

**ORIGINAL**  
UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

In the matter of:

LONG ISLAND LIGHTING COMPANY

Docket No. 50-322-OL-3

(Shoreham Nuclear Power Station  
Unit 1)

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LILCO, April 2, 1984

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

Before the Atomic Safety and Licensing Board

In the Matter of )  
LONG ISLAND LIGHTING COMPANY ) Docket No. 50-322-OL-3  
(Shoreham Nuclear Power Station, ) (Emergency Planning Proceeding)  
Unit 1) )

TESTIMONY OF HARRY N. BABB, GARY J. BERGER,  
MATTHEW C. COFDARO, CHARLES A. DAVERIO,  
DENNIS S. MILETI, WILLIAM F. RENZ, AND  
RONALD A. VARLEY ON BEHALF OF LONG ISLAND  
LIGHTING COMPANY ON PHASE II EMERGENCY PLANNING  
CONTENTIONS 39.A, B, 40, 41, 44.D, E, and F,  
98, 99.C and G, 100.B, D, and G

Attachments 7 through 27 (except 20) to Testimony  
Volume 4 of 5

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ATTACHMENTS

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- ATTACHMENT 2                    LILCO Local Emergency Response Organization  
Traffic Guidance Drill, Rev. 0
- ATTACHMENT 3                    LILCO Local Emergency Response Organization  
Transportation Coordination Drill, Rev. 0
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Personnel Monitoring and Decontamination  
Facilities Drill, Rev. 0
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A. Daverio, LILCO, to Captain E. W. Weigand,  
U.S. Coast Guard
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- General Knowledge (Module 1 - script)
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\*Supplied to the Atomic Safety and Licensing Board, the State of New York, the Federal Emergency Management Agency, and the Nuclear Regulatory Commission under separate cover.

Suffolk County is already in possession of these videotapes.

ATTACHMENT 7

LESSON PLAN: COAST GUARD EMERGENCY PREPAREDNESS TRAINING

SESSION: \_\_\_\_\_ TITLE: 1. ANNUAL LERO COAST GUARD TRAINING PRESENTATION

DURATION: \_\_\_\_\_ PRIMARY INSTRUCTOR: \_\_\_\_\_

LEARNING MATERIALS: Videotapes: "Radiation Naturally," "Basic Radiation Protection," "Personnel Dosimetry;" Workbook containing Modules 3 and 9; "Radiation Protection" and "Radiation Exposure Control;" Direct Reading Dosimeters (Hi and Low Range); RM-14s; Lantern Mantels; Dosimeter Chargers

TRAINING OBJECTIVES: Provide the Coast Guard identified to respond in support of LERO with an understanding of:

- Basic radiological concepts and practices
- Radiological protection practices
- Use of radiological detection and protection equipment
- Role of the Coast Guard in supporting LERO

- | SESSION STEP | SUBJECT  | TRAINING AID                            |
|--------------|--|---|
| I            | Introduction   |   |
|              | A. Instructor introductions  |   |
|              | B. Experiences of TMI and Post-TMI upgrading   |   |
|              | o Public Information   |   |
|              | o Standardization  |   |
|              | o Drills and exercises   |   |
|              | C. Explain why Coast Guard is involved in a response for Shoreham                            |   |
|              | o 10-Mile EPZ  |   |
|              | o Public Notification  |   |
|              | o Vessel Traffic Control   |   |
|              | D. Discuss the need to take radiological protective actions when performing duties.          |   |
| II           | Show videotape, "Radiation Naturally."   | Videotape                               |
| III          | Pass out workbooks and explain content/concept.  | Workbooks                               |
| IV           | Show "Basic Radiation Protection" videotape and work through the applicable workbook module. | Videotape and Workbook Module           |
| V            | Show "Radiation Exposure Control" videotape and work through the applicable workbook module. | Videotape and Workbook Module           |
| VI           | Conduct practical demonstrations of radiac and dosimetry use.                                | DRD's and Chargers, RM-14s, and Mantels |
| VIII         | Discuss a typical response by the Coast Guard to an emergency at Shoreham.                   |   |

ATTACHMENT 8



LESSON PLAN: AMBULANCE PERSONNEL - EMERGENCY PREPAREDNESS TRAINING

SESSION: \_\_\_\_\_ TITLE: \_\_\_\_\_

DURATION: 4 hours PRIMARY INSTRUCTOR: \_\_\_\_\_

LEARNING MATERIALS: o Videotapes

- "Emergency Preparedness Overview"
- "Special Evacuations"
- "Contaminated and Injured Personnel"

- o Workbooks containing Modules "Emergency Preparedness Overview" (1.1 General Knowledge); Module 13, "Special Evacuations;" Module 11, "Contaminated and Injured Personnel" for each participant
- o LERO Training Program Workbook
- o 3/4" VTR Deck and Monitor
- o Large EPZ map

TRAINING OBJECTIVES: Module I

- A. Radiological emergency planning
- B. How the regulations governing emergency planning have changed since the accident at Three Mile Island
- C. The emergency classification system
- D. Emergency Planning Zones
- E. The emergency response actions that would be taken in each emergency planning zone

Module 13

- A. Have an understanding of the methods involved in carrying out special evacuation activities
- B. Know the LERO staff positions which are involved in supporting special evacuation actions
- C. Be familiar with the three types of special evacuations
- D. Know how the notification and mobilization of LERO members involved in special evacuations occurs
- E. Have an understanding of the actions outlined in OPIP 3.6.5, "Special Evacuations" procedure

Module 11

- A. Have a clear understanding that priority should be given to emergency first-aid and medical treatment before dealing with contamination
- B. Be able to identify the LERO Coordinators responsible for requesting ambulance assistance
- C. Know how to handle an injured person who may be contaminated
- D. Know what precautions to take to prevent the spread of contamination
- E. Know what protective equipment to wear during an emergency
- F. Know what hospital to transport the victim to
- G. Know where to report after delivering the victim to the hospital

Introduction

- |     |   |                        |
|-----|---|------------------------|
| I   | <ul style="list-style-type: none"> <li>A. Instructor introductions</li> <li>B. Experiences of TMI and post-TMI upgrading               <ul style="list-style-type: none"> <li>o Public Information</li> <li>o Standardization</li> <li>o Drills and exercises</li> </ul> </li> <li>C. Explain the role of ambulances in the LERO emergency planning effort               <ul style="list-style-type: none"> <li>o 10-Mile EPZ</li> <li>o Nursing homes, non ambulatory residents</li> <li>o Accidents and injuries</li> </ul> </li> </ul> | EPZ Map                |
| II  | Pass out workbooks and explain content and concepts   | Workbooks              |
| III | Show videotape "Emergency Preparedness Overview." Work through Module 1 workbook  | Videotape and Workbook |
| IV  | Show videotape "Special Evacuations." Work through Module 13 workbook   | Videotape and Workbook |
| V   | <p>Discuss notification and communications. Explain that the EOC will notify dispatching stations as the need arises. The ambulance companies will notify their people as normal. The emergency medical services radio network will serve as a back up to their own ambulance radio systems. The EOC will have a transmitter for the emergency medical services network.</p>  |                        |
| VI  | Show videotape "Contaminated, Injured Personnel" Work through Module 11 workbook  | Videotape and Workbook |
| VII | Discuss a typical response by an ambulance to an emergency in the EPZ   |                        |

