



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 67 TO FACILITY OPERATING LICENSE NO. DPR-50

METROPOLITAN EDISON COMPANY
JERSEY CENTRAL POWER AND LIGHT COMPANY
PENNSYLVANIA ELECTRIC COMPANY

THREE MILE ISLAND NUCLEAR STATION, UNIT NO. 1

DOCKET NO. 50-289

Introduction

By letter dated April 24, 1981 (LIL 113) Metropolitan Edison Company (Met Ed) requested an amendment to Appendix A of the Operating License No. DPR-50 for the Three Mile Island Nuclear Station, Unit No. 1 (TMI-1). This amendment would permit hot functional testing without requiring the carbon analysis of the air filter systems for the control building emergency ventilation system and the reactor building purge exhaust system. This amendment is applicable only during the hot functional testing which is part of the restart program.

Discussion and Evaluation

The filter systems for the control building ventilation system and the reactor building purge exhaust system contain carbon filters specifically designed to absorb radioactive Iodine I_{131} , in order that any potential accident release to the atmosphere would be less than that allowed by 10 CFR 100. To assure that the requirements of 10 CFR 100 are met, Appendix A of the license requires that the filter systems are operable when containment integrity is required. Appendix A of the license requires the licensee to demonstrate operability by testing the carbon filter periodically and following any unusual activities in the containment building (i.e., significant painting, use of chemicals, etc.) that could cause the filters to become inoperable. Furthermore, containment integrity is required whenever the following conditions exist: (1) reactor coolant pressure is 300 psig or greater, (2) reactor coolant temperature is 200°F or greater and (3) nuclear fuel is in the core. All three of these conditions will exist during hot functional testing under the restart program.

The proposed change waives the specific laboratory carbon sample analysis during this specific hot functional testing period. The justification for the proposed change is that virtually no I_{131} nor its associated isotopes exist in the core or in containment. This condition exists because of the extended shutdown period of TMI-1 (> 2 years) and the relative short half lives of I_{131} and its associated isotopes. In addition, since heatup for hot functional testing is by pump heat and the reactor is to remain shutdown (by Commission's Order), no new I_{131} or its associated isotopes will be generated during hot functional testing. Furthermore, based on our assessment of the conditions existing at TMI-1, we agree with the licensee that virtually no I_{131} exists in the core or in containment and any potential accidental I_{131} release to the atmosphere even if the carbon filters were inoperable will be well within the limits allowed

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by 10 CFR 100. However, the carbon filters will be replaced prior to reactor startup following major construction or painting activities. On this basis we find the proposed change to delete the requirement for the specific laboratory carbon sample analysis for the air filter system for the control building emergency ventilation system and the reactor building purge exhaust system prior to hot functional testing preceding Cycle 5 restart to be acceptable.

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 accidents previously considered and does not involve a significant decrease in a safety margin, 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.

Dated: June 1, 1981