UNITED STATES
NUCLEAR REGULATORY COMMISSION
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DESIGNATED ORIGINAL

Certified By Patricia J. Noonan

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 61 TO LICENSE NO. DPR-36

MAINE YANKEE ATOMIC POWER COMPANY

MAINE YANKEE ATOMIC POWER STATION

DOCKET NO. 50-309

Introduction

By letter dated May 21, 1981, as supplemented by letter dated December 11, 1981, Maine Yankee Atomic Power Company (MYAPC or the licensee) proposed changes to the Administrative Controls section of the Maine Yankee Technical Specifications. These changes are the establishment of a separate training department and other organizational changes intended to strengthen the management structure.

For a separate and unrelated issue, the licensee, by letter dated April 12, 1982, proposed changes to the Maine Yankee Technical Specifications increasing the minimum number of operable sensors for the safety injection actuation signal. We have evaluated both proposed changes.

Evaluation

1. Administrative Controls

The following are evaluations of each proposed change to the Maine Yankee administrative control Technical Specifications (Section 5):

A. Figure 5.2-1, MYAPC Offsite Organization

MYAPC has established a separate training department reporting to the Manager of Operations. The Nuclear Engineering and Licensing Department now reports directly to the Vice President - Operations and functions as the focal point for Maine Yankee's interface with the NRC. The Manager of Operations is now a separate position reporting directly to the Vice President - Operations. This position is responsible for operational management of the plant and corporate support staff and for coordination of these activities with other corporate entities. Other changes in Figure 5.2-1 reflect title changes.

We have reviewed the above organizational changes and found that they should strengthen the corporate management structure and are therefore acceptable. The formation of a separate training department within the corporate support staff should improve management and coordination of the MYAPC nuclear training programs.

B. Figure 5.2-2, MYAPC Facility Organization

The Facility or Plant Organization has undergone several changes. The Fire Protection Section now reports to Head of Technical Support Department, and the Nuclear Safety Engineers, Plant Engineering, Operational Quality Assurance, Plant Training and Security now report administratively to the Plant Manager but functionally to the offsite corporate organization. The Operations Department Head is now shown to require a Senior Operator License.

In its letter dated May 21, 1981, MYAPC stated that it intends to establish an Independent Safety Engineering Group (ISEG) and that the proposed Technical Specification (TS) changes reflect this. After having reviewed the proposed TS changes we did not find any reference to this group. In a telephone conversation on April 26, 1982 with John Garrity, Senior Director of Nuclear Engineering and Licensing for Maine Yankee, Mr. Garrity explained that an ISEG consisting of four engineers, including a supervisor, has been functioning at Maine Yankee for some time. The ISEG is part of the Nuclear Safety Engineers Group located on site but reporting off site to the Director of Operational Support. MYAPC plans to increase ISEG to at least five full-time members in the near future. At this time, the requirement for establishing an ISEG is being applied only to applicants for operating licenses. Therefore, the ISEG at Maine Yankee need not be required by the TS.

We have reviewed the above organizational changes and find that they should provide for more efficient management of the large staff and more diverse staff activities and responsibilities which have evolved in the past few years. The duties and qualifications of the positions remain unchanged. The changes are therefore acceptable.

C. Section 5.3, Facility Staff Qualifications

The change is editorial in nature and reflects a title change (Radiological Control Supervisor to Radiological Control Section Head). The duties and qualifications of the position remain unchanged. The change is therefore acceptable.

D. Section 5.5, Review and Audit

The changes in subsection 2, Composition of the Plant Operation Review Committee (PORC), reflect title changes only (Reactor Engineering Supervisor to Reactor Engineering Section Head, Chemistry Supervisor to Chemistry Section Head, Instrument and Control Supervisor to Instrument and Control Section Head, Radiological Controls Supervisor to Radiological Controls Section Head). The duties and qualifications of the positions remain unchanged. The changes are therefore acceptable.

E. Section 5.12, High Radiation Area

The changes in subsections 5.12.1 and 5.12.2 are editorial in nature and reflect title changes only (Radiological Control Supervisor to Radiological Control Section Head). The duties and qualifications of the positions remain unchanged. The changes are therefore acceptable.