LESSON PLAN: AMBULANCE PERSONNEL - RADIATION PROTECTION TRAINING

SESSION: \_\_\_\_\_ TITLE: \_\_\_\_\_

DURATION: 5 hours PRIMARY INSTRUCTOR: Staff

LEARNING MATERIALS: o Videotapes

- "Radiation Naturally"
  - "Radiation Protection"
  - "Radiological Monitoring and Decontamination"
  - "Personnel Dosimetry Demonstration"
- o Workbook Modules 3, "Radiation Protection"; 10, "Monitoring and Decontamination;" 9, "Personnel Dosimetry"
  - o LERO Training Program Workbook
  - o 3/4" VTR Deck and Monitor
  - o Direct Reading Dosimeters (hi and lo range) and TLD
  - o RM 14
  - o Lantern Mantels
  - o Dosimeter Charger

TRAINING OBJECTIVES: Module 3

- A. Understand atomic structure, such as protons, neutrons and electrons
- B. Know the three types of radiation
- C. Be familiar with the types of materials that will block radiation
- D. Understand the various units of measurement used in radiation protection
- E. Be able to identify natural and man-made sources of radiation
- F. Know how and at which levels radiation can cause damage
- G. Know the LERO worker radiation exposure limit
- H. Be able to identify the forms of radiation found in a nuclear power plant
- I. Know the difference between exposure and contamination.
- J. Be familiar with methods for controlling and monitoring radiation

## Module 10

- A. Understand the basic function and use of a GM radiation probe and count rate meter
- B. Know how to recognize the radiation symbol
- C. Become familiarized with personnel and equipment monitoring techniques and contamination limits
- D. Become familiarized with various decontamination techniques for personnel and equipment

## Module 9, Section I

The objectives of this portion of the LERO Training Program are to familiarize each emergency worker with methods used to control exposure to radiation. The following topics will be covered:

- A. Emergency Worker's responsibility to help minimize their exposure
- B. The ALARA ("As Low As Reasonably Achievable") principle
- C. Using time, distance and shielding to control external exposure
- D. Using the drug potassium iodide to control internal exposure
- E. Using protective clothing to control the spread of contamination
- F. Protective Action Guide limits for emergency workers
- G. Using dosimeters to minimize exposure
- H. Keeping records to monitor exposure

## Module 9, Section II

At the conclusion of the "Radiation Detection Instruments" section of the LERO Training Program, the trainee will be familiar with:

- A. Types of dosimeters
- B. Differences between a TLD badge and a direct-reading dosimeter
- C. Reading a direct-reading dosimeter
- D. Charging a direct-reading dosimeter
- E. Wearing and handling dosimeters
- F. Differences between meters and probes
- G. Performing an operation check on an RM-14 with an HP-270 probe

Module 9, Section III

At the conclusion of the Dosimeter Distribution and Record Maintenance portion of the LERO Training Program, the trainee will:

- A. Understand his/her specific responsibilities relating to dosimeters and record maintenance
- B. Know where and how dosimeters are issued
- C. Be familiar with required forms and records related to dosimetry

SESSION STEP	SUBJECT	TRAINING AID
I	Review basic emergency planning concepts from first session. Discuss the need to take radiological protective actions when performing duties	
II	Show videotape "Radiation Naturally"	Videotape
III	Pass out workbooks and review contents and concepts	Workbooks
IV	Show "Basic Radiation Protection" videotape and work through workbook Module 3	Videotape and workbook
V	Show "Monitoring and Decontamination" videotape	Videotape
VI	Show "Personnel Dosimetry" videotape and work through workbook Module 9	Videotape and workbook
VII	Conduct practical demonstration of RM-14 and use of dosimetry	RM-14, TLD 0-200 mR Dosimeter, 0-5 R Dosimeter

ATTACHMENT 9



LESSON PLAN: HELICOPTER PERSONNEL - RADIATION PROTECTION TRAINING

SESSION: \_\_\_\_\_ TITLE: \_\_\_\_\_

DURATION: 5 hours PRIMARY INSTRUCTOR: \_\_\_\_\_

LEARNING MATERIALS: o Videotapes

- "Radiation Naturally"
- "Radiation Protection"
- "Radiological Monitoring and Decontamination"
- "Personnel Dosimetry Demonstration"
- o Workbook Modules 3, "Radiation Protection"; 10, "Monitoring and Decontamination;" 9, "Personnel Dosimetry"
- o LERO Training Program Workbook
- o 3/4" VTR Deck and Monitor
- o Direct Reading Dosimeters (hi and lo range) and TLD
- o RM 14
- o Lantern Mantels
- o Dosimeter Charger

TRAINING OBJECTIVES: Module 3

- A. Understand atomic structure, such as protons, neutrons and electrons
- B. Know the three types of radiation
- C. Be familiar with the types of materials that will block radiation
- D. Understand the various units of measurement used in radiation protection
- E. Be able to identify natural and man-made sources of radiation
- F. Know how and at which levels radiation can cause damage
- G. Know the LERO worker radiation exposure limit
- H. Be able to identify the forms of radiation found in a nuclear power plant
- I. Know the difference between exposure and contamination
- J. Be familiar with methods for controlling and monitoring radiation

## Module 10

- A. Understand the basic function and use of a GM radiation probe and count rate meter
- B. Know how to recognize the radiation symbol
- C. Become familiarized with personnel and equipment monitoring techniques and contamination limits
- D. Become familiarized with various decontamination techniques for personnel and equipment

## Module 9, Section I

The objectives of this portion of the LERO Training Program are to familiarize each emergency worker with methods used to control exposure to radiation. The following topics will be covered:

- A. Emergency Worker's responsibility to help minimize their exposure
- B. The ALARA ("As Low As Reasonably Achievable") principle
- C. Using time, distance and shielding to control external exposure
- D. Using the drug potassium iodide to control internal exposure
- E. Using protective clothing to control the spread of contamination
- F. Protective Action Guide limits for emergency workers
- G. Using dosimeters to minimize exposure
- H. Keeping records to monitor exposure

## Module 9, Section II

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- A. Types of dosimeters
- B. Differences between a TLD badge and a direct-reading dosimeter
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- D. Charging a direct-reading dosimeter
- E. Wearing and handling dosimeters
- F. Differences between meters and probes
- G. Performing an operation check on an RM-14 with an HP-270 probe

Module 9, Section III

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- B. Know where and how dosimeters are issued
- C. Be familiar with required forms and records related to dosimetry

SESSION STEP	SUBJECT	TRAINING AID
I	Review basic emergency planning concepts from first session. Discuss the need to take radiological protective actions when performing duties	
II	Show videotape "Radiation Naturally"	Videotape
III	Pass out workbooks and review contents and concepts	Workbooks
IV	Show "Basic Radiation Protection" videotape and work through workbook Module 3	Videotape and workbook
V	Show "Monitoring and Decontamination" videotape	Videotape
VI	Show "Personnel Dosimetry" videotape and work through workbook Module 9	Videotape and workbook
VII	Conduct practical demonstration of RM-14 and use of dosimetry	RM-14, TLD 0-200 mR Dosimeter, 0-5 R Dosimeter

ATTACHMENT 10



# LONG ISLAND LIGHTING COMPANY

175 EAST OLD COUNTRY ROAD • HICKSVILLE, NEW YORK 11801

Direct Dial Number

January 20, 1984

Captain E. W. Weigand  
 United States Coast Guard  
 Captain of the Port  
 120 Woodward Avenue  
 New Haven, Connecticut 06512

Dear Captain Wiegand:

As you remember, the Long Island Lighting Company has provided training for personnel at the Coast Guards' New Haven and Eatons Neck facilities to respond to an emergency at the Shoreham Nuclear Power Station in Shoreham, Long Island, New York.

Training of the individuals at these facilities in August 1983, resulted in the Coast Guard having a sufficient number of trained personnel to respond to an emergency at the plant. LILCO has agreed to conduct annual training for your group; however, we realize that due to attrition, the number of personnel who have been trained to respond to an incident might decrease below the level that you require to support a response. In the event that the number of personnel who have been trained to respond to an emergency at the Shoreham Nuclear Power Station decreases below the level required to support a response, we would like to confirm that LILCO will train additional or newly assigned personnel for the Coast Guards' New Haven and Eatons Neck facilities prior to the time of the regular, annual training program. Supplemental training would be in addition to the annual re-training program LILCO will conduct.

