50-322 OL-3

LILCO EP-47
A-47 5/30/84

LONG ISLAND LIGHTING COMPANY

175 EAST OLD COUNTRY ROAD · HICKSVILLE, NEW YORK 11801

Direct Dial Number

May 30, 1984

Mr. James Larkin
Assistant Vice President
of Human Resources
St. Charles Hospital
200 Belle Terre Road
Port Jefferson, NY 11777

Dear Mr. Larkin:

Enclosed for your review is Revision 2 to the Protective Action Implementation Plan for St. Charles and Revision 2 to the sheltering floor plans. The changes suggested by you and your staff at our April 27 meeting have been incorporated.

The additional information you requested over the telephone is provided below.

1. The pertinent sections of NUREG-0396 and EPA-520 which are referenced in the draft Protective Action Implementation Plan for St. Charles are enclosed.

2. The shielding material for the windows in sheltering locations can be stored on platform trucks (carts). Several carts will be needed for each of the first, second and third floors to reduce the weight on each cart and to facilitate installation of the shielding material in an emergency. The specific dimensions and number of carts will be determined when the shielding material is provided to the hospital.

3. Ambulatory patients who are unable to be discharged should be sheltered in the inner corridors on the first, second, and third floors. Chairs in patient rooms can be used for seating. All doors to patient rooms should be closed.

4. You requested information on the increased dose to patients if they are sheltering and then are advised to evacuate. The protective actions recommended by LERO are based on projected doses which may be expected in the various zones in the EPZ. If the projected doses to the hospital are expected to be of short duration (hours vs.

days) and below 5 REM inside the hospital, sheltering would be recommended. If the dose to the hospital is expected to be of a long duration (days vs. hours) and/or above 5 REM inside the hospital, LERO may recommend evacuation of hospital patients. LERO would recommend that pregnant women and children under 12 be evacuated if the dose within the hospital was projected to be 1 REM or greater.

It is possible that LERO could recommend sheltering of hospital patients and then, due to an unanticipated change in conditions at the Shoreham Plant, recommend evacuation at a later time. In this instance, the immediate dose to hospital patients during the short evacuation period would be higher than the dose patients would receive if they remained sheltered in the hospital. However, the long term dose would be less than that they would receive if they continued to shelter in the hospital.

If you have any questions on this material, please feel free to call me at 733-4884.

Very truly yours,

Eileen M. Ryan

Eileen M. Ryan
Local Emergency Response
Implementing Organization

EMR/kv

Enclosures

bcc: Messrs. J. A. Weismantle
C. A. Daverio
C. A. Gentile
J. N. Christman - H&W
S. M. Dudar - S&W
J. O. Yedvab
Ms. E. D. Robinson
K. E. B. McCleskey - H&W
R. Falzone - H&W
LERO File

NUREG-0396
EPA 520/1-78-016

PLANNING BASIS FOR THE DEVELOPMENT OF STATE AND LOCAL GOVERNMENT RADIOLOGICAL EMERGENCY RESPONSE PLANS IN SUPPORT OF LIGHT WATER NUCLEAR POWER PLANTS

A Report Prepared by a
U. S. Nuclear Regulatory Commission and
U. S. Environmental Protection Agency
Task Force on Emergency Planning

DECEMBER 1978

Office of State Programs
Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Office of Radiation Programs
U. S. Environmental Protection Agency

E. Emergency Planning Consideration Derived from The Reactor Safety Study (WASH-1400)

The Reactor Safety Study (RSS) attempts to provide a detailed quantitative assessment of the probability and consequences of "Class 9" accidents. The study concluded that the public risk from nuclear reactor accidents was dominated by accidents in which there was substantial damage to the reactor core and that the probabilities of such accidents were very small.* Since emergency planners are encouraged to develop response plans which will be flexible enough to respond to most accident situations, some understanding of "Class 9" accidents and the relationships between them and emergency planning is needed.

The Reactor Safety Study developed the mathematical techniques and data base to provide an understanding of these relationships. To obtain an appreciation for the distances to which or areas within which emergency planning might be required, a perspective on the relative probabilities of certain critical doses as a function of distance from the power plant for these accidents

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*Probability of a "core-melt" accident was estimated to be approximately 1 in 20,000 (5×10^{-5}) per reactor year. There is a large uncertainty on this number.

is needed. A set of such curves has been prepared for all of the RSS accident release categories (figure I-11). These curves include both Pressurized and Boiling Water Reactor (PWR & BWR) accidents. Doses are given for the critical values for which emergency planners should be concerned. One and five rem whole body doses correspond to the lower range of the PAGs; 50 rem whole body corresponds to the dosage at which early illnesses start to occur; and 200 rem whole body is the dose at which significant early injuries start to occur. As can be seen from figure I-11, core melt accidents can be severe, but the probability of large doses drops off substantially at about 10 miles from the reactor. Similar conclusions can be reached by evaluating the other critical organs of lung and thyroid shown in figures I-12 and I-13, respectively. For the lung, the doses of 5, 25, 300 and 3000 rem were plotted as a function of distance and probability of occurence. For the thyroid, the reference doses of 5, 25, 300 rem, which correspond to the lower and upper PAG levels, and the guideline exposure used for siting purposes are presented.

