



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
SUPPORTING AMENDMENT NO. 77 TO FACILITY OPERATING LICENSE NO. NPF-3

TOLEDO EDISON COMPANY

AND

THE CLEVELAND ELECTRIC ILLUMINATING COMPANY
DAVIS-BESSE NUCLEAR POWER STATION, UNIT NO. 1

DOCKET NO. 50-346

Introduction

In July 1983, the NRC staff conducted an inspection of the Davis-Besse Nuclear Power Station to verify compliance to NRC requirements for fire protection. One result of this inspection was a request to Toledo Edison Company (TED) to remove power to the decay heat removal (DHR) system suction line isolation valves, DH-11 and DH-12, during power operation. This request is discussed in the staff Safety Evaluation Report on the Fire Protection Corrective Action Plan, dated September 23, 1983. This action is intended to ensure that a fire in the vicinity of the control or power circuitry of the DHR system valves would not cause spurious opening of these valves during normal operation initiating a LOCA outside of containment.

Discussion and Evaluation

In response to the staff request, TED, by letter dated November 21, 1983, requested a change to Technical Specification Section 4.5.2.d which would permit power removal from valves DH-11 and DH-12 when in operational Modes 1, 2 or 3, when these valves must be closed because the reactor coolant system pressure is higher than the DHR system design pressure. TED stated that the valve position indication is unaffected by removal of the power from the motor operators since the valve position indication is powered from a separate power source.

To achieve cold shutdown, operation of the isolation valves (DH-11 and DH-12) motor power supply breakers will be required. Then the valves could be opened to initiate residual heat removal (RHR) cooling. The actions that need to be taken by an operator outside of the control room and the time necessary to take them have been examined and have been determined to be acceptable.

TED has verified by letter dated May 2, 1984, that it will take less than ten minutes for the operators to reach the motor control centers for valves DH-11 and DH-12. The breaker for valve DH-11 is located at Room 427, one level below the control room and the breaker for valve DH-12 is located at Room 304, two levels below the control room. The operator will not be exposed to any unacceptable environmental conditions by going to the motor control centers. Both motor control centers are located within the radiation control access which has a nominal exposure of 10 mR per hour.

Although Branch Technical Position RSB 5-1 states that the plant should be capable of being brought to the cold shutdown conditions from inside the control room, the Davis-Besse Nuclear Power Station is a class 3 plant under the implementation plan for BTP RSB 5-1 and, therefore, was not reviewed against RSB BTP 5-1.

The staff finds that the proposed changes to Technical Specification Section 4.5.2.d will not cause unsafe operation of the plant and therefore, they are acceptable.

ENVIRONMENTAL CONSIDERATION

This amendment involves a change in the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20, and a change in a surveillance requirement. The staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that this amendment involves no significant hazards consideration and there has been no public comment on such finding. Accordingly, this amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of this amendment.

CONCLUSION

We have concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (2) such activities will be conducted in compliance with the Commission's regulations and the issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public.

Dated: November 6, 1984

Principal Contributors: C. Liang