Shoreham Nuclear Power Station

Public Emergency Procedures

Maps for Zone R

(Rev. 3)

LILCO
LONG ISLAND LIGHTING

SAVE THIS BOOK

Emergency Procedures

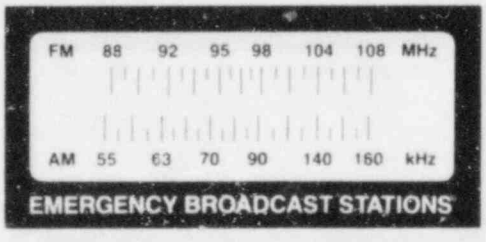
When you hear a siren sound
for three to five minutes:

1. Turn on your AM or FM radio
2. Tune to your local emergency broadcast station
3. Listen carefully for details and instructions about the alarm

You live in Zone R

SHOREHAM Nuclear Power Station

SAVE THIS BOOK



Contents

Summary Of Important Information

When you hear a siren sounding for three to five minutes:

1. Turn on your FM *or* AM radio.
2. Tune to your local Emergency Broadcast System station (graphic).
3. Listen for details and instructions about the alarm.
4. You will know just what to do if you listen to your local Emergency Broadcast System station.

If there is an accident at the Shoreham Nuclear Power Station, it will be classified by its degree of seriousness. The least serious will be called "unusual event." The most serious will be called "general emergency."

If public protection is required, you may be asked to "shelter." To shelter is to keep the family and pets indoors. Close off all outside openings. Shut doors and windows. Turn off air conditioning and heating systems which rely on outside ventilation.

If any locations are to be evacuated, it will be done by zone designation. (Your zone designation is on the cover of this booklet.) The ten mile area surrounding Shoreham is divided into nineteen zones. If your zone is not announced there is no need to leave your home. If your zone is announced, you should leave as soon as possible. If you are in a zone other than your home zone, follow the actions of local residents.

Relocation Centers have been established for you to go to, if needed. At these Centers you and your family can be cared for until you return home.

Special plans have been made for:

- people with handicaps
- people with special transportation needs

If you need special help, or if you know of someone who does, please fill out and return the postcard included in the back of this booklet.

Why Emergency Planning?

In 1980 more than 130,000 American families had to leave their homes because of emergencies. There were hurricanes, tornadoes, major accidents, explosions, and fires. To meet the needs of these people the American Red Cross set up thousands of temporary relocation centers.

Government and private agencies have improved their ability to handle emergencies. Plans are made to provide for safe and efficient care of families during emergencies. In 1979, the U.S. Government established the Federal Emergency Management Agency (FEMA). FEMA oversees the federal role in emergencies. State and County agencies are also responsible for planning for emergencies.

LILCO operates the Shoreham Nuclear Power Station under the very highest safety standards. Still, it is possible that the Shoreham Station could release hazardous material into the air. LILCO has carefully developed plans for handling all emergencies. These plans were developed under regulations issued by the Federal Government in 1980. They strengthen emergency procedures for all nuclear stations. They enable officials to handle any emergency situation that may arise.

Each person in the area should also be personally prepared. This booklet describes your role in dealing with a local emergency. Although this booklet was written for the Shoreham Power Station, many of the procedures can be applied when storms, fires, transportation accidents, or other emergencies strike.

Emergency plans have been developed for each of the nineteen separate zones. Each zone is an area that might need to take action in an emergency. The zones take in areas up to ten miles around the Shoreham Plant.

Shoreham Safety Systems

The Shoreham Station has been built to meet strict federal government regulations for nuclear power plants. There are many overlapping safety features that are designed into the plant to prevent a release of radiation to the air.

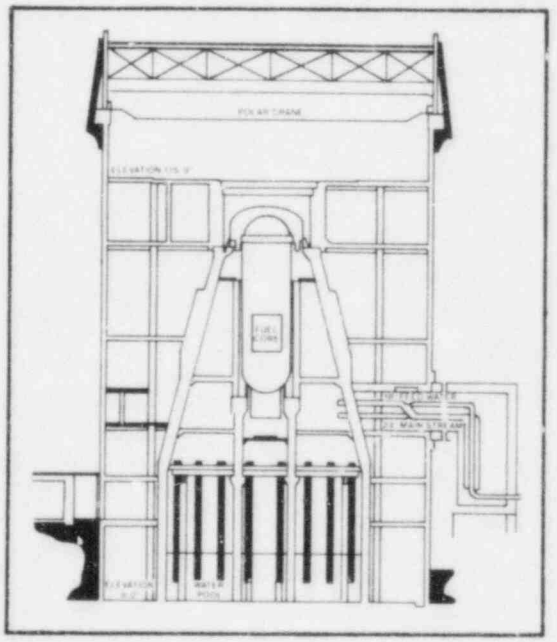
At Shoreham, the reactor is surrounded by a primary containment structure made of steel-lined, reinforced concrete from four to seven feet thick. A secondary containment structure, 220 feet high and 135 feet across with a two-foot reinforced concrete wall, surrounds the primary containment. The design is to prevent any release of radioactive materials. Even if an accident did occur, the material is likely to be retained inside the structure.