Given a core melt accident, there is about a 70% chance of exceeding the PAG doses at 2 miles, a 40% chance at 5 miles, and a 30% chance at 10 miles from a power plant. That is, the probability of exceeding PAG doses at 10 miles is 1.5×10^{-5}

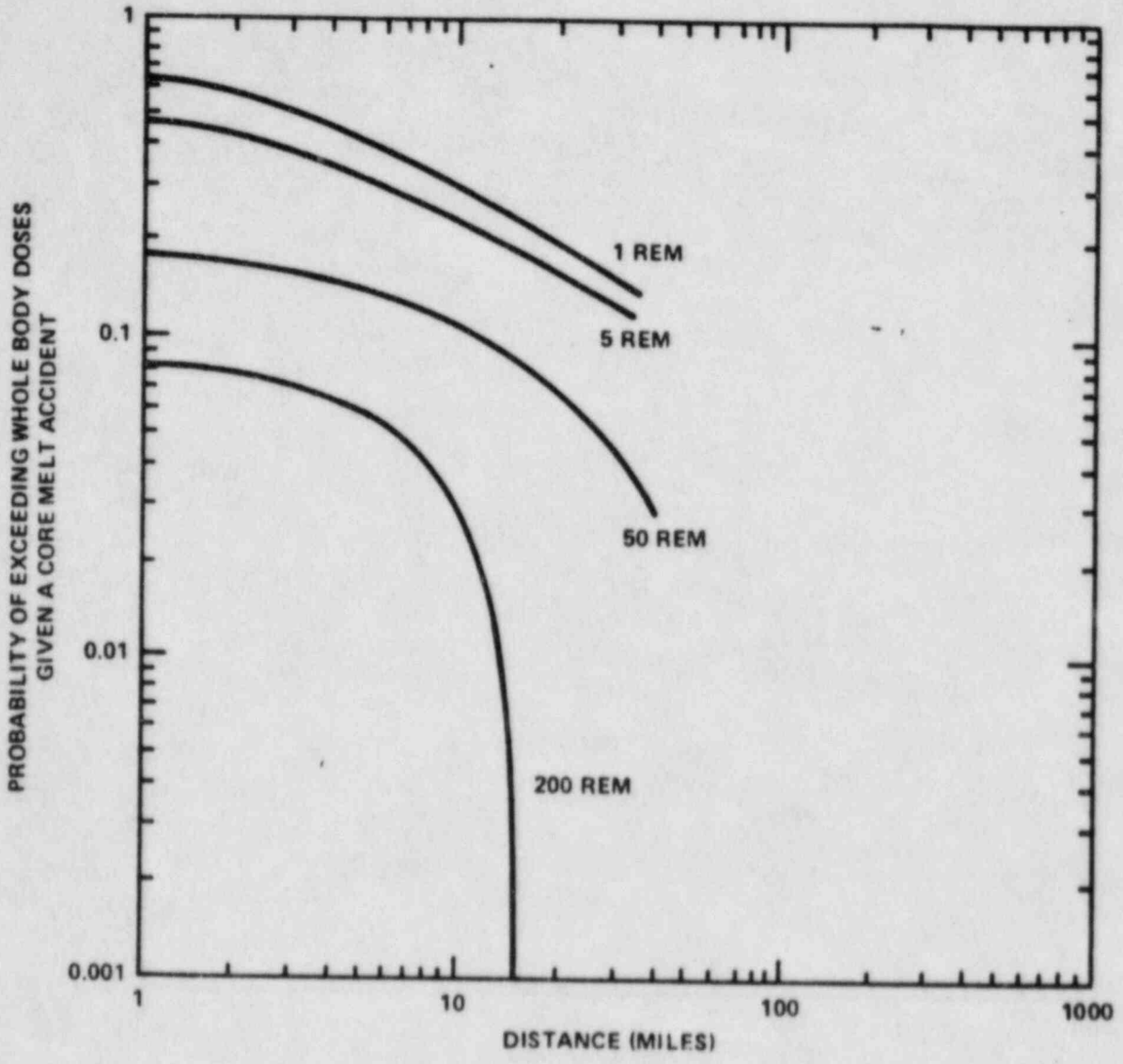


Figure I-11. Conditional Probability of Exceeding Whole Body Dose Versus Distance. Probabilities are Conditional on a Core Melt Accident (5×10^{-5}).

