August 2, 1990

Docket Nos. 50-280 and 50-281 DISTRIBUTION See attached sheet

Mr. W. L. Stewart Senior Vice President - Nuclear Virginia Electric and Power Company 5000 Dominion Blvd. Glen Allen, Virginia 23060

Dear Mr. Stewart:

SUBJECT: SURRY UNITS 1 AND 2 - ISSUANCE OF AMENDMENTS RE: AUXILIARY FEEDWATER CROSS-CONNECT REQUIREMENTS (TAC NOS. 72010 AND 72011)

The Commission has issued the enclosed Amendment No. 143 to Facility Operating License No. DPR-32 and Amendment No. 140 to Facility Operating License No. DPR-37 for the Surry Power Station, Unit Nos. 1 and 2, respectively. The amendments consist of changes to the Technical Specifications in response to your application transmitted by letter dated October 11, 1988, as superseded October 30, 1989.

These amendments increase the number of auxiliary feedwater (AFW) pumps available for cross-connect to the opposite unit from one to two. This provides an extra margin of safety in the event of a failure of all of a unit's AFW pumps.

A copy of the Safety Evaluation is also enclosed. The Notice of Issuance will be included in the Commission's biweekly <u>Federal</u> <u>Register</u> notice.

Sincerely,

Original signed by

Bart C. Buckley, Senior Project Manager Project Directorate II-2 Division of Reactor Projects - I/II Office of Nuclear Reactor Regulation

1. Amendment No. 143 to DPR-32 Amendment No. 140 to DPR-37 2. 3. Safety Evaluation cc w/enclosures: See next page :D:PDII-2 :OGC 7.301 CMcCracken:FRosa :HBerkow : 1/13/90 DATE : 6 128/90 : 6 128/90 : 6 128/90 : 6 129/90 : 7/11/90 : 1/1 /90

9008100142 900802 ADOCK 05000280

Enclosures:

:01 Pm

Mr. W. L. Stewart Virginia Electric and Power Company

cc:

Michael W. Maupin, Esq. Hunton and Williams Post Office Box 1535 Richmond, Virginia 23212

Mr. Michael R. Kansler, Manager Surry Power Station Post Office Box 315 Surry, Virginia 23883

Senior Resident Inspector Surry Power Station U.S. Nuclear Regulatory Commission Post Office Box 166, Route 1 Surry, Virginia 23883

Mr. Sherlock Holmes, Chairman Board of Supervisors of Surry County Surry County Courthouse Surry, Virginia 23683

Mr. W. T. Lough Virginia Corporation Commission Division of Energy Regulation Post Office Box 1197 Richmond, Virginia 23209

Regional Administrator, Region II U.S. Nuclear Regulatory Commission 101 Marietta Street N.W., Suite 2900 Atlanta, Georgia 30323

C. M. G. Buttery, M.D., M.P.H. Department of Health 109 Governor Street Richmond, Virginia 23219

Surry Power Station

Attorney General Supreme Court Building 101 North 8th Street Richmond, Virginia 23219

Mr. E. Wayne Harrell Vice President - Nuclear Operations Virginia Electric and Power Company 5000 01d Dominion Blvd. Glen Allen, Virginia 23060

Mr. J. P. O'Hanlon Vice President - Nuclear Services Virginia Electric and Power Company 5000 01d Dominion Blvd. Glen Allen, Virginia 23060

Mr. R. F. Saunders Manager - Nuclear Licensing Virginia Electric and Power Company 5000 01d Dominion Blvd. Glen Allen, Virginia 23060





VIRGINIA ELECTRIC AND POWER COMPANY

DOCKET NO. 50-280

SURRY POWER STATION, UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 143 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 October 11, 1988, as superseded October 30, 1989, 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.
- 2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 3.B of Facility Operating License No. DPR-32 is hereby amended to read as follows:

9008100145 900802 PDR ADOCK 05000280 PDC PDC (B) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 143, 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

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Merbert N. Berkow, Director Project Directorate II-2 Division of Reactor Projects - I/II Office of Nuclear Reactor Regulation

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Attachment: Changes to the Technical Specifications

Date of Issuance: August 2, 1990



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.140 License No. DPR-37

- 1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Virginia Electric and Power Company (the licensee) dated October 11, 1988, as superseded October 30, 1989, 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.
- Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 3.B of Facility Operating License No. DPR-37 is hereby amended to read as follows:

