

October 31, 1979

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of)	
)	
METROPOLITAN EDISON COMPANY)	Docket No. 50-289
)	(Restart)
(Three Mile Island Nuclear)	
Station, Unit No. 1))	

LICENSEE'S RESPONSE TO FINAL
CONTENTIONS OF ANTI-NUCLEAR
GROUP REPRESENTING YORK

- * Contention No. 1. The development and effectuation of adequate and effective Emergency Response Plans by the licensee and by state and local governmental units are necessary for the public health and safety to be adequately protected and therefore should be made a pre-condition to the restart of TMI-1.
- * Contention No. 2. The conditions set forth in the NRC's August 9 Order (44 F.R. 47821-25) for TMI-1's resumption of operation are insufficient to provide reasonable assurance that such resumption can occur without endangering the public health and safety for the reason that they fail to require the development and effectuation of adequate and effective Radiological Emergency Response Plans to protect the population surrounding TMI-1 from the consequences of any future nuclear accident. Such insufficiency is in particular demonstrated by the following flaws:
- (A) There is no requirement that restart be conditioned on the Radiological Emergency Response Plan of the Commonwealth of Pennsylvania being brought into compliance with reasonable standards of adequacy and effectiveness for such plans which include but are not limited to standards promulgated by the NRC itself (e.g., NUREGS 75/111 and 0396; GAO EMD-78-110; H.R. Rept. 96-413);
- (B) Resumption of operation would be permitted before the licensee had completed the process of extending its capability to take effective emergency response actions to a distance which defines the area within which such capability is deemed necessary in order to protect public health and safety;

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- (C) The distance to which the NRC Order requires the licensee to extend its emergency planning capability Ten (10) miles is insufficient to provide adequate protection of the public health and safety in the event of a TMI-2-type (Class 9) accident. Such insufficiency is clearly demonstrated by the fact that evacuation of the entire population living within a radius of Twenty (20) miles of the TMI-2 reactor was given serious consideration during the March, 1979 accident. (H.R. Rept. 96-413, p. 5). As a matter of general principle, ANGRY contends that emergency planning capability should exist for all areas which could be adversely affected by the consequences of a nuclear accident. Such areas exist at distances up to One Hundred (100) miles from the reactor site. (Beyea-Von Hippel report);
- (D) There is no requirement that restart be conditioned on the Radiological Emergency Response Plans of local governmental units (counties) surrounding the reactor site being brought into compliance with reasonable standards of adequacy and effectiveness for such plans which include but are not limited to standards promulgated by the NRC itself. (See paragraph II (a));
- (E) There is no requirement that the licensee's "test exercise" of its upgraded Emergency Plan be conducted jointly and in concert with appropriate state and local emergency response officials, nor is there any provision for monitoring, critique and correction of deficiencies that might be disclosed by such a joint exercise.
- (F) The NRC's vague instruction to the licensee to "upgrade" in generally unidentified respects its "offsite monitoring capability" is insufficient to assure that such upgrading will result in the ability to obtain and analyze the type and volume of information essential for protection of the public health and safety. ANGRY contends that such capability must at minimum encompass the following elements or their equivalent:
- (1) Permanent offsite monitoring devices which register all forms of ionizing radiation and which can be remotely read on site.
 - (2) Information analysis capability equal to or greater than that provided by the Atmospheric Release Advisory Capability System (ARAC).

Licensee's Response

Licensee views Contentions 1 and 2 as a single contention. Contention 2 essentially relates Contention 1 to the Commission's August 9 Order and the bases for suspension.

Licensee recognizes the right of ANGRY to raise contentions relating to emergency planning and offsite monitoring. In accordance with the position set forth in Section B of licensee's covering memorandum, it is requested that the Board require ANGRY to revise and resubmit this contention with specific objections to licensee's emergency planning and monitoring program following ANGRY's receipt of licensee's description of its updated programs.

However, licensee does object to Subsection (C) of Contention 2, for the reasons stated in Licensee's Response to UCS Contention 16 (see Licensee's Response to Final Contentions of The Union of Concerned Scientists at page 14).

Contention No. 3. The Emergency Response Plans of the licensee, of the Commonwealth of Pennsylvania, and of surrounding local governmental units in fact do not satisfy reasonable standards of adequacy and effectiveness.

