ACCULATION BUCKET FILL COPY

DISTRIBUTION:

Docket File (50-327)

NRC PDR

Local PDR

LB #2 File

NRR Reading

H. Denton/E. Case

Attorney, OELD - E. Reis

D. Eisenhut

R. Purple

R. Tedesco

C. Stahle

M. Services

H. Berkow/W. Russell

L. Cobb IE (5)

D. Biddle, MPA

B. Jones, (4)

R. Diggs, ADM

R. Mattson

S. Hanauer

B. Scharf, ADM (10)

R. Vollmer

D. Ross

B. Grimes

W. Pasciak

C. Miles, PA

C. Gaskin, NMSS

M. Virgilio

A. Schwencer

BCC: NSIC

TERA

ASLBP

ASLAB

ACRS (16)

HARRI ALL ASY

September/7 1980

Docket No: 50-327

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

Dear Mr. Parris:

SEQUOYAH NUCLEAR PLANT, UNIT 1 - ISSUANCE OF FACILITY OPERATING SUBJECT:

LICENSE DPR-77

The Nuclear Regulatory Commission has issued the enclosed Facility Operating License DPR-77 to the Tennessee Valley Authority for the Sequoyah Nuclear Plant, Unit 1, located in Hamilton County, Tennessee. License No. DPR-77 authorizes operation of the Sequoyah Nuclear Plant, Unit 1 at 100 percent power (3411 megawatts thermal) upon completion of certain related construction items.

Also enclosed is a copy of a related Federal Register notice which has been forwarded to the Office of the Federal Register for publication.

We are also enclosing a copy of our report "Discussion of the Environmental Effects of the Uranium Fuel Cycle", dated September 1980.

Sincerely.

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

Enclosures:

1. Facility Operating License No. DPR-77

2. Federal Register Notice

Discussion of the Environmental Effects (see supp. 3 to SER for #3) of the Uranium Fuel Cycle 🔄

cc w/enclosures: See next page

801024059

LB2SURNAME MSER

LB-2 CStahle. 9/4/80

EReiss. W

Tennessee Valley Authority

ccs:
Herbert S. Sanger, Jr. Esq.
General Counsel
Tennessee Valley Authority
400 Commerce Avenue
E 11B 33
Knoxville, Tennessee 37902

Mr. E. G. Beasley Tennessee Valley Authority W10Cl31 C 400 Commerce Avenue Knoxville, Tennessee 37902

Mr. Michael Harding Westinghouse Electric Corporation P. O. Box 355 Pittsburgh, Pennsylvania 15230

Mr. David Lambert Tennessee Valley Authority 400 Chestnut Street Tower II Chattanooga, Tennessee 37401

Director Office of Urban & Federal Affairs 108 Parkway Towers 404 James Robertson Way Nashville, Tennessee 37219

The Honorable Don Moore, Jr. County Judge Hamilton County Courthouse Chattanooga, Tennessee 37201

U.S. Environmental Protection Agency ATTN: EIS Coordinator Region IV Office 345 Courtland St., N. E. Atlanta, Georgia 30308

Attorney General Supreme Court Building Nashville, Tennessee 37219

U.S. Environmental Protection Agency Attn: Ms. F. Munter Office of Federal Activities Room W-535, Waterside Mall 401 M Street, S. W. Washington, D. C. 20460 Mr. Bruce Blanchard
Environmental Projects Review
Department of the Interior
Room 4256
18th and C Street, N. W.
Washington, D. C. 20240

Defense Mapping Agency Aerospace Center St. Louis Air Force Station Missouri 63118

Federal Energy Regulatory Commission 825 North Capital Street, N. E. Washington, D. C. 20426

Chairman
Tennessee Public Service Commission
C1-102 Cordell Hull Building
Nashville, Tennessee 37219

Mr. J. F. Cox Tennessee Valley Authority 400 Commerce Avenue, W10C131C Knoxville, Tennessee 37902

Resident Inspector/Sequoyah NPS c/o U. S. Nuclear Regulatory Commission P. O. Box 699 Hixson, Tennessee 37343

