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 WATSON, R. A. Carolina Power & Light Co.  
 RECIP. NAME RECIPIENT AFFILIATION  
 GRACE, J. N. Region 2, Ofc of the Director

SUBJECT: Provides info util presented to NRR & Region II mgt at  
 871021 meeting. Util understands that NRC concurs w/util  
 position re action required for inoperable GDC 55 or 56  
 containment isolation valve.

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OCT 29 1987

File Number: SHF/10-10000  
Letter Number: HO-870530 (O)

NLS-87-239

Dr. J. Nelson Grace, Regional Administrator  
United States Nuclear Regulatory Commission  
101 Marietta Street, NW  
Atlanta, GA 30303

SHEARON HARRIS NUCLEAR POWER PLANT  
DOCKET NO. 50-400/LICENSE NO. NPF-63  
FOLLOW-UP INFORMATION TO OCTOBER 21, 1987 ENFORCEMENT CONFERENCE

Dear Dr. Grace:

The purpose of this letter is to provide in writing the information Carolina Power & Light Company (CP&L) presented to NRR and Region II management at our meeting of October 21, 1987.

CP&L's understanding is that NRC concurs with CP&L's position regarding the action required for an inoperable GDC 55 or 56 containment isolation valve. That is, to close and deactivate an isolation valve (either inside or outside containment) thereby creating a closed passive barrier which satisfies the requirement of the Action statement to Technical Specification (TS) 3.6.3 for these penetrations. In addition, based on CP&L's presentation, the NRC also understands the equivalent logic CP&L applied to GDC 57 penetrations for closed systems inside containment, taking into account Note 6. The following is a discussion of when CP&L developed that logic to make the required Actions consistent for GDC 55, 56, and 57 penetrations and when it was applied to the failed BD-11 valve.

In early 1986, CP&L personnel working on the development of the Harris TSs suggested to NRR Staff that changes were needed to Standard Technical Specifications (STS) 3.6.3, Containment Isolation Valves. Our review of this specification showed that it was written with the dual isolation valve lines of GDC 55 and 56 in mind; therefore, it was ambiguous and inconsistent with regard to single valve-closed system type penetrations (GDC-57).

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When CP&L personnel proposed to clarify STS 3.6.3, NRR Staff indicated that it was very unlikely that changes would be made to STS 3.6.3 itself. As an alternative, NRR Staff suggested that notes should be added to the containment isolation valve table. CP&L agreed to this suggestion and proposed the change, which became Note 6 to the table. CP&L's intent for Note 6 was to provide equivalent actions for closed loop, single valve systems (GDC 57) to those already established for dual isolation valve systems (GDC 55 and 56). NRR Staff concurred with Note 6, and issued Note 6 with the original Shearon Harris TS. It was CP&L's belief that the issuance of Note 6 indicated that the NRC understood and concurred with this intent although specific discussions to the level of detail presented in the October 21, 1987 meeting did not take place during TS development.

CP&L's logic is illustrated by Figure 1. If for a GDC 55 or 56 valve, an outer valve fails in the open position, the OPERABLE inner valve fulfills the requirements of the opening phrase of the Action statement. If within the four-hour period the inner valve is closed and then deactivated, Action b is then met and the opening phrase is no longer applicable because the penetration is no longer open. The result is a single closed deactivated valve which provides a barrier that is subject only to passive failure. The STS then permits plant operations to continue indefinitely in this condition. This condition is equivalent to a GDC 57 penetration if the isolation valve is open and inoperable.

During late 1986 and early 1987, CP&L Staff conducted internal discussions on the details of interpretation in various hypothetical situations, including the containment isolation valve specification. These discussions involved the Director - Special Projects, individual operators, operations unit management, and site regulatory compliance personnel. The Director - Special Projects was responsible for CP&L's participation in the development of the Harris TSs from August 1985 until the issuance of the Operating License. From these discussions developed a position that if a valve such as BD-11 were to stick open, continued operation would be permissible under certain circumstances. However, the use of "Note 6" for closed system penetrations was not the subject of separate specific written instructions or procedures. The logic that was applied is as follows. First, credit for the closed system, in this manner could only be taken as long as the system was intact. Then based on the fact that Note 6, as issued by the NRC, specifies that we may take credit for the closed system as an isolation valve, CP&L concluded that the Action requirements of TS 3.6.3 Action b or c were satisfied. The result is a configuration which provides protection for GDC 57 penetrations which is equivalent to GDC 55 and 56 penetrations under the Action statement. Since the closed loop is an entirely passive boundary, it is not subject to an active single failure. With the closed system intact, the "open penetration" condition of the opening phrase of the Action statement for TS 3.6.3 is not meaningful for a GDC 57 penetration. In the context of a containment isolation valve, the term "open" was understood to mean open to either the Reactor Coolant System (RCS) or the containment



Dr. J. Nelson Grace

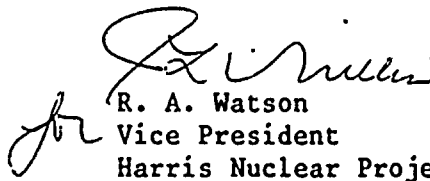
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atmosphere. With the closed system intact, the penetration is separated from either of those areas by a barrier that is only subject to a passive failure, and thus, is not "open" from an isolation standpoint.

