

September 9, 1988

Docket No. 50-322

Long Island Lighting Company
ATTN: Mr. John D. Leonard, Jr.
Vice President - Nuclear
P.O. Box 618
Shoreham Nuclear Power Station
Wading River, New York 11792

DISTRIBUTION:

Docket File
NRC & Local PDRs
PDI-2 R/F
MO'Brien
SVarga/BBoger
WButler
SBrown
OGC

Gentlemen:

Enclosed are a Federal Emergency Management Agency letter dated May 31, 1988 and report on the review of revision 9 of Long Island Lighting Company's offsite emergency plan for the Shoreham Nuclear Power Station.

Sincerely,

/s/

Stewart Brown, Project Manager
Project Directorate I-2
Division of Reactor Projects I/II
Office of Nuclear Reactor Regulation

Enclosure:
As stated

PDI-2:PM
SBrown
9/9/88

PDI-2:D
WButler
9/9/88

WB

DF01
11

8809190080 880909
PDR ADOCK 05000322
F PNU



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

September 9, 1988

Docket No. 50-322

Long Island Lighting Company
ATTN: Mr. John D. Leonard, Jr.
Vice President - Nuclear
P.O. Box 618
Shoreham Nuclear Power Station
Wading River, New York 11732

Gentlemen:

Enclosed are a Federal Emergency Management Agency letter dated May 31, 1988 and report on the review of revision 9 of Long Island Lighting Company's offsite emergency plan for the Shoreham Nuclear Power Station.

Sincerely,

A handwritten signature in cursive script that reads "Stewart Brown".

Stewart Brown, Project Manager
Project Directorate I-2
Division of Reactor Projects I/II
Office of Nuclear Reactor Regulation

Enclosure:
As stated

Mr. John D. Leonard, Jr.
Long Island Lighting Company

Shoreham Nuclear Power Station
(list 1)

cc:

Stephen B. Latham, Esq.
John F. Shea, III, Esq.
Twomey, Latham & Shea
Attorneys at Law
Post Office Box 398
33 West Second Street
Riverhead, New York 11901

Alan S. Rosenthal, Esq., Chairman
Atomic Safety & Licensing Appeal Board
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

W. Taylor Reveley, III, Esq.
Hunton & Williams
Post Office Box 1535
707 East Main Street
Richmond, Virginia 23212

Howard A. Wilber
Atomic Safety & Licensing Appeal Board
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Atomic Safety & Licensing Board Panel
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Atomic Safety & Licensing Appeal Board
Panel
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Gary J. Edles, Esq.
Atomic Safety & Licensing Appeal Board
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Richard M. Kessel
Chairman & Executive Director
New York State Consumer Protection Board
Room 1725
250 Broadway
New York, New York 10007

Jonathan D. Feinberg, Esq.
New York State Department
of Public Service
Three Empire State Plaza
Albany, New York 12223

Gerald C. Crotty, Esq.
Ben Wiles, Esq.
Counsel to the Governor
Executive Chamber
State Capitol
Albany, New York 12224

Herbert H. Brown, Esq.
Lawrence Coe Lanpher, Esq.
Karla J. Letsche, Esq.
Kirkpatrick & Lockhart
South Lobby - 9th Floor
1800 M Street, N.W.
Washington, D.C. 20036-5891

Dr. Monroe Schneider
North Shore Committee
Post Office Box 231
Wading River, New York 11792

Fabian G. Palomino, Esq.
Special Counsel to the Governor
Executive Chamber - State Capitol
Albany, New York 12224

Anthony F. Earley, Jr., Esq.
General Counsel
Long Island Lighting Company
175 East Old County Road
Hicksville, New York 11801

Mr. Lawrence Britt
Shoreham Nuclear Power Station
Post Office Box 618
Wading River, New York 11792

Martin Bradley Ashare, Esq.
Suffolk County Attorney
H. Lee Dennison Building
Veteran's Memorial Highway
Hauppauge, New York 11788

Resident Inspector
Shoreham NPS
U.S. Nuclear Regulatory Commission
Post Office Box B
Rocky Point, New York 11778

Regional Administrator, Region I
U.S. Nuclear Regulatory Commission
475 Allendale Road
King of Prussia, Pennsylvania 19406

Long Island Lighting Company

- 2 -

Shoreham (1)

cc:

Robert Abrams, Esq.
Attorney General of the State
of New York
ATTN: John Corwin, Esq.
New York State Department of Law
Consumer Protection Bureau
120 Broadway
3rd Floor
New York, New York 10271

Town Attorney
Town of Brookhaven
3232, Route 112
Medford, NY 11763

Mr. William Steiger
Plant Manager
Shoreham Nuclear Power Station
Post Office Box 628
Wading River, New York 11792

MHB Technical Associates
1723 Hamilton Avenue - Suite K
San Jose, California 95125

Honorable Peter Cohalan
Suffolk County Executive
County Executive/Legislative Building
Veteran's Memorial Highway
Hauppauge, New York 11788

Ms. Donna Ross
New York State Energy Office
Agency Building 2
Empire State Plaza
Albany, New York 12223

Ms. Nora Bredes
Shoreham Opponents Coalition
195 East Main Street
Smithtown, New York 11787

Chris Nolin
New York State Assembly
Energy Committee
626 Legislative Office Building
Albany, New York 12248

Peter S. Everett, Esq.
Hunton & Williams
2000 Pennsylvania Avenue, NW
Washington, D.C. 20036



Federal Emergency Management Agency

Region II 26 Federal Plaza New York, New York 10278

May 6, 1988

MEMORANDUM FOR: Grant Peterson
Associate Director,
State and Local Programs and Support

FROM: Jack Sable *Jack M. Sable*
Regional Director

SUBJECT: RAC Review Comments for the LILCO Local
Offsite Radiological Emergency Response Plan
for Shoreham, Revision 9

Per your request of February 16, 1988 attached is the review of the referenced plan which has been conducted by the Region II Regional Assistance Committee (RAC). As referenced on each page of the document, this review has been conducted 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, Supp. 1. In reviewing this plan, FEMA and the RAC have assumed that in an actual radiological emergency, State and local officials that have declined to participate in emergency planning for the Shoreham plant will:

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

Although Revision 9 constitutes a major revision, affecting more than 1000 pages of LILCO's plan, the Local Emergency Response Organization's (LERO's) concept of operations remains essentially unchanged from previous versions of the plan that have been reviewed. Therefore, this review builds upon RAC comments developed for previous revisions (Revs. 1, 3, 5, 6, 7, and 8) of the plan and this updated review reflects current operations, resources and status of the utility's offsite emergency planning effort. The following steps were taken in completing this review:

- (1) RAC comments for Revisions 3, 6, and 7 heretofore detailed in separate documents, and comments on Revision 8, were consolidated into one document dated 2/11/88 and was distributed to the RAC members.
- (2) A preliminary review dated 3/17/88 of Revision 9 was conducted by FEMA Region II and contractors to the REP program. This preliminary review was distributed to the RAC, FEMA Headquarters and LILCO on March 18, 1988.
- (3) Region II met with LILCO representatives on April 6, 1988 and received the utility's proposed actions to resolve items rated inadequate in the 2/17/88 preliminary review comments.
- (4) Detailed review comments on Revision 9 of the plan were received from RAC member agencies and were consolidated into an updated review document dated 4/21/88.
- (5) A RAC meeting, chaired by FEMA Region II was held in our offices to finalize the attached comments on Revision 9 of the plan. A record of this meeting was transcribed.

In the course of developing the attached updated review, the following nomenclature has been adapted from 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. For ease of understanding, the reason(s) an element has been rated inadequate is, where possible, stated first.

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 this document.

Seventeen (17) elements are currently rated inadequate (I) and, in accordance with your request, Region II recommends a negative finding that the plan does not presently provide reasonable

G. Peterson
May 6, 1988
Page 3 of 3

assurance that adequate protective measures can be taken in the event of a radiological emergency at Shoreham.

Planning for the exercise can go forward for two reasons. First, the utility has provided Region III and the RAC with proposed plan changes to address those inadequacies that would be incorporated, prior to the exercise, into Revision 10 of the plan. Eleven (11) of these inadequacies require relatively minor changes, and the utility's proposed changes are responsive to the RAC/FEMA concerns. Second, for the six (6) inadequate elements requiring more substantive revision, five (5) of these (i.e., provisions for communications with New York State, element J.1.b; the public information program for residents, transients and the agricultural community, elements J.1.c, J.1.d and J.1.i; and written agreements for "first-call" commitments with companies supplying supplementary buses for a "one-wave" evacuation of schools, element J.10.g) will not be exercised. With regard to the remaining inadequacy that must be evaluated at the exercise (i.e., planning for the monitoring and decontamination of school children evacuated after a release, element J.12), FEMA is providing technical assistance to the utility to expedite the resolution of this issue for its inclusion in Revision 10.

With respect to LILCO's submission of Revision 10, FEMA will review the plan changes, coordinate with the RAC, and incorporate them in the evaluation of the exercise. Should any additional changes be forthcoming, every effort will be made to incorporate them in the exercise as well.

Based on all of the above, I recommend that the exercise proceed as planned. If you have any questions, please contact Mr. Ihor W. Husar, Chairman, Regional Assistance Committee, at FTS 649-8203.

Attachment

Local Offsite Radiological Emergency Response Plan for Shoreham
Final Regional Assistance Committee (RAC) Review of Revision 9
Dated April 28, 1988

Page 1 of 90

<u>NUREG-0654</u> <u>Element</u>	<u>Review Comment(s)</u>	<u>Rating</u>
A.	<u>Assignment of Responsibility</u> <u>(Organization Control)</u>	
A.1.a	<p>The lead role for response activities belongs to the utility, Long Island Lighting Company (LILCO). The plan establishes the Local Emergency Response Organization (LERO) developed by the utility and comprised of federal, utility and private organizations.</p> <p>Suffolk County is not participating in off-site emergency planning for Shoreham (see Chapter 1, Section 1.4, page 1.4-1 of the plan which references Resolution 1196-83, adopted February 17, 1983 by Suffolk County Legislature), and New York State has not developed a state plan to compensate for the lack of participation by local government.</p> <p>Should New York State decide to respond in the event of a radiological emergency at Shoreham, the types of services that the State might provide are defined as follows (see page 1.4-2a):</p> <ul style="list-style-type: none">• Command and Control• Communications• Evacuation• Social Services• Public Health• Fire and Rescue <p>Should Suffolk County decide to respond in the event of a radiological emergency at Shoreham, the plan provides that the Director of Local Response will work in conjunction with the County Executive or his representative in responding to the emergency (see page 3.1-1). This would include the active participation at the EOC of the County Executive, Commissioner of the Department of Fire, Rescue and Emergency Services, the Commissioner of the Department of Health Services and the Commissioner of Police; Public Information personnel at both the EOC and the ENC; and the</p>	A

Local Offsite Radiological Emergency Response Plan for Shoreham
Final Regional Assistance Committee (RAC) Review of Revision 9
Dated April 28, 1988

Page 2 of 90

NUREG-0654
Element

Review Comment(s)

Rating

A.1.a
(Cont'd)

participation of other County officials to the extent the County Executive deems prudent (see page 1.4-2a). LILCO expects that Suffolk County personnel will continue to perform their normal functions in accordance with referenced sections of the Suffolk County Charter for the following (see page 1.4-2b):

- Snow removal
- Fire Safety
- Police Actions

The plan provides that Federal Agencies will be called upon to respond to a radiological emergency at Shoreham in accordance with the roles of Federal agencies described in the Federal Radiological Emergency Response Plan (FRERP). The roles of three principal Federal agencies, the Nuclear Regulatory Commission (NRC), the Federal Emergency Management Agency (FEMA) and the Department of Energy (DOE) are defined.

The response roles of Federal agencies identified in Figure 2.2.1 are detailed for the following agencies in Section 2.2 of the plan (see pages 2.2-2a -- 2.2-5). The response roles of the following federal agencies are addressed:

- U.S. Coast Guard (by Letter of Agreement)
- FEMA
- NRC
- DOE
- USDA
- DOC
- DOD
- HHS
- DOT
- EPA
- NCS
- Veterans Administration Medical Center (by Federal Mandate)

Local Offsite Radiological Emergency Response Plan for Shoreham
Final Regional Assistance Committee (RAC) Review of Revision 9
Dated April 28, 1988

Page 3 of 90

<u>NUREG-0654</u> <u>Element</u>	<u>Review Comment(s)</u>	<u>Rating</u>
A.1.b	<p>The operational role of LERO and the concept of emergency response operations are defined in Sections 1.4, 2.1 and 3 of the plan.</p> <p>Response roles of the various Federal agencies which may be called upon to support the LERO response are clearly defined. Figure 2.2.1 shows response organization relationships.</p> <p>Pages 2.2-4 and 2.2-4a accurately describe FEMA's role as the primary point of contact and coordination between the NRC and other Federal agencies for nontechnical response activities.</p> <p>LILCO anticipates that all local law enforcement agencies, fire departments, and snow removal agencies within the 10-mile EPZ will continue to carry out their normal response functions during a radiological emergency at SNPS (see pages 1.4-2b-c, and 2.2-7). The plan does depend upon law enforcement agencies, fire departments and snow removal agencies performing their normal function in areas restricted as a result of an emergency at Shoreham. The plan specifies the following provisions that would allow police and fire departments to perform their normal functions in the event of radiological emergency at SNPS.</p> <ul style="list-style-type: none">• LERO will offer training in dosimetry and radiation fundamentals and equipment (see Procedure OPIP 5.1.1, Section 5.1.3.4) to these agencies.• LERO will provide adequate supplies of dosimetry equipment to these agencies.• If no training is provided prior to an actual emergency, LERO will designate personnel trained in radiation protection and equipped with dosimetry to accompany personnel carrying out their duties within restricted areas.	A

Local Offsite Radiological Emergency Response Plan for Shoreham
Final Regional Assistance Committee (RAC) Review of Revision 9
Dated April 28, 1988

NUREG-0654

<u>Element</u>	<u>Review Comment(s)</u>	<u>Rating</u>
A.1.b (Cont'd)	LERO does not intend to use law enforcement agencies, fire departments, and snow removal agencies where exposures in excess of the general public PAGs are possible.	
A.1.c	<p>The organizational components of LERO are illustrated in Figure 2.2.1.</p> <p>The positions of Emergency Preparedness Advisor, Radiation Health Coordinator, and Nuclear Engineer are filled by personnel from several outside consulting companies (see page 2.2-10) which provide LERO with specialized expertise.</p> <p>Figure 2.2.1 depicts Federal support response agencies, and corresponds with the description of roles described in Section 2.2 of the plan (see also comment for element A.1.a).</p> <p>Figure 3.4.1 summarizes the communications systems used to notify LERO response organizations. The Radiological Emergency Communications System (RECS) dedicated telephone line is the primary means of 24-hour notification between the plant and LERO. The RECS telephone also provides a means for courtesy notification of New York State and Suffolk County.</p> <p>Figure 3.4.1 indicates that both New York State and Suffolk County have RECS communication lines. The footnote on page 3.4-1 acknowledges that New York State has apparently moved the offices where the RECS telephones are located and stipulates that LERO will install the RECS telephones at the proper locations when permitted to do so by the State.</p>	A

Local Offsite Radiological Emergency Response Plan for Shoreham
Final Regional Assistance Committee (RAC) Review of Revision 9
Dated April 28, 1988

Page 5 of 90

NUREG-0654
Element

Review Comment(s)

Rating

A.1.c
(Cont'd)

In response to earlier RAC concerns with the means of notifying the State via RECS, LILCO has stated that: "The RECS line from Shoreham to New York State may be activated at any time at the discretion of N.Y. State." If, during an emergency, the State decided to participate, their efforts could be coordinated with LERO via the RECS line and commercial telephone if the RECS line could be readily reconnected.

A.1.d

Specific individuals who shall be in charge of the emergency response are identified by title under Chapter 2, organization (pages 2.1-1 - 2.1-7). Again, LILCO personnel are the majority of LERO staff, along with DOE-RAP personnel from the Brookhaven Area Office (BHO).

A

The positions of Nuclear Engineer and Radiation Health Coordinator are filled by consultants provided by IMPELL Corporation. The NUREG-0654 cross-reference refers to Appendix B, page App-B-70, which is a letter extending the expiration date of a LILCO purchase order to cover the costs associated with the consulting services of a Radiological Health Coordinator from IMPELL Corporation. Four (4) IMPELL employees are listed as being available to fill each of these positions. There are also agreements in Appendix B with Aidikoff Associates, Inc., The Behr Consulting Group, Inc., and Richard J. Watts, Inc. for personnel for the positions of Nuclear Engineer, Radiation Health Coordinator, and Emergency Preparedness Advisor (see comment element F.1.b).

Local Offsite Radiological Emergency Response Plan for Shoreham
Final Regional Assistance Committee (RAC) Review of Revision 9
Dated April 28, 1988

Page 6 of 90

NUREG-0654
Element

Review Comment(s)

Rating

A.1.e

The lead LERO Communicator (see page 2.1-7) has responsibility for ensuring that all communicator positions in the local EOC are staffed on a continuous basis once this facility is activated. Also, Chapter 3, Section 3.4, pages 3.4-1 - 3.4-5 stipulates that the Radiological Emergency Communications (RECS) line between the Plant and LERO, and LILCO's Notification Radio System are monitored 24-hours per day.

A

The LILCO Notification Radio System, a unit of which is located in the Shoreham Control Room, serves as backup to the RECS. This radio system is monitored 24 hours per day at the Electric Systems Operations Center in Hicksville.

A.2.a

The functions and responsibilities for major elements and key individuals by title, of emergency response, are specified in the plan for the following: Command and Control, Alerting and Notification, Communications, Public Information, Accident Assessment, Public Health and Sanitation, Social Services/Congregate Care, Fire and Rescue, Traffic Control, Emergency Medical Services, Law Enforcement, Transportation (general population, health related, schools), Protective Response (plume, ingestion), Radiological Exposure Control and, Reception and Relocation Centers. Section 2.1 (see page 2.1-1a) of the plan, Figure 2.1.1 specifies that the Director of Local Response has primary responsibility for command and control, alerting and notification, communications, public information, protective response and reception and relocation centers. The legend attached to the Figure 2.1.2 organizational matrix denotes that it is assumed by LILCO that the government official with the necessary legal authority will provide the authority/permission to LERO to implement command and control, alerting and notification, activation of sirens and issuance of EBS messages, protective

A

Local Offsite Radiological Emergency Response Plan for Shoreham
Final Regional Assistance Committee (RAC) Review of Revision 9
Dated April 28, 1988

Page 7 of 90

NUREG-0654

Element

Review Comment(s)

Rating

A.2.a
(Cont'd)

Response (for both plume and ingestion) and activation of reception and relocation centers. It is also assumed in the plan that legal authority/permission for Traffic Control will be provided to the LERO Evacuation Coordinator by the appropriate government official.

Primary and support responsibilities are reflected in Figure 2.1.2, with single functions cited.

Procedure OPIP 2.1.1 assigns primary responsibility for major functions to the following single positions within LERO:

- Command and control of LERO response activities - Director of Local Response.
- Coordination of the implementation of LERO response activities - Manager of Local Response.
- Public Information and Notification - Coordinator of Public Information.
- Accident Assessment - Radiation Health Coordinator
- Medical and Public Health - Emergency Medical/Public Service Coordinator
- Coordination of evacuation actions - Evacuation Coordinator.
- Traffic Control - Traffic Control Coordinator
- Evaluation of road impediment effects and determining alternate evacuation rerouting - Traffic Engineer.

Local Offsite Radiological Emergency Response Plan for Shoreham
Final Regional Assistance Committee (RAC) Review of Revision 9
Dated April 28, 1988

Page 8 of 90

NUREG-0654
Element

Review Comment(s)

Rating

A.2.a
(Cont'd)

- Establishment of Staging Areas (at Patchogue, Port Jefferson and Riverhead facilities), coordination of dosimetry distribution and briefing of emergency workers - Staging Area Coordinators (3).
- Coordination of reception, logistical support activities, LERO family tracking and relocation centers - Support Services Coordinator.

Figure 3.3.7 assigns primary responsibility for alerting the general public to the LERO Director of Local Response. The LERO Coordinator of Public Information is responsible for issuing EBS broadcasts. Figure 3.3.7 indicates that FEMA has primary responsibility for notifying the public of the Federal response during an emergency. However, the lead Federal agency for this function is dependent on the Cognizant Federal Agency.

Two (2) key positions were added to the LERO organization in Revision 8. A traffic engineer was added to the staff at the EOC to evaluate any possible impediments to evacuation and to make recommendations on necessary changes to evacuation routes in response to potential impediments. Another position, a LERO Spokesperson, and additional staff have been added and assigned to the ENC to assure better coordination of information.

A.2.b

State and local governments are currently declining to participate in the development of an offsite emergency response plan for Shoreham. Therefore, the utility has developed a Local Emergency Response Organization (LERO) comprised of utility, Federal and private organizations that will respond to an emergency. According to the plan (Section 1.4, page 1.4-1a) New York Executive Law Article 2-B recognizes that state and local authorities may

A

Local Offsite Radiological Emergency Response Plan for Shoreham
Final Regional Assistance Committee (RAC) Review of Revision 9
Dated April 28, 1988

Page 9 of 90

NUREG-0654
Element

Review Comment(s)

Rating

A.2.b
(Cont'd)

make use of private resources including "emergency services organizations." Also according to the plan, LERO is an "emergency services organization" as defined in New York Exec. Law 20.2.e and, as volunteers, all LERO personnel would operate under the authority of the State and local governments. Emergency response functions including protective action decisions, notification of the public and directing traffic would be done by LERO in coordination with State and local authorities.

Attachment 1.4.1 of the plan refers to legal authority under 10 CFR 50.47 (c)(1) which, amended (52 FR42085), provides as follows:

Failure to meet the 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. Where an applicant for an operating license asserts that its inability to demonstrate compliance with the requirements of paragraph (b) of this section results wholly or substantially from the decision of state and/or local governments not to participate further in emergency planning, an operating license may be issued if the applicant demonstrates to the commission's satisfaction that:

- (i) the applicant's inability to comply with the requirements of paragraph (b) is wholly or substantially the result of the non-participation of state and/or local governments.

Local Offsite Radiological Emergency Response Plan for Shoreham
Final Regional Assistance Committee (RAC) Review of Revision 9
Dated April 28, 1988

Page 10 of 90

NUREG-0654
Element

Review Comment(s)

Rating

A.2.b
(Cont'd)

- (ii) the applicant has made a sustained, good faith effort to secure and retain the participation of the pertinent state and/or local governmental authorities, including the furnishing of copies of its emergency plan.
- (iii) the applicant's emergency plan provides reasonable assurance that public health and safety is not endangered by operation of the facility concerned.