TENNESSEE VALLEY AUTHORITY

DOCKET NO. 50-327

SEQUOYAH NUCLEAR PLANT, UNIT 1

FACILITY OPERATING LICENSE

License No. DPR-77

- 1. The Nuclear Regulatory Commission (the Commission) having found that:
 - A. The application for licenses filed by the Tennessee Valley Authority complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's regulations set forth in 10 CFR Chapter I, and all required notifications to other agencies or bodies have been duly made;
 - B. Construction of the Sequoyah Nuclear Plant, Unit 1 (the facility), has been substantially completed in conformity with Provisional Construction Permit No. CPPR-72 and the application, as amended, the provisions of the Act and the regulations of the Commission;
 - C. The facility will operate in conformity with the application, as amended, the provisions of the Act, and the regulations of the Commission;
 - D. There is reasonable assurance: (i) that the activities authorized by this operating license can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the regulations of the Commission set forth in 10 CFR Chapter I;
 - E. The Tennessee Valley Authority is technically and financially qualified to engage in the activities authorized by this operating license in accordance with the Commission's regulations set forth in 10 CFR Chapter I;
 - F. The Tennessee Valley Authority has satisfied the applicable provisions of 10 CFR Part 140, "Financial Protection Requirements and Indemnity Agreements", of the Commission's regulations;
 - G. The issuance of this license will not be inimical to the common defense and security or to the health and safety of the public;

OFFICE LB-2 LB-2 OELD SAME DOL NRB)

SURNAME STRINGE ASchwencer EReiss 160 RTedesco DESCRIPTION HOPETON

DATE 9/4/80 9/5/80 9/17/80 9/1/80 9/1/80

- H. After weighing the environmental, economic, technical, and other benefits of the facility against environmental and other costs and considering available alternatives, the issuance of Facility Operating License No. DPR-77, subject to the conditions for protection of the environment set forth herein, is in accordance with 10 CFR Part 50, Appendix D, of the Commission's regulations and all applicable requirements have been satisfied; and
- I. The receipt, possession, and use of source, byproduct and special nuclear material as authorized by this license will be in accordance with the Commission's regulations in 10 CFR Parts 30, 40 and 70.
- 2. Pursuant to approval by the Nuclear Regulatory Commission at a meeting on September 16, 1980, the License for Fuel Loading and Low Power Testing issued on February 29, 1980, is superseded by Facility Operating License No. DPR-77 hereby issued to the Tennessee Valley Authority to read as follows:
 - A. This license applies to the Sequoyah Nuclear Plant, Unit 1, a pressurized water nuclear reactor and associated equipment (the facility), owned by the Tennessee Valley Authority. The facility is located in Hamilton County, Tennessee, about 9.5 miles northeast of Chattanooga, and is described in TVA's Final Safety Analysis Report as supplemented and amended, and the Final Environmental Statement prepared by the Tennessee Valley Authority.
 - B. Subject to the conditions and requirements incorporated herein, the Commission hereby licenses the Tennessee Valley Authority:
 - (1) Pursuant to Section 104(b) of the Act and 10 CFR Part 50, "Licensing of Production and Utilization Facilities", to possess, use, and operate the facility at the designated location in Hamilton County, Tennessee, in accordance with the procedures and limitations set forth in this license,
 - (2) Pursuant to the Act and 10 CFR Part 70, to receive, possess and use at any time special nuclear material as reactor fuel, in accordance with the limitations for storage and amounts required for reactor operation, as described in the Final Safety Analysis Report, as supplemented and amended;
 - (3) Pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess, and use at any time any byproduct, source and special nuclear material as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;

- (4) Pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess, and use in amounts as required any byproduct, source or special nuclear material without restriction to chemical or physical form, for sample analysis or instrument calibration or associated with radioactive apparatus or components; and
- (5) Pursuant to the Act and 10 CFR Parts 30, 40 and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility.
- C. This license shall be deemed to contain and is subject to the conditions specified in the Commission's regulations set forth in 10 CFR Chapter I and is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:

(1) Maximum Power Level

The Tennessee Valley Authority is authorized to operate the facility at reactor core power levels not in excess of 3411 megawatts thermal.