(B) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 140, 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

Herbert N. Berkow, Director Project Directorate II-2 Division of Reactor Projects - I/II Office of Nuclear Reactor Regulation

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Attachment: Changes to the Technical Specifications

Date of Issuance: August 2, 1990

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ATTACHMENT TO LICENSE AMENDMENT AMENDMENT NO. 143 FACILITY OPERATING LICENSE NO. DPR-32 AMENDMENT NO. 140 FACILITY OPERATING LICENSE NO. DPR-37 DOCKET NOS. 50-280 AND 50-281

Revise Appendix A as follows:

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Remove Pages	<u>Insert Pages</u>
TS 3.6-1	TS 3.6-1
TS 3.6-2	TS 3.6-2
TS 3.6-3	TS 3.6-3
TS 3.6-4 TS 3.9-1	TS 3.6-3a TS 3.6-4 TS 3.9-1
TS 3.9-2	TS 3.9-2
TS 3.16-1	TS 3.16-1
TS 3.16-2	TS 3.16-2
TS 3.16-3	TS 3.16-3
TS 3.16-5	TS 3.16-5
TS 3.16-6	TS 3.16-6

3.6 TURBINE CYCLE

Applicability

Applies to the operating status of the Main Steam and Auxiliary Feed Systems.

Objectives

To define the conditions required in the Main Steam System and Auxiliary Feed System for protection of the steam generator and to assure the capability to remove residual heat from the core during a loss of station power/or accident situations.

Specification

- A. A unit's Reactor Coolant System temperature or pressure shall not exceed 350°F or 450 psig, respectively, or the reactor shall not be critical unless the five main steam line code safety valves associated with each steam generator in unisolated reactor coolant loops are operable with lift settings as specified in Table 3.6-1A and 3.6-1B.
- B. To assure residual heat removal capabilities, the following conditions shall be met prior to the commencement of any unit operation that would establish reactor coolant system conditions of 350°F or 450 psig which would preclude operation of the Residual Heat Removal System.
 - 1. The following shall be operable:
 - a. Two motor driven auxiliary feedwater pumps.
 - b. Two of the three auxiliary feedwater pumps on the opposite unit (automatic initiation instrumentation need not be operable), capable of being used with the opening of the cross-connect.

- 2. A minimum of 96,000 gallons of water shall be available in the tornado missile protected condensate storage tank to supply emergency water to the auxiliary feedwater pump suctions. A minimum of 60,000 gallons of water shall be available in the tornado protected condensate storage tank of the opposite unit to supply emergency water to the auxiliary feedwater pump suction of that unit.
- 3. All main steam line code safety valves, associated with steam generators in unisolated reactor coolant loops, shall be operable with lift settings as specified in Table 3.6-1A and 3.6-1B.
- C. Prior to reactor power exceeding 10%, the steam driven auxiliary feedwater pump shall be operable.
- D. System piping, valves, and control board indication required for operation of the components enumerated in Specifications 3.6.B.1, 3.6.B.2, 3.6.B.3, and 3.6.C shall be operable (automatic initiation instrumentation associated with the opposite unit's auxiliary feedwater pumps need not be operable).
- E. The iodine 131 activity in the secondary side of any steam generator, in an unisolated reactor coolant loop, shall not exceed 9 curies. Also, the specific activity of the secondary coolant system shall be ≤ 0.10 µCi/cc DOSE EQUIVALENT I-131. If the specific activity of the secondary coolant system exceeds 0.10 µCi/cc DOSE EQUIVALENT I-131, the reactor shall be shut down and cooled to 500°F or less within 6 hours after detection and in the cold shutdown condition within the following 30 hours.

- F. With one auxiliary feedwater pump inoperable, restore at least three auxiliary feedwater pumps (two motor driven feedwater pumps and one steam driven feedwater pump) to operable status within 72 hours or be in hot shutdown within the following 12 hours.
- G. The requirements of Specifications 3.6.B.1, 3.6.B.2 and 3.6.D above concerning the opposite unit's auxiliary feedwater pumps; associated piping, valves and control board indication; and, the protected condensate storage tank may be modified to allow the following components to be inoperable, provided immediate attention is directed to making repairs.
 - 1. One train of the opposite unit's piping, valves, and control board indications or two of the opposite unit's auxiliary feedwater pumps may be inoperable for a period not to exceed 14 days.
 - 2. Both trains of the opposite unit's piping, valves, and control board indications; the opposite unit's protected condensate storage tank; the cross-connect piping from the opposite unit; or three of the opposite unit's auxiliary feedwater pumps may be inoperable for a period not to exceed 72 hours.