If you feel that supplemental training is necessary or becomes necessary in the future, please contact me at (516) 733-5099. If you have any other questions, please feel free to contact me.

Sincerely,

Charles A. Daverio  
 Emergency Planning Coordinator

CAD/jcc

cc: Ensign R. McMillan

ATTACHMENT 11

LESSON PLAN IEMERGENCY PREPAREDNESS OVERVIEWA. General Knowledge

Visual Display/ Staging Directions	Narration
S.1 Fade up from black medium shot waist-up of on the street inter- viewer - male 30-40 years of age	(Question asked off camera) What are you going to do in the case of a nuclear emergency?   [Answer by interviewee]
S.2 Cut to couple together 40+ in age. ECU of couple	(Question asked off camera) What will you do in event of nuclear emergency?   [Answer by interviewee]
S.3 Cut to woman with young child in arms. Tight shot including child	(Question asked off camera) What will you do in case of a nuclear emergency?   [Answer by interviewee]
S.4 Cut to man 45+ in age waist up - medium shot	(What will you do in case of a nuclear emergency?   [Answer by interviewee]
S.5 Dissolve to Mr. Acker seated at desk in his office - medium long shot. Zoom in to medium shot as Mr. Acker ad- dresses camera (Restor- ation Plan Book on desk)	Lack of direction, general unpreparedness, no specific plan of action. These are quite common responses to questions dealing with emergency preparedness.   Americans in general, find it uncomfort- able to plan for any type of disaster.



The onsite zone,

the plume exposure pathway zone,

and the ingestion exposure pathway zone.

Each zone has specific actions and procedures that will be implemented in case of an emergency.

These Protective Actions have been submitted, reviewed and approved by the Nuclear Regulatory Commission.

Together, the plans and procedures provide for the basis for the overall emergency response plan. This plan details both onsite as well as offsite actions by the utility, local, state and federal government agencies.

In order to demonstrate the effectiveness of this emergency plan, each year a utility must conduct a drill.

LESSON PLAN I

EMERGENCY PREPAREDNESS OVERVIEW

A. General Knowledge

Visual Display/ Staging Directions	Narration
S.6 Super Mr. Acker name and title	Hello, my name is Joe Acker and I'm a Vice   President of LILCO.
S.7 Zoom into MCU of Mr. Acker - drop title	At LILCO, we have always believed that   emergency preparedness is essential to   protect the health and safety of the   community we serve.
S.8 Cut to medium side shot of Mr. Acker. His head turns toward camera and continues his narration. He picks up Restoration Plan Book.	Over the years, LILCO has developed a   number of contingency or emergency plans   to deal with natural events such as:   
S.9 Cut away ice storm	o Ice Storms
S.10 Cut away blizzard	o Blizzards
S.11 Cut away hurricane	o Hurricanes
S.12 Cut away of racing fire engine	We also have plans to deal with other   potential disasters such as fires at power   stations,
S.13 Cut away of LILCO crew working on power line	downed power lines, 
S.14 Cut away USGC at oil spill	oil spills, 

LESSON PLAN I

EMERGENCY PREPAREDNESS OVERVIEW

A. General Knowledge

Visual Display/ Staging Directions	Narration
S.15 LILCO gas crew in emergency gear	and gas explosions. 
S.16 Mr. Acker seated on edge of desk - medium shot. He addresses camera	Today, I would like to acquaint each of you with another LILCO contingency plan. The plant that would be used if there was a Radiological Emergency at our Shoreham Nuclear Power Station.
S.17 Dissolve to Shoreham plant site. Establish shot	We recognize that despite the stringent safety standards under which Shoreham was built and operates, that there is a need for an emergency plan to protect the people in our community.
S.18 4-way of: a. LILCO employee guiding traffic b. LILCO employee on telephone c. Rad monitor team d. Man on radio LILCO car	Our radiological response details all the actions and activities to protect our neighbors, that we would initiate in the unlikely event of radiological material being released into the environment.     

LESSON PLAN I

EMERGENCY PREPAREDNESS OVERVIEW

A. General Knowledge

Visual Display/  
Staging Directions

Narration

- |  |   |
|--|---|
| S.19 Start Studio talent voice. Pans of news articles on memo of understanding with Suffolk County | It was in response to that need that LILCO first signed a memorandum of understanding with Suffolk County on Emergency Planning with respect to the   |
| S.20 Cut to plant under construction slide   | Shoreham Nuclear Power Station in June of 1976.   |
| S.21 Cut to shot of memorandum   | This memorandum addressed their respective responsibilities in the event of an incident at Shoreham.  |
| S.22 Slow dissolve into TMI footage  | A lot has changed since 1976.<br><br>  On March 28, 1979 at 4 AM, outside Harrisburg, Pennsylvania at the Three Mile Island Nuclear Power Station, an accident occurred.<br><br>  Pause.<br><br>  As a result of the lessons learned from that incident, our perspective of preparing for radiological emergencies at |

LESSON PLAN I

EMERGENCY PREPAREDNESS OVERVIEW

A. General Knowledge

Visual Display/  
Staging Directions

Narration

	Nuclear Power Plants has been expanded.
S.23 Shot of published studies	One of the conclusions following numerous studies of the incident was the need for additional emergency planning. The Presidents Commission stated that
S.24 Shot of Shoreham Super copy on S.24 "Emergency plan ... release of radioactivity."	"Emergency plans must clearly and consistently detail the actions public officials and utilities should take in the event of offsite radiation doses resulting from release of radicactivity."
S.25 Narrator is studio MS	As a result, new emphasis has been placed on emergency preparedness and numerous new regulations have been generated. The regulations contain three major changes from past practices. These are:
S.26 Build slides (dissolves) Utility Emergency Plan	In order to continue operations or receive an operating license, a licensee is required to submit its emergency plans, as well as plans for a

LESSON PLAN I

EMERGENCY PREPAREDNESS OVERVIEW

A. General Knowledge

Visual Display/ Staging Directions	Narration
S.27 Build S.26 - Local Plan	local emergency response to the Nuclear   Regulatory Commission, NRC
S.28 Visual of books repre- senting plans Dissolve to man reviewing Emergency Plan book	they must be satisfied that the emergency   plans are adequate and capable of being   implemented.
S.29 MS Talent in studio	The key words here are adequate and   capable of being implemented.
S.30 MS Talent in studio side shot	The second change was to expand the areas   for which detailed emergency planning is   done, to extend emergency planning   considerations in to 10 and 50 mile
S.31 Supercopy Emergency Planning Zones over MS talent in studio - lose super on narration que	Emergency Planning Zones.
S.32 Slow zoom to ECU of talent in studio	The third major change was to require that   detailed emergency planning implementing   procedures be submitted to the NRC for   review.
S.33 Dissolve to motion footage Control Room simulation	One of the major problems with pre-TMI   emergency plans was that the planning   efforts of the utility and various

LESSON PLAN I

EMERGENCY PREPAREDNESS OVERVIEW

A. General Knowledge

Visual Display/  
Staging Directions

Narration

	agencies were not coordinated and did not
	provide a common basis for actions in
	response to an emergency.
	To improve the coordination and
	communication between the various groups
	responsible for an emergency response, the
	emergency classification system has been
	revised and standardized fact sheets have
	been introduced.
S.34 Dissolve into studio	The purpose of the emergency classifica-
talent	tion system is to classify the severity of
	an emergency and to eliminate situations
	like the one we're about to witness.
S.35 ECU motion. Man answers	Hello, local emergency preparedness office.
phone at desk in office	
S.36 Cut to ECU operation in	This is Nuclear Power Station Unit No. 1.
Control Room	We have had an initiation of Emergency
	Core Cooling System.