Revision of the plan responds to these revised NRC regulations that expressly recognize that State and local governments will respond and exercise their best efforts to protect the health and safety of the public in an actual emergency. In accordance with the planning basis specified in NUREG-0654/FEMA-REP-1, Rev. 1, Supp. 1, the plan is predicated on the assumption that State and local officials that have declined to participate in emergency planning will:

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

LILCO does not assume that non-participating State and local organizations will be as familiar with the plan as if they had participated in the planning process and exercised with the utility. Therefore, LERO will provide liaisons to: (1) coordinate information and resources with State and local governments and (2) provide advice and assistance

Local Offsite Radiological Emergency Response Plan for Shoreham
Final Regional Assistance Committee (RAC) Review of Revision 9
Dated April 28, 1988

Page 11 of 90

NUREG-0654
Element

Review Comment(s)

Rating

A.2.b
(Cont'd)

to responding State and local governments in implementing their roles and functions as assigned under the utility's offsite response plan.

Revision 9 of the plan adequately addresses the legal basis for (1) authorities that have been assumed by the utility to plan for LERO's response role and (2) functions and responsibilities that are reserved by State and local government.

²Standards A-P specified in criteria defined in NUREG-0654/FEMA-REP-1 Rev. 1, Supp. 1. Criteria for Utility Offsite Planning and Preparedness, Draft Report for Interim Use and Comment, November 1987.

A.3

Appendix B contains letters of agreement in effect for the following support organizations identified in Section 2.2 of the plan.

A

- DOE/Brookhaven Area Office
- WLIM radio
- WLNG-AM radio
- WRCN-FM radio
- WRHD-AM radio
- WGLI radio
- WRIV radio
- U.S. Coast Guard
- WPLR-FM radio (Common Point Control Station)
- WICC-AM radio
- WELI-AM radio
- American Red Cross
- Institute of Nuclear Power Operators
- State of Connecticut (Office of Civil Preparedness)

The three EBS stations that have been added broadcast from Connecticut. Two stations that have substantial listening audiences in the area of the EPZ (WBAL and WBBH) have not been added as previously suggested by the RAC.

Local Offsite Radiological Emergency Response Plan for Shoreham:
Final Regional Assistance Committee (RAC) Review of Revision 9
Dated April 28, 1988

Page 12 of 90

NUREG-0654
Element

Review Comment(s)

Rating

A.3
(Cont'd)

The plan states: "All local law enforcement agencies, fire departments and snow removal agencies within the 10-mile EPZ will continue to carry out their normal response functions during an emergency." This is in accordance with the assumptions I.D of NUREG-0654/FEMA-REP-1, Rev. 1, Supp. 1.

The supplementary letter of agreement from DOE (dated June 18, 1984), confirms that DOE has agreed to provide two, 2-man field monitoring teams and additional teams, if needed. It is evident from this letter and the plan that a DOE representative will be dispatched to the local EOC to coordinate the relay of field monitoring data for use in off-site dose assessment which will be completed by the LERO Radiation Health Coordinator. The DOE letter of personnel commitment is adequate.

The Letters of Agreement with the State of Connecticut, EPA, and USDA are adequate (see Appendix B, pp. B-72, B-76, and B-77).

There is a letter of understanding with the Federal Aviation Administration (FAA) (12/11/87) that gives the procedure for LILCO to follow in directly notifying the Duty Officer at the Regional Operations Center in Jamaica, N.Y. in the event of an emergency. This letter satisfies a previous RAC objection.

There is a letter of understanding with the Long Island Railroad (LIRR) (10/17/87) that confirms procedures for notifying LIRR and that gives the 24-hour LIRR telephone number to be called. This letter satisfies a previous RAC objection based on an issue identified at the February 13, 1986 exercise.

Local Offsite Radiological Emergency Response Plan for Shoreham
Final Regional Assistance Committee (RAC) Review of Revision 9
Dated April 28, 1988

Page 13 of 90

NUREG-0654
Element

Review Comment(s)

Rating

A.3
(Cont'd)

It is noted that OPIP 3.6.3, p. 2, mentions contacting the U.S. Coast Guard when helicopters are to be used in notifying boaters (paragraph 5.1.1.c). There is no mention of helicopters in the new Coast Guard letter of agreement (01/15/88) contained in the plan. However, Procedure 3.3.4, Section 5.5.1 indicates that LERO will provide helicopters (there is an adequate letter of agreement with Island Helicopter Corp.) for notification to boaters so that the Coast Guard is not being relied upon for helicopters.

LILCO has withdrawn 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.

In Revision 9, the Nassau Coliseum and Nassau Community College are to be used as school relocation centers. In lieu of letters of agreement, authorization to use these facilities will be obtained as described in Procedure OPIP 4.2.1, Section 5.1. The Director of Local Response is to inform the Nassau County Executive of the status of the emergency, that schools may be evacuating to the Coliseum and Community College, and that the Executive's authorization is necessary to use these facilities. The procedure assumes that authorization will be granted. When a school evacuation is recommended or in progress, the Director of Local Response advises the Nassau County Executive of the expected number of arrivals and requests that County Police assist in traffic control and that the required buildings be cleared (Section 5.1.4.b-c).

Local Offsite Radiological Emergency Response Plan for Shoreham
Final Regional Assistance Committee (RAC) Review of Revision 9
Dated April 28, 1988

NUREG-0654
Element

Review Comment(s)

Rating

A.3
(Cont'd)

American Red Cross -- The letter dated August 21, 1986 states that "... there is no agreement between Long Island Lighting Company and this (Nassau County) Chapter relating to the chapter's responsibility to provide emergency assistance during a radiological emergency." The cited letter refers to a 1984 letter (see App. B-10) that describes the role of the American Red Cross (ARC). It also notes that some of the congregate care facilities listed in the 1984 letter are no longer available, but does not identify them. It does not refer to an agreement executed by the Nassau Chapter on January 17, 1986 in which it agrees to provide mass care services at eight enumerated LILCO facilities. It is not clear whether the intent of the August 21, 1986 letter is to abrogate the January 17, 1986 agreement to provide mass care services at the specified LILCO facilities. A subsequent letter dated November 2, 1987 states that the Nassau County Chapter want references to it deleted from the LILCO plan, but also states that because of its humanitarian mission it will provide mass care services to the extent of its abilities and will cooperate with public and private organizations. Regardless of the disposition of this correspondence, it must be inferred that the ARC would cooperate with LILCO/LERO in an actual emergency (see also comments for element J.10.h of this review).

The Nuclear Regulatory Commission in Long Island Lighting Co. (Shoreham Nuclear Power Station, Unit 1), CLI-87-5, 2nd NRC 884, 888 (1987), recognized that the ARC charter from Congress and its national policy require that the ARC provide aid in "any radiological or natural disaster," whether or not there are letters of agreement with the ARC in connection with a particular emergency plan.

Local Offsite Radiological Emergency Response Plan for Shoreham
Final Regional Assistance Committee (RAC) Review of Revision 9
Dated April 28, 1988

NUREG-0654
Element

Review Comment(s)

Rating

A.4

The LERO Director of Local Response is responsible for ensuring the continuity of emergency resources for 24-hour operations over a protracted period.

A

The establishment and maintenance of LERO over a protracted period is described in Section 2.1, page 2.1-1 and Procedure OPIP 2.1.1.

C.

Emergency Response Support and Resources

C.1.a

The LERO Director of Local Response is responsible for and assumed to have the authority to request federal assistance (see page 2.1-1a).

A

The plan stipulates that Federal agencies will initiate their support of an emergency response based on either direct request from LERO or through FEMA in accordance with the Federal Radiological Emergency Response Plan (FRERP). Under the provisions of FRERP, FEMA is responsible for coordinating the offsite, non-technical response; DOE is responsible for coordinating the offsite radiological monitoring, assessment, evaluation and reporting of results to Federal agencies during the initial phases of an emergency; EPA is responsible for coordinating the intermediate and long-term offsite radiation monitoring activities; NRC is responsible for monitoring the licensee and providing on-site technical assistance to ensure that appropriate protective action recommendations are being made.

C.1.b

The DOE-RAP (BHO) is specified to provide radiological monitoring assistance and expected times for arrival are provided.

A

Specific resources and approximate response time(s) for Federal agencies (including USCG, EPA, NRC and USDA) have been included in the Plan (see pages 2.2-1 through 2.2-5 and Attachment 2.2.2).

Local Offsite Radiological Emergency Response Plan for Shoreham
Final Regional Assistance Committee (RAC) Review of Revision 9
Dated April 28, 1988

Page 16 of 90

<u>NUREG-0654</u> <u>Element</u>	<u>Review Comment(s)</u>	<u>Rating</u>
C.1.c	<p>The plan identifies resources that are available to support the Federal response (e.g., Attachment 3.11.1).</p> <p>The inclusion of services provided by Federal agencies under provisions of the Federal Radiological Emergency Response Plan (FRERP) are sufficient to satisfy that resources have been identified by the Federal agencies participating in FRERP. LILCO has obtained separate letters from EPA and USDA which identify resources needed to support their effort.</p> <p><i>The 10th service designated to USDA under FRERP (page 2.2-4d) should be removed because the U.S. Department of Interior presently has lead responsibility for the National Radio Fire Cache.</i></p>	A
C.2.a	<p>LERO representatives are already at the SNPS site and may be dispatched to the near-site Emergency Operations Facility (EOF). Additionally, a LERO Nuclear Engineer is assigned to the EOF. This person serves as a liaison between SNPS personnel and the LERO Radiation Health Coordinator at the EOC (Procedure OPIP 2.1.1, Attach. 2, p. 8b of 73).</p>	A
C.2.b	<p>The licensee is prepared to dispatch a representative to the LERO EOC in accordance with their procedures (Section 3.5, p. 3.5-1).</p>	A
C.2.c	<p>The LERO is prepared to dispatch a liaison to the State EOC in Albany, and Emergency Preparedness Advisors to the Suffolk and Nassau County Executives (Section 2.1, p. 2.1-1a). The Director of Local Response at the LERO EOC will contact the LILCO Office of Corporate Affairs and arrange for a LILCO representative in Albany to report to the State EOC and act as a Liaison. A backup Director or Manager of Local Response will be sent to the</p>	A

Local Offsite Radiological Emergency Response Plan for Shoreham
Final Regional Assistance Committee (RAC) Review of Revision 9
Dated April 28, 1988

Page 17 of 90

<u>NUREG-0654</u> <u>Element</u>	<u>Review Comment(s)</u>	<u>Rating</u>
C.2.c (Cont'd)	State EOC to replace this LILCO representative as soon as possible (OPIP 3.1.1, Attachment 1, p. 5). The Emergency Preparedness Advisors report to the LERO EOC and upon orders of the Director of Local Response report to the Suffolk and Nassau County Executives to advise and assist county officials in implementing those portions of the offsite plan where a county response is identified (OPIP 2.1.1, Attachment 2, p. 1a).	A
C.3	<p>Section 3.5, pages 3.5-2a-3, of the plan identifies radiological laboratory and analysis services that can be used in an emergency. Two types of laboratories are DOE-RAP (BHO) laboratories and SNPS laboratories (Clean Harbors Analytical Services and Teledyne Isotopes). The letters of Agreement with the SNPS laboratories (see App. B-73 and B-74) give their general capabilities and expected availability.</p> <p><i>Clean Harbors Analytical Services and Teledyne Isotopes are located in Massachusetts and New Jersey, respectively. We could not locate where the plan addresses who will transport field samples to these SNPS laboratories for analysis. The plan should address who will transport samples to these out-of-state laboratories.</i></p> <p>Page 3.5-2 of the plan identifies a minimum of two (2) ORS teams from DOE-RAP (BHO) for monitoring services (see Section 2.2, pages 2.2-3-4, of the plan). Included under DOE-RAP (BHO) services is the Nuclear Emergency Search Team (NEST), whose response includes a special radiation detection system and airborne radiation surveillance systems.</p>	A

Local Offsite Radiological Emergency Response Plan for Shoreham
Final Regional Assistance Committee (RAC) Review of Revision 9
Dated April 28, 1988

Page 18 of 90

NUREG-0654
Element

Review Comment(s)

Rating

C.4

The leases in Appendix B for the Riverhead Transfer Point and the Coram Transfer Point have not been executed. The lease for the Miller Place transfer point expired 02/29/88. No lease was found for the Warehouse - Doctors' Path Transfer Point.

1

The Plan states that the LERO position of Traffic Engineer will be filled by personnel from KLD Associates, Inc. (Section 2.2, page 2.2-10). Appendix B does not contain evidence of a contract with KLD Associates, Inc.

Letters of agreement and contracts with bus and ambulance suppliers are included in Appendix B for the following resources:

- Bus Companies
 - 1,584 40-passenger school buses
 - 8 7-passenger vans
- Ambulance companies
 - 63 ambulances
 - 130 ambulettes

1393 40-passenger buses and the 8 vans have been contracted for on an "as available" basis. In 1987, contracts were signed with five bus companies to provide 191 buses. These contracts are not on an "as available" basis. The contracts with the bus companies were for unmanned vehicles (i.e., vehicles without drivers). The contracts with ambulance companies are for manned vehicles on an "as required" basis (see comments to element J.10.g for inconsistencies in number of buses available).

Local Offsite Radiological Emergency Response Plan for Shoreham
Final Regional Assistance Committee (RAC) Review of Revision 9
Dated April 28, 1988

Page 19 of 90

NUREG-0654
Element

Review Comment(s)

Rating

C.4
(Cont')

The evacuation plan (Appendix A, page II-20a) states that LERO has arranged with various bus companies to obtain "first-call" rights to enough additional buses so that all school children could be evacuated in one wave. However, Procedure 3.6.5, Attachment 3a and the letters of agreement shows that many of the contracts with the bus companies are for buses "as available" rather than on a "first call" basis for buses to be used for a one wave evacuation of schools.

Bus resources available are adequate to fulfill the potential requirement for 333 40-passenger buses (see Appendix A, page IV-74e-f).

The ambulance and ambulette resources available appear adequate to fulfill the potential requirements of the special facilities list in Procedure OPIP 3.6.5. According to LILCO, a copy of the confidential computerized Homebound Evacuation Listing would be made available for FEMA's review during an exercise. RAC found that such listing will be sufficient to determine if the ambulance and ambulette resources are adequate. FEMA would like 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 (see also analysis comments for element J.10.d).

Although the revised plan does not specify the number of bus drivers that have been trained and licensed, Figure 2.1.1. (page 4 of 5) specifies that 373 LERO bus drivers are assigned to the three (3) staging areas as follows:

• Port Jefferson	108
• Riverhead	100
• Patchogue	165
Total	373

Local Offsite Radiological Emergency Response Plan for Shoreham
Final Regional Assistance Committee (RAC) Review of Revision 9
Dated April 28, 1988

NUREG-0654
Element

Review Comment(s)

Rating

C.4
(Cont'd)

Appendix B contains executed agreements (leases)
for the following transfer points:

- Middle Island Transfer Point (expired 03/31/88)
- Shirley Transfer Point (expired 03/31/88)
- Expressway Plaza Transfer Point (expired 03/31/88)
- Brookhaven National Laboratory
Transfer Point

Leases are not required for the three transfer points
on LILCO property (Eastport Substation, Brook-
haven Substation, and Norwood Avenue).

Letters of agreement including contracts, purchase
orders, proposals, etc. were found for the following
organizations and individuals being relied upon in an
emergency to provide assistance:

- Central Suffolk Hospital
- Brunswick General Hospital
- Laboratories which provide environmental
sample analysis
- Radiation Health Coordinator (minimum of 7)
- Nuclear Engineer (minimum of 6)
- Emergency Preparedness Advisors (minimum
of 2)
- Gasoline purchases
- New York Telephone
- Marketing Evaluations, Inc.
- Island Helicopter Corp.

The new purchase agreement (Fall 1987) with
Teledyne Isotopes for environmental sample analysis
expressly provides for one-day output (i.e., 24-hour
turnaround of results) and gives the detection limits
for such shorter counting times. This new
agreement satisfies a previous RAC objection.

Local Offsite Radiological Emergency Response Plan for Shoreham
Final Regional Assistance Committee (RAC) Review of Revision 9
Dated April 28, 1988

NUREG-0654
Element

Review Comment(s)

Rating

C.5

The State Liaison and Emergency Preparedness Advisors are to provide advice and assistance to State and local officials in implementing their portions of the offsite plan where State or local response is identified (Section 2.1, p. 2.1-1a; OPIP 2.1.1, Attachment 2, p.1.a; OPIP 3.1.1, Attachment 1, p. 5). Also, a Traffic Control Point Coordinator will report to the Suffolk County Police Headquarters to assist with the dispatch of police personnel to EPZ traffic control points. While at police headquarters, the Traffic Control Point Coordinator will maintain contact with the Traffic Control Coordinator at the LERO EOC. He will advise police of changes in emergency status and protective action recommendations. He will also notify the LERO EOC of any road impediments reported by the police in the EPZ vicinity (Section 2.1, p. 2.1-1a; OPIP 3.6.3, Attachment 15, pp. 1 and 2).

A

D.

Emergency Classification System

D.3

The Emergency Classification System described in Chapter 3, Section 3.2, page 3.2-1 conforms with the system set forth in Appendix I of NUREG-0654/FEMA-REP-1, Rev. 1.

A

D.4

The emergency action procedures to be taken are described in Chapter 3, Concept of Operations, and the Implementing Procedures OPIP 1.1.1 through 5.4.1.

I

Procedures for advising the Suffolk County Executive and the Nassau County Executive on emergency actions to be taken are found in Attachments 1 and 10 of OPIP 3.1.1. Attachment 10 describes adequately how the Director of Local Response advises the Suffolk County Executive of the status of the emergency and obtains permission for protective action recommendations (PARs).

Local Offsite Radiological Emergency Response Plan for Shoreham
Final Regional Assistance Committee (RAC) Review of Revision 9
Dated April 28, 1988

Page 22 of 90

NUREG-0654
Element

Review Comment(s)

Rating

D.4
(Cont'd)

Attachment 1 of Procedure OPIP 3.1.1 is the Director of Local Response's emergency response action checklist. The first step on the checklist for each ECL includes obtaining emergency information from the Radiological Emergency Data Form and contacting the Suffolk County Executive in accordance with Attachment 10.

Section 3.1 of the Plan states that the Director of Local Response will formulate protective action recommendations in conjunction with the Radiation Health Coordinator. However, Attachment 1 of OPIP 3.1.1 calls for the Director of Local Response conferring with the Radiation Health Coordinator as the fourth step on the checklist for Site Area/General Emergency. There is no indication that the steps on the checklist are not to be performed sequentially (e.g., Procedure OPIP 3.9.1, Attachment 1 states that the actions on the Staging Area Dosimetry Record Keeper Procedure need not be performed in sequence but OPIP 3.1.1, Attachment 1 does not contain such a statement). In step 1, the Director of Local Response contacts the Suffolk County Executive and if appropriate obtains approval of PARs (see OPIP 3.1.1, Attachment 10, page 2). At this time, he or she has emergency information from the Radiological Emergency Data Form. In Step 4, the Director of Local Response confers with the Radiation Health Coordinator for an assessment of the radiological emergency and to determine appropriate PARs (see OPIP 3.1.1, Attachment 1, page 8). This procedure raises the possibility that the Director of Local Response might recommend and advise protective actions to the Suffolk County Executive on the basis of information on the Radiological Emergency Data Form and without consultation with the Radiation Health Coordinator as called for in the plan.

Local Offsite Radiological Emergency Response Plan for Shoreham
Final Regional Assistance Committee (RAC) Review of Revision 9
Dated April 28, 1988

Page 23 of 90

NUREG-0654
Element

Review Comment(s)

Rating

D.4
(Cont'd)

After conferring with the Suffolk County Executive at the Alert, Attachment 1 of Procedure OPIP 3.1.1 directs the Director of Local Response to contact the Nassau County Executive to describe the Nassau County resources that will be needed if an evacuation is recommended. In the event that the Governor of New York has declared a State of Emergency, the Suffolk County Executive should be replaced by the Governor, as appropriate, as the government official to advise. Telephone numbers for the Governor of New York and the Nassau County Executive could not be located.

E.

Notification Methods and Procedures

E.1

The notification and mobilization of emergency response organizations including the verification of messages is outlined in Section 3.3, pages 3.3-1 thru 5 and Procedures OPIP 3.3.1, 3.3.2, 3.3.3, 3.3.4, and 3.3.5.

A

Upon initial receipt of an Alert or higher level emergency classification, the Director of Local Response will contact New York State and Suffolk County officials.

The LILCO Supervising Service Operator in the Electric Service Station, Hicksville is the primary LERO notification point. Upon activation of the Local EOC, responsibility for receiving notification will shift to the Lead Communicator in the EOC's communication center.

Figures 3.3.2-4 identify the persons/groups/organizations to be notified for each emergency classification. Figure 3.3.5 illustrates LERO's notification scheme. Verification of LERO personnel notification occurs over the Automated Verification System.

Local Offsite Radiological Emergency Response Plan for Shoreham
Final Regional Assistance Committee (RAC) Review of Revision 9
Dated April 28, 1988

Page 24 of 90

<u>NUREG-0654</u> <u>Element</u>	<u>Review Comment(s)</u>	<u>Rating</u>
E.2	<p>The necessary procedures for alerting, notifying, and mobilizing emergency response personnel are found in Procedure OPIP 3.3.2.</p> <p>OPIPs 3.3.2 and 3.3.5 which provide instructions for receipt and verification of notification messages; and provide directions for Supervising Service Operators (see comment for element E.1), respectively, have been added to the NUREG-0654 cross-reference as citations for element E.2.</p>	A
E.3	<p>Content of the initial emergency messages to be sent from the plant are shown on the "New York State Radiological Emergency Data Form," (sometimes referred to herein as the "RECS data form") Figure 3.3.1, Parts I and II. The considerations required by NUREG-0654/FEMA-REP-1, Rev. 1, Supp. 1, are included on these message forms.</p> <p>Although we recognize that the RECS data form contained in the plan (Figure 3.3.1) and Procedure OPIP 3.3.1 (Attachment 1) has been developed by New York State for use in receiving emergency information from other nuclear utilities in the state, it is suggested that reference to the state should be made elsewhere in this form rather than in the title header as it is currently shown. This suggestion is made to avoid confusion in the case of Shoreham.</p>	A
E.4a-n	<p>Provisions have been made for followup messages from LILCO to offsite response organizations which contain all the planning information required by NUREG-0654/FEMA-REP-1, Rev. 1, Suppl. 1, except the following:</p> <ul style="list-style-type: none">• "licensee emergency response actions underway" (element E.4.k);	I

Local Offsite Radiological Emergency Response Plan for Shoreham
Final Regional Assistance Committee (RAC) Review of Revision 9
Dated April 28, 1988

Page 25 of 90

<u>NUREG-0654</u> <u>Element</u>	<u>Review Comment(s)</u>	<u>Rating</u>
E.4a-n (Cont'd)	<ul style="list-style-type: none">• "request for any needed onsite support by offsite organizations" (element E.4.m). <p>These considerations need to be added to the RECS data form shown in Figure 3.3.1 of the plan and Attachment 1 of OPIP 3.3.1.</p>	
E.5	<p>The plan establishes a system for disseminating appropriate information contained in initial and follow-up messages received from the licensee, including the appropriate notification to the broadcast media.</p> <p>The notification system described throughout the plan is termed the Emergency Broadcast System (EBS). This system, which is a network of Long Island and Connecticut radio stations, with Connecticut's WPLR-FM, identified as the Common Point Control Station, is not the official Emergency Broadcast System (EBS) for Long Island.</p> <p>LILCO has secured Letters of Agreement with several radio stations on Long Island and Connecticut which will broadcast emergency information to the public. WPLR-FM has been identified in the plan as the Common Point Control Station and Procedure OPIP 3.8.2 (Sec. 5.1.1) specifies that the Shoreham Local Emergency Broadcast System (EBS) can only be activated by communication with Radio Station WPLR in Hamden, Connecticut based on initiation from the LERO Director of Local Response (or his authorized representative) or the Coordinator of Public Information. In this review, we have assumed that this is a backup means for issuing emergency instructions to the public.</p>	I

Local Offsite Radiological Emergency Response Plan for Shoreham
Final Regional Assistance Committee (RAC) Review of Revision 9
Dated April 28, 1988

Page 26 of 90

NUREG-0654
Element

E.5
(Cont'd)

Review Comment(s)

Rating

However, the Letter of Agreement from WPLR formalizing an agreement does not explicitly state that WPLR-FM will act as the Common Point Control Station. This agreement must be reached to insure coordination of all radio stations designated as transmission sources of emergency broadcast messages.