Many people believe that a nuclear power plant can explode like a bomb. THIS IS FALSE. A nuclear power plant cannot explode. A nuclear reactor differs from a bomb in several ways. The most important way is in the concentration of the fuel. The fuel in a nuclear power plant contains only about 3% enriched uranium-235. For an explosion to occur, there must be nearly 100% enriched uranium-235.

In the United States and throughout the world reactors have been operating safely for a long time. In fact, if you were to add together all the years that these reactors were operating, you would come to 2,000 years. During all that time, no accident has ever occurred that has hurt the public, not even at Three Mile Island.

At Three Mile Island the containment building prevented a major release of radiation. This is what it was built to do.

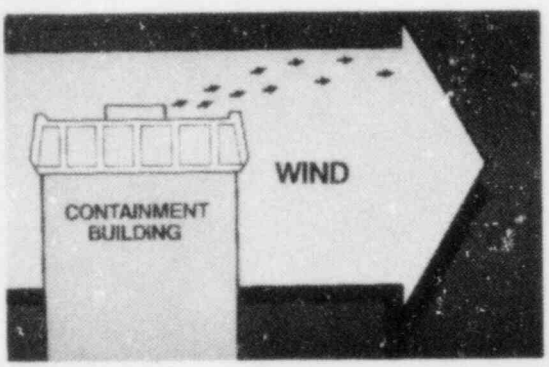
Yet another safety precaution of the Shoreham Station is the emergency plan. This plan has been designed to protect the public in the event there is a release of radiation into the air. The plan covers the area within about 10 miles of the plant. This is the area for which the federal government requires planning.



WHAT CAN OCCUR

Due to the many safety systems designed and built into Shoreham, there is very little likelihood that an accident would occur that would require area residents to take protective action.

Occasionally, nuclear power plants do fail to perform properly. The pumps, valves and pipes inside the plant can fail to work correctly. Some failures may result in a leak of radioactive material into the containment building. The building was designed to hold the radiation inside.



A serious accident at Shoreham could result in the release of radioactive materials into the air. If radiation is released, it could occur all-at-once or over a period of time. In most cases, the release would not begin for several hours after the problem was discovered.

The release into the air would most often be relatively small, and it would move with the wind until diluted to such a low level that it would not be a hazard.

Radiation is not visible, and it does not have an odor. But it can easily be detected by scientific equipment.

If a serious accident occurs which results in the release of radiation into the air, you may be asked to take protective actions. You will know how serious an accident is by the classification system.

How Are Events Or Accidents Classified?

Four classes of emergency have been established for a nuclear plant accident. From least to most serious they are

- Unusual Event
- Alert
- Site Area Emergency
- General Emergency

■ **UNUSUAL EVENT:** This is a condition which does not cause serious damage to the plant. It may not even require a change in operation. There is no release of radioactive material. No response is required beyond the immediate site of the Shoreham plant.

LILCO will inform all government authorities and the media of the **Unusual Event** condition.

The Shoreham plant staff will respond to the event.

■ **ALERT:** This is a condition in which overall plant safety is reduced. There is little chance of any radioactive release. If a release of radiation occurred it would be minimal outside the plant site and would not be a hazard. An **Alert** condition assures that the emergency staff is readily available to respond if the situation should become more serious.

LILCO will inform all government agencies of the **Alert** condition.

LILCO will also activate the Emergency News Center (ENC) in Ronkonkoma to provide press briefings.

The Shoreham plant staff will activate the on-site Technical Support Center (TSC)

The Emergency Operations Facility (EOF) in Hauppauge would be activated to direct LILCO response activities.

The Local Emergency Response Organization (LERO) will activate the Emergency Operations Center (EOC) in Brentwood to assure adequate resources for public protection. Monitoring teams will go into the community to measure any changes in radiation levels.

■ **SITE AREA EMERGENCY:** This condition indicates that radioactive releases could occur, or have already occurred. This condition may require people living within about two miles of the plant to take protective action.

LILCO will notify all government agencies and the media of the emergency condition.

The Emergency Operations Facility (EOF) in Hauppauge will be directing LILCO response activities.

Local Emergency Response Organization (LERO) workers will be ready to do their jobs. They will be directed from the Emergency Operations Center (EOC) in Brentwood.

The 89 sirens within the 10-mile emergency planning area will be sounded to alert the public to listen to their local Emergency Broadcast System radio station.

The Emergency Broadcast System will be on local radio stations with messages to keep the public informed.

■ **GENERAL EMERGENCY:** This is the most severe of accident classifications. It involves possible fuel core damage. Radioactive releases could result which may require people living within 10 miles of the plant to take protective actions.

LILCO will notify all government agencies and the media of the emergency condition.

All emergency facilities will be activated.

The Local Emergency Response Organization (LERO) will be ready to help the public.

The 89 sirens within the 10-mile emergency planning area will be sounded to alert the public to listen to their local Emergency Broadcast System radio station.

