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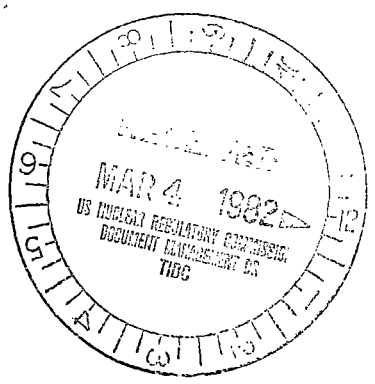

Mr. R. H. Leasburg
Vice President - Nuclear Operations
Virginia Electric and Gas Company
Post Office Box 26666
Richmond, Virginia 23261

Dear Mr. Leasburg:

SUBJECT: REACTOR COOLANT SYSTEM VENTS, (ITEM II.B.1)
REQUEST FOR ADDITIONAL INFORMATION FOR SURRY POWER
STATION, UNIT NOS. 1 AND 2

We have completed a preliminary review of your submittal regarding TMI Action Plant Item II.B.1, RCS High Point Vents. The additional information identified in the attachment is required to complete our review for your facilities.

We are currently in the process of reviewing the technical merit of the proposed operating guidelines for RCS Vent usage. We recommend that the questions in this area be resolved generically through the Owners Groups. Specific plant procedures will be reviewed against the approved guidelines as needed in the future, but not necessarily prior to design approval.

Please supply the requested information within 60 days of the date of this letter.

The reporting and/or recordkeeping requirements contained in this letter are approved under OMB clearance #3150-0065 which expires May 31, 1983.

Sincerely,

Original signed by:
S. A. Varga

Steven A. Varga, Chief
Operating Reactors Branch #1
Division of Licensing

cc: See next page

OFFICE	ORB#1:DL	ORB#1:DL	ORB#1:DL				
SURNAME	DNeighbors	JHannon	SVarga				
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Mr. R. H. Leasburg
Virginia Electric and Power Company

cc: Mr. Michael W. Maupin
Hunton and Williams
Post Office Box 1535
Richmond, Virginia 23213

Mr. J. L. Wilson, Manager
P. O. Box 315
Surry, Virginia 23883

Swem Library
College of William and Mary
Williamsburg, Virginia 23185

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

Mr. J. H. Ferguson
Executive Vice President - Power
Virginia Electric and Power Company
Post Office Box 26666
Richmond, Virginia 23261

Ronald C. Haynes
Regional Administrator - Region I
U. S. Nuclear Regulatory Commission
631 Park Avenue
King of Prussia, Pennsylvania 19406

REQUEST FOR ADDITIONAL INFORMATION
FOR
SURRY 1 & 2

1. Submit operating guidelines for reactor operator use of the reactor vessel head and pressurizer venting system including the following:

   a. Guidelines to determine when the operator should and should not manually initiate venting, and information and instrumentation required for this determination (reference NUREG-0737 Item II.B.1 Clarification A.(2)). The guidelines to determine whether or not to vent should cover a variety of reactor coolant system conditions (e.g., pressures and temperatures). The effect of the containment hydrogen concentration on the decision to vent or to continue venting should also be addressed considering the balance between the need for increased core cooling and decreased containment integrity due to elevated hydrogen levels.

   b. Methods for determining the size and location of a noncondensible gas bubble (reference Position (2) and Clarification A.(2)).

   c. Guidelines for operator use of the vents, including information and instrumentation available to the operator for initiating or terminating vent usage (reference Position (2)).

   d. Required operator actions in the event of inadvertent opening, or failure to close after opening, of the vents including a description of the provisions and instrumentation necessary to detect and correct these fault conditions (reference Position (2) and Clarification A.(2)).

   e. Methods which in lieu of venting will assure that sufficient liquid or steam will flow through the steam generator U-tube region so that decay heat can be effectively removed from the reactor coolant system (reference Clarification C.(2)).

2. Demonstrate that the reactor vessel head and pressurizer venting system flow restriction orifices are smaller than the size corresponding to the definition of a loss-of-coolant accident (10 CFR Part 50, Appendix A) by providing the pertinent design parameters of the reactor coolant makeup system and a calculation of the maximum rate of loss of reactor coolant through the vent orifices (reference NUREG-0737 Item II.B.1 Clarification A.(4)).

3. The following items apply to the portions of the reactor vessel head and pressurizer venting system that form a part of the reactor coolant pressure boundary, up to and including the second normally closed valve (reference NUREG-0737 Item II.B.1 Clarification A.(7)):

   a. Verify that the piping, valves, components, and supports designated QA Category I on your drawings are classified Seismic Category I and Safety Class 2 (Safety Class 1 where the size corresponds to the 10 CFR Part 50 Appendix A definition of a loss-of-coolant accident).

   b. Provide the design temperature and pressure of the piping, valves, and components.

   c. Describe the existing methods and instrumentation that has been provided to detect and measure reactor vessel head and pressurizer vent isolation valve seat leakage (reference Appendix A to 10 CFR Part 50, General Design Criterion 30).

   d. Describe the materials of construction and verify that they are compatible with the reactor coolant chemistry and will be fabricated and tested in accordance with SRP Section 5.2.3, "Reactor Coolant Pressure Boundary Materials."

4. Verify that the following reactor vessel head and pressurizer venting system failures have been analyzed and found not to affect the essential operation of safety-related systems required for safe reactor shutdown or mitigation of the consequences of a design basis accident:

   a. Seismic failure of venting system components that are not designed to withstand the safe shutdown earthquake.

b. Postulated missiles generated by failure of venting system components.

c. Fluid sprays from venting system component failures. Sprays from normally unpressurized portions of the vents that are Seismic Category I and Safety Class 1, 2, or 3 and have instrumentation for detection of leakage from upstream isolation valves need not be considered.

5. Verify that any nearby structures, systems, and components essential to safe shutdown of the reactor or mitigation of the consequences of a design basis accident are capable of withstanding the effects of the anticipated mixtures of steam, liquid, and noncondensible gas discharging from the reactor vessel head and pressurizer venting system.

6. Verify that operability testing of the reactor vessel head and pressurizer venting system valves will be performed in accordance with subsection IWV of Section XI of the ASME Code for Category B valves (reference NUREG-0737 Item II.B.1 Clarification A.(11)).

7. Verify that all displays (including alarms) and controls, added to the control room as a result of the TMI Action Plan requirement for reactor coolant system vents, have been or will be considered in the human factors analysis required by NUREG-0737 Item I.D.1, "Control-Room Design Reviews."