



Federal Emergency Management Agency

Washington, D.C. 20472

50-322

APR 3 1985

MEMORANDUM FOR: Edward L. Jordan
Director, Division of Emergency Preparedness
and Engineering Response
Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission

FROM: *Richard W. Krimm*
Richard W. Krimm
Assistant Associate Director
Office of Natural and Technological
Hazards Programs

SUBJECT: Long Island Lighting Company (LILCO) Response to Federal
Emergency Management Agency (FEMA) Findings on Revision
4 of the Shoreham Transition Plan

This is in response to your memorandum of February 8, 1985, requesting FEMA's view on LILCO's proposed resolution to each of the eight remaining inadequacies identified in FEMA's November 15, 1984, finding on Revision 4 of the LILCO Transition Plan for Shoreham. According to LILCO, these resolutions would be contained in the next revision of the Shoreham Transition Plan. We understand that no date has yet been set for the issuance of that revision. Also attached in the materials which you sent were letters pertaining to LILCO's use of the Nassau Veterans Memorial Coliseum. The use of the Coliseum is referenced by LILCO as a proposed resolution of one of the plan inadequacies stated in FEMA's November 15, 1984, finding.

The Regional Assistance Committee (RAC) of FEMA Region II conducted a review of LILCO's proposed resolutions. The results of that review are attached. The RAC review was limited to a technical evaluation of LILCO's proposed resolution of eight inadequacies from revision 4, and did not constitute a full plan review. The final determination of the adequacy of each element must await the RAC review of a plan submission by LILCO.

Please note that certain elements previously rated adequate, but with recommendations for improvement shown in bold type (See the consolidated RAC review - revision 4, attached to FEMA's November 15, 1984 finding) were not addressed in LILCO's response. Any future revision submitted for review should address these concerns as well.

Finally, any reference to testing plan elements in an exercise should not be taken to mean that FEMA plans to observe or otherwise participate in an exercise. It is simply a generic reference to a normal procedure that FEMA uses to verify that a particular plan element has been/can be accomplished.

I hope this analysis has been useful. If you have any questions, please feel free to call me at 646-2871.

Attachment
As Stated

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NUREG 0654 Element	RAC Comments/Recommendation (Comments in Bold Type for Each Element from Consolidated RAC Review - Corresponds to LILCO's Summary of Responses)	LILCO Response (Action) Proposed Resolution of Eight Inadequacies dated January 16, 1985 (SNRC 1133)	RAC Evaluation of LILCO Response
A.2.b	LILCO has indicated in their summary of responses to the consolidated RAC review for Revision 3 of the plan (see page 2 of 13), that this is a legal authority issue to be addressed elsewhere and there is no modification to Revision 4 of the plan. Therefore, the legal authorities/bases of the LERO plan are not yet defined and for this reason, the element has been rated inadequate.	LILCO has stated in its letter of transmittal (letter to NRC from LILCO dated January 16, 1985 - SNRC - 1133) with the proposed resolution to outstanding planning inadequacies that further resolution of "legal authority issues" must await the results of litigation before One Atomic Safety and Licensing Board, lawsuits pending before the U.S. District Court for the Eastern District of New York, and the New York Supreme Court, Suffolk County. For complete LILCO response, see their letter to NRC.	In light of the recent court decisions (Cuomo v. LILCO, 84/4615, Slip-op. (N.Y. Sup. Ct., Feb. 20, 1985) and citizens for an Orderly Energy Policy v County of Suffolk, CV 83-4966, Slip-op. (E.D.N.Y., March 18, 1985)) relating to the legal authority relied upon by LILCO in the LILCO Transition Plan for Shoreham, Element A.2(b) remains inadequate. The legal concern still remains.

