



CONNECTICUT YANKEE ATOMIC POWER COMPANY

BERLIN, CONNECTICUT

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June 9, 1980

Docket No. 50-213  
A01020

Mr. Boyce H. Grier, Director  
Region I  
Office of Inspection and Enforcement  
U. S. Nuclear Regulatory Commission  
631 Park Avenue  
King of Prussia, PA 19406

Reference: (1) B. H. Grier letter to W. G. Council dated May 9, 1980.

Gentlemen:

Haddam Neck Plant  
I&E Bulletin No. 80-12  
Decay Heat Removal System Operability

In Reference (1), Connecticut Yankee Atomic Power Company (CYAPCO) was requested to respond to Staff concerns regarding loss of decay heat removal capability in Pressurized Water Reactors. Of particular concern were conditions involving plants in a refueling or cold shutdown mode.

In accordance with that request, the following information is provided pursuant to the provisions of 10CFR50.54(f). CYAPCO has reviewed the circumstances and sequence of events at Davis-Besse as described in I&E Information Notice No. 80-20 and has reviewed facility records for any Decay Heat Removal (DHR) degradation events. There have been no similar events of loss of all DHR at the Haddam Neck Plant. There have been two events where a loss of power to the particular bus supplying the operating Residual Heat Removal (RHR) pump has occurred. These events were of very short duration and presented no problems with respect to reinitiation of the flow necessary to remove the decay heat. One event (LER No. 76-14) was a total loss of offsite power while in the refueling mode which occurred on July 9, 1976. This caused a loss of RHR for approximately 30 seconds. The second event (LER No. 76-12) was caused by an overload on the bus supplying power to the operating RHR pump. On this occasion, June 18, 1976, the RHR pumps were inoperable for approximately two minutes.


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CYAPCO has also reviewed its hardware capabilities to prevent DHR loss events. The system is comprised of two full-sized pumps, two full-sized heat exchangers, and the associated pipes, valves, instruments, and controls to constitute a functional system that has adequate redundancy and reliability. The two RHR pumps are powered from separate buses which, in turn, are supplied from two offsite power supplies. Each redundant train can also be powered by the two emergency diesel generators. The instruments and controls are supplied from the semi-vital bus which has two power supplies with an automatic transfer feature. Those instruments and controls that use control air are supplied from two headers fed by three air compressors. Each are supplied power from MCC5, which has redundant feeders and is automatically fed from the diesel generator in the event of a loss of offsite power.

Procedures involving the DHR system operability have been reviewed and found adequate. Administrative procedures provide instructions for removing vital equipment, buses, air supplies, and protective systems from service. Adequate procedures exist for placing the RHR system in operation and for its removal from service. Emergency operating procedures provide instructions for responding to diverse losses of RHR flow in order to maintain DHR capability under various plant conditions and system configurations. Procedures and Technical Specifications also provide for maintaining or reestablishing RHR flow while in Mode 6. Based upon the above reviews of the system and procedures, no changes to existing procedures or hardware are considered necessary.

Very truly yours,

CONNECTICUT YANKEE ATOMIC POWER COMPANY

  
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W. G. Council  
Vice President

STATE OF CONNECTICUT )  
                              ) ss. Berlin  
COUNTY OF HARTFORD )

Then personally appeared before me, W. G. Council, who being duly sworn, did state that he is Vice President of Connecticut Yankee Atomic Power Company, the Licensee herein, that he is authorized to execute and file the foregoing information in the name and on behalf of the Licensee herein and that the statements contained in said information are true and correct to the best of his knowledge and belief.

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Notary Public