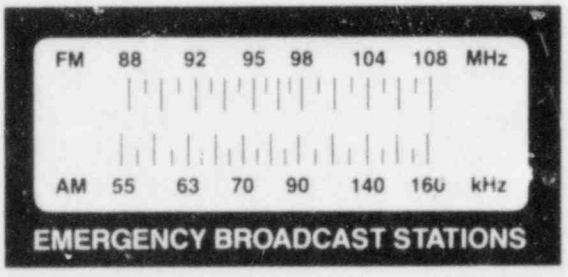
The Emergency Broadcast system will be on local radio stations with messages to keep the public informed.

How You Would Be Told

Eighty-nine sirens have been installed in the ten-mile zone around the Shoreham Plant. The sirens sound similar to fire sirens but there is a difference. The Shoreham sirens make a sound lasting from three to five minutes. (Fire alarms make a wailing sound for about two minutes. Their sound pulsates up to ten times in the two minutes.) If you hear the long siren sound:

- Turn on your radio
- Tune in to your local Emergency Broadcast System radio station.
- You will receive instructions from the Local Emergency Response Director.

In addition to the sirens and your own radios, there are more than 100 tone-alert radios in the area. These radios automatically turn on when an Emergency Broadcast Message comes on the air.



EMERGENCY BROADCAST STATIONS

These tone-alert radios have been placed in schools, hospitals, nursing homes, and other buildings.

The Emergency Broadcast System will provide details about the reason for an alarm. You will always be advised what to do. You should stay tuned in to your local Emergency Broadcast System radio station until the emergency is declared over.

IF YOU ARE HEARING IMPAIRED

People who are hearing impaired should arrange for a family member or neighbor to notify them if the sirens sound.

If you are hearing impaired and would need special assistance in the event that the sirens are sounded it is important for you to register with the Local Emergency Response Organization (LERO).

If the sirens are sounded due to an emergency at the Shoreham Nuclear Power Station, a LERO worker will come to your house to notify you personally of the emergency condition.

To register with LERO, please complete the post card in the back of the brochure and mail it to us today.

EBS STATIONS

(To be completed prior to mailing to public)

Public Protective Actions

In the event of a serious accident at the Shoreham Nuclear Power Station, public protective actions may be recommended for some or all of the people living in the 10-mile emergency planning area.

This area is divided into 19 zones, each with a letter designation, going from Zone A through Zone S. If you received this brochure at your home or business, you are located in the 10-mile emergency planning area. The zone in which you are located is printed on the cover of this brochure. It is important for you to know what zone you are in because public protective actions would be recommended for specific zones.

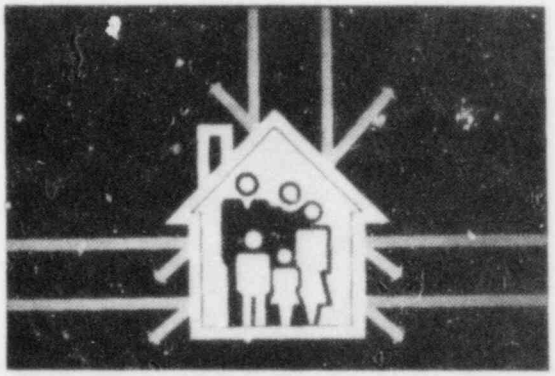
A public protective action recommendation would be based on (1) the amount of radiation which is or could be released into the air from the plant and (2) the weather conditions which are occurring or are anticipated.

SHELTERING

People could be asked to shelter because buildings block some of the outside radiation.

Sheltering is to remain indoors with outside ventilation sources closed off. If the emergency broadcast system radio messages recommend that people in your zone shelter, you should:

- Remain calm
- Ignore all rumors. STAY TUNED TO YOUR LOCAL EMERGENCY BROADCAST SYSTEM RADIO STATION FOR OFFICIAL INFORMATION.
- Keep your family and pets indoors
- Shelter your livestock. Place them on stored feed
- Close all doors and windows
- Extinguish fires in fireplaces
- Avoid driving anywhere (you will be safer staying inside a building)
- Go to the basement, if you have one
- Avoid using the telephone. Lines should be available for emergency calls.



EVACUATION

Some people may be asked to evacuate for a few days. This decision will be made when there is a possibility of a release of radiation over a long period of time. If the emergency broadcast system radio messages recommend that people in your zone evacuate, you should:

- Remain calm. You will have enough time to leave
- Ignore all rumors. STAY TUNED TO YOUR LOCAL EMERGENCY BROADCAST SYSTEM RADIO STATION FOR OFFICIAL INFORMATION
- Avoid using the telephone. Lines should be available for emergency calls
- Offer a ride to a neighbor who may not have transportation. Perhaps one of your neighbors needs special assistance. You could help

- Gather the items you would need for a few days away from home including:
  —blankets and sleeping bags for everyone
  —prescription medicines, if needed
  —changes of clothing for several days
  —personal items such as shaving kits, soaps and cosmetics
  —formulas and other needs of infants and children
  —checkbooks, credit cards and important papers
  —a portable radio with fresh batteries
  —this booklet
- Place a damp common cotton handkerchief or bathroom towel over your nose and mouth when you leave your house.
- Leave by the specific route for your location shown on page 10A of this booklet.
- Follow the blue and white pathfinder signs. They are located on every major roadway in the 10-mile emergency zone. The signs will direct you along predesignated routes out of the zone.
- Follow the directions of the traffic guides. They are there to help speed evacuation.
- If you do not have a ride, walk to the nearest point on the emergency bus route map which is located on page 10B of this brochure. Buses will pick you up along this route and take you to a relocation center outside the zone.