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B attached hereto are hereby incorporated in this license. The Tennessee Valley Authority shall operate the facility in accordance with the Technical Specifications.

(3) Initial Test Program

The Tennessee Valley Authority shall conduct the post-fuel-loading initial test program (set forth in Section 14 of Tennessee Valley Authority's Final Safety Analysis Report, as amended), without making any major modifications of this program unless modifications have been identified and have received prior NRC approval. Major modifications are defined as:

- a. Elimination of any test identified in Section 14 of TVA's Final Safety Analysis Report as amended as being essential;
- b. Modification of test objectives, methods or acceptance criteria for any test identified in Section 14 of TVA's Final Safety Analysis Report as amended as being essential;
- Performance of any test at a power level different from there described; and

	T			I The second sec	
_					
OFFICE	\$'a.a.a.a.a.a.a.				 · · · · · · · · · · · · · · · · · · ·
		ı	,		
SURNAME					
. DATE	 		· · · · · · · · · · · · · · · · · · ·		
	L				

d. Failure to complete any tests included in the described program (planned or scheduled for power levels up to the authorized power level).

(4) Essential Raw Cooling Water (ERCW) Intake Protection (Section 2.2)*

TVA shall provide analyses on the vulnerability of the ERCW intake structure by January 1, 1981. These analyses shall include the probability of a collision by a barge at full speed from any credible direction, including a tow proceeding in the upstream direction, and the ability of the ERCW intake to withstand such collisions, including those by barges carrying flammable cargoes (including liquid natural gas (LNG)). Operation of the new ERCW intake for Unit 2 is not permitted until this matter is resolved.

(5) Onsite Meteorological Measurements Program (Section 2.3.3)

TVA shall be required to make any design modifications that the staff may deem necessary to meet the requirements of NUREG-0654, Appendix 2 and Criterion 4 of Section 2.3.3.

(6) Seismic Design Margin (Section 2.5)

No later than March 1, 1982, TVA shall provide the results of their seismic design margin review conducted in accordance with an NRC approved seismic design margin review program for this facility.

(7) Monitoring Settlement Markers (Section 2.6.3)

Prior to January 1, 1981, TVA shall report to the NRC on their continuing monitoring of settlement markers along the ERCW conduit for the new intake structure. The magnitude of the settlement must be determined and this matter resolved to NRC's satisfaction prior to using the new ERCW for Unit 2.

(8) Low Pressure Turbine Disc Inspection (Section 3.5.1)

Prior to start-up after the second refueling outage, TVA shall reinspect the low pressure turbine discs for cracks to assure that turbine integrity will not be jeopardized. A report shall be submitted to the NRC staff 30 days after the inspection is completed.

*Referenced sections in these conditions refer to appropriate sections in the Safety Evaluation Report (NUREG-0011) and its supplements on this facility.

OFFICE		 	
SURNAME	 	 	
DATE		 	 .

(9) Steam Generator Inspection (Section 5.3.1)

- (a) Prior to March 1, 1981, TVA shall provide to the NRC the results of its tests to determine the feasibility of using a steam generator camera device;
- (b) Prior to start-up after the first refueling, TVA must install inspection ports in each steam generator if the results of the camera device inspection are not satisfactory to the NRC;
- (c) Prior to start-up after the first refueling, TVA will plug Row 1 of the steam generator tubes, if required by NRC.

(10) Water Chemistry Control Program (Section 5.3.2)

Prior to exceeding five percent power, TVA shall incorporate the following provisions into the secondary water chemistry control program:

- 1. The Hotwell pump discharge sample point along with continuous cation conductivity monitoring will be used as the control point for confirming a condenser leak and for initiating corrective action to locate and repair the leak.
- 2. Impurity-time operating limits for feedwater should be incorporated into the water chemistry program. The limits use feedwater pH and cation conductivity impurity-time limit values the same as used for steam generator blowdown limits.
- (11) Negative Pressure in the Auxiliary Building Secondary Containment Enclosure (ABSCE) (Section 6.2.3)

After the final ABSCE configuration is determined, TVA must demonstrate to the satisfaction of the NRC that a negative pressure of 0.25 inches of water gauge can be maintained in the spent fuel storage area and in the ESF pump room.