2. Safety Injection Actuation Signal

By letter dated January 29, 1982, Confirmatory Action Letter 82-01 was sent to MYAPC by Ronald C. Haynes, Regional Administrator, USNRC Region I. This letter noted that on January 28, 1982, it had been found that the automatic safety injection logic for Maine Yankee did not satisfy the Commission regulations with regard to single failure criterion. Safety injection is actuated on low pressurizer pressure and on high containment pressure. Four measurement channels are provided for each parameter. Redundant trains (A & B) of output relays are provided to actuate safety injection equipment to perform the required safety function. The logic matrix which combines the sensing channels to produce safety injection initiation based on a trip of any two of the four sensing channels was implemented by only a single logic circuit for each parameter. High containment pressure was a two-out-of-four A train logic and low pressurizer pressure was a two-out-of-four B train logic. Therefore the design satisfied the single failure criterion only for events which result in coincident low pressurizer pressure and high containment pressure.

MYAPC proposed to add two-out-of-four logic matrices to both the A and B train logic such that each train of safety injection is independently initiated upon low pressurizer pressure or high containment pressure. Our safety evaluation finding this modification acceptable was issued on April 27, 1982 in a letter from R. Starostecki, USNRC Region I, to J. Randazza, MYAPC. The modification has been implemented.

In that safety evaluation we noted that Maine Yankee TS 3.9 (Table 3.9-2) requires, as a minimum, two operable high containment pressure and two operable low pressurizer pressure sensors. If Maine Yankee operated at these minimum requirements, a single sensor failure could cause the failure of safety injection actuation for events which do not result in both low pressurizer pressure and high containment pressure. We further noted MYAPC's commitment to place at least one inoperable sensor in the tripped position should the number of operable sensors fall to two and to propose this change to the TS.

By letter dated April 12, 1982, MYAPC provided the proposed TS changes to satisfy the single failure criteria. In Table 3.9-2, the minimum number of operable sensors for Safety Injection (High Containment Pressure and Low Pressurizer Pressure) would change from two to three. Also this footnote would be added to Table 3.9-2: "Two operable sensors is acceptable, provided one of the inoperable sensors is placed in a configuration which simulates the tripped condition." In addition the Bases portion of TS 3.9 is changed to reflect these revisions.

By requiring three operable sensors or two operable sensors plus one inoperable sensor in the tripped condition, the single failure concerns expressed in our safety evaluation issued on April 27, 1982 will be satisfied by approval of the proposed changes.

In a separate issue (Multi Plant Action E-07) we have reviewed the reactor protection system and engineered safety feature actuation system logic requirements, on a generic basis, for Combustion Engineering facilities such as Maine Yankee. Our position on this subject was sent to Maine Yankee on March 31, 1982. Our position allows two options. Option 1 requires three operable sensors with a fourth inoperable sensor placed in the tripped condition within 48 hours of inoperability. Option 2 requires three operable sensors but a fourth inoperable sensor may be in the bypass condition for an extended period of time (until next cold shutdown). MYAPC was requested to propose TS conforming to Option 1 or 2 within six months of our March 31, 1982 letter.

Both options discussed above are more restrictive than the TS changes proposed by MYAPC on April 12, 1982. However, the licensee's review of our March 31, 1982 letter and the proposal of appropriate TS is not complete and need not be complete until September 1982. Therefore, we find that implementation of the changes proposed on April 12, 1982, which satisfy the single failure concerns expressed previously, is acceptable. The licensee's response to our March 31, 1982 letter will be evaluated as a separate issue.

Environmental Consideration

We have determined that the amendment does not authorize a change in effluent types or total amounts nor an increase in power level and will not result in any significant environmental impact. Having made this determination, we have further concluded that the amendment involves an action which is insignificant from the standpoint of environmental impact and, pursuant to 10 CFR §51.5(d)(4), that an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with the issuance of this amendment.

Conclusion

We have concluded, based on the considerations discussed above, that: (1) because the amendment does not involve a significant increase in the probability or consequences of an accident previously evaluated, does not create the possibility of an accident of a type different from any evaluated previously, and does not involve a significant reduction in a margin of safety, the amendment does not involve a significant hazards consideration, (2) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (3) 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.

Date: July 14, 1982

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