IF YOU ARE DISABLED

Arrangements have been made for handicapped people who are unable to follow the directions given in this booklet. People needing special help because of physical disabilities, confinement, or old age should fill out the advance registration card in the pocket of this booklet **now** and mail it. Those who cannot mail the card for themselves should have someone do it for them. The cards will be used to compile a list of area residents who need special assistance due to blindness, hearing loss, wheelchair confinement, or inability to move because of age. The disabled who need help will be properly cared for. Persons who mail the card will hear from us soon after we receive the card.

Who Goes Where?

If it is recommended that people in your zone leave the area, it is best for you and your family to leave the emergency area as quickly as possible.

The recommended route was selected to satisfy the following conditions:

- allow you to leave the emergency area as rapidly as possible
- move you in a general direction away from the nuclear plant
- disperse traffic so that the available roadway capacity is fully utilized and congestion is minimized.

While the route may not be the shortest route to your destination, it will provide you with the safest and fastest way out of the emergency planning area.

You have a choice as to where you will go.

Going to stay with a friend or a relative outside of the zone would be best. However, if that is not possible, relocation centers will be set up outside of the zone. There will be workers from the American Red Cross at the centers. YOU ARE IN ZONE R. The relocation center for your zone is:

- THE BOCES ISLIP OCCUPATIONAL CENTER COMPLEX, ISLIP, N.Y.

Other relocation centers for other zones include:

- The Suffolk County Community College, Selden Campus
- The State University at Stony Brook

If more space is needed we will have additional centers located at:

- The State University at Farmingdale
- St. Joseph's College, Patchogue

You will find it easy to get to your relocation center if you travel along the recommended route. All the services that you might need will be at the center. Everything will be done for your safety and comfort.

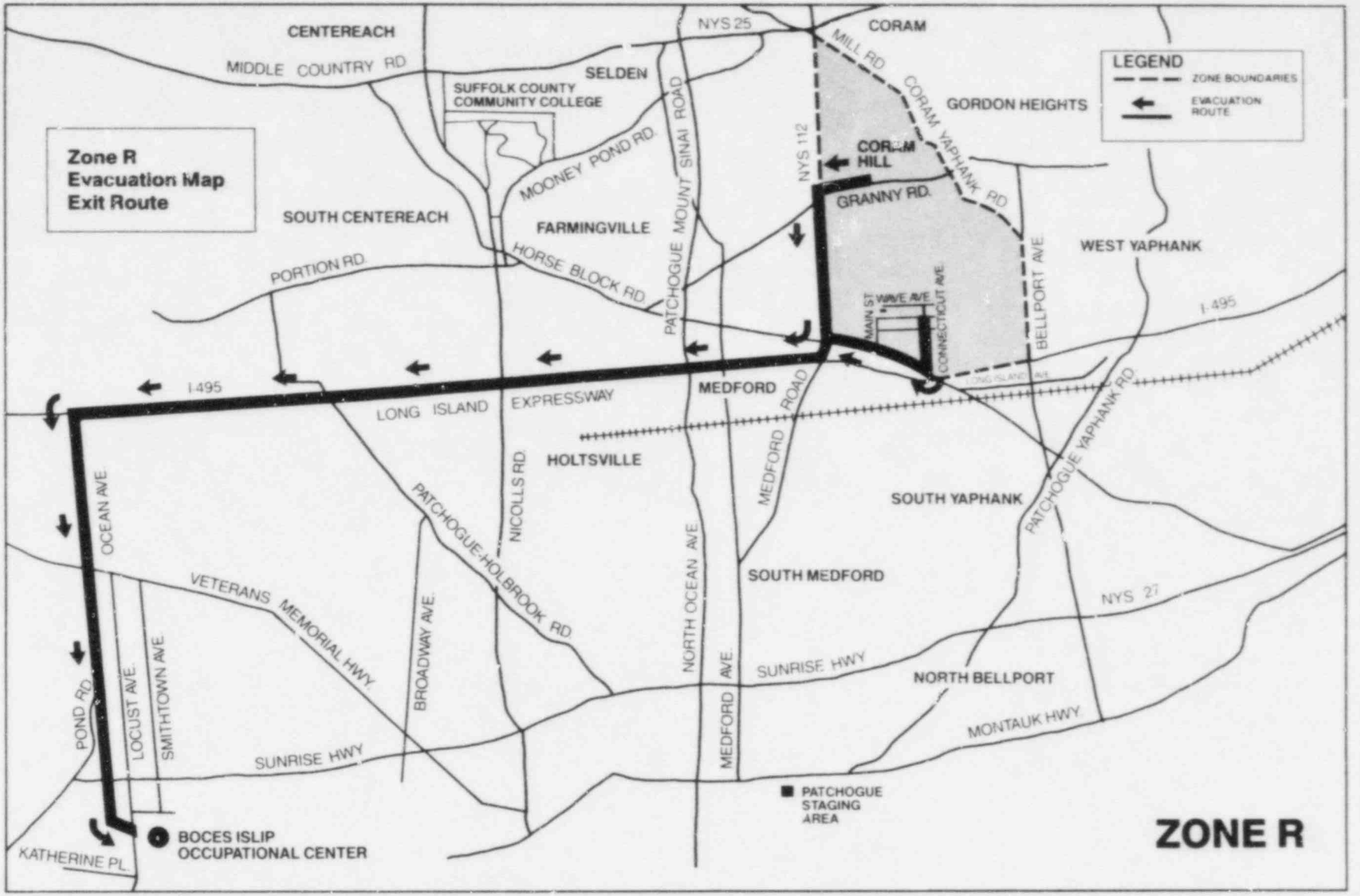
The relocation center can be a meeting place. It can also serve as a message center for you, your family and your friends.

