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

June 24, 1980

Docket No. 50-346

Mr. Lowell E. Roe
Vice President, Facilities
Development
Toledo Edison Company
Edison Plaza
300 Madison Avenue
Toledo, Ohio 43652

Dear Mr. Roe:

Your letter of March 23, 1979, proposed several changes to the Davis-Besse Nuclear Power Station, Unit No. 1 Technical Specifications (TS). In this submittal, proposed change number 2 would alter the Safety Features Actuation System (SFAS) Containment Radiation Instrumentation Requirements. Currently, your TS require that containment radiation instruments be operable in all modes of plant operation to initiate containment purge isolation and to initiate the emergency ventilation system on a high radiation signal. Your proposed change would alter this requirement such that operability would no longer be required except when moving irradiated fuel, making positive reactivity changes, or making core alterations while in Mode 6. Your justification for the proposed change is that this signal is only a backup to the reactor coolant system low pressure and containment high pressure SFAS actuation signals, and that none of Final Safety Analysis Report (FSAR) accident analyses identify or take credit for this backup signal.

We have reviewed proposed change number 2 of your March 23, 1979, submittal and find that implementation of this change would be contrary to the staff's Branch Technical Position CSB 6-4, "Containment Purging During Normal Plant Operations". In this technical position, one of the acceptance criteria is that diverse signals should be provided to initiate isolation of the containment purge system. Specifically, high containment radiation, as well as safety injection actuation and containment high pressure, should automatically initiate containment purge isolation. Therefore, proposed change number 2 of your March 23, 1979, submittal that would alter the SFAS Containment Radiation Requirements is denied.

In a related matter, the staff is continuing a review of bypass and reset capabilities of engineered safety features for Davis-Besse 1. The enclosure identifies additional information required to complete this review. You are requested

to provide a response to the items identified in the enclosure within 30 days of receipt of this letter.

Sincerely,

Thomas M. Novak, Assistant Director
for Operating Reactors
Division of Licensing

Enclosure:
Request for Additional
Information

cc w/enclosure: See next page

Toledo Edison Company

cc w/enclosure(s):

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ENCLOSURE

REQUEST FOR ADDITIONAL INFORMATION FOR BYPASS AND RESET OF ENGINEERED SAFETY FEATURES FOR DAVIS-BESSE 1 DOCKET NO. 50-346

1. The information presented in your FSAR and your letters of December 13, 1978 and January 18, 1980, 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 CVI.

   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.

2. In addition to responding to the general queation above, please provide the following specific information:

The following definitions are given for clarity of use in this evaluation:

a - Override: the signal is still present, and it is blocked in order to perform a function contrary to the signal.

b - Reset: the signal has come and gone, and the circuit is being cleared in order to return it to the normal condition.

(1) Provide an "as built" tabulation of all Engineered Safety Features (ESF)/Auxiliary Supporting Features (ASF) valves and dampers required to be operated automatically following an accident. This tabulation should include the following:

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 or bypass in either the control system or actuation signal system circuitry.

(2) For each manual bypass or override feature identified in 2(1) above, provide a description of the physical feature(s) provided to prevent inadvertant operation and to satisfy the requirements of IEEE Std. 279-1971, Section 4.14.

(3) For each actuation signal system and component actuation system identified in 2(1)d and 2(1)e above, incorporating a manual reset, override or bypass feature, provide a complete circuit description, including detailed pictorial 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.).

(4) For each actuation signal identified in 2(1) 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.