

September 9, 1986

Docket Nos. 50-280
and 50-281

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Mr. W. L. Stewart
Vice President - Nuclear Operations
Virginia Electric and Power Company
Post Office Box 26666
Richmond, Virginia 23261

Dear Mr. Stewart:

Subject: Modification of Commission Order Dated June 12, 1984, Supplement 1 to
NUREG-0737 for Surry Units 1 and 2

The Nuclear Regulatory Commission's Confirmatory Order of June 12, 1984, specified a completion schedule for commitments to Supplement 1 to NUREG-0737 for Surry Power Station. This Order directed Surry Power Station to have the Emergency Response Facilities Data Acquisition System (ERFDAS) and the Safety Parameter Display System (SPDS) fully operational with operators trained and to have the Regulatory Guide 1.97 variables installed or upgraded, including the Core Exit Thermocouples, by the first refueling outage after July 1, 1985, for both units. The Order contained a provision allowing the Director, Division of Licensing, to grant extensions of time for completing the identified items for good cause shown.

By letter dated April 21, 1986, you requested a schedular extension until the end of the Unit 2 refueling outage for Unit 1 to complete the training and provide the procedures necessary to support operability of the ERFDAS and the SPDS. In addition, you stated that Regulatory Guide 1.97 variables for Unit 1 will be completed on schedule with the exception of Variable Item A-3, Core Exit Thermocouples, and Variable Item A-8, High Pressure Safety Injection (HPSI) flow, for which you also requested an extension for completion to the end of the Unit 2 refueling outage.

Additionally, by letter dated July 18, 1986, you requested a schedular extension until the 1988 refueling outage for Unit Nos. 1 and 2 to engineer, procure and install qualified limit switches utilized to provide position indication for three containment isolation valves per unit in the sampling system. You have requested that we specifically include this variable within the provisions of the Order.

You stated in your request that by the end of the 1986 refueling outages for Unit Nos. 1 and 2, the SPDS computer, the Data Acquisition System (DAS) including the data input connections, and the display units in the Emergency Response Facilities will be installed in accordance with the SPDS Safety Analysis submitted on February 1, 1985. You also stated that verification and validation of the Emergency Response Facilities Data Acquisition System for Unit 1 inputs

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will be completed by the end of the Unit 1 outage. At that time, the SPDS will be considered functional but not operable. However, for Unit 1, you also stated that integration of the ERFDAS and SPDS into the Emergency Operating Procedures and the associated training of the operators and emergency response personnel cannot be completed by the end of the Unit 1 outage. Therefore, until initial training is completed and corresponding procedures updated or provided for, as necessary, the SPDS cannot be declared fully operable.

Judging from the above information, we have determined that you have taken adequate steps to complete the requirements dictated by the Order. We agree that the necessary procedures and training should be completed before declaring the SPDS to be operable. We have concluded that there is adequate justification for modifying the completion date in the Commission's Order. Therefore, in accordance with Section IV of the June 12, 1984 Order, we are hereby granting the schedular extension for declaring ERFDAS and SPDS fully operable with operators trained until end of Unit 2 refueling outage (December 7, 1986, as presently scheduled) for Unit 1.

Regarding the compliance with Regulatory Guide 1.97, you stated that you expect to have the modifications completed on Unit 1 by the end of the Unit 1 refueling outage with the exception of HPSI flow indication, core exit thermocouples (CETs) and containment isolation valve position indication. HPSI flow indication is currently provided by a single channel. The planned modification will provide an additional channel of indication and qualified instrumentation. You stated that the hardware and associated electronics for the modification will be installed during the Unit 1 outage. However, the qualified flow transmitters would not be delivered in time to complete the modification until after the Unit 1 refueling outage. You also indicated that the transmitters can be installed during power operations and will be installed as soon as practical after delivery and quality control (QC) acceptance.

In your letter dated April 21, 1986, you stated that the upgraded CETs and the associated cables inside containment will be installed during the Unit 1 outage. By utilizing the existing electronics and display outside containment, the CETs will be operable. However, the upgraded (qualified) electronics and cabinets for the Inadequate Core Cooling Instrumentation System (ICCIS), which includes the Reactor Vessel Level Indicating System (RVLIS), Subcooling Margin Monitor, and the CETs, will not be delivered in time to complete the installation by the end of the Unit 1 refueling outage. Installation of the electronics and cabinets for ICCIS can be accomplished during plant operation during a planned entry into the Limiting Condition for Operation (LCO) for the associated RVLIS technical specifications. You were expecting the ICCIS to be fully qualified and operational by September 1, 1986. However, by letter dated July 2, 1986, you informed us that your vendor, Westinghouse, notified you that certain anomalies have been observed during environmental qualification type testing of electrical penetrations which are used for CETs system. You stated that you still intend to complete the installation of CETs system by the end of the Unit 2 refueling outage with all qualified instrumentation, including penetrations.

Judging from the information provided in your submittals, we conclude that you have shown good faith effort to complete the requirements dictated by the Order and there is adequate justification for modifying the completion date in the Commission's Order. Therefore, in accordance with Section IV of the June 12, 1984 Order, we are hereby granting the schedular extension for completing HPSI flow indication and Core Exit Thermocouples until completion of Unit 2 refueling outage (December 7, 1986, as presently scheduled) for Unit 1.