If the above requirements are not met, be in at least hot shutdown within the next 6 hours and in cold shutdown within the next 30 hours.

H. The requirements of Specification 3.6.B.2 above may be modified to allow utilization of protected condensate storage tank water with the auxiliary steam generator feed pumps provided the water level is maintained above 60,000 gallons, sufficient replenishment water is available in the 300,000 gallon condensate storage tank, and replenishment of the protected condensate storage tank is commenced within two hours after the cessation of protected condensate storage tank water consumption.

<u>Basis</u>

A reactor which has been shutdown from power requires removal of core residual heat. While reactor coolant temperatures or pressure is > 350°F or 450 psig, respectively, residual heat removal requirements are normally satisfied by steam bypass to the condenser. If the condenser is unavailable, steam can be released to the atmosphere through the safety valves, power operated relief valves, or the 4 inch decay heat release line.

The capability to supply feedwater to the generators is normally provided by the operation of the Condensate and Feedwater Systems. In the event of complete loss of electrical power to the station, residual heat removal would continue to be assured by the availability of either the steam driven auxiliary feedwater pump or one of the motor driven auxiliary feedwater pumps and the 110,000-gallon condensate storage tank. In the event of a fire or high energy line break I which would render the auxiliary feedwater pumps inoperable on the affected unit, residual heat removal would continue to be assured by the availability of either the steam driven auxiliary feedwater pumps inoperable on the affected unit, residual heat removal would continue to be assured by the availability of either the steam driven auxiliary feedwater pump or one of the motor-driven auxiliary feedwater pumps from the opposite unit. A minimum of two auxiliary feedwater pumps are required to be operable* on the opposite unit to ensure compliance with the design basis accident analysis assumptions, in that auxiliary feedwater can be delivered via the cross-connect, even if a single active failure results in the loss of one of the two pumps.

A minimum of 92,000 gallons of water in the 110,000-gallon condensate tank is sufficient for 8 hours of residual heat removal following a reactor trip and loss of all offsite electrical power. If the protected condensate storage tank level is reduced to 60,000 gallons, the immediately available replenishment water in the 300,000-gallon condensate tank can be gravity-fed to the protected tank if required for residual heat removal. An alternate supply of feedwater to the auxiliary feedwater pump suctions is also available from the Fire Protection System Main in the auxiliary feedwater pump cubicle.

The five main steam code safety valves associated with each steam generator have a total combined capacity of 3,725,575 pounds per hour at their individual set pressure; the total combined capacity of all fifteen main steam code safety valves is 11,176,725 pounds per hour. The ultimate power rating steam flow is 11,167,923 pounds per hour. The combined capacity of the safety valves required by Specification 3.6 always exceeds the total steam flow corresponding to the maximum steady state power than can be obtained during one, two, or three reactor coolant loop operation.

The availability of the auxiliary feedwater pumps, the protected condensate storage tank, and the main steam line safety valves adequately assures that sufficient residual heat removal capability will be available when required.

excluding automatic initiation instrumentation

3.9 STATION SERVICE SYSTEMS

Applicability

Applies to availability of electrical power for operation of station auxiliaries.

<u>Objective</u>

To define those conditions of electrical power availability necessary to provide for safe reactor operation.

Specification

- A. A unit's reactor shall not be made critical without:
 - 1. All three of the unit's 4,160V buses energized
 - 2. All six of the unit's 480V buses energized
 - Both of the 125 V DC buses energized as explained in Section 3.16
 - One battery charger per battery operating as explained in Section
 3.16
 - 5. Both of the 4,160V emergency buses energized as explained in Section 3.16
 - 6. All four of the 480V emergency buses energized as explained in Section 3.16

- 7. Two emergency diesel generators operable as explained in Section 3.16.
- B. A unit's reactor shall not be made critical without the requirements of Specification 3.9-A items 3, 4, 5, 7, and 6 (for the 480V power supplies for the auxiliary feedwater cross-connect valves) being met for the opposite unit.
- C. The requirements of Specification 3.9-A above may be modified for two | reactor coolant loop operation to allow one of the unit's 4,160V normal buses and the two 480V normal buses feed from this 4,160V bus, to be unavailable or inoperable.
- D. The requirements of Specifications 3.9-A items 3, 4, 5, 6, and 7 may be modified as provided in Section 3.16-B.