Whole body dose calculated includes: external dose to the whole body due to the passing cloud, exposure to radionuclides on ground, and the dose to the whole body from inhaled radionuclides.

Dose calculations assumed no protective actions taken, and straight line plume trajectory.

EPA-520/1-75-001

Manual of Protective Action Guides and Protective Actions for Nuclear Incidents

September 1975

Environmental Protection Agency
Office of Radiation Programs
Environmental Analysis Division
Washington, D.C. 20460

entering the air, water, and food pathways. Evaluation of these hazards will be particularly important in deciding appropriate actions during the restoration phase, e.g., level of decontamination needed.

1.3.4 Populations at Risk

The next consideration of importance to the responsible official is what population is to be protected. Prior judgment and planning based on the geography and demography of the area around the site and on critical pathways are essential to identifying populations at greatest risk.

The average population is made up of persons with varying sensitivities to radiation exposure, and responses may be keyed to the most sensitive, or responses may be restricted, depending on characteristics of the local population.

(1) For purposes of response planning, the general population will be evaluated on the basis of risk to individuals within the population, usually on the basis of avoiding clinical effects. However, the population as a whole will also be considered in planning some responses on the basis of statistical risk of somatic and/or genetic effects.

(2) Sensitive populations may be considered on a special basis. Children, including the fetus and unborn children, are generally more sensitive than healthy adults. For this reason, such members of the population may be selected

either as the most sensitive receptors or as a special group for protection.

(3) Selected populations will also be present. These populations may be selected on voluntary or involuntary bases. Workers at a nuclear facility are classified as radiation workers and fall under different criteria for protection than the general population. Those persons who are engaged in public service activities during or after the accident are voluntarily placing themselves under different criteria for protection than the general population. Finally, some persons are involuntarily included under different criteria because the risk of taking action is different than for the general population. This involuntarily selected population may include bedridden and critically ill patients, patients in intensive care units, prisoners, etc.

1.3.5 Radiation Effects

A final parameter which must be considered is radiation effects. These may fall into two categories, early or delayed, but are not mutually exclusive.

(1) Early (acute) effects, occurring within 90 days, may include fatalities, symptoms of radiation sickness, or clinically detectable changes. Efforts to protect selected populations will extend to prevention of fatalities, minimization of

ST. CHARLES HOSPITAL

PROTECTIVE ACTION IMPLEMENTATION PLAN IN THE EVENT OF A RADIOLOGICAL EMERGENCY AT THE SHOREHAM NUCLEAR POWER STATION (SNPS)

DRAFT

Revision 2

TABLE OF CONTENTS

A. GLOSSARY

The terms listed below are used in these procedures or may be used in the emergency broadcast system messages which you may hear on your tone alert radio in the event of a radiological emergency at the Shoreham Nuclear Power Station. Underlined words cited in the definitions are cross-indexed.

ALERT

An Alert would be declared if there were an actual or potential safety problem at the plant. A release of radiation may have occurred, but the amount would not have been significant. At this level, LERO would make emergency personnel ready and available to respond if the problem became more serious.

CONTAMINATION

The presence of radioactive material in undesirable locations.

DECONTAMINATION

The reduction or removal of radioactive contaminants from an object, person or area, as by cleaning or washing with water or detergents.

DOSE

A quantity of energy absorbed from ionization per unit mass of tissue. The rem is a unit of absorbed dose.

DOSIMETER

A device that measures radiation dose.

EMERGENCY OPERATIONS CENTER (EOC)

The command, coordination, and communication center operated by LERO which will be activated to evaluate the radiological emergency and make and coordinate protective action recommendations along with other efforts that may be implemented for emergency response.

EMERGENCY PLANNING ZONE (EPZ)

The area about a nuclear power plant for which planning is accomplished to assure that prompt and effective actions can be taken to protect the public in the event of a radiological emergency. The plume exposure EPZ is an area approximately 10 miles in radius around a nuclear power plant.

EVACUATION

The protective action that entails the actual movement of people out of the affected area.

EXERCISE

A preplanned event that tests a major portion of all of the basic elements within the radiological emergency response plan. This event tests the capability of the emergency preparedness organization to successfully respond to a radiological emergency that could result in offsite consequences.

GENERAL EMERGENCY

A General Emergency would be declared if the situation involved actual or expected core damage and radiation releases were expected to exceed the government limits for areas beyond the immediate site. At this level, LERO officials would decide whether pre-planned protective actions such as sheltering or evacuation were necessary. Continuing information would be provided to the public.

LERO

Local Emergency Response Organization

MILLIREM (MREM)

One-thousandth (1/1,000) of a Rem.