At the time of the failure of BD-11, the shift's Senior Control Operator and Shift Foreman directed that an Equipment Inoperable Record be initiated to document entry into an Action statement and consulted the Director - Regulatory Compliance to obtain confirmation of the correct action. The Director - Regulatory Compliance understood that the blowdown system was intact inside of containment and the problem existed with operability of BD-11. In other words the logic, as presented in the October 21, 1987 meeting, was an explicit part of the decision to continue operation.

In summary, this letter reiterates CP&L's logic and basis for operating with BD-11 failed in the open position. If you have any further questions on this matter, please contact me.

Yours very truly,

  
R. A. Watson  
Vice President  
Harris Nuclear Project

RAW:lkd

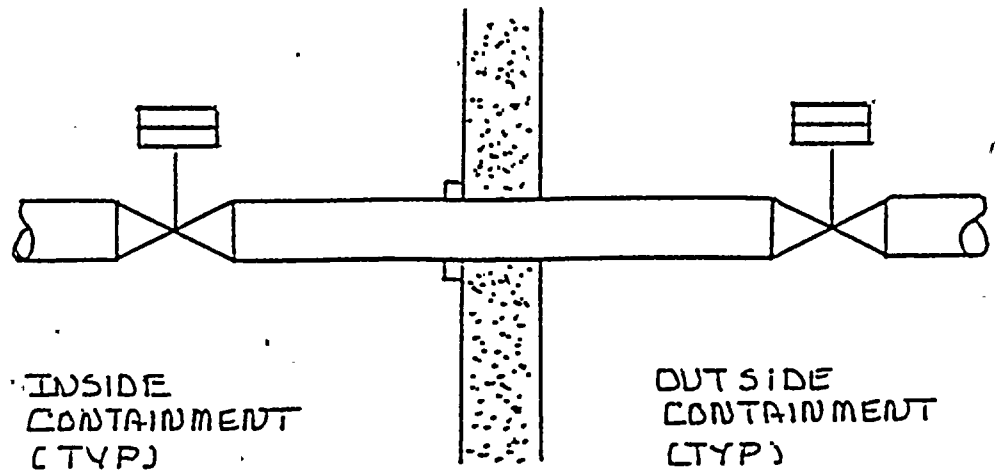
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# GENERAL DESIGN CRITERIA (55)

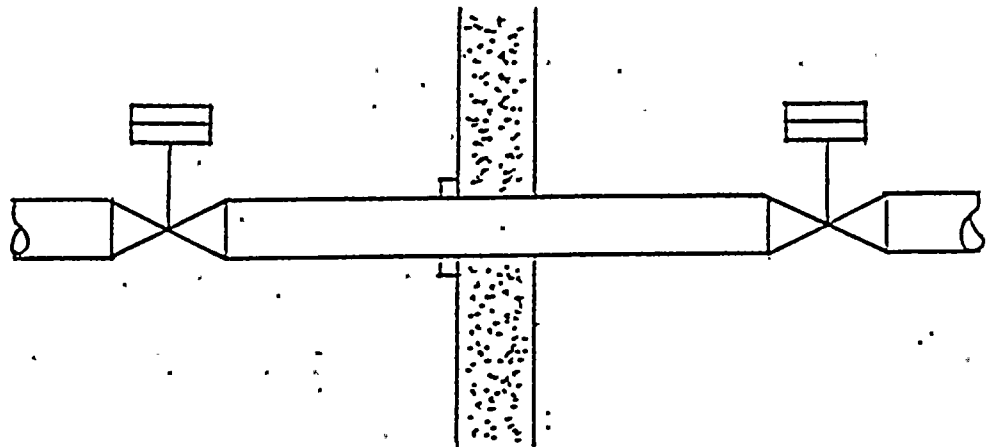
Figure 1

Piping Connects  
Directly To  
CONTAINMENT  
COOLANT  
SYSTEM  
FISSION  
PRODUCTS



# GENERAL DESIGN CRITERIA (56)

Piping Connects  
Directly To  
CONTAINMENT  
ATMOSPHERE  
FISSION  
PRODUCTS



Piping Does Not Connect  
Directly To Either  
CONTAINMENT  
ATMOSPHERE  
FISSION  
PRODUCTS

# GENERAL DESIGN CRITERIA (57)

or

REACTOR  
COOLANT  
SYSTEM  
FISSION  
PRODUCTS

