

## SAFEGUARDS INFORMATION

October 28, 2004

Mr. Karl W. Singer  
Chief Nuclear Officer and Executive Vice President  
Tennessee Valley Authority  
Sequoyah Nuclear Plant, Units 1 and 2  
6A Lookout Place  
1101 Market Street  
Chattanooga, TN 37402-2801

SUBJECT: SEQUOYAH NUCLEAR PLANT, UNITS 1 AND 2 - ADMINISTRATIVE CHANGE TO FACILITY OPERATING LICENSES IN CONJUNCTION WITH THE COMMISSION ORDER EA-03-086 REGARDING REVISED DESIGN BASIS THREAT (DBT); AND REVISIONS TO PHYSICAL SECURITY PLAN, TRAINING AND QUALIFICATION PLAN, AND SAFEGUARDS CONTINGENCY PLAN (TAC NO. MC2972, AND MC2973)

Dear Mr. Singer:

By letter dated April 29, 2004, Tennessee Valley Authority submitted a supplemental response in accordance with order EA-03-086, the order requiring compliance with the revised design basis threat," dated April 29, 2003, (DBT Order) for the Sequoyah Nuclear Plant, Units 1 and 2. Section III.A of the DBT Order required licensees to revise physical security plans (PSPs), training and qualification plans (T&Q Plans), and safeguards contingency plans (SCPs) to provide protection against the revised DBT set forth in Attachment 2 to the DBT Order. These revised plans, along with an implementation schedule, were required to be submitted to the Nuclear Regulatory Commission (NRC or the Commission) for review and approval no later than April 29, 2004.

The NRC staff's review of the Sequoyah Nuclear Plant, Units 1 and 2 PSP, SCP, T&Q Plan submitted in your letter dated April 29, 2004, as supplemented on dates of responses, has focused on ensuring the necessary programmatic elements are contained in these plans in order to provide high assurance that activities involving special nuclear material are not inimical to the common defense and security and do not constitute an unreasonable risk to the public health and safety.

**NOTICE: Enclosure 2 contains Safeguards Information. Upon separation from Enclosure 2, this letter and Enclosure 1 are DECONTROLLED.**

SAFEGUARDS INFORMATION

The NRC staff has determined that, subject to subsequent inspection and evaluation, these plans contain the necessary programmatic elements that, when effectively implemented, will provide the required high assurance that Sequoyah Nuclear Plant, Units 1 and 2 will be protected against the revised DBT. The NRC staff, therefore, approves the PSP, SCP, and T&Q Plan for Sequoyah Nuclear Plant, Units 1 and 2. However, ultimately the effectiveness of these plans will be judged on your ability to meet regulatory requirements through facility implementing procedures and site practices. As such your facility implementing procedures and practices will continue to be subject to future NRC review and inspection, including NRC-conducted force-on-force exercises.

In addition, the NRC staff noted that your PSP included alternatives to certain requirements of Title 10 of the *Code of Federal Regulations* (10 CFR) Section 73.55. In each case, the NRC staff found that the alternative measures provide an equivalent level of protection to that of the associated requirement and meet the high assurance objective of 10 CFR 73.55(a). The NRC staff, therefore, approves the alternatives shown in the table below. The NRC staff's evaluation is discussed further in the enclosed Safety Evaluation (SE).

Approved Alternatives to the Requirements of 10 CFR Part 73

<b>SE Section</b>	<b>PSP Section</b>	<b>Alternative to 10 CFR</b>	<b>Description</b>
3.6.2	6.2	73.55(c)(2)	Protected Area (PA)/Vital Area (VA) barrier separation barrier requirements
3.6.2	6.2	73.55(c)(3)	Isolation Zones
3.9.4.3	9.4.3	73.55(d)(4)	PA vehicle search requirements
3.9.4.4	9.4.4	73.55(d)(1)	PA personnel search requirements
3.9.5.2	9.5	73.55(d)(4)	PA access control requirements
3.10.1	10.1	73.55(c)(5)	PA illumination requirements
3.13.1	14.1	73.55(c)(1) 73.55(d)(7)(i)(B)	Temporary reclassification of VA to PA status (devitalization)

Finally, consistent with the DBT Order, conforming administrative changes to Facility Operating Licenses (FOLs) are required to ensure implementation of DBT Order requirements. Therefore, administrative license changes to FOL Nos. DPR-77 and DPR-79 are being made to incorporate the reference to the PSP, SCP, and T&Q Plan required by the DBT Order. These changes comply with the standards and requirements of the Atomic Energy Act of 1954, as amended, and the Commission's rules and regulations set forth in 10 CFR Chapter I.

Please replace the enclosed pages to your FOL as indicated in Enclosure 1.

Karl W. Singer

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A copy of our SE with regard to your security plans (designated as Safeguards Information) is provided in Enclosure 2.

