



Federal Emergency Management Agency

Washington, D.C. 20472

APR 26 1984

Mr. William J. Dircks
Executive Director for Operations
U.S. Nuclear Regulatory Commission
Maryland National Bank Building
7735 Old Georgetown Road
Bethesda, Maryland 20814

Dear Mr. Dircks:

This letter responds to certain questions that you raised concerning further developments the Federal Emergency Management Agency (FEMA) is exploring with regard to off-site emergency preparedness at the Shoreham Nuclear Generating Plant. You asked to be updated on any additional steps we are looking at since my letter to you of March 15, 1984. That letter forwarded FEMA's evaluation of the off-site emergency plan prepared by the Long Island Lighting Company (utility plan) to the Commission staff.

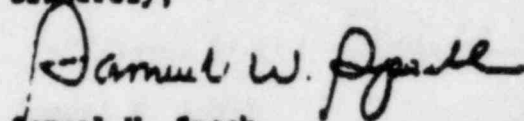
FEMA is charged by law and Presidential direction to take comprehensive steps, working with all levels of government and the private sector, to enhance the state of readiness for emergencies and disasters and to protect the lives and property of our Nation's citizens. Consistent with this responsibility, FEMA, working with the DOE and other Federal agencies is now determining the circumstances under which it might prepare a plan to exercise the utility's off-site emergency plan once, and assuming, necessary corrections are completed. This work thus far indicates that such an effort would require funding of between \$1-2 million and would take about ~~18-24 months~~ for completion. This approach envisions a full field exercise of the utility's plan after correction of deficiencies identified by FEMA in its report to the NRC staff.

It is presently contemplated that the exercise of the utility plan would be undertaken in conjunction with the Federal Radiological Emergency Response Plan, recently exercised in St. Lucie, Florida. Also, the emergency response capabilities of the Department of Energy, and other Federal agencies with operations in the vicinity of the Shoreham plant may be involved. One goal of the exercise would be to review the way that available Federal plans and resources, as noted, can be employed in assistance to State and local plans and response capabilities within the emergency planning zones of operating nuclear power plants.

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Necessarily, there remains a great deal of work to be done in developing this planning and exercise effort, including close work with the State of New York, the NRC and other Federal agencies. We will be contacting you and the NRC staff as these efforts progress.

Sincerely,

A handwritten signature in dark ink, appearing to read "Samuel W. Speck". The signature is fluid and cursive, with the first name "Samuel" being more prominent and the last name "Speck" following in a similar style.

Samuel W. Speck
Associate Director
State and Local Programs and Support

Pre-decisional Executive Summary of Issues on Exercise at Shoreham

Attached are three documents concerning issues involved in developing and conducting an exercise of the Long Island Lighting Company (LILCO) Transition Plan at Shoreham with the use of the Federal Radiological Emergency Response Plan. They are:

- 1) Sequence of Major Activities for the Exercise of the LILCO Plan for Shoreham;
- 2) Objectives which cover the observable elements of NUREG-0654; and
- 3) Items for Consideration In Planning An Exercise at Shoreham.

These documents form the basis from which the Federal Emergency Management Agency (FEMA) can discuss how the exercise should proceed with other Federal agencies, the licensee, the State and other affected parties. Should the agency proceed with the development of the exercise as anticipated in this Plan, major commitments of resources and program funds will be required. At St. Lucie for example, the cost to FEMA alone was \$500,000-\$700,000. Nine hundred people were involved in the St. Lucie full field exercise. At Shoreham it would be essential that contractors provide a large percentage of the personnel resources support so that a timely exercise schedule can be met while ensuring a reasonable level of interruption to ongoing FEMA programs.

Under the statutory assignments made to FEMA by the President, we have authority to prepare a plan for comprehensive emergency response by the Federal Government at Shoreham in conjunction with the LILCO off-site emergency plan. FEMA, participating with other Federal agencies, may also undertake an exercise of such a plan under existing authority.

There will be a continuing issue before the Nuclear Regulatory Commission's Atomic Safety and Licensing Board (ASLB) in the Shoreham case over whether an arrangement of the kind described above, even if successfully exercised, will constitute reasonable assurance of public health and safety off-site as provided for in 10 CFR Part 50.47. This is due in part to the questions that arise regarding the legal authority for both Federal and LILCO to conduct off-site emergency operations in the case of an actual crisis in the absence of an invitation by the Governor of New York State that they do so, or a determination by the President that circumstances demand he invoke his emergency powers under 10 U.S.C. § 331 et seq. The exercise concept developed in the attachment is based on the presumption that authority could be provided to support Federal emergency aid should an actual crisis occur.