MONITORING, RADIOLOGICAL

The operation of locating and measuring radioactivity by means of survey instruments that can detect and measure (as dose rates) ionizing radiation.

NUCLEAR POWER PLANT

A commercial nuclear electric power generating facility.

NUCLEAR REACTOR

A device in which a fission chain reaction can be initiated, maintained, and controlled. Its essential component is a core with fissionable fuel.

OFFSITE

The area beyond the property boundary line of a nuclear power plant.

ONSITE

The area including and around the nuclear power plant enclosed by the property boundary line.

PROTECTIVE ACTION GUIDELINES

Projected radiological doses to individuals in the general population and emergency workers, that warrant protective actions following a release of radioactive material.

PROTECTIVE ACTIONS

The measures taken in anticipation of, during, or after a release of radioactive material. The purpose is to reduce the radiological doses to persons that would be likely to occur if the actions were not taken.

RADIATION

The emission or propagation of waves or particles such as light, sound, radiant heat, or particles or waves emitted by radioactivity including any or all of the following: alpha particles, beta particles, gamma rays, X-rays, neutrons, high-speed electrons, high-speed protons and other atomic particles.

RADIOLOGICAL EMERGENCY

Any event involving actual or potential radiation exposure or radiological contamination to the environment.

RELEASE

Escape of radioactive materials into the environment.

REM

A measure of radiation's biological effect, similar to the way degrees measure temperature or inches measure distance.

SITE AREA EMERGENCY

A Site Area Emergency would be declared if there were actual or potential major failures of plant systems needed for public protection. Releases of radiation may be involved but beyond the site boundary, they would not be expected to exceed safe limits past which the government requires protective action. At this level, LERO would staff emergency positions, radiation survey teams would be dispatched, and the public would be notified through the news media.

UNUSUAL EVENT

An Unusual Event would be declared if there were potential for a safety problem, but there had been no release of radiation from the plant. If this classification is declared, offsite officials are notified about the potential problem.

B. CONCEPT OF OPERATIONS

I. Introduction

The primary protective action recommendation for St. Charles Hospital in the event of a radiological emergency at the Shoreham Nuclear Power Station (SNPS) will be to shelter the patients and employees.

Under the Shoreham Plan, emergencies are to be classified using four categories of increasing seriousness: Unusual Event, Alert, Site Area Emergency, and General Emergency. Only at a General Emergency would there be the possibility that a release of radioactivity would be of sufficient magnitude to potentially exceed, in the plume Emergency Planning Zone (EPZ), the Environmental Protection Agency's Protective Action Guideline dose levels.

Your hospital will be notified initially of any emergency at Shoreham requiring protective actions by anyone in the EPZ by the tone alert radio provided to the hospital by LERO. Your tone alert radio may be activated at the Alert Classification although there will be no need for hospitals to take any protective actions at that emergency classification. If at a higher classification protective actions are recommended for the general public, your tone alert radio would broadcast the Emergency Broadcast System message. If it is necessary for the hospital to take protective actions, LERO would also contact your hospital by telephone to verify that you received the protective action recommendation and are implementing these procedures.

Protective actions of sheltering or evacuation are recommended based upon the projected radiation doses that may be received in particular areas of the plume EPZ, and the amount of time available in which to respond relative to the amount of time necessary to implement a response. While it is unlikely that an emergency resulting in a release would occur at Shoreham, it is more unlikely that a release would occur that would make it necessary to take protective actions out to the 10-mile boundary.

II. Sheltering

In sheltering the patients in St. Charles Hospital during a release of radioactivity from Shoreham, the patients are being protected from two kinds of exposure: (1) external exposure to radiation from an overhead plume and (2) internal exposure from inhaling radioactive particulates from the plume. Adequate sheltering can be provided by your building. The sheltering areas are indicated on the floor plans in Attachment 3.

The primary sheltering areas are the corridors, physical therapy, occupational therapy, classroom, and wheelchair storage areas on the first floor, ICU/CCU on the second floor, and maternity on the third floor. These areas are well below the roof and the windows can be shielded as necessary, thus providing maximum sheltering protection. The ventilation system in these areas can be isolated protecting the patients and staff from radioactive particulates that could be inhaled.

Hospital staff should be instructed to move small amounts of water and food to the sheltering areas. Portable life-support equipment and medication should also be moved to the special sheltering areas. All patients should be moved to sheltering areas. Those patients in the intensive care unit, the coronary care unit, and maternity should be sheltered in their rooms. The following individuals should be sent home if they do not live in an affected (sheltered/ evacuated) area: any combination of patients; patients who are in the hospital for elective surgery; patients who were due to have been discharged the day of the emergency is announced; any other persons, which from the standpoint of their health, the hospital considers safe to release.