LESSON PLAN I

EMERGENCY PREPAREDNESS OVERVIEW

A. General Knowledge

Visual Display/  
Staging Directions

Narration

- S.37 Cut to talent in studio | O.K. This is a potential safety problem.  
| Let's now see how a typical County  
| official may have responded to this  
| potential emergency telephone call prior  
| to the revised emergency classification  
| system.
- S.38 Cut to local emergency | An emergency with what? the core cooling  
official (showing con- | system. Isn't that big trouble at the  
fusion, not panic) | nuclear plant? What do we have to do?
- S.39 Cut to MS talent in | As we can see here the operator at the  
studio | plant is not communicating with the  
| official responsible for the protective  
| actions. Oh they are talking to each  
| other alright, but they are not both  
| getting the same information from what is  
| being said over the phone.  
| Let's now replay this scene, only this time  
| both the operator and the local emergency  
| official will use the proper emergency  
| classification level and notification fact  
| sheets.



LESSON PLAN I

EMERGENCY PREPAREDNESS OVERVIEW

A. General Knowledge

Visual Display/  
Staging Directions

Narration

S.40	Cut to local emergency official at desk in office		Hello, Local Emergency Preparedness Office.
S.41	Cut to operator in plant reading from an Emergency Notification Fact Sheet		This is Nuclear Power Station Unit No. 1. Please take out your emergency Notification Fact Sheet Part I. Pause.
a.	Local emergency official's voice over phone		O.K. Ready.
			Item 1. This message is transmitted on
b.	Cut to operator in plant reading from an Emergency Notification Fact Sheet		March 29 at 04:15 hours.
			Item 2. This is Nuclear Power Station Unit No. 1.
			Item 3. This is being reported by John Edson, the Unit No. 1 Control Room Communicator. Our phone number is 516-454-8000.
			Item 4. This is not an exercise.
			Item 5. The emergency classification is an Unusual Event.
			Item 6. This classification was declared on March 29 at 04:10 hours.

LESSON PLAN I

EMERGENCY PREPAREDNESS OVERVIEW

A. General Knowledge

Visual Display/  
Staging Directions

Narration

| Item 7. We had an initiation of emergency  
| core cooling system at 04:00 hours this  
| morning. The reactor tripped at 04:01  
| hours.

| Item 8. As of 04:10 hours, there has not  
| been a release of radioactivity.

| Item 9. is not applicable.

| Item 10. There is no need for Protective  
| Actions outside the site boundary.

| Item 11 - Weather:

| The wind speed is 15 mph.

| The wind direction is 350°.

| The stability class is A.

| The general weather conditions are fair.

| This is the end of the message.

| Will you please read it back to me.

S.42 Cut to local emergency | Item 1. The message was transmitted on  
official at desk reading | March 29 at 04:15 hours.

from a Fact Sheet | Item 2. It is Nuclear Power Station Unit  
| No. 1 transmitting the report.

| Item 3. It is being reported by John

LESSON PLAN I

EMERGENCY PREPAREDNESS OVERVIEW

A. General Knowledge

Visual Display/  
Staging Directions

Narration

	Edson, the Unit No. 1 Control Room
	Communicator. Your phone number is
	516-454-8000.
	Item 4. This is not an exercise.
	The lead emergency official would continue
S.43 Dissolve to talent in	reading back the information on the
studio MS	notification fact sheet, verifying that he
	had the correct information.
	Now the operator at the plant and the
	official responsible for protective
	actions are communicating.
S.44 MS Talent in studio	By the training he has received, the
Insert slide of oper-	operator recognizes the Emergency Core
ation upper lt. corner	Cooling System initiation as a potential
Operation in classroom	safety problem not requiring any offsite
Lose super insert	protective action, and classifies it in
	accordance with well defined guidelines,
	as a Notification of Unusual Event.

LESSON PLAN I

EMERGENCY PREPAREDNESS OVERVIEW

A. General Knowledge

Visual Display/ Staging Directions	Narration
S.45 MS Talent in studio Insert slide of local emergency official upper lt. corner Official in classroom. Lose super insert	And by the training he has received, the   official recognizes the Notification of   Unusual Event as meaning a potential   safety problem, not requiring any offsite   protective action.
S.46 Slow zoom into ECU talent	By using the emergency classification   system as a means of communicating... and   writing the procedures to direct the   actions to be taken for each emergency   classification, those men from different   technical backgrounds can successfully   coordinate their response to the incident   at the plant.
S.47 Build visual. Emergency Classification System	Now lets look at the emergency   classification system.   There are four emergency classifications.       

LESSON PLAN I

EMERGENCY PREPAREDNESS OVERVIEW

A. General Knowledge

Visual Display/ Staging Directions	Narration
S.48 Build NUE: S.47	- Notification of Unusual Event
S.49 Build Alert: S.47-48	- Alert
S.50 Build SAE: S.47,48,49	- Site Area Emergency
S.51 Build GE: S.47,48,49,50	- and General Emergency
S.52 Dissolve to talent in studio MS	In each of these classes, the 
S.53 Supercopy over talent onsite Emergency Resp. Org. Lose super	LILCO Onsite Emergency Response Organiza-   tion would respond to the problem as   needed. 
S.54 Hold MS of talent from S.52 Super NUE	A Notification of Unusual Event class, is   declared when unusual events have occurred   which <u>could</u> indicate a safety problem, and   there has been no releases of radiation   from the plant, but we want to notify the           

LESSON PLAN I

EMERGENCY PREPAREDNESS OVERVIEW

A. General Knowledge

Visual Display/  
Staging Directions

Narration

- | offsite officials, of the potential  
| problem.
- S.55 Super Alert. Copy over | An Alert class is declared when there is  
talent | an actual or potential safety problem.  
| There may be some release of radiation,  
| but the amounts at this point is not  
| significant.
- S.56 Slow zoom into ECU of | When we declare this emergency class, we  
Talent | are telling the offsite officials to have  
| their emergency personnel readily  
| available to respond if the problem  
| becomes more serious.
- S.57 Cut to slide of site - | A Site Area Emergency is declared when  
Burn copy: "Site Area | there are actual or likely major failures  
Emergency" on slide | of plant functions needed for protection  
| of the public. There may be releases of  
| radiation, but they are not expected to  
| exceed government limits except near the  
| site boundary.  
|  
|

LESSON PLAN I

EMERGENCY PREPAREDNESS OVERVIEW

A. General Knowledge

Visual Display/ Staging Directions	Narration
S.48 Build NUE: S.47	- Notification of Unusual Event
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LESSON PLAN I

EMERGENCY PREPAREDNESS OVERVIEW

A. General Knowledge

Visual Display/  
Staging Directions

Narration

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- S.57 Cut to slide of site - | A Site Area Emergency is declared when  
Burn copy: "Site Area | there are actual or likely major failures  
Emergency" on slide | of plant functions needed for protection  
| of the public. There may be releases of  
| radiation, but they are not expected to  
| exceed government limits except near the  
| site boundary.  
|  
|



LESSON PLAN I

EMERGENCY PREPAREDNESS OVERVIEW

A. General Knowledge

Visual Display/  
Staging Directions

Narration

S.58 Cut to MS talent in  
studio

| When we declare this emergency class, the  
| offsite officials would be manning their  
| emergency positions offsite radiation  
| survey teams would be dispatched and the  
| public would be notified of the situation.

