

Reg Files

In the matter of

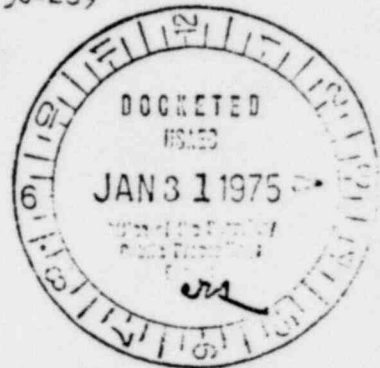
Metropolitan Edison Company

Docket No. 50-289

Jersey Central Power and Light Company

Pennsylvania Electric Company

Three Mile Island Nuclear Station, Unit I

PETITION FOR INTERVENTION

The York Committee for a Safe Environment, the Citizens for a Safe Environment, and the Environmental Coalition on Nuclear Power (the "Petitioners"), on behalf of their supporting members and individuals, under the authority of the Atomic Energy Act of 1954, Section 11 (s) and 189 (a), and Section 2.714 of Chapter 10 of the Code of Federal Regulations, do hereby petition the Atomic Energy Commission and/or its successor agency (herein termed AEC) for leave to intervene in the proceeding involving a modification of the operating license for Three Mile Island Nuclear Station, Unit I, dated December 27, 1974.

1. The Petitioners' interest in this proceeding has been established in prior proceedings. The York Committee for a Safe Environment participated in the operating license hearings for Peach Bottom, and is an intervenor in the Fulton Generating Station construction permit proceedings, Dockets 50-463 and 50-464, and the Three Mile Island, Unit 2, operating license proceeding, Docket 50-320. Citizens for a Safe Environment participated in Three Mile Island, Unit I, operating license hearings, Docket 50-289, and is an intervenor in the Three Mile Island, Unit 2, operating license proceedings, Docket 50-320. The Environmental Coalition on Nuclear Power participated in the Three Mile Island, Unit I, and Peach Bottom, Units 2 and 3, hearings.

2. Petitioners contend that the Emergency Core Cooling System (ECCS) changes required by the Atomic Energy Commission Order of December 27, 1974, are totally inadequate to protect the public in the event of a loss of coolant

accident (LOCA). Neither the Regulatory Staff of the AEC nor the reactor vendor is capable of showing through experimental evidence that the required modifications are sufficient. The fact that the facility was allowed to be built, and then licensed for operation, by the AEC with safety systems based on a computer model that is now admitted by AEC to be deficient and unacceptable suggests either gross incompetence on the part of the AEC or a complete disregard for the public safety by the utility and reactor vendor, or both. The AEC statement that the revised model is now "acceptable" lacks credibility in the absence of definitive experimental verification.

3. Petitioners contend that neither the AEC nor the reactor vendor has shown that computer technology is even capable of replacing experimentally determined parameters in describing very complex systems. The changes in ECCS design and in reactor operations in the last few years that have been brought about by the Interim Acceptance Criteria were based largely on computer model changes which potentially have little or no connection with the real conditions under which ECCS would be required to operate.

4. Petitioners contend that the specific ECCS for the Three Mile Island, Unit I, reactor does not appear to have a manual shutdown capability. Such a feature would be of critical importance in the event that the ECCS does not function well enough to provide sufficient cooling in the critical first minute of a LOCA. Without the possibility of manual flow stoppage once the ECCS is activated, starts up too late or otherwise fails to achieve its design objective, and core meltdown ensues, the water supplied by the ECCS could cause steam-zirconium reactions, hydrogen gas explosions, and, possibly, a rupture of the containment structure.

5. Petitioners contend that after the required changes in the ECCS are made, the system will still be inadequate in the event of a pressure vessel failure. The reason for this is that the ECCS was not designed to mitigate the consequences of such a failure. It is further contended that there are pressure vessel failure events which can render the reactor control mechanisms unworkable.

Neither the AEC nor the reactor vendor has addressed the consequences of a control system failure concurrent with pressure vessel failure (basically, LOCA at full reactor power instead of about 6% of full power).

6. Petitioners contend that since neither the AEC nor the reactor vendor nor the utility can be held fully responsible for a reactor accident due to the provisions of the Price-Anderson Act (1954 Atomic Energy Act, as amended, Section 170), and since the public must live in the real world of nuclear reactors, which are themselves unaware of the "acceptability" or "unacceptability" of emergency systems, that Three Mile Island, Unit I, must be shut down immediately and until complete determination of ECCS workability under LOCA, pressure vessel failure, and pressure vessel failure with loss of reactor control is clearly and unequivocally experimentally demonstrated.

Chauncey R. Kepford
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Representative of Petitioners

January 25, 1975

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I, Chauncey R. Kepford, do swear that I am a member and Chairman of the York Committee for a Safe Environment. At a special meeting of the York Committee on January 20, 1975, the members decided that their interest in this proceeding should be represented by me. I further swear that the statements in this petition for leave to intervene are true and factual, to the best of my knowledge and belief.

Chauncey R. Kepford

Chauncey R. Kepford

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