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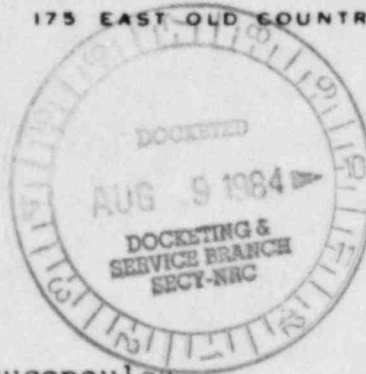


LONG ISLAND LIGHTING COMPANY

175 EAST OLD COUNTRY ROAD · HICKSVILLE, NEW YORK 11801

Direct Dial Number

April 12, 1984



U. S. NUCLEAR REGULATORY COMMISSION

EXHIBIT No. 44

Applicant  Staff  Intervenor

Identified  Received  Rejected

Date: 6/6 - 6/9/84

Reporter: *Myrtle Drayler*

Mrs. Eurydice Loucopoulos  
Woodhaven Nursing Home  
1360 Rte. 112  
Port Jefferson Station, NY 11776

Dear Mrs. Loucopoulos:

Enclosed are two copies of a draft Woodhaven Nursing Home Protective Action Implementation Plan in the Event of a Radiological Emergency at the Shoreham Nuclear Power Station. This is a preliminary plan which we will modify based on your review and comments.

We look forward to meeting with you on April 24 to discuss this material further. If you have any questions, please feel free to call me at 733-4884 or Steve Dudar at 733-5079.

Very truly yours,

*Eileen M. Ryan*

Eileen M. Ryan  
Local Emergency Response  
Implementing Organization

EMR/kv

Attachment

bcc: Messrs. J. A. Weismantle  
C. A. Daverio  
M. L. Miele  
C. A. Gentile  
S. M. Dudar  
D. Glazer

J. N. Christman (H&W)  
Ms. E. D. Robinson  
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LERO File

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

Revision 0

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## A. GLOSSARY

The terms listed below are used in these procedures or may be used in the emergency broadcast system (EBS) 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 was 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.

### 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, 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

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 from the plant. If this classification is declared, offsite officials are notified about the potential problem.

## 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 sufficient magnitude to potentially exceed, in the plume Emergency Planning Zone (EPZ), of 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 the general public, you will also be notified by your tone alert radio.

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 action out to the 10-mile boundary.

### 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. Adequate sheltering can be provided by your building. The sheltering areas are identified in Section C.



### 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 Woodhaven Nursing Home. However, Woodhaven Nursing Home is located near the edge of the plume EPZ and in most accident scenarios, a radioactive release from Shoreham would not present your facility with an immediate emergency (as would, for example, a fire), giving your facility 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).

## C. PROTECTIVE ACTION IMPLEMENTATION PROCEDURE

### 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 at the time of the emergency will do the following:

5.1.1 Upon notification of an Alert or higher emergency classification via the tone alert radio, note that Woodhaven Nursing Home is in Zone K. All EBS messages which require protective actions are keyed to the 19 zone letters, A through S. See Attachment 1 for a map illustrating 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 section 6.0 of this procedure. When the EBS message recommends an evacuation go to section 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. Request that the nursing supervisor prepare the residents for sheltering. The residents will be moved to the sheltering area (See attachment 3 for floor plan illustrating the sheltering area). Review their sheltering procedure (section 6.1) with them.
- c. Request that the maintenance staff close all outside doors and windows, and turn off outside ventilation. Review their procedure (section 6.2) with them.
- d. Request that the dietary staff prepare for sheltering. Review their procedure (section 6.3) with them.
- e. Request that the housekeeping staff prepare for sheltering. Review their procedure (section 6.4) with them.
- f. Request that the social services staff prepare for sheltering. Review their procedure (section 6.5) with them.
- g. Request that the activities department and the administration department prepare for sheltering. Review this procedure (section 6.6) with them.
- h. Notify the LERO Health Facilities Coordinator (516-xxx-xxxx) when sheltering has been completed.