These radio stations have a Letter of Agreement which includes them in the EBS network:

- WLNG-AM (Sag Harbor, N.Y.)
- WGLI (Babylon, N.Y.)
- WRCN-FM (Riverhead, N.Y.)
- WRHD-AM (Riverhead, N.Y.)
- WLIM (Patchogue, N.Y.)
- WICC-AM (Bridgeport, Ct.)
- WELI-AM (New Haven, Ct.)
- WPLR-FM (Hamden, Ct.)

The plan indicates (see Sec. 3.8, and Procedure OPIP 3.3.2 that State or County officials may decide to use the New York State Emergency Broadcast System (with WCBS designated as the Common Point Control Station) as the EBS system. If this occurs, the plan and OPIP 3.8.2 (Sec. 5.1.4) specifies that all the radio stations on the Shoreham local emergency broadcast system (which are all included on the WCBS network) will automatically switch their source signal to WCBS from WPLR when the WCBS two tone signal is activated. In addition, the plan stipulates that WPLR will direct their listeners to tune to WCBS for emergency information. In this review it is assumed that WCBS would activate EBS as authorized by state or county officials and that this would be the primary means for activating EBS. (Also see comments for element E.8 in this review.)

Local Offsite Radiological Emergency Response Plan for Shoreham
Final Regional Assistance Committee (RAC) Review of Revision 9
Dated April 28, 1988

Page 27 of 90

<u>NUREG-0654</u> <u>Element</u>	<u>Review Comment(s)</u>	<u>Rating</u>
E.6	<p>The prompt notification system consists of 89 fixed sirens, tone activated radios provided to special facilities (i.e., schools, hospitals, medical support hospitals, handicapped facilities, ambulance companies, nursing homes, and major employers, etc.), EBS, and a mobile public address system. Marketing Evaluations Incorporated will verify that each siren has activated (see App-B-53).</p> <p>Prescribed EBS messages in OPIP 3.8.3 include wording which urges those residents in the planning areas recommended for evacuation to be "good neighbors" during an evacuation.</p>	A
E.7	<p>The draft messages intended for the public found in Procedure OPIP 3.8.2 satisfy NUREG-0654/FEMA-REP-1, Rev. 1, Supp. 1 requirements.</p> <p>Draft EBS messages are included in the plan for the following conditions:</p> <ul style="list-style-type: none">• EBS Activation Advisory• Alert (No release of radiation)• Alert (Release of radiation)• Site Area Emergency (No general public protective actions)• Site Area Emergency (Sheltering)• General Emergency (Sheltering)• General Emergency (Sheltering and evacuation)• General Emergency (Evacuation)• De-escalation of Emergency• Termination of Emergency Message• Test Message for EBS• Spurious Activation of Prompt Notification System Message	A

Local Offsite Radiological Emergency Response Plan for Shoreham
Final Regional Assistance Committee (RAC) Review of Revision 9
Dated April 28, 1988

Page 28 of 90

NUREG-0654
Element

Review Comment(s)

Rating

E.7
(Cont'd)

Although transmission of EBS messages are not required, by the plan, during the Unusual Event ECL, OPIP 3.8.2 makes no reference to the Unusual Event. It is suggested that OPIP 3.8.2 be revised to include a statement to that effect.

Ingestion pathway EBS messages will be developed at the direction of the Director of Local Response in conjunction with the Radiation Health Coordinator.

E.8

The Plan states that during an emergency, the Director of Local Response will work in conjunction with the Suffolk County Executive. The Plan also references the involvement of the Federal and State responses.

A

Specific interactions with the Federal, State and Suffolk County are outlined in the following Procedures:

- OPIP 3.1.1, Attachment 1: "Director of Local Response - Emergency Response Action Checklist"
- OPIP 3.1.1, Attachment 10: "Suffolk County Interface Procedure".
- OPIP 3.8.2: Emergency Broadcast System Activation.

F.

Emergency Communications

F.1.a

Provision for 24-hour activation of the LERO emergency response is accomplished via the Radiological Emergency Communications System (RECS) line from the SWPS Control Room to the LILCO Supervising Service Operator in the LILCO

A

Local Offsite Radiological Emergency Response Plan for Shoreham
Final Regional Assistance Committee (RAC) Review of Revision 9
Dated April 28, 1988

Page 29 of 90

NUREG-0654
Element

Review Comment(s)

Rating

F.1.a
(Cont'd)

Electric Service Operations Section, Hicksville (see Section 3.3, pages 3.3-1 to 3.3-2 and Figure 3.3.5 and Section 3.4, pages 3.4-1 to 3.4-5). RECS is a dedicated telephone system. This RECS line is monitored on a 24-hour basis and SNPS personnel are responsible for activating the paging system which notifies key emergency response personnel that an actual incident has occurred.

The LILCO Notification Radio System serves as the backup communication system to the RECS for communications between the Shoreham Control Room and the LILCO Electric Service Operations Center. Figure 3.3.5 showing the LERO initial notification scheme does not show the LILCO Notification Radio System as a backup for RECS, as described in the text (see comments element A.1.c).

F.1.b

Section 3.4 E (page 3.4-4) provides for communications from LERO to Suffolk County, Nassau County, New York State, and Connecticut via commercial telephone. For Suffolk County and New York State commercial telephone is considered as backup to RECS. It is noted (page 3.4-1) that because of changes in offices at the New York State Warning Point and Health Department, these agencies do not have RECS telephones. LERO intends to install telephones there when permitted by New York State. Without RECS there is only one communications link with New York State. Neither the text nor Figure 3.4.1 identify any backup to commercial telephone for communications with Nassau County. This is not in compliance with federal guidance (NUREG-0654, FEMA-REP-1, Rev. 1, Supp. 1, page 13), which states that a backup system is necessary for communications with unparticipating states and local governments.

I

Local Offsite Radiological Emergency Response Plan for Shoreham
Final Regional Assistance Committee (RAC) Review of Revision 9
Dated April 28, 1988

Page 30 of 90

NUREG-0654
Element

Review Comment(s)

Rating

F.1.b
(Cont'd)

Figures 3.3.3 and 3.3.4, and Procedure OPIP 3.1.1 identify the Director of Local Response as being responsible for notification of the States of New York and Connecticut and Suffolk and Nassau Counties. Telephone numbers for New York, Connecticut, and Nassau County could not be located (see comments element A.1.c).

F.1.c

The plan provides for notification of the following federal emergency response organizations (see plan, Chapter 2, pages 2.2-4 - 2.2-4e, 2.2-5, Figure 2.2.1):

A

- FEMA
- NRC
- DOE
- USDA (by FEMA)
- DOC (by FEMA)
- DOD (by FEMA)
- HHS (by FEMA)
- DOT (by FEMA)
- EPA (by FEMA)
- U.S. Coast Guard (USCG)
- FAA
- NCS (by FEMA)

LERO notifies FEMA, USCG, FAA, and DOE (Brookhaven Area Office). The local EOC has commercial telephone links with these federal agencies. In addition, there is a radio link (undefined "2f" in Figure 3.4.1) with the USCG and a dedicated telephone line to the Brookhaven Area Office. Figures 3.3.3 and 3.3.4 provide that the Director of Local Response is responsible for notifying most federal agencies but that the Evacuation Coordinator is responsible for notifying the FAA and the USCG. It is assumed that NRC will be notified initially by SNPS and that NRC personnel will be dispatched to the EOF/TSC as part of NRC's technical response role.

Local Offsite Radiological Emergency Response Plan for Shoreham
Final Regional Assistance Committee (RAC) Review of Revision 9
Dated April 28, 1988

Page 31 of 90

NUREG-0654
Element

Review Comment(s)

Rating

F.1.c
(Cont'd)

A letter confirming that in the event of an emergency, LILCO will contact directly the FAA Regional Duty Officer at a specified telephone number has been added to Appendix B (App-B-54).

F.1.d

The plan has been modified to include notification of the Long Island Railroad (LIRR). Procedure OPIP 3.3.2 Page 4 of Attachment 4, instructs the Evacuation Coordinator to contact the LIRR at Site Area Emergency, or higher emergency classification, and to request closure of parts of the mainline if evacuations are called for in certain sectors. Figure 3.3.4, page 4 specifies that the Long Island Railroad will be notified at the Site Area Emergency and/or General Emergency ECLs. The LIRR has been added to the notification diagram shown in Figure 3.3.5.

A

Communications between the local EOC in Brentwood, New York and the licensee's EOF (or TSC) are maintained via the following means (see Figure 3.4.1):

- RECS line
- commercial telephone
- radio
- dedicated telephone

Communications between the local EOC and the three staging areas are maintained via the following means:

- commercial telephone
- radio
- dedicated telephone

Local Offsite Radiological Emergency Response Plan for Shoreham
Final Regional Assistance Committee (RAC) Review of Revision 9
Dated April 28, 1988

Page 32 of 90

NUREG-0654
Element

Review Comment(s)

Rating

F.1.d
(Cont'd)

Figure 4.1.3 of the Plan shows that the work places of 4 of the 5 Evacuation Support Communicators at the EOC are equipped with each of these three communications links. Similarly, page 2 of Attachments 1-3 to Procedure OPIP 4.5.1 show the Staging Coordinators' offices to be equipped with these three communications links.

Radiological monitoring will be performed by personnel coordinated out of the Brookhaven Area Office (BHO) (Attachment 2.2.1, page 2). BHO is notified by commercial telephone by the Supervising Service Operator (see Figure 3.3.5 of the Plan and Procedure OPIP 3.3.5, page 5) not by Lilco Customer Services as stated in Attachment 2.2.1, page 2 of 27. This has not been changed since Revision 3 and is now inconsistent with new revisions. Figure 4.1.3 of the Plan shows the work area of the BHO liaison at the Local EOC to be equipped with commercial and dedicated telephones. Page 4.1-4 states that there is a radio link from the Local EOC to the BHO field teams with equipment provided by DOE. It should be clarified that this is an indirect link with both the local EOC and the field teams linked to BHO.

F.1.e

The provisions for alerting and activating emergency response personnel for each ECL in each response organization are described in Section 3.3-1-4; Figures 3.3.2, 3.3.3, 3.3.4, and 3.3.6; Section 3.4, page 3.4-5 of the plan and Procedure OPIP 3.3.2.

A

Key personnel are activated or alerted by SNPS personnel via pager, with the pager indicating a code that tells the pagee what action to take. Other personnel are alerted or activated by means of a cascading call out system. Procedure OPIP 3.3.2 contains a "Supplementary Notification Call

Local Offsite Radiological Emergency Response Plan for Shoreham
Final Regional Assistance Committee (RAC) Review of Revision 9
 Dated April 28, 1988

NUREG-0654
Element

Review Comment(s)

Rating

F.1.e
 (Cont'd)

Checklist" in Attachment 4, for use by LERO personnel with responsibility for alerting or activating other organizations and individuals who participate in the response.

LILCO has contracted with four firms (see App B-22-24 and B-70) to provide Emergency Preparedness Advisors, Radiation Health Coordinators, and Nuclear Engineers. However, Figures 3.3.3 and 3.3.4 designate Radiation Health Coordinators and Emergency Preparedness Advisors as LILCO employees, rather than as employees of "other organizations."

F.2

Communications with fixed and mobile medical support facilities are specified in the plan as follows:

A

Means

- Ambulance dispatch stations commercial telephone and radio
- Ambulance drivers radio link via dispatch station
- Hospitals commercial telephone and radio links via ambulance dispatch stations and mobile ambulance units.

Figures 3.3.5 and 3.4.1 of the Plan do not show all the communication links for fixed and mobile medical support facilities. Figure 3.3.5 does not show the radio links to hospitals from ambulance dispatch stations and mobile ambulance units. Figure 3.4.1 does not show radio links between hospitals and ambulance dispatch stations.

Local Offsite Radiological Emergency Response Plan for Shoreham
Final Regional Assistance Committee (RAC) Review of Revision 9
Dated April 28, 1988

Page 34 of 90

NUREG-0654
Element

Review Comment(s)

Rating

F.3

The Plan calls for testing of communications systems at intervals from weekly to annually (see Section 3.4, pages 3.4-7-8 and Procedure OPI² 3.4.1). These schedules meet federal guidance (see evaluation criteria H.10, and N.2.a of NUREG-0654, MA-REP-1, Rev. 1, Supp. 1).

A

The plan has been revised to include the required frequency of siren tests in accordance with NUREG-0654/FEMA-REP-1, Rev. 1, Appendix 3, page 3-12, Section h(1).

G

Public Education and Information

G.1a-e

LILCO has provided to FEMA for review the following Shoreham Nuclear Power Station public emergency information materials which are sent as a package to EPZ residents.

I

- Primary public emergency information document
- Vest pocket summary of emergency instructions
- Refrigerator magnet with Zone and EES stations

Also provided for review were samples of materials which are distributed to non-residential facilities:

- Primary public emergency information document
- Vest pocket summary of emergency instructions
- Wall poster
- EBS sticker

All of these materials are in draft form.

Local Offsite Radiological Emergency Response Plan for Shoreham
Final Regional Assistance Committee (RAC) Review of Revision 9
Dated April 28, 1988

Page 35 of 90

NUREG-0654
Element

Review Comment(s)

Rating

G.1a-e
(Cont'd)

Section 3.8, pages 3.8-1-3 of the plan provides for the dissemination of brochures to the public which include the information required by NUREG-0654/FEMA-REP-1, Rev. 1, Supp. 1. The information to be provided will include:

- educational information on radiation
- contact for additional information
- protective measures
- survey card on special needs of the handi-capped.

The Plan has been revised to include an additional item required by NUREG-0654/FEMA-REP-1, Rev. 1, Supp. 1:

- "special steps to be taken to describe the role of the offsite response organization vs. the State and local organizations during the emergency."

The Plan (Section 3.8, pages 3.8-2 and -3) states that educational brochures will be mailed to all households and commercial establishments. LILCO plans to use their billing lists for the mailing. In addition, inserts will be developed for the Suffolk telephone directory which will include the following:

- Map of 10-mile EPZ/emergency planning zone
- List of EBS stations
- Siren system description/purpose
- Protective actions the public may be advised to take (sheltering, evacuation)
- Relocation center locations
- Items to take along for an evacuation.

Local Offsite Radiological Emergency Response Plan for Shoreham
Final Regional Assistance Committee (RAC) Review of Revision 9
Dated April 28, 1988

Page 36 of 90

NUREG-0654
Element

Review Comment(s)

Rating

G.1a-e
(Cont'd)

Local telephone directories will also contain the above items. In addition, these local directories will contain maps showing evacuation routes.

Brochures will be updated on an annual basis, and an annual orientation of news media will be reinforced during annual exercises. *Annual exercises are no longer a requirement; biennial exercises are now required. While it is acceptable to conduct annual exercises, if that is not the Licensee's intent then the Plan should be revised accordingly.*

The review of the primary public information document, Public Emergency Procedures for Zone A, reveals that it does contain the information needed by individuals in order for them to protect themselves in the event of a radiological emergency. Unfortunately, problems such as disorganization, unnecessary redundancy, the high level of readability, the interruption of emergency action sections by sections of non-emergency information, the inappropriate choice of colors for colorblind individuals, and confusing maps and graphics seriously hamper the emergency utility of the document and make its effectiveness questionable.

The complete review of Public Emergency Procedure for Zone A is attached as Exhibit 1.

There is no indication the public emergency information material will contain adequate radiological preparedness instructions for the agricultural community. Federal guidance (FEMA-REP-11, pages 7-8) states that public information efforts directed at farmers and food processors within the 10-mile EPZ should provide for the dissemination of instructions at least annually covering the following subjects:

- effects of radiation and radioactive material deposits on the food chain;

Local Offsite Radiological Emergency Response Plan for Shoreham
Final Regional Assistance Committee (RAC) Review of Revision 9
Dated April 28, 1988

Page 37 of 90

NUREG-0654
Element

Review Comment(s)

Rating

G.1a-e
(Cont'd)

- explanation of FDA's preventive and emergency action levels;
- identification of preventive protective actions to be taken for water, livestock, crops, fruits and vegetables;
- identification of emergency actions to be taken for protecting water, livestock, crops, fruits, and vegetables;
- methods and sources of notifying farmers, food processors and distributors of protective actions in time of emergency; and
- where to seek further information, such as NOAA Weather Radio, EBS, or others.

(See comments element J.11)

There is a discrepancy between the plan and the public information brochure as to the number of nursery schools within the plume exposure EPZ. This discrepancy should be resolved (see comments element J.10.g).

G.2

The plan, Section 3.8, provides for mailing written public education material to residents within the plume exposure EPZ. It also provides for making such material available for distribution at schools. Notices will be posted at concentrations of transient population, at local institutions, and at places with public bulletin boards. There will also be inserts in local telephone directories. Public education material will be reviewed and updated annually. The Emergency Preparedness Coordinator is responsible for coordinating the development and dissemination of public education material. *The public information brochure has not been distributed. Public information material should not be disseminated until it is presented such that it can be used effectively by its intended audience (see comments element G.1a-e).*

I

G.3

The NUREG-0654 cross reference does not include references to this element. Appropriate additions should be made.

A

Local Offsite Radiological Emergency Response Plan for Shoreham
Final Regional Assistance Committee (RAC) Review of Revision 9
Dated April 28, 1988

Page 36 of 90

NUREG-0654
Element

Review Comment(s)

Rating

G.3
(Cont'd)

The emergency news center (ENC) is to be established in the LILCO Training Center, Hauppauge, New York. Desk space and telephones will be provided to accommodate the public information personnel from New York State and Suffolk County and the various representatives of the news media.

LILCO's Corporate Communications Center in Hicksville is designated as an alternate ENC facility.

This facility will be set up as the central clearing house for the release of information received from the utility and LERO representatives (see Section 3.8, page 3.8-4-4a).

G.4.a

The LERO Coordinator of Public Information (CPI) and LILCO's Emergency News Manager at the ENC is the designated spokesperson(s) for LERO.

A

G.4.b

LERO public information personnel at the ENC are charged with the responsibility "to provide accurate information (to the media) on a timely basis."

A

Insufficient copying capabilities at the ENC resulted in delays in the distribution of hard copies of EBS messages to the media during the February 13, 1986 exercise.

No detailed discussion could be found in the plan that describe LERO's provisions for reliable and rapid equipment to reproduce, in hard copy, all appropriate messages for distribution to the ENC staff. However, since this capability will be evaluated at an exercise, it is not necessary to include these details in the plan. Also see comment for element G.4.c in this review.

Local Offsite Radiological Emergency Response Plan for Shoreham
Final Regional Assistance Committee (RAC) Review of Revision 9
Dated April 28, 1988

Page 39 of 90

NUREG-0654
Element

Review Comment(s)

Rating

G.4.b
(Cont'd)

The plan has been modified to create an additional position, LERO Spokesperson, and additional staff have been assigned to assure better coordination of information in the ENC. The LERO Spokesperson is responsible for coordinating the release of information working in conjunction with the Suffolk County Executive, or his designee, if he chooses to participate. The LERO Spokesperson will represent LERO at press conferences. Press releases are to be distributed to utility, government and media personnel at the ENC.

G.4.c

The delegation of responsibility for rumor control to the SNPS organization is not in compliance with NUREG 0654/FEMA-REP-1, Rev. 1, Supp. 1, which requires that the offsite response organization shall establish coordinated arrangements for dealing with rumors. Onsite procedure EPIP 4.4 does not provide for managerial responsibilities in rumor control for LERO personnel and the responsibilities given LERO personnel in Procedure OPIP 3.8.1 do not amount to a coordinating role. Also, in light of the NUREG-0654 requirement for the provision of rumor control by offsite emergency response organizations, consideration should be given to designating EPIP 4-4 as an offsite (OPIP) as well as an onsite (EPIP) procedure or, alternatively a separate offsite rumor control procedure should be developed. The LERO plan does not provide information about rumor control staffing, and the number of rumor control telephone lines that will be available and staffed.

I

Insufficient copying capabilities at the ENC resulted in delays in the distribution of information during the February 13, 1986 exercise. Rumor Control personnel were not able to answer questions received from the public because they were not given accurate up-to-date status reports.

Local Offsite Radiological Emergency Response Plan for Shoreham
Final Regional Assistance Committee (RAC) Review of Revision 9
Dated April 28, 1988

Page 40 of 90

<u>NUREG-0654</u> <u>Element</u>	<u>Review Comment(s)</u>	<u>Rating</u>
G.4.c (Cont'd)	<p>The ENC is designated as the central location for rumor control. The rumor control point is for the use of utility personnel at the LILCO Customer Relations District Offices and the LILCO Customer Call Boards, in answering questions asked by the public. The rumor control point will be staffed by representatives from LERO and the utility.</p> <p>As provided in OPIP 3.8.1, Section 5.2.4, changes in important emergency information will be electronically transmitted to Rumor Control District offices and call boards via TSO printout (also see OPIP 3.8.1, Section 5.3.4).</p> <p>The effectiveness of the rumor control system would be evaluated during an exercise of off-site radiological emergency preparedness.</p>	
G.5	<p>LERO will coordinate an annual orientation program for the news media. This program will familiarize the media with the following:</p> <ul style="list-style-type: none">• Utility emergency plans• Radiation information• Points of contact for release of public information in the event of an emergency• The location and operation of the ENC. <p>As specified in NUREG-0654/FEMA-REP-1, Rev. 1, Supp. 1, the media must also be familiarized with the role of offsite response organizations vs. the State and local organizations during the emergency.</p>	I
H.	<u>Emergency Facilities and Equipment</u>	
H.3	<p>The local EOC to be operated and staffed by LERO personnel is located at the LILCO Operations Facility in Brentwood, Long Island, New York.</p> <p>The Local EOC has desk space and telephones for use by Suffolk County Officials.</p>	A

Local Offsite Radiological Emergency Response Plan for Shoreham
Final Regional Assistance Committee (RAC) Review of Revision 9
Dated April 28, 1988

Page 41 of 90

NUREG-0654
Element

Review Comment(s)

Rating

H.4

The activation and staffing of the local EOC by LERO personnel is specified in Section 3.3, page 3.3-1; Section 4.1 page 4.1-1-4 and Procedures OPIP 4.1.1, 4.2.3, 4.3.1, 4.5.1, 4.6.1 of the plan.