SEQUENCE OF MAJOR ACTIVITIES FOR THE EXERCISE OF THE LILCO PLAN FOR SHOREHAM

Exercise Concept: The exercise should proceed under the aegis of the Federal Radiological Emergency Response Plan (FRRP), together with a site-specific plan for the Shoreham plant. Additionally, it is contemplated that an emergency preparedness plan for the adjacent Department of Energy (DOE) locality at Brookhaven would be developed and made part of the exercise effort. In essence, the Federal response capabilities (e.g. FRRP, Brookhaven) would be considered as parallel to a State response in an accident situation, with the LILCO Local Emergency Response Organization (LERO) response being roughly equivalent to what would normally be expected at the county level, i.e., Suffolk County.

Absent State and local participation, the exercise would assume that the first stage of offsite response will be by LERO, under the coordination and assistance of the DOE at Brookhaven. In the event of a fast-breaking accident, Brookhaven, notified by LILCO as stated in the Transition Plan, would initially coordinate the Federal response at the scene, pending FEMA arrival. This is due to the physical proximity of DOE's Brookhaven facility. The Governor will be notified by the LERO Director of Local Response at the Alert stage. The Governor calls the FEMA Region II Director, who will be deployed as the Deputy Senior FEMA Official (DSFO), together with the Emergency Response Team (ERT). The DSFO will serve as the onsite/offsite coordinator. Concurrently, the FEMA Director will appoint a Senior FEMA Official (SFO) who will be deployed to the scene where he will act as the Governor's Authorized Representative (GAR). NRC's site team leader arrives on the scene at the time of the SFO and is designated Director of Site Operations (DSO). LILCO, through its dedicated telephone line, is in continuous contact with the Nuclear Regulatory Commission (NRC) Operations Center in Bethesda, Maryland, throughout the emergency.

Alert Stage: As the emergency moves from the Notification of Unusual Event (NOUE) to the Alert stage, the FEMA Emergency Information Coordination Center (EICC) is notified through the NRC Operational Response Procedures (ORP). FEMA then conducts its call-down, through the EICC, of the Other Federal Agencies (OFA's), i.e., EPA, HHS, USDA, DOT, DDC, DOI, HUD, HCS, and DOD. The EICC is aware that DOE, FEMA, and NRC are already informed.

Also at the Alert stage, the LERO Local EOC is activated at Brentwood, Long Island. This includes activation of the DOE resources at Brookhaven, who report to the Local EOC as provided for in the LILCO Transition Plan.

The emergency action level goes from Alert to Site Area Emergency (SAE) in the next 2 hours. During that time, the following occurs:

- NRC Headquarters Operations Center activated.
- The FEMA Emergency Support Team (EST) becomes operational.

Site Area Emergency: Soon after the declaration of SAE, NRC requests additional DOE help in monitoring and assessment, thereby activating the Federal Radiological Monitoring and Assessment Center (FRMAC) in support of LERO/Brookhaven activities.

General Emergency Stage: The emergency reaches the General Emergency classification level. Initial Protective Action Recommendations (PAR) are implemented. LERO recommendations for sheltering and evacuation, which have been made to NRC (the CVA) are implemented as follows:

- o The prompt alert and notification (A&N) systems will be activated by LERO with the concurrence of the NRC's Director of Site Operations (DSO), who has now arrived at the Emergency Operations Facility (EOF), and upon approval of the SFO in his capacity as the Governor's Authorized Representative (GAR). The SFO notifies the Governor that the A&N activation will occur. The SFO also authorizes LERO to do route alerting, activate sirens, tone alert radios and activate the LERO "EBS" system for the exercise.
- o Other PAR's may be developed and implemented, depending upon meteorological assessments and detailed assessment of plant conditions.

NRC maintains close contact with FEMA Headquarters (EST Director) as major release begins.

Federal agencies deploy and within several hours the ERT, SFO, together with his Deputy Senior FEMA Official (DSFO) arrive at the Federal Response Center (FRC). OFA representatives arrive sometime later at the FRC. The FEMAC is established in close proximity to Brookhaven National Laboratory. DOE's Offsite Technical Director (OSTD) is in charge of FEMAC. He will digest all technical data from LERO and other sources as a basis for PAR's, in conjunction with the EOF. These recommendations are made by the OSTD with DSO (NRC). The SFO (acting on FEMA's and the State's behalf) and the DSO hold coordination and strategy meetings. In the event PAR's are warranted, the PAR decision is made by the SFO, acting as GAR, and implemented with LERO's resources and personnel. Soon thereafter, the major release ends.