<u>Basis</u>

During startup of a unit, the station's 4,160V and 480V normal and emergency buses are energized from the station's 34.5KV buses. At reactor power levels greater than 5 percent of rated power the 34.5KV buses are required to energize only the emergency buses because at this power level the station generator can supply sufficient power to the normal 4,160V and 480V lines to operate the unit.

Three reactor coolant loop operation with all 4,160V and 480V buses energized is the normal mode of operation for a unit. Equipment redundancy and bus arrangements, however, allow safe unit startup and operation with one 4,160V normal bus and the two 480V normal buses feed from this 4,160V bus, unavailable or inoperable.

Emergency power supplies on the opposite unit are required to be operable to power the equipment necessary to supply auxiliary feedwater from one unit to another via the cross-connect.

<u>References</u>

FSAR Section 8.4 Station Service Systems FSAR Section 8.5 Emergency Power Systems

3.16 EMERGENCY POWER SYSTEM

Applicability

Applies to the availability of electrical power for safe operation of the station during an emergency.

<u>Objective</u>

To define those conditions of electrical power availability necessary to shutdown the reactor safely, and provide for the continuing availability of Engineered Safeguards when normal power is not available.

Specification

- A. A reactor shall not be made critical nor shall a unit be operated such that the reactor coolant system pressure and temperature exceed 450 psig and 350°F, respectively, without:
 - 1. Two diesel generators (the unit diesel generator and the shared backup diesel generator) operable with each generator's day tank having at least 290 gallons of fuel and with a minimum on-site supply of 35,000 gal of fuel available.
 - 2. Two 4,160V emergency buses energized.
 - 3. Four 480V emergency buses energized.

4. Two physically independent circuits from the offsite transmission network to energize the 4,160 and 480V emergency buses. One of these sources must be immediately available, i.e. primary source; and the other must be capable of being made available within 8 hours; i.e. dependable alternate source.

- 5. Two operable flow paths for providing fuel to each diesel generator.
- 6. Two station batteries, two chargers, and the DC distribution systems operable.
- 7. Emergency diesel generator battery, charger and the DC control circuitry operable for the unit diesel generator and for the shared back-up diesel generator.
- 8. The requirements of Specifications A.1, A.2, A.5, A.6, A.7, and A.3 (for the 480V power supply for the auxiliary feedwater crossconnect valves) met for the opposite unit. In addition, one of the two physically independent circuits from the offsite transmission network must energize the opposite unit's emergency buses.
- B. During power operation or the return to power from hot shutdown conditions, the requirements of specification 3.16-A may be modified by one of the following:
 - Either the unit's dedicated diesel generator or the shared backup diesel generator may be unavailable or inoperable provided the operability of the other diesel generator is demonstrated daily. If this diesel generator is not returned to an operable status within 7 days, the reactor shall be brought to a cold shutdown condition. One diesel fuel oil flow path may be "inoperable" for 24 hours provided the other flow is proven operable. If after 24 hours, the inoperable flow path cannot be returned to service, the diesel shall be considered "inoperable." When the emergency diesel generator battery, charger or DC control circuitry is inoperable, the diesel shall be considered "inoperable."

- If a primary source is not available, the unit may be operated for seven
 (7) days provided the dependable alternate source can be operable within 8 hours. If specification A-4 is not satisfied within seven (7) days, the unit shall be brought to the cold shutdown condition.
- 3. One battery may be inoperable for 24 hours provided the other battery and battery chargers remain operable with one battery charger carrying the DC load of the failed battery's supply system. If the battery is not returned to operable status within the 24 hour period the reactor shall be placed in the hot shutdown condition. If the battery is not restored to operable status within an additional 48 hours, the reactor shall be placed in the cold shutdown condition.
- 4. A train of the opposite unit's emergency power system as required by Section 3.16.A.8 above may be inoperable for a period not to exceed 14 days. During this 14 day period, the following limitations apply:
 - a) If the offsite power source becomes unable to energize the opposite unit's operable train, operation may continue provided its associated emergency diesel generator is energizing the operable train.
 - b) If the opposite unit's operable train's emergency diesel generator becomes unavailable, operation may continue for 72 hours provided the offsite power source is energizing the opposite unit's operable train.
 - c) Return of the originally inoperable train to operable status allows the second inoperable train to revert to the 14 day limitation.
 If the above conditions are not met, the reactor shall be brought to hot shutdown conditions within 6 hours and cold shutdown condition within the following 30 hours.
- C. The continuous running electrical load supplied by an emergency diesel generator shall be limited to 2750 KW.

