2?/83	9/16/83	9/ /83	9/ /83	9/ /83	9/ /83	9/30/83

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 23 TO FACILITY OPERATING LICENSE DPR-79

TENNESSEE VALLEY AUTHORITY

INTRODUCTION

On June 16, 1983, TVA requested changes to the operating license for Sequoyah Unit 2 as a result of their review of the work activities scheduled for the forthcoming Unit 2 cycle 1 refueling outage. The licensee had previously notified the NRC on April 14, 1983, of their intent to submit a request to defer four of the items that were scheduled to be completed during the refueling and maintenance outage. The items delayed for approximately 12 months (second refueling outage) are the post accident sampling system; the integrated particulate, iodine and noble gas monitor; reactor vessel water level; and complete upgrading of the Technical Support Center.

EVALUATION

An integrated schedule of all activities at Sequoyah Unit 2 was reviewed to assess (1) prioritization of work activities according to safety significance; (2) status of design information, availability of materials and procurement actions for NRC license items; and (3) establishment of management limitations on manpower levels. It was concluded that the four items cannot be completed within the planned 74 day outage for refueling and maintenance, and maintain a high degree of quality of the other scheduled work as well as the appropriate level of safety for Unit 1 which will be operating during the Unit 2 outage. The manpower levels during the outage period were reviewed to assure that maximum trades and labor personnel limits had been properly established and priorities of the work to be completed were consistent with the overall requirements for safe operation. Extending the outage was considered as an alternative to adding more resources to complete the four items within the planned outage. The completion of the items would add an additional 9 weeks to the current outage period which is considered unnecessary. Compensatory measures have been taken, as described below, such that the delay of approximately 12 months (second reload on Unit 2) involves no significant hazards considerations. The items are:

(a) A post accident sampling system is required that has the capability to promptly obtain and perform radioisotopic and chemical analysis of reactor coolant and containment atmosphere without excessive exposure to plant personnel. During this period for completing system modifications and equipment installation, sampling stations and interim procedures have been established to provide an acceptable level of primary coolant system activity measurements in the unlikely event a degraded core condition should occur.

(b) Additional instrumentation is required that will accomplish particulate, iodine and noble gas monitoring inside containment during the course of an accident. Procurement of high range monitors for in-containment usage delayed the completion of the system design with the effect of delaying installation of equipment by the end of the current outage period. Interim acceptable measures are in effect whereby out-of-containment monitors are utilized to provide an adequate correlation of the outside containment radiation readings with in-containment radiation levels that are possible during the course of an accident.

(c) Additional instrumentation or controls are required to supplement existing instrumentation in order to provide unambiguous, easy-to-interpret indication of inadequate core cooling. A reactor vessel level indicator needs to be installed. The reactor vessel level indicator and its associated instrumentation is part of the inadequate core cooling detection system that is being developed as a generic effort through the Westinghouse owners' group. An important aspect of this item is the emergency procedure for the utilization of the system and the training of operators. Procedures and training are expected to be completed at the time of the installation of the Sequoyah reactor vessel level indicator. Additional procedures are needed for Sequoyah since this plant has an upper head injection system which does not exist for most Westinghouse plants. Important elements of the inadequate core cooling detection system are already installed and operational which provide a satisfactory level of detection for the interim period. These are the primary coolant saturation monitors and the backup displays of the incore thermocouple temperature readouts up to the high temperatures that could occur during an accident.

(d) Upgrading the emergency support facilities is required in order to fully comply with guidelines established by the NRC. The Technical Support Center (TSC) is operational and it has the same habitability requirements as the main control room with adequate communications and data input for handling emergency situations. Due to procurement delays related to the Safety Parameter Display System, it has not been installed in the main control room. Therefore, the TSC will not receive this type of improved data input until the installation of the system is complete. The TSC facilities continue to be adequate for full power operations.

ENVIRONMENTAL CONSIDERATION

We have determined that the amendment does not authorize a change in effluent types or total amounts nor an increase in power level and will not result in any significant environmental impact. Having made this determination, we have further con-

cluded that the amendment involves an action which is insignificant from the standpoint of environmental impact and, pursuant to 10 CFR §51.5(d)(4), that an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with the issuance of this amendment.

CONCLUSION

The Commission made a proposed determination that the amendment involves no significant hazards consideration (SHC) which was published in the Federal Register (48 FR 36930) on August 15, 1983, and consulted with the state of Tennessee. No public comments were received and the state of Tennessee did not have any comments.

We have 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, and (2) such activities will be conducted in compliance with the Commission's regulations and the issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public.

Dated: September 30, 1983

Principal Contributor: C. Stahle, Licensing Branch No. 4, DL

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SURNAME							
DATE							

September 30, 1983

AMENDMENT NO. 23 TO FACILITY OPERATING LICENSE DPR-79 - SEQUOYAH UNIT 2

DISTRIBUTION w/enclosures:

Docket No. 50-328
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