Remember, wherever you choose to go, stay calm and drive carefully along the route shown on your map. Follow the blue and white pathfinder signs which are located on every major road in the 10-mile emergency planning area. The signs will direct you out of the area.

WHAT TO DO WITH YOUR PETS

It is not possible to accept pets into relocation centers. However, the American Red Cross has made special arrangements with local animal shelters for the care of your household pets. Before coming to the relocation center, you should take your pet, along with any special food or medication, to one of the following animal shelters:

Town of Huntington Animal Shelter
Town of Islip Animal Shelter
Town of Babylon Animal Shelter
Town of Southampton Animal Shelter
Town of Brookhaven Animal Shelter
Town of Smithtown Animal Shelter

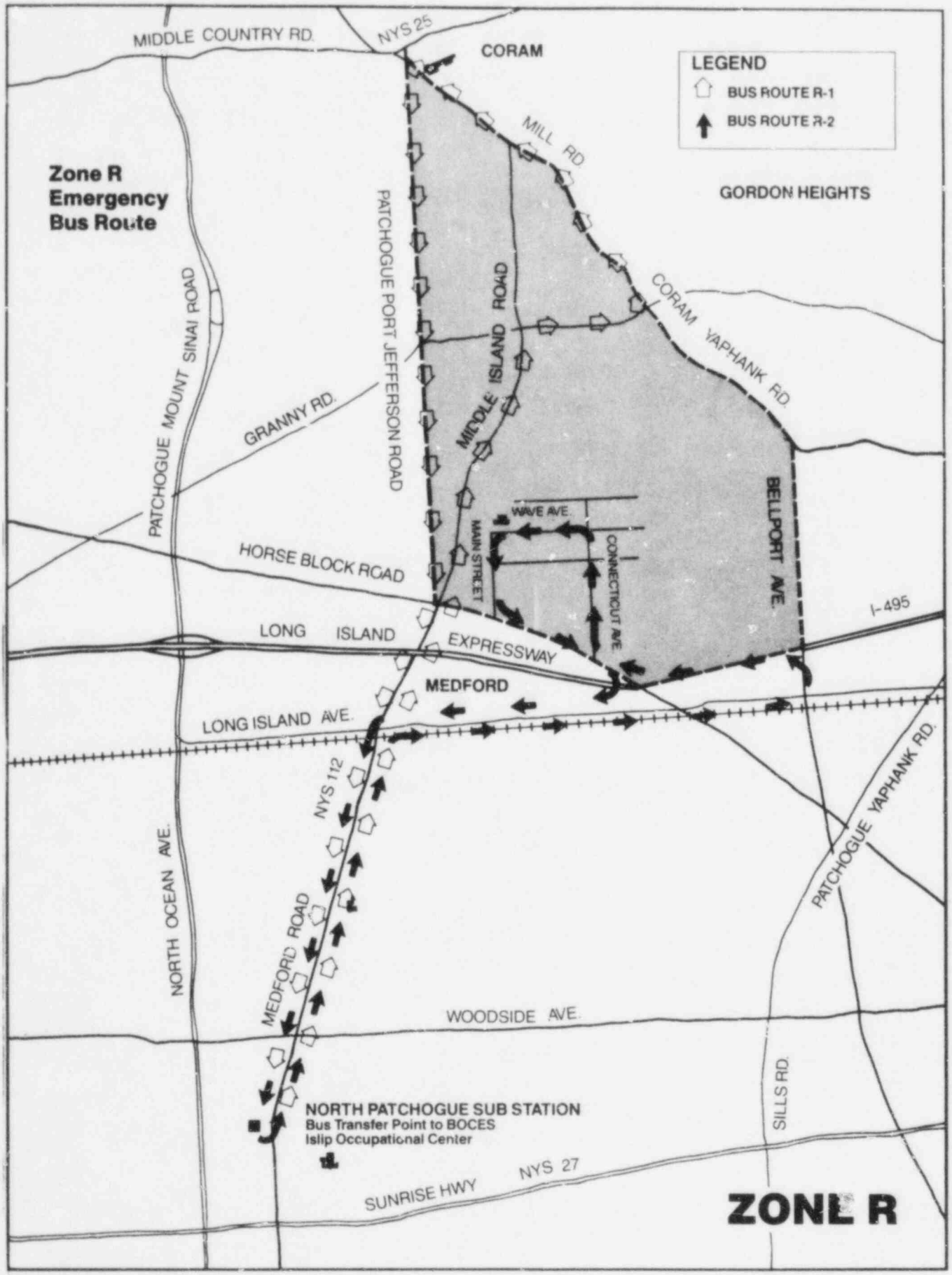


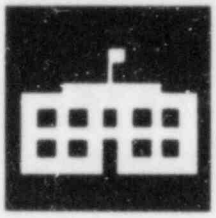
ZONE R

DESCRIPTION: Zone R is south of Coram-Yaphank Road/Mill Road, east of Rt. 112, west of Bellport Avenue, and north of Horseblock Road (CR 16) and the Long Island Expressway (Rt. 495).

ROUTING ASSIGNMENTS: Most convenient to Rt. 112; Rt. 112 south to the Long Island Expressway (I-495, Exit 64); Rt. I-495 west to exit 59S (Ocean Avenue); Ocean Avenue south to Locust Avenue and the BOCES center.

RELOCATION CENTER: BOCES Islip Occupational Center


Zone R
Emergency
Bus Route
LEGEND
BUS ROUTE R-1
BUS ROUTE R-2
MIDDLE COUNTRY RD.
NYS 25
CORAM
MILL RD.
GORDON HEIGHTS
PATCHOGUE MOUNT SINAI ROAD
PATCHOGUE PORT JEFFERSON ROAD
MIDDLE ISLAND ROAD
CORAM YAPHANK RD.
GRANNY RD.
WAVE AVE.
MAIN STREET
CONNECTICUT AVE.
BELLPORT AVE.
HORSE BLOCK ROAD
I-495
LONG ISLAND EXPRESSWAY
MEDFORD
LONG ISLAND AVE.
NYS 112
NORTH OCEAN AVE.