<u>Basis</u>

The Emergency Power System is an on-site, independent, automatically starting power source. It supplies power to vital unit auxiliaries if a normal power source is not available. The Emergency Power System consists of three diesel generators for two units. One generator is used exclusively for Unit 1, the second generator for Unit 2, and the third generator functions as a backup for either Unit 1 or 2. The diesel generators have a continuous 2,000 hour rating of 2750 KW and a two hour rating of 2850 KW. The actual loads using conservative

Amendment Nos. 143 and 140

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The diesel generators function as an on-site back-up system to supply the emergency buses. Each emergency bus provides power to the following operating Engineered Safeguards equipment:

- A. One containment spray pump
- B. One charging pump
- C. One low head safety injection pump
- D. One recirculation spray pump inside containment
- E. One recirculation spray pump outside containment
- F. One containment vacuum pump
- G. One motor-driven auxiliary steam generator feedwater pump
- H. One motor control center for valves, instruments, control air compressor, fuel oil pumps, etc.
- I. Control area air conditioning equipment four air recirculating units, one water chilling unit, one service water pump and one chilled water circulating pump
- J. One charging pump service water pump for charging pump intermediate seal coolers and lube oil coolers
- K. One charging pump cooling water pump for charging pump seal coolers.

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The day tanks are filled by transferring fuel from any one of two buried tornado missile protected fuel oil storage tanks, each of 20,000 gal capacity. Two of 100 percent capacity fuel oil transfer pumps per diesel generator are powered from the emergency buses to assure that an operating diesel generator has a continuous supply of fuel. The buried fuel oil storage tanks contain a seven (7) day supply of fuel, 35,000 gal minimum, for the full load operation of one diesel generator; in addition, there is an above ground fuel oil storage tank on-site with a capacity of 210,000 gal which is used for transferring fuel to the buried tanks.

If a loss of normal power is not accompanied by a loss-of-coolant accident, the safeguards equipment will not be required. Under this condition the following additional auxiliary equipment may be operated from each emergency bus:

- A. One component cooling pump
- B. One residual heat removal pump
- C. One motor-driven auxiliary steam generator feedwater pump

The emergency buses in each unit are capable of being interconnected under strict administrative procedures so that the equipment which would normally be operated by one of the diesels could be operated by the other diesel, if required.

The requirement for operability of the opposite unit's emergency power system is to ensure that auxiliary feedwater from the opposite unit can be supplied via the crossconnect in the event of a common-mode failure of all auxiliary feedwater pumps in the affected unit due to a high energy line break in the main steam valve house. Without this requirement, a single failure (such as loss of the shared backup diesel generator) could result in loss of power to the opposite unit's emergency buses in the event of a loss of offsite power, thereby rendering the cross-connect inoperable. The longer allowed outage time for the opposite unit's emergency power system is based on the low probability of a high energy line break in the main steam valve house coincident with a loss of offsite power.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION RELATED TO AMENDMENT NO.143 TO FACILITY OPERATING LICENSE NO. DPR-32 AND AMENDMENT NO.140 TO FACILITY OPERATING LICENSE NO. DPR-37 VIRGINIA ELECTRIC AND POWER COMPANY SURRY POWER STATION, UNIT NOS. 1 AND 2 DOCKET NOS. 50-280 AND 50-281

BACKGROUND

By letter dated October 11, 1988, as superseded by letter dated October 30, 1989, Virginia Electric and Power Company (the licensee) requested amendments to the Technical Specifications (TS) appended to Facility Operating Licenses No. DPR-32 and DPR-37 issued to the licensee for operation of the Surry Nuclear Power Station, Units 1 and 2, respectively. The proposed amendments would modify Sections 3.6, 3.9 and 3.16 of the TS to increase the required number of a unit's auxiliary feedwater (AFW) pumps required to be available for crossconnect to the opposite unit from one to two. This increase in the required number of operable AFW pumps would provide an additional margin of safety for common mode failure events.

