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UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

before the

ATOMIC SAFETY AND LICENSING BOARD

In the Matter of	
BOSTON EDISON COMPANY et al.	Docket No. 50-471
(Pilgrim Nuclear Generating Station, Unit 2)	

APPLICANTS' ANSWER TO COMMONWEALTH'S MOTION TO COMPEL (AND MOTION FOR A PROTECTIVE ORDER)

Introduction

Within minutes after this Board established (on July 1, 1981) a discovery schedule for the last two issues remaining for decision (emergency planning and so-called TMI issues), the Commonwealth served the Applicants with a set of interrogatories. The document contained 59 numbered paragraphs; by virtue of the general instructions, however, each separately stated question in the numbered paragraphs was to be deemed to constitute four separate questions. Moreover, most of the numbered paragraphs

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contained not one, but two, three, four, or more (up to 10) separate questions, aggregating 190 separately stated. Thus, all totaled the Commonwealth propounded some 760 interrogatories to the Applicants.[1/]

Answers to these interrogatories would normally have been due on July 15, 1981. By agreement between the Applicants and the Commonwealth, this period was enlarged to July 20, 1981, a total of three business days. On July 20th, the Applicants served (in hand upon the Commonwealth) a set of answers consisting of 103 pages. As the Commonwealth concedes these were "reasonably complete and responsive answers to most of the Commonwealth's interrogatories." "Motion of the Commonwealth of Massachusetts to Compel Answers to its First Set of Interrogatories to Boston Edison Company Relative to Emergency Planning" ("Motion to Compel") at 1.

The Applicants did, in a few places, raise relevancy objections. These fall into two categories: the Applicants have objected to the Commonwealth's freshest attempt to introduce into this hearing a "Class 9" accident consequences debate, and the Applicants have objected to questions calling for assessments of the evacuability of areas which, under the governing regulations, are not required to be

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1/ Compare proposed 10 C.F.R. § 2.740b(c), 46 Fed. Reg. 30328 (June 8, 1981).

evacuated. The Commonwealth challenges some (but not all) of these objections in its Motion to Compel.

Motion for a Protective Order

Before proceeding to specific questions, the Commonwealth launches an argument to the effect that, in the absence of a motion for a protective order, a party is foreclosed from pursuing any objection to a given interrogatory. We believe this assertion to be wrong.[2/] If to any extent it is thought that a motion for a protective order by the Applicants is thought to be elemental to any objection, then the Applicants hereby so move.

[2/] Categorically there are two types of objections to interrogatories: (i) those that involve interrogatories that are on their face beyond the scope of what is authorized by the Rules of Practice, and (ii) those that call for the discretionary exercise of power vested in the presiding officer to pretermit what is otherwise -- and in the absence of a protective order -- permissible discovery. Relevancy, plainly, is in the former category. The prescription that discovery be limited to matters that are "relevant to the subject matter of the proceeding" (10 C.F.R. § 2.740(b)(1)) is self-executing and neither depends upon nor is controlled by a discretionary grant or withholding of protection. See Toledo Edison Co. (Davis-Besse Nuclear Power Station, Units 1, 2 and 3), CCH Nuclear Reg. Rptr. ¶ 30,089 at pp. 27,497-98 (Memorandum and Order, July 20, 1976). The sentence from 10 C.F.R. § 2.740(f)(1) quoted by the Commonwealth at Motion to Compel

Specific Interrogatories

Interrogatories Nos. 3 and 4.

The questions propounded are:

> "Has BECo (or anyone on its behalf or to its knowledge) conducted any generic or site-specific accident consequence analysis for (or having relevance to) releases from Pilgrim II equivalent to the PWR-1 to PWR-7 releases defined in WASH-1400 or releases from Pilgrim I equivalent to the BRW-1 to BWR-4 releases defined in WASH-1400? If so, set forth in detail the results of any such analysis, including calculations of early fatalities, early injuries, delayed injuries, developmental or generic birth defects, and land and water contamination."

and

> "Has BECo (or anyone on its behalf or to its knowledge) conducted any generic or site-specific accident consequence analysis for accidents with containment failure modes such that the radioactive releases exceed those set forth in the design basis accident assessment described in Chapter 15 of the Pilgrim II PSAR? If so, set forth in detail the results of any such analysis, including calculations of early fatalities, delayed fatalities, early injuries, delayed injuries, developmental or genetic birth defects, and land and water contamination."

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at 2, which was intended by the authors of the cognate federal rule from which it is taken to preclude only the second category of objections and only where no response

The Applicants objected to both on the ground that neither is relevant to any issue litigable in this proceeding.