A

The plan states that upon his arrival at the local EOC, the Director of Local Response will establish contact with the LILCO EOF and the New York State EOC (see Plan, Chapter 4; Section 4.1, A).

In an earlier plan review the RAC stated that the notification of the New York State EOC (page 4.1-1, line 44) should be reviewed. Since the RECS line is no longer operational, the State EOC will, in all likelihood, not be operational. This notification should probably be to the State Warning Point. (See comment for element F.1.b.)

The NUREG-0654 cross-reference in the plan has been revised to include Procedures OPIPs 4.2.3, 4.3.1, 4.5.1, and 4.6.1 as citations for element H.4.

H.7

The two (2) Off-site Radiological Survey (ORS) teams, each consisting of two (2) individuals from DOE-RAP (BHO) are provided for in the plan (see Section 3.5, pages 3.5-2-2a). These teams will obtain their ORS kits at Brookhaven National Laboratory (BNL), which is located approximately six (6) miles from SNPS.

A

Equipment is given for the two ORS teams in Attachment 2.2.1 (the NUREG 0654 cross reference should be changed from page 4.4-1 to Attachment 2.2.1).

In response to a previous RAC comment, the plan has been revised to delete reference to LILCO ORS kits.

Local Offsite Radiological Emergency Response Plan for Shoreham
Final Regional Assistance Committee (RAC) Review of Revision 9
Dated April 28, 1988

Page 42 of 90

<u>NUREG-0654</u> <u>Element</u>	<u>Review Comment(s)</u>	<u>Rating</u>
H.10	<p>Section 5.3 of the plan provides that LILCO will inspect, inventory and operationally check emergency response equipment at least once each calendar quarter, and after each use. Calibration of instruments will be done at intervals recommended by manufacturers. The plan also makes provision for reserve equipment.</p> <p>References to the availability and maintenance of backup field monitoring equipment at the local EOC in Brentwood have been deleted from the plan. It is assumed that DOE-RAP (BHO) teams will provide their backup field monitoring equipment.</p>	A
H.11	<p>Detailed lists of equipment to be used in the emergency response by LERO are located in the plan in Attachment 2.2.1 and Sections 3.4, 4.1, and 4.4, and in Procedure OPIP 5.3.1.</p> <p>In response to previous RAC comments, the inconsistency regarding the ORS kits has been removed since Procedure OPIP 3.5.1 has been deleted. References to the LILCO ORS kits have been deleted.</p> <p>Radio communications will be maintained between the field teams and the DOE-RAP (BHO) team captain located at the DOE Brookhaven Area Office (see page 3.5-2a of the plan). A DOE-RAP (BHO) team liaison will be deployed to the local EOC in Brentwood to complete the communications between field teams and the EOC.</p>	A
H.12	<p>Page 3.5-2a of the plan states that field data will be radioed back to the Environmental Survey Function at the DOE Brookhaven Area Office and all samples will be returned to the Brookhaven Area Office, or as directed, for laboratory analysis by DOE-RAP (BHO) or SNPS labs.</p>	A

Local Offsite Radiological Emergency Response Plan for Shoreham
Final Regional Assistance Committee (RAC) Review of Revision 9
Dated April 28, 1988

NUREG-0654
Element

Review Comment(s)

Rating

I.

Accident Assessment

The plan specifies that LERO will depend upon DOE-RAP (BHO) for radiological field monitoring and dose assessment functions. (Figure 3.5.2 indicates that LILCO personnel from the Radiological Environmental Monitoring Program (REMP) may support BHO teams in field monitoring and sampling.) Although the review of DOE-RAP (BHO) procedures is outside its responsibility, the RAC acknowledges that the DOE-RAP (BHO) systems are adequate to accomplish the field monitoring and dose assessment functions described in the plan.

1.7

The capability and resources for field monitoring within the plume exposure EPZ are to be provided through the DOE-RAP (BHO) resources at the Brookhaven Area Office. The capabilities, mobilization, and equipment for these resources are provided in the FRMAP plan for the support of local emergency response plans.

A

In response to previous RAC comments, the LERO radiological procedures, OPIP 3.5.1, Downwind Surveying, has been deleted from the plan, however, it is still referenced in Section 6 of Procedure OPIP 3.5.2 and should be deleted). The plan calls for DOE-RAP (BHO) to use their own procedures. The DOE-RAP (BHC) Team Captain is responsible for collecting the required information for assessment and dose projection and providing the Radiation Health Coordinator with the results of the independent radiological evaluations performed by the DOE-RAP (BHO) Teams (see Procedure OPIP 3.5.2, page 1).

The plan has been clarified and specifies that the equipment inventory in Attachment 2.2.1 is the equipment in the DOE-RAP (BHO) team kits.

Local Offsite Radiological Emergency Response Plan for Shoreham
Final Regional Assistance Committee (RAC) Review of Revision 9
Dated April 28, 1988

NUREG-0654
Element

Review Comment(s)

Rating

1.8

The capabilities, equipment and expertise for accident and dose assessment are found in Procedure OPIP 3.5.2. Section 3.5 of the plan, pages 3.5-1-4, provides that LERO will rely on DOE-RAP teams deployed from the Brookhaven Area Office (BHO) for offsite radiological survey (ORS) teams. These two-person teams will be capable of being deployed within one hour after notification and will carry the equipment specified in Attachment 2.2.1 of the plan. These ORS teams will provide their own transportation; however, LILCO vehicles will be available to supplement DOE-RAP (BHO) vehicles (see page 4.4-3 of the plan). At the Alert DOE-RAP (BHO) support personnel will be notified to report to their duty stations (see Figure 3.3.3 of the plan), including the DOE-RAP (BHO) Team Liaison who reports to the local EOC. Communications between the local EOC and ORS teams is via dedicated or commercial telephone to BHO and by radio from BHO to the ORS teams in the field (see Figure 3.4.1).

A

Pages 3.1-1 and 4.1-2 of the plan specify that the Director of Local Response, in conjunction with the Radiation Health Coordinator, is responsible for formulating the protective action decisions.

A Nuclear Engineer has been added to the LERO emergency response staff (see Figures 3.3.3, 3.3.4, 3.5.2; page 3.5-2). This individual is responsible for evaluating the plant status to determine the potential for a radiological release in making protective action recommendations.

According to Procedure OPIP 3.6.1, Section 5.0, the Nuclear Engineer is directed to obtain information from the Radiological Emergency Data Form (see Attachment 5). This form contains all the radiological information needed. Prior to a radiological release, protective actions are based upon an

Local Offsite Radiological Emergency Response Plan for Shoreham
Final Regional Assistance Committee (RAC) Review of Revision 9
Dated April 28, 1988

NUREG-0654
Element

Review Comment(s)

Rating

I.8
(Cont'd)

evaluation of plant systems and an estimate of when these systems are expected to degrade to the point of causing a radiological release. After a radiological release has begun, wind speed enters into dose assessment calculations (e.g., Section 5.1.1.d of Procedure OPIP 3.6.1).

I.9

Section 2.2, Attachment 2.2.1, page 3 of 17, states that the DOE Brookhaven Area Office can provide support to LILCO for airborne radioiodine sampling and analysis to concentrations as low as 5×10^{-8} microcuries per cubic centimeter.

A

Procedure OPIP 3.5.2 (see Section 3.3) includes an explanation and precaution for the mix and decay of radioisotopes released. OPIP 3.5.2, Section 3.3 also includes provisions to verify field measurements with laboratory measurements for samples exhibiting activity when release assumptions are not valid.

In response to previous RAC comments, Section 3.3, OPIP 3.5.2 was modified to provide for expedited return of field samples to Brookhaven National Laboratory or another capable laboratory for analysis. *If other capable laboratories are SNPS laboratories, they are located in New Jersey and Massachusetts. If Brookhaven National Laboratory, which is 6 miles from SNPS, is unavailable and a SNPS laboratory is to be used, provisions for transporting samples to those laboratories were not located and should be addressed (see comments for element C.3).*

Previous RAC concerns about Procedure OPIP 3.5.2, Attachments 4 and 5 that the heading of the tables should be changed to read, multiply results by 10^{-6} , have been addressed.

Local Offsite Radiological Emergency Response Plan for Shoreham
Final Regional Assistance Committee (RAC) Review of Revision 9
Dated April 28, 1988

NUREG-0654
Element

Review Comment(s)

Rating

I.9
(Cont'd)

In addition to DOE-RAP (BHO), LERO can perform independent dose assessment using Procedure OPIP 3.5.2. Provisions are included in Section 2.3 of that procedure to obtain field monitoring data from either the DOE-RAP (BHO) liaison in the local EOC or from SNPS field teams via the EOF. Section 3.5 of the plan (see page 3.5-2 and Figure 3.5.2) assigns primary responsibility for LERO's capability to the Radiation Health Coordinator.

I.10

Procedures for estimating integrated dose from the projected and actual dose rates (plume exposure) are found in Procedure OPIP 3.5.2. Ingestion pathway dose estimations for particulate ground deposition are also found in Procedure OPIP 3.5.2 (see Section 5.3 and Attachment 3). Procedures OPIP 3.6.1 and 3.6.6 contain protective action recommendations for the plume exposure EPZ and the ingestion pathway EPZ, respectively.

A

The plan adequately describes provisions for relating measured parameters to projected estimated dose commitments (see Section 3.5 of the plan, pages 3.5-3-4) and provides for relating ground deposition to the need for additional protective actions.

LILCO has specified in its response to previous RAC comments that the DOE-RAP (BHO) team use the IRDAM dose assessment model on a portable Osborne Computer. LERO uses the ACCDOS dose assessment model described in Procedure OPIP 3.5.2, on an HP-85b portable computer.

The RAC had found that the use of the IRDAM code by DOE-RAP and the availability of the ACCDOS code in the local EOC will provide sufficient backup calculational capability. With these two separate calculational systems available, there is no need for a backup hand calculational method. It is noted

Local Offsite Radiological Emergency Response Plan for Shoreham
Final Regional Assistance Committee (RAC) Review of Revision 9
Dated April 28, 1988

Page 47 of 90

<u>NUREG-0654</u> <u>Element</u>	<u>Review Comment(s)</u>	<u>Rating</u>
1.10 (Cont'd)	<p>that Procedure OPIP 3.5.2 contains a manual method for backing up the computer method for determining thyroid dose commitment. Provisions have been made to obtain field data for input to the ACCDOS code in the local EOC (see Procedure OPIP 3.5.2, Section 5.5.22 et. seq.).</p> <p>Two (2) plan changes have been made to address issues identified at the February 13, 1986 exercise.</p> <p>The plan has been modified in Procedure OPIP 3.5.2 Section 3.6, to require that when field data are received, the data are identified as actual measurements or as extrapolated data. All extrapolated data are now to be posted under "projected data" on the status board.</p> <p>Procedure OPIP 3.5.2, Section 3.5 has been revised to specify that all distances reported by DOE-RAP (BHO) teams are to be recorded in miles.</p>	
1.11	<p>Capabilities to locate and track the plume (field monitoring) are to be provided through DOE-RAP (BHO) resources requested by the Brookhaven Area Office. The capabilities, mobilization, response time, and equipment for these resources are provided in the FRMAP plan for the support of local emergency response plans (see Attachment 2.2.1 of the plan).</p>	A
J.	<p><u>Protective Response</u></p>	
J.2	<p>The provisions for evacuation of SNPS non-essential site personnel in Section 3.6 (page 3.6-8a) describe the route to be taken. The plan specifies that, depending on radiological or meteorological conditions, SNPS non-essential personnel would be instructed either to report home or to the Wildwood Substation. The Brentwood District Office is an alternative site if the Wildwood Substation is uninhabitable.</p>	A

Local Offsite Radiological Emergency Response Plan for Shoreham
Final Regional Assistance Committee (RAC) Review of Revision 9
Dated April 28, 1988

NUREG-0654
Element

Review Comment(s)

Rating

J.2
(Cont'd)

The plan also specifies that evacuees from the SNPS site would leave in the same personal vehicles they used to travel to the site and that evacuation will be via the SNPS access road to Route 25A (see Attachment 5, OPIP 3.6.3).

J.9

EPA's plume exposure and FDA's ingestion pathway PAGs are given in Section 3.6 (see Table 3.6.1 and page 3.6-2). Current FDA response level tables including all footnotes which are necessary for proper use of the numeric data contained in the tables are found in Attachments 1 and 2 of Procedure 3.6.6.

A

The Plan describes the means for recommending protective actions to the public (see Procedures OPIP 3.6.1 and 3.6.5), for activating the alert and notification system, and for notifying the public of protective action recommendations (see Procedures OPIP 3.3.4, 3.8.1, and 3.8.2).

A Nuclear Engineer has been added to the LERO emergency response staff. The procedures to be used by this individual are set forth in Procedure OPIP 3.6.1 (see comments for elements I.8 and J.10.m).

The number of dosimetry record keepers at the staging areas has been increased to 5 at Patchogue and Port Jefferson and to 6 at Riverhead (see page 4 of Figure 2.1.1). Selected dosimetry keepers are notified and ordered to report to their duty stations at the Alert; others are not mobilized until Site Area/General Emergency. Further information on the number of dosimetry record keepers mobilized at the Alert and their assignments was not located (e.g., are they assigned to staging areas so that they can set up the dosimetry distribution areas and zero direct reading dosimeters (DRD)).

Local Offsite Radiological Emergency Response Plan for Shoreham
Final Regional Assistance Committee (RAC) Review of Revision 9
Dated April 28, 1988

Page 49 of 90

NUREG-0654
Element

Review Comment(s)

Rating

J.9
(Cont'd)

Procedures OPIP 3.8.2, 3.9.1, and 4.5.1 address issuance of dosimetry and Ki at the staging areas. Dosimetry record keepers are to distribute dosimetry to all LERO emergency workers who will enter the EPZ and will brief them. Attachment 6 to OPIP 3.9.1 has been added to provide a script for the briefings. Dosimetry record keepers are to be assisted by Route Alert Drivers and volunteers in zeroing DRDs. The effectiveness of the additional Dosimetry Record Keepers in facilitating dispatch of bus drivers will be evaluated at an exercise.

J.10.a

The Evacuation Plan (Appendix A Section I-Preface pages I-1 to I-2) is made up of two plans -- a study performed by Suffolk County as part of an agreement with LILCO (9/21/81), and a study performed by KLD Associates under an agreement with LILCO to develop an evacuation plan (12/30/81), LILCO has integrated the two studies into Appendix A.

A

Maps illustrating evacuation routes for the designated evacuation zones are provided in Appendix A Figures 9 through 27. The map showing evacuation areas is referenced in Appendix A, Page II-5 as Figure 3. However this figure was not contained in the copies of Appendix A that were available for this review.

Preselected radiological sampling sites are discussed and listed in the plan (Section 3.5 Table 3.5.1) and keyed to an offsite survey map (Figure 3.5.1). The Figure 3.5.1 map was not contained in the copy of Appendix A that was available for this review.

The reception centers have been assigned to facilities at LILCO's Operations Centers in Bellmore, Hicksville, and Roslyn, New York. Procedure OPIP 4.2.3 provides details on the set up and use of facilities at these locations as reception centers for evacuees in the event of a Shoreham radiological emergency. Reception Center locations are shown on a regional map (Figure 4.2.1).

Local Offsite Radiological Emergency Response Plan for Shoreham
Final Regional Assistance Committee (RAC) Review of Revision 9
Dated April 28, 1988

Page 50 of 90

NUREG-0654
Element

Review Comment(s)

Rating

J.10.b

The plan has been revised to specify that some evacuation zones (i.e., Zones F and K) have been subdivided into subzones for planning purposes. Zones would be evacuated in their entirety and therefore, a map depicting subarea boundaries within these zones is not necessary.

A

A map (see Figure 7.1) has been included in the plan which depicts the population by ERPA projected for 1985 for winter and summer.

J.10.c

The means for notifying the transient and resident population consists of fixed sirens (89 units) and EBS. In the event of a partial or total siren failure, backup notification to the public is available through route alerting using vehicles and a helicopter equipped with sound systems (see Section 3.3 page 3.3-4 and Procedure OPIP 3.3.4, Section 5.0, pages 2-16 through 10-16). (See comments element E.6.)

A

J.10.d

Evacuation of population groups with special needs will be coordinated by the Special Facilities Evacuation Coordinator. Vehicles (buses and ambulances) will be provided to health facilities and to home bound individuals. A list of special, non-institutionalized individuals will be developed from mail-in cards included in a public-information brochure and this information will be maintained by LILCO (see Section 3.6 page 3.6-7, and Procedure OPIP 3.6.5). The listing to be compiled (OPIP 3.6.5 Attachment 1) codes five needs categories: ambulance, ambulette, curbside pickup, hearing impaired with assistance and hearing impaired requiring notification.

A

Local Offsite Radiological Emergency Response Plan for Shoreham
Final Regional Assistance Committee (RAC) Review of Revision 9
Dated April 28, 1988

NUREG-0654
Element

Review Comment(s)

Rating

J.10.d
(Cont'd)

The listing of noninstitutionalized mobility impaired individuals will be placed into LILCO computers to allow for updating and quick retrieval. The Special Facilities Evacuation Coordinator will have a print-out of the Invalid/Disabled Evacuation Listing to facilitate notification and the coordination of transportation equipment if relocation of these persons is necessary.

This directory of noninstitutionalized mobility impaired individuals which is maintained by LERO under separate cover would be examined by FEMA at an exercise of off-site emergency preparedness.

J.10.e

The provisions for use of KI for emergency workers are discussed. The plan (see page 3.6.5, lines 10-12) and procedures (see Procedure OPIP 3.6.2, Sections 5.1.1b, 5.1.1c, and 5.1.1d and 5.2) specify that each emergency worker who will enter the 10-mile EPZ will be issued one (1) KI tablet prior to being deployed to the field from the staging area to which he reported.

I

Procedure OPIP 3.6.2 (see Sec. 5.1.1 and Attachment 4) specifies that emergency workers will be issued KI by the Dosimetry Record Keepers at the Staging Areas and would be briefed not to swallow this KI tablet until told to do so by their LERO supervisor. However, OPIP 3.3.4, page 16c of 16, instructs Lead Traffic Guides to instruct the Traffic Guides to ingest KI prior to leaving the Staging Area or when a General Emergency is declared over the EBS station. In this case Traffic Guides would be instructed to take KI without an iodine dose equivalent being determined by LERO. OPIP 3.3.4 should be changed to specify that Traffic Guides would be instructed to take KI in the field or at the Staging Area by their supervisor.

Local Offsite Radiological Emergency Response Plan for Shoreham
Final Regional Assistance Committee (RAC) Review of Revision 9
Dated April 28, 1988

Page 52 of 90

NUREG-0654
Element

Review Comment(s)

Rating

J.10.e
(Cont'd)

Several issues involving emergency worker knowledge and use of KI were identified at the February 13, 1986 exercise. This element was rated inadequate because bus drivers used for school evacuation had not been trained in KI policy and the use of KI. Sufficient supplies of KI are not available for school evacuation Bus Drivers. In Procedure OPIP 3.2.2 page 3 of 11, there is a statement that only LERO Emergency Workers who will enter the EPZ should be given KI. However, KI is not listed as a component of the LERO School Bus Driver Assignment Packet which contains personal dosimetry and record-keeping cards (see Procedure OPIP 3.6.5 page 63 of 75 Attachment 14). KI is reported in Procedure OPIP 3.6.2 page 2 of 11 to be issued to emergency workers mobilized at the staging areas as described in the plan, section 4.5 page 4.5.-1). Provisions should be made to supply KI to LERO bus drivers used for school evacuation since these emergency workers are not mobilized at the staging areas.

LILCO's commitment to provide training and equipment for exposure control to school bus drivers is understood. However, it is not evident in the plan how these non-LERO workers are to be informed that they need to initiate the request to obtain training. It would appear that the issue of training has been resolved as LILCO states that it has mailed letters offering training to every non-LILCO organization mentioned in the LERO Plan that does not receive training. These letters however could not be located in the materials supplied. School bus drivers are listed in OPIP 5.1.1 (attachment 1, page 23 of 37 and page 27 of 37) for training in personnel dosimetry and exposure control.

Local Offsite Radiological Emergency Response Plan for Shoreham
Final Regional Assistance Committee (RAC) Review of Revision 9
Dated April 28, 1988

Page 53 of 90

NUREG-0654
Element

Review Comment(s)

Rating

J.10.e
(Cont'd)

The bottles of KI tablets have a thirty-six (36) month shelf life (or more if extended by FDA). Tablets are not to be issued if they are beyond their indicated expiration date. The Radiation Health Coordinator at the LERO EOC is to be contacted by the Staging Area dosimetry record keepers for replacement supplies if the stored KI is out of date (see Procedure OPIP 3.6.2, Section 5.1.1a). The bottles of potassium iodide are checked every three months as part of Emergency Equipment Inventory, OPIP 5.3.1 (see Procedure OPIP 3.6.2, Section 3.1 and Procedure OPIP 5.3.1, Section 5.4.2). Procedures OPIP 3.6.2, page 2 of 11, and OPIP 3.9.1, Attachment 1, provide that KI is to be stored in a locked storage area at the Staging Areas. KI is listed in the equipment inventories for the Staging Areas (see OPIP 5.3.1, page 4 of Attachments 9-11).

J.10.f

This element is rated inadequate for the same reason as element J.10.e of this review. Traffic Guides would be instructed to take KI without an iodine dose equivalent being determined by LERO. OPIP 3.3.4 should be changed to specify that Traffic Guides would be instructed by their supervisors to take KI by their supervisor (i.e., after a dose projection has been established).

Page 3.6-3 of the plan states that the PAG for use of KI as a thyroid blocking agent is a projected dose commitment of 10 rem to an emergency worker's thyroid. No provision is made for the general population which is consistent with New York State policy (see letter from J.L. Smith to Harold R. Denton, N.R.C. S.N.R. C-539 Attachment 1, page 4-J-10c clarification). The 10 rem PAG is considerably lower than the FDA Final Recommendation of 25 rem or greater projected thyroid dose commitment. It would appear that LILCO has taken the

Local Offsite Radiological Emergency Response Plan for Shoreham
Final Regional Assistance Committee (RAC) Review of Revision 9
Dated April 28, 1988

Page 54 of 90

NUREG-0654
Element

Review Comment(s)

Rating

J.10.f
(Cont'd)

more conservative lower limit of NCRP Report No. 55 (10-30 rem) or the original FDA draft recommendation (10-20 rem). Current FDA guidance (7/24/85 Federal Register) for use of KI is at 25 rem projected thyroid dose commitment; not 10 rem as provided in Procedure OPIP 3.6.2 (see Attachment 1, page 1 of 1).

