SAFETY EVALUATION REPORT

IPSAR SECTION 4.14, THERMAL-OVERLOAD PROTECTION OF MOTOR-OPERATED VALVES

OYSTER CREEK

I. INTRODUCTION

The final Integrated Plant Safety Assessment Report (IPSAR) for Oyster Creek (NUREG-0822) concluded that the licensee would evaluate the thermal-overload relays for the motor operator for each engineered safety feature (ESF) valve. If thermal-overload relay setpoints could not be conservatively established, the licensee was to bypass that device. Furthermore, the staff established the position that this effort was to be completed before the startup after the Cycle X refueling outage. The licensee provided the methodology for establishing setpoints in a letter dated July 30, 1984.

II. EVALUATION

A. Staff Requirements

The staff requirements are provided in:

1. IEEE Std. 279-1971
2. Regulatory Guide 1.106

B. Information Provided by the Licensee

A letter from the licensee dated July 30, 1984, contained a technical report identified as TDR 519 Revision 0 "SEP Topic No. III-10.A, Thermal-Overload Protection for Motors of Motor-Operated Valves." The technical report provides:

1. A statement that the licensee will satisfy the staff requirements by satisfying Regulatory Guide 1.106 position C2.

2. A list of references used in developing the setpoint methodology and providing the necessary technical data.

3. A description of the methods and sample calculations.

4. A summary of the results.

The letter also proposes to complete the evaluation for each subject valve and institute suitable modifications by the end of March 1985.

C. Results of Staff Review

The staff review of TDR 519 Revision 0 indicates that the licensee has developed a coherent methodology for establishing thermal-overload trip setpoints with all uncertainties resolved in favor of completing the safety-related valve action. This method was based on factors and equipment that are specific to Oyster Creek.

The licensee's proposed schedule does not agree with the staff's position in NUREG-0822, but the March 1985 date is acceptable because:

1. The licensee has made a good faith effort to complete the work prior to startup. In this regard, the licensee has maintained contact with the staff and kept us informed of their approach to this problem since the Spring of 1984.

2. The plant is in the process of restarting after a prolonged outage. The startup testing will provide an extraordinary challenge to motor-operated valves and will disclose any protective devices that are set too low. Additional margin in these tests will be provided by the additional power required to stroke valves with dried packing. (The dry packing results from the prolonged shutdown and causes additional stem friction).

III. CONCLUSION

The staff concludes that the program, methods, and schedule proposed in the July 30, 1984 letter provide an acceptable resolution to IPSAR Section 4.14.