

November 20, 1990

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

Dear Mr. Kingsley:

SUBJECT: CORRECTIONS TO AMENDMENT NO. 141 (TS 89-27) (TAC 75843) - SEQUOYAH
NUCLEAR PLANT, UNIT 1

By letter dated May 16, 1990, we issued Amendment No. 141 to Facility Operating License DPR-77 for Sequoyah, Unit 1. Since that date, we have discovered that the letter inadvertently (1) did not list the correct last previous amendment number for two amended pages, (2) left out the word "on" in Table Notation "##" for Table 3.3-3 on Page 3/4 3-22, and (3) failed to acknowledge on the list of amended pages that Unit 1 Technical Specification (TS) Page 3/4 3-8 was to be replaced by the amended TS Page 3/4 3-8, although the amended page was enclosed in the letter. In addition, for Amendment 138 for Unit 1 which was issued by letter dated May 8, 1990, Page 3/4 2-10 had the phrase "of greater" on the last line of Action Statement "c" instead of the phrase "or greater." The corrected TS pages and a copy of TS Page 3/4 3-8 are enclosed.

We apologize for any inconvenience caused by these errors. If you have any questions, please contact Jack Donohew, Sequoyah Project Manager, at 301-492-1308.

Sincerely,

Original signed by

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

Enclosure:
Corrected Pages for Sequoyah, Unit 1

cc w/enclosure:
See next page

OFC	: PDII-4/LA	: PDII-4/PM	: PDII-4/DD	: PDII-4/D	:	:
NAME	: MKrebs <i>mk</i>	: JDonohew:as <i>JD</i>	: SBlack <i>H</i>	: FHebdon <i>H</i>	:	:
DATE	: 11/19/90	: 11/19/90	: 11/20/90	: 11/20/90	:	:

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14-E-4

G. Lainas

14-H-3

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M. Krebs

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OGC

B. Wilson

R-II

E. Jordan

MNBB-3302

G. Hill (4)

P-137

B. Little

R-II

J. Brady

R-II

W. Jones

MNBB7103

J. Calvo

11-F-22

ACRS(10)

GPA/PA

2-G-5

OC/LFMB

MNBB-9112

Mr. Oliver D. Kingsley, Jr.

- 2 -

cc:

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CORRECTED PAGES

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

INSERT

B 2-3

B 2-3

3/4 2-10

3/4 2-10

3/4 3-8

3/4 3-8

3/4 3-22

3/4 3-22

3/4 3-32

3/4 3-32

SAFETY LIMITS

BASES

Manual Reactor Trip

The Manual Reactor Trip is a redundant channel to the automatic protective instrumentation channels and provides manual reactor trip capability.

Power Range, Neutron Flux

The Power Range, Neutron Flux channel high setpoint provides reactor core protection against reactivity excursions which are too rapid to be protected by temperature and pressure protective circuitry. The low set point provides redundant protection in the power range for a power excursion beginning from low power. The trip associated with the low setpoint may be manually bypassed when P-10 is active (two of the four power range channels indicate a power level of above approximately 10 percent of RATED THERMAL POWER) and is automatically reinstated when P-10 becomes inactive (three of the four channels indicate a power level below approximately 9 percent of RATED THERMAL POWER).

Power Range, Neutron Flux, High Rates

The Power Range Positive Rate trip provides protection against rapid flux increases which are characteristic of rod ejection events from any power level. Specifically, this trip complements the Power Range Neutron Flux High and Low trips to ensure that the criteria are met for rod ejection from partial power.

The Power Range Negative Rate trip provides protection to ensure that the minimum DNBR is maintained above the safety analysis DNBR limit for control rod drop accidents. At high power a single or multiple rod drop accident could cause local flux peaking which, when in conjunction with nuclear power being maintained equivalent to turbine power by action of the automatic rod control system, could cause an unconservative local DNBR to exist. The Power Range Negative Rate trip will prevent this from occurring by tripping the reactor for all single or multiple dropped rods.

Intermediate and Source Range, Nuclear Flux

The Intermediate and Source Range, Nuclear Flux trips provide reactor core protection during reactor startup. These trips provide redundant protection to the low setpoint trip of the Power Range, Neutron Flux channels. The Source Range Channels will initiate a reactor trip at about 10^{+5} counts per second unless manually blocked when P-6 becomes active. The Intermediate

POWER DISTRIBUTION LIMITS

3/4.2.3 NUCLEAR ENTHALPY HOT CHANNEL FACTOR

LIMITING CONDITION FOR OPERATION

3.2.3 The Nuclear Enthalpy Hot Channel Factor, $F_{\Delta H}^N$, shall be limited by the following relationship:

Where:

- a. $F_{\Delta H}^N \leq 1.55 [1.0 + 0.3 (1.0-P)]$
- b. $P = \frac{\text{THERMAL POWER}}{\text{RATED THERMAL POWER}}$,

APPLICABILITY: MODE 1

ACTION:

With $F_{\Delta H}^N$ exceeding its limit:

- a. Reduce THERMAL POWER to less than 50% of RATED THERMAL POWER within 2 hours and reduce the Power Range Neutron Flux-High Trip Setpoints to \leq 55% of RATED THERMAL POWER within the next 4 hours,
- b. Demonstrate thru in-core mapping that $F_{\Delta H}^N$ is within its limit within 24 hours after exceeding the limit or reduce THERMAL POWER to less than 5% of RATED THERMAL POWER within the next 2 hours, and
- c. Identify and correct the cause of the out of limit condition prior to increasing THERMAL POWER above the reduced limit required by a. or b. above; subsequent POWER OPERATION may proceed provided that $F_{\Delta H}^N$ is demonstrated through in-core mapping to be within its limit at a nominal 50% of RATED THERMAL POWER prior to exceeding this THERMAL POWER, at a nominal 75% of RATED THERMAL POWER prior to exceeding this THERMAL POWER and within 24 hours after attaining 95% or greater RATED THERMAL POWER.