- (A) The licensee's emergency response plan is still as of the date of the drafting of the contentions herein undergoing revision. ANGRY expressly reserves the right to interpose supplementary contentions at such time as such revised plan is made available to it.
- (B) The Commonwealth of Pennsylvania emergency response plan is likewise undergoing revision at the present time. ANGRY expressly reserves the right to interpose supplementary contentions at such time as such revised plan is made available to it. In any event, such plan must provide for adequate stockpiling and methods for distribution of chemical radioiodine blocking agents such as potassium iodide.
- (C) York County "Evacuation Plan" is seriously deficient in the following primary respects:

- (1) There is no assessment of the appropriateness or efficacy of specific protective actions in light of such pertinent accident parameters as warning time and plume travel speed.
- (2) The plan is based on the assumption of warning time greatly in excess of that which NUREG-0396 has concluded may be available.
- (3) The road capacities of selected egress routes are insufficient, given warning times and plume travel speeds that are within the boundaries postulated in NUREG-0396 to permit the evacuation of the full population at risk as defined in the Plan.
- (4) There is insufficient provision for decontamination and medical services at relocation centers.
- (5) Inasmuch as principal reliance is placed upon school buses for transportation of those without independent means of travel, the plan would be impossible to execute if an accident were to occur while school was in session. Reliance is placed on out-of-state vehicles for evacuation of hospitalized persons, which will prove to be unworkable because of distances and response times postulated in NUREG-0396.
- (6) There is no provision for informing the population at risk of the existence or contents of the plan.

Licensee's Response

For the reasons noted in licensee's response to Contentions 1 and 2, Licensee requests that the Board require ANGRY to revise and resubmit this contention with specific objections to licensee's emergency planning following ANGRY's receipt of licensee's description of the updated Emergency Plan.

Contention No. 4. The licensee lacks the management capability to operate a Nuclear Generating Station without endangering the public health and safety. This fact is conclusively demonstrated by the numerous negligent and imprudent actions committed by the licensee before and during the TMI-2 accident which are enumerated in Appendices IB and IIF of NUREG-0600. In support of its contentions, ANGRY places particular emphasis on the following:

- (a) Loss of an entire safety system, i.e., auxiliary feedwater to the steam generator.
- (b) Failure over an extensive period of time to correct leakage of reactor primary coolant through the pressurized relief valve, causing excessive temperatures in the relief valve exhaust to be regarded as a normal operating condition, and thus preventing such temperatures from alerting plant operators as they normally would to the stuck-open position of the PORV valve during the accident.
- (c) Throttling of high-pressure injection flow from the Emergency Core Cooling system in total disregard of abnormally low reactor coolant system pressure, and in apparent conformance to an "operating philosophy" concerning actuation of reactor HPI which placed greater emphasis on considerations of convenience and avoidance of down time than on safety.

Licensee's Response

Licensee does not object to this contention, since it relates to one of the bases for suspension (the question of Licensee's management capability) and since it addresses the subject matter of item 6 at p. 7 of the Commission's August 9 Order.

Contention No. 5. The NRC Order fails to require as conditions for restart the following modifications in the design of the TMI-1 reactor without which there can be no reasonable assurance that TMI-1 can be operated without endangering the public health and safety:

- (A) Installation of a Hydrogen Recombiner as recommended by a minority position in NUREG-0578;
- (B) Installation of instrumentation providing reactor operators direct information as to the level of primary coolant in the reactor core.
- (C) Performance of an analysis of and implementation of modifications in the design and layout of the TMI-1 control room as recommended in NUREG-0560.
- (D) Installation in effluent pathways of systems for the rapid filtration of large volumes of contaminated gases and fluids.

Licensee's Response

Licensee objects to Subsection (A) on the ground that it attacks an existing regulation. Part 50.44 specifies the requirements and design criteria for recombiners, and provides that for older plants, including TMI-1, recombiners are not required. Licensee recognizes that one of the Staff's recommended actions includes revision of the current regulation on recombiners (Section 2.1.5.c of NUREG-0578) and Licensee in fact intends to provide a recombiner for TMI-1. Nonetheless, Subsection (A) is not a proper subject for adjudication in this proceeding.

Licensee does not object to Subsection (B), the subject of which is addressed in NUREG-0578 (Section 2.1.3.b).

Subsections (C) and (D) lack the specificity to enable licensee to determine their relevance to the bases for suspension or to the issues in this hearing. With respect to Subsection (C), licensee is unable to locate recommendations

in NUREG-0560 dealing with control room design and layout.

Contention No. 6. The TMI-1 reactor was designed and constructed in accordance with General Design Criteria within which the particular constellation of events which caused the TMI-2 accident were considered too improbable to be included. For instance, as stated in NUREG-0578, in TMI-2 analyses of containment isolation actuation, "minimum ECCS function has always been assumed". None of these analyses has assumed the failure (through human error) of emergency core cooling . . ."

The failure of the TMI-1 reactor design to anticipate such multiple failures in equipment and operational functioning renders it peculiarly vulnerable to a breakdown comparable in severity to the TMI-2 accident. All safety related systems in TMI-1 must be subjected to thorough analysis and modification to assure their ability to withstand hypothetical accident scenarios that reflect all conceivable combinations of human and mechanical failures. The measures specified in the NRC's Order fail to impose this essential condition to the restart of TMI-1.

Licensee's Response

In essence, this contention asserts that "all safety related systems" be analyzed and modified to account for "hypothetical accident scenarios" reflecting "all conceivable combinations of human and mechanical failures." Licensee objects to this contention on the ground that it is so lacking in specificity that licensee can neither respond to the contention or determine its particular relevance to the bases for suspension.

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