



Federal Emergency Management Agency

Washington, D.C. 20472

SEP - 9 1988

Mr. Victor Stello, Jr.
Executive Director for Operations
Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Mr. Stello:

On January 27, 1988, the Nuclear Regulatory Commission (NRC) requested that the Federal Emergency Management Agency (FEMA) review Revision 9 of Long Island Lighting Company's (LILCO) offsite preparedness plan for the Shoreham Nuclear Power Station (SNPS), under the provisions of the April 1985 FEMA/NRC Memorandum of Understanding and the criteria and assumptions of NUREG-0654/FEMA-REP-1, Rev.1, Supplement 1. FEMA was also requested to provide a finding, i.e., indicate whether in the framework of those criteria and assumptions, FEMA had reasonable assurance that the plans can protect the health and safety of the public living in the vicinity of the plant. That finding was delivered to the NRC on May 31, 1988.

On February 8, 1988, NRC requested that FEMA evaluate a full-participation exercise of LILCO's offsite preparedness plan for Shoreham. On May 20, 1988, and May 26, 1988, NRC staff agreed that the proposed objectives submitted by FEMA on May 13, 1988, were sufficient to demonstrate the capabilities of LILCO's Local Emergency Response Organization in a full-participation exercise. They also stated their position that the objectives were sufficient to constitute a "qualifying" exercise under 10 CFR 50, Appendix E, Section IV.F.1 in that it should test as much of the emergency plans as is reasonably achievable without mandatory public participation.

On May 23, 1988, NRC requested that FEMA conduct a review of Revision 10 of the LILCO offsite plan against the criteria of NUREG-0654/FEMA-REP-1, Rev.1, Supplement 1 and the three assumptions stated below. NRC also requested that Revision 10 changes be incorporated into the exercise play of the upcoming Shoreham exercise. Since a full Regional Assistance Committee (RAC) review could not be conducted in the short time frame remaining before the exercise, FEMA Region II agreed to review the changes, coordinate with the RAC where necessary, and incorporate them into the evaluation of the exercise. The assumptions upon which the plan review and the exercise were based are that in an actual radiological emergency, State and local officials that have declined to participate in emergency planning will:

- 1) Exercise their best efforts to protect the health and safety of the public;
- 2) Cooperate with the utility and follow the utility plan, and
- 3) Have the resources sufficient to implement those portions of the utility offsite plan where State and local response is necessary.

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It is further understood that in any subsequent hearings or litigation related to the plan review or exercise, NRC will defend the above assumptions. On August 31, 1988, you also requested that FEMA review certain updated letters of agreement in conjunction with FEMA's ongoing review of Revision 10.

Enclosed is a report on the results of a full review of Revision 10 of the LILCO plan and the abovementioned letters of agreement, conducted by FEMA Region II and the RAC. The Shoreham exercise was conducted on June 7-9, 1988. Enclosed is a copy of the Post-Exercise Assessment, dated September 2, 1988, containing the results of FEMA's evaluation. It was prepared by FEMA Region II. There were no deficiencies identified in the exercise. However, there are some areas requiring corrective action. FEMA is requesting LILCO to submit a schedule of actions that they have taken or intend to take to correct both plan-related and exercise-related inadequacies.

As indicated in the plan review, Revision 10 contains 94 plan elements rated adequate and 7 plan elements rated inadequate. Some of the inadequacies were revealed as shortcomings in the exercise requiring further implementing detail in the plan. However, the exercise demonstrated adequate overall preparedness on the part of LERO personnel, and therefore, based on the evaluation of the plan and the exercise, and the recommendation of FEMA Region II, FEMA has reached a finding of reasonable assurance.

By way of clarification, we would like to note for the record that the enclosed plan review did not reevaluate Elements C.2.b, C.2.c, E.3 and E.4 a-n, since they are to be removed from the final version of NUREG-0654/FEMA-REP-1, Rev. 1, Supplement 1. The review also does not take into consideration any possible ramifications of ongoing litigation in the State of New York concerning LILCO's reception center at Bellmore. Although the Supreme Court of the State of New York, Nassau County, has ruled on that issue, it is our understanding that LILCO is appealing that ruling. Finally, the review also did not consider the so-called ministerial changes listed as part of Revision 11 of the LILCO plan, although incorporated in Revision 1 of the SNPS Prompt Notification and Design Report. You requested that FEMA review that revision to the design report on August 16, 1988. Our consolidated report on the SNPS alert and notification system will contain our evaluation of those changes, unless a full RAC review of any potential Revision 11 of the entire plan is produced first.

We hope that the above information is useful. If you have any questions, please feel free to call me at 646-3692.

Sincerely,



Grant C. Peterson
Associate Director
State and Local Programs and Support

Enclosures
As Stated



Federal Emergency Management Agency

Region II

26 Federal Plaza

New York, New York 10278

September 8, 1988

MEMORANDUM FOR:

Grant Peterson
Associate Director
State and Local Programs and Support

FROM:

Jack M. Sable
Regional Director

SUBJECTS:

- (1) Regional Assistance Committee (RAC) Review Comments for the LILCO Local Offsite Radiological Emergency Response Plan for Shoreham, Revision 10 dated September 6, 1988.
- (2) Post-Exercise Assessment for the June 7-9, 1988 Exercise of the LILCO Offsite Radiological Emergency Response Plan for the Shoreham Nuclear Power Station dated September 2, 1988.

In response to your earlier requests, Region II herewith transmits three copies of the captioned documents.

As referenced on each page of the plan review, Revision 10 of LILCO's Offsite Radiological Emergency Response Plan has been reviewed in accordance with the interim-use and comment document jointly developed by FEMA and NRC entitled: Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants (Criteria for Utility Offsite Planning and Preparedness); NUREG-0654/FEMA-REP-1, Rev. 1, Supplement 1, November, 1987. This review updates the previous review of Revision 9 of the LILCO plan transmitted to you in May 1988.