III. Evacuation

It is possible to postulate a highly unlikely emergency scenario that would result in the conclusion that it would be necessary to evacuate St. Charles Hospital. However, St. Charles Hospital is located on the edge of the plume EPZ and in most emergency scenarios, a radioactive release from Shoreham would not present the hospital with an immediate emergency (as would, for example, a fire), giving the hospital ample time to implement protective actions. In addition, government studies indicate that the probability of large radiation doses, even from a worse case accident at the plant, drops off substantially at about 10 miles from the reactor (NUREG 0396, Pg. I-37).

Revision 2

IV. Why Will LERO Recommend Sheltering Over Evacuation As the Primary Protective Action?

LERO will recommend sheltering rather than evacuation as the primary protection action based on the high level of radiation shielding provided by your hospital, your distance from Shoreham, and the greater possibility of risk to patients by relocating rather than sheltering them.

There is federal guidance which acknowledges the need to apply different criteria in establishing the appropriate protective action for special groups (e.g., hospital patients). As written in the Environmental Protection Agency's Manual of Protection Action Guides and Protective Actions for Nuclear Incidents, "..... some persons are involuntarily included under different criteria because the risk of taking action is different that for the general population. This involuntarily selected population may include bedridden and critically ill patients, patients in intensive care units, prisoners, etc." (EPA-520/1-75-001, pg. 1.14).

V. Summation

In the event of a radiological emergency at the Shoreham Nuclear Power Station, LERO's primary protective action recommendation to St. Charles Hospital will be to shelter. Patients in ICU, CCU, and maternity should be sheltered in their rooms. All other patients should be sheltered in the special sheltering locations.

C. PROTECTIVE ACTION IMPLEMENTATION PROCEDURE

1.0 PURPOSE

This procedure provides guidance for the implementation of sheltering and evacuation efforts for St. Charles Hospital in the event of a radiological emergency at the Shoreham Nuclear Power Station (SNPS).

2.0 RESPONSIBILITY

The Hospital Administrator or his designee is responsible for implementing this procedure.

3.0 PRECAUTIONS

You may be notified at the Alert level and will be notified at all higher emergency classifications that there is an emergency situation at the SNPS by the Emergency Broadcast System (EBS) message broadcast over your tone alert radio.

Protective action recommendations will not be made until a Site Area or General Emergency is declared.

4.0 PREREQUISITES

An Alert , Site Area Emergency or General Emergency condition is in progress and has been verified.

5.0 ACTIONS

5.1 Hospital Administrator or his designee do the following:

5.1.1 Upon notification of an Alert or higher emergency classification from SNPS via the tone alert radio, note that your hospital is located in Zone Q. All EBS messages which require protective actions are keyed to 19 zone letters, A through S. See Attachment 1 for a map illustrating the EPZ.

5.1.2 Continue to listen to your tone alert radio for further EBS messages.

5.1.3 If sheltering or evacuation is recommended by the EBS message for Zone Q, go to section 6.0 and implement the sheltering procedure.

5.1.4 If evacuation is recommended for St. Charles Hospital, the LERO Health Facilities Coordinator will contact you via commercial phone. Implement the evacuation procedure in Section 7.0.

6.0 SHELTERING PROCEDURE

6.1 Call in any additional staff that may be required for the implementation of the protective action by using the Hospital Call List in Attachment 2.

6.2 Upon a recommendation of sheltering from LERO prepare your patients for sheltering. The following activities must be considered:

- o Keep all employees and patients indoors.
- o Close all doors and windows.
- o Turn off all ventilation systems.
- o Have everyone except ICU/CCU and maternity go to a sheltering area (see Attachment 3 for the floor plans illustrating sheltering areas.)
- o If your facility has decided to use Potassium Iodide (KI) administer it to the patients and/or employees as soon as possible (see Attachment 4 for KI distribution instructions).

6.3 Keep in contact with the LERO Health Facilities Coordinator located at the EOC (xxx - xxxx). The EOC should be contacted:

- o if the mounted dosimeter indicates a 1.0 REM reading and again if it indicates a 3.5 REM reading
- o when the sheltering protective action is completed
- o to tell the EOC how many patients will not be sheltered in the Special Sheltering Areas.