S.59 Cut to site shot -  
Burn copy "General  
Emergency" over slide

| A General Emergency is declared when the  
| situation involves actual or imminent  
| substantial core damage and radiation  
| releases can be expected to exceed the  
| government limits for more than the  
| immediate site area.

S.60 Cut to MS of talent  
in studio

| When we declare a General Emergency, the  
| offsite officials would consider the  
| pre-planned protective actions such as  
| sheltering or evacuation, depending on the  
| situation, and provide updates for the  
| public.

S.61 Talent turns to address  
camera. Slow zoom in

| Earlier we mentioned that one of the  
| changes from past practices was to extend  
| emergency planning considerations to  
| emergency plan zones.

LESSON PLAN I

EMERGENCY PREPAREDNESS OVERVIEW

A. General Knowledge

Visual Display/ Staging Directions	Narration
	What are these zones?
	How were they established? and what kinds
	of planning is done for each zone?
S.62 Cut to map of plant Show first zone	The first zone, is the plant site.
S.63 Dissolve to highlight LILCO property outline in first zone	This is the land that the utility owns   around the actual plant. In the event of   an emergency, the onsite emergency   response organization would be responsible   for the emergency actions onsite.
S.64 Cut to Control Room panel with operator	These actions would include an operational   assessment, figuring out what went wrong,   and
S.65 Three men reviewing design drawings	the operational response, figuring out how   to fix the problem,
S.66 Dissolve to shot of repair crew	and fixing it. Additionally, 
S.67 Cut to operator on red hotline phone	they would notify the offsite officials as   to the specific problem and emergency   classification. 

LESSON PLAN I

EMERGENCY PREPAREDNESS OVERVIEW

A. General Knowledge

Visual Display/ Staging Directions	Narration
S.68 Cut to computer screen with plume plot	They would perform radiological assessment   with onsite equipment,
S.69 Cut to Environmental Monitoring team	and onsite radiation monitor crews. 
S.70 Cut to workers in Anti "C" gear	They are also responsible for protective   measures for personnel onsite.
S.71 Cut to ambulance leaving site	In this responsibility, they are aided by   such local organizations
S.72 Cut to hospital crew during a radiation drill	as ambulance corps and hospitals. 
S.73 Cut to talent MS in studio	In the event of a Site or General   Emergency, they would also coordinate the   information flow to the public.   This last item is very important, so I   would like to spend a few moments   reviewing this public information activity
S.74 Cut to clip from IP #2 news conferences	One of the most important aspects of any   emergency planning is the flow of   information to the public in a timely   manner. To accomplish this, the utility,   as well as federal, state and local

LESSON PLAN I

EMERGENCY PREPAREDNESS OVERVIEW

A. General Knowledge

Visual Display/  
Staging Directions

Narration

	governments work together. Located in the
	Emergency News Centers, representatives of
	each agency act as spokespersons to report
	developments to the public as they may
	occur. Let's now return to our discussion
	of the various zones.
S.75 Cut to map indicating 10-mile EPZ	The second zone is called the plume   exposure pathway. You might ask:   What is a plume?
S.76 Cut to shot of plume from a smoke stack	Well you may be familiar with smoke coming   out of a stack, we refer to the shape of   that smoke cloud as a plume.
S.77 Dissolve through of several plume movement shots over ground	If there was a release of radiation from a   nuclear plant, it would behave just like   that cloud of smoke, being heavy at the   point of release and dispersing into the   air as it gets further away until it is   diluted to such a low level that it is not   even visible. The only difference is   that you can see a smoke plume, but not a   radiation plume.

LESSON PLAN I

EMERGENCY PREPAREDNESS OVERVIEW

A. General Knowledge

Visual Display/ Staging Directions	Narration
S.78 Cut to map with plume exposure pathway	The plume exposure pathway emergency   planning zone is the area in which the   population would be subject to exposure   from the passing radioactive airborne   plume and from material deposited on the   ground.
S.79 Cut to show a person with handkerchief over face	The major risk or danger would come from   inhalation particles or breathing the   radioactive gases.
S.80 Cut to chart of exposure vs. distance	As you can see; the amount of exposure, if   there was a release of radiation, drops   off as you get further from the plant.
S.81 Dissolve to cloud in dispersion	The reason for that is that a radiation   cloud, just like the smoke cloud is   dispersed by the winds.
S.82 MS Studio talent	The criteria for establishing the size of   this zone was the amount of radioactive   material that could be released in the   event of an accident.   

LESSON PLAN I

EMERGENCY PREPAREDNESS OVERVIEW

A. General Knowledge

Visual Display/  
Staging Directions

Narration

S.82a. Cut back to S.80  
chart

| As we see from the chart, past 10 miles  
| the projected dose from the radiation  
| could would drop off and very few if any  
| people beyond this distance would receive  
| a radiation dose from a plume exposure  
| above the established government  
| guidelines.

S.83 Supercopy: Protective  
Action Guidelines

| These guidelines are called the Protective  
| Action Guidelines.

S.84 Visual of 10-mile EPZ  
with moving around to  
indicate 10-mile EPZ

| A 10-mile radius around the plant was  
| established as the plume exposure pathway  
| with the exact size and configuration  
| determined by local emergency response  
| needs and capabilities.

S.85 MS Studio talent

| The distances for the emergency planning  
| zones had to be large enough so that all  
| the plants in the county would meet the  
| criteria.  
| So that a common planning basis could be  
| established.

|

LESSON PLAN I

EMERGENCY PREPAREDNESS OVERVIEW

A. General Knowledge

Visual Display/  
Staging Directions

Narration

- S.86 Dissolve through of plume overlays on EPZ to show path of plume | If we look at what would happen to the radiation cloud we see that most of the plume exposure pathway is not effected.
- S.87 Cut to ECU of studio talent | To assure that protective actions can be taken quickly to protect the people at greatest risk of exposure we subdivide the Plume Exposure pathway into Emergency Planning Zones.  
| Any protective action would be implemented for specific zones and not for the whole plume exposure pathway or 10-mile zone.
- S.88 MS Talent turns to camera | Let's now turn our attention to the emergency planning responsibilities in the 10-mile EPZ.
- S.89 Cut to shot of Public Information mailing "Brochures" | The utility has the responsibility to annually provide the public within the zone with emergency planning information to educate them on how they would be notified and what their initial actions should be in the event of an emergency.

LESSON PLAN I

EMERGENCY PREPAREDNESS OVERVIEW

A. General Knowledge

Visual Display/  
Staging Directions

Narration

- |      |                         |  |
|------|-------------------------|--|
| S.90 | Cut to shot of siren    | They also must assure that the government  |
|      |                         | has the ability to promptly notify the     |
|      |                         | public within 15 minutes. This can be      |
|      |                         | accomplished with sirens                   |
| S.91 | Cut to shot of tone     | and tone alert radios (sound of track of   |
|      | alert, with voice of    | tone alert signal). This has been a test   |
|      | EBS announcer following | of the emergency broadcast system. If      |
|      | tone alert signal voice | there had been a real emergency...         |
|      | fading off              |  |
| S.92 | Dissolve to 4-way build | The local government normally has the      |
|      | . County Building       | responsibility for protecting the health   |
|      | . 10-Mile zone map      | and safety of the public with the 10-mile  |
|      | . Brick home            | EPZ, for determining the appropriate       |
|      | . Man guiding traffic   | protective actions, such as sheltering,    |
|      |                         | partial evacuation or complete evacuation, |
|      |                         | and implementing those actions.            |
| S.93 | Build 3-way allow       | To assist the local government in their    |
|      | . Local government      | decision, both the State and the utility   |
|      | . State                 | provide local officials with               |
|      | . Utility               | recommendations for protective action and  |
|      | Recommendations in cen- | any additional information they may need.  |
|      | ter of 3-way            |  |



LESSON PLAN I

EMERGENCY PREPAREDNESS OVERVIEW

A. General Knowledge

Visual Display/ Staging Directions	Narration
S.94 Dissolve to 3-way . 3 men talking . Monitoring team . Radio	The Federal and State governments will   also provide technical advice, manpower   and equipment support to the local   government.
S.95 Dissolve show map with burn title Ingestion Exposure Pathway Shot of food chain cycle	The third and final zone is called the   ingestion exposure pathway.     The ingestion exposure pathway is the area
. Cows . Produce . Water	in which the food chain could be   contaminated. 
S.96 Dissolve through . Water . Milk . Fresh vegetables As build 3-way	The major risk or danger would be from   ingestion or intake of contaminated water   or foods such as milk or fresh vegetables.   
S.97 Cut to MS studio talent	The criteria for establishing the size of   this zone was, as with the plume exposure   pathway, to assure that very few if any   people would receive a radiation dose from   contaminated foodstuffs from within the   area, above the Protective Action   Guidelines.