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A.3	(1) A determination of the overall adequacy of these ambulance and ambulette resources must await tabulation of the transportation needs of non-institutionalized mobility impaired (see sample Invalid/Disabled Evacuation Listing, Zone Q, Procedure OPIP 3.6.5, Attachment 1).	(1) A copy of the confidential computerized Homebound Evacuation Listing will be available for FEMA's review during the upcoming FEMA/NRC observed exercise.	(1) The proposed resolution appears to be appropriate. A copy of the computerized Homebound Evacuation Listing will be sufficient to determine if the ambulance and ambulette resources are adequate. It would be appropriate to review the listing prior to any exercise. However, a final determination of the overall adequacy of ambulance and ambulette resources must await comparison of the number of vehicles with the needs of persons listed in the computerized Homebound Evacuation Listing. A sample of resources would be evaluated during an exercise.
A.3	(2) The letter of understanding with FAA should be a letter of agreement from the agency to LILCO (see Appendix B, B-54).	(2) A letter of agreement with the FAA is being requested and will be included with the letters of Agreement, Appendix B. If the letter cannot be obtained, FAA support will be requested through FEMA under the auspices of the FRERP.	(2) The proposed resolution appears to be appropriate. A letter of agreement with the FAA is being requested by LILCO. If the subject letter could not be obtained directly by LILCO, FAA support could also be requested through FEMA under the auspices of the Federal Radiological Emergency Response Plan (FRERP), of which the Department of Transportation (i.e.: FAA) is a part.
A.3.	(3) There are no letters of agreement included in the LILCO Transition Plan with the facilities designated to serve as relocation centers. This element has been rated inadequate because the plan must contain letters of agreement with the facilities to be used for the monitoring and decontamination of evacuees.	(3) LILCO has arranged for the use of Nassau County Veteran's Memorial Coliseum as a reception center. LILCO has obtained a letter of agreement from Hyatt Management to allow LERO to monitor and decontaminate evacuees at the facility. In addition, Nassau County has written a letter to Hyatt Management Corporation approving the use of the facility in case of a Shoreham emergency. These letters are enclosed in Attachment 2.	(3) The proposed resolution appears to be appropriate. LILCO has obtained letters of agreement (from the lessee and the Nassau County Executive) for the use of the Nassau Coliseum as a reception center, and for monitoring and decontamination of evacuees. As stated in FEMA's affidavit to the ASLB dated Feb. 15, 1985, final approval of the Nassau Coliseum as a reception center would be contingent upon two considerations: - details of the separation of the reception and congregate care functions must be incorporated within the LILCO Transition Plan, and be reviewed and approved by the Regional Assistance Committee,

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A.3. (cont.)			<p>- an exercise must be held in which a demonstration of the reception center function can be evaluated.</p> <p>In addition, the plan should address the access control and traffic flow (of both the vehicles and evacuees) around the Nassau Coliseum.</p> <p>The issue of having to evacuate the Coliseum during periods of contracted use (i.e.: hockey, circus, etc.) while there is an emergency at Shoreham should also be addressed by LILCO in the plan.</p> <p>With regard to congregate care centers, the Letter of Agreement with the Nassau County Red Cross identifies the facilities listed in the Letter of Agreement between LILCO and ARC dated July 25, 1984, as congregate care centers. However, a map indicating the location of these shelter facilities should be included in the plan. Red Cross staff agreed to provide information and assistance to evacuees as required, and to direct evacuees to congregate care centers operated by the Red Cross. No monitoring or decontamination will be performed at these facilities, so Letters of Agreement with each facility are not necessary.</p> <p>LILCO has agreed to provide any training to the Red Cross that they may require. Red Cross personnel will participate, as appropriate, in emergency planning drills and exercises.</p> <p>The legal concern still remains.</p>

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C.4	The letters of agreement with facilities to be used as relocation centers are missing. This element has been rated inadequate because the plan must contain letters of agreement with the facilities to be used for the monitoring and decontamination of evacuees. Also see analysis comments for element A.3.	See element A.3(3). In addition, a letter of Agreement with the Nassau County Red Cross has been obtained, is enclosed in Attachment 2. This letter identifies the Congregate Care Centers that will be activated in Nassau County to shelter evacuees. While a small number of facilities listed are operated by New York State, the remaining facilities provide more than enough capacity for the number of evacuees expected to require shelter assistance.	See RAC response for element A.3.