MEDFORD ROAD
PATCHOGUE YAPHANK RD.
WOODSIDE AVE.
SILLS RD.
NORTH PATCHOGUE SUB STATION
Bus Transfer Point to BOCES
Islip Occupational Center
SUNRISE HWY
NYS 27
ZONE R



Children In School

There are 17 school districts, two Boces districts, two parochial schools and 12 nursery schools located in the 10-mile emergency planning zone circling Shoreham.

Some of these districts have schools which are located outside the 10-mile zone.

SCHOOL LISTINGS

SHOREHAM WADING RIVER SCHOOL DISTRICT
All within the 10-mile zone.
- Briarcliff Road School
- Miller Avenue School
- Wading River School
- Shoreham Wading River Middle School
- Shoreham Wading River High School

LITTLE FLOWER UNION FREE SCHOOL DISTRICT
Within the 10-mile zone.
- Little Flower Elementary School

ROCKY POINT UNION FREE SCHOOL DISTRICT
All within the 10-mile zone.
- Joseph A. Edgar School
- Rocky Point Elementary School
- Rocky Point Junior-Senior High School

MIDDLE ISLAND CENTRAL SCHOOL DISTRICT
All within the 10-mile zone.
- Ridge Elementary School
- West Middle Island Elementary School
- Coram Elementary School
- Charles E. Walters Elementary School
- Middle Island Junior High School
- Longwood High School

MILLER PLACE UNION FREE SCHOOL DISTRICT
All within the 10-mile zone
- North Country Road School
- Andrew Muller Primary School
- Sound Beach School
- Miller Place High School

MOUNT SINAI UNION FREE SCHOOL DISTRICT
Both within the 10-mile zone.
- Mount Sinai Elementary School
- Mount Sinai Junior High School

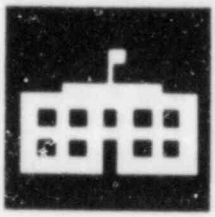
PORT JEFFERSON UNION FREE SCHOOL DISTRICT
Both within the 10-mile zone.
- Port Jefferson Elementary School
- Port Jefferson Junior High School

Outside the 10-mile zone.
- Earl L. Vandermeulen High School.