(12) Environmental Qualification (Section 7.2.2)

(a) No later than November 1, 1980, TVA shall submit information to show compliance with the requirements of NUREG-0588, "Interim Staff Position on Environmental Qualification of Safety-Related Electrical Equipment," for safety-related equipment exposed to a harsh environment. Implementation shall be in accordance with NUREG-0588 by June 30, 1982.

OFFICE	 		 	
SURNAME	 • • • • • • • • • • • • • • • • • • •		 	
DATE	 		 	
		l	 	

- (b) By no later than December 1, 1980, complete and auditable records must be available and maintained at a central location which describe the environmental qualification method used for all safety-related electrical equipment in sufficient detail to document the degree of compliance with the DOR Guidelines or NUREG-0588. Thereafter, such records should be updated and maintained current as equipment is replaced, further tested, or otherwise further qualified to document complete compliance by June 30, 1982.
- (13) Loss of Non-Class IE Instrumentation and Control Room System Bus During Operation (Section 7.10)

Prior to exceeding five percent power, TVA must complete revisions to plant emergency procedures to the satisfaction of the NRC.

(14) Engineering Safety Feature (ESF) Reset Controls (Section 7.11)

In conformance with IE Bulletin 80-06, TVA shall test the system to identify any further areas of concern, and TVA shall review the control schemes to determine that they are the best in terms of equipment control and plant safety. The results of these test and review efforts shall be provided to the NRC in accordance with the bulletin.

(15) Diesel Generator Reliability (Section 8.3.1)

Prior to operation following the first refueling, TVA shall implement the following design and procedure modifications as outlined in Section 8.3.1 of SER Supplement No. 2. These include: (a) Moisture in Air Starting System; (b) Turbocharger Gear Drive Problem; and, (c) Personnel Training.

(16) Fire Protection System (Section 9.5)

TVA, to the satisfaction of the NRC, shall:

- (a) Prior to June 1981, submit the following 3 items which deal with the Essential Raw Cooling Water (ERCW) supply: (a) enclose the necessary exposed conduit with 1 1/2-hour fire barrier; (b) reroute train B ERCW pump cables and ERCW transformer power cables to obtain a minimum 20-foot separation from train A; and, (c) enclose the ERCW junction box with 1-1/2hour fire barrier;
- (b) Prior to November 1, 1980, (1) install five fire dampers; and,(2) replace and relocate sprinkler heads in the auxiliary building.

		 			, ,
		•			
OFFICE	4	 			
		İ			
SURNAME		 <i></i>			
	1				
. DATE		 . <i></i>	<i></i>		
				L	L

(17) Accident Analysis (Steam and Feedwater Line Breaks) (Section 15.2)

If requested, TVA shall provide plant specific inputs to NRC for an independent audit of steam and feedwater line break analyses. TVA shall implement any modifications that may become necessary as a result of these analyses or audit.

- (18) Requirements For Modification To Or Addition Of Instrumentation
 And Controls
 - (a) Within 18 months after issuance of this license, instrument downscale failure alarms shall be installed for the effluent monitoring instrumentation channels for radioactive gaseous and radioactive liquid effluents. Also, appropriate modifications to procedures and Technical Specifications 3.3.3.9 and 3.3.3.10 shall have been completed.
 - (b) Within six months from issuance of this license, TVA shall submit for NRC review the basis for the values for each Reactor Protection System and Engineered Safety Feature instrumentation channel including:
 - (1) Technical Specification trip setpoint value;
 - (2) Technical Specification allowable value (the Technical Specification trip setpoint plus the instrument drift assumed in the accident analysis);
 - (3) The instrument drift assumed to occur during the interval between Technical Specification surveillance tests:
 - (4) The components of the cumulative instrument bias; and
 - (5) The minimum margin between the Technical Specification trip setpoint, the allowable value, and the trip value assumed in the accident analysis.
 - (c) Prior to startup after the first refueling, TVA shall have installed, demonstrated operable, proposed appropriate Technical Specifications, and received NRC approval for an additional level of over/undervoltage protection acceptable to the NRC staff. The level of protection from the effects of power transients on safety-related equipment provided by Part I of the staff's "Degraded Grid Voltage Position", or equivalent, is required.