These interrogatories call for discovery concerning the consequences of certain hypothesized accidents, all

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has been served at all, does not apply to relevancy objections. See 8 Wright and Miller, Federal Practice and Procedure § 2291; 4A Moore's Federal Practice ¶¶ 37.01[8], 37.05. The interpretation called for by the Commonwealth would render wholly useless and nugatory the provisions of 10 C.F.R. § 2.70b(b) regarding -- in language identical to its federal rules counterpart -- the statement of (and attorney's signature regarding) objections in lieu of answers to interrogatories. Worse yet, the proposition contended for by the Commonwealth is at odds with the notion that resort to the tribunal to administer discovery should be minimized:

> "The general pattern of procedure under the discovery rules is first the service of a request for discovery, in the form of interrogatories . . . , followed by a response either complying with the request . . . or setting forth objections together with the reason therefor. After the discovering party receives these responses, he must make the decision whether to accept the response or to move the court to compel discovery. At the hearing on the motion, the court resolves . . . the validity of objections."

Moore, op. cit. supra at p. 37-100. Under the procedure envisioned by the Commonwealth resort to the Licensing Board would be mandatory for each and every objection, and the workload of the Licensing Boards would be increased substantially.

(Proof of the pudding lies in the fact that the Applicants raised the two objections described in text as to 12 of the interrogatories propounded by the Commonwealth, but the latter has moved to compel as to only 4 of these objections.)

of which are "Class 9" scenarios. This Board has already excluded consideration of Class 9 accidents generally in this construction permit proceeding, Boston Edison Company et al. (Pilgrim Nuclear Power Station, Unit 2), LBP-81-3, 13 NRC 103, 199-200 & n.127 (1981), a point which is the Commonwealth's principal argument on appeal. These two interrogatories, if sustained, would reinject into the limited remaining portion of the proceeding the very same matters which have previously been excluded generally.

To its credit the Commonwealth makes no attempt to defend these interrogatories on the ground that Class 9 accident consequences analyses are themselves relevant to EPZ hearings under 10 C.F.R. Part 50, App. E. Rather the Commonwealth limits its contention to the proposition that the information called for by these interrogatories is relevant to the specific issues of the size and the evacuability of the exposure plume EPZ. Motion to Compel at 3-4. Unfortunately, the Commonwealth misapprehends the nature of the issues litigable under Appendix E and, we submit, the regulatory theory of emergency planning under the EPZ concept in general.

Specifically, the replacement of the LPZ (low population zone) with the EPZ as the touchstone of

emergency planning boundaries represents an abandonment of a consequences-based emergency planning rationale. Under the LPZ concept the size of the area to be evacuated was based directly on the area affected by the consequences -- measured in terms of predicted dose rates given a hypothetical release and taking into account actual engineering safeguards -- of an accident. Under this concept distance is balanced against hardware: the smaller the consequences (as a result of enhanced engineering safeguards), the smaller the zone within which evacuation capability is relied upon and need be demonstrated. See New England Power Co. (NEP Units 1 and 2), ALAB-390, 5 NRC 733, 736-41 (1977); Southern California Edison Co. (San Onofre Nuclear Generating Station, Units 2 and 3), ALAB-268, 1 NRC 383, 404-05 (1975).

The substitution of a new Appendix E in 1980 (45 Fed. Reg. 55402) abandoned this concept of distance versus hardware in favor of a flat requirement of evacuability of a substantially larger zone[3/] -- regardless of the

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3/ The LPZ established for Pilgrim 2 was only 2.3 miles. Boston Edison Company et al. (Pilgrim Nuclear Power

quantity, cuality or efficiency of engineering safeguards and, hence, w.thout regard to the quantification (by dose rates or otherwise) of the offsite consequences of an accidental release. The size of the EPZ is fixed by 10 C.F.R. § 50.47 and Appendix E at "an area about 10 miles (16 km) in radius." It is subject to adjustment on account of such factors as "demography, topography, land characteristics, access routes and jurisdictional boundaries." The regulations do not provide for adjustment of the size of the EPZ based on offsite accident consequences and, at least where the LPZ is equal to or less than the EPZ, the regulations do not provide for the need to demonstrate the feasibility of protective measures, including evacuation, over any area determined by reference to offsite accident consequences.4/

Station, Unit 2), LBP-81-3, 13 NRC 103, 146-47 (1981). A circle 10 miles in radius includes an area 19 times larger than a circle 2.3 miles in radius. $((10 \div 2.3)^2 = 18.9.)$

4/ The LPZ requirements of 10 C.F.R. Part 100 have not been repealed and, as a consequence, area evacuability still governs the size of the LPZ. However, whenever the LPZ is less than 10 miles (as is almost always the case and has been adjudicated in this proceeding to be the case), Part 100 has no role to play in determining the

