



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

VIRGINIA ELECTRIC AND POWER COMPANY

DOCKET NO. 50-280

SURRY POWER STATION, UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 52
License No. DPR-32

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Virginia Electric and Power Company (the licensee) dated August 8, 1979, 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 the license amendment, and paragraph 3.B of Facility Operating License No. DPR-32 is hereby amended to read as follows:

B. Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 52, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective no later than return to power from the next cold shutdown.

FOR THE NUCLEAR REGULATORY COMMISSION



A. Schwencer, Chief
Operating Reactors Branch #1
Division of Operating Reactors

Attachment:
Changes to the
Technical Specifications

Date of Issuance: September 6, 1979

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

VIRGINIA ELECTRIC AND POWER COMPANY

DOCKET NO. 50-281

SURRY POWER STATION, UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 51
License No. DPR-37

1. The Nuclear Regulator Commission (the Commission) has found that:
 - A. The application for amendment by Virginia Electric and Power Company (the licensee) dated August 8, 1979, 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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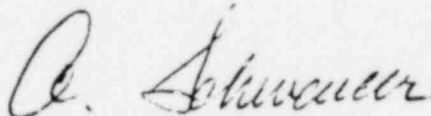
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to the license amendment, and paragraph 3.B of Facility Operating License No. DPR-37 is amended to read as follows:

B. Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 51, 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 the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



A. Schwencer, Chief
Operating Reactors Branch #1
Division of Operating Reactors

Attachment:
Changes to the
Technical Specifications

Date of Issuance: September 6, 1979

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ATTACHMENT TO LICENSE AMENDMENT NOS. 52 AND 51
FACILITY OPERATING LICENSE NOS. DPR-32 AND DPR-37
DOCKET NOS. 50-280 AND 50-281

Replace the following pages of the Appendix "A" Technical Specifications with the enclosed pages. The revised pages are identified by amendment number and contain vertical lines indicating the area of change.

Remove

3.7-4
3.7-6
3.7-11
3.7-13

Insert

3.7-4
3.7-6
3.7-11
3.7-13

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to generator signals actuating the SIS active phase. The SIS active phase is also actuated by a high containment pressure signal brought about by loss of high enthalpy coolant to the containment. This actuation signal acts as a backup to the low pressurizer pressure actuation of the SIS and also adds diversity to protection against loss of coolant.

Signals are also provided to actuate the SIS upon sensing the effects of a steam line break accident. Therefore, SIS actuation following a steam line break is designed to occur upon sensing high differential steam pressure between the steam header and steam generator line or upon sensing high steam line flow in coincidence with low reactor coolant average temperature or low steam line pressure.

The increase in the extraction of RCS heat following a steam line break results in reactor coolant temperature and pressure reduction. For this reason protection against a steam line break accident is also provided by low pressurizer pressure actuating safety injection.

Protection is also provided for a steam line break in the containment by actuation of SIS upon sensing high containment pressure.

SIS actuation injects highly borated fluid into the Reactor Coolant System in order to counter the reactivity insertion brought about by cooldown of the reactor coolant which occurs during a steam line break accident.

in order to prevent excessive cooldown of the reactor coolant system. This mitigates the effect of an accident such as steam break which in itself causes excessive coolant temperature cooldown.

Feedwater line isolation also reduces the consequences of a steam line break inside the containment, by stopping the entry of feedwater.

Setting Limits

1. The high containment pressure limit is set at about 10% of design containment pressure. Initiation of Safety Injection protects against loss of coolant ⁽²⁾ or steam line break ⁽³⁾ accidents as discussed in the safety analysis.
2. The high-high containment pressure limit is set at about 50% of design containment pressure. Initiation of Containment Spray and Steam Line Isolation protects against large loss of coolant ⁽²⁾ or steam line break accidents ⁽³⁾ as discussed in the safety analysis.
3. The pressurizer low pressure setpoint for safety injection actuation is set substantially below system operating pressure limits. However, it is sufficiently high to protect against a loss-of-coolant accident as shown in the safety analysis. ⁽²⁾
4. The steam line high differential pressure limit is set well below

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TABLE 3.7-2

ENGINEERED SAFEGUARDS ACTION

FUNCTIONAL UNIT	1	2	3	4
	MIN. OPERABLE CHANNELS	MIN. DEGREE OF REDUNDANCY	PERMISSIBLE BYP. CONDITIONS	OPERATOR ACTION IF CONDITIONS OF COLUMN 1 OR 2 EXCEPT AS CONDITIONED BY COLUMN 3 CANNOT BE MET
1 SAFETY INJECTION				
a. Manual	1	0		Cold Shutdown
b. High Containment Pressure (Hi Setpoint)	3	1		Cold Shutdown
c. High Differential Pressure between any Steam Line and the Steam Line Header	2/non-isolated loop	1/non-isolated loop		Cold Shutdown
d. Pressurizer Low Low Pressure	2	1	Primary Pressure less than 2000 psig except when reactor is critical	Cold Shutdown
e. High Steam Flow in 2/3 Steam Lines with Low T _{avg} or Low Steam Line Pressure	1/steamline 2 T _{avg} signals 2 Steam Pressure Signals	*** 1 1	Reactor Coolant average temperature less than 547°F during heatup and cooldown.	Cold Shutdown
2 CONTAINMENT SPRAY				
a. Manual	2	**		Cold Shutdown
b. High Containment Pressure (Hi Hi Setpoint)	3	1		Cold Shutdown

** - Must actuate 2 switches simultaneously

*** - With the specified minimum operable channels the 2/3 high steam flow is already in the trip mode

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TABLE 3.7-4

ENGINEERED SAFETY FEATURE SYSTEM INITIATION LIMITS INSTRUMENT SETTING

NO.	FUNCTIONAL UNIT	CHANNEL ACTION	SETTING LIMIT
1	High Containment Pressure (High Containment Pressure Signal)	<ul style="list-style-type: none"> a) Safety Injection b) Containment Vacuum Pump Trip c) High Pressure Containment Isolation d) Safety Injection Containment Isolation e) F.W. Line Isolation 	<5 psig
2	High High Containment Pressure (High High Containment Pressure Signal)	<ul style="list-style-type: none"> a) Containment Spray b) Recirculation Spray c) Steam Line Isolation d) High High Pressure Containment Isolation 	<25 psig
3	Pressurizer Low Low Pressure	<ul style="list-style-type: none"> a) Safety Injection b) Safety Injection Containment Isolation c) Feedwater Line Isolation 	≥1,700 psig
4	High Differential Pressure Between Steam Line and the Steam Line Header	<ul style="list-style-type: none"> a) Safety Injection b) Safety Injection Containment Isolation c) F.W. Line Isolation 	<150 psi
5	High Steam Flow in 2/3 Steam Lines	<ul style="list-style-type: none"> a) Safety Injection b) Steam Line Isolation c) Safety Injection Containment Isolation d) F.W. Line Isolation 	<ul style="list-style-type: none"> <40% (at zero load) of full steam flow <40% (at 20% load) of full steam flow <110% (at full load) of full steam flow
	Coincident with Low T_{avg} or Low Steam Line Pressure		<ul style="list-style-type: none"> ≥541°F T_{avg} ≥500 psig steam line pressure
	Amendment No. 52 Unit 1 Amendment No. 51 Unit 2		

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