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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

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BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

OFFICE OF SECRETARY
DOCKET NUMBER 50-322-OL-3
SERIAL

In the Matter of)	
)	
LONG ISLAND LIGHTING COMPANY)	Docket No. 50-322-OL-3
)	(Emergency Planning)
(Shoreham Nuclear Power Station,)	
Unit 1))	

NRC STAFF RESPONSE TO LILCO'S MOTION FOR
SUMMARY DISPOSITION OF THE HOSPITAL EVACUATION ISSUE

I. INTRODUCTION

On December 18, 1987 Applicant filed "LILCO's Motion for Summary Disposition of the Hospital Evacuation Issue" ("Motion"). For the reasons discussed below, the Staff supports Applicant's Motion.

II. BACKGROUND

The issue of hospital evacuation, which is the subject of Applicant's Motion, was originally decided by the Licensing Board on April 17, 1985 in its Partial Initial Decision on Emergency Planning, LBP-85-12, 21 NRC 644, 840-46 (1985) ("PID"). In the PID, the Board concluded that Applicant had sustained its burden of proof on Contention 72.D, which dealt with evacuation of hospitals in the EPZ and protective action recommendations. Id. at 846. In reaching its conclusion, the Board accepted Applicant's plans to designate in advance the preferred protective action for hospitals: sheltering rather than evacuation. Id. at 843. According to Applicant, evacuation would only be recommended if

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the likely dose to hospital populations is "excessive". Id. Moreover, the Board accepted Applicant's plan that hospital evacuation would be on an "ad hoc" basis, with no specific estimate of the time necessary to complete the evacuation. Id. at 845-46.

On March 26, 1986, the Appeal Board issued ALAB-832 (23 NRC 135 (1986)), which, inter alia, remanded the hospital evacuation issue to the Licensing Board. The Appeal Board noted that the Licensing Board treated hospitals differently from other special facilities for the care of the infirm and aged. 23 NRC at 155. The Appeal Board rejected, as a basis for not requiring more detailed evacuation plans, the Licensing Board's belief that the probability of a hospital evacuation is low. Id. at 155-56. It cited Limerick ^{1/} and San Onofre ^{2/} for the general proposition that the adequacy of an emergency plan must be adjudged with the underlying assumption that a serious accident might occur, requiring the evacuation of the EPZ. Id. A corollary to this general proposition is that "a possible deficiency in an emergency plan cannot properly be disregarded because of the low probability that action pursuant to the plan will ever be necessary". Id. at 156. The Appeal Board also found that the Commission's regulations and the guidance of NUREG-0654 provide sufficient reason for treating hospital patients in the same manner as residents of nursing/adult homes. Id. Therefore, the

1/ Philadelphia Electric Co. (Limerick Generating Station, Units 1 and 2), ALAB-819, 22 NRC 681, 713 (1985).

2/ Southern California Edison Co. (San Onofre Nuclear Generating Station, Units 2 and 3), CLI-83-10, 17 NRC 528, 533 (1983), rev'd in part on other grounds, GUARD v. NRC, 753 F.2d 1144 (D.C. Cir. 1985).

Appeal Board concluded that "the Licensing Board should have required the Applicant to fulfill the same planning obligations with regard to possible hospital evacuation as the Board imposed in connection with nursing/adult homes". Id. at 157.

The Commission took review of ALAB-832, and in CL1-87-12 stated that they agreed with the Appeal Board that Applicant's plans "do not fully satisfy the NRC's emergency planning regulations". 26 NRC ___, slip op. at 2 (November 5, 1987). The Commission also concluded "that the regulations require the applicant to fulfill the same planning obligations with regard to hospital evacuation as the Licensing Board imposed in connection with other like segments of the EPZ, such as nursing/adult homes". Id., slip op. at 22. However, the Commission went on to note that Applicant's plan, as it now exists, might still be adequate with respect to the hospitals in the EPZ. Id., slip op. at 22-23. If deficiencies in the plan related to hospital evacuation are not significant under 10 C.F.R. § 50.47(c)(1), the Licensing Board could still approve the plan. Id., slip op. at 23.

III. DISCUSSION

A. Appropriateness of Summary Disposition

Applicant initially argues that the use of summary disposition for the hospital evacuation issue is particularly appropriate because the issue is before the Board on a limited remand from the Commission. Motion at 2. Applicant also states that the Commission's remand order instructs the Board to consider the record in light of 10 C.F.R. § 50.47(c)(1), and to

approve Applicant's existing plans without further hearings, if the conditions of that section are satisfied. Id. at 3.