Most of the above operations are conducted under the FRRP and the NRC/FEMA Operating Response Procedures (ORP). The significant difference, of course, is that the Governor himself does not play a direct role in major decisionmaking. In essence, from early on the FEMA Region II Director functions as the GAR. The SFO is thus the critical communication link to the Governor. He continually keeps the Governor apprised of the emergency situation and the public impacts.

There are numerous activities of the Federal agencies during the major release, for example:

- o Members of Congress request the status of constituents' health.
- o Press inquiries are made to USDA, HHS, NRC, and FEMA on the impact of the release on food, dairy products, and general health.

The licensee downgrades the level of emergency to EAX soon after the plant is stable (within a few hours of the end of the major release).

Following the end to a major release, active Federal agency involvement takes place in close cooperation with LERO (utility, LILCO contractors, and DOE). DOE and EPA resources as part of the FEMAC perform the function of the State's Bureau of Radiological Health in much the same way that LERO performed A&N functions in place of Suffolk County.

Pressures build from numerous sources for Federal impact assessment. During this time, ongoing activities include:

- Monitoring;
- Data Assessment;
- Long-term protective action recommendations; and
- Public affairs and Congressional relations activities.

The governor requests the Federal establishment to provide and to implement recovery and reentry guidance. Also, the President directs the SFO to develop this guidance and submit it as a written report to the White House.

SHOREMAN EXERCISE

CORRESPONDING PART(S) OF MODULAR EXERCISE FORM

NUREG-0834

OBJECTIVES:

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|---|---|-----------------------|
| 1. Demonstrate ability to mobilize staff and activate facilities promptly. | ROC Sec. I
EOP Sec. I
EPA Sec.
ELOC Sec. I
EM Sec. I | E.1, E.2 |
| 2. Demonstrate ability to fully staff facilities and maintain staffing around the clock. | ROC Sec. I
EOP Sec. I
EPA Sec. I
ELOC Sec. I | A.2.a,
A.4 |
| 3. Demonstrate ability to make decisions and to coordinate emergency activities. | ROC Sec. II | A.1.d, |
| 4. Demonstrate adequacy of facilities and displays to support emergency operations. | ROC Sec. III
EOP Sec. II
EPA Sec. II | G.3.a,
H.2,
H.3 |
| 5. Demonstrate ability to communicate with all appropriate locations, organizations, and field personnel. | ROC Sec. IV
EOP Sec. III
EPA Sec. III
ELOC Sec. III
EM Sec. I, II
EM Sec. IV | F |
| 6. Demonstrate ability to mobilize and deploy field monitoring teams in a timely fashion. | EM Sec. I | E.3, I.8 |
| 7. Demonstrate appropriate equipment and procedures for determining ambient radiation levels. | EM Sec. II, III | I.8, I.31 |
| 8. Demonstrate appropriate equipment and procedures for measurement of airborne radioiodine concentrations as low as 10^{-7} uCi/SC in the presence of noble gases. | EM Sec. II, III
EPA Sec. I, II | I.8 |
| 9. Demonstrate appropriate equipment and procedures for collection, transport and analysis of samples of soil, vegetation, snow, water, and milk. | EM Sec. II, III
EPA Sec. I, II | I.8 |

**CORRESPONDING
PART(S) OF MODULAR
EXERCISE FORM**

OBJECTIVES:**NUREG-0654**

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|--|---|--------------|
| 10. Demonstrate ability to project dosage to the public via plume exposure, based on plant and field data, and to determine appropriate protective measures, based on PAG's available shelter, evacuation time estimates, and all other appropriate factors. | <u>ROC</u> Sec. V
<u>LOF</u> Sec. XI | I.10, J.10.m |
| 11. Demonstrate ability to project dosage to the public via ingestion pathway exposure, based on field data, and to determine appropriate protective measures, based on PAGs and other relevant factors. | <u>ROC</u> Sec. V
<u>LOF</u> Sec. VI | I.10, J.11 |
| 12. Demonstrate ability to implement protective actions for ingestion pathway hazards. | <u>ROC</u> Sec. VII.C | J.9, J.11 |
| 13. Demonstrate ability to alert the public within the 10-mile EPZ, and disseminate an initial instructional message, within 15 minutes. | <u>ROC</u> Sec. VI
<u>PA</u> Sec. XII | E.6 |
| 14. Demonstrate ability to formulate and distribute appropriate instructions to the public, in a timely fashion. | <u>ROC</u> Sec. VI | E.5 |
| 15. Demonstrate the organizational ability and resources necessary to manage an orderly evacuation of all or part of the plume EPZ. | <u>ROC</u> Sec. VII.A
<u>PA</u> Sec. I | J.9, J.10.g |
| 16. Demonstrate the organizational ability and resources necessary to deal with impediments to evacuation, as inclement weather or traffic obstructions. | <u>ROC</u> Sec. VII.A
<u>PA</u> Sec. I | J.10.h |
| 17. Demonstrate the organizational ability and resources necessary to control access to an evacuated area. | <u>ROC</u> Sec. VII.A
<u>PA</u> Sec. I | J.10.i |

