



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

TERA

JUL 25 1980

Docket No. 50-³³⁸~~300~~

Mr. J. H. Ferguson
Executive Vice President - Power
Virginia Electric and Power Company
Post Office Box 26666
Richmond, Virginia 23261

Dear Mr. Ferguson:

SUBJECT: OVERRIDE OF CONTAINMENT PURGE AND OTHER ESF ACTUATION SIGNALS -
NORTH ANNA, UNIT 1

In our review of the generic task as noted in the subject above, we find that additional information is required as provided in the Enclosure to this letter.

This information is required in order that we may complete our review of these matters. We request that your response be provided within 30 days receipt of this letter. Please inform us within seven days after receipt of this letter of your confirmation of our requested response date or the date you will be able to meet.

Sincerely,

A handwritten signature in cursive script, appearing to read "T. Novak".

Thomas Novak, Assistant Director
for Operating Reactors
Division of Licensing

Enclosure:
As stated

cc w/enclosure:
See next page

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Mr. J. H. Ferguson
Virginia Electric and Power Company

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Atomic Safety and Licensing
Appeal Board Panel
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

NORTH ANNA UNIT 1.REQUEST FOR ADDITIONAL INFORMATION
BYPASS AND RESET OF
ENGINEERED SAFETY FEATURES

1. The information presented in your FSAR and your letters of January 17, 1979 and December 20, 1979, is not sufficient to determine if the following requirements are met for the safety signals to all Engineered Safety Features (ESF) equipment. Therefore, identify and justify all exceptions to the following:

Criterion 1 - In keeping with the requirements of General Design Criteria 55 and 56, the overriding^a of one type of safety actuation signal, e.g., radiation, should not cause the blocking of any other type of safety actuation signal, e.g., pressure, for those valves that have no function besides containment isolation.

Criterion 2 - Sufficient physical features e.g., key lock switches, are to be provided to facilitate adequate administrative controls.

Criterion 3 - A system level annunciation of the overridden status should be provided for every safety system impacted when any override is active. (See R.G. 1.47.)

Criterion 4 - Diverse signals should be provided to initiate isolation of the containment ventilation system. Specifically, containment high radiation, safety injection actuation, and containment high pressure (where containment high pressure is not a portion of safety injection actuation) should automatically initiate containment ventilation isolation.

Criterion 5 - The instrumentation and control systems provided to initiate the ESF should be designed and qualified as safety grade equipment.

Criterion 6 - The overriding or resetting^b of the ESF actuation signal should not cause any valve or damper to change position.

The following definitions are given for clarity of use:

- a - Override: the signal is still present, and it is blocked in order to perform a function contrary to the signal. The term "override" where used in this Request for Information, includes functionally equivalent techniques of signal modification, e.g., "bypass."
- b - Reset: the signal has come and gone, and the circuit is being cleared in order to return it to normal condition.

2. In addition to responding to the general question above, please provide the following specific information:
 - (1) Provide a tabulation of the following information for each valve or damper in the Containment Depressurization, Containment Atmosphere Cleanup, and Habitability (i.e., control room) Systems which operate automatically following an accident:
 - a. Component designation
 - b. System served
 - c. Safety function, e.g., containment isolation, spray initiation
 - d. Actuation signal sources
 - e. Reference to control circuitry (see 2.(3) below)
 - f. Indication whether or not the component safety function indicated in 2.(1) above can be defeated through the use of a manual override in either the control system or actuation signal system circuitry.
 - (2) For each actuation signal system and component actuation system identified in 2.(1)d and 2.(1)e above, incorporating a manual reset or override feature, provide a complete circuit description, including detailed diagrammatic information (i.e., as-built circuit diagram, schematics, logics) sufficient to allow a thorough understanding of the operation of such circuitry, including the function and effect of all control devices (e.g., relays, contacts, switches, diodes, etc.).
 - (3) For each manual override feature identified in 2.(1) above, provide a description of the physical feature(s) furnished to prevent inadvertent operation and to satisfy the requirements of Criterion 2 above (IEEE Std. 279-1971, Section 4.14).
 - (4) For each actuation signal identified in 2.(1)d above, identify the design standards, quality assurance requirements, and component qualification standards involved to ensure that the systems will perform their designated safety function upon demand.