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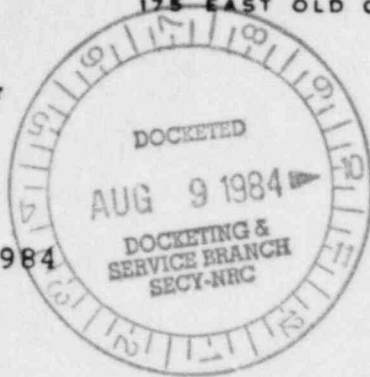
A-40 LILCO EP-40  
6/6/84



**LONG ISLAND LIGHTING COMPANY**

175 EAST OLD COUNTRY ROAD • HICKSVILLE, NEW YORK 11801

Direct Dial Number



April 9, 1984

**U. S. NUCLEAR REGULATORY COMMISSION**

EXHIBIT No. EP-40

Applicant  Staff  Intervenor

Identified  Received  Rejected

Date: JUNE 6-9, '84

Reporter: Wynelle H. Taylor

Ms. Virgie E. Tinsley  
Ridge Rest Home  
P. O. Box 460  
Whiskey Road  
Ridge, New York 11961

Dear Ms. Tinsley:

Enclosed for your review are two copies of Revision 1 to the draft Protective Action Implementation Plan for Ridge Rest Home. Based on the discussion at our March 27 meeting, we have made several changes to the draft Plan to make it more suitable for your facility.

If you or Mrs. Scott have any questions on this material, please feel free to call me at 733-4884 or Steve Dudar at 733-5079. We look forward to meeting with you again in the near future to discuss your comments on this material.

Very truly yours,

*Eileen M. Ryan*

Eileen M. Ryan  
Local Emergency Response  
Implementing Organization

EMR/nbr

Enclosures

- bcc: Messrs. J. A. Weismantle  
C. A. Daverio  
M. L. Miele  
S. Dudar  
D. Glazer  
J. N. Christman  
Ms. E. D. Robinson  
K. E. B. McCleskey  
K. Falzone

LERO File

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# **DRAFT**

RIDGE REST HOME

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

Revision 1

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## A. GLOSSARY

The terms listed below are used in these procedures or may be used in the emergency broadcast 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. Chances of a radioactive release are small. An Alert condition is declared to ensure that emergency personnel, including radiation survey teams, are on standby in case the situation becomes more serious. LILCO informs all government agencies of the Alert condition and conducts briefings for the press.

### 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.

### 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 there were potential or actual fuel core damage and radiation releases were expected to exceed limits beyond which the government requires protective action.

## 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 or 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, 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.

## SHELTERING

The protective action consisting of going indoors, closing doors and windows, and turning off ventilation systems.

### SITE AREA EMERGENCY

This classification would be declared if there were actual or potential major failures of plant systems. At this level, radioactive releases which might require people living near the site boundary to take protective action may occur. If a Site Area Emergency is declared, emergency personnel would report to their stations, radiation survey teams would be dispatched, and government agencies and the public would be notified.

### UNUSUAL EVENT

This classification would be declared if there were potential for a safety problem, but there had been no release of radiation. At this level, there may be no need for a change in the operational status of the plant. LILCO would inform government authorities of the Unusual Event.

## B. Concept of Operations

### I. Introduction

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 facility will be notified initially of any emergency at Shoreham requiring protective actions by anyone in the EPZ by the tone alert radio provided to your facility by LERO. Your tone alert radio may be activated at the Alert Classification although there will be no need for adult/nursing homes to take any protective actions at that emergency classification. If at a higher classification protective actions are recommended for adult/nursing homes, LERO would also contact your facility by telephone to verify that you received the protective action recommendation.

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.

### II. Sheltering

In sheltering your residents during a release of radioactivity from Shoreham, the residents 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.

### III. Evacuation

It is possible to postulate a highly unlikely accident scenario that would result in the conclusion that it would be necessary to evacuate the Ridge Rest Home. If evacuation is recommended, LERO will provide your facility with transportation to a reception center outside the EPZ.



RIDGE REST HOME  
PROTECTIVE ACTION IMPLEMENTATION PROCEDURE  
IN THE EVENT OF A RADIOLOGICAL EMERGENCY  
AT THE  
SHOREHAM NUCLEAR POWER STATION (SNPS)

1.0 PURPOSE

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

2.0 RESPONSIBILITY

The administrator or her designee at the time of the emergency 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 message broadcast over your tone alert radio.

Protective action recommendations will not be made by LERO for nursing/adult homes 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 The administrator or her designee on duty at the time of the emergency will do the following:

- 5.1.1 Upon notification of an Alert or higher emergency classification from SNPS via the tone alert receiver provided to your facility, note that Ridge Rest Home is in Zone G. All EBS messages which require protective actions are keyed to the 19 zone letters, A through S. See Attachment 1 for a map of the EPZ.
- 5.1.2 Call any additional staff that may be required for the implementation of a protective action specified in the EBS message by using Attachment 2.
- 5.1.3 Continue to listen to your tone alert radio for further EBS messages.
- 5.1.4 When the EBS message recommends sheltering go to step 6.0 of this procedure. When the EBS message recommends an evacuation go to step 7.0 of this procedure.

6.0 Upon notification of sheltering do the following:

- a. Brief your staff on the status of the emergency.
- b. Have everyone go to the basement.
- c. Close all windows and doors.
- d. Turn off all ventilation
- e. Move the tone alert radio to the basement.
- f. Move a small amount of food and drink to the basement.

7.0 Upon notification of an evacuation do the following:

- a. Brief your staff on the status of the emergency.
- b. When the LERO Health Facilities Coordinator calls to verify that your facility has heard the EBS broadcast, provide him with the number of residents that can be transported by bus and the number of residents that require an ambulette/van.
- c. Prepare the residents for the evacuation. Advise them that they will be temporarily relocated to \_\_\_\_\_ . Make sure that they take sufficient clothing for a 1-2 day stay and take their medication with them to the reception center.

- d. Instruct a sufficient number of staff to accompany the residents to \_\_\_\_\_.
- e. Advise the remaining staff to report to work at the reception center as needed.

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IF THE RIDGE REST HOME  
DECIDES TO ISSUE POTASSIUM IODIDE  
(KI) TO THEIR PATIENTS SEE  
ATTACHMENT 3 FOR KI INSTRUCTIONS

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Attachment 1

To Be Provided

Revision 1



Attachment 2

To Be Provided

Revision 1

## ATTACHMENT 3

### 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 ( $\frac{1}{2}$ ) 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.