The plan specifies that all LERO emergency workers will be taught about KI and its possible side effects during their training program. The plan states that if emergency workers have allergic reactions to iodide, they will be told not to take the KI tablet issued to them at the staging area.

In response to previous RAC comments, LILCO stated that it is company policy to direct anyone suspecting they are allergic to KI to see their physician (Section 3.9 of the plan page 3.9-1). If they are confirmed to be allergic to KI they are reassigned to positions outside of the EPZ.

Field measurements or dose projection model results must be used as the bases for determining when the distribution of KI to LERO emergency workers is to be initiated (see Procedure OPIP 3.6.2, Attachment 1, page 1 of 1 footnote).

J.10.g

The plan reflects the resources necessary for school or general evacuation including the number of buses to be used. Letters of agreement with the bus companies have been finalized and are contained in a separately-bound Appendix B (see comments: element C.4).

1

The public information brochure for residents lists nine nursery schools in the plume exposure EPZ that could not be located in Procedure OPIP 3.6.5, Attachments 3 and 3a. Therefore, the plan does not allot school buses for the evacuation of these nine schools and does not identify their relocation centers.

Local Offsite Radiological Emergency Response Plan for Shoreham
Final Regional Assistance Committee (RAC) Review of Revision 9
Dated April 28, 1988

NUREG-0654
Element

Review Comment(s)

Rating

J.10.g
(Cont'd)

With respect to school evacuation, the ASLB has expressed concern that there were not enough buses for a "one wave" evacuation of schools. In OPIP 3.6.5 Attachment 3a, LILCO identifies the number of buses required for evacuation of all schools in the E'Z, the number of buses that normally service these schools and the number of supplementary buses required for one wave evacuation (153). Further, LILCO identifies the names of the bus companies providing these supplementary buses, i.e., from this table a sufficient number of buses are available to transport students in "one wave." However, the letters of agreement between LILCO and these bus companies are not sufficient to definitely establish that these 153 buses will be available on a "first-call" basis as stated in Appendix A (p. II-20a). (See also comment for element C.4 in this review.) Only 5 bus companies have provided firm commitments to supply their buses on a "first call" basis. Of these 5 companies, only two are scheduled to provide supplementary buses for schools and these two are only scheduled to provide 25 of the 153 required supplementary buses. Therefore, the letters of agreement between LILCO and the remaining bus companies need to be completed to ensure that buses committed to other uses will be released to LILCO in the event of an emergency.

On page IV-180 of App. A it is stated that Table XIII C contains a list of the bus companies where buses for school evacuation are obtained. Although the table does not contain this information, it is contained in OPIP 3.6.4 Attachment 3 and OPIP 3.6.5 Attachment 3a. It is suggested that this information be added to Table XIII C of Appendix A.

Local Offsite Radiological Emergency Response Plan for Shoreham
Final Regional Assistance Committee (RAC) Review of Revision 9
Dated April 28, 1988

Page 56 of 90

NUREG-0654
Element

Review Comment(s)

Rating

J.10.g
(Cont'd)

Also with respect to school evacuation, the ASLB stated that they could not make a finding that a sufficient number of school bus drivers can be relied upon to perform their duties. In response to this, according to LILCO, the plan now provides enough LERO drivers to ensure 150% of total bus driver needs (App. A: II-20a). Trained LERO drivers will drive the supplementary buses and will be available to back up the regular school bus drivers. LERO school bus drivers will report directly to bus yards as pre-assigned (App. A: II-20a, OPIP 3.3.3, OPIP 3.6.5 Attachment 14). However, the plan does not enumerate how many school bus drivers are assigned to which bus yards. This numerical assignment should be provided.

The ASLB stated in effect that LILCO should have fulfilled the same planning obligations for possible hospital evacuation as for nursing/adult homes. Evacuation time estimates for the hospitals have now been provided. OPIP 3.6.4 also contains revisions to some procedures related to the hospitals and the one infirmary in the EPZ.

The plan indicates that hospitals would be evacuated with vehicles earlier used for evacuation of special facilities. As the hospitals are at the edge of the EPZ this seems reasonable. Based on a count from contracts for ambulances, 63 ambulances and 130 ambulettes are available as resources. The needs are listed as:

	<u>Ambulances</u>	<u>Ambulettes</u>	<u>Vans</u>
Home handicapped	13	9	8
*Facilities for handicapped	88	111	2

Local Offsite Radiological Emergency Response Plan for Shoreham
Final Regional Assistance Committee (RAC) Review of Revision 9
Dated April 28, 1988

NUREG-0654
Element

Review Comment(s)

Rating

J.10.g
(Cont'd)

*(Included in facilities for handicapped is the Suffolk Infirmary need for 1 bus, 65 ambulances, 9 ambulettes).

As Suffolk Infirmary is not to be evacuated with the general population there are adequate ambulances.

It is recommended that the utility prepare a comprehensive needs vs resources charts for the vehicles intended for relocation. This would be very useful.

Some inconsistencies exist between the number of buses available as shown in the letters of agreement for the Suburbia, Bruno, Coram, WE Transport and Towne bus companies and the maximum values shown in OPIP 3.6.4 Attachment 3. These should be clarified.

J.10.h

The present concept of operations regarding relocation centers for the general population has been to separate the reception and congregate care functions. Reception, monitoring and decontamination are to be conducted by LERO personnel at the LILCO operations centers in Bellmore, Hicksville, Roslyn. Evacuees requesting congregate care services will be directed to facilities operated for this purpose by the American Red Cross. (See Chapter 4, Sections 4.2 and 4.8, pages 4.2-1 and 4.8-1).

A

Procedure 4.2.3, Section 5.2.3 addresses congregate care centers. It requires that upon an evacuation recommendation for the general public, the Health Services Coordinator is to ensure that ARC has designated congregate care centers and that their locations have been transmitted to the reception centers. The Procedure recommends that the Hicksville Congregate Care Center be one of those designated. Section 4.8 of the plan states that LILCO will distribute maps to evacuees that show

Local Offsite Radiological Emergency Response Plan for Shoreham
Final Regional Assistance Committee (RAC) Review of Revision 9
Dated April 28, 1988

Page 58 of 90

NUREG-0654
Element

Review Comment(s)

Rating

J.10.h
(Cont'd)

how to get from reception centers to large LILCO and non-LILCO facilities chosen by ARC as congregate care centers. A list of non-LILCO candidate congregate care centers could not be located and in view of ARC's disavowal of the list in its 1984 letter (see App. B-10), it is not clear that the identity and location of non-LILCO congregate care facilities are known to LERO. Evidence of LERO's knowledge of the up-to-date list of potential ARC non-LILCO congregate care centers and maps showing how to get to those facilities from reception centers should be provided to FEMA.

School relocation centers are to be operated at Nassau County Community College and the Nassau County Veterans Memorial Coliseum. The Nassau County Executive's authorization for use of these facilities will be requested. (See plan, sec. 4.2.) The designation of these facilities resolved the issue of school reception centers raised by the ASLB.

The ASLB indicated concern that relocation centers had not been identified for all special facilities. In Revision 9, specific reception centers have been identified for nearly all special facilities in the EPZ (OPIP 3.6.5 Attachment 2). Some of the EPZ facilities will relocate to their own facilities outside the EPZ. Many special facilities will relocate to LILCO facilities. Whether these latter facilities would be adequate for a substantial stay by handicapped persons, nursing/adult home residents, and/or others will be evaluated in an exercise.

Reception centers for hospitals are not specified in the plan. Rather LILCO states that reception hospitals will be selected at the time of the emergency. *A list of potential reception hospitals should be provided in the plan.*

Local Offsite Radiological Emergency Response Plan for Shoreham
Final Regional Assistance Committee (RAC) Review of Revision 9
Dated April 28, 1988

Page 59 of 90

<u>NUREG-0654</u> <u>Element</u>	<u>Review Comment(s)</u>	<u>Rating</u>
J.10.i	<p>The projected traffic capacities of evacuation routes under emergency conditions are shown in Appendix A, Section III, Table IV, pages III-17-33a. The necessary studies have been completed, and adequately satisfy NUREG-0654 requirements.</p>	A
J.10.j	<p>The plan and procedures call for contacting the Coast Guard and FAA and requesting cooperation of these agencies for assistance (i.e., clearance of boats from Long Island Sound, restriction of aircraft activity, etc.). (Note: Procedure OPIP 3.6.3, Section 5.1 should direct the Evacuation Coordinator to contact the FAA as called for by the plan [see page 2.2-21]). The LERO Traffic Control Coordinator is responsible for coordinating the road logistic aspects for an evacuation and coordinating the maintenance of traffic control points for an evacuation. The locations of approximately 138 traffic control posts are specified in Appendix A, Section IV, Figure 8, pages IV-52-65.</p> <p>Provisions for access control, to limit access to evacuated areas, are contained in Appendix A, Section IV, Evacuation Procedures (see Traffic Control, page IV-5).</p>	A
J.10.k	<p>In response to an exercise issue, the plan has been revised to add a traffic engineer to the staff at the EOC to evaluate any possible impediments to evacuation and to make recommendations on necessary changes to evacuation routes in response to potential impediments. However, OPIP 3.6.3 contains no specific procedures to be followed by the Traffic Engineer. Such procedures need to be developed. (One RAC member dissented from the decision that the absence of specific procedures for the Traffic Engineer warrants a rating of inadequate.)</p>	I

Local Offsite Radiological Emergency Response Plan for Shoreham
Final Regional Assistance Committee (RAC) Review of Revision 9
Dated April 28, 1988

Page 60 of 90

NUREG-0654

Element

Review Comment(s)

Rating

J.10k
(Cont'd)

The means for dealing with potential impediments to evacuation are addressed in Section 3.6, page 3.6-6 of the plan, Procedure OPIP 3.6.3 and Appendix A, page IV-5. Provisions for the removal of cars by tow trucks are adequate.

The plan discusses the occurrence of adverse weather during evacuation (see Appendix A, page II-4).

The RAC in a previous review of the plan, indicated that pre-emergency planning for snow removal on the evacuation routes should be further developed to include administrative procedure, SOPs, etc. These procedures were recommended to ensure that the snow removal strategy would coincide with any evacuation scheme that might be chosen.

In response to the RAC recommendation, LILCO has identified the routes to be snowplowed during an evacuation in Attachment 16 to Procedure OPIP 3.6.3. The procedure (Sec. 5.1.8 of OPIP 3.6.3) specifies that local snow removal organizations (i.e., Suffolk County and New York State Departments of Public Works) will be notified of these road clearing priorities by the Evacuation Coordinator (or designee) in the event an evacuation recommendation is to be implemented during, or immediately following a snowfall. However, the *Towns of Brookhaven and Riverhead* are also listed in Attachment 16 and should also be notified.

Assuming that State and local officials will exercise their best efforts to protect the health and safety of the public, will cooperate with the utility, and have the resources necessary to remove snow (per NUREG-0654/FEMA-REP-1, Rev. 1, Supp. 1) and assuming that the government units will plow the roads in the priority in which they are listed, this activity is now adequately addressed.

Local Offsite Radiological Emergency Response Plan for Shoreham
Final Regional Assistance Committee (RAC) Review of Revision 9
 Dated April 28, 1988

NUREG-0654
Element

Review Comment(s)

Rating

J.10.k
 (Cont'd)

Procedures for field workers, i.e., bus drivers, traffic guides, etc., have been modified to include instructions to make prompt notifications through their communication network of any potential impediment. Provisions have been made to issue an EBS message in the event that changes to evacuation routes are necessary.

Internal communications within the LERO EOC regarding assessment of a response to evacuation impediments has been adequately addressed through modification to the procedures (esp. OPIP 3.6.3, Traffic Control). The Evacuation Route Coordinator is responsible for obtaining periodic updates from the Evacuation Route Spotters, and for immediately reporting road impediments or other problems to the Traffic Control Coordinator and Road Logistics Coordinator (see OPIP 3.6.3, Section 5.6.2). Lead Traffic Guides (at the staging areas) are to report all traffic problems to the EOC (see OPIP 3.6.3, Section 5.4.10).

J.10.l

The presentation of time estimates for evacuation of various sectors in Appendix A, Table XV, page V-8 conforms with the preferred format for presenting the data and results for the following types of evacuation:

A

Conditions

Normal Adverse

Permanent population	x	x
Transient population	x	x
General population	x	x
Special population	x	x
Hospital population	x	x

The time for confirmation of evacuation is outlined on page V-9 in Appendix A. This reference is noted on Table XV, Summary of Results of Evacuation Times Analysis, in Appendix A.

Local Offsite Radiological Emergency Response Plan for Shoreham
Final Regional Assistance Committee (RAC) Review of Revision 9
Dated April 28, 1988

Page 62 of 90

NUREG-0654

Element

Review Comment(s)

Rating

J.10.m

According to page 3.1-1 and page 4.1-2 of the plan, the LERO Director of Local Response, in conjunction with the Radiation Health Coordinator, formulate the protective action decisions.

A

Section 3.6 of the Plan, pages 3.6-3-4, discusses the bases for the choices of recommended protective actions. Shielding factors for structures based on Sandia Report SAND 77-1725 are used (see Table 3.6.5) as well as evacuation time estimates. Section 5 of Procedure 3.6.1 contain the algorithms used for dose assessment calculations, which have been programmed in the ACCDOS program. The dose assessment function at the local EOC performs these calculations and shows the results to the Radiation Health Coordinator for interpretation.

A Nuclear Engineer has been added to the LERO emergency response staff (see comment for element I.8, above). The Nuclear Engineer is stationed at the EOF to liaison with SNPS personnel at the EOF or TSC and to evaluate plant status as part of the development of protective action recommendations (see Procedure OPIP 2.1.1, page 12b of 79). Coordinated response with the Evacuation Coordinator has been integrated into the decision-making process (see page 3.6-4 of the plan).

J.11

Procedure OPIP 3.6.6 contains worksheets for calculating whether PAGs have been exceeded for milk, produce and other foods (Attachments 3-5). The worksheets for milk and Section 5.1.1.3 (page 1b of 57) indicate that protective PAs can be recommended when milk and concentrations in pasture, ground deposition activity level, and the derived response level. This is consistent with the federal guidance (47 FR 47074, 1982) for protective PA's listed.

I

Local Offsite Radiological Emergency Response Plan for Shoreham
Final Regional Assistance Committee (RAC) Review of Revision 9
Dated April 28, 1988

Page 63 of 90

NUREG-0654
Element

Review Comment(s)

Rating

J.11
(Cont'd)

Federal guidance (FEMA-REP-11) states that written public instruction material directed at farmers, food processors, and distributors be disseminated during an emergency in a timely manner. Reference to dissemination of written public instruction material to this audience could not be located (see comments G.1a-e).

Section 3.6, page 3.6-8 of the plan states that coordination of ingestion exposure pathway EPZ sampling and dose assessment activities will be a responsibility of the LERO Radiation Health Coordinator. The Director of Local Response is responsible for decision-making regarding protective action recommendations (PARs). In accordance with the Federal Radiological Emergency Response Plan (FRERP), the federal government will assist LERO in developing and implementing protective actions with respect to impoundment, decontamination, processing, decay, product diversion, and preservation. Under the aegis of FRERP, USDA, DOE and HHS will assist LERO in developing and implementing the ingestion pathway protective actions.

Procedure OPIP 3.6.6 contains ingestion pathway procedures, PAGs, protective action (PA) worksheets, and agricultural resource information (in Attachment 9-16c) such as listings of dairy farms, duck growers, beef farms, vegetable and fruit growers, food processing plants in New York. Because Connecticut is committed to collecting samples and interdicting food, water, and milk within the ingestion pathway EPZ, as required, within Connecticut (see App. B-72), it is assumed that OPIP 3.6.6 does not contain agricultural resource information for Connecticut. A reference to the Connecticut radiological emergency response plan should be made.

Local Offsite Radiological Emergency Response Plan for Shoreham
Final Regional Assistance Committee (RAC) Review of Revision 9
Dated April 28, 1988

Page 64 of 90

NUREG-0654
Element

Review Comment(s)

Rating

J.11
(Cont'd)

Procedure OPIP 3.6.6 lists preventive PAs and emergency PAs for the ingestion pathway (see Attachments 7 and 8). Discussion of the distinction between preventive and emergency PAs is found on page 3.6-2 of the plan. PAs are not appropriate if the negative social, economic and other health effects outweigh the expected dose reductions. Section 1.0 of OPIP 3.6.6 states "It is intended that sound judgment and personal assessment of the progress of events will be supplemented with the guidance found in this procedure." A clearer, more explicit statement that these negative factors will be considered in recommending ingestion pathway PAs is in order.

The plan is now specific in imposing ingestion pathway protective procedures for food, milk, water and livestock feed control. This includes USDA support under FRERP. Within New York State, the primary means of food control would be voluntary, based on radio messages (see Plan, Chapter 3, Section 3.6, page 3.6-8 and page 3.6-8a) and telephone calls to food producers, processors and distributors indicating that LILCO will compensate for food that is not salvagable (see Procedure OPIP 3.6.6, Section 5.4.2.3 and Attachment 18). The SNPS 50 mile ingestion pathway EPZ extends into Connecticut. Upon notification by LILCO, Connecticut will provide an ingestion pathway emergency response within their boundaries, as described in a letter from the State of Connecticut.

Procedure 3.6.6 places primary reliance on New York and Connecticut for implementing PARs formulated by LERO (see Section 5.1.3.6). If the state officials are unable to do so, then it is the responsibility of Radiation Health Coordinator with the cooperation of the Environmental Survey Function, the Dose Assessment Function, and the

Local Offsite Radiological Emergency Response Plan for Shoreham
Final Regional Assistance Committee (RAC) Review of Revision 9
Dated April 28, 1988

Page 65 of 90

NUREG-0654
Element

Review Comment(s)

Rating

J.11
(Cont'd)

DOE-RAP (BHC) Captain to do so (see Section 5.4). The Radiation Health Coordinator will formulate appropriate messages and affected facilities will be notified by telephone by a battery of "communicators." The Director of Local Response will direct the Public Information Coordinator to inform the public of PARs.

The plan correctly names FDA and USDA as the Federal agencies to request aid regarding food interdiction (Chapter 3, Sec. 3.6, p. 3.6-8, line 47).

Four ingestion pathway maps are now referenced which include all of the 50-mile ingestion pathway EPZ (see Procedure OPIP 3.6.6, page 1n of 50, and page 4 of 50, Sec. 5.7). The plan (see page 3.6-8a) states that the facilities identified in attachments to Procedure OPIP 3.6.6 are plotted on these maps (only facilities in New York State are listed in these attachments). *It is unclear whether the ingestion pathway maps identify the location of facilities in Connecticut.* There are U.S. Geological Survey topographic maps for New York for recording surveying and monitoring data. The plan now includes references to data sources for water resources, dairies, farms and food processing plants in New York State. Ingestion pathway and topographic maps of 50-mile EPZ are housed at the local ECC (see Plan, page 3.6-8a; Procedure OPIP 3.6.6, Sections 5.1.1.2, 5.1.2.3, 5.1.3, 5.4, 5.4.1, 5.7, 5.8, 7.0, and Attachment 19).

Procedure OPIP 3.6.6 makes reference (page 5 of 50) to Procedure OPIP 3.5.3, which does not exist.

Local Offsite Radiological Emergency Response Plan for Shoreham
Final Regional Assistance Committee (RAC) Review of Revision 9
Dated April 28, 1988

Page 66 of 90

NUREG-0654
Element

Review Comment(s)

Rating

J.12

The plan provides for school children being directly transported to school relocation centers at the Nassau County Community College and the Nassau County Veterans Memorial Coliseum in the event of an evacuation. School children would be reunited with their parents at the school relocation center. Procedure OPIP 3.6.5, page 19 of 75, emphasizes that this procedure will allow school children to be reunited with their parents at the earliest opportunity. However, if there has been a radiological release, direct transport to the school relocation centers without prior personal radiological monitoring and decontamination, if necessary, subjects the school children to risk of unnecessary exposure. For example, contaminated clothes will continue to irradiate the wearer and may contaminate others. Parents after being reunited with their children may not drive them to reception centers for personal radiological monitoring and we could not locate in the plan that parents would be instructed to do so.

I

The LERO Reception Centers are designated as three (3) LILCO facilities located in Bellmore, Hicksville and Roslyn. The adequacy of these facilities as reception centers will be evaluated at an exercise.

The plan (Section 3.9, page 3.9-5 and Procedure OPIP 3.9.2, Section 5.5) specifies that evacuees arriving at the reception centers will be monitored within approximately 12 hours. A Traffic Guide will take a smear swipe of the automobile and two monitors will check for radiation on all automobile passengers. Attachment C to Procedure OPIP 3.9.2 gives a trigger level for declaring items contaminated. If no contamination is found above acceptable limits a "clean tag" will be attached to the car. Procedures (OPIP 3.9.2, Section 5.6) are also in place for monitoring incoming bus evacuees and separating contaminated and non-contaminated persons. All general population evacuees arriving on buses provided by LERO will be monitored on the bus by monitors working in the aisle of the vehicle (see OPIP 3.9.2, Section 5.6.3.4).

Local Offsite Radiological Emergency Response Plan for Shoreham
Final Regional Assistance Committee (RAC) Review of Revision 9
Dated April 28, 1988

Page 67 of 90

NUREG-0654
Element

Review Comment(s)

Rating

J.12
(Cont'd)

Bus evacuees, private vehicles and passengers that have contamination above acceptable limits will be directed to a decontamination area. Evacuees will be directed to trailers where they will be monitored for surface and thyroid contamination in accordance with procedures specified in OPIP 3.9.2. Trailers are equipped with sinks and showers to perform decontamination and paper clothing is available. All waste water from the decontamination trailers will be collected and contained in collapsible storage tanks. These tanks are sized to enable full-flow operations of the trailers for 24 hours. Upon termination of the emergency, all potentially contaminated liquid and solid waste will be transported to the plant for disposition (see Section 4.2.B, page 4.2-1). Evacuees will be issued "clean tags" when they have been remonitored and determined not to have contamination above acceptable levels. Provisions are also in place for transfer of evacuees that have non-removable contamination to hospitals (plan Section 3.9, page 3.9-5).

Monitoring personnel notification and deployment is included as part of the Standby and Mobilization Procedures set forth in OPIP 3.3.3, Attachment 1 and Attachment 2, part G.b.

Monitoring stations and staff capabilities have been developed for accommodating over 30% of the estimated EPZ vehicles during the summer period. Should the demands for monitoring exceed these capabilities, plans are in place for developing additional monitoring stations and acquiring trained monitors and equipment from DOE and the Institute for Nuclear Power Operators (INPO). If these resources are insufficient and it is expected to still take more than 12 hours to monitor the population, the reception center personnel will be directed to monitor only the vehicle and driver of the cars in which two or more persons traveled together. These measures are in compliance with Federal

Local Offsite Radiological Emergency Response Plan for Shoreham
Final Regional Assistance Committee (RAC) Review of Revision 9
Dated April 28, 1988

Page 68 of 90

NUREG-0654
Element

Review Comment(s)

Rating

J.12
(Cont'd)

Guidances which allows for the development of ad hoc measures if more than 20% of the estimated EPZ population to be evacuated in a radiological emergency (see Section 3.9, page 3.9-8).