- 6.1 Nursing Supervisor perform the following upon notification from your supervisor:
  - 6.1.1 Hold a separate briefing with your staff and implement the following steps:
    - A. Instruct your staff on where the sheltering areas are located and how residents are to be transported to the basement.
    - B. Identify those residents which should not be moved to the sheltering areas.
    - C. Instruct your staff that all medications and charts for residents should be taken to the sheltering area.
- 6.2 Maintenance staff supervisor perform the following upon notification from your supervisor.
  - 6.2.1 Hold a separate briefing with your staff and implement the following steps:
    - A. Review the floor plan illustrating the sheltering area (attachment 3). Prepare the sheltering area for the arrival of the residents.
    - B. Turn off all outside ventilation. Close and lock all doors and windows.
- 6.3 Dietary staff supervisor perform the following upon notification from your supervisor.
  - 6.3.1 Hold a separate briefing with your staff and implement the following steps:
    - A. Move a small amount of food and drink to the sheltering locations. The maintenance supervisor will give instructions where the food and drink should be stored. Avoid spending more than ten minutes gathering the food and drink.

- B. Report to nursing after the completion of Step A to assist them with the sheltering actions.
- 6.4 Housekeeping staff supervisor perform the following upon notification from your supervisor:
- 6.4.1 Hold a separate briefing with your staff. The staff should be instructed to:
    - A. Close all windows in residents and other rooms.
    - B. Upon the completion of Step A, report to nursing to assist with the sheltering of residents.
- 6.5 Social Services staff supervisor perform the following upon notification from your supervisor:
- 6.5.1 Hold a separate briefing with your staff and implement the following steps:
    - A. Notify relatives and friends about the sheltering of the residents. Inform them that they will be notified again when the emergency is terminated or in the event relocation is required.
    - B. Upon the completion of Step A, report to nursing to assist with the sheltering effort.
- 6.6 All other staff members including the Activities Department and the Administration Department will assist the nursing staff with sheltering the residents.

7.0 Upon notification of an evacuation do the following:

- a. When the LERO Health Facilities Coordinator calls to verify that you heard the EBS message, provide him with the number of ambulette/vans, buses and ambulances that will be required to evacuate the residents.
- b. Brief your staff on the status of the emergency.
- c. Request that the nursing supervisor prepare the residents for the evacuation. Review their procedure (section 7.1) with them.
- d. Request that the maintenance staff prepare the building for the evacuation. Review their procedure (section 7.2) with them.
- e. Request that the dietary staff prepare for the evacuation. Review their procedure (section 7.3) with them.
- f. Request that the housekeeping staff prepare for the evacuation. Review their procedure (section 7.4) with them.
- g. Request that the social services staff prepare for the evacuation. Review their procedure (section 7.5) with them.
- h. Request that the administration department and the activities department prepare for the evacuation. Review their procedure (section 7.6) with them.
- i. Notify the LERO Health Facilities Coordinator (516-xxx-xxxx) when the evacuation has been completed.

7.1 Nursing Supervisor perform the following upon notification from your supervisor.

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

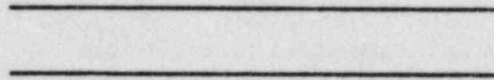
- A. Identify the number of residents that require ambulette/vans, buses or ambulances.
- B. Insure that all residents' charts will accompany them to the reception center.
- C. Prepare and transfer to the reception center all resident medications.

- D. Provide each resident with adequate and proper clothing, including outerwear for a 1-2 day stay.
- 7.2 Maintenance staff supervisor perform the following upon notification from your supervisor.
- 7.2.1 Hold a separate briefing with your staff and implement the following steps:
    - A. Drain boilers and all water lines in freezing weather and leave faucets open. (except fire hydrant and sprinkler lines.)
    - B. Secure all entrances after evacuation of the building by locking, chaining, etc.
- 7.3 Dietary staff supervisor perform the following upon notification from your supervisor.
- 7.3.2 Hold a separate briefing with your staff and implement the following steps:
    - A. Check with nursing about food for tube feeders to accompany residents to new facility.
    - B. Stop all cooking activities. Turn off all ranges, disconnect all electrical equipment (except those units providing refrigeration).
    - C. Upon the completion of the above steps, report to nursing to assist with the evacuation of residents.
- 7.4 Housekeeping staff supervisor perform the following upon notification from your supervisor.
- 7.4.1 Hold a separate briefing with your staff and implement the following steps:
    - A. Close all windows in residents and other rooms.
    - B. Upon the completion of the above step, report to nursing to assist with the evacuation of residents.

7.5 Social Services staff supervisor perform the following upon notification from your supervisor.

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

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



7.6 All other staff members including the Activities Department and the Administration Department will assist the nursing staff.