LESSON PLAN I

EMERGENCY PREPAREDNESS OVERVIEW

A. General Knowledge

Visual Display/  
Staging Directions

Narration

- S.98 Cut to shot of 10-mile and 50-mile EPZ map. Highlight 50-mile circle | A radius of about 50 miles around the plant was established as the ingestion exposure pathway.
- S.99 Cut to State of NY logo | In this planning zone, the State would normally have the primary responsibility for protective actions.
- S.100 Cut to title Environmental Surveillance | These actions would involve environmental surveillance such as:
- S.101 Build 4-way | informing owners of livestock to place
- . Woman talking to farmer - farmer on tractor | animals on stored feed, control of water supplies, monitoring and control of milk and diary products as well as
  - . Worker taking water sample | monitoring and control of produce.
  - . Woman checking milk with counter |
  - . Man checking produce with counter |
- S.102 Cut to MS studio talent | Now let's tie everything together. | Emergency plans are developed to clearly detail the actions to be taken in the

LESSON PLAN I

EMERGENCY PREPAREDNESS OVERVIEW

A. General Knowledge

Visual Display/  
Staging Directions

Narration

	event of a radiological emergency. The
	plans are supported by detailed procedures
	which specify how those actions are to be
	taken.
S.103 Cut to copy build in	The actions to be taken are keyed to the
Emergency Classifica-	emergency classification action levels.
tions	Which are:
S.104 Notification of Unusual	o Notification of Unusual Event
Event	
S.105 Alert	o Alert
S.106 Site Area Emergency	o Site Area Emergency
S.107 General Emergency	o General Emergency
S.108 Cut to build 3-way	Regardless of the classification, both the
arrow	LILCO onsite emergency response
LILCO onsite org.	organization and the local emergency
local emer. org.	response organization would initiate
response	specific plans or action based on the
emergency plan	extent of the emergency.

LESSON PLAN I

EMERGENCY PREPAREDNESS OVERVIEW

A. General Knowledge

Visual Display/ Staging Directions	Narration
S.109 Cut to copy build	The planning is done on the basis of three
	zones.
- the onsite zone	The onsite zone,
S.110 - the plume exposure	the plume exposure pathway zone,
pathway zone	
S.111 - the ingestion expo-	and the ingestion exposure pathway zone.
sure pathway zone	
S.112 Cut to show book	Together, the plans and procedures provide
containing procedures	for the basis for the overall emergency
	response plan. This plan details both
	onsite as well as offsite actions by the
	utility, local, state and federal
	government agencies.
S.113 Show man reviewing	The plans and procedures have to be
Emergency Plan	submitted to the Nuclear Regulatory
	Commission for review and must be approved
	as a condition for the nuclear power
	plants operating license.
S.114 Cut to way of man at	In order to obtain the NRC approval, it
news center podium	must be demonstrated that the plans are
	capable of being implemented.

LESSON PLAN I

EMERGENCY PREPAREDNESS OVERVIEW

A. General Knowledge

Visual Display/  
Staging Directions

Narration

| This must be done annually and is done by  
| conducting a drill.

S.115 Cut to show 2 men | This practice exercise also allows all the  
wearing controller arm | agencies to evaluate their effectiveness  
bands with clip boards | and plan for improvements.  
Watch S69 in background|

S.116 Cut to MS studio talent| I've enjoyed our presentation today on  
| General Emergency Preparedness and look  
| forward to seeing you in future sessions.

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ATTACHMENT 12

LESSON PLAN IEMERGENCY PREPAREDNESS OVERVIEWB. Site Specific

Visual Display/ Staging Directions	Narration
S.2 Dissolve to Medium shot of narrator head-on in studio	Hello and welcome to the Site Specific portion of your emergency preparedness overview training session. In this session we will describe the emergency response plan that was developed to provide for an adequate offsite response to a declared emergency at the
S.3 Dissolve into aerial shot of Shoreham Plant	Shoreham Nuclear Power Station. In this session we will talk about:
Cuts on Copy	
S.4 Supercopy Local Emer- gency Response Organ- ization (LERO)	- The <u>Local Emergency Response Organi- zation</u> known as LERO
S.5 Supercopy How the Plan works	- <u>How the Local Emergency Response Plan Works</u>
S.6 Supercopy Emergency Organization Notifi- cation	- How LERO members will be <u>notified</u> and mobilized
S.7 Supercopy Operation of the EOC.	- <u>Operations</u> at the Emergency Operations Center, known as the <u>EOC</u>
S.8 Supercopy Overview of Procedures	- And finally, an <u>overview of various procedures</u> that provide guidance to

LESSON PLAN I

EMERGENCY PREPAREDNESS OVERVIEW

B. Site Specific

Visual Display/ Staging Directions	Narration
	carry out emergency activities.
S.9 Cut to ECU of talent head-on shot in studio	The work book provided to you by your   instructor has additional details on   aspects of the Plan.
S.10 Dissolve into slide of workbook	This workbook is your source of   information for future reference.
S.11 Out to motion footage of people walking in shopping center	The purpose of any emergency plan is to   protect the health and safety of the   community for which the plan applies.
S.12 Dissolve from footage S.11 into motion foot- age of containment building, Shoreham	In the case of the radiological emergency   plan, our goal is to minimize any health   hazards to our neighbors due to the   unlikely release of radiation from the   Shoreham Nuclear Power Station.
S.13 Cut aways of LILCO employees - 4 way quad 1. Woman on headset 2. Man in office 3. Linemen on pole 4. Meter reader	Of course, any emergency plan requires a   group of people to form an emergency   organization. In this plan, the   organization is known as   
S.14 Supertitle LERO	LERO or the Local Emergency Response   Organization.



LESSON PLAN I

EMERGENCY PREPAREDNESS OVERVIEW

B. Site Specific

Visual Display/ Staging Directions	Narration
S.15 Dissolve back to MCU talent in studio	In most locations, this organization   consists of people from local government   and volunteer organizations.
S.16 Slow zoom into ECU of talent	However, because Suffolk County presently   declines to participate in emergency   planning for Shoreham, this organization   will primarily consist of employees from   the Long Island Lighting Company, as well   as Federal, Private and Volunteer   organizations.
S.17 Cut to MS. Two men in suits talking, third man joins them on que Live motion	We anticipate that personnel from a State   or Federal Government Agency will be used   in key leadership positions to provide in-   dependent - non-utility direction of LERO.
S.18 Super title lower frame Federal	If necessary, however, trained LILCO   personnel will fill those roles.
S.19 Super title lower frame State	 
S.20 Dissolve into 6-way slide of LILCO employees various jobs	LILCO employees will provide the resources   necessary to carry out emergency   activities as directed.

