



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
SUPPORTING AMENDMENT NO. 98 TO FACILITY OPERATING LICENSE NO. DPR-50

METROPOLITAN EDISON COMPANY

JERSEY CENTRAL POWER AND LIGHT COMPANY

PENNSYLVANIA ELECTRIC COMPANY

GPU NUCLEAR CORPORATION

THREE MILE ISLAND NUCLEAR STATION, UNIT NO. 1

DOCKET NO. 50-289

Introduction and Background

The NRC's Standard Technical Specifications (STS) were formulated to preserve the single failure criterion for systems that are relied upon in the safety analysis report. By and large, the single failure criterion is preserved by specifying Limiting Conditions for Operation (LCOs) that require all redundant components of safety related systems to be operable. When the required redundancy cannot be maintained, action is required within a specified time to change the operating mode of the plant to place it in a safe condition; the time to take this action provides an opportunity to fix equipment and make it operable. If equipment can be returned to an operable status within the specified time, plant shutdown is not required.

LCOs are specified for each safety related system in the plant, and with few exceptions, the action statements address single outages of components, trains or subsystems. For any particular system, the LCO does not address multiple outages of redundant components, nor does it address the effects of outages of any support systems - such as electrical power or cooling water - that are relied upon to maintain the operability of the particular system. This is due to the fact that a large number of combinations of these types of outages are possible. Instead, the STS employ general specifications (3.0.3 and 3.0.5) and an explicit definition of the term operable to encompass all such cases. These provisions have been formulated to assure that no set of equipment outages would be allowed to persist that would result in the facility being in an unprotected condition.

In a letter dated April 10, 1980, the NRC requested all Power Reactor Licensees to: 1) submit proposed changes to their Technical Specifications (TSs), within 30 days, that incorporate the requirements of the STS, and 2) implement the above described procedures to assure compliance with their proposed changes within 30 days thereafter. Proposed revised TSs were included in the April 10, 1980 letter that specifically addressed the definition of operable as it applied to failures in the diesel generators and the redundant loops in a safety system. In response to this letter, GPU Nuclear Corporation (GPUN) submitted TS Change Request No. 95, dated September 30, 1980. In this response, the STS definition of operable was included, but the general specification sections from Chapter 3

of the STS (3.0.3 and 3.0.5) were not included; GPU Nuclear felt that inclusion of 3.0.3 and 3.0.5 would cause overly restrictive shutdown requirements unless Chapter 3 was entirely rewritten.

In a letter from GPUN to the NRC dated February 9, 1983, TS Change Request No. 95 was withdrawn. In a December 30, 1983 letter (Stolz, NRC to Hukill, GPUN), the NRC requested GPU Nuclear to resubmit a proposed TS change addressing the concerns of the April 10, 1980 letter. On March 28, 1984, GPUN submitted TS Change Request No. 139; included was a revised definition of operable, but not general specification sections 3.0.3 and 3.0.5.

During April and May 1984, Region I had several meetings and discussions with the licensee to explain what was specifically needed to address the concerns of the April 10, 1980 letter, and how to incorporate general specification sections 3.0.3 and 3.0.5 into their plant specific TSs. On May 11, 1984, GPUN submitted TS Change Request No. 139, Rev. 1.

Evaluation

In July and September 1981, the Westinghouse STS were revised. The definition of operable was rewritten, and general specification 3.0.5 was deleted; however, its requirements were added to the Westinghouse STS in Section 3.8.1.1, "Diesel Generators". This approach was used by GPUN in the May 11, 1984 submittal. The definition of operable and general specification 3.0.5 were adequately incorporated and were consistent with the philosophy of the STS. Therefore, we find these two areas of proposed change to be acceptable.

The third and final area of concern, general specification 3.0.3, was incorporated in the licensee's proposed TSs in accordance with the B&W STS. However, to prevent overly restrictive shutdown requirements, applicability of this requirement is stated in the appropriate sections of Section 3.

A review of the licensee's TSs and of the Westinghouse and B&W STS was necessary to determine if all the appropriate sections in Section 3 of the licensee's TSs were adequately covered by action statements or by general specification 3.0.3. Based on this review, we find this area of proposed change to be acceptable. Since all three areas of concern described in the April 10, 1980 NRC letter were adequately addressed in the licensee's submittal, and were in agreement with the philosophy of the Standard Technical Specifications, we find this proposed change, TSCR No. 139, Rev. 1, to be acceptable.

Environmental Consideration

This amendment relates to changes in recordkeeping, reporting, or administrative procedures or requirements. Accordingly, this amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(10). 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 Commissions'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.

Principal reviewer: R. Urban, Division of Project and
Resident Programs, Region I

Dated: August 7, 1984