Applicant's statement is accurate to the extent that in remanding the hospital evacuation issue, the Appeal Board and the Commission did not require the Licensing Board to receive and evaluate further facts. While the words of the Appeal Board and the Commission do not mandate that there be no further hearings on the issue, the hospital evacuation issue is especially susceptible to summary disposition at this time. Unlike the situation created by the Appeal Board's remand of the role conflict of school bus drivers issue ^{3/}, where the Appeal Board stated that "[a]ll parties will be free to adduce additional evidence on the issue" ^{4/}, the matters to be decided on hospital evacuation are limited. In rejecting Applicant's motion for summary disposition of the role conflict issue, this Board pointed out that "[b]y directing the Licensing Board to reconsider its original judgments on role conflict at a reopened hearing, we can only reach the conclusion that the Appeal Board expected its remand directive to be weighed in the environment of a litigated proceeding". ^{5/} In the instant case, however, neither the Appeal Board nor the Commission, in their respective remand decisions, used language that would suggest further hearings are required. See ALAB-832, 23 NRC st 157; CLI-87-12, slip op. at 22-23.

^{3/} ALAB-832, 23 NRC at 154.

^{4/} Id.

^{5/} Memorandum and Order (Ruling on Applicant's Motion of October 22, 1987 for Summary Disposition of Contention 25.C Role Conflict of School Bus Drivers), dated December 30, 1987, p. 4.

Therefore, the Licensing Board should regard the hospital evacuation issue as a fit subject for summary disposition, and, after reviewing Applicant's Motion and the other pleadings supporting or opposing the Motion, decide whether there are material facts in controversy which would require further hearings.

B. Significance of Deficiencies Under 10 C.F.R. § 50.47(c)(1)

The Commission in remanding this matter to the Licensing Board stated:

We therefore conclude, in agreement with the Appeal Board, that the regulations require the applicant to fulfill the same planning obligations with regard to hospital evacuation as the Licensing Board imposed in connection with other like segments of the EPZ, such as nursing/adult homes. This conclusion does not necessarily end the inquiry as to whether LILCO's Emergency Plan is adequate with respect to these hospitals. Under 10 C.F.R. § 50.47(c)(1), the Licensing Board could still approve the LILCO plan if it found that the deficiencies related to the hospitals were not significant for Shoreham. In fact, the Licensing Board did identify factors that may have relevance to this question, such as distance from the plant and construction characteristics of the hospitals. However, it is not clear to us that this was a matter adequately presented to or considered by the Licensing Board, since the Licensing Board did not specifically discuss 10 C.F.R. § 50.47(c)(1). On remand, LILCO and staff are free to raise the issue for appropriate resolution.

CLI-87-12, slip op. at 22-23. ^{6/}

6/ Section 50.47(c)(1) provides:

Failure to meet the applicable standards set forth in paragraph (b) of this section may result in the Commission declining to issue an operating license; however, the applicant will have an opportunity to demonstrate to the satisfaction of the Commission that deficiencies in the plans are not significant for the plant in question, that adequate interim compensating actions have been or will be taken promptly, or that there are other compelling reasons to permit plant operation.

In Southern California Edison Co. (San Onofre Nuclear Generating Station, Units 2 and 3), ALAB-680, 16 NRC 127, 131 (1982), the Appeal Board stated that in making determinations under 10 C.F.R. § 50.47(c)(1)

...the Commission's regulations call upon us not only to look to the requirements that have been imposed, but also to exercise judgment as to the significance of whatsoever deficiencies there may be and the adequacy of interim measures to rectify them.

It is only in the totality of the circumstances to meet regulatory emergency planning requirements is it to be determined if defects are significant. See Long Island Lighting Co. (Shoreham Nuclear Power Station, Unit 1), CLI-86-14, 24 NRC 36, 39 (1986). A realistic view of the defect in the plans and the harm that could be caused is to be considered in determining whether or not defects in plans are significant. Southern California Edison Co. (San Onofre Nuclear Generating Station, Units 2 and 3), CLI-83-10, 17 NRC 528, 531 (1983). Where defects are not significant they do not present an impediment to licensing. Id. at 536; Philadelphia Electric Co. (Limerick Generating Station, Units 1 and 2), ALAB-819, 22 NRC 691, 715-16 (1985).