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I.7	<p>(1) It should be noted that the LERO radiological procedures are still included in the plan. These procedures apparently remain from Revision 3 wherein LERO was to provide field teams if needed. In Revision 4, there is no plan to use LERO personnel since DOE-RAP will perform field monitoring functions; therefore, the LERO radiological procedures should be deleted from the plan.</p>	<p>(1) OPIP 3.5.1, Downwind Surveying, will be removed from the procedures. Support organizations providing this service will use their own procedures.</p>	<p>(1) The proposed solution appears to be appropriate. However, a final determination must await the plan review by the RAC of Revision 5.</p>
I.7	<p>(2) Page 7 in Procedure OPIP 3.5.1 has not been changed in Revision 4. The plan at page 3.5-2a, line 3-6, states that laboratory analysis can be performed. The potential problem alluded to in line 3 of page 3.5-2a (i.e., the calculation of thyroid dose from the iodine samples taken in the field) has not been addressed by any changes in the operating procedures set forth in Procedure OPIP 3.5.1, which should provide for expedite laboratory analysis.</p>	<p>(2) OPIP 3.5.2 will be revised to state that the survey team will, if instructed by the RAP Team Captain to expedite return of samples, proceed directly to the DOE-RAP headquarters prior to going to the Emergency Worker Decontamination Facility.</p>	<p>(2) The proposed solution appears to be appropriate. However, a final determination must await the plan review by the RAC of Revision 5.</p>

RAC Plan Review

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I.9	(1) Although LILCO's summary of the consolidated RAC review comments for Revision 3 stated that expedited laboratory analysis will be made, the Procedure (OPIP 3.5.2, Section 3.3) does not include provisions for expediting this analysis. Further, Procedure OPIP 3.5.1 does not call for an expedited return of these samples to the laboratory. In fact, the discrepancies about where the location of the Environmental Survey Function, discussed in the comment for element I.8, is also of concern here. The instructions in Procedure OPIP 3.5.1 are to be returned to the Emergency Worker Decontamination Center at the local EOC where they will be transferred to the Environmental Survey Function and taken into the EOC for further analysis. The plan should be revised to clarify that sample media will be taken to Brookhaven National Laboratory for analysis.	(1) Section 3.3 of OPIP 3.5.2 will be modified to provide for expedited return of field samples to Brookhaven National Laboratory for analysis. See also item I.7(2).	(1) The proposed solution appears to be appropriate. However, a final determination must await the plan review.
I.9	(2) Attachments 5 and 6 of Procedure OPIP 3.5.2 have been removed and incorporated into a computerized procedure. The RAC comments for Revision 3 of the plan with regard to the nomogram are still valid. The assumptions used in the computerized approach may not be realistic.	(2) The RAC concerns identified in the Rev. 3 review about OPIP 3.5.2 Attachments 5 and 6 were that the heading of the tables should be changed to read, multiply results by $10E-6$. When these values were transferred to the computer memory they were inputted with the correct units. The RAC concerns on the use of the nomogram for calculation of thyroid dose using the TCS air sampler were addressed in Rev. 4.	(2) The proposed solution appears to be appropriate. If in addition to DOE-RAP, LERO wishes to perform independent dose assessment, then provision to obtain input data should be incorporated into the plan. A final determination on the adequacy of this element must await the plan review.