Procedure OPIP 4.2.3 provides details regarding the activation, layouts with diagrams of monitoring station positions, and operation of the reception centers. Procedure 3.9.2 establishes the procedures for the monitoring/decontamination of evacuees (and emergency workers). The effectiveness of the reception center and procedures used to monitor/decontaminate evacuees at these locations will be evaluated at an exercise.

Procedure OPIP 3.9.2, page 13 of 52 calls for an initial car survey with the HP 210 or 260 probe to be considered contaminated at 0.1 mR/hr (360 CPM) but when later monitoring is performed the acceptable contamination level is actually higher (0.3 mR/hr [1360 CPM] - HP 270) page 26 of 52. This procedure is appropriate only if the second monitoring is done after decontamination of the vehicle.

Procedure OPIP 3.9.2 avoids the possibility of a contaminated person entering the relocation center. "Clean" and "contaminated" tags have been added to Procedure OPIP 3.9.2 (see Attachments 5 and 6) to ensure that potentially contaminated persons will be kept separate from monitored individuals who have been admitted to the relocation center for mass care. Individuals found to be clean following monitoring and decontamination will be issued a "clean" tag and be required to sign out before being directed to the mass care facilities operated by the American Red Cross at the Relocation Centers.

According to Procedure OPIP 3.9.2, Section 5.1.5, all completed monitoring and decontamination forms will be collected at the reception centers by the Decontamination Coordinator and returned to the EOC and filed.

Local Offsite Radiological Emergency Response Plan for Shoreham
Final Regional Assistance Committee (RAC) Review of Revision 9
Dated April 28, 1988

NUREG-0654
Element

J.12
(Cont'd)

Review Comment(s)

Rating

Nowhere in the decontamination procedures for evacuees is it mentioned that decontamination efforts should be halted if the skin becomes abraded or broken. No precautions that the decontamination procedure may cause such problems are mentioned (OPIP 3.9.2 pg 15 of 52).

The policy for American Red Cross involvement in a possible peacetime accident is within the Administrative Regulations (ARC 3003) which states in part:

"In disasters with company or owner liability implications, the customary emergency services are extended on either a mass care basis or to individuals or families, if such help is not or cannot be provided immediately by the owner of the property..."

This policy has been incorporated into statements of understanding between states and the American Red Cross:

"Peacetime Radiological Emergency/Nuclear Accidents"

"In the case of peacetime radiological emergencies/nuclear accidents, which have company or owner implications, the American Red Cross will conduct shelter and feeding operations in centers and facilities designated in advance by the (name of agency) under arrangements worked out among the (name of agency), the American Red Cross and the officials or owners of the building."

Red Cross Responsibilities

1. Sheltering and feeding of relocatees in shelters and feeding centers at least a ten mile radius from the point of the nuclear emergency.
2. To the extent that it has staff available beyond its primary responsibilities, above, assist government and other agencies responsible for aid stations, registration of relocatees, communications and transportation.

Local Offsite Radiological Emergency Response Plan for Shoreham
Final Regional Assistance Committee (RAC) Review of Revision 9
 Dated April 28, 1988

NUREG-0654

<u>Element</u>	<u>Review Comment(s)</u>	<u>Rating</u>
----------------	--------------------------	---------------

J.12
 (Cont'd)

At this time, LILCO does not have written agreements for a sufficient number of buildings beyond the ten mile radius for sheltering and feeding of relocatees.

Special populations will be monitored and decontaminated at reception facilities located at the Emergency Worker Decontamination Facility (EWDF) in Brentwood and the Staging Areas in Port Jefferson, Patchogue and Riverhead. According to Figure 2.1.1, the following monitoring and decontamination personnel are assigned to these locations:

- Brentwood Emergency Worker Decontamination Facility - 45 Monitoring/decon. personnel
- Port Jefferson Staging Area - 5 Dosimetry Record Keepers
- Patchogue Staging Area - 5 Dosimetry Record Keepers
- Riverhead Staging Area - 6 Dosimetry Record Keepers

All Health Care special facilities including Nursing/Adult homes are assigned to the predesignated monitoring locations and to predesignated relocation (i.e., congregate care) centers. The special populations are assigned to the monitoring locations as follows:

<u>Facility</u>	<u>Special populations (Number)</u>
Brentwood EWDF	1641*
Port Jefferson Staging Area	0
Patchogue Staging Area	483*
Riverhead Staging Area	186

*includes preschool population assigned to these facilities.

Local Offsite Radiological Emergency Response Plan for Shoreham
Final Regional Assistance Committee (RAC) Review of Revision 9
Dated April 28, 1988

Page 71 of 90

NUREG-0654
Element

Review Comment(s)

Rating

J.12
(Cont'd)

According to information provided by LILCO with its submission of Rev. 9, sufficient personnel are available to monitor the special population evacuees at approximately the same rate at which they arrive at the monitoring locations.

In the event it becomes necessary to evacuate hospitals, these populations will be monitored at reception hospitals "to be selected at time of emergency" (see OPIP 3.6.5, Attachment 2). Although it would be preferable to have hospital reception centers preassigned in the procedures, current plans to arrange these facilities at the time of the emergency are reasonable in view of the fact that any evacuation of hospitals would be carried out under the direction of the Hospital Administrator(s) responsible for those institutions. (See comments element J.10.h.)

In the event it becomes necessary to evacuate the approximately 28,000 public, parochial and nursery school children in the Shoreham EPZ, school relocation centers have been designated at the Nassau County Community College and the Nassau County Veterans Memorial Coliseum in Uniondale. These two facilities have a combined capacity of approximately 32,000 and would be activated to hold the children until they can be reunited with their families. The Director of Local Response will be responsible for contacting the Nassau County Executive and obtaining permission to use these facilities if needed.

Local Offsite Radiological Emergency Response Plan for Shoreham
Final Regional Assistance Committee (RAC) Review of Revision 9
Dated April 28, 1988

Page 72 of 90

<u>NUREG-0654</u> <u>Element</u>	<u>Review Comment(s)</u>	<u>Rating</u>
K.	<u>Radiological Exposure Control</u>	
K.3.a	<p>Section 3.9, page 3.9-2 of the plan states that all emergency response personnel will be issued self-reading pocket dosimeters (typically 0-200 mR and 0-5 R) and TLDs. All emergency workers with the exception of school bus drivers report to emergency worker staging areas, or other facilities where Record Keepers maintain emergency worker dose records. The LERO Dosimetry Coordinator is responsible for maintaining exposure control records on a 24-hour per day basis.</p> <p>The plan clarifies that the dosimeters will be zeroed at the staging areas, and that the chargers will not be taken into the field (Chapter 3, Section 3.9, page 3.9-2, lines 6-12).</p> <p>Procedure OPIP 3.9.1, Attachment 7 indicates that dosimeters must be zeroed and then distributed.</p> <p><i>However, in Procedure OPIP 2.1.1, p. 14 of 79, Record Keepers, paragraph C, reference to the Record Keepers calibrating dosimeters should be deleted, as they do not have the capability to perform such calibrations, rather, they zero the dosimeters.</i></p> <p>Procedure OPIP 3.9.1 now correctly states that emergency workers are directed to notify supervisors at 3.5R and to leave posts at 5R.</p> <p>The numbers and types of dosimeters and the numbers of TLDs available are listed in the inventory master listing in OPIP 5.3.1 (e.g., on page 26 of 90, for the Patchogue staging area). It would appear that an adequate number of thermoluminescent detectors and low- and mid-range dosimeters are available for all LERO workers.</p>	A

Local Offsite Radiological Emergency Response Plan for Shoreham
Final Regional Assistance Committee (RAC) Review of Revision 9
Dated April 28, 1988

Page 73 of 90

NUREG-0654

Element

Review Comment(s)

Rating

K.3.a
(Cont'd)

Several issues involving emergency worker knowledge and use of dosimetry were identified at the February 13, 1986 exercise. This element had previously been rated inadequate because dosimetry and training were not provided to the Bus Drivers used for school evacuation.

- (1) Bus Drivers used for school evacuation should be trained in the use of dosimeters.
- (2) Adequate supplies of dosimetry should be provided for Bus Drivers used for school evacuation.

LILCO's commitment to provide training and equipment for exposure control to school bus drivers is understood. However, it is not evident in the plan how these non-LERO workers are to be informed that they need to initiate the request to obtain training. It would appear that the issue of training has been resolved as LILCO states that it has mailed letters offering training to every non-LILCO organization mentioned in the LERO Plan that does not receive training. These letters however could not be located in the materials supplied. School bus drivers are listed in OPIP 5.1.1 (attachment 1, page 23 of 37 and page 27 of 37) for training in personnel dosimetry and exposure control.

The LERO School Bus Driver Procedure, OPIP 3.6.5, Attachment 14, provides for distribution of dosimetry (but not KI) to LERO School Bus Drivers at bus yard dispatcher's offices. Each LERO School Bus Driver is to obtain there an Assignment Packet that includes two DRDs, a TLD, and an Emergency Worker Dose Record Form. This procedure (step 5) directs them to check the readings on the DRDs and to zero the DRDs if necessary. Each bus yard is

Local Offsite Radiological Emergency Response Plan for Shoreham
Final Regional Assistance Committee (RAC) Review of Revision 9
Dated April 28, 1988

Page 74 of 90

NUREG-0654
Element

Review Comment(s)

Rating

K.3.a
(Cont'd)

equipped with two DRD chargers. As some bus yards provide up to 150 buses, it is not clear that two chargers are sufficient. There are sufficient inventories at the bus yards to supply dosimetry to one emergency worker per bus (see Procedures OPIP 5.3.1, Attachments 13-32 and OPIP 3.6.4, Attachment 3). If many buses have both a LERO and a regular School Bus Driver the inventory may be inadequate. It is not clear that regular School Bus Drivers are given procedures similar to the LERO School Bus Driver Procedures so that they have been refreshed on radiological exposure control. School bus drivers have been included in the LERO classroom training matrix (OPIP 5.1.1, Attachment 1), but they are not included in the drill matrix for dosimetry/exposure (OPIP 5.1.1, Attachment 2.)

K.3.b

The LERO School Bus Driver Procedure, OPIP 3.6.5, Attachment 14, direct them to report directly to bus yards to obtain an Assignment Packet that includes dosimetry and an Emergency Worker Dose Record Form (see Procedure OPIP 3.9.1, Attachment 2). OPIP 3.6.5, Attachment 14 does not instruct School Bus Drivers to read their dosimetry approximately every 15 minutes while in the field. The Emergency Worker Dose Record Form does not do so. School Bus Drivers do not receive briefings from Dosimetry Record Keepers that instruct them to do so. Page 3.9-2 of the plan indicates that emergency workers are instructed to read their DRDs at 15 minute intervals; however, we could not locate procedures for ensuring that School Bus Drivers read their dosimeters at such frequencies. School Bus Drivers have been included in the LERO classroom training matrix (OPIP 5.1.1, Attachment 1), but they are not included in the drill matrix for dosimetry/exposure (OPIP 5.1.1, Attachment 2.)

I

Local Offsite Radiological Emergency Response Plan for Shoreham
Final Regional Assistance Committee (RAC) Review of Revision 9
Dated April 28, 1988

Page 75 of 90

NUREG-0654
Element

Review Comment(s)

Rating

K.3.b
(Cont'd)

Section 3.9, page 3.9-2 of the plan states that each person performing emergency service functions inside affected areas are (sic) instructed to take dosimeter readings at 15-minute intervals. Emergency Worker Dose Record and Emergency Worker Exposure Record forms are contained in Section 3.9 and the former is also in Procedure OPIP 3.9.1. Section 3.9.A, page 3.9-3 of the plan states that emergency worker dose records will be maintained at the local EOC.

K.4

School bus drivers have been included in the LERO classroom training matrix (OPIP 5.5.1, attachment 1), but they are not included in the drill matrix for dosimetry/exposure (OPIP 5.1.1, attachment 2). While LERO has established a decision chain, they have not made adequate provisions for giving training to those non-LERO emergency workers and providing them with knowledge in regard to contacting their supervisory personnel so that proper authorization gets to them.

I

The plan provides for emergency workers to be trained to inform their immediate supervisor if the reading on their low range dosimeter goes beyond the 200 mR that it will register and read the 0-5 R dosimeter. At a reading of 3.5 R, workers are to inform their immediate supervisor, request further instructions and prepare to be relieved; when directed by their superior or a reading of 5 R, they will return to the Emergency Worker Decontamination Center (pages 3.9-2 and 3 of the plan). Procedure OPIP 3.9.1, Attachment 2, correctly directs an emergency worker to leave the EPZ immediately if the 0-5R dosimeter reads 5R or greater. The plan should be clarified to remove the impression that an emergency worker could be authorized by an immediate supervisor to remain in the EPZ with an off-scale 0-5R dosimeter. The Director of Local Response, as advised by the Radiation Health Coordinator, is responsible for authorizing exposures in excess of the EPA General Public PAGs. The guidelines are in keeping with EPA PAGs.

Local Offsite Radiological Emergency Response Plan for Shoreham
Final Regional Assistance Committee (RAC) Review of Revision 9
Dated April 28, 1988

Page 76 of 90

NUREG-0654

Element

Review Comment(s)

Rating

K.4
(Cont'd)

It should be noted that the plan indicates with respect to some emergency personnel (local law enforcement, fire, and snow removal personnel; reference page 2.2-7) that if no training is provided prior to an emergency event, LERO will designate LERO personnel trained in radiation fundamentals and dosimetry to accompany personnel performing their duties within restricted areas. These LERO personnel will provide dosimetry and ensure that they do not receive doses in excess of the Protective Action Guides for the general public. The plan does not explicitly state that this provision applies to school bus drivers however.

K.5.a

The plan specifies use of CPM for all "probe shield open" readings (see Table 3.9.1).

A

Action levels for determining the need for decontaminating individuals and proper procedures are adequately specified. Procedure OPIP 3.9.2 and Table 3.9.1 of the plan provide consistent guidance.

K.5.b

Page 3.9-4, line 39 and page 4.3-2, line 5 of the plan and Procedure OPIP 3.9.2 (Section 5.8.1-C) state that any emergency worker with thyroid contamination resulting in readings in excess of .13 mR or 150 CPM, will be sent to a designated hospital for further medical treatment. The plan consistently uses 0.13 mR or 150 CPM as the thyroid contamination level.

A

Some information and procedures for dealing with contaminated solid and liquid waste are contained in the plan. (Section 5.0, 5.1.7 - 5.1.9) (OPIP 3.9.2, section 5.9.9; OPIP 3.10.1; Section 4.2.b). The effectiveness of these procedures will be evaluated in an exercise.

Local Offsite Radiological Emergency Response Plan for Shoreham
Final Regional Assistance Committee (RAC) Review of Revision 9
Dated April 28, 1988

Page 77 of 90

NUREG-0654
Element

Review Comment(s)

Rating

K.5.b
(Cont'd)

No instructions are given for what to do with an essential car which is contaminated above the limits after 3 decontamination attempts.

The decontamination equipment list is contained in attachment 4 of Procedure OPIP 5.3.1, and the plan references this list (see Chapter 4, Section D, 4.3, pages 4.3-1 and 4.3-2).

First-aid kits have been placed at the Emergency Worker Decontamination Facility (EWDF) and at the primary Relocation Centers, Reception Centers, and vehicles (OPIP 5.3.1, attachment 4; Chapter 4, Section 4.3, A, page 4.3-1, lines 28-32 and page 4.4-3, lines 18-20; OPIP 5.3.1, Attachments 2, 7, and 12).

L.

Medical and Public Health Support

L.1

Provisions are adequately described for hospital and medical services with the capability for handling contaminated or exposed persons.

A

The Brunswick Hospital Center in Amityville is the primary hospital for contaminated, injured members of the public and the V.A. Medical Center in Northport and the Nassau County Medical Center in East Meadow will be used as backups. LERO workers can also be assigned to Central Suffolk Hospital. Additional Long Island facilities that are accredited for treatment of contaminated individuals are listed in Procedure OPIP 4.2.2, Attachment 1 (see also Section 2.2 page 2.2-8 and Sec. 3.7 pages 3.7-1 and 3.7-2).

Local Offsite Radiological Emergency Response Plan for Shoreham
Final Regional Assistance Committee (RAC) Review of Revision 9
Dated April 28, 1983

NUREG-0654
Element

Review Comment(s)

Rating

L.1
(Cont'd)

Brunswick General Hospital has agreed (App. B-86) to act as the primary facility for members of the general public who become injured and contaminated. Central Suffolk Hospital (App. B-75) has agreed to serve as the primary care facility to treat injured or injured and contaminated individuals from SNPS or LERO (see plan Section 2.2 page 2.2-8).

L.3

A new list of hospitals capable of treating contaminated/injured individuals, with the number of beds available, has been incorporated in Procedure OPIP 4.2.2 (Attachment 1, pages 1-7).

A

The plan has been revised to include in Section 3.7, reference to the list of hospitals capable of treating contaminated/injured individuals contained in Procedure OPIP 4.2.2, Attachment 1.

L.4

When contaminated/injured persons are not located at a LILCO facility, the Emergency Medical/Public Service Coordinator will contact the police or local volunteer ambulance and rescue company (OPIP 4.2.2 page 5 of 13). A list of ambulance and rescue companies is contained in Procedure OPIP 3.1.1 Attachment 11, page 1 of 1 (see also 3.7 page 3.7-1). The assumption that local police, ambulance, and rescue units will respond is in accordance with Section I.D. of NUREG-0654/FEMA-REP-1, Rev. 1, Supp. 1.

A

Local Offsite Radiological Emergency Response Plan for Shoreham
Final Regional Assistance Committee (RAC) Review of Revision 9
Dated April 28, 1988

Page 79 of 90

<u>NUREG-0654</u> <u>Element</u>	<u>Review Comment(s)</u>	<u>Rating</u>
M.	<u>Recovery and Reentry Planning and Postaccident Operations</u>	
M.1	<p>Section 3.10, pages 3.10-1 and 2 and Section 3.11, pages 3.11-1 and 2 of the plan and Procedure OPIP 3.10.1 discuss Re-entry and Recovery. Procedure OPIP 3.10.1 provides for participation of the following agencies/organizations on the Recovery Action Committee if they are available.</p> <ul style="list-style-type: none">• FEMA representative• DOE representative• EPA representative• State representative• County representative <p>The Manager of Local Response will chair the Recovery Action Committee that will assist State and county officials to plan and implement actions for the restoration of the affected to their pre-emergency conditions. Recovery operations includes determination of whether all utilities are functioning, that food supplies are adequate, and that the evacuation effects on public health and sanitation are mitigated.</p> <p>General plans for recovery and reentry have been developed which take into account the engineering evaluation of plant conditions as well as radiological conditions (see comments for elements 1.8, J.10.m, and O.4.b). The plan includes a Nuclear Engineer who will review plant conditions (see Procedure OPIP 3.10.1, Section 5.0, 5.11, g). This individual is assigned as a member of the Recovery Action Committee and is responsible for emergency status evaluation of the plant.</p>	A

Local Offsite Radiological Emergency Response Plan for Shoreham
Final Regional Assistance Committee (RAC) Review of Revision 9
Dated April 28, 1988

Page 80 of 90

NUREG-0654
Element

Review Comment(s)

Rating

M.1
(Cont'd)

Procedure OPIP 3.10.1, Sections 5.4.4 and 5.4.5 considers procedures for recovery when sheltering may have been recommended.

EPA is listed as the cognizant Federal agency responsible for coordinating the intermediate and long term radiological monitoring after the initial phases of an emergency (see plan, Chapter 3, Section 3.11, page 3.11-1, lines 34-39; also, Procedure OPIP 3.10.1, Section 5.3.8).

M.3

According to the Plan (see Section 3.11 P. 3.11-1-2), the Health Services Coordinator has primary responsibility for coordination with State and county officials, for recommending protective actions; for overseeing the total related radiological program; and for modifying, relaxing and discontinuing protective actions. Long term operations are comprised of the establishment of Federal assistance, a radiation monitoring program and a medical follow-up after protective actions are relaxed.

A

The Director of Local Response is responsible for initiating and approving recovery/re-entry operations and directs the formation of the Recovery Action Committee. The Manager of Local Response is the Chairman of the Recovery Action Committee and is responsible for implementing recovery/re-entry procedures and for managing communications (see Procedure OPIP 3.10.1, Sections 2.0, 5.1, 5.2, 5.3.4 and 5.3.7).

Local Offsite Radiological Emergency Response Plan for Shoreham
Final Regional Assistance Committee (RAC) Review of Revision 9
Dated April 28, 1988

Page 81 of 90

NUREG-0654

<u>Element</u>	<u>Review Comment(s)</u>	<u>Rating</u>
M.3 (Cont'd)	Procedure OPIP 3.10.1 provides decision-making guidance for the initiation of recovery operations including the implementation of evacuee re-entry into evacuated areas and guidance for the information and operation of the Recovery Action Committee. Initial recovery actions include Ingestion Pathway Sampling under the director of the Radiation Health Coordinator.	
M.4	Section 3.10 of the plan and OPIP 3.10.1, Section 5.3.2, provide for the completion of radiation field surveys to determine whether contamination levels in an evacuated area are within acceptable limits for reentry of the public into formerly contaminated areas. The plan has been revised to include a procedure for calculation of total population dose, and is referenced in Chapter 3, Section 3.10, b/ e, page 3.10-2. Procedure OPIP 3.10.2 documents the procedure to be used by the Radiation Health Coordinator to calculate total population dose.	A
N.	<u>Exercises and Drills</u>	
N.1.a	The plan describes the purpose, scope, frequency and procedures for exercises (Sec. 5.1, p. 5.1-3; Sec. 5.2, p. 5.2-1; and OPIP 5.1.1, pp. 19 and 20). The plan states that an exercise shall simulate an emergency that results in offsite radiological releases which would require the overall emergency response capabilities of SNPS and LERO.	A

Local Offsite Radiological Emergency Response Plan for Shoreham
Final Regional Assistance Committee (RAC) Review of Revision 9
Dated April 28, 1988

Page 82 of 90

NUREG-0654

Element

Review Comment(s)

Rating

N.1.a
(Cont'd)

The plan lists the following emergency response capabilities to be tested, at a minimum, in an exercise: command and control; communications; radiological assessment; protective action recommendations; public information activities; fire, medical, security and traffic control activities; initial notification; and recovery and reentry (OPIP 5.1.1, p. 20). "Each exercise will test the overall emergency response capabilities of SNPS respond to an emergency that results in offsite radiological releases and will be conducted as set forth in NRC and FEMA rules" (OPIP 5.1.1, Section 5.3.2, p. 20).

"An emergency response exercise will be conducted prior to adoption of this plan and at least once every two years depending on federal guidelines" (Section 5.2, p. 5.2-1).