On May 23, 1988, the Nuclear Regulatory Commission (NRC) requested that the Federal Emergency Management Agency (FEMA) conduct a review of Revision 10 of the LILCO offsite plan against the criteria of NUREG-0654/FEMA-REP-1, Rev. 1, Supplement 1 and the three assumptions stated below. NRC also requested that Revision 10 changes be incorporated into the exercise play of the upcoming Shoreham exercise. Since a full RAC review could not be conducted in the short time frame remaining before the exercise, FEMA Region II agreed to review the changes, coordinate with the RAC where necessary, and incorporate them into the evaluation of the exercise. The assumptions upon which the plan review and the exercise were based are that in an actual radiological emergency, State and local officials that have declined to participate in

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emergency planning will:

- 1) Exercise their best efforts to protect the health and safety of the public;
- 2) Cooperate with the utility and follow the utility plan, and
- 3) Have the resources sufficient to implement those portions of the utility offsite plan where State and local response is necessary.

After the exercise, Revision 10 was reviewed in detail by FEMA Region II and the RAC. Also included in the review were additional materials which NRC formally requested FEMA to review on August 31, 1988. A RAC meeting, chaired by FEMA Region II was held in our offices on September 1, 1988, on Revision 10 of the plan.

All of the previous outstanding issues have been reviewed including those (1) for which elements were previously rated inadequate, and (2) those for which recommendations for improvements of the plan were made. For clarity, the following nomenclature has been carried over from the previous reviews:

- A (Adequate) The element is adequately addressed in the plan. Recommendations for improvement shown in *italics* are not mandatory, but their consideration would further improve the utility's offsite emergency response plan.
- I (Inadequate) The element is inadequately addressed in the plan for the reason(s) stated in **bold type**. The plan and/or procedures must be revised before the element can be considered adequate.

As a means of summarizing this rather lengthy review and for ease in understanding abbreviations used, an Element Rating Summary and List of Acronyms are provided at the end of the document. In accordance with Richard Krimm's memorandum of July 27, 1988 to Ihor Husar of my staff, elements C.2.b, C.2.c, E.3, and all parts of E.4 have been removed from this review, since they will not appear in the final version of NUREG-0654/FEMA-REP-1, Rev. 1, Supplement 1.

As mentioned above, we also transmit a copy of the Shoreham Post-Exercise Assessment report dated September 2, 1988. There were no exercise issues classified as deficiencies. However, there were some areas requiring corrective action. FEMA evaluated the full-participation June 1988 exercise in response to NRC's request dated February 8, 1988. Objectives for the exercise were developed by LILCO and submitted to FEMA and NRC for review. On May 20, 1988, and May 26, 1988, NRC staff agreed that the proposed objectives submitted by FEMA on May 13, 1988, were sufficient to demonstrate the capabilities of LILCO's Local Emergency Response Organization in a full-participation exercise. They also stated their position that the objectives were sufficient to constitute a "qualifying" exercise under 10 CFR 50, Appendix E, Section IV.F.1 in that it should test as much of the emergency plans as is reasonably achievable without mandatory public participation.

Based upon this determination and changes to the plan which were incorporated in Revision 10 in response to the RAC review of Revision 9, Region II finalized its plans to evaluate the exercise. The exercise was conducted on June 7-9, 1988 with plume-exposure-pathway emergency planning zone (EPZ) activities primarily conducted on June 7th, ingestion-pathway EPZ activities conducted on June 8th, and recovery/reentry activities conducted on June 9th.

A public meeting was held on June 15, 1988 at the Mediterranean Manor in Patchogue, New York. The public meeting was held to acquaint the public with the content of offsite plans and FEMA's preliminary observations on the June exercise. Representatives from offsite organizations participated with FEMA Region II and NRC Region I at the public meeting.

LILCO was provided a copy of the draft report dated August 8, 1988 and their comments were received by the RAC Chairman at a meeting with representatives of the utility in the Region II office on August 17, 1988. Prior to finalizing the Post-Exercise Assessment, the report was reviewed and discussed in detail at the RAC meeting on September 1, 1988.

It should be noted that the plan has been substantially improved by LILCO in response to the RAC's previous reviews. Ninety-four plan elements are currently rated adequate. Seven plan elements are currently rated inadequate. Some of these inadequacies were revealed as shortcomings in the exercise requiring further implementing detail in the plan. However, the exercise demonstrated adequate overall preparedness on the part of LERO personnel, and therefore, based on the evaluation of the plan and the exercise, Region II recommends a finding of reasonable assurance.

If you have any questions, please contact Mr. Ihor W. Husar, Chairman, Regional Assistance Committee, at FTS 649-8200.

Attachments

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- A. Assignment of Responsibility
(Organization Control)
- A.2.a *Change(s) to the plan could not be located in response to an earlier comment on Rev. 9 that under the LERO plan (see Figure 3.3.7), FEMA is designated as having the primary responsibility for notifying the public of the Federal response. The lead Federal agency for this function is the Cognizant Federal Agency. This should be clarified in Section 2.2, page 2.2-4a, lines 10-15 and acknowledged in Section 3.3 as appropriate.* A
- C. Emergency Response Support and Resources
- C.1.c As recommended in the review of Rev. 9, the outdated designation of USDA responsibility (under FRERP) for the National Radio Fire Cache has been removed from page 2.2-4d of the plan. A
- C.3 *As noted in the review of Rev. 9, the designation of who will transport field samples to the laboratories (i.e., Clean Harbors Analytical Services located in Massachusetts and Teledyne Isotopes in New Jersey) could not be located in Rev. 10.* A
- C.4 Updated executed leases have been included in Rev. 10 for the following transfer points: A

	<u>Expiration Date</u>
• Riverhead (also known as Warehouse Factors' Path)	3/31/89
• Middle Island	3/31/89
• Shirley Mall	3/31/89
• Coram	3/31/89
• Miller Place	2/28/89

Evidence of valid leases for the Riverhead and Coram transfer points which were unsigned in Rev. 10 were formally provided to FEMA on 8/31/88.