EVALUATION

The reason for the requirement to maintain operable AFW pumps in the opposite unit is to ensure that in the event of a total loss of all of one unit's AFW pumps, emergency cooling to that unit can be provided by the other unit's pumps. This is possible since the AFW systems of the two units can be cross-connected.

Each unit has three AFW pumps. Two of these pumps are electrically powered, and the third is steam powered. Under the current TS, in order to exceed 350 degrees F or 450 psig in the Reactor Coolant System for a given unit, one of the other unit's AFW pumps must be operable. Thus, in the event of a common mode failure of all of a unit's AFW pumps, a single failure in the opposite unit's available AFW pump could result in a loss of all AFW to the operating unit. The proposed changes would require that before a unit exceeds the pressure and temperature limits of the Residual Heat Removal System, two of the AFW pumps in the opposite unit be operable.

In addition, the proposed changes would require that before operating a unit, two redundant trains of emergency power and supporting equipment be available to power the motor-driven AFW pumps on the opposite unit. This is accomplished by requiring that before taking a reactor critical, the opposite unit's emergency power system be operable, and all four 480v emergency busses be energized.

9008100147 900802 PDR ADOCK 05000280 PDR ADOCK 05000280 The proposed changes also require that one of the two physically independent circuits from the offsite transmission network be available to energize the opposite unit's 4160v and 480v emergency busses, that the opposite unit's emergency diesel generator be operable, that all four of the opposite unit's 480v busses be energized, that flowpaths for supplying fuel to the diesels be operable, and that two station batteries, two battery chargers, and the DC distribution system be operable. These requirements enhance the overall availability of power to the emergency busses of the opposite unit.

The licensee performed a probabilistic risk assessment to determine the allowable time that the AFW system in the opposite unit could be inoperable, provided that immediate actions were taken to effect repairs. Based on this assessment, it was determined that if an emergency power train on the opposite unit were allowed to be inoperable for up to 14 days, the contribution to core damage risk would be negligible. Thus, the proposed TS allow for a 14-day period to restore the opposite unit's emergency power train before a shutdown is required. The analysis also showed that, during such a 14-day outage, a subsequent outage with both emergency diesel generators associated with the shut down unit inoperable would not present any considerable increase in the risk of core damage provided that (1) offsite power is available to energize one train, and (2) the generator is returned to operability within 72 hours. Thus, the proposed changes allow a 72-hour period to return the generator to operability before a shutdown is required.

The proposed change increasing the number of the opposite unit's AFW pumps required to be operable, and the associated electrical power requirements, serve to enhance reliability and are, therefore, acceptable. The provisions allow for a 14-day period to restore an inoperable power train to service and, within this 14-day period, a 72-hour period in which to restore an inoperable generator in the opposite unit, increase the probability of an event from 1.7E-8 to 3.1E-8 per year. This increase is not considered significant; therefore, the provisions are considered acceptable.

Based on the above, the staff finds the licensee's proposed changes to be adequate and acceptable.

ENVIRONMENTAL CONSIDERATION

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These amendments involve a change to a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. We have determined that the amendments involve no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that these amendments involve no significant hazards consideration and there has been no public comment on such finding. Accordingly, these amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of these amendments.

CONCLUSION

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 these amendments will not be inimical to the common defense and security or to the health and safety of the public.

Dated: August 2, 1990

Principal Contributor: G. Wunder AMENDMENT NO. 143 TO FACILITY OPERATING LICENSE NO. DPR-32 - SURRY UNIT 1 AMENDMENT NO. 140 TO FACILITY OPERATING LICENSE NO. DPR-37 - SURRY UNIT 2 Docket File NRC & Local PDRs PDII-2 Reading S. Varga, 14/E/4 G. Lainas, 14/H/3 H. Berkow D. Miller B. Buckley G. Wunder OGC-WF D. Hagan, 3302 MNBB E. Jordan, 3302 MNBB B. Grimes, 9/A/2 G. Hill (8), P-137 Wanda Jones, P-130A J. Calvo, 11/F/23 ACRS (10) GPA/PA OC/LFMB PD Plant-specific file [Gray File] M. Sinkule, R-II Others as required cc: Plant Service list
