

Docket No. 50-280

October 31, 1984

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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:

By letter dated January 10, 1984, you informed the NRC that all piping and pipe support analyses associated with the Order to Show Cause dated March 13, 1979, and all modifications resulting from these analyses have been completed.

Because certain safety related piping systems at the facility had been designed and analyzed with a computer code which summed earthquake loads algebraically, the potential existed for compromising the basic defense-in-depth provided by redundant safety systems in the event of an earthquake. The potential compromising resulted from the possibility that an earthquake of the type for which the plant must be designed could cause a pipe rupture as well as degrade the emergency cooling system designed to mitigate such an accident. Therefore, by Order of the Director of Nuclear Reactor Regulation (the Director) for the Nuclear Regulatory Commission (NRC), dated March 13, 1979 (44 FR 16511, March 19, 1979), you were ordered to show cause:

- (1) Why the licensee should not reanalyze the facility piping systems for seismic loads on all potentially affected safety systems using an appropriate piping analysis computer code which does not combine loads algebraically;
- (2) Why the licensee should not make any modifications to the facility piping systems indicated by such reanalysis to be necessary; and
- (3) Why facility operation should not be suspended pending such reanalysis and completion of any required modifications.

In view of the importance to safety of this matter, the Order was made immediately effective and the facility was required to be placed in cold shutdown condition and remain in that mode until further Order of the Commission.

By Order dated August 22, 1979, the suspension of facility operation required by the Order to Show Cause of March 13, 1979 was lifted and the

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show cause proceeding was terminated on the basis of certain conditions. The lifting of the suspension of operation was based on the completion of all pipe stress analyses for the Design Basis Earthquake (DBE), the completion of all modifications to the supports inside containment, and a commitment to complete the analyses of pipe supports inside containment, and a commitment to complete the analyses of pipe supports outside containment within 60 days from the date of plant startup. The Safety Evaluation attached to the August 22, 1979 Order provided the basis for accepting the analysis performed by you.

Since at the time the Order was issued, analyses and modifications of pipe supports outside containment were not completed, the Order required that the facility be shut down if a seismic event occurred which resulted in accelerations greater than 0.01 g and that you inspect those safety and related piping systems which had not been reanalyzed and shown to be acceptable at the 0.07 g level of the Operating Basis Earthquake (OBE). The commitment to shut down for seismic events greater than 0.01 g was required only until such time that the reanalysis for the OBE loading condition, and any necessary modifications, were completed.

Since all of the analyses and modifications have now been completed, you have fulfilled the requirements of the March 13, and August 22, 1979 Orders and the remaining requirements to shut down the plant for certain seismic events can be rescinded as provided in the August 22 Order. Further operation will be in accordance with the Technical Specifications.

Accordingly, condition IV.5 of the Order dated August 22, 1979, is hereby rescinded.

Sincerely,

/s/SVarga

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

Enclosure:  
As stated

cc w/enclosure:  
See next page

ORB#1:DL  
CParrish  
10/3/84

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DNeighbors;ps  
10/30/84

C-ORB#1:DL  
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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:

The Commission today has issued the enclosed Order terminating the Order to Show Cause dated March 13, 1979, and the Order dated August 22, 1979.

This Order is issued because you have completed all piping and pipe support analyses associated with the Order to Show Cause dated March 13, 1979, and, all modifications resulting from these analyses have been completed.

A copy of this Order is being filed with the Office of the Federal Register for publication.

Sincerely,

Harold R. Denton, Director  
Office of Nuclear Reactor Regulation

Enclosure:  
Order

cc w/enclosure:  
See next page

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10/8/84

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VOLLNER  
10/3/84*

*- see note by  
Steve Burns  
10/15/84*

*3*

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

Surry Power Station  
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