Under these standards and pursuant to the invitation of the Commission in CLI-87-12, this Board should approve the LILCO plan in regard to the hospital patients on the ground "that the deficiencies related to hospitals were not significant for Shoreham" (Id. at 23).

Findings in this proceeding establish:

- The hospitals are all over 9 miles from the Shoreham plant and only a short distance from the EPZ boundary. LBP-85-12, 21 NRC at 829, 841-43, 846.

- The uncontradicted testimony in the record shows the hospitals are substantial structures having a shielding factor of 0.2 (80%). Id. at 842-43, 846.

- Applying the shielding factor of the hospitals shows that persons in the hospitals would receive far less radiation than unsheltered persons at the EPZ boundary in the event of an accident. Id. at 842, 844.

- Sheltering is the preferred protective action for hospital patients due to the location of the hospitals, the protection afforded by the hospital buildings and the adverse health effects associated with evacuating hospital patients. Id. at 843, 846.

- The EPA Protection Action Guidelines specifically permit the consideration of special factors and criteria to be used in the determining whether hospital patients should be evacuated. Id. at 843-44.

- Any evacuation of hospital patients would take a substantial amount of time. Id. at 827, 845-46.

Applying the standards of 10 C.F.R. § 50.47(c)(1) to these findings demonstrates that "the deficiencies in the plans [in regard to hospitals] are not significant for the plant in question." As this Board has already concluded "LILCO's Plan for protective actions for hospital patients is a reasonable one". LBP-85-12, 21 NRC at 844. It further stated:

LILCO's preference for sheltering of hospital patients is well-founded, both because of the likelihood that radiation levels near the 10-mile EPZ boundary will not be excessive in most accidents and because of the specially sensitive nature of hospital patients who require special care. Nevertheless, in the worst accident scenarios LILCO could not extend the same level of radiation protection to all hospital patients that would be afforded to the general public by an evacuation that takes place

in about 5 hours. We find that for some hospital patients delay in evacuation could create an additional increment of risk from radiation dose that is somewhat greater than that of the general public. The Board concludes, however, that the unquantified incremental risk to health and safety of some hospital patients under the LILCO Plan is small. Considering the severity of the accident that would have to occur and the location of hospitals, we conclude that the additional increment of risk to hospital patients over that of the general public does not stand as a barrier to licensing. We conclude that LILCO has sustained its burden of proof on this contention. Id. at 846.

The totality of the circumstances here involved and a realistic examination of the facts already found -- to wit: the location of the hospitals; the sheltering factor of the hospitals that would better protect hospital patients than those beyond the EPZ; the low level of incremental risk associated with a choice of sheltering as the initial protective action; and the trauma associated with moving hospital patients; -- establishes that LILCO's plan for sheltering hospital patients in the hospitals with evacuation as only an ad hoc back-up measure is not a deficiency in the LILCO plan "significant for the plant in question." LILCO's provisions for emergency protective locations for hospital patients should be approved under 10 C.F.R. § 50.47(c)(1).

C. Revision 9 Supplement to Hospital Evacuation Planning

As discussed above, the deficiencies in Applicant's hospital evacuation plan, as identified by the Appeal Board, are not significant under 10 C.F.R. 50.47(c)(1). However, Applicant has also supported its Motion with affidavits which describe the forthcoming Revision 9 to its emergency plan. Applicant asserts that Revision 9 contains the information found lacking in the plan by the Appeal Board, and argues that the Staff should be instructed to review the Revision 9 "enhancements" and confirm that they comport with NRC requirements.

Motion at 13-14. To the extent that the Board finds that the deficiencies are significant, Applicant has demonstrated that Revision 9 will sufficiently supplement its plan to eliminate those deficiencies. Moreover, as often emphasized, emergency planning findings are predictive in nature. See, e.g., Detroit Edison Co. (Enrico Fermi Atomic Power Plant, Unit 2), ALAB-730 17 NRC 1057, 1066 (1953); Philadelphia Electric Co. (Limerick Generating Station, Units 1 and 2), ALAB-808, 21 NRC 1595, 1600-01 (1985). All aspects of plans need not be complete before licensing, but need only be developed to the extent of providing information on details which would be provided in final plans. Id. Confirmation of an applicant's emergency planning commitments thus given is appropriately left to the Staff. Louisiana Power & Light Co. (Waterford Steam Electric Station, Unit 3), ALAB-732, 17 NRC 1076, 1103-07 (1983); Limerick, ALAB-802. Here, as we detail below, it is appropriate that the existence of the letters of agreement as well as verification of final transportation arrangements be left for confirmation of the Staff.