In your letter dated July 18, 1986, you stated that the limit switches which are utilized to provide position indication for the three containment isolation valves in the sampling system (Mark Nos. TV-SS-100A, 101A and 104A) have failed during a recent containment "Type A Test." These switches were installed in the recent outage for Unit 1. The failure of these switches prevents them from being environmentally qualified for use in containment. Because of this recent failure, additional time is required to engineer, procure and install qualified limit switches or alternate valve indication in Unit 1. You have also requested a similar extension for the same three valve limit switches (Mark Nos. TV-SS- 200A, 201A and 204A) in Unit 2, as they were scheduled to be installed during the upcoming Unit 2 refueling outage.

In your request you stated that until qualified limit switches are installed or alternate valve position indication is provided, the unqualified replacement limit switches will be used in Unit 1 and the existing limit switches will remain in Unit 2. To ensure containment integrity for these three Unit 1 sample lines, the trip valves inside containment have been closed and deenergized. Similar compensatory actions will be taken on the Unit 2 sample lines following its 1986 refueling outage if qualification is not accomplished. In addition, you indicated that the outside containment isolation valve limit switches are environmentally qualified and provide positive indications of valve position and thereby indication of containment isolation. You stated that you are intending to install qualified limit switches in the shortest possible time frame based on scheduled unit outages consistent with completion of design and procurement, and this request will be subject to a more detailed engineering review to assess whether the requested schedular extension can be improved.

You further stated that in any event, qualification will be achieved on the position indication for these three valves in each unit no later than the end of the associated 1988 refueling outages. With the exception of these valves, containment isolation valves have or will have qualified position indication installed in accordance with the completion schedule of the Confirmatory Order.

In your request, you indicated that the limit switches on containment isolation valves have not been specifically included in the Confirmatory Order. However, you stated that it has been your intention to complete the installation of these switches under Regulatory Guide 1.97 implementation schedule. You have referenced the March 19, 1984, meeting between the staff and Virginia Electric and Power Company and your letter dated January 11, 1985, (Serial No. 86-286), as evidence of your commitment to handle these switches in accordance with the Regulatory Guide 1.97 schedule.

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We have reviewed the information submitted by you and concur in your commitment to handle containment isolation valve position indication under the Regulatory Guide 1.97 implementation schedule. We have also determined that you have taken reasonable steps to complete their installation. However, because of environmental qualification of three limit switches discussed above, you need additional time to satisfy your schedular commitment. Considering your intention for installing qualified containment valve position indications in the shortest possible time frame, but no later than 1988 refueling outages for each unit, and the compensatory measures taken by you, we concur in the extension up to 1988 refueling outage for Unit Nos. 1 and 2 of your commitment for completing the installation of environmentally qualified containment isolation valve position indication for three valves in each unit. We understand that this extension is subject to a more detailed engineering review to assess whether the requested schedular extension can be improved and that this review will be submitted by September 5, 1986.

In addition, by letter dated June 11, 1986, you informed us that you have reassessed your position on Boric Acid Charging Flow Transmitters and now consider that the present transmitters, although not environmentally qualified, are adequate for their given function. The staff is reviewing your reassessment and will include it with the Safety Evaluation of your response to Regulatory Guide 1.97 requirements.

Sincerely,

Original signed by:
Thomas M. Novak

Thomas M. Novak, Acting Director
Division of PWR Licensing-A
Office of Nuclear Reactor Regulation

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Mr. W. L. Stewart

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We have reviewed the information submitted by you and concur in your commitment to handle containment isolation valve position indication under the Regulatory Guide 1.97 implementation schedule. We have also determined that you have taken reasonable steps to complete their installation. However, because of environmental qualification of three limit switches discussed above, you need additional time to satisfy your schedular commitment. Considering your intention for installing qualified containment valve position indications in the shortest possible time frame, but no later than 1988 refueling outages for each unit, and the compensatory measures taken by you, we concur in the extension up to 1988 refueling outage for Unit Nos. 1 and 2 of your commitment for completing the installation of environmentally qualified containment isolation valve position indication for three valves in each unit. We understand that this extension is subject to a more detailed engineering review to assess whether the requested schedular extension can be improved and that this review will be submitted by September 5, 1986.

In addition, by letter dated June 11, 1986, you informed us that you have reassessed your position on Boric Acid Charging Flow Transmitters and now consider that the present transmitters, although not environmentally qualified, are adequate for their given function. The staff is reviewing your reassessment and will include it with the Safety Evaluation of your response to Regulatory Guide 1.97 requirements.

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Mr. W. L. Stewart

- 4 -

We have reviewed the information submitted by you and agree that containment isolation valve position indication should be covered under Regulatory Guide 1.97 implementation schedule. We have also determined that you have taken reasonable steps to complete the requirements dictated by the order. However, because of environmental qualification of three limit switches discussed above, you need additional time to satisfy the requirements of the Order. We have concluded that you have provided adequate justification for modifying the Commission's Order. Considering your intention for installing qualified containment valve position indications in the shortest possible time frame, but no later than 1988 refueling outages for each unit, and the compensatory measures taken by you, we are hereby granting the extension up to 1988 refueling outage for Unit Nos. 1 and 2 for completing the installation of environmentally qualified containment isolation valve position indication for three valves in each unit. The extension is subject to a more detailed engineering review to assess whether the requested schedular extension can be improved. The detailed review should be submitted by September 5, 1986.

In addition, by letter dated June 11, 1986, you informed us that you have reassessed your position on Boric Acid Charging Flow Transmitters and now consider that the present transmitters, although not environmentally qualified, are adequate for their given function. The staff is reviewing your reassessment and will include it with the Safety Evaluation of your response to Regulatory Guide 1.97 requirements.

Sincerely,

Thomas M. Novak, Acting Director
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