The expiration date for the executed agreement (lease) for the Expressway Plaza Transfer point was incorrectly reported in the Rev. 9 RAC review. The correct

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<u>Element</u>	<u>Review Comment(s)</u>	<u>Rating</u>
	<p>expiration date for that agreement was 6/30/88 (see Page App B-66, Rev. 9). On June 27, 1988, this lease agreement between LILCO and Plaza 63 Associates, Inc. was renewed for the period 7/1/88 through 6/30/89. A copy of this updated lease agreement was formally provided to FEMA on 8/31/88.</p> <p>LILCO's purchase order agreement with Gulf Oil Gasoline expired as of 6/30/88. This agreement has been replaced by an agreement with the Rad Oil Company, Inc. of New Rochelle, NY for the period 7/1/88 through 6/30/89. A copy of this lease agreement was formally provided to FEMA on 8/31/88.</p> <p>A letter of agreement dated 3/30/88 has been executed by LILCO with KLD Associates, Inc. to provide qualified volunteer personnel to fill the LERO Traffic Engineer position.</p> <p>With regard to the manner in which LILCO responded to FEMA's comments on letters of agreement with bus companies to obtain "first-call" rights, see comments for element J.10.g.</p> <p>Based on the demonstration of a sample of resources (i.e., ambulances and ambulettes) to implement an evacuation of mobility impaired persons, this objective was met at the 1988 exercise. However, FEMA did not have an opportunity to review a copy of the confidential computerized Homebound Evacuation Listing prior to the exercise. Therefore, a final determination of the overall adequacy of ambulance resources must await comparison of the number of vehicles with the needs of persons listed in the computerized Homebound Evacuation listing.</p>	

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D. Emergency Classification System

- D.4 Procedure OPIP 3.1.1; Attachment 1, page 7 of 13, has been changed to insure that the Director of Local Response consults with the Radiation Health Coordinator (if this position is staffed at the EOC) to obtain an assessment of the radiological emergency at the Site Area and General Emergency ECLs before contacting the Suffolk County Executive to obtain approval to initiate notification of the public. Also, telephone numbers for the Governor of New York and the Suffolk and Nassau County Executives are included in procedure OPIP 3.1.1, Attachments 1 and 10. A

E. Notification Methods and Procedures

- E.5 EBS messages developed at the 1988 exercise generally followed prescribed messages contained in OPIP 3.8.2 of Rev. 10 of the plan and they were detailed and comprehensive. However, new and important information was usually inserted in the middle or at the end of information contained in previous messages rather than at the beginning of the message where new information should be carried. Due to the excessive length of EBS messages, listeners may potentially miss critical information. Accordingly, the exercise revealed that the format of EBS messages should be revised to make messages more concise and to emphasize important information at the beginning of messages. I

The plan and procedures have been revised to specify that in accordance with the New York State Emergency Broadcast System Operational Plan (July 1981), WCBS in New York City will be used as the Common Point Control Station (CPCS-1) for disseminating initial and follow-up messages to the public. OPIP 3.8.2, Sections 5.1 and 5.1.4 specify procedures through which the WCBS EBS network would be activated when LERO is authorized to do so by State officials.

The plan also (see page 3.8-7, lines 34-38) specifies that WPLR, an FM band radio station in Hamden, Connecticut has agreed to serve as the CPCS for the Shoreham local EBS network until the issuance of a full power operating license, and, if needed, to remain a member EBS station thereafter.

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- The Shoreham local emergency broadcast network consisting of ten (10) radio stations on Long Island and Connecticut provide a backup network for use in issuing EBS messages in the event that a problem or delay is encountered in activating the HCBS-based EBS network. The Shoreham Atomic Safety and Licensing Board (ASLB) OL-3 proceeding has this plan element under active consideration (EBS litigation).
- E.7 As recommended in the review of Rev. 9, Section 3 (item 1) has been revised to include a precautionary statement that EBS need not be activated for an Unusual Event. A
- F. Emergency Communications
- F.1.b The plan (Section 3.4 and Figures 3.3.5 and 3.4.i) and procedure OPIP 3.1.1 have been revised to specify that NAWAS will provide backup to commercial telephone for communications with New York State and Nassau County. According to Attachment 7, Section B.12 of OPIP 3.1.1, if difficulty is encountered in contacting Nassau County or the State, by commercial telephone, the LERG Lead Communicator is responsible for recommending that communications are relayed by either Suffolk County or the U.S. Department of Energy, Brookhaven Area Office (BHO) Security Station via NAWAS. A
- The Shoreham Control Room NAWAS line specified in the plan (see page 3.4-2, line 25) should be added to Figure 3.3.5. Also, availability of the NAWAS link which can be accessed by the EOC via the SNPS Control Room or the U.S. Department of Energy (BHO) should be specified in Attachment 7 of OPIP 3.1.1 for the Director of Local Response in the event that the Lead Communicator is not available to provide this information.*
- Telephone numbers for the Governor of New York and the Nassau County Executive are now specified in OPIP 3.1.1, Attachments 1 and 10. However, according to the summary of revisions submitted by LILCO with Rev. 10 of the plan, telephone numbers for New York, Connecticut and Nassau County have been added to the LERG Emergency Telephone Directory, in response to FEMA's comment on this element in Rev. 9 of the plan. This directory