1. Letters of Agreement

This Board has previously determined that "no additional benefit to public health and safety could be obtained by requiring letters of agreement between EPZ hospitals and potential receiving hospitals". PID, 21 NRC at 840. However, the Appeal Board found that the requirement for letters of agreement from reception facilities imposed by the Licensing Board in the case of nursing/adult homes should also apply for the EPZ hospitals. ALAB-832, 23 NRC at 155. Applicant does not yet have signed agreements with reception hospitals, but asserts that it "will

continue its efforts to contact and obtain written agreements" with those hospitals. Motion at 14 n.10.

There is no dispute over the contents of the letters of agreement; the sole issue is their existence. See PID, 21 NRC at 838. Moreover, Applicant has identified in its plan those hospitals it intends to call upon in the event of an emergency requiring evacuation. Id. at 839-40. The situation is virtually identical to that of the nursing/adult homes, except that in the latter case the reception facilities had not been identified. See Id. at 838. In its Concluding Partial Initial Decision, the Board noted various defects in Applicant's plan and stated that the "corrections should be in place by the time the plant commences operations, should it be licensed". LBP-85-31, 22 NRC 410, 429 (1985). For the nursing/adult homes, the Board required only that "supporting agreements for the use of such facilities must be obtained". Id. at 430.

Implicit in the Board's directions regarding nursing/adult homes is the expectation that the Staff will verify the existence of the letters of agreement. Likewise, if this Board deems letters of agreement from the reception hospitals to be significant, they should be treated as the nursing/adult homes are treated, and left to the Staff for confirmation. Cf., Waterford, 17 NRC at 1105-06 (Licensing Board made execution of letters of agreement a specific license condition, leaving nothing for the Staff to confirm).

Therefore, the Board should grant summary disposition on any issue concerning letters of agreement as a matter of law.

2. Transportation Requirements

In its remand of the hospital evacuation issue, the Appeal Board referred to Applicant's arrangements for the transportation of nursing/adult home residents and noted that "in contrast to the situation with the hospitals, the plan sets forth the number of vehicles required and the arrangements made for securing them in a timely fashion, should the need arise". ALAB-832, 23 NRC at 155. It further stated that the same type of information should be provided for hospital patients. Id. at 157.

The Licensing Board has already made findings on much of the transportation arrangements for hospital patients. As was explained in the PID:

If the hospitals themselves decide to evacuate, LILCO will use ambulances and ambulettes under contract to assist. This would be done after these vehicles had first evacuated the home-bound and the special facilities patients closer to Shoreham. Id. at 13. The hospital would require transportation for about 630 additional patients if all three were evacuated. The number of vehicles available provides the physical capability to evacuate all three hospitals with one additional run per vehicle beyond that required to evacuate the nursing homes and adult homes. We observe that the hospital outside the EPZ boundary would ordinarily not be evacuated on a preplanned basis. Evacuation of that hospital would occur only on an ad hoc basis. This is acceptable under NRC's emergency planning regulations. NUREG-0654, at 10-11. There are a total of sixty-one additional ambulances belonging to towns and volunteer fire districts within 20 miles of Shoreham that could be called on in an emergency. LILCO does not rely on these community ambulances since it has an adequate number of private ambulances under contract for emergency purposes. Nevertheless, these ambulances could be called by special facilities or individuals if needed. Id. at 13.

21 NRC at 829.

Applicant asserts Revision 9 to the plan will supply all the required additional information not yet in the record, and that the information will

not materially alter the current record. Motion at 13-14. Applicant's supporting affidavits contain the specific additions to the plan which will be provided in Revision 9. These additions are:

- a. a quantification of the hospital beds ordinarily holding ambulatory patients, wheelchair patients and stretcher patients;
- b. a translation of the above numbers into vehicle requirements;
- c. additional details concerning LERO's initiation and coordination of a hospital evacuation, including hospital evacuation time estimates;
- d. a modification of the list of reception hospitals to include only those at least 5 miles from the EPZ boundary and with the capability to treat contaminated individuals.

Motion at 15-18.