Sincerely,

**/RA/**

John A. Nakoski, Chief  
Security Plan Review Team  
Project Directorate II  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Docket Nos. 50-327 and 50-328

Enclosures: 1. Administrative Change to FOL Nos. DPR-77 and DPR-79  
2. SE Regarding the Security Plans (**SAFEGUARDS INFORMATION**)

cc w/encl 1 only: See mailing list 1

cc w/encls 1 and 2: Ms. Joan E. McCullum, Site Security Manager (Watts Bar)

Karl W. Singer

- 3 -

A copy of our SE with regard to your security plans (designated as Safeguards Information) is provided in Enclosure 2.

Sincerely,

**/RA/**

John A. Nakoski, Chief  
Security Plan Review Team  
Project Directorate II  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Docket Nos. 50-327 and 50-328

- Enclosures:
1. Administrative Change to FOL Nos. DPR-77 and DPR-79
  2. SE Regarding the Security Plans (**SAFEGUARDS INFORMATION**)

cc w/encl 1 only: See mailing list 1

cc w/encls 1 and 2: Mr. James Traister, Site Security Manager (Sequoyah)

DISTRIBUTION (w/o Enclosure 2):

PUBLIC	SPRT R/F	OGC	ACRS	BClayton	BPascarelli
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OFFICE	SPRT/TL	SPRT/PM	SPRT/LA	SPRT/PL	OGC	NSIR/ SC	NRR/SC
NAME	Bmanili	DSpaulding		JPeralta		SMorris	JNakoski
DATE	10/27/04	10/27/04	10/27/04	10/27/04	10/27/04	10/28/04	10/28/04

OFFICIAL RECORD COPY

Tennessee Valley Authority:  
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County Mayor  
Hamilton County Courthouse  
Chattanooga, TN

County Mayor  
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Mr. T. J. Niessen, Acting General Manager  
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cc w/o encl.:

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TENNESSEE VALLEY AUTHORITY

DOCKET NO. 50-327

SEQUOYAH NUCLEAR PLANT, UNIT 1

ADMINISTRATIVE LICENSE CHANGE TO FACILITY OPERATING LICENSE

License No. DPR-77

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. Consistent with Order EA-03-086, the Order requiring compliance with revised design basis threat, (DBT Order) issued on April 29, 2003, conforming administrative changes to Facility Operating Licenses (FOLs) are required to ensure implementation of DBT Order requirements. Therefore, an administrative license change to FOL No. DPR-77 is being made to incorporate the reference to the revised Physical Security Plan, Safeguards Contingency Plan, and Training and Qualification Plan required by the DBT Order. These changes comply with the standards and requirements of the Atomic Energy Act (the Act) of 1954, as amended 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 administrative license change 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 administrative license change 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 administrative license change is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

Enclosure 1

2. Accordingly, the FOL is changed as indicated in the Attachment.
3. This administrative license change is effective as of its date of issuance and shall be implemented on or before October 29, 2004.

FOR THE NUCLEAR REGULATORY COMMISSION

*/RA/*

John A. Nakoski, Chief  
Security Plan Review Team  
Project Directorate II  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Attachment: Changes to the FOL

Date of Issuance: October 28, 2004

CHANGES TO FACILITY OPERATING LICENSE NO. DPR-77

DOCKET NO. 50-327

Replace the following page of the Facility Operating License DPR-77 with the attached revised page as indicated. The revised page is identified by a revision date and contains marginal lines indicating the area of change.

Remove Page

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Insert Page

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- (2) TVA shall maintain interim emergency support facilities (Technical Support Center, Operations Support Center and the Emergency Operations Facility) until the final facilities are complete.

J. Relief and Safety Valve Test Recluirements (Section 22.2, II.D.1)

TVA shall conform to the results of the EPRI test program. TVA shall provide documentation for qualifying (a) reactor coolant system relief and safety valves, (b) piping and supports, and (c) block valves in accordance with the review schedule given in SECY 81-491 as approved by the Commission.

(24) Compliance with Regulatory Guide 1.97

TVA shall implement modifications necessary to comply with Revision 2 of Regulatory Guide 1.97, "Instrumentation for Light Water Cooled Nuclear Power Plants to Assess Plant Conditions During and Following An Accident," dated December 1980 by startup from the Unit 2 Cycle 4 refueling outage.

(25) Mixed Core DNBR Penalty

TVA will obtain NRC approval prior to startup for any cycle's core that involves a reduction in the departure from nucleate boiling ratio initial transition core penalty below that value stated in TVA's submittal on Framatome fuel conversion dated April 6, 1997.

(26) Control Room Air-Conditioning System Maintenance

TVA commits to the use of a portable chiller package and air-handling unit to provide alternate cooling if both trains of the control room air condition system become inoperable during the maintenance activities to upgrade the compressors and controls or immediately enter Technical Specification 3.0.3.

- 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, Supplements 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 are 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, Act, and the regulations of the Commission. Additional exemptions are listed in Attachment 1.

