

NUCLEAR SCIENCE AND TECHNOLOGY FACILITY

FILE RE:

File #200.2.1.1
Ref. Docket 50-57
License #R-77

July 15, 1981

Mr. James R. Miller
Chief of Standards and Special Projects Branch
Nuclear Regulatory Commission
Division of Licensing
Nuclear Reactor Regulation
Washington, D. C. 20555



Dear Mr. Miller:

Report of equipment failure causing
non-compliance with Technical Specifications.

This letter is being submitted to document recent events at the Nuclear Facility and to provide documentation of statements made to the Commission by phone on 7/14/81.

On Friday morning 7/10/81, a routine check of our Emergency Core Cooling System was performed. It did not function properly to the extent that the solenoid valve would not re-close after the test was completed. The reactor was shut-down at the time of the test. The valve was disassembled, cleaned, and inspected. No visible signs of wear, breakage or other cause of failure was apparent but it still did not function. The staff member best qualified to work on the valve was out of town for the weekend. This person and others worked on the valve on Monday and Tuesday without finding a cause of failure. The reactor was operated beginning Sunday evening.

The valve manufacturer was consulted on Tuesday afternoon. His only suggestion was to replace the valve internal parts. Since this would require at least 1 or 2 more days to accomplish, it was deemed appropriate to inform the NRC Region I of our problem and obtain their interpretation of our Tech-Specs.

Our Tech. Specs. describe an AUTOMATIC ECCS system and makes no provision for removing it from service. We continued to operate the reactor because the system, if needed, could have been operated manually and so the safety of the reactor was not compromised. In talking to Mr. Gallo of Region I Inspection and Enforcement and Mr. Carter of Plant Licensing, it was stated that if the system did not operate automatically, we were in Technical violation of our license. As soon as we were informed of this opinion, the reactor was shut-down and secured.

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We will not operate the reactor at all until the system is fully functional. (An operator exam was scheduled for the 15th and had to be cancelled). New internal parts for the valve are being airfreighted to us. If the parts do not correct the problem, an entirely new valve will be obtained.

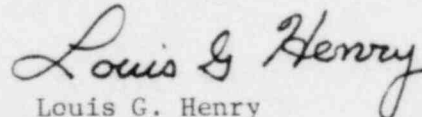
To prevent this problem from recurring in the future, we plan to stock replacement parts for the valve internals.

We would like to point out that the Safety Analysis Report for our reactor addresses the problem of pool water loss. It clearly states that a gross loss of pool water preceded by long term operation at full power would NOT cause damage to the PULSTAR core. The ECCS is a holdover from our original MTR type fuel. Our new Tech. Specs. submitted for a facility license renewal has omitted the requirement for an automatic valve. This change has not yet been evaluated or approved.

In talking to Inspection and Enforcement, it would seem that they do not have a copy of our "in force" Tech. Specs. A copy is being enclosed with this letter to Inspection and Enforcement.

Hopefully our actions will resolve our problem to everyone's satisfaction. We will resume operation as soon as the ECCS system is fully functional. If additional information on this matter is required, please do not hesitate to contact us.

Very truly yours,



Louis G. Henry
Acting Director

LGH:maw
cc: NRC Inspection and Enforcement
Enc.: Technical Specifications to I & E