This supplemental information, in conjunction with the information already in the record, satisfies the Appeal Board's direction that Applicant fulfill the same planning obligations, with regard to transportation arrangements, for hospitals as it did for nursing/adult homes. As the Appeal Board required, it sets forth the number and type of vehicles required and arrangements made for securing those vehicles. See ALAB-832, 23 NRC at 155. Since the only matter at issue is the verification that Revision 9 will contain this information, and since the Staff may be instructed to confirm that Revision 9 contains this material, Applicant is entitled to summary disposition on transportation arrangements as a matter of law. See Waterford; Limerick, ALAB-808.

3. Evacuation Time Estimates

In ALAB-832, the Appeal Board cited 10 C.F.R. Part 50, Appendix E, Section IV, which requires from an operating license applicant "an

actions for various sectors and distances within the plume exposure pathway EPZ for transient and permanent populations". 23 NRC at 156. The Appeal Board further stated that "[s]uch an analysis cannot be made for the hospitals without an awareness of the extent of the transportation that might be required to remove the patients from the EPZ, as well as an understanding of how and when the evacuation would be accomplished". Id. at 156-57. The Commission agreed with the Appeal Board, stating that, except to the extent that the deficiencies are here determined to be not significant under 10 C.F.R. § 50.47(c)(1), "evacuation plans for hospitals must at least be developed in sufficient detail to provide a basis for these estimates". CLI-87-12, slip op. at 22.

As discussed under Transportation Requirements, Applicant has supplied additional information to be contained in Revision 9 to its plan. This information responds to the Appeal Board's observations as to what is required in the plan to perform the analysis. Applicant has also committed to supplement its plan in the forthcoming Revision 9 by providing the actual evacuation time estimates for the EPZ hospitals. Motion at 19. Applicant's supporting affidavit by Edward B. Lieberman ^{7/} provides the estimates to be included in Revision 9, along with certain new assumptions which concern the reception hospitals. Lieberman Affidavit at 2-3.

^{7/} Affidavit of Edward B. Lieberman in Support of LILCO's Motion for Summary Disposition of the Hospital Evacuation Issue ("Lieberman Affidavit").

The Staff's consultant, Dr. Thomas Urbanik II, has reviewed Applicant's evacuation time estimates and has set forth his findings in his affidavit ^{8/} (Attachment 1 to this response). Dr. Urbanik agrees with the assumptions, speeds and methodology used in the hospital evacuation time estimates. Urbanik Affidavit at 2. The estimates were calculated in accordance with the guidance provided in NUREG-0654. Id. They are suitable for inclusion in Applicant's plan for use by decision makers in making protective action recommendations. Id.

The only matter specifically concerning hospital evacuation time estimates for this Board to determine on remand is whether Applicant has included such estimates in its emergency plan. See LBP-85-12, 21 NRC at 837; ALAB-832, 23 NRC at 156-57. Implicit in the Board's determination is that the estimates comport with the guidance of NUREG-0654, Appendix 4. See NUREG-0654, II.J.10.1.

The Lieberman Affidavit establishes that Revision 9 will add the time estimates to Applicant's plan, along with the additional assumptions used to calculate the estimates. The Urbanik Affidavit demonstrates that the Staff has reviewed Applicant's estimates, and that the estimates were calculated properly and in accordance with the guidance in NUREG-0654. As with the transportation arrangements, verification that Revision 9, and consequently the plan itself, contains the information set forth in the Lieberman Affidavit may be left for Staff verification. See Waterford; Limerick, ALAB-808.

^{8/} Affidavit of Dr. Thomas Urbanik II ("Urbanik Affidavit").

Therefore, the Board should grant summary disposition on the hospital evacuation time estimates issue as a matter of law.

IV. CONCLUSION

For the above stated reasons, the Licensing Board should find that the deficiencies in the LILCO plan related to hospitals are not significant for Shoreham pursuant to 10 C.F.R. § 50.47(c)(1) and grant Applicant's Motion for summary disposition. To the extent the Board determines that any of the deficiencies are significant, the Board should find that Revision 9 to the LILCO plan will, subject to Staff verification, contain the information which the Appeal Board directed to be added, and that there are no genuine issues of material fact to be decided on this remand. The Motion for summary disposition should be granted.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Richard G. Bachmann', with a long horizontal flourish extending to the right.

Richard G. Bachmann
Counsel for NRC Staff

Dated at Bethesda, Maryland
this 15th day of January 1988.