(19) Mechanical Snubbers

Within 12 months after the issuance of the license, TVA shall provide a Technical Specification listing of mechanical snubbers. In the interim, TVA will conduct a comprehensive mechanical snubber inspection program implemented by plant instructions.

(20) Low Temperature Overpressure Protection (Section 5.2.2)

Prior to startup after the first refueling, TVA shall install an overpressure mitigation system which meets NRC requirements.

(21) Control Rod Guide Thimble (Section 4.2)

Prior to startup after first refueling, TVA shall submit the details of the inspection program for control rod guide thimble tube wall wear for NRC approval.

(22) TMI Action Plan Full Power Conditions

Each of the following conditions shall be completed to the satisfaction of the NRC by the times indicated:

A. Safety Engineering Group (Section 22.2.I.B.1.2)

Prior to exceeding five percent power, TVA is required to have an onsite Safety Engineering Group. NRC will verify the adequacy of the Safety Engineering Group and its independence.

B. Short-Term Accident Analysis and Procedure Revision (Section 22.2.1.C.1)

Within thirty effective full-power days, TVA shall revise Emergency Operating Procedures and brief the operators on the revision.

C. Control Room Design (Section 22.2.I.D.1)

Prior to start-up after first refueling, TVA shall complete the detailed Control Room Design Review. As part of this review, TVA shall consider benefits of installing data recording and logging equipment in the control room to correct the deficiencies associated with the trending of important parameters on strip chart recorders used in the control room.

D. Hydrogen Control Measures (Section 22.2.II.B.7)

- (1) By January 31, 1981, TVA shall by testing and analysis show to the satisfaction of the NRC staff that an interim hydrogen control system will provide with reasonable assurance protection against breach of containment in the event that a substantial quantity of hydrogen is generated.
- (2) For operation of the facility beyond January 31, 1982, the Commission must confirm that an adequate hydrogen control system for the plant is installed and will perform its intended function in a manner that provides adequate safety margins.
- (3) During the interim period of operation, TVA shall continue a research program on hydrogen control measures and the effects of hydrogen burns on safety functions and shall submit to the NRC quarterly reports on that research program.

E. Auxiliary Feedwater (Section 22.2.II.E.1.1)

Prior to exceeding five percent power, auxiliary feedwater pump endurance tests will be completed and a report will be submitted to NRC within 30 days after all tests are completed.

F. Radiation Monitors (Section 22.2.II.E.4.2)

Prior to May 1981, TVA will install Radiation Monitors for isolation of fluid lines that carry potential radioactivity outside of containment.

G. Emergency Preparedness Plan (Section 22.2.III.A.1.1 And Appendix E)

- (a) TVA shall maintain in effect an emergency plan that meets the regulatory requirement of 10 CFR Part 50, Appendix E, and the operator Planning Objectives of NUREG-0654, "Criteria for Preparation and Evaluation of Radiological Preparedness in Support of Nuclear Power Plants," January 1980.
- (b) No later than 90 days from the date of issuance of this license, TVA shall report to the NRC the status of any items related to emergency preparedness identified by FEMA or the NRC as requiring further action.

			•	
OFFICE	:·	 	 	
			1	
SURNAME		 	 	
·				
. DATE		 	 	

(23) TMI Action Plan Dated Conditions

Each of the following conditions shall be completed to the satisfaction of the NRC by the times indicated:

A. Shift Technical Advisor (Section 22.3, I.A.1.1)

TVA shall continue to provide an on-shift technical advisor to the shift supervisor.