LESSON PLAN I

EMERGENCY PREPAREDNESS OVERVIEW

B. Site Specific

Visual Display/ Staging Directions	Narration
	carry out emergency activities.
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LESSON PLAN I

EMERGENCY PREPAREDNESS OVERVIEW

B. Site Specific

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LESSON PLAN I

EMERGENCY PREPAREDNESS OVERVIEW

B. Site Specific

Visual Display/ Staging Directions	Narration
S.21 Cut into studio talent MCU	Several key positions have been designated   to provide emergency management for LERO.   These individuals will be primarily drawn   from the organizations previously   mentioned.
S.22 Dissolve to box chart with director title: Director Local Response	The Director of Local Response will be a   State, Federal or LILCO employee who will   have overall responsibility
S.23 Dissolve to freeze frame or slide of public at a shopping center	for <u>protecting the health and safety of</u>   <u>the general public</u> within the Emergency   Planning Zones.
S.24 Dissolve into show man on telephone ECU head and phone	That person has overall command of the   Emergency Operations Center and from this   location will direct all LERO activities.
S.25 Dissolve into 4-way slide 1. TV Tower 2. TV Set 3. Radio 4. Emergency Siren	The Director is responsible for notifying   the general public of an emergency and for   deciding which protective actions, if any,   LERO will implement. The Director can   also request Federal resources to support   the local offsite response effort.   

LESSON PLAN I

EMERGENCY PREPAREDNESS OVERVIEW

B. Site Specific

Visual Display/ Staging Directions	Narration
S.26 Dissolve into slide of box with title: Manager Local Response	The Manager of Local Response will be a LILCO employee who will
S.27 Cut to slide - Cut away of two men talking. Use same person from S.24 and other person MCU They are reviewing papers	coordinate the emergency activities of LERO to implement the protective actions as ordered by the Director.
S.28 Dissolve into 6-way of LILCO employees - various ages, occupa- tions, sexes, races	In addition to other duties, the Manager is also responsible for ensuring a continuous supply of resources and people to support all LERO activities.
S.29 Dissolve into Manager LR. on phone MCU (slide)	To do this, the Manager will identify the need for additional support beyond the
S.30 Cut to - 4-way 1. Man upper LT 2. Ped Cross Flag upper RT 3. Fire truck lower LT 4. Ambulance Lower RT	capabilities of LERO, and request assis- tance from outside agencies such as the American Red Cross and Volunteer Fire Departments.

LESSON PLAN I

EMERGENCY PREPAREDNESS OVERVIEW

B. Site Specific

Visual Display/  
Staging Directions

Narration

- S.31 Cut to MCU studio talent | Reporting to the Manager of Local Response  
| are four senior coordinators. These ke  
| individuals are organized to provide  
| specific services to LERO.
- S.32 Cut to Organization | Reporting to the Manager are:  
chart. Build Organiza- | The Health Services Coordinator,  
tion Manager title box | the Evacuation Coordinator,  
S.33 Health Services Coor. | the Support Services Coordinator,  
S.34 Evacuation Coordinator | and the Lead Communicator.  
S.35 Support Services Coor. |  
|
- S.37 Lead Communicator | These senior coordinators will direct the  
| activities within their individual groups
- S.38 ECU of studio talent | and report progress and problems to the  
| Manager of Local Response. Let's now  
| review the services provided by each of  
| the four support groups.  
| The Health Services Coordinator is respon-  
| sible for Public Health and Sanitation  
| operations, Fire and Rescue operations,  
S.39 Build 4-way | Radiological Accident Assessment opera-  
1. Public Health shot |  
2. Rescue shot |  
|

LESSON PLAN I

EMERGENCY PREPAREDNESS OVERVIEW

B. Site Specific

Visual Display/ Staging Directions	Narration
3. Rad Accident Assm.	<u>tions and Radiological Exposure Control</u>
4. Rad Exposure Cont.	<u>operations.</u>
S.40 Dissolve into org. chart - Pop on or dissolve titles on narration: Health Services Coor.	In order to effectively carry out duties,   the Health Services Coordinator directs   three functional coordinators. They are   the
S.41 Emergency Medical Public Services Coordinator	<u>Emergency Medical/Public Services</u>   <u>Coordinator,</u>
S.42 Radiation Health Coor.	the <u>Radiation Health Coordinator</u> and
S.43 Sanitary Support Coor.	the <u>Sanitary Support Coordinator.</u>
S.44 Cut to studio. Talent sitting on edge of desk MS holding training book	Each of these functional coordinators is   responsible for the direction of LERO   staff personnel in the performance of   specific emergency activities.
S.45 Gestures with workbook	Your workbook contains explanations of   each of these activities.
S.46 Cut to super box title over traffic shot on LIE (slide).	The Evacuation Coordinator is responsible   for Traffic Control operations, Transpor-   tation operations and Evacuation opera-   tions.
Hold traffic Lose super	In order to effectively carry out these   duties, the

LESSON PLAN I

EMERGENCY PREPAREDNESS OVERVIEW

B. Site Specific

Visual Display/ Staging Directions	Narration
S.47 Build org. chart. Show title box: Evacuation Coordinator and Traffic Control Coordinator	<u>Evacuation Coordinator</u> also directs three   functional coordinators.   They are the <u>Traffic Control Coordinator</u> ,
S.48 Super title box: Special Evacuation Coordinator	the <u>Special Evacuation Coordinator</u> and
S.49 Super title box: Trans- portation Support Coor.	the <u>Transportation Support Coordinator</u> .   Again, details explaining each of their   individual responsibilities are in your   workbook.
S.50 Show Relocation Center still - super SSR title on que	Relocation Center operations and coordina-   tion, Logistical Support activities and   Security, are the responsibilities of the   Support Services Coordinator. Supporting   this activity there are three functional   coordinators.
S.51 Build next three titles RCC	They are:   the <u>Relocation Center Coordinator</u> ,
S.52 Build LSC	the <u>Logistics Support Coordinator</u> and
S.53 Build SC on narration que	the <u>Security Coordinator</u> . 



LESSON PLAN I

EMERGENCY PREPAREDNESS OVERVIEW

B. Site Specific

Visual Display/ Staging Directions	Narration
S.54 Dissolve to ECU man on telephone with others in background if possible	The Lead Communicator is responsible for staffing communicator positions in the EOC, and maintaining communications systems during operations.
S.55 Dissolve to 7-man org chart of EOC Coordinators	The Director of Local Response, the Manager of Local Response as well as the four senior coordinators, we have discussed thus far, are located at the Local Emergency Operations Center.
S.56 Highlight. Change CPI org. chart box	The Coordinator of Public Information is our final senior coordinator and reports to the Director of Local Response. This
S.57 Old Mill Inn. Supercopy ENC in Center. Lose KODE	individual will be located at the Old Mill Inn in Ronkonkoma which has been designated as the Emergency News Center.
S.58 Shot of Broadcast Tower	The Coordinator of Public Information is responsible for providing prompt public information to the Emergency Broadcast System utilizing
S.59 Hold Tower Building Super radio dial. Show 1370 AM	WALK Radio 1370 AM
S.60 Hold 57-58. Super radio dial 97.5 FM	and 97.5 FM.