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I.10.	<p>As noted above in the discussion for element I.9, inclusion of the required information in a computerized procedure may not be adequate, since the previous revision of the plan did not contain the required nomograms, and in the current revision this information has been incorporated into a computer program. LERO anticipates that DOE-RAP will carry out dose assessment computations and, therefore, the LERO computerized methodology may not be necessary. FEMA will evaluate the capability to obtain accurate dose assessment calculations during an exercise of off-site radiological emergency preparedness. The current version of the plan does not contain a method for manual calculation of dose. A procedure for manual calculation was contained in Revision 3 of the plan in the event of computer malfunction. It appears that Revision 4 addresses a problem by removing the affected pages of the plan not necessarily by correcting the problem. If LERO decides to retain their procedure described in the plan, documentation of the computer program should be provided to FEMA for review.</p>	<p>The DOE-RAP Team uses the IRDAM dose assessment model on a portable Osborne Computer. The development of this dose assessment model was sponsored by the NRC and published in NUREG-CR-3012. LERO uses the ACCDOS dose assessment model described in OPIP 3.5.2, on an HP-85b portable computer. This model is mathematically the same that was previously included in the manual calculation method of Rev. 3. The information previously needed to complete the missing nomograms has been developed and included in the computerized software. Both of these systems may be used in the EOC which has a back-up power supply. LILCO feels that the availability of two independent proven and reliable dose assessment systems precludes the necessity of having a manual backup.</p>	<p>The proposed solution appears to be appropriate. If in addition to DOE-RAP, LILCO intends to have an independent dose assessment capability, then provision to obtain input data should be incorporated into the plan (see also I.9.2).</p>

RAC Plan Review

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J.9	<p>The FDA Emergency PAGs for ingestion are for projected doses of 5 rem whole body and 15 rem to the thyroid, not 25 rem thyroid as stated in the plan. Also the interpretation of how to use the response level tables (i.e., instructions contained in the footnotes) has been incorrectly transcribed from the Federal Register referenced in the plan. In addition, page 3.6-2 lines 46 and 47, should state "5" nuclides, and include Cs-134.</p>	<p>The Plan will be revised to reference the correct FDA PAGs and Cs-134 has been added to the list of nuclides evaluated. The discussion in the Plan will also be revised to correctly quote the Federal Register.</p>	<p>The proposed solution appears to be appropriate. However, a final determination must await the plan review.</p>

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J.10.K	<p>These reasons do not alleviate the need to coordinate pre-emergency planning for snow removal on the evacuation routes. Indeed, since LILCO relies on local snow removal organizations who may be accompanied by LERO personnel who will provide dosimetry to ensure that untrained workers do not receive doses in excess of PAGs for the general public (see comment for element A.1.b), the need to coordinate pre-emergency planning for snow removal along evacuation routes is greater in this particular case. This is especially true in view of the fact that since resources may be limited, there is a need to ensure that these resources would be used in an effective manner where sheltering may not be recommended. For example, it would be advisable to ensure that efforts are concentrated on keeping evacuation arteries rather than side streets, driveways, etc. clear. The plan is not clear as to how LERO could coordinate snow removal by normal response functions in the event, however unlikely, they would be needed during an emergency (see pages 2.2-4g and h of the plan). Therefore, pre-emergency planning for snow removal on the evacuation routes should be further developed to include administrative procedure, SOPs, etc. These procedures are recommended to ensure that the snow removal strategy would coincide with any evacuation scheme that might be chosen.</p>	<p>LILCO has identified the roads having the highest levels of traffic flow and will add them as an attachment to the procedure. The Brookhaven and Riverhead Townships, Suffolk County and New York State Department of Public Works will be notified of these road priorities in case of an evacuation during or immediately following a snowfall.</p>	<p>LILCO's proposed resolution is an improvement over Revision 4, but still does not meet the requirement of this element. LILCO intends to identify the roads having the highest levels of traffic flow during an evacuation and will add these as an attachment to Procedure OPIP 3.6.3. It is expected that the plan will also be revised to specify that local snow removal organizations (i.e., Brookhaven and Riverhead Townships, Suffolk County and New York State Departments of Public Works) will be notified of these road clearing priorities by the Road Logistics Coordinator (or designee) in the event an evacuation recommendation is to be implemented during, or immediately following a snowfall.</p> <p>However, according to the plan (see page 1.4-2b and 2.2-4g), LILCO anticipates that snow removal agencies within 10-mile EPZ will continue to carry out their <u>normal response functions</u>. Therefore, there is no assurance that snow removal agencies will consider and follow LILCO's road clearing priorities. There must be reliable pre-emergency planning for snow removal on the evacuation routes including administrative procedures, SOPs, etc. as noted in the RAC review for Revision 4.*</p> <p>The legal concerns still remain.</p> <p>*It should be noted that one (1) RAC member felt that this element should be rated adequate.</p>