All STAs shall be fully trained no later than by January 1, 1981. STAs shall complete eight weeks of mathematics, physics, thermodynamics, fluid flow, heat transfer, instrumentation and control, chemistry, materials and structural analysis. Following this, STAs shall receive two weeks of design review and five weeks of systems dynamic behavior including transient analysis and techniques for transient identification. The training program for engineers designated as STAs shall consist of three portions: academic training in thermodynamics, fluid flow, heat transfer and reactor theory; specific instruction in plant systems and Technical Specifications; and finally, simulator training.

The training shall be taught at the college level and be equivalent to about 60 semester hours.

Items for completion by January 1, 1981:

B. Plant Shielding (Section 22.3, II.B.2)

TVA shall complete modification to assure adequate access to vital areas and protection of safety equipment following an accident resulting in a degraded core.

C. Auxiliary Feedwater Initiation and Indication (Section 22.3, II.E.1.2)

- (a) TVA shall upgrade, as necessary, automatic initiation of the auxiliary feedwater system to safety-grade quality.
- (b) TVA shall upgrade, as necessary, the indication of auxiliary feedwater flow to each steam generator to safety grade quality.

OFFICE	\$'a	 	 	
SURNAME		 	 	
DATE				
DATE		 		

D. Additional Accident Monitoring Instrumentation (Section 22.3.II.F.1)

TVA shall install continuous indication in the control room of the following parameter:

 Containment pressure from minus 0.5 psig to three times the design pressure of concrete containments and four times the design pressure of steel containments.

Items for completion by January 1, 1982:

E. Reactor Coolant System Vents (Section 22.3, II.B.1)

TVA shall install reactor coolant system and reactor vessel head highpoint vents that are remotely operable from the control room.

F. Post Accident Sampling (Section 22.3, II.B.3)

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 without excessive exposure.

G. Additional Accident Monitoring Instrumentation (Section 22.3, II.F.1)

TVA shall install continuous indication in the control room of the following parameters:

- 1. Containment radiation monitors.
- 2. Noble gas effluent from each potential release point.
- H. Instruments for Inadequate Core Cooling (Section 22.3, II.F.2)

TVA shall install additional instruments or controls needed to supplement installed equipment in order to provide unambiguous, easy-to-interpret indication of inadequate core cooling.

In addition to the above dated items:

I. Upgrade Emergency Support Facilities (Section 22.3, II.A.1.2)

In accordance with the implementation schedule which the NRC will establish, TVA shall comply with the requirements of NUREG-0696, "Functional Criteria for Emergency Response Facilities."

		, ,			
OFFICE	a	 			
	•			 	
SURNAME		 			
DATE			 		
. DATE		 		1	

J. Pelief and Safety Valve Test Requirements (Section 22.3.II.D.1)

Prior to July 1, 1981, TVA shall complete tests to qualify the reactor coolant system relief and safety valves under expected operating conditions for design basis transients and accidents.

(24) Compliance with Regulatory Guide 1.97

No later than 90 days following issuance of the pending Revision 2 of Regulatory Guide 1.97, "Instrumentation for Light-Water-Cooled Nuclear Power Plants to Assess Plant Conditions During and Following an Accident", which was issued for public comment in December 1979, TVA shall provide a schedule acceptable to the NRC for bringing this facility in compliance with Regulatory Guide 1.97, as revised.

- D. Exemptions from certain requirements of Appendices G and J to 10 CFR Part 50 are described in the Office of Nuclear Reactor Regulation's Safety Evaluation Report, Supplement No. 1. These exemptions are authorized by law and will not endanger life or property or the common defense and security and are otherwise in the public interest. The exemptions are, therefore, hereby granted. The granting of these exemptions was authorized with the issuance of the License for Fuel Loading and Low Power Testing, dated February 29, 1980. The facility will operate, to the extent authorized herein, in conformity with the application, as amended, the provisions of the Act, and the regulations of the Commission.
- E. The Tennessee Valley Authority shall maintain and fully implement the physical security plan entitled "Physical Security Plan for the Sequoyah Nuclear Plant" dated August 25, 1978, as revised on April 2, 1979, June 29, 1979, September 19, 1979, and as amended in accordance with the provisions of 10 CFR §50.54(p).