To the contrary the necessity for evacuation within the EPZ is now assumed rather than something to be proved. Stating the matter a different way, the question is no longer, 'Should a given area be evacuated?" but rather "Assume it must be evacuated, how will it be evacuated?" To answer this question one looks at population, geography, roadways, transportation facilities, and other factors going to the ability to (not the need for) evacuation. The Commonwealth's assertion that "the fact [of a consequences analysis having been or not having been performed] is relevant to the manner in which [the Applicant] has arrived at its proposed boundaries for emergency planning zones at Pilgrim" (Motion to Compel at 3) is contrary both to the regulations of the NRC and to common sense.[5/]

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size of the area within which evacuability must be shown. Indeed, the continued applicability of the LPZ rules, and the concomitant requirement that no one outside the LPZ (a lesser included part of the EPZ) would receive more than the reference dose throught the entire course of the accident renders the concept of consequence analysis vis-a-vis the EPZ moot as well as irrelevant.

2/ It is also mildly deceptive, in that in other interrogatories the Commonwealth has called for, and Boston Edison has provided, its bases for the EPZ selected. The

For these reasons Interrogatories Nos. 3 and 4 are irrelevant to any issue properly litigable in this proceeding and the motion to compel answers to them should be denied.

Interrogatory No. 5

In the case of Interrogatory No. 5, the Commonwealth understands neither the Applicants' response nor its own question (and the infirmities of that question).

The question reads as follows:

> "In the opinion of BECo, is it possible to evacuate safely the total permanent, seasonal and transient populations within each of the following areas during the day on a summer weekend? If any of your answers varies depending on assumptions made, provide a list of each assumption made and a description of how your response would differ if that assumption were changed. Disclose any assumptions made with respect to an acceptable level of risk to the evacuating population."

There then follow 8 designated areas, the first two of

Commonwealth does not need the answers to Interrogatories Nos. 3 and 4 to make the argument that the EPZ has not been selected on the basis of a consequences analysis, an argument that, we submit, would be prohibited by 10 C.F.R. § 2.758 in any event.

which are (or are within) the EPZ and the balance of which are outside the EPZ. The Applicants responded as follows:

> "In the opinion of Boston Edison, it is possible to safely evacuate the total permanent, seasonal, and transient populations in each case suggested in the interrogatory. However, Boston Edison believes that in virtually any credible accident scenario, radiation effects beyond the plume exposure EPZ would not warrant evacuation. By answering this question, Boston Edison does not waive any objection to the litigability of the possibility of evacuating the areas described in subparts (c)-(h) of the question."

To begin with, while the nature of the question propounded admitted of a single categorical response, the Applicants do and have objected to the relevance of any issue going to the evacuation or evacuability of any area outside the EPZ. The waiver that the Commonwealth urges is precisely that which the Applicants in their response expressly negated.

More fundamentally, the Commonwealth's objection that the Applicants' answer "has failed to disclose . . . assumptions made with respect to an acceptable level of risk to the evacuating population" founders on the fact that the Commonwealth's own assumption -- namely that the

Applicants made any such assumptions -- is incorrect. The question asked if it was "possible" to evacuate certain areas safely; it is the opinion of the Applicants' Direct Panel that it is "possible" to evacuate any area safely and that no safety level assumptions need be made to reach this conclusion, and none were made.[6/]

Interrogatory No. 6

The question propounded was this:

> "In the opinion of BECo, could there ever be a need to order protective action(s) on any portion of Cape Cod or in any other area outside the plume exposure pathway EPZ drawn in the PSAR? If so, in what areas and under what circumstances might protective action(s) be required, what particular protective action(s) might be needed, and how much time would be available from the initiation of the event(s) necessitating the protective action(s) before the particular protective action(s) would have to (1) commence, and (2) be fully implemented? Whether your answer is in the affirmative or negative, explain in

6/ It is true that the word "safely" as used without qualification or quantification in this question renders the term virtually meaningless. This, however, is a defect in the question, not the answer.

detail the bases for your response, including any assumptions which you make with respect to an acceptable level of risk to the public."

The Applicant responded thus:

"Boston Edison concurs with the findings of the joint NRC/EPA Task Force which concluded that "it would be unlikely that any protective actions for the plume exposure pathway would be required beyond the (roughly 10-mile radius) plume exposure EPZ", and further concluded that 'detailed planning within 10 miles would provide a substantial base for expansion of response efforts in the event that this proved necessary.' (NUREG-0654, p. 12) Generally, in the opinion of Boston Edison, the greater degree of dispersion involved in plume travel over these distances would make sheltering indoors the most viable plume exposure protective action outside the plume exposure EPZ, and that the greater time involved in plume exposure EPZ, and that the greater time involved in plume travel, together with the relatively lower levels of radionuclide concentration (compared to areas closer to the site) would ensure that ample time would be available to implement this action.