6.4 Brief your key personnel on the status of the emergency. Review their procedures with them:

Nursing - Section 6.4.1
Maintenance - Section 6.4.2
Dietary - Section 6.4.3
Housekeeping - Section 6.4.4
Social Services - Section 6.4.5
Administration - Section 6.4.6
Security - Section 6.4.7

6.4.1 Upon notification from the person in charge, the Nursing Supervisor will do the following:

A. Hold a separate briefing with your staff, including inhalation therapy, ICU, CCU, and emergency room and implement the following steps:

- o Identify those patients who should not be moved to the special sheltering area (e.g. patients in the intensive care unit/the coronary care unit, and maternity should not be moved).
- o Provide instructions on where the special sheltering areas are located (see Attachment 3) and how patients are to be moved to the special sheltering areas.
- o Instruct the staff on how to handle medications and charts for patients that will be taken to the sheltering areas.
- o If your facility has decided to use Potassium Iodide (KI), administer the KI to the patients and/or employees ASAP (see Attachment 4 for KI distribution instructions).

B. Call in any additional nurses and support staff that may be required to implement the protective action recommendation.

6.4.2 Upon notification of sheltering from the person in charge, the Maintenance Supervisor will do the following:

A. Hold a separate briefing with your staft and implement the following steps:

- o Prepare the special sheltering areas for the arrival of the patients. Review the floor plan illustrating the special sheltering areas (Attachment 3).
- o Install shielding material on the windows in ICU/CCU, maternity, occupational therapy, physical therapy, classroom, wheelchair storage, main restrooms, and in the corridor near the tank room.
- o Shut off all outside ventilation. Close and lock doors and windows. The main entrance doors should be sealed with tape, towels, blankets, or sheets. Put the sign reading, "ALL PATIENTS AND VISITORS SHOULD ENTER HOSPITAL THROUGH EMERGENCY ROOM ENTRANCE", on the main entrance doors.
- o Read mounted dosimeter every 30 minutes.

B. Advise the Dietary Staff where to store a small amount of food and drink near the special sheltering areas.

C. Move the tone alert radio to the command post area.

6.4.3 Upon notification of sheltering from the person in charge, the Dietary Supervisor will do the following:

A. Hold a separate briefing with your staff and implement the following steps:

- o Check with nursing about food for tube feeders to accompany patients to the special sheltering areas. The food for tube feeders should be located at the nursing stations.

- o Move a small amount of food and drink to the sheltering locations. The maintenance supervisor will give instructions on where the food and drink should be stored. Avoid spending more than ten minutes gathering the food and drink.

- o Stop all cooking activities. Turn off all ranges, disconnect all electrical equipment (except those providing refrigeration).

- o After steps A, B, and C are complete, have all members of the dietary staff report back to their department.

6.4.4 Upon notification of sheltering from the person in charge, the Housekeeping Staff Supervisor will do the following:

A. Hold a separate briefing with your staff and implement the following steps:

- o Close all windows in patients and other rooms.
- o Upon the completion of the above step, report back to their department.

6.4.5 Upon notification of sheltering from the person in charge, the Social Services Staff Supervisor will do the following:

A. Hold a separate briefing with your staff and implement the following steps:

- o Work with any concerned patients and/or staff.
- o Upon the completion of the above step, report back to their department.

6.4.6 Upon notification from the person in charge, the Administration Supervisor will do the following.

A. Hold a separate briefing with your staff and implement the following step:

- o Instruct all members of the administration staff to assist nursing with sheltering the patients.

6.4.7 Upon notification from the person in charge, the Security Supervisor will do the following.

A. Hold a separate briefing with your staff and implement the following steps:

- o Set up Security at the main entrance and emergency room entrance.
- o Direct all non-injured potentially contaminated persons (who may come to the hospital during an emergency) to a public relocation center for monitoring and if necessary, decontamination.

7.0 EVACUATION PROCEDURE

7.1 If the LERO Health Facilities Coordinator calls with evacuation instructions, provide him with the number of patients who could be transported by bus, the number who would require ambulette/vans, and the number who would require ambulance transportation.

7.2 If the projected dose is expected to reach 1 to 5 REM inside the hospital, the LERO Health Facilities Coordinator will call the Hospital Administrator or his designee and recommend evacuation of all pregnant women (patients, staff and visitors) and children under the age of 12. If the projected dose within the hospital is expected to exceed 5 REM, LERO may recommend that the remaining hospital population be evacuated.

7.3 Call in any additional staff that may be required for the implementation of the evacuation protective action by using the Hospital Call List in Attachment 1.

7.4 Upon a recommendation of evacuation from LERO, prepare your patients for evacuation. The following activities must be considered:

- o Radiosensitive patients (e.g. maternity and pediatrics) and pregnant staff and visitors should be evacuated first.
- o LERO will provide transportation (ambulances, ambulette/vans, buses) for the evacuation.
- o LERO will work with you in identifying reception hospitals.

7.5 Keep in contact with the LERO Health Facilities Coordinator, located at the EOC (XXX - XXXX). The EOC should be contacted:

- o if the mounted dosimeter indicates a 1.0 reading and again if it indicates a 3.5 REM reading;
- o if difficulties arise with transportation during the evacuation;
- o to inform the EOC when evacuation is completed.