E. Physical Protection

The licensee shall fully implement and maintain in effect all provisions of the Commission-approved physical security, training and qualification, and safeguards contingency plans including amendments made pursuant to provisions of the Miscellaneous Amendments and Search Requirements revisions to 10 CFR 73.55 (51 FR 27817 and 27822) and to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The combined set of plans, which contain Safeguards Information protected under 10 CFR 73.21, is entitled: "Sequoyah Nuclear Plant Security Plan, Training And Qualification Plan, And Safeguards Contingency Plan" submitted by letter dated September 10, 2004, and supplemented on October 14, 2004, and October 22, 2004.

TENNESSEE VALLEY AUTHORITY

DOCKET NO. 50-328

SEQUOYAH NUCLEAR PLANT, UNIT 1

ADMINISTRATIVE LICENSE CHANGE TO FACILITY OPERATING LICENSE

License No. DPR-79

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. Consistent with Order EA-03-086, the Order requiring compliance with revised design basis threat, (DBT Order) issued on April 29, 2003, conforming administrative changes to Facility Operating Licenses (FOLs) are required to ensure implementation of DBT Order requirements. Therefore, an administrative license change to FOL No. DPR-79 is being made to incorporate the reference to the revised Physical Security Plan, Safeguards Contingency Plan, and Training and Qualification Plan required by the DBT Order. These changes comply with the standards and requirements of the Atomic Energy Act (the Act) of 1954, as amended 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 administrative license change 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 administrative license change 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 administrative license change is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

Enclosure 1

2. Accordingly, the FOL is changed as indicated in the Attachment.
3. This administrative license change is effective as of its date of issuance and shall be implemented on or before October 29, 2004.

FOR THE NUCLEAR REGULATORY COMMISSION

*/RA/*

John A. Nakoski, Chief  
Security Plan Review Team  
Project Directorate II  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Attachment: Changes to the FOL

Date of Issuance: October 28, 2004 Revised by letter dated October 28, 2004

CHANGES TO FACILITY OPERATING LICENSE NO. DPR-79

DOCKET NO. 50-328

Replace the following pages of the Facility Operating License DPR-79 with the attached revised pages as indicated. The revised pages are identified by a revision date and contains marginal lines indicating the area of change.

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s. Primary Coolant Outside Containment (Section 22.2, III.D.1.1)

Prior to exceeding 5 percent power level, TVA is required to complete the leak tests on Unit 2, and results are to be submitted within 30 days from the completion of the testing.

(17) Surveillance Interval Extension

The performance interval for the 36-month surveillance requirements in TS 4.3.2.1.3 shall be extended to May 18, 1996, to coincide with the Cycle 7 refueling outage. The extended interval shall not exceed a total of 50 months for the 36-month surveillances.

(18) Mixed Core DNBR Penalty

TVA will obtain NRC approval prior to startup for any cycle's core that involves a reduction in the departure from nucleate boiling ratio initial transition core penalty below that value stated in TVA's submittal on Framatome fuel conversion dated April 6, 1997.

(19) Steam Generator Replacement Project

During the Unit 1 Cycle 12 refueling and steam generator replacement outage, lifts of heavy loads will be performed in accordance with Table 3.1 of NRC Safety Evaluation dated March 26, 2003.

(20) Control Room Air-Conditioning System Maintenance

TVA commits to the use of a portable chiller package and air-handling unit to provide alternate cooling if both trains of the control room air condition system become inoperable during the maintenance activities to upgrade the compressors and controls or immediately enter Technical Specification 3.0.3.

- 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, Supplements No. 1 and No. 5. 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. Therefore, these exemptions are hereby granted. 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.

A temporary exemption from General Design Criterion 57 found in Appendix A to 10 CFR part 50 is described in the Office of Nuclear Reactor Regulation's Safety Evaluation Report, Supplement No. 5, Section 6.2.4. This exemption is authorized by law and will not endanger life or property or the common defense and security and is otherwise in the public interest. The exemption, therefore, is hereby granted and shall remain in effect through the first refueling outage as discussed in Section 6.2.4 of Supplement 5 to the Safety Evaluation Report. The granting of the exemption is authorized with the issuance of the Facility Operating License. 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. Additional Exemptions are listed in Attachment 2.

E. Physical Protection

The licensee shall fully implement and maintain in effect all provisions of the Commission-approved physical security, training and qualification, and safeguards contingency plans including amendments made pursuant to provisions of the Miscellaneous Amendments and Search Requirements revisions to 10 CFR 73.55 (51 FR 27817 and 27822) and to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The combined set of plans, which contain Safeguards Information protected under 10 CFR 73.21, is entitled: "Sequoyah Nuclear Plant Security Plan, Training And Qualification Plan, And Safeguards Contingency Plan" submitted by letter dated September 10, 2004, and supplemented on October 14, 2004, and October 22, 2004.

F. Reactor Safety Methodology Applications Programs (Section 24.0)

TVA will provide a report prepared by the Kaman Sciences Corporation (KSC) on a full scale nuclear safety and availability analysis within six months from the date of the KSC report.

G. This amended 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 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.

H. Deleted

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.