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	<i>should be submitted to FEMA in order to verify that the points of contact to be used for initial communications include telephone numbers for the New York, Connecticut, Suffolk County and Nassau County warning points.</i>	
F.1.d	<p>In response to comments on Rev. 9 of the plan, Attachment 2.2.1, lines 26-27 have been changed to be consistent with Figure 3.3.5 and OPIP 3.3.5, Section 5.11 which specifies that the Brookhaven Area Office (BHO) is notified by the Hicksville Supervising Service Operator.</p> <p>Also, page 4.1-4 of the plan has been revised to clarify that the LERO EOC is linked to the DOE-RAP field monitoring teams via BHO radio which is stationed at Brookhaven National Laboratory. If DOE relocates to the LERO EOC, this radio link to the DOE-RAP teams will be direct.</p>	A
F.1.e	<p>In response to Exercise ASLB PID findings, procedures OPIPs 3.3.3, 3.6.3, 4.2.3, and 4.5.1 have been revised as follows to facilitate the mobilization/deployment of emergency workers to the field:</p> <ul style="list-style-type: none">• Traffic Guides are dispatched from Staging Areas immediately after their briefing at the Staging Area is complete (OPIP 3.6.3, page 5 of 77);• Road Crews are mobilized to the Staging Areas at the Alert ECL rather than the Site Area ECL (OPIP 3.3.3, Attachment 1, page 2 of 3);• Reception Center management personnel are mobilized to the centers at the Alert ECL (OPIP 3.3.3, Attachment 1, page 1 of 3 and OPIP 4.2.3, Section 5.2). <p>The Emergency Preparedness Advisor and the Radiation Health Coordinator are now listed in Figures 3.3.3 and 3.3.4 as affiliated with both LILCO and Other Organizations. <i>This change should be made in Fig. 3.3.2,</i></p>	A

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which still lists the Emergency Preparedness Advisor only as a LILCO employee.

- F.2 In response to earlier comments on Rev. 9, Figure 3.3.5 has been revised to show the radio communication links to hospitals from ambulance dispatch stations and mobile ambulance units. Figure 3.4.1 has also been revised to show the radio links between hospitals and ambulance dispatch stations. A
- G. Public Education and Information
- G.1.a-e In response to comments on Rev. 9, the section of the section of the plan on "Media Awareness" (Page 3.8-3) has been revised and now refers to biennial rather than annual exercises. A

A revised draft of the Shoreham public information brochure was provided to FEMA and its contractor. Based on recommendations and technical assistance provided by FEMA's contractor, the new draft had a much clearer emergency focus and had been reorganized to place emergency instruction sections in the front of the booklet. The information in the brochure was consistent with instructions that may be given to the public via EBS messages and correlated with sample EBS messages contained in the plan. One important change was the addition of a single, summary instructions page to be placed directly inside the front cover that also serves to index additional information. Language simplification and more effective use of graphs and other design elements also greatly enhanced the utility and comprehensibility of the public information brochure.

Subsequent to the above review, on 7/28/88 FEMA informally obtained LILCO's updated, public information brochure. FEMA and the RAC will conduct a detailed review and provide the results at a later date.

See comments for element J.11 in this review regarding the evaluation of public information for the agricultural community.

See comments for element J.10.g in this review regarding the manner in which the previous discrepancy between the number of nursery schools listed in the plan and the

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	public information brochure has been adequately addressed by LILCO.	
G.2	Provisions for the public information program and provisions for its dissemination as described in Section 3.8 of the plan are adequate. The public information materials should not be sent out until comments from FEMA's contractor have been incorporated into the brochure (See also comments for element G.1.a-e in this review). It is FEMA's understanding that LILCO intends to distribute the public information brochure prior to the formal demonstration of the alert and notification siren system for telephone survey purposes.	A
G.3	In response to earlier comments on Rev. 9, the NUREG-0654 cross reference has been revised to include appropriate citations where this element is addressed in the plan and procedures.	A
G.4.a	<i>The 1988 exercise revealed that the Emergency News Center (ENC) staffing chart does not define a role for radiation health spokespersons, two of which were assigned to the LERO staff to handle briefings related to radiation health issues. The ENC staffing chart should be accordingly revised to reflect that radiation health spokespersons will be assigned to this facility.¹</i>	A
G.4.b	Copying capabilities for the distribution of hard copies of EBS messages to the media were found to be adequate at the ENC during the 1988 exercise.	A
G.4.c	Procedure OPIP 3.8.1 has been revised (see Section 5.4.3) to specify that the LERO Spokesperson at the ENC will designate a LERO Rumor Control Coordinator from the 13 Public Information Support Staff (see Figure 2.1.1 and OPIP 2.1.1, Attachment 3, page 1 of 5). This LERO Rumor Control Coordinator will be assigned to the LILCO rumor control room in the ENC at the LILCO Training Center, Hauppauge, NY where offsite related rumors will be routed to him/her by the LILCO Rumor Control Administrative Staff.	A

¹Although this exercise issue is not sufficient to rate the element inadequate, this issue should be corrected.