COMSEWOGUE UNION FREE SCHOOL DISTRICT
Both within the 10-mile zone.
- Clinton Avenue Elementary School
- Comsewogue Senior High School

Outside the 10-mile zone.
- Boyle Road Elementary School
- Terryville Elementary School
- Comsewogue Secondary School
- Norwood Avenue Elementary School
- John F. Kennedy Junior High School

MIDDLE COUNTRY CENTRAL SCHOOL DISTRICT
Outside the 10-mile zone.
- New Lane Memorial Elementary School
- Bicycle Path Elementary School
- Hawkins Path Elementary School



Holbrook Road Elementary School
Jericho Elementary School
North Coleman Road Elementary School
Oxhead Road Elementary School
Stagecoach Road Elementary School
Eugene Auer Memorial Elementary School
Unity Drive Selden Junior High School Annex
Dawnwood Junior High School
Selden Junior High School
Centereach High School
Newfield High School

PATCHOGUE-MEDFORD UNION FREE SCHOOL DISTRICT
Within the 10-mile zone.
Eagle Elementary School

Outside the 10-mile zone.
Tremont Elementary School
Barton Elementary School
Bay Elementary School
Canaan Elementary School
Medford Elementary School
River Elementary School
Oregon Middle School
Saxton Middle School
South Ocean Middle School
Patchogue-Medford High School

SOUTH HAVEN UNION FREE SCHOOL DISTRICT
Outside the 10-mile zone.
South Haven Elementary School

SOUTH MANOR UNION FREE SCHOOL DISTRICT
Both within the 10-mile zone.
South Street School
Dayton Avenue School

EASTPORT UNION FREE SCHOOL DISTRICT
Outside the 10-mile zone.

RIVERHEAD CENTRAL SCHOOL DISTRICT
Both within the 10-mile zone.
Riley Avenue Elementary School
Pulaski Street Elementary School

Outside the 10-mile zone.
Roanoke Avenue Elementary School
Aquebogue Elementary School
Phillips Avenue Elementary School
Riverhead Junior High School
Riverhead High School

WILLIAM FLOYD UNION FREE SCHOOL DISTRICT
Outside the 10-mile zone.
William Floyd Kindergarten
John S. Hobart Elementary School
Moriches Elementary School
Tangier Smith Elementary School
William Floyd Elementary School
Nathaniel Woodhull Elementary School
William Pace Junior High School
William Floyd High School

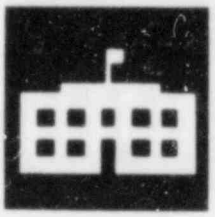
CENTER MORICHES UNION FREE SCHOOL DISTRICT
Outside the 10-mile zone.
Center Moriches Elementary School
Center Moriches High School

WEST MANOR SCHOOL DISTRICT
No schools in district.

BOCES #1
Facilities utilized may be inside the 10-mile zone.

BOCES #2
Facilities utilized may be inside the 10-mile zone.

PAROCHIAL SCHOOLS
Both within the 10-mile zone.
St. Isidore School
Infant Jesus School



Outside the 10-mile zone.
- St. John the Evangelist School
- St. David School
- Mercy High School

NURSERY SCHOOLS
All within the 10-mile zone.
- Alphabetland Child Enrichment Center
- Brookhaven Country Day School
- Central Brookhaven Head Start
- Coram Child Care Center
- Kids-R-Us Day Care Learning Center
- Middle Island Nursery School
- St. Anselm's Nursery School
- St. John's Pre-School
- Sound Beach Pre-School Co-op
- Step-by-Step Early Learning Center
- Trinity Lutheran Nursery School
- Wading River Cooperative Play School

Outside the 10-mile zone.
- North Shore Christian School

All school districts, parochial schools and nursery schools which are located inside the zone or which may draw students from inside the zone will be kept up to date on conditions at Shoreham in the event of an accident at the nuclear plant.

Schools will be advised to implement emergency procedures at the earliest possible stage.

In the event of an Alert Condition at the Shoreham plant which results in no protective action recommendations for the general public, school districts, parochial schools and nursery schools listed in this brochure will be advised to dismiss their students early.

In the event of a Site Area or General Emergency Condition at the Shoreham plant which results in the protective action recommendation of sheltering anywhere in the 10-mile emergency planning zone, all schools listed in this brochure will be advised to shelter their students. Students who live within the zone but who attend school outside the zone will be asked to remain at school when the school day ends.

In the event of a General Emergency Condition at the Shoreham plant which results in the protective action recommendation of evacuation anywhere in the 10-mile emergency planning zone, all schools listed in this brochure will be advised to relocate their students to reception centers outside the zone. Students who live within the zone but who attend school outside the zone will be asked to remain at school when the school day ends.

What You Should Know About Radiation

(To help you understand radiation here is a report based on information by Roger Linnemann, M.D. He is a Professor of Radiology at the University of Pennsylvania School of Medicine. He is also President of the Radiation Management Corporation.)

NATURAL RADIATION Radiation has been with us since the beginning of time.We are constantly exposed to radiation from the atmosphere's cosmic rays. In addition, radioactive elements, such as radium and uranium, are scattered in harmless quantities throughout our world. This creates an environment on Earth that is always "radioactive." Our soil, the wood and brick that we use to build our homes, the food we eat, the water we drink are all radioactive. Even the air we breathe contains materials that are naturally radioactive.