In addition to all other commitments contained in the physical security plan, all keys, locks, combinations, and related equipment used to control access to protected and vital areas shall be controlled to reduce the probability of compromise. Whenever there is evidence that any key, lock combination, or related equipment may have been compromised it shall be changed. Upon termination of employement of any employee, keys, locks, combinations, and related equipment to which that employee had access, shall be changed.

F. This license is subject to the following additional condition for the protection of the environment:

Before engaging in additional construction or operational activities which may result in an environmental impact that was not evaluated by the Commission, Tennessee Valley Authority will prepare and record

				-
OFFICE	a'a	 ,	 	
[1			4	,
SURNAME		 	 	
. DATE		 	 	

an environmental evaluation of such activity. When the evaluation indicates that such activity may result in a significant adverse environmental impact that was not evaluated, or that is significantly greater than that evaluated in the Final Environmental Statement prepared by the Tennessee Valley Authority and the Environmental Impact Appraisal prepared by the Commission in May 1979, the Tennessee Valley Authority shall provide a written evaluation of such activities and obtain prior approval from the Director, Office of Nuclear Reactor Regulation.

- G. If TVA plans to remove or to make significant changes in the normal operation of equipment that controls the amount of radioactivity in effluents from the Sequoyah Nuclear Plant, the Commission shall be notified in writing regardless of whether the change affects the amount of radioactivity in the effluents.
- H. TVA shall report any violations of the requirements contained in Sections 2.C(3) through 2.C.(24), 2.E, 2.F and 2.G of this license within 24 hours by telephone and confirmed by telegram, mailgram, or facsimile transmission to the Director of the Regional Office, or his designate, no later than the first working day following the violation with a written followup report within 14 days.
- I. TVA shall immediately notify the Commission of any accident at this facility which could result in an unplanned release of quantities of fission products in excess of allowable limits for normal operation established by the Commission.
- J. TVA shall have and maintain financial protection of such type and in such amounts as the Commission shall require in accordance with Section 170 of the Atomic Energy Act of 1954, as amended, to cover public liability claims.
- K. This license is effective as of the date of issuance and shall expire May 27, 2010.

FOR THE NUCLEAR REGULATORY COMMISSION

Harold R. Denton, Director Office of Nuclear Reactor Regulation

Attachment:
Appendices A and B Technical Specifications

Date of Issuance: September 17, 1980

OFFICE		 			
<i>-</i>					
SURNAME		 			
			-		
DATE	l	 l			
			<u> </u>	L	

UNITED STATES NUCLEAR REGULATORY COMMISSION

DOCKET NO. 50-327

TENNESSEE VALLEY AUTHORITY

NOTICE OF ISSUANCE OF FACILITY OPERATING LICENSE

The U. S. Nuclear Regulatory Commission (the Commission) has issued Facility
Operating License No. DPR-77, to Tennessee Valley Authority (licensee) which authorizes
operation of the Sequoyah Nuclear Plant, Unit 1 (the facility) at reactor core power
levels not in excess of 3411 megawatts thermal (100 percent power) in accordance
with the provisions of the license and the Technical Specifications. Prior to power
operation at power levels exceeding 5 percent, certain related construction items
must be completed.

The Sequoyah Nuclear Plant, Unit 1 is a pressurized water nuclear reactor located at the licensee's site in Hamilton County, Tennessee, about 9.5 miles northeast of Chattanooga.

The application for the license complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's regulations. The Commission has made appropriate findings as required by the Act and the Commission's regulations in 10 CFR Chapter I, which are set forth in the license. Prior public notice of the overall action involving the proposed issuance of an operating license was published in the FEDERAL REGISTER on March 25, 1974 (39 FR 11131). The notice of issuance of license of February 29, 1980 for fuel loading and low power testing was published in the FEDERAL REGISTER on March 10, 1980 (45 FR 15349).