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	In response to Rev. 9 review comments, detailed rumor control procedures are provided in onsite procedure EPIP 4-4 which has been provided for information only behind Attachment 3 of OPIP 3.8.1. When the LERO Rumor Control Coordinator arrives at the ENC, he/she will be responsible for ensuring that offsite rumor control responses are transmitted to the District Offices and Callboards via TSO computer (see EPIP 4-4, Section 2.4) and that responses are forwarded back to the initial caller (see OPIP 3.8.1, Section 5.6.4). LILCO Rumor Control staff at the District Offices and Callboards are accordingly available for use by LERO in the control of offsite rumors. The effectiveness of the system for controlling offsite related rumors was evaluated during the 1988 exercise and found to be adequate as discussed in the Post Exercise Assessment (PEA). <i>Nevertheless, information regarding the number of rumor control staff and the number of telephone lines allocated for this function should be provided to FEMA.</i>	
G.5	Section 3.8 (Page 3.8-4) of the plan has been revised to specify in accordance with NUREG-0654, FEMA-REP-1, Rev. 1, Supp. 1, that the "role of offsite response organizations vs. the State and local organizations during an emergency" will be reinforced during the annual orientation program for members of the news media.	A
H.	<u>Emergency Facilities and Equipment</u>	
H.4	<i>The LERO Emergency Telephone Directory should be submitted to FEMA in order to verify that the point of contact to be used for initial communications with New York State includes the telephone number for the State Warning Point (see also comment for element F.1.b in this review).</i>	A
H.7	In response to earlier comments on Rev. 9, the NUREG-0654 cross reference has been revised to indicate that the field monitoring equipment for the Offsite Radiological Survey (ORS) teams is listed in Attachment 2.2.1 of the plan.	A

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I.	<u>Accident Assessment</u>	
I.7	In response to earlier comments on Rev. 9, reference to OPIP 3.5.1, "Downwind Surveying" which has been deleted from the plan, has been removed as a reference from Section 6 of OPIP 3.5.2.	A
I.9	<i>Provisions for transporting field samples to laboratories located in New Jersey (i.e., Teledyne Laboratories) and Massachusetts (i.e., Clear Harbors) could not be found in the plan.</i>	A
J.	<u>Protective Response</u>	
J.10.a	<i>Figure 3, which is referenced on page II-5 of Appendix A as outlining the 19 Emergency Response Planning Areas (ERPAs) that comprise the plume exposure EPZ needs to be added to Appendix A.</i> <i>A list of the preselected radiological sampling locations is given in Table 3.5.1 of the plan. However, as mentioned in the earlier comments for Rev. 9, a map showing these locations was not contained in the plan submitted for this review of Rev. 10.</i>	A
J.10.e	In response to earlier comments on Rev. 9, the Lead Traffic Guide briefing form (OPIP 3.3.4, Attachment 8, Page 16c of 16) has been revised to clarify that <u>only</u> Route Alert Drivers are to be instructed to ingest KI prior to leaving the Staging Area or when a General Emergency is announced via EBS. Although KI administration procedures are now consistent for Route Alert Drivers, the use of KI by any emergency workers is unacceptable without a dose projection of thyroid exposure first being made by a responsible health official (i.e., LERO Radiological Health Coordinator). See additional comments for element J.10.f in this review. Procedures OPIP 3.6.2 (Section 5.2.2.d) and OPIP 3.6.5 (Attachment 14, Section 5, page 64 of 75) are inconsistent with regard to when all school bus drivers will take their KI tablet. OPIP 3.6.2 states that school bus drivers will take a KI tablet upon hearing of a declaration of a General Emergency on EBS radio or when	I

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actually implementing a school evacuation. OPIP 3.6.5 states that school bus drivers will only take KI upon hearing of a General Emergency (via EBS). Regardless of the inconsistency of these procedures, the use of KI by any emergency workers is unacceptable without a dose projection of thyroid exposure first being made by a responsible health official (i.e., LERO Radiological Health Coordinator). See additional comments for element J.10.f in this review.

KI has been added to the equipment inventories in OPIP 5.3.1 for all of the companies slated to supply buses for school evacuation.

OPIP 3.6.5 also specifies that two (2) KI tablets have been added to the LERO School Bus Driver Assignment Packets (Attachment 14, p. 1 of 3).

Copies of the LILCO letters that offer training to non-LILCO organizations that do not receive training have been provided to FEMA.

J.10.f

Procedure OPIP 3.6.2 specifies the means by which emergency workers will be instructed to ingest KI after iodine dose equivalent has been determined by the LERO Radiation Health Coordinator. As provided in Section 5.2.2.a of this procedure, the Dosimetry Coordinator is responsible for communicating KI instructions to the Traffic Control Coordinator who is in turn responsible for contacting Traffic Guides if they have already been deployed to the field from the Staging Areas. This means of administering KI has been clarified in OPIP 3.3.4, Attachment 8 which now delineates instructions given by Lead Traffic Guides to Route Alert Drivers as distinguished from other emergency workers at the Staging Areas.

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The directive for specified emergency workers (e.g., school bus drivers and route alert drivers) to take KI at the declaration of a General Emergency ECL is not in accordance with Federal guidance which states that the use of KI is appropriate at projected doses of 25 Rem thyroid. Although the more conservative 10 rem trigger level contained in the LILCO plan is acceptable, the use of KI without a dose projection of thyroid exposure

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first being made by a responsible health official is not acceptable.

During the 1988 exercise there was misunderstanding among school bus drivers about the use of KI. The LERO controller information was unclear as to the status of the emergency at the start of the school evacuation which was out of sequence with the plume portion of the exercise. In addition, some school bus drivers were unaware of the use of the KI record form for recording their use of KI. This result reinforces the need for KI use to be based upon a dose projection of thyroid exposure first being made by a responsible health official.