**CORRESPONDING
PART(S) OF MODULAR
EXERCISE FORM**

NUREG-0654

OBJECTIVES:

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|---|---|----------------|
| 18. Demonstrate the organizational ability and resources necessary to effect an orderly evacuation of mobility-impaired individuals within the plume EPZ. | <u>ROC</u> Sec. VII.B
<u>IA</u> Sec. II.B | J.10.d |
| 19. Demonstrate the organizational ability and resources necessary to effect an orderly evacuation of schools within the plume EPZ. | <u>ROC</u> Sec. VII.B | J.9, J.10.g |
| 20. Demonstrate ability to continuously monitor and control emergency worker exposure. | <u>ROC</u> Sec. VIII
<u>IA</u> Sec. IV
<u>IA</u> Sec. V | K.3.a,b |
| 21. Demonstrate the ability to make the decision, based on predetermined criteria, whether to issue KI to emergency workers and /or the general population. | <u>ROC</u> Sec. V
<u>IA</u> Sec. VI | J.10.f |
| 22. Demonstrate the ability to supply and administer KI, once the decision has been made to do so. | <u>ROC</u> Sec. VIII
<u>IA</u> Sec. IV
<u>IA</u> Sec. V | J.10.e |
| 23. Demonstrate ability to effect an orderly evacuation of onsite personnel. | <u>ROC</u> Sec. VII.B | J.2 |
| 24. Demonstrate ability to brief the media in a clear, accurate and timely manner. | <u>ROC</u> Sec. IX
<u>IA</u> Sec. IV
<u>IA</u> Sec. IV | G.3.a
G.4.a |
| 25. Demonstrate ability to provide advance coordination of information released. | <u>ROC</u> Sec. IX
<u>IA</u> Sec. IV | G.4.b |
| 26. Demonstrate ability to establish and operate rumor control in a coordinated fashion. | <u>NELOC</u> Sec. II | J.12 |
| 27. Demonstrate adequacy of facilities for mass care of evacuees. | <u>NELOC</u> Sec. III | J.10.h |

**CORRESPONDING
PART(S) OF MODULAR
EXERCISE FORM**

OBJECTIVES:

MUREG-0634

28. Demonstrate adequate equipment and procedures for decontamination of emergency workers, equipment and vehicles.	<u>DECON</u> all	K.3.a, b
29. Demonstrate adequacy of ambulance facilities and procedures for handling contaminated individuals.	<u>MEDIC</u> Sec. III	L.4
30. Demonstrate adequacy of hospital facilities and procedures for handling contaminated individuals.	<u>MEDIC</u> Sec. II	L.1
31. Demonstrate ability to relocate to and operate the alternate ROT/EOC.	(to be developed)	M.2, M3
32. Demonstrate ability to estimate total population exposure.	<u>ROC</u> Sec. V <u>IAW</u> Sec. VI	M.4
33. Demonstrate ability to determine and implement appropriate measures for controlled recovery and reentry.	<u>ROC</u> Sec. X	M.1
34. Demonstrate ability to identify need for, request, and obtain Federal assistance.	(to be developed)	C.1.a, b

Sub Objectives Under Federal Assistance:

1. To evaluate the adequacy, timeliness, and effectiveness of the interagency communications, including procedures and hardware used to notify and update Federal agencies at Headquarters, Field, and the State.
2. To evaluate the adequacy of the facilities available at the site for each agency to perform its task.
3. To evaluate the accuracy, consistency, and timeliness of the release of public information, particularly the coordination of such information among the Federal agencies, offsite between Washington, D.C., Field Organizations, Joint Information Center, and any State information center.
4. To evaluate the effectiveness of the Federal Radiological Monitoring and Assessment Plan in providing radiological assistance.
5. To evaluate the effectiveness of the keeping the White House informed of the situation and Federal actions.
6. To evaluate the effectiveness of keeping the Congress informed of the

Items for Consideration In Planning An Exercise at Shoreham

The following elements could have major impact on the successful conduct of an exercise of the Long Island Lighting Company (LILCO) Transition Plan at Shoreham once deficiencies are corrected.

1. State Support

It is important, as an early component of the development of an exercise plan, to determine the extent of State support for the planned activities.

