



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

NOV 23 1979

MEMORANDUM FOR: E. Jordan, Assistant Director  
Division of Reactor Operations Inspection  
Office of Inspection and Enforcement

FROM: Darrell G. Eisenhut, Acting Director  
Division of Operating Reactors  
Office of Nuclear Reactor Regulation

SUBJECT: CABLE SEPARATION VIOLATION

As a result of our Licensee Event Report (LER) review, it has been brought to our attention that the General Electric Company has advised its customers of a potential cable separation problem. Specifically, both the ADS control wiring and the HPCI inboard isolation valve control wiring are routed in common cable trays. This violates both G.E. criteria and NRC requirements regarding the separation of redundant safety systems. This is a possible generic problem for all BWR 4's. Earlier G.E. designs may also be affected.

We, therefore, recommend the issuance of the proposed IE Bulletin (enclosed) to all BWR licensees (except BWR 5's and BWR 6's) requesting information regarding the routing of the ADS control wiring, and isolation condenser, HPCI, and RCIC control wiring for the steamline isolation valves.

Please keep us informed of actions taken on this matter.

A handwritten signature in dark ink, appearing to read "Darrell G. Eisenhut".

Darrell G. Eisenhut, Acting Director  
Division of Operating Reactors  
Office of Nuclear Reactor Regulation

Enclosure:  
As stated

Contact:  
R. Kendall, X28218

cc w/enclosure:  
D. Eisenhut  
B. Grimes  
G. Lainas  
R. Satterfield  
F. Rosa  
V. Thomas  
D. Tondi  
R. Scholl  
R. Kendall  
PSB Section A

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PROPOSED IE BULLETINCABLE SEPARATION VIOLATIONDescription of Circumstances

This Bulletin was prompted by Licensee Event Reports (LERs; see References) in which General Electric advised its customers of a potential cable separation problem. Specifically, both the ADS control wiring and the HPCI inboard isolation valve control wiring are routed in common cable trays. This violates both G.E. criteria and NRC requirements regarding the separation of redundant safety systems.

Actions to be Taken by Licensees

For all BWR reactor facilities\* with a construction permit or an operating license:

1. Evaluate the ADS control wiring and HPCI steamline isolation valve wiring configuration used at your facility; and:
  - a. Determine whether the situation described above exists at your facility.
  - b. If so, describe how this configuration complies with the physical independence and electrical separation criteria for Class 1E cables of redundant safety systems.
  - c. Describe any proposed design modifications resulting from this evaluation.
2. Where credit is taken for the RCIC system as a redundant system to the HPCI system in the operational analysis (e.g., for mitigating the consequences of a rod drop accident),
  - a. Evaluate the control wiring of these redundant safety systems and determine whether a cable separation problem (i.e., cables from redundant systems routed in common cable trays) exists at your facility.
  - b. If so, describe how this configuration complies with the physical independence and electrical separation criteria for Class 1E cables of redundant safety systems.
  - c. Describe any proposed design modifications resulting from this evaluation.

\*BWRs 5s and 6s may not be affected.

3. Where credit is taken for any other Engineered Safety Feature system (e.g., Isolation Condenser or any other high pressure system) in the operational or safety analyses as a redundant system to the ADS system:
  - a. Evaluate the control wiring of these systems and determine whether a cable separation problem as described above exists at your facility.
  - b. If so, describe how this configuration complies with the physical independence and electrical separation criteria for Class 1E cables of redundant safety systems.
  - c. Describe any proposed design modifications resulting from this evaluation.

References

1. LER#79-056/01T-0, FitzPatrick
2. LER#79-068/01T-0, Brunswick 1
3. LER#79-076/01T-0, Hatch 1
4. LER#79-098/01T-0, Hatch 2

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