Through most of our history we were unaware of natural radiation being released around us billions of times a second. But in the century since radiation was discovered, it has become one of the most widely studied and best understood processes in all of nature.

A standard measurement of radiation is called the "rem." Since most exposures result in only small fractions of a rem, they are often described in terms of the "millirem"—or one-thousandth of a rem.

EASILY DETECTED Radiation is easily detected and measured. We have instruments that can find even a few radioactive atoms among billions of non-radioactive ones. We can measure the precise amounts of radiation that we are exposed to. Radiation comes from nature and other sources like medical and dental x rays.

EXPOSURE LEVELS How many millirem are you now receiving? It depends on several factors. It depends on your diet, and the building materials of your home and workplace. Also the amount of medical x-rays you receive, and even the elevation of your home. Higher altitudes receive more natural radiation.

In 1979 a report on radiation was written by the U.S. Department of Health, Education and Welfare, the Environmental Protection Agency and other federal agencies. It found that Americans receive about 100 millirem a year from natural radiation in our environment.

Most Americans receive about 44 millirem a year from the atmosphere's cosmic radiation. Also, about 18 millirem from natural radioactivity in the water, food and air. And about 40 millirem come from natural radioactivity in soil and rocks.

In addition, most Americans are exposed to almost that much merely from medical and dental procedures. A single chest x-ray adds about 20 millirem. A dental x-ray about 3. Adult Americans receive about 90 millirem a year from medical sources.

Government scientists estimate that fallout from nuclear weapons adds 5 millirem. Some consumer products, like luminous watches, color television sets, and smoke detectors with small radioactive components give off additional exposure. Altogether, the total exposure of most New Yorkers to natural and man-made radiation is probably a little over 200 millirem each year.

Some Americans receive more radiation. If you live in Denver, for example, you would receive about 25 millirem more than if you lived at sea-level. The

higher elevation would expose you to additional cosmic rays. If you make trips by airplane you receive 1 to 2 additional millirem for each 2,500 miles. The higher flying altitudes put you closer to the cosmic rays.

RADIATION AND NUCLEAR PLANTS

The operation of a nuclear power plant is a minor factor in radiation exposure. Even the people who live nearest a plant receive at most only 1 to 2 millirem a year! This is less than the radiation one gets during one coast-to-coast airplane flight.

What about radiation released as a result of a reactor accident? There are more than 75 nuclear-powered commercial electric plants operating around the country. Yet, there has never been an accident that has exposed the public to the level of a year's natural radiation. At Three Mile Island the containment building prevented a major release of radiation. This was what it was built to do.

Radiation and health experts calculated at Three Mile Island the most radiation that anyone could have received. Even those standing in the highest radiation area outside the plant for 10 days received a dose of only 70 millirems. They reported that the average exposure for the population within 5 miles of the plant was only about 1 millirem.

RADIATION GUIDELINES Two organizations of prominent scientific experts on radiation and health—The International Commission on Radiological Protection and the National Council on Radiation Protection and Measurements—were established in the 1920s. They recommend public health and safety standards for radiation exposure. After more than 50 years' experience, they today recommend that exposure to workers in the nuclear industry be limited to a maximum of 5,000 millirem a year. For members of the public, the recommendation is a maximum of 500 millirem above natural and medical exposure.

We know that radiation can be hazardous at high levels. However, at the levels of these standards, if there is an effect on health, it is so small that we cannot even detect it.

Typical Radiation Sources[1]

Sources and amount of annual radiation exposure, according to U.S. government health and environmental experts.

Source	Millirem
Cosmic rays	44
Natural radioactivity in water, food and air	18
Natural radioactivity in soil and rocks	40
Medical and dental x-rays	90
Consumer products such as TV, luminous clock dials	less than 1
Fallout from weapons test	5
Nuclear power plants routine operation	less than 1

[1]"The Report on the Inter-Agency Task Force on the Health Effects of Ionizing Radiation," issued by the U.S. Department of Health, Education and Welfare, June 1979.

Be Prepared

To be sure that your family is prepared for any emergency, you should:

- Have your family read this booklet.
- Talk about it with the family. Be sure that everyone knows what to do.
- Find your emergency Relocation Center on the map (page 10). Note how you would get from your house to the Relocation Center.
- If the Local Emergency Response Organization Director recommends that people in your zone should leave home, go quickly. Plan now where you will go. Will you go to your Relocation Center? Or will you go to a friend's or relative's house outside the 10-mile emergency area?
- Each family should decide now how they will get together.
- Do you think you will need special help? If you do, mail the enclosed card to us. We will write back telling how we will help. Do you know of someone else who needs help? If you do, tell us that too.
- It is a good idea to keep a portable radio and extra batteries on hand. A flashlight and a first-aid kit are good to have with you too.
- Keep this booklet. Put it in a place that you will not forget.
- Any questions? Please feel free to write to:

  Local Emergency
  Response Organization
  P.O. Box 624
  Wading River, NY 11742

We want to help.