FEMA Region II representatives emphasized that at a minimum, this support must encompass two concepts: (1) the concept of the exercise itself, with or without State or local participation and (2) the concept of operations.

2. Funding

- A. Level of Funding and Contractor Support - Due to the massive commitment of personnel resources necessary for the tasks associated with the development of this unique exercise within a reasonable time frame, contracting support is essential. From the experience of conducting the exercise of the Federal Radiological Emergency Response Plan (FRERP) at St. Lucie, we can estimate that the cost for FEMA responsibilities for development and coordination approached \$500,000-\$700,000. The potential involvement of Argonne National Laboratory (ANL), Idaho National Engineering Laboratory, and other contractor support is anticipated at a minimum. Due to the accelerated time frame for the development and conduct of the exercise and due to its unique nature, it is necessary to sole-source the work to these firms under existing contracts. Efficiency is gained through the use of existing contract mechanisms and through the proven experience and resource base of these companies. Each has either worked on the conduct of the FRERP exercise at St. Lucie or been intimately involved with FEMA radiological emergency preparedness (REP) exercises for sometime.
- B. Sources of Funding. Finally, the total funding must be shared among the Department of Energy (DOE), Nuclear Regulatory Commission (NRC) and FEMA. It is proposed that the \$500,000-\$700,000 mentioned in Section A above be shared among these agencies. NRC and DOE would contribute their share through interagency transfer of funds. Reaching agreement on this 3-part funding may be a problem. Further, even FEMA's share may be so large that it may become necessary to approach Congress either for (1) authority to reprogram funds from other FEMA programs or (2) to solicit supplemental funds. This obviously would be difficult without full Congressional support for FEMA's intentions.

3. Congressional support for FEMA's plan to exercise at Shoreham. We have already received Congressional reactions, both pro and con, to FEMA's March 15, 1984, report on Shoreham.
4. Correction of LILCO Transition Plan deficiencies. In FEMA's March 15, 1984, transmittal, 32 deficiencies were identified. With the exception of the deficiency relating to NUREG-0654 element A.2.b. (concerning solely the legal authority issue), deficiencies must be corrected. Any adjustments necessary to accommodate the unique role of Federal Agencies would also have to be made. For example, the standard operating procedures relating to Brookhaven's role in the Plan must be strengthened. While this may not appear to be a major obstacle given the amount of time available, a great number of tasks are involved.
5. Impact on FEMA Headquarters and Region II (estimated from the experience with the exercise of the FNERP at St. Lucie). At the St. Lucie Full Field Exercise (FFE), nine hundred people were involved. The same number of Federal participants were involved in the FFE as in the dry run, i.e., about 450. Four staff years of effort were required at FEMA Headquarters and Regional Offices. There was also a major commitment of full-time State resources (3 FTE). Someone in FEMA would also have to assume these duties. These are just examples of the intensive personnel resources required.

Based on the above information, we estimate that even with extensive contractor support, the successful conduct of the Shoreham exercise will take 12 staff years of effort counting both FEMA Headquarters and Regional levels, primarily in the Office of Natural and Technological Hazards (ONTH) and the Office of Disaster Assistance Programs (DAP). Particularly in Headquarters ONTH, this would mean that work on other reactors would be delayed. The same effect would occur in FEMA Region II where much REP work was already postponed due to the heavy staff involvement at Indian Point.

6. Requirements for Participation of Senior FEMA Staff - The FNERP calls for Presidential appointees (e.g., an Associate Director or Administrator) to staff the position of Senior FEMA Official (SFO). This will require extensive time in preparation and play in the exercise.
7. Atomic Safety and Licensing Board (ASLB) Consequences. The ASLB may require extensive testimony by FEMA concerning the development of the exercise concept. Since the ASLB has already convened and is hearing testimony on offsite emergency planning issues related to the Regional Assistance Committee (RAC) finding, testimony on the Shoreham exercise could be required in the near future. This would entail time-consuming preparation of pre-file documents and briefings, etc.
8. Activities by Suffolk County and/or intervenor groups. We have received a Freedom of Information (FOIA) request from Suffolk County's attorneys for information relating to the March 15, 1984, transmittal, the RAC finding and FEMA's position on the LILCO Transition Plan. It is entirely possible that other intervenor groups could join the County in seeking information, etc. There is an obvious drain on FEMA resources in responding to these actions.

9. Cooperation of other Federal Agencies. It is critical to achieve the cooperation of all other agencies which would participate in the application of the FERP at Shoreham. Integrated planning of the interagency roles in this unique exercise is necessary from the beginning of the project.