N.1.b

The plan does establish the means for mobilizing LERO personnel and resources that would be adequate to verify the capability to respond to an accident scenario requiring response. The plan states that an exercise will demonstrate LERO's capability to interface with non-participating State and local governments, but does not include the use of stand-ins for the anticipated State and local response (OPIP 5.1.1, pp. 19 and 20). The LERO Emergency Preparedness Coordinator is to arrange a post-exercise critique for key observers and participating personnel (OPIP 5.1.1, p. 21). The plan calls for varied exercise scenarios (including time, season, and unannounced exercises) as requested by this element (OPIP 5.1.1, p. 20).

A

Local Offsite Radiological Emergency Response Plan for Shoreham
Final Regional Assistance Committee (RAC) Review of Revision 9
Dated April 28, 1988

Page 83 of 90

<u>NUREG-0654</u> <u>Element</u>	<u>Review Comment(s)</u>	<u>Rating</u>
N.2.a	<p>The plan (OPIP 3.4.1; OPIP 5.1.1, Sec. 5.2.5 and 5.3.1) adequately addresses the testing of communication systems with the following:</p> <ul style="list-style-type: none">• Shoreham and LERO -- monthly,• Federal emergency response organizations and states within the ingestion pathway - quarterly,• The nuclear facility (SNPS) -- annually,• The State and local (LERO) EOCs -- annually, and• Local (LERO) radiological monitoring teams -- annually. <p>The plan provides for drills of communication with the State and local EOCs, if practicable.</p>	A
N.2.c	<p>Page 5.2-1 of the plan and Procedure OPIP 5.1.1, Section 5.3.1c adequately provide for a Medical drill to be conducted annually in conjunction with the annual exercise.</p>	A
N.2.d	<p>Page 5.2-1 of the plan and Procedure OPIP 5.1.1, Section 5.3.16 provide for Radiological Monitoring drills.</p> <p>The DOE-RAP (BHO) Team and radiological assessment personnel will participate in the annual drill. The procedures do not specifically state that all sample media will be collected and analyzed as identified by this element. Nevertheless, LERO will conduct the Radiological Monitoring drills in accordance to federal regulatory guidelines (OPIP 5.1.1, Section 5.3, p. 18).</p>	A

Local Offsite Radiological Emergency Response Plan for Shoreham
Final Regional Assistance Committee (RAC) Review of Revision 9
Dated April 28, 1988

Page 84 of 90

<u>NUREG-0654</u> <u>Element</u>	<u>Review Comment(s)</u>	<u>Rating</u>
N.2.e	Page 5.2-1a of the plan and Procedure OPIP 5.1.1, Section 5.3.1d adequately provide for Health Physics drills to be conducted semi-annually.	A
N.3.a-f	Procedure OPIP 5.1.1., Section 5.4 adequately provides for exercise scenarios to include the following: <ul style="list-style-type: none">• The basic objectives;• The date(s), time period, place(s) and participating organizations;• The simulated events;• A time schedule for real and simulated initiating events;• A narrative summary describing the conduct of exercises or drills;• Arrangements for scenario material to be provided to official observers.	A
N.4	Procedure OPIP 5.1.1, Sections 5.2.6 and 5.3.2 establishes that the LILCO Emergency Preparedness Coordinator (EPC) is responsible for having exercises (and drills) critiqued by Federal observers and LERO controllers as soon as practicable following the exercise (or drill). Formal evaluations (reports) will result from these critiques.	A

Local Offsite Radiological Emergency Response Plan for Shoreham
Final Regional Assistance Committee (RAC) Review of Revision 9
Dated April 28, 1988

<u>NUREG-0654</u> <u>Element</u>	<u>Review Comment(s)</u>	<u>Rating</u>
N.5	<p>Procedure OPIP 5.1.1, Sections 5.2.6 and 5.3.2 adequately provide for LERO to evaluate observer and participant comments and implement corrective actions. The LILCO Emergency Preparedness Coordinator is responsible for incorporating plan changes indicated as a result of the drills and annual exercise critiques.</p> <p>Procedure OPIP 5.1.1 specifies that the comments from Federal observers will be available at a post-exercise critique and in the post-exercise assessment which summarizes the evaluation of the Federal Observers.</p>	A
N.6	<p>Section 5.1 of the plan states that LERO will offer training to and shall attempt to involve the State and local governments in the exercises and drills, but their participation is not required.</p>	A
O.	<p><u>Radiological Emergency Response Training</u></p>	
O.1	<p>The LERO Classroom Training Matrix (OPIP 5.1.1, Attachment 1), details emergency response training for LERO personnel through a training program consisting of 20 modules the specific topics of which are itemized in Section 5.1.2 of the procedure; issues covered in each module are listed in Attachment 3 of OPIP 5.1.1. Also, as discussed in Section 5.1, page 5.1-1, LILCO would avail itself of a number of federally sponsored training courses, some given by FEMA, some by NRC, and some by EPA. Training of workers to handle injured/contaminated individuals has been incorporated in the plan.</p>	A

Local Offsite Radiological Emergency Response Plan for Shoreham
Final Regional Assistance Committee (RAC) Review of Revision 9
Dated April 28, 1988

Page 86 of 90

NUREG-0654
Element

Review Comment(s)

Rating

O.1
(Cont'd)

Procedure OPIP 5.1.1, Section 5.1.5 provides that the records maintained by LILCO will show the names and emergency position of individuals trained, sessions/drills completed, and the date on which they completed training.

Procedure OPIP 5.1.1, Section 5.1.3 states that Emergency Response Training will be offered to all members of LERO support organizations, such as the U.S. Coast Guard helicopter personnel and ambulance personnel.

EBS personnel, and ambulance company personnel, radio station personnel, commercial school Bus Drivers, and EPZ telephone survey personnel will be provided with training specific to their LERO function (see OPIP 5.1, Section 5.1.3).

Training and information sessions will also be offered annually to other organizations such as schools, hospitals, nursing homes, special facilities and the American Red Cross, which may be called on to take actions during an incident at SNPS (see page 5.1-1 of the plan).

O.4

Procedure OPIP 5.1.1 establishes a training program for emergency response personnel which is keyed to specific emergency response training topics. In accordance with NUREG-0654, FEMA-REP-1, Rev. 1, Suppl. 1, the following subelements of this planning criteria have been reviewed as follows:

A

O.4.a Training will be provided to directors or coordinators who are LILCO employees. In response to an earlier RAC comment, training module 11 (Contaminated Injured Individuals) is now provided for personnel assigned to the following positions: Emergency Medical Coordinator, Hospital Coordinator, and Ambulance Coordinator.

Local Offsite Radiological Emergency Response Plan for Shoreham
Final Regional Assistance Committee (RAC) Review of Revision 9
Dated April 28, 1988

<u>NUREG-0654</u> <u>Element</u>	<u>Review Comment(s)</u>	<u>Rating</u>
O.4 (Cont'd)	O.4.b Training is provided for accident assessment personnel, both engineering and radiological health. It is assumed that personnel designated to fill the positions of Radiation Health Coordinator and Nuclear Engineer are required to be technically qualified in their fields of responsibility. Both positions are listed on the LERO Training Matrix (see Attachment 1 of OPIP 5.1.1).	A
	O.4.c Training is provided for radiological monitoring teams and radiological analysis personnel. In response to a previous RAC comment, LILCO now requires that personnel assigned to the Emergency Worker Decontamination Facility and the Reception Centers receive training in Module 11 (Contaminated Injured Individuals).	A
	O.4.d Police, security, and fire fighting personnel	A
	O.4.f First aid and rescue personnel	A
	O.4.g Local support services personnel	A
	O.4.h Medical support personnel	A
	O.4.j Personnel responsible for transmission of emergency information and instructions.	A
	O.4.x The Emergency Preparedness Advisors responsible for advising Suffolk and Nassau County officials are designated to receive complete training in LERO emergency operations (see OPIP 5.1.1, Attachment 1).	A

Local Offsite Radiological Emergency Response Plan for Shoreham
Final Regional Assistance Committee (RAC) Review of Revision 9
Dated April 28, 1988

Page 88 of 90

<u>NUREG-0654</u> <u>Element</u>	<u>Review Comment(s)</u>	<u>Rating</u>
O.5	Section 5.1 of the plan, (Training) states that the LERO training program is conducted on an ongoing basis and requires periodic training on at least an annual basis for personnel with emergency response responsibilities.	A
O.6	The plan (see page 5.1-3, lines 49-42) states that "LERO will offer training and shall attempt to involve Suffolk County and New York State officials in the exercises and drills, but their participation is not required."	A
P.	<u>Responsibility for the Planning Effort</u>	
P.1	Section 5.1.1 of the plan and procedure OPIP 5.1.1 provide for the training of LERO personnel who are responsible for the planning effort. The LILCO Emergency Preparedness Coordinator (EPC) is responsible for overseeing this training.	A
P.2	The LILCO EPC is responsible for the administration of the LERO Plan and Procedures (see Plan, Section 5.4, page 5.4.1).	A
P.3	The LILCO EPC is responsible for conducting an annual review and update of the LERO Plan including procedures and letters of agreement (see Plan, Section 5.4, page 5.4.1).	A
P.4	In Section 5.4 of the plan, it is stated that the LILCO EPC is responsible for annually incorporating plan and procedure changes resulting from exercises and drills and assigning the responsibility for implementing corrective actions.	A

Local Offsite Radiological Emergency Response Plan for Shoreham
Final Regional Assistance Committee (RAC) Review of Revision 9
Dated April 28, 1988

NUREG-0654

<u>Element</u>	<u>Review Comment(s)</u>	<u>Rating</u>
P.4 (Cont'd)	Various agreements necessary to implement the Plan will be updated annually or upon revision of the plan (see Section 5.4, pages 5.4-1 and 2).	
P.5	According to the plan (Sec. 5.4), the LILCO EPC is responsible for distributing the Plan and approved changes to the organizations and appropriate individuals responsible for their implementation. In Revision 9 of the plan, dates of all revisions have been added to the List of Effective Pages of all documents. They are as follows: Rev. 0 5/26/83 Rev. 1 7/28/83 Rev. 2 11/7/83 Rev. 3 12/22/83 Rev. 4 6/29/84 Rev. 5 8/02/85 Rev. 6 1/10/86 Rev. 7 6/30/86 Rev. 8 8/19/86 Rev. 9 1/18/88	A
P.6	Section 1.4, pages 1.4-2 and 1.4-2a, and Attachment 1.4.2, contain the required list of supporting documents.	A
P.7	Appendix C to the plan lists by title, the procedures required to implement the plan. The plan includes a reference to Procedure OPIP, 1.1.1, Offsite Preparedness Implementing Procedure Development (see Plan, Chapter 1, Sec. 1.1, lines 11-13). OPIP 1.1.1 establishes procedures for the implementation and use of the LERO procedures.	A

Local Offsite Radiological Emergency Response Plan for Shoreham
Final Regional Assistance Committee (RAC) Review of Revision 9
Dated April 28, 1988

Page 90 of 90

<u>NUREG-0654</u> <u>Element</u>	<u>Review Comment(s)</u>	<u>Rating</u>
P.8	<p>The plan contains a specific Table of Contents, and is cross-referenced to NUREG-0654 criteria.</p> <p>The NUREG-0654 cross-reference has been revised in response to previous RAC reviews (Rev. 3 through 8).</p> <p><i>Further revision should be made to make the cross-reference more in agreement with NUREG-0654 Rev. 1 Supp. 1 (i.e., addition of elements G.1.e, G.3, and 0.4.g; change of element M.3.a to M.3; and deletion of element I.3).</i></p>	A
P.10	<p>Section 5.4, page 5.4-2 of the plan states that the telephone number lists will be updated on a quarterly basis, and more frequently, if necessary. Also, Procedure OPIP 5.4-1, Section 5.3.4 calls for telephone numbers in emergency procedures to be updated quarterly.</p>	A
P.11	<p>LERO will provide copies of the plan and its revisions to non-participating State and local government entities (Section 5.4, p. 5.4-2).</p>	A

Element Rating Summary

NUREG-0654 Element Rating Rev. 9

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

NUREC-0654 Element Rating Rev. 9

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	I
J.10.h	A
J.10.i	A
J.10.j	A
J.10.k	I
J.10.l	A
J.10.m	A
J.11	I
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
N.1.a	A
N.1.b	A
N.2.a	A
N.2.c	A

NUREG-0654 Element Rating Rev. 9

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

A

ARC American Red Cross
ASLB Atomic Safety and Licensing Board

B

BHO 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

LIST OF ACRONYMS (cont'd)

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 U.S. Nuclear Regulatory Commission

O

OPIP Offsite Plan Implementing Procedure
ORS Offsite Radiological Survey

P

PA Protective Action
PAG Protective Action Guide
PAP 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 Was used in the plan (Procedure OPIP 3.8.1) but was not defined

U

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

V

VA U.S. Veterans Administration

LOCAL OFFSITE RADIOLOGICAL EMERGENCY RESPONSE PLAN FOR SHOREHAM

Final Review of Revision 9 by Regional Assistance Committee (RAC)

April 28, 1988

EXHIBIT 1

EVALUATION FORM

The following checklist identifies the characteristics and content of an effective public emergency information document. This checklist, from FEMA REP-11, has been employed to evaluate the document using the symbols below:

- Y ... Yes, fully meets identified criteria
- M ... Marginally acceptable; could be improved
- I ... Inadequate or Missing
- ? ... Insufficient information to evaluate; item should be checked for consistency with the emergency plan or for being acceptably addressed through another medium.

Items on the checklist have been divided into three categories:

Category 1: These items are critical to the effectiveness of a public emergency information document. All items identified as not fully meeting the identified criteria, i.e. those items marked (I), (M), or (?), should be improved prior to the next scheduled distribution. If a sufficient number of items in this category are identified as missing or inadequate (I), steps should be immediately taken to address and make necessary changes in the document.

Category 2: These items are important to the effectiveness of a public emergency information document. Items in this category identified as missing or inadequate (I), or as marginally acceptable (M), should be addressed prior to the next revision of the document.

Category 3: These items are enhancements to the overall quality of a public emergency information document. Items in this category identified as missing or inadequate (I), or as marginally acceptable (M), might be considered when planning future revisions of the document.

1. The Following Items Are Critical To The Effectiveness Of Emergency Public Information:

CONTENT

M Document has a clear emergency focus. It should tell the reader what to expect, in what sequence. It should tell what actions, in order of priority, should be taken if notification is given.

THIS BOOKLET HAS AN EMERGENCY FOCUS WHICH CAN ONLY BE CLASSIFIED AS SUPERFICIAL. WHILE THE COVER AND LEAD PAGES OFFER A CLEAR MESSAGE AS TO THE EMERGENCY CONTENTS OF THE BOOKLET, THE DOCUMENT AS A WHOLE IS NOT APPROPRIATELY ORGANIZED TO REINFORCE THE EMERGENCY MESSAGE, MAKE IMPORTANT ACTIONS CLEAR TO THE READER, NOR TO PROVIDE UNAMBIGUOUS GUIDANCE TO THE READER SEEKING IMPORTANT INFORMATION IN A HURRY. EMERGENCY ACTIONS ARE DESCRIBED IN A PRIORITY ORDER BUT THEY ARE DISPLAYED LARGELY AFTER OTHER, MORE EXTRANEOUS EDUCATIONAL OR OTHER INFORMATION IS PROVIDED. PAGE 1, EMERGENCY PROCEDURES, IS A GOOD START THAT IS NOT ADEQUATELY TAKEN ADVANTAGE OF AS IS PAGE 3, SUMMARY. THE READER MUST THEN WADE BACK TO PAGES 8 THROUGH 17 TO FIND ADEQUATE DETAIL ABOUT EMERGENCY ACTIONS THAT SHOULD BE TAKEN.

? The content is consistent with the emergency plan and EBS messages.

WITHOUT ACCESS TO THE SHOREHAM PLAN AND EBS SCRIPTS, THIS CANNOT BE VERIFIED.

Y There is a clear statement of purpose.

THE FRONT COVER (INSIDE AND OUTSIDE) PROVIDES A DEFINITION OF PURPOSE AND A CLEAR STATEMENT IS FOUND ON PAGE 4, RIGHT COLUMN, SECOND FULL PARAGRAPH.

? If the emergency plan calls for an emergency phone number, it is given, along with instructions on the procedures to be followed relative to its use. Be sure to distinguish "hotline" numbers for use during emergencies as separate from information numbers during non-emergency times.

NO EMERGENCY NUMBER IS GIVEN AND READERS ARE TOLD NOT TO USE THE TELEPHONE DURING AN EMERGENCY (SEE PAGE 13, CENTER COLUMN, ITEM 7 FOR AN EXAMPLE). NO REFERENCE WAS FOUND TO PLANNED PUBLICATION OF AN EMERGENCY PHONE NUMBER VIA EBS UNDER AN EMERGENCY CONDITION EITHER.

M

There is a contact given for additional information.

AN ADDRESS IS PROVIDED (PAGE 20) FOR WRITTEN REQUESTS FOR FURTHER INFORMATION, NO TELEPHONE NUMBERS WERE OBSERVED IN THIS DRAFT BOOKLET.

M

Information is given regarding notification procedures.

SEE PAGE 1 WHERE SIREN AND EBS STATION INFORMATION IS PROVIDED IN BRIEF. FURTHER INFORMATION IS FOUND ON THE PAGE 3 SUMMARY PAGE AND LATER (PAGE 8) MORE DETAIL IS PROVIDED. IT IS HELPFUL THAT THIS INFORMATION IS LOCATED IN A VARIETY OF PLACES, MAKING IT MORE LIKELY TO BE NOTICED. THE MEANS AND STYLE OF PRESENTATION IS NOT AS CLEAR AS IT COULD BE, NOR DOES IT COMMAND THE ATTENTION OF THE READER IN AS EFFECTIVE A WAY AS IT COULD. USE OF DESIGN ELEMENTS SUCH AS KEY GRAPHICS, BOLD TYPE, ADDED WHITE SPACE, SECTION BOXES OR BULLETED LISTS WOULD IMPROVE THE COMMUNICATION OF THIS IMPORTANT INFORMATION AND MAKE IT MUCH MORE ACCESSIBLE TO THE READER.

Y

Identification of EBS stations is given, with stations/channels.

SEE INSIDE FRONT COVER, PAGE 1, PAGE 3 AND PAGE 8. SEVERAL AM AND FM STATIONS ARE LISTED BY CALL LETTERS AND BY DIAL NUMBERS. IN ADDITION, ON PAGE 8 A DIAL CHART IS PROVIDED WITH EACH STATION NOTED BY CALL LETTERS, NUMBER AND RELATIVE POSITION ON THE DIAL. THIS CHART IS A GOOD IDEA THAT NEEDS TO BE MORE EFFECTIVELY IMPLEMENTED; IT WAS DIFFICULT TO ASSESS THE FINAL EFFECTIVENESS OF THIS CHART FROM THE RATHER CRUDE PASTE-UP VERSION PROVIDED FOR REVIEW.

Y

There is a highly visible statement on the cover about keeping the document for use in the event of an emergency.

SEE FRONT COVER, IN ADDITION A RETENTION STATEMENT IS FOUND ON THE INSIDE FRONT COVER AND PAGE 1. IT WAS NOT CLEAR FROM THE PHOTOCOPIES PROVIDED WHAT THE BACK COVER WOULD LOOK LIKE.

Y

Educational Information. The very basic information on radiation must be included in the emergency brochure to convey a sense of health risk.

PAGES 18 AND 19 PRESENT A VERY COMPLETE OVERVIEW OF INFORMATION ON RADIATION, INCLUDING DATA THAT HELPS THE READER ASSESS THE RELATIVE HEALTH RISKS OF VARIOUS LEVELS OF EXPOSURE. SECTIONS ON NATURAL RADIATION, DETECTION, EXPOSURE LEVELS, RADIATION AND NUCLEAR POWER PLANTS, RADIATION GUIDELINES AND THE BIOLOGICAL EFFECTS OF RADIATION ARE INCLUDED. A CHART OF TYPICAL RADIATION SOURCES IS ALSO FOUND ON PAGE 19.

THE EMERGENCY INSTRUCTIONS SECTION INCLUDES A DISCUSSION OF:

Y

Sheltering.

FIRST NOTICE IS ON PAGE 1, WHERE THE READER IS REFERRED TO PAGE 13 FOR A MORE COMPLETE DISCUSSION. THE PAGE 13 DISCUSSION CONSISTS OF TWO BRIEF PARAGRAPHS FOLLOWED BY A LIST - 10 BULLETED POINTS ON SHELTERING. THE LEAD PARAGRAPHS ON PAGE 13 COULD BE MADE CLEARER THROUGH REWRITING SINCE THEY ARE AWKWARDLY PHRASED. THE FINAL ITEM IN THE BULLETED LIST IMPLIES THE POTENTIAL FOR RESPIRATORY PROTECTION INDOORS AS WELL AS OUTSIDE (?). ADDITIONAL REFERENCES TO SHELTERING CAN BE FOUND ON PAGES 3 AND 7.

M

Evacuation routes, both written explanations in the text and illustrated directions on an evacuation map of the EPZ.

ROUTE MAPS AND WRITTEN EXPLANATIONS ARE FOUND ON PAGES 9-12. PAGE 9 IS AN OVERVIEW MAP OF THE EPZ WITH ZONES AND ROUTES MARKED. PAGE 10 IS AN EVACUATION MAP FOR ZONE A (IN THE SAMPLE REVIEWED), IT ALSO DISPLAYS WRITTEN DIRECTIONS OUT OF THE ZONE TOWARD APPROPRIATE RECEPTION CENTERS. PAGE 11 IS A MAP SHOWING ROUTES TO RECEPTION CENTERS AND SCHOOL RELOCATION CENTERS (THE RELATIONSHIP OF THIS MAP LOCALE TO THE EPZ IS UNCLEAR!). PAGE 12 DISPLAYS AN EMERGENCY BUS ROUTE MAP FOR ZONE A. THE MAPS ARE IN DRAFT FORM AND HARD TO EVALUATE.

M Transportation provisions.

PAGE 3, LOWER RIGHT COLUMN REFERS TO SPECIAL PLANS FOR THE HANDICAPPED AND FOR THOSE WITH SPECIAL TRANSPORTATION NEEDS. PAGES 13 AND 14 CONTAIN INFORMATION ABOUT TRANSPORTATION PROVISIONS THAT HAVE BEEN MADE. ON PAGE 13 A SOMEWHAT PUZZLING CAR GRAPHIC IS USED THAT COULD BE INTERPRETED AS ADVICE NOT TO USE AN AUTOMOBILE. THIS COULD BE CONFUSING. PAGE 14 INDICATES THAT TRANSPORTATION PROVISIONS INCLUDE THE USE OF PRIVATE CARS AND EMERGENCY BUS ROUTES, WITH SPECIAL VEHICLES FOR THE DISABLED TO BE DISPATCHED BASED ON ADVANCED REGISTRATION OF THE HANDICAPPED. A MAP OF THE EMERGENCY BUS ROUTE FOR ZONE A IS FOUND ON PAGE 12 BEFORE ANY REFERENCE IS MADE TO IT IN THE TEXT, POTENTIALLY CONFUSING.

M School provisions; including guidelines and/or instructions for parents.