TABLE 3.3-1 (Continued)

- ACTION 11 - With the number of OPERABLE channels one less than the Total Number of Channels, STARTUP and/or POWER OPERATION may proceed provided that within 6 hours, for the affected protection set, the Steam Generator Water Level - Low-Low (EAM) channels trip setpoint is adjusted to the same value as Steam Generator Water Level - Low-Low (Adverse)
- ACTION 12 - With the number of channels OPERABLE one less than required by the Minimum Channels OPERABLE requirement, be in at least HOT STANDBY within 6 hours; however, one channel may be bypassed for up to 2 hours for surveillance testing per Specification 4.3.1.1.1 provided the other channel is OPERABLE.
- ACTION 13 - With the number of OPERABLE channels one less than the Total Number of Channels and with the THERMAL POWER level above the P-7 (Block of Low Power Reactor Trips) setpoint, place the inoperable channel in the tripped condition within 6 hours, operation may continue until performance of the next required CHANNEL FUNCTIONAL TEST.
- ACTION 14 - With the number of channels OPERABLE one less than required by the Minimum Channels OPERABLE requirement, be in at least HOT STANDBY within 6 hours.
- ACTION 15 - With one of the diverse trip features (undervoltage or shunt trip attachment) inoperable, restore it to operable status within 48 hours or declare the breaker inoperable and apply ACTION 12. The breaker shall not be bypassed while one of the diverse trip features is inoperable except for up to 4 hours for performing maintenance to restore the breaker to OPERABLE status.
- ACTION 16 - With the number of OPERABLE channels one less than the minimum channels operable requirement, restore the inoperable channel to OPERABLE status within 48 hours or open the reactor trip breakers within the next hour.

TABLE 3.3-3 (Continued)

TABLE NOTATION

- # Trip function may be bypassed in this MODE below P-11 (Pressurizer Pressure Block of Safety Injection) setpoint.
- ## Trip function automatically blocked above P-11 and may be blocked below when Safety Injection on Steam Line Pressure-Low is not blocked.
- ### The channel(s) associated with the protective functions derived from the out of service Reactor Coolant Loop shall be placed in the tripped mode.
- * The provisions of Specification 3.0.4 are not applicable.

ACTION STATEMENTS

- ACTION 15 - With the number of OPERABLE Channels one less than the Total Number of Channels, be in at least HOT STANDBY within 12 hours and in COLD SHUTDOWN within the following 30 hours; however, one channel may be bypassed for up to 4 hours for surveillance testing per Specification 4.3.2.1.1 provided the other channel is OPERABLE.
- ACTION 16 - Deleted.
- ACTION 17 - With the number of OPERABLE Channels one less than the Total Number of Channels, STARTUP and/or POWER OPERATION may proceed provided the following conditions are satisfied:
 - a. The inoperable channel is placed in the tripped condition within 6 hours.
 - b. The Minimum Channels OPERABLE requirements is met; however, the inoperable channel may be bypassed for up to 4 hours for surveillance testing of other channels per Specification 4.3.2.1.1.
- ACTION 18 - With the number of OPERABLE Channels one less than the Total Number of Channels, operation may proceed provided the inoperable channel is placed in the bypassed condition and the Minimum Channels OPERABLE requirement is met; one additional channel may be bypassed for up to 4 hours for surveillance testing per Specification 4.3.2.1.1.
- ACTION 19 - With less than the Minimum Channels OPERABLE, operation may continue provided the containment ventilation isolation valves are maintained closed.
- ACTION 20 - With the number of OPERABLE Channels one less than the Total Number of Channels, restore the inoperable channel to OPERABLE status within 48 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

TABLE 3.3-5 (Continued)

ENGINEERED SAFETY FEATURES RESPONSE TIMES

<u>INITIATING SIGNAL AND FUNCTION</u>	<u>RESPONSE TIME IN SECONDS</u>
10. <u>Station Blackout</u>	
a. Auxiliary Feedwater Pumps	$\leq 60^{(11)}$
11. <u>Trip of Main Feedwater Pumps</u>	
a. Auxiliary Feedwater Pumps	$\leq 60^{(11)}$
12. <u>Loss of Power</u>	
a. 6.9 kv Shutdown Board - Degraded Voltage or Loss of Voltage	$\leq 10^{(10)}$
13. <u>RWST Level-Low Coincident with Containment Sump Level-High and Safety Injection</u>	
a. Automatic Switchover to Containment Sump	≤ 250
14. <u>Containment Purge Air Exhaust Radioactivity - High</u>	
a. Containment Ventilation Isolation	$\leq 10^{(6)}$
15. <u>Containment Gas Monitor Radioactivity High</u>	
a. Containment Ventilation Isolation	$\leq 10^{(6)}$
16. <u>Containment Particulate Activity High</u>	
a. Containment Ventilation Isolation	$\leq 10^{(6)}$