7.6 Brief your key personnel on the status of emergency. Review their procedure with them:

Nursing - Section 7.6.1
Maintenance - Section 7.6.2
Dietary - Section 7.6.3
Housekeeping - Section 7.6.4
Social Services - Section 7.6.5
Administration - Section 7.6.6
Security - Section 7.6.7

7.6.1 Upon notification of evacuation from the person in charge, the Nursing Supervisor will do the following:

7.6.1.1 Hold a separate briefing with your staff, including inhalation therapy, ICU, CCU and emergency room staff and implement the following steps:

A. Identify those patients who will require ambulances, ambulette/vans and buses to be evacuated.

B. Provide instructions on which patients should be evacuated first and how the evacuation will be implemented.

C. Insure that charts accompany the patients to the reception hospitals.

D. Discuss the transfer of medications to the reception hospitals.

E. Provide each patient with adequate and proper clothing.

7.6.1.2 Call in any additional nurses and support staff that may be required to implement the protective action recommendation.

7.6.1.3 Inform the person in charge of the number of patients who are ambulatory, the number of patients who will require ambulances, and the number of patients who will require ambulette/vans.

7.6.1.4 Record the name of the reception hospital that each evacuated patient was sent to and provide the list to the Social Services Department (the Social Services Department will call relatives to inform them of the evacuation).

7.6.2 Upon notification of evacuation from the person in charge, the Maintenance Supervisor will do the following:

7.6.2.1 Hold a separate briefing with your staff and implement the following steps:

A. Make sure boilers are kept running in freezing weather.

B. Prepare the building for the evacuation.

C. Secure all entrances after evacuation of the building by locking, chaining, etc.

7.6.3 Upon notification of evacuation from the person in charge, the Dietary Staff Supervisory will do the following:

7.6.3.1 Hold a separate briefing with your staff and implement the following steps:

A. Check with nursing about food for tube feeders to accompany patients to reception hospital.

B. Stop all cooking activities. Turn off all ranges, disconnect all electrical equipment (except those units providing refrigeration).

C. After steps A and B are complete, all dietary staff members will report back to their department.

7.6.4 Upon notification of evacuation from the person in charge, the Housekeeping Staff Supervisor will do the following:

7.6.4.1 Hold a separate briefing with your staff and implement the following steps:

A. Close all windows in patients' and other rooms.

B. Upon the completion of the above step, report to back to their department.

7.6.5 Upon notification of evacuation from the person in charge, the Social Services Staff Supervisor will do the following:

7.6.5.1 Hold a separate briefing with your staff and implement the following steps:

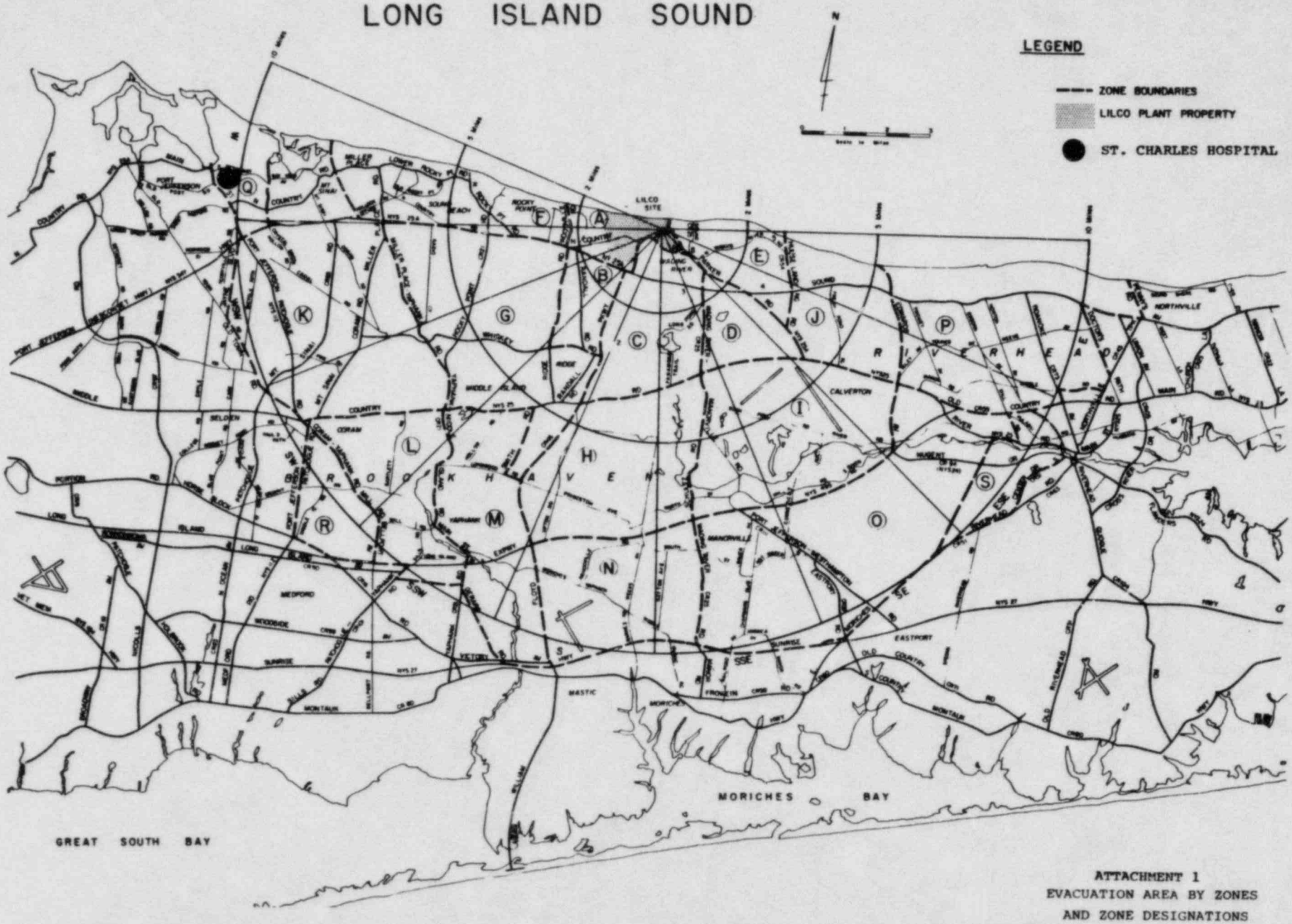
A. Notify relatives and friends about relocation of patients and convey their new location and telephone numbers.