SCHOOL PROVISIONS ARE MENTIONED MAINLY ON PAGES 16 AND 17 WITH ADDITIONAL REFERENCES ON PAGES 11 (A SCHOOL RELOCATION CENTER MAP), 14 AND 15. THE INFORMATION ON PAGE 14, CENTER COLUMN, IS AMBIGUOUS AND DOES NOT CLEARLY DEAL WITH THE ISSUE OF WHETHER PARENTS SHOULD ATTEMPT TO GO TO THE SCHOOL. THE ROLE OF THE EBS IN NOTIFYING PARENTS OF THE STATUS OF SCHOOL CHILDREN IS NOT CLARIFIED HERE EITHER. (THE PREVIOUS COMMENTS APPLY TO PAGE 15, LEFT COLUMN TOO). PAGE 16 AND 17 PROVIDE THE MOST COMPLETE DETAIL ABOUT CHILDREN IN SCHOOL BUT EXTENSIVE REWRITING WOULD BE ESSENTIAL IF OPTIMUM CLARITY IS TO BE ACHIEVED. THE WRITING STYLE IS AWKWARD AND THE PRESENTATION IS IN A NARRATIVE TEXT FORMAT. NO USE OF DESIGN ELEMENTS, SPACING, BULLETED LISTS, BOLD TYPE OR GRAPHIC ORGANIZERS IS MADE AT ALL. SUCH ELEMENTS COULD MAKE THE INFORMATION MUCH MORE ACCESSIBLE AND UNDERSTANDABLE TO PARENTS READING THESE PAGES. THE SCHOOL AND ZONE LISTINGS THAT COMPLETE THESE SECTIONS MAY BE HELPFUL BUT NO CLEAR INDICATION OF THEIR PURPOSE OR USE IS PROVIDED THE READER, MAKING IT DIFFICULT TO INTERPRET OR USE THE INFORMATION PRESENTED.

M Instruction on the care and feeding of livestock, if appropriate, in the area.

THE ONLY REFERENCE FOUND WAS ON PAGE 13, CENTER COLUMN, POINT 2. NO ADDITIONAL INFORMATION WAS PROVIDED, NOR WAS A FURTHER CONTACT POINT PROVIDED FOR SUCH INFORMATION (OTHER THAN THE GENERAL INFORMATION ADDRESS GIVEN AT THE BACK OF THE BOOKLET).

I Reception centers, relocation and/or congregate care centers.

THE MAIN SOURCE OF THIS INFORMATION IS ON PAGE 15, "WHERE WOULD YOU GO?" RECEPTION CENTERS ARE MENTIONED BUT NOT SPECIFICALLY IDENTIFIED BY ZONE ON THIS PAGE. FOR SPECIFIC CENTER IDENTIFICATION THE READER MUST TURN TO MAP PAGES 10 AND 11 (WHICH ARE NOT REFERENCED ON PAGE 15!). EVEN ON THE MAP PAGES THE READER MAY FIND IT DIFFICULT TO LOCATE OR IDENTIFY THE APPROPRIATE CENTER SINCE NO CLEAR WRITTEN INSTRUCTIONS OR INFORMATION IS INCLUDED BEYOND GENERAL, NON-SPECIFIC REFERENCES IN OTHER TEXT SECTIONS. THE COMMUNICATION OF RECEPTION CENTER/CONGREGATE CARE CENTER INFORMATION IS NOT HANDLED OPTIMALLY IN THE DOCUMENT REVIEWED.

Y Provisions for the handicapped.

A SPECIAL NEEDS CARD IS INCLUDED AND REFERENCED IN SEVERAL PLACES. ON PAGE 8, RIGHT COLUMN, NOTIFICATION PROVISIONS FOR THE HEARING IMPAIRED ARE DESCRIBED AND EXTENSIVE PLANS HAVE BEEN MADE TO ACCOMMODATE SUCH NEEDS. PAGE 14 DESCRIBES ARRANGEMENTS THAT HAVE BEEN MADE TO TRANSPORT THE DISABLED.

ORGANIZATION

M The emergency instructions occupy a highly visible place in the front of the document.

SOME INFORMATION IS PROVIDED AT THE FRONT OF THE DOCUMENT IN THE FORM OF SUMMARY AND OVERVIEW PAGES (SEE PAGES 1 AND 3) BUT THE DETAILED INFORMATION IS NOT FOUND UNTIL PAGES 8-17. AS NOTED IN THE FIRST ITEM OF THIS REVIEW, EMERGENCY FOCUS COULD BE IMPROVED THROUGH REORGANIZATION TO BRING THE CRITICAL EMERGENCY ACTION INFORMATION TOGETHER AT THE FRONT OF THE DOCUMENT. SUMMARY PAGES AND A TABLE OF CONTENTS ARE QUITE HELPFUL BUT THE BOOKLET COULD BE MUCH MORE EFFECTIVE WITH BETTER ORGANIZATION.

I The information is logically sequenced.

SEE PRECEDING COMMENTS. THE EMERGENCY INFORMATION NEEDS TO BE BROUGHT TOGETHER AT THE FRONT OF THE DOCUMENT. EXTENSIVE REWRITING AND THE CONSIDERATION OF BETTER GRAPHIC DESIGN TO ENHANCE BOTH THE COMPREHENSIBILITY AND EMERGENCY FOCUS OF THE DOCUMENT SEEMS INDICATED.

I Information is clearly organized and relevant to the purpose of providing emergency guidance.

WHILE EXTENSIVE INFORMATION IS PROVIDED, IT IS NOT WELL ORGANIZED FOR THE PURPOSE OF PROVIDING EFFECTIVE AND EFFICIENT EMERGENCY GUIDANCE TO THE READER. THE INFORMATION IS NOT ADEQUATELY CROSS REFERENCED AND THE READER IS NOT PROVIDED WITH AN EFFECTIVE "ROAD MAP" THROUGH THE MAZE OF INFORMATION IN THE BOOKLET. THE TABLE OF CONTENTS IS A VERY HELPFUL FEATURE AND DOES MITIGATE THE LACK OF ORGANIZATION SOMEWHAT.

M Public education passages, if included, are not distracting.

THE SECTION ON RADIATION (PAGES 18 AND 19) IS COMPLETE AND GENERALLY WELL DONE. THE SECTIONS ON GENERAL EMERGENCY PLANNING, SAFETY SYSTEMS AT THE PLANT, EMERGENCY EVENTS AND EMERGENCY CLASSIFICATION LEVELS ARE EXTENSIVE BUT LOCATED INAPPROPRIATELY IN FRONT OF THE IMPORTANT DETAILED SECTION ON EMERGENCY ACTIONS TO BE TAKEN BY THE PUBLIC. THESE LATTER PASSAGES, WHILE HELPFUL, SHOULD BE RELOCATED SO AS NOT TO DISTRACT FROM THE EMERGENCY ACTION SECTIONS.

COMPREHENSION FACTORS

M The document layout is such that the text is easy to follow from paragraph to paragraph and from page to page. Page and section breaks are consistent with the logic and organization of the materials.

AS A RULE, THE PAGES ARE SELF CONTAINED AND MAJOR SECTIONS ARE NOT BROKEN UP ACROSS PAGE BOUNDARIES. COLUMN BOUNDARIES ARE SOMETIMES CROSSED BY SECTIONS. THERE IS A GENERAL OVER RELIANCE ON RUNNING TEXT AND VERY LITTLE ATTENTION IS PAID TO EFFECTIVE USE OF DESIGN OR GRAPHIC ELEMENTS TO ENHANCE THE CLARITY OF THE DOCUMENT. THE LOGICAL FLOW OF THE DOCUMENT, FROM AN EMERGENCY ACTION STANDPOINT, COULD BE IMPROVED BY EXTENSIVE REWRITING AND REDESIGN.

M The information is presented in such a way that there is a logical sequence of topics. The "flow" of information is smooth and not disjointed.

AS A GENERAL RULE, THE WRITING STYLE IN MANY SECTIONS IS AWKWARD AND SOMEWHAT UNCLEAR; THIS INTERFERES WITH THE SMOOTH "FLOW" OF INFORMATION AND CREATES AN IMPRESSION OF DISJOINTEDNESS IN MANY SECTIONS. PAGE 15, "WHERE WOULD YOU GO?" IS A REPRESENTATIVE EXAMPLE OF TEXT THAT COULD BE IMPROVED THROUGH REWRITING.

Y Within a given topic, actions to be taken come first, followed by rationale or explanation.

IN THOSE SECTIONS WHERE LISTS OF ACTIONS ARE PROVIDED, THERE IS A GOOD ACTION FOCUS. SEE PAGE 13 FOR AN EXAMPLE OF EFFECTIVE ACTION FOCUS. PAGE 14, HOWEVER, IS LESS EFFECTIVE IN THIS REGARD.

M Vocabulary is simple, comprised of non-technical terms likely to be found in the vocabularies of the intended population.

THE VOCABULARY CHOSEN COULD BE SIMPLIFIED AND MADE MORE READABLE. WITHOUT FURTHER DATA ABOUT THE INTENDED POPULATION IT IS DIFFICULT TO JUDGE THE APPROPRIATENESS OF THE VOCABULARY USED. SENTENCES TEND TO BE RATHER LONGER AND MORE INVOLVED THAN NECESSARY AND PRONOUN OR ANAPHORIC REFERENCES ARE OFTEN VAGUE OR INCONSISTENT. IN GENERAL PURELY TECHNICAL TERMS ARE AVOIDED -- THIS IS A POSITIVE FEATURE -- BUT THE GENERAL TONE OF THE DOCUMENT IS SOMEWHAT MORE FORMAL OR "OFFICIAL" THAN NEED BE.

M Sentences are brief and concise.

WHERE A LIST FORMAT IS USED, THE LANGUAGE IS BRIEF AND CONCISE. WHERE LONGER PARAGRAPHS AND RUNNING TEXT IS USED, THERE IS A TENDENCY TOWARD LONG, COMPLEX SENTENCES AND THE USE OF PARAGRAPHS WITH MORE THAN ONE MAIN POINT. THIS INTERFERES WITH DOCUMENT CLARITY.

Y Typography is legible and easy to perceive.

A SANS SERIF TYPEFACE IS USED AND TYPESIZE IS ADEQUATE FOR MOST. SOME INDIVIDUALS WITH SEVERE VISION PROBLEMS, OR MISPLACED GLASSES MAY HAVE DIFFICULTY READING THE TEXT.

Y The cover clearly states that the document contains important emergency instructions.

? The choice of colors is appropriate for colorblind individuals.

THIS FACTOR CANNOT BE FULLY ASSESSED GIVEN THE PHOTOCOPY DRAFT MATERIALS PROVIDED FOR REVIEW, ESPECIALLY FOR THE MAPS. THE INDICATED SHADES CHOSEN, HOWEVER, ARE NOT APPROPRIATE FOR THE COLORBLIND.

1 The reading level is appropriate. This is based on the following:

X Most of the emergency procedures section of the document has a reading level above grade 9, as characterized by the Dale-Chall readability formula.

2. The Following Items Should Be Included When The Document Is Revised:

CONTENT

Y Information is given regarding emergency action levels, and enough educational information on radiation is given to provide an understanding of sources and relative effects, or provision is made in a separate document.

EMERGENCY ACTION LEVELS (EALS) ARE DESCRIBED IN DETAIL ON PAGE 7, "HOW EMERGENCIES ARE CLASSIFIED." IN ADDITION, REFERENCE TO THE EAL CONCEPT IS MADE IN PARAGRAPH 2, RIGHT COLUMN, PAGE 3. AN ADDITIONAL REFERENCE TO THE EAL SYSTEM IS FOUND IN THE LAST PARAGRAPH OF PAGE 6.

? Information has been provided for transients and visitors through appropriate means.

PROVISIONS FOR BOATERS ARE MENTIONED ON PAGE 8. NO OTHER DETAIL ABOUT NOTIFICATION OF TRANSIENT POPULATIONS WAS FOUND IN THE DOCUMENT REVIEWED.

? A method of identifying special needs has been provided in such a way that it cannot be lost during shipment or during the initial reading.

A DRAFT OF THE TEXT FOR SUCH A CARD WAS INCLUDED (LAST PHOTOCOPY PAGE) BUT THE MEANS BY WHICH IT IS BOUND INTO THE DOCUMENT IS NOT CLEAR FROM THE REVIEW MATERIALS PROVIDED.

Y Consideration has been given to the needs of any special population.

PROCEDURES FOR BOTH THE HEARING IMPAIRED (PAGE 8) AND OTHER GENERAL HANDICAPPED (PAGE 14) ARE INCLUDED IN THE DRAFT DOCUMENT REVIEWED. THE INSIDE FRONT COVER ALSO ADVISES THE READER THAT A SPECIAL NEEDS CARD SHOULD BE COMPLETED AND RETURNED AND THAT SPECIAL HELP WILL BE PROVIDED.

THE EMERGENCY INSTRUCTIONS SECTION INCLUDES A DISCUSSION OF:

M Respiratory protection.

WHILE A DISCUSSION OF RESPIRATORY PROTECTION IS FOUND ON PAGES 13 AND 14, THE MESSAGE ON PAGE 13 IS VAGUE, POSING THE POSSIBILITY THAT RESPIRATORY PROTECTION MAY BE NEEDED UNDER SHELTERING AS WELL AS WHEN OUTDOORS. IN CONTRAST, PAGE 14 ONLY MENTIONS THE POSSIBLE NEED FOR PROTECTION WHEN OUTDOORS AND ADVISES THAT THE EBS WILL PROVIDE APPROPRIATE ADVICE. THE MESSAGE IS MIXED ON THIS TOPIC.

? Radioprotective drugs (if adopted by State or local government agencies for use by the general public).

NO MENTION OF RADIOPROTECTIVE DRUGS, KI, FOR THE PUBLIC WAS FOUND IN THE DOCUMENT REVIEWED.

Y Encouragement to alert neighbors, by means other than the telephone, to ensure that they also heard and understood the warning signals.

PAGE 3, "SUMMARY OF IMPORTANT INFORMATION" INDICATES (CENTER COLUMN) THAT "PEOPLE IN THE AREA TO BE EVACUATED ARE URGED TO BE GOOD NEIGHBORS." THIS IS VERY HELPFUL ADVICE. PAGE 8 WOULD BENEFIT FROM A SIMILAR STATEMENT, ESPECIALLY SINCE THIS PAGE DEALS DIRECTLY WITH NOTIFICATION PROCEDURES AND ACTIONS.

Y Emergency supplies checklist to have in the home.

PAGE 20 IS ON THE TOPIC "BE PREPARED" AND DOES INDICATE THE NEED FOR ADVANCED PLANNING, BRIEF MENTION OF SUPPLIES SUCH AS FIRST AID KITS, FLASHLIGHTS, RADIO AND BATTERIES IS MADE ON THIS PAGE.

Y Supplies checklist for use in the event of evacuation.

SEE PAGE 14. (NOTE THAT THIS TOPIC "EVACUATION" IS SPLIT ACROSS TWO PAGES).

Y Home preparation for sheltering.

SEE PAGE 13 FOR A BULLETED LIST.

Y Home preparation for evacuation.

SEE PAGES 13 AND 14 FOR A BULLETED LIST OF PREPARATORY ACTIONS.

ORGANIZATION

1 General educational material, if included, is placed after the emergency procedures information.

SEE PRECEDING COMMENTS. GENERAL PLANNING AND PLANT INFORMATION IS LOCATED AHEAD OF THE DETAILED EMERGENCY ACTIONS SECTIONS.

COMPREHENSION FACTORS

Y The cover design encourages one to open the publication and to read what it contains.

THE COVER IS CLEAR AND UNAMBIGUOUS, INDICATING THE EMERGENCY NATURE OF THE CONTENTS.

? The format is appropriate for the emergency information included by the document, and the size is appropriate.

THIS IS DIFFICULT TO FULLY ASSESS GIVEN THE DRAFT NATURE OF THE MATERIALS PROVIDED FOR REVIEW. IF THE SIZE IS THE SAME AND A SADDLE STITCHED FORMAT WITH GOOD QUALITY PAPER IS USED, THE FORMAT MAY BE APPROPRIATE.

M Photographs, maps, charts, tables, and artwork are used effectively to enhance the text and are not distracting.

MORE EXTENSIVE USE OF GRAPHIC ELEMENTS IS NEEDED TO IMPROVE THE DOCUMENT. PHOTOS ARE NOT USED.

I The various elements of graphic design work together harmoniously to achieve the desired effect.

THE DOCUMENT COULD BENEFIT FROM MORE EFFECTIVE USE OF ELEMENTS OF GRAPHIC DESIGN. SEE PREVIOUS COMMENTS THROUGHOUT THIS REVIEW.

3. The Following Items Would Be Enhancements To The Overall Quality Of The Document:

CONTENT

Y The document contains the date of issue and the name of the issuing agency.

ON THE COVERS.

I Document contains blank space in the emergency procedures section for personal notes.

SOME SPACE IS AVAILABLE WHERE MARGINAL NOTES COULD BE MADE BUT THIS IS NOT, APPARENTLY, A CONSCIOUS PART OF THE DESIGN.

Y Document contains a section on family preplanning.

THE BACK COVER OR LAST PAGE.

COMPREHENSION FACTORS

I Key symbols or graphic images are used to assist the reader in locating and/or understanding the text.

VERY LITTLE USE OF SUCH ELEMENTS IS MADE AND WHERE FOUND, SEE PAGE 13, THEY ARE AMBIGUOUS.

M The format encourages retention.

NO SPECIFIC ASPECT OF THE FORMAT IS SPECIFICALLY DESIGNED TO ENCOURAGE RETENTION.

? Color has been used effectively to enhance and highlight important details relative to the emergency information.

THIS CANNOT BE JUDGED FROM THE DRAFT PHOTOCOPIES PROVIDED FOR THE REVIEWER.



Federal Emergency Management Agency

Washington, D.C. 20472

MAY 31 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 the Federal Emergency Management Agency (FEMA) to review Revision 9 of Long Island Lighting Company's (LILCO) offsite emergency plan for the Shoreham Nuclear Power Station, under the provisions of the April 1985 NRC/FEMA Memorandum of Understanding and certain criteria and assumptions, as indicated below. FEMA was also requested to provide a finding, i.e., indicate whether in the framework of those criteria and assumptions, FEMA has reasonable assurance that the plans can protect the health and safety of the public living in the vicinity of the plant.

We were requested to review the plan under the criteria of the interim-use document, 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). That document has been published as Supplement 1 to NUREG-0654/FEMA-REP-1, Rev.1. As requested by NRC, FEMA also used 3 assumptions in reviewing and evaluating the LILCO plan. Those assumptions 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.

It is further understood that in any subsequent hearings or litigation related to the plan review or exercise, NRC will defend the above assumptions.

Enclosed is a report on the results of a full review of Revision 9 of the LILCO plan, conducted by FEMA Region II and the Regional Assistance Committee (RAC), using the criteria and assumptions specified by NRC. Based on

that evaluation, Revision 9 contains 17 inadequacies. More detail on the review process and the inadequacies is contained in the enclosed report from FEMA Region II to FEMA Headquarters. Based on these inadequacies, and the recommendation of FEMA Region II, FEMA does not have reasonable assurance under Revision 9 that the public health and safety can be protected in the vicinity of the Shoreham Nuclear Power Station.

However, planning for the exercise may go forward for the reasons noted below. First, the utility has already provided FEMA Region II and the RAC with proposed plan changes to address these inadequacies. We understand that these changes were incorporated into Revision 10 of the plan. Eleven of the inadequacies in Revision 9 required relatively minor changes and the utility's proposed changes were responsive to the RAC/FEMA concerns. For the six inadequate elements requiring more substantive revision, five of these [(i.e., provisions for communication with New York State (F.1.b), the public information program for residents, transients, and the agricultural community (G.1.a-e, G.2, and J.11), and written agreements for "first-call" commitments with companies supplying supplementary buses for a "one-wave" evacuation of school (J.10.g)], will not affect the conduct of the exercise. With regard to the remaining inadequacy that must be evaluated at the exercise [(i.e., planning for the monitoring and decontamination of school children evacuated after a release (J.12)], FEMA Region II provided technical assistance to the utility to expedite the resolution of this issue for its inclusion in Revision 10.

On May 23, 1988, NRC requested FEMA to conduct a full RAC review of Revision 10 of the plan and provide a finding by July 29, 1988. NRC has also requested that the Revision 10 changes be incorporated into the exercise play of the upcoming Shoreham exercise, now scheduled for the week of June 6, 1988. Since FEMA would not be able to complete a full RAC review in that short time frame, FEMA Region II has agreed to review the changes, coordinate with the RAC where necessary, and incorporate them into the evaluation of the exercise. A cursory review has been performed by FEMA Region II of the sections of Revision 10 relating to the inadequacy concerning the monitoring and decontamination of school children mentioned above in connection with element J.12. Based on that review, we have concluded that the inadequacy has been addressed in a manner sufficient to permit an adequate demonstration of the monitoring and decontamination function in the exercise.

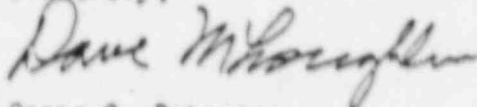
We note also that on April 27, 1988, the Director of the Connecticut Office of Civil Preparedness notified LILCO that his office "would participate in an interstate exercise only in full coordination with the participating states and local governments. We have received no such coordination." He further indicated that his office will not "conduct any exercise evaluation activities or any simulation activities during the proposed exercise conducted by LILCO." This was fully discussed by members of our staffs on May 3, 1988. As discussed at the meeting, although the State of Connecticut has not withdrawn from participation in offsite emergency planning for the Shoreham plant, it will be considered by NRC as a non-participating government for purposes of the exercise. As a consequence, as stated in NRC's memorandum of May 26, 1988, NRC staff finds appropriate that the role of the State will be simulated through the use of a control cell, since the participation of the State is not reasonably achievable.

We have also received the May 26, 1988 confirmation from NRC staff that the May 25, 1988 advisory opinion from the Atomic Safety Licensing and Appeal Board does not change NRC staff's view that the current objectives for the exercise would constitute a qualifying exercise under NRC regulations. It is also our understanding that this confirmation has the concurrence of the NRC Office of General Counsel.

The above pre-exercise arrangements notwithstanding, we think it only prudent to raise the question of whether the planned FEMA-evaluated exercise should proceed at this time. It is our understanding that only recently, LILCO and the State of New York reached agreement in principle which will allow for the closing of the Shoreham plant. While it is possible that final agreement may not be reached, there is also the probability that Shoreham will not continue to operate. In light of the additional expenditure of funds about to be spent related to the Shoreham exercise, it would be more judicious, in FEMA's view, to postpone a FEMA-evaluated exercise at least until further results from the negotiations between LILCO and New York are made public. Of course, postponement of the exercise would not prohibit continued planning and plan review litigation. Since there are only 4 working days left before the scheduled start of the exercise activities, please let us know in writing by COB June 1, 1988, of your position on this matter. If you agree with FEMA's position, we would also ask you to advise LILCO. If you disagree, please include your full rationale.

If you have any questions, please feel free to contact me or Dave McLoughlin at 646-3692.

Sincerely,

for 

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

Enclosure
As Stated