"In the opinion of Boston Edison, protective actions recommended for areas outside the plume exposure EPZ would generally be limited to those associated with the ingestion pathway, i.e., identification and interdiction of potentially contaminated foodstuffs, water supplies, and animal feeds."

To this question the Applicant responded, in essence and insofar as the Commonwealth had in mind evacuation, "No." As a consequence a specification of the circumstances under which, in the view of the Applicants, evacuation would be called for outside of the EPZ was neither called for by the terms of question, nor possible. The answer given by the Applicants was a full and complete response to the question.

Interrogatory No. 26

In response to a request for all evacuation time studies, the Applicants have objected to the question to the extent that it calls for any such studies for areas outside of the EPZ. The Commonwealth contends, apparently, that there is no geographic bound to the areas the evacuability of which need be studied and can be litigated. The Commonwealth is in error.

The emergency planning issues relevant to and litigable in a construction permit case described and limited by 10 C.F.R., Part 50, Appendix E, § II:

> "The Preliminary Safety Analysis Report shall contain sufficient information to ensure the compatibility of proposed emergency plans for both onsite areas and EPZ's . . . .

"As a minimum the following items shall be described . . .

"C. Protective measures to be taken within the site boundary and within each EPZ . . . .

"A nuclear power plant applicant shall perform a preliminary analysis of the time required to evacuate various sectors and distances within the plume exposure pathway EPZ . . . ."

(Emphases added.)[7] Appendix E neither contemplates, nor compels a showing of the feasibility of, evacuation beyond the EPZ, a consequence of which is that extra-EPZ evacuation issues are not litigable. ALAB-390, supra.

Interrogatory No. 30

The errant missive has been supplied.

Interrogatory No. 35

Under Appendix E one of the things that must be explored is the likely compatibility of a Construction Permit applicant's emergency plans with the notification requirements of 10 C.F.R. § 50.47(b)(5) & (6). This is an assessment of what will be provided in the future. There is no requirement that any notification be "existing" and in place at the time of the construction permit hearing. Nor, obviously, can an application for a construction permit

[7] See also 10 C.F.R. § 50.47(b)(10): "A range of protective actions have [sic] been developed for the plume exposure pathway EPZ for emergency workers and the public." (Emphasis added.)

for a second unit be converted into a hearing into the present suitability of an existing unit.

Interrogatory No. 35 asks nothing relative to what notification facilities will be provided in the future, but concerns itself only with what facilities presently exist at Pilgrim Unit 1. It is directed to "the event of an accident at Pilgrim I" and it refers to the provisions of Section IV of Appendix E:

> "Do there now exist the administrative and physical means to notify the public in the event of an accident at Pilgrim I required by 10 C.F.R. Part 50, Appendix E, Section IV, D. 3 and NUREG-0654? If not, when will those exist? If so, explain in detail the notification system which has been established and its capabilities, including the time within which the population of the plume exposure pathway EPZ drawn in the PSAR can be notified and the compatibility of the system with any staggered notification scheme which might be employed in the event of an accident at the Pilgrim site."

Because this hearing does not concern itself with Pilgrim 1, or with the nature of systems that "now exist," and because Section IV of Appendix E does not apply to the construction permit stage, the motion to compel as this interrogatory should be denied.

Interrogatory No. 43

The Commonwealth asked:

> "List the names of all state and local agencies which have reviewed the evacuation study performed by HMM Associates, as required by NUREG-0654, and describe the nature and source of all comments which resulted from said reviews."

To this the Applicants responded:

> "Formal reviews of HMM evacuation studies were undertaken only by MCDA. MCDA concurred in the estimates provided by HMM.
>
> "Copies of results of HMM studies were also provided to each town in the EPZ. Informal presentation of the nature and findings of HMM studies were made on several occasions. Both group sessions and smaller sessions were held. Larger sessions included HMM, Boston Edison, MCDA, State Police, State Department of Public Works and representatives from each town. Smaller sessions were conducted individually with representatives of the Towns of Plymouth, Duxbury, Carver, Kingston, and Marshfield. Informal comments were solicited by HMM and state authorities following these sessions. Comments were generally favorable; no proposals for substantive changes were received."

This is as full and complete an answer as the Applicants can provide.

Interrogatory No. 58

The answer supplied by the Applicants 's the Applicants' complete answer to the question as posed in the interrogatories and modified by the Motion to Compel at 8.

Conclusion

For the foregoing reasons, the motion to compel should be denied in its entirety.

Respectfully submitted,

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CERTIFICATE OF SERVICE

I, Thomas G. Dignan, Jr., one of the attorneys for the applicants herein, hereby certify that on August 4, 1981, I made service of the within document by mailing copies thereof, postage prepaid, first class or airmail, to:

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