J.10.g

Nursery schools have been added to OPIP 3.6.5 Attachments 3, 3a and 19 and have had buses allotted for their evacuation. The plan and the public information brochure are now consistent except that the public information brochure also lists the Maryhaven Therapeutic Pre-school/day Residential School and the St. Charles Exceptional and Therapeutic Center as nursery schools. The plan in OPIP 3.6.5, Attachment 2, lists Maryhaven and St. Charles as handicapped facilities. LILCO clarified in an informal transmittal to FEMA dated 7/25/88 that for planning purposes, several schools have been listed as Health Care Facilities in OPIP 3.6.5, Attachment 2 because of their special transportation needs for evacuation. However, since parents send children to these facilities for educational purposes, they are listed as schools in the public information brochure. The facilities treated in this manner are as follows:

A

- Little Flower U.F.S.D.
and Children's Services
- Maryhaven
 - Therapeutic Preschool
 - Day Residential School
- Preschooler's Place for Learning

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- St. Charles
 - Educational and Therapeutic Center
 - Learning Center of BOCES II

(See also comments on element G.1.a-e regarding nursery schools).

Results of the confirmatory letters sent to bus companies citing the number of first-call buses available from each were provided to FEMA in LILCO's informal transmittal of 7/25/88 and these confirm a number of 200 spare buses (i.e., not used by school districts on a daily basis) which is 47 in excess of the 153 first-call buses required by the plan. It is understood that the bus yard contracts in question are going to be renegotiated. When these contracts are finalized by 12/31/88, they will specify first-call buses to be supplied by each yard. At that time all contracts with bus yards providing first-call buses will specify the number of these vehicles.

It has been determined in view of the fact that OPIP 3.6.4, Attachment 3 and OPIP 3.6.5, Attachment 3a contain a list of the bus companies where buses for school evacuation are obtained, that it is not necessary to include this information in Table XIIIC of Appendix A as requested in the Rev. 9 review comments. *However, if this information is not to be included in that table, the statement on page IV-180 of Appendix A that "Table XIIIC presents ... (the third bullet) Bus companies where vehicles are obtained" should be removed.*

Section 2.1, page 2.1-1 of the plan has been revised to specify that "LERO School Bus Drivers will provide a 100% backup of the Regular School Bus Drivers that normally transport EPZ school children. At bus yards that do not normally support EPZ transportation LERO will assign 150% of the complement required." This is consistent with the previous statement in the Plan that it is LERO's goal to have approximately 150% of the personnel available to respond to an emergency. *However, the enumeration of school bus drivers assigned to bus yards should be provided to FEMA. A summary of assignments from the LERO School Bus Driver call-out sheets specified in Attachment 14 (item p. 1 of 3, #1) of OPIP 3.6.5 could satisfy this request.*

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The plan has been revised (see OPIP 3.6.4, Attachment 1, Section 10; and OPIP 4.1.1) to provide direct radio communications from the Transfer Point Coordinators at their Transfer Points to the Bus Coordinator at the LERO EOC.

The comprehensive needs vs. resources charts for the vehicles intended for relocation have not been provided to FEMA. Also, inconsistencies previously noted in the number of buses available for Suburbia, Bruno, Coram, WE Transport and Towne bus companies have not been addressed.

J.10.h

No change of the plan could be located in response to an earlier comment on Rev. 9, regarding inclusion in the plan of a list of potential reception hospitals.

A

J.10.j

The 1988 exercise revealed that Rev. 10 of the plan does not contain preplanned access control points to restrict access to evacuated ERPAs when a sheltering advisory is rescinded. Such an access control plan should be developed for any subset of ERPAs where an evacuation advisory is in effect.

I

In addition, the 1988 exercise revealed that during the reentry phase, traffic guides at access control points were not fully knowledgeable about who should be allowed access and what areas were specifically restricted. The plan should be revised to include instructions for traffic guides regarding how they are to be informed of restricted areas and how they are to handle allowing access to restricted areas.

The plan has been revised (see OPIP 3.6.3, Sec. 5.2.7) to provide Traffic Guides with direct radio communications to the Evacuation Support Communicators at the LERO EOC.

Per comments on Rev. 9, revision of Procedure OPIP 3.6.3 regarding directions for the Evacuation Coordinator to contact FAA as called for by the plan (see Figure 3.4.1) could not be located in Rev. 10.

J.10.k

Procedure OPIP 3.6.3 has been revised to include procedures for the Traffic Engineer (Section 5.11).

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	<p>The Towns of Brookhaven and Riverhead have been added to the list of local snow removal organizations to be notified per OPIP 3.6.3, Section 5.1.3. This addresses one of the areas for improvement suggested in the Rev. 9 review.</p> <p>The 1988 exercise revealed a discrepancy between the description of route spotter route #1004 in Attachment 6 of OPIP 3.6.3 and the route map provided to the route spotter during the exercise. The procedure and/or the map should be revised so they agree.</p>	
J.10.m	<p>The current LERO plan is not in accordance with current FEMA policy regarding PARs for severe core melt sequences. FEMA, and the NRC, have concluded that for the population within 2-3 miles, in severe core melt accident sequences, the PA should be evacuation, unless external conditions absolutely prohibit evacuation. The LERO plan, OPIP 3.6.1 (Attachment 5 and 6), does not use this PA philosophy. The plan should be revised to reflect this position.</p>	A ²
J.11	<p>Procedure OPIP 3.6.6 (Section 5.1.3) has been revised to specify that PAs for milk or any other food should not be taken until response levels are actually exceeded in sampled foodstuffs.</p> <p>The plan specifies in Section 2.2 and 3.8 and in OPIP 3.1.1 (Attachment 8, Ingestion Pathway) that LERO will rely upon the States of New York and Connecticut to distribute written instructions to the agricultural community within 50 miles of the plant in an emergency. According to Section 3.8, p. 3.8-1 of the plan, LILCO will assure that a brochure of ingestion pathway information is distributed to all farmers, distributors and food processing facilities within 10 miles of Shoreham on an annual basis. To comply with FEMA Guidance Memorandum (GM) IN-1, the final version of the</p>	A

¹Although this exercise issue is not sufficient to rate the element inadequate, this issue should be corrected.

²The plan must be revised to address this issue in order to conform with FEMA policy prior to the next plan review.