\* \* \* \* \*

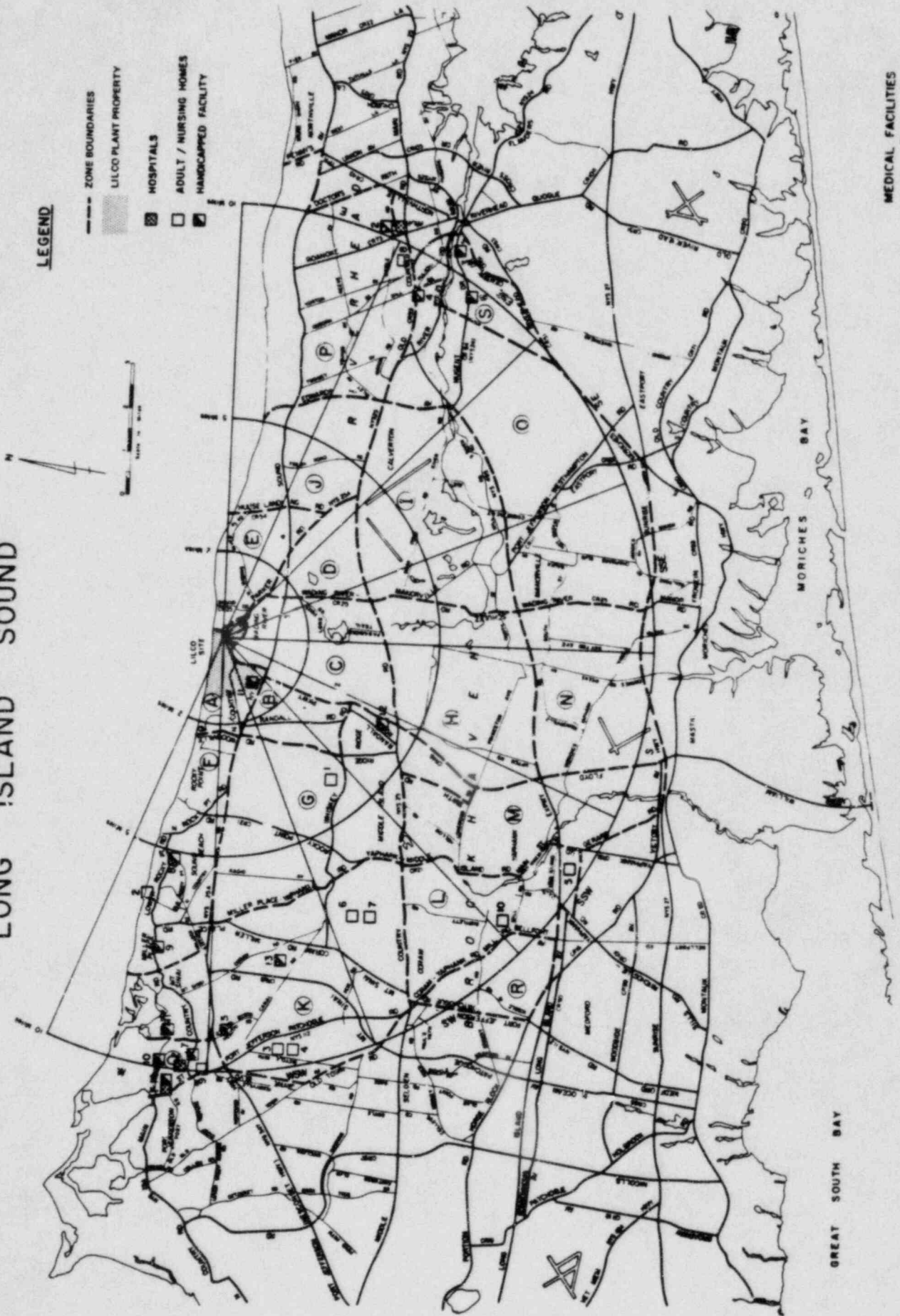
IF THE WOODHAVEN NURSING HOME  
DECIDES TO ISSUE POTASSIUM IODIDE  
(KI) TO THEIR PATIENTS SEE  
ATTACHMENT 4 FOR KI INSTRUCTIONS

\* \* \* \* \*



ATTACHMENT 1

LONG ISLAND SOUND



GREAT SOUTH BAY

MORICHES BAY

Attachment 2

To Be Provided

Revision 0

Attachment 3

To Be Provided

Revision 0

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