The Commission has determined that the issuance of this license will not result in any environmental impacts other than those evaluated in the Final Environmental Statement since the activity authorized by the license is encompassed by the overall action evaluated in the Final Environmental Statement.

		-			
OFFICE	**	80102	40 z 75	 ,	
SURNAME			7. T. D. 1. J	 	
DATE				 	

UNITED STATES NUCLEAR REGULATORY COMMISSION

DOCKET NO. 50-327

TENNESSEE VALLEY AUTHORITY

NOTICE OF ISSUANCE OF FACILITY OPERATING LICENSE

The U. S. Nuclear Regulatory Commission (the Commission) has issued Facility
Operating License No. DPR-77, to Tennessee Valley Authority (licensee) which authorizes
operation of the Sequoyah Nuclear Plant, Unit 1 (the facility) at reactor core power
levels not in excess of 3411 megawatts thermal (100 percent power) in accordance
with the provisions of the license and the Technical Specifications. Prior to power
operation at power levels exceeding 5 percent, certain related construction items
must be completed.

The Sequoyah Nuclear Plant, Unit 1 is a pressurized water nuclear reactor located at the licensee's site in Hamilton County, Tennessee, about 9.5 miles northeast of Chattanooga.

The application for the license complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's regulations. The Commission has made appropriate findings as required by the Act and the Commission's regulations in 10 CFR Chapter I, which are set forth in the license. Prior public notice of the overall action involving the proposed issuance of an operating license was issued in the FEDERAL REGISTER on March 25, 1974 (39 FR 11131), and the license of February 29, 1989 for fuel loading and low power testing.

The Commission has determined that the issuance of this license will not result in any environmental impacts other than those evaluated in the Final Environmental Statement since the activity authorized by the license is encompassed by the overall action evaluated in the Final Environmental Statement.

	٨						1	500	from W	sulpt	<u> </u>
OFFICE	LB-2	<u> </u>	LB-2	OELD 6		LB-2	10				
SURNAME	MSERVA	E	C S tahle	EReiss		Schwe	encer				
DATE	9/4/80		9/4/80	9/ /80	. 9	1/5/	80				

a sal

For further details with respect to this action, see (1) License for Fuel Load and Low Power Testing dated February 29, 1980 and amendments thereto; (2) Facility Operating License No. DPR-77, complete with Technical Specifications, and (3) the reports of the Advisory Committee on Reactor Safeguards dated December 11, 1979, July 15, 1980, and September 8, 1980; (4) Commission's Safety Evaluation Report (NUREG-0011) dated March 1979, Supplement No. 1 dated February 1980, Supplement No. 2 dated August, 1980, and Supplement 3 dated September 1980; (5) the Final Safety Analysis Report and amendments thereto; (6) the Final Environmental Statement prepared by Tennessee Valley Authority in July 1974; (7) the Commission's Environmental Impact Appraisal dated May 1979; (8) NRC Flood Plain Review of Sequoyah Nuclear Plant Site dated July 18, 1980; and (9) Discussion of the Environmental Effects of the Uranium Fuel Cycle dated September 1980.

These items are available for public inspection at the Commission's Public Document Room, 1717 H Street, N. W., Washington, D. C., and the Chattanooga Hamilton County Bicentennial Library, 1001 Broad Street, Chattanooga, Tennessee 37402. A copy of Facility Operating License No. DPR-77 may be obtained upon request addressed to the U. S. Nuclear Regulatory Commission, Washington, D. C. 20555, Attention: Director, Division of Licensing. A copy of item (4) may be purchased at current rates from the National Technical Information Service, Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161, and through the NRC GPO sales program by writing to U.S. Nuclear Regulatory Commission, Attention: Sales Manager, Washington, D. C. 20555. GPO deposit account holders can call 301-492-9530.

Dated at Bethesda, Maryland, this 17th day of September, 1980.

NRC FORM 318 (9-76) NRCM 0240

FOR THE NUCLEAR REGULATORY COMMISSION

	Division of Licensing									
OFFICE										
F 1			1		1					
DATE										

A. Schwencer, Chief