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brochure should be ready by December 31, 1988. In attempting to finalize its written materials, for FEMA evaluation and for distribution, LILCO should consider the following:

- USDA's comments,
- FEMA's and its contractor's comments, and
- The Guidance of GM IN-1

It should also be noted that USDA is developing a "generic" agricultural brochure which will be applicable to the entire 50-mile ingestion zone and could be used to satisfy the GM IN-1 public information requirements.

LILCO should submit its agricultural brochure within 60 days after the final publication of the USDA generic agricultural brochure.

During the 1988 exercise, an actual milk sample was taken at the Poole residence in Shoreham. This location is shown as a sampling site in the LILCO on-site plan, but is not shown in Rev. 10 of the LERO off-site plan (see OPIP 3.6.6). During the exercise, it was learned that two dairy locations in an eastern direction, identified in OPIP 3.6.6, Attachment 9, page 1 of 3, are no longer milk-producing locations. The plan should be reviewed and revised to include accurate, up-to-date information for New York and Connecticut concerning the ingestion pathway.

Section 2.2, pages 2.2-6 and 2.2-6a list responsibilities in the ingestion pathway that are to be carried out (1) by the State of New York under the "best efforts" assumption of the NRC regulations and (2) by the State of Connecticut under letters of agreement or the "best efforts" assumption depending on the status of agreements between LILCO and Connecticut.

¹Although this exercise issue is not sufficient to rate the element inadequate, this issue should be corrected.

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	<p>In response to comments on Rev. 9., OPIP 3.6.6 has been revised and Section 2.5 of that procedure now contains reference to the Connecticut Radiological Emergency Response Plan that would be used by the Connecticut Department of Health to implement PARs for the ingestion pathway.</p> <p>In response to comments on Rev. 9. reference to OPIP 3.5.3, which does not exist in the LERO plan, has been removed as a reference in Section 6 of OPIP 3.6.6.</p>	
J.12	<p>Procedure OPIP 3.6.5 (Section 5.2.2.d) has been revised in response to the earlier RAC comment regarding provisions for school evacuations in the event there has been a release of radioactivity. If populations in particular zones are directed to report to reception centers for monitoring, the School Relocation Supervisors are instructed by the Special Facilities Evacuation Coordinator to direct buses arriving from schools in these designated zones to report to the Hicksville reception center for monitoring. This adequately addresses the problem of unnecessarily risking additional exposure to school children in affected zones while they await being reunited with their parents at the School Relocation Centers.</p> <p>However, procedures for the receipt, tracking and handling of school children forwarded to the Hicksville Reception Center could not be located in the plan.</p> <p>During the 1988 exercise, there was no demonstration of how school children and other bus passengers (e.g., teachers and administrative personnel) would be directed after disembarking their buses at the School Relocation Center(s). A school bus driver was unaware of the need to give school officials a school children log out form or relocation center location assignment diagrams and charts from his packet. Procedures should be developed for the receipt, tracking and handling of school children at the School Relocation Centers.</p> <p><i>No change in OPIP 3.9.2 could be located which responds to the Rev. 9 comment that decontamination efforts should be halted if the skin becomes abraded or broken.</i></p>	I

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LILCO does not have written agreements for a sufficient number of buildings beyond the 10-mile EPZ for sheltering and feeding relocatees. Also, as noted under element J.10.h (page 58 of 90) of the Rev. 9 review, it is not clear that the facilities to be utilized for congregate care of relocatees by the American Red Cross (ARC) are known to LERO. Nevertheless, this issue has been resolved based on NRC interpretation (see CLI-87-05) of the level of cooperation required to be demonstrated by ARC with LERO in the planning effort. Based upon these decisions which interpret ARC policy to adequately provide assistance in a radiological emergency, planning for the availability of ARC resources (i.e., buildings for the sheltering and feeding of relocatees) is considered adequate.

K.

Radiological Exposure Control

K.3.a

In response to Rev. 9 comments, OPIP 2.1.1, page 14 of 79, paragraph C has been revised by deleting the reference to Record Keepers calibrating dosimeters.

A

Copies of the LILCO letters that offer training to non-LILCO organizations that do not receive training have been provided to FEMA (see also comments for J.10.e in this review).

K.3.b

Emergency worker radiological exposure control procedures have been specified in greater detail in OPIP 3.6.5 for school bus drivers. Section 7 of Attachment 14 of procedure OPIP 3.6.5 instructs school bus drivers to read their DRDs at 15 minute intervals. However, as recommended in the Rev. 9 review comments, the Emergency Worker Dose Record Form (Attachment 2 of OPIP 3.9.1) has not been revised to specifically instruct emergency workers to read their DRDs at 15 minute intervals.

I

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During the 1988 exercise, at least four school bus drivers believed that they could stop reading their DRDs when they had left the 10-mile EPZ, which is not stated in the LERO procedures. Revision of the Emergency Worker Dose Record Form is needed to reinforce training that will be given to LERO school bus drivers as well as those regular school bus drivers that are to be accompanied by LERO personnel (per OPIP 3.6.5, Attachment 14).¹

K.4

School Bus Drivers are now included in the drill in the drill matrix (OPIP 5.1.1, Attachment 2) for LERO Integrated Facility Drills (DR 1) and training continues to be offered to non-LERO personnel with emergency responsibilities envisioned by the plan. In addition, where real school bus drivers are to be utilized for school evacuation, these drivers will be accompanied by LERO personnel trained in emergency worker exposure control procedures (OPIP 3.6.5, Attachment 14).