7.6.6 Upon notification of evacuation from the person in charge, the Administration Department will assist nursing with the evacuation.

7.6.7 Upon notification of evacuation from the person in charge, the Security Department will set up security around the hospital until the evacuation efforts have been completed.

ATTACHMENT 1

MAP OF EPZ



ATTACHMENT 1
EVACUATION AREA BY ZONES
AND ZONE DESIGNATIONS

ATTACHMENT 2

HOSPITAL CALL LIST

(to be provided)

ATTACHMENT 3

FLOOR PLANS OF SHELTERING AREAS

(see enclosures)

Revision 2

ATTACHMENT 4

KI DISTRIBUTION

ATTACHMENT 4

Potassium Iodide (KI) Distribution Instructions

I. General Background on KI:

KI blocks radioiodine, which might be ingested or inhaled by an exposed person, from entering the thyroid gland by saturating the gland with nonradioactive iodine. If radioiodine exposure has occurred or is anticipated, the Administrator or her designee can recommend the use of KI as a protective action, in conjunction with sheltering.

Because KI works by saturating the thyroid gland with nonradioactive iodine before radioiodine reaches the thyroid, it is very important to take KI shortly before or soon after any exposure to radioiodine. The concept is illustrated by the fact that KI is over 95 percent effective when taken at the time of exposure to radioiodine and is only 50 percent effective when taken 3-4 hours after exposure. It is important to remember that KI protects only the thyroid gland and does not protect the rest of the body from radiation exposure.

II. Decision Authority:

LERO will not make a recommendation for the use of KI as a protective action. The decision to recommend KI will be made by the Administrator or her designee.

III. Recommended Dose and Frequency:

The recommended dosage is one (1) 130 mg. tablet per day (equivalent to 100 mg. of iodine) to all individuals over one year of age and one-half (½) of a 130 mg. tablet per day (equivalent to 50 mg. of iodine) to infants under one (1) year of age.

KI will not be required after ten (10) days if other protective measures are taken. These protective measures could include interruption of contaminated milk supplies or evacuation.

Radioiodine already present in the body but blocked from entering the thyroid gland by KI will continue to circulate for up to 48 hours after cessation of exposure. Thus, it takes the body two (2) days to eliminate radioiodine by renal excretion. The thyroid gland must be protected for this 48 hour period to prevent uptake of radioiodine from other parts of the body. Continued use of KI is, therefore, required for two (2) additional days after cessation of exposure. The minimum dosage of KI is three (3) days.

IV. Side Effects:

Read the manufacturer's brochure for possible side effects to KI. IF the side effects are severe or if a person has an allergic reaction, they should contact a doctor.

V. Storage:

There are no special storage requirements for this type of KI, provided that each bottle remains tightly close. It is recommended, however, that all KI be kept under lock and key to ensure against possible misuse.