

VIRGINIA ELECTRIC AND POWER COMPANY
RICHMOND, VIRGINIA 23261

October 11, 1994

U.S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, DC. 20555

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NL&P/ETS: R0
Docket Nos. 50-280
50-281
License Nos. DPR-32
DPR-37

Gentlemen:

VIRGINIA ELECTRIC AND POWER COMPANY
SURRY POWER STATION UNITS 1 AND 2
PROPOSED TECHNICAL SPECIFICATIONS CHANGE
HYDROGEN ANALYZER SURVEILLANCE FREQUENCY

Pursuant to 10 CFR 50.90, the Virginia Electric and Power Company requests amendments, in the form of a change to the Technical Specifications, to Facility Operating License Nos. DPR-32 and DPR-37 for Surry Power Station Units 1 and 2. The proposed changes will modify the surveillance frequencies of the hydrogen analyzers in accordance with Generic Letter 93-05, "Line-Item Technical Specifications Improvements to Reduce Surveillance Requirements for Testing During Power Operation," dated September 27, 1993.

A discussion of the proposed Technical Specifications change for Surry is provided in Attachment 1. The proposed Technical Specifications change is provided in Attachment 2. It has been determined that the proposed Technical Specifications change does not involve an unreviewed safety question as defined in 10 CFR 50.59 or a significant hazards consideration as defined in 10 CFR 50.92. The basis for our determination that the change does not involve a significant hazards consideration is provided in Attachment 3. The proposed Technical Specifications change has been reviewed and approved by the Station Nuclear Safety and Operating Committee and the Management Safety Review Committee.

Should you have any questions or require additional information, please contact us.

Very truly yours,



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J.P. O'Hanlon
Senior Vice President - Nuclear

Attachments

9410140254 941011
PDR ADOCK 05000280
P PDR

Adol
A. J. J.

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

Mr. M. W. Branch
NRC Senior Resident Inspector
Surry Power Station

Commissioner
Department of Health
Room 400
109 Governor Street
Richmond, Virginia 23219

Attachment 1
Discussion of Change
Surry Power Station

Discussion of Changes

Introduction

As documented in NUREG-1366, "Improvements to Technical Specifications Surveillance Requirements," dated December 13, 1992, the NRC has completed a comprehensive examination of surveillance requirements in technical specifications that require testing at power. The NRC staff found that while the majority of testing at power is important, safety can be improved, equipment degradation decreased, and an unnecessary burden on personnel resources eliminated by reducing the amount of testing that is required by technical specifications at power. Generic Letter (GL) 93-05, "Line-Item Technical Specifications Improvements to Reduce Surveillance Requirements for Testing During Power Operation," dated September 27, 1993, provides guidance for preparing license amendments to implement the recommendations of NUREG-1366. Consistent with GL 93-05, we are proposing changes to the surveillance frequencies of the containment hydrogen analyzers for Surry.

Background

NUREG-0737 required continuous indication of containment hydrogen concentration in the control room within 30 minutes of the initiation of safety injection. This indication is only used to monitor hydrogen concentration in containment following a loss-of-coolant-accident (LOCA) and to alert the plant operator to take planned manual actions to activate the hydrogen recombiners. Hydrogen recombiners are not immediately required following accident initiation. For the design basis accident (i.e., large break LOCA) they are not needed for a period of several days.

The containment hydrogen monitors are capable of providing continuous control room indication within 30 minutes of the initiation of safety injection. These analyzers are maintained in a standby mode during normal plant operations. Although a channel check is not performed in the standby mode, the analyzers have alarms to indicate electronic system or power failures. In addition, Surry performs a monthly functional test and a quarterly calibration of the hydrogen analyzers. A hydrogen analyzer is dedicated to each unit with the capability to be cross-connected to the opposite unit.

Containment hydrogen analyzer surveillance testing was reviewed as part of the NRC's evaluation of at power testing requirements. NUREG-1366 determined that the surveillance requirements for the hydrogen analyzers could be relaxed without any

decrease in plant safety. Based on the hydrogen analyzer surveillance test experience at Surry, it is concluded that implementing the proposed surveillance test frequency changes specified by the NUREG were appropriate and applicable for Surry.

Specific Changes

The surveillance test requirements for hydrogen analyzers in Technical Specification Table 4.1-2A, Item 20.a and b are being changed as follows:

- the frequency of the Channel Functional Test is changed from once per 31 days to once per 92 days, and
- the frequency of the Channel Calibration is changed from once per 92 days on a staggered test basis to once per 18 months.

Defined terms are capitalized on the pages affected by this change. These terms include Channel Calibration, Channel Functional Test, Power Operation, and Cold Shutdown.

Safety Significance

The proposed changes to the surveillance requirements for the hydrogen analyzer are consistent with the guidance of Generic Letter 93-05. As documented in NUREG-1366, the NRC concluded that: the proposed surveillance test frequency for hydrogen analyzers will not affect the analyzers ability to perform their intended function.

The proposed changes to the surveillance requirements for the hydrogen analyzers have no impact on the probability of any accident occurrence. The hydrogen analyzers are maintained in a standby mode during normal operation and can be fully operable within thirty minutes after a safety injection signal to provide indication of the hydrogen concentration in containment. This instrumentation is used solely to monitor post-accident containment conditions. Reduced testing of a post-accident monitor does not contribute to the probability of any previously analyzed accident. These monitors have no automatic safety function. Furthermore, the hydrogen analyzers will be operated in the same manner, and operability requirements are not being altered. In addition, the Post-Accident Sampling System provides a diverse means to confirm post-accident hydrogen concentration in the containment. Therefore, the consequences of a Design

Basis Accident are not being increased by the proposed change in surveillance test frequency of the hydrogen analyzers.

Reducing the frequency of surveillance testing could however decrease the timeliness in identifying an inoperable hydrogen analyzer. However, our surveillance test experience has shown that the analyzers have been stable with repeatable results, and we conclude that the change in test frequency should not affect the reliability or operability of the analyzers. The hydrogen analyzers are maintained in a standby mode during normal operation and have trouble alarms which indicate in the Main Control Room for conditions of low gas pressure, cell failure, and low temperature. Furthermore, the NRC has determined in Generic Letter 93-05 that a reduced frequency surveillance tests during power is acceptable to determine hydrogen analyzer operability.

There are no plant modifications or changes in methods of plant operation introduced by this change in hydrogen analyzer surveillance frequencies. The hydrogen analyzers are maintained in a standby mode and are only fully energized to provide indication of the hydrogen concentration in containment after a loss-of-coolant accident. Furthermore, the change in surveillance frequency is associated with a post-accident monitor with no automatic safety function and a diverse means of confirming the parameter to be monitored by use of the Post-Accident Sampling System. Therefore, no new accidents or accident precursors are generated by the proposed change to the hydrogen analyzer surveillance frequencies.

The hydrogen analyzer surveillance requirements do not affect the margin of safety in that the operability requirements for safety systems and containment remain unchanged. The hydrogen analyzers only provide indication to alert the operator to activate the hydrogen recombiners and do not perform any automatic function to mitigate the consequences of any previously analyzed accidents. Therefore, the margin of safety is not altered by this proposed change in the surveillance frequencies of the hydrogen analyzers.