I

During the school evacuation demonstration for the 1988 exercise, a bus driver who was approximately four and one-half months pregnant and accompanied by a LERO back-up driver was allowed to drive the route without question. Upon FEMA's review of training rosters, the driver was found to have attended LERO training at which the dangers of radiation exposure to an unborn child had been covered. However, the driver was not reminded of the subject at the time of the simulated evacuation. NRC Regulatory Guide 8.13 and the Appendix thereto were not listed among the materials included in the assignment packet (LERO School Bus Driver Procedure, OPIP 3.6.5, Attachment 14). Regulatory Guide 8.13 and the Appendix thereto should be listed in the LERO school bus driver assignment packet. Materials issued to female bus drivers should include a specific query and/or consent form to assure that they are aware of this information.

No change(s) to pages 3.9-2 and 3 of the plan could be located which respond to the previous Rev. 9 comment that the plan should be revised to remove the impression

¹Although this exercise issue is not sufficient to rate the element inadequate, this issue should be corrected.

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	<i>that an emergency worker could be authorized by an immediate supervisor to remain in the EPZ with an off-scale 0-5R dosimeter.</i>	
K.5.b	<i>No change(s) to OPIP 3.9.2 could be located which responds to the previous Rev. 9 comment that no instructions are given for what to do with an essential vehicle which is contaminated above the limits after three (3) decontamination attempts.</i>	A
L.	<u>Medical and Public Health Support</u>	
L.1	Section 2.2 (page 2.2-8) of the plan has been revised to specify that Mid-Island Hospital has been added as the backup hospital for the evaluation and treatment of contaminated injured persons. <i>However, the language in Section 3.7 (page 3.7-1) concerning which hospital is primary or backup needs to be clarified.</i>	A
P.	<u>Responsibility for the Planning Effort</u>	
P.5	The Table of Contents section of Rev. 10 has been updated to include documentation of the pages changed for this revision. Page viii specifies that Rev. 10 became effective 5/16/88.	A
P.8	The NUREG-0654 cross reference has been revised as recommended in the review comments for Rev. 9.	A

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A.1.a	A
A.1.b	A
A.1.c	A
A.1.d	A
A.1.e	A
A.2.a	A
A.2.b	A
A.3	A
A.4	A
C.1.a	A
C.1.b	A
C.1.c	A
C.2.a	A
C.3	A
C.4	A
C.5	A
D.3	A
D.4	A
E.1	A
E.2	A
E.5	I
E.6	A
E.7	A
E.8	A
F.1.a	A
F.1.b	A
F.1.c	A
F.1.d	A
F.1.e	A
F.2	A
F.3	C
G.1.a-e	A
G.2	A
G.3	A
G.4.a	A
G.4.b	A
G.4.c	A
G.5	A

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H.3	A
H.4	A
H.7	A
H.10	A
H.11	A
H.12	A
I.7	A
I.8	A
I.9	A
I.10	A
I.11	A
J.2	A
J.9	A
J.10.a	A
J.10.b	A
J.10.c	A
J.10.d	A
J.10.e	I
J.10.f	I
J.10.g	A
J.10.h	A
J.10.i	A
J.10.j	I
J.10.k	A
J.10.l	A
J.10.m	A
J.11	A
J.12	I
K.3.a	A
K.3.b	I
K.4	I
K.5.a	A
K.5.b	A
L.1	A
L.3	A
L.4	A
M.1	A
M.3	A
M.4	A

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M.1	A
M.3	A
M.4	A
N.1.a	A
N.1.b	A
H.2.a	A
N.2.c	A
N.2.d	A
N.2.e	A
N.3.a-f	A
N.4	A
N.5	A
N.6	A
O.1	A
O.4	A
O.5	A
O.6	A
P.1	A
P.2	A
P.3	A
P.4	A
P.5	A
P.6	A
P.7	A
P.8	A
P.10	A
P.11	A

- LIST OF ACRONYMS -

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- A -

ARC American Red Cross
ASLB Atomic Safety and Licensing Board

- B -

BHC DOE's Brookhaven Area Office

- C -

CPI Coordinator of Public Information
CPM counts per minute

- D -

DOC U.S. Department of Commerce
DOD U.S. Department of Defense
DOE U.S. Department of Energy
DOT U.S. Department of Transportation
DRD Direct Reading Dosimeter

- E -

EBS Emergency Broadcast System
ENC Emergency News Center
EOC Emergency Operations Center
EOF Emergency Operations Facility
EPA U.S. Environmental Protection Agency
EPC Emergency Preparedness Coordinator
EPIP Emergency Plan Implementing Procedure
EPZ Emergency Planning Zone
ERPA Emergency Response Planning Area
EWDF Emergency Worker Decontamination Facility

- F -

FAA Federal Aviation Administration
FCC Federal Communications Commission
FEMA Federal Emergency Management Agency
FRERP Federal Radiological Emergency Response Plan
FRMAP Federal Radiation Monitoring Assistance Program

- H -

HHS U.S. Department of Health and Human Services

- K -

KI Potassium Iodine

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- L -

LERO Local Emergency Response Organization
LILCO Long Island Lighting Company
LIRR Long Island Railroad

- N -

NCS National Communications System
NEST Nuclear Emergency Search Team
NRC Nuclear Regulatory Commission

- O -

OPIP Offsite Plan Implementing Procedure
ORS Offsite Radiological Survey

- P -

PA Protective Action
PAG Protective Action Guide
PAR Protective Action Recommendation

- R -

RAC Regional Assistance Committee
RAP Radiological Assistance Program
RECS Radiological Emergency Communications System
REMP Radiological Environmental Monitoring Program

- S -

SNPS Shoreham Nuclear Power Station

- T -

TLD Thermoluminescent Dosimeter
TSC Technical Support Center
TSO Time Sharing Option (computer)

- U -

USCG U.S. Coast Guard
USDA U.S. Department of Agriculture

- V -

VA U.S. Veterans Administration