LESSON PLAN I

EMERGENCY PREPAREDNESS OVERVIEW

B. Site Specific

Visual Display/  
Staging Directions

Narration

- |      |   |  |
|------|---|--|
| S.61 | Cut to CPI working with two other people on news release      | In addition, this coordinator will formulate all Emergency Broadcast System warning messages, and keep the Director of Local Response informed of all activities related to public information, news releases and rumor control. |
| S.62 | Dissolve to org. chart of CPI and PI staff members            | The Coordinator of Public Information is assisted by additional Public Information Staff members.  |
| S.63 | Cut to studio talent seated behind desk MCU                   | Let me now summarize, the Local Emergency Response Organization or LERO is managed by a group of seven individuals from various organizations.   |
| S.64 | Cut to org. chart and build. Start with DLR                   | The Director has overall responsibility for protecting the health and safety of  |
| S.65 | Build MLR   | the general public, the Manager reports to the Director and has responsibility for implementing emergency decisions.   |
| S.66 | Build 5 Senior Coordinators all at once MSC, EC, SSC, CPI, LC | In addition, five senior coordinators report to the Director and the Manager and implement emergency activities through functional coordinators.   |

LESSON PLAN I

EMERGENCY PREPAREDNESS OVERVIEW

B. Site Specific

Visual Display/ Staging Directions	Narration
S.67 Cut to CU of studio talent seated behind desk	Once again, all of these functions and activities are described in your workbook for future reference.   Let's now turn our attention to the Local Offsite Radiological Emergency Response Plan.
S.68 LORERP book Slide shot of book title	This Plan outlines the following sequence of events:
S.69 Supercopy over book Notification and mobilization Lose copy	- <u>Initial Notification and Mobilization of the appropriate LERO personnel</u> which depends upon the emergency classification.
S.70 Supercopy over book: Assessment. Lose copy	- <u>Assessment of the severity of the emergency.</u>   This is done by collecting information such as radiation field data, weather information and technical data from the plant and evaluating it against established Protective Action Guidelines developed by the Federal Government.
S.71 Dissolve to CU of talent in studio	- These guidelines initiate a decision process to determine which protective actions, if any, should be implemented

LESSON PLAN I

EMERGENCY PREPAREDNESS OVERVIEW

B. Site Specific

Visual Display/ Staging Directions	Narration
S.72 Cut to CU of woman with breathing filter on face Super individual pro- tective action	- And finally, the actual initiation of   pre-determined protective actions.   Some of these actions could include:   Individual Protective Actions -   which consists of using ordinary   household items to block inhaling   any airborne radioactive materials.
S.73 Dissolve into two way: Brick house and bus	In addition, varying degrees of   sheltering and/or evacuation can be   used to protect the citizens of the   community. The extent to which   either sheltering or evacuation are   used is dependent upon the   emergency situation.
S.74 Dissolve into field with cows grazing	Actions can also be taken to   protect the human food chain from   radioactive materials as well as   controlling milk, water and food   stuffs which may become   contaminated.

LESSON PLAN I

EMERGENCY PREPAREDNESS OVERVIEW

B. Site Specific

Visual Display/ Staging Directions	Narration
S.75 Dissolve back into studio talent seated on edge of desk MCU	Besides protecting the people from radiation, all LERO staff members must also be protected from over exposure to radiation. This will be accomplished by a method called Personnel Dosimetry.
S.76 Super: Personnel Dosimetry Lose Super. Hold on talent	The next training session will provide all LERO members with the knowledge and capability required to limit their exposure to radiation.
S.77 Build slide - Director Reading dosimeters - General Rad knowledge - Exposure guidelines - Monitoring contamin- ation - Decontamination procedures	This will include training in a variety of subjects such as: - use of a Direct Reading Dosimeter - general knowledge of radiation - pre-established safe guidelines for exposure to radiation, - methods for monitoring for contamination, - and decontamination procedures.

LESSON PLAN I

EMERGENCY PREPAREDNESS OVERVIEW

B. Site Specific

Visual Display/ Staging Directions	Narration
S.78 Cut. Talent walks moves to another photo location	Again, further details on protective actions for both the general public and emergency workers are contained in your workbook.
S.79 Cut. ECU of talent	Regardless of the size of the Emergency Organization and the efficiency with which activities are coordinated, public support and knowledge of the plan and how it will work is critical. To accomplish this, a public information and education program must be implemented throughout the 10-mile emergency planning zone for both residents and visitors alike. The public information activities effort will consist of two separate phases:
S.80 Supercopy General Public Education over talent	First, General public education on the emergency plan which includes
S.81 Dissolve to 4-way out away	brochures and news letters, posters,
. Brochures	audiovisual programs, and news
. Posters	releases.
. 35 mm slide tray	
. A news release	

LESSON PLAN I

EMERGENCY PREPAREDNESS OVERVIEW

B. Site Specific

Visual Display/ Staging Directions	Narration
S.82 Fast dissolve. ECU of type written with paper titled Emergency News Release	Should an emergency occur at Shoreham, the   second phase will be initiated.   
S.83 Fast dissolve. ECU of man with several micro- phones picking up his comments	Public information personnel at the   Emergency News Center in Ronkonkoma will   provide information and instructions to   the community via the Emergency Broadcast   System network.   
a. Cut away of news camera man	LILCO and government spokespersons will   coordinate all news releases from this   location.
b. Repeat S.60	
S.85 Fast dissolve. Show group of people being briefed on ENC OPS	In addition, the news media will also be   located at the Emergency News Center and   will be provided current information on   the emergency situation.         

LESSON PLAN I

EMERGENCY PREPAREDNESS OVERVIEW

B. Site Specific

Visual Display/ Staging Directions	Narration
S.86 ECU of talent in studio	Now that we know what the LERO consists of   and how the Plan works, lets take a look   at how the LERO is activated.
S.87 Live footage MS of operator on RECS hotline	When an emergency is declared at Shoreham   the Control room operator at the plant   will notify the LERO via a special communications system. This system is called   the
S.88 Super title	Radiological Emergency Communications   System.
S.89 Two-way Lead Gov't. Agency receiving message LILCO customer service person	This notification will be received by the   lead government agency and by LILCO   Customer Service. Both of these contact   points are staffed 24-hours per day.
S.90 Cut back to S.86 Talent in studio	These points receive   all communications from the plant and in   turn notify the appropriate members of the   LERO.



LESSON PLAN I

EMERGENCY PREPAREDNESS OVERVIEW

B. Site Specific

Visual Display/ Staging Directions	Narration
S.91 9-way same person (management employee on phone)	The number of personnel who are notified,   mobilized or placed on standby depends on   the emergency classification declared by   plant personnel. For an Unusual Event,   notification is generally limited to LERO   management and mobilization is not expected   to occur at this level of emergency.
S.92 Dissolve into beeper	For an Alert, additional notification will   be accomplished via a paging or beeper   system. All personnel notified by pagers   will, in turn,
S.93 Show man on telephone	notify other LERO personnel in accordance   with procedures.
S.94 4-Way a. Man on phone S.93 b. Man getting into car c. Man on car radio d. Two men talking/ receiving document	Mobilization at this point will generally   consist of a partial or full activation of   the Emergency Operations Center.   Remaining emergency personnel will be on   standby at this point in time. For a Site   Area Emergency, notifications will be   accomplished much the same as they were   during an Alert.

LESSON PLAN I

EMERGENCY PREPAREDNESS OVERVIEW

B. Site Specific

Visual Display/  
Staging Directions

Narration

- S.95 Cut to telephone tree list | Procedures require additional personnel to be notified at this point. In addition, if the Emergency Operations Center has been activated,
- S.96 Person representing LC on phone - others on phone behind him | the Lead Communicator is now responsible for receiving and initiating all notifications. At this point, all LERO personnel will report to their emergency duty stations to assist in the protection of the community.
- S.97 4-Way | Should conditions warrant, preparations for a possible evacuation will be made including traffic guidance, transportation support and preparation of relocation centers.
- . S.95
  - . Man setting up cone
  - . Ambulance
  - . 2 men setting up cot
- S.98 Dissolve into studio talent MS | For the General Emergency level, the procedures for notification and mobilization of the LERO are the same as for a Site Area Emergency with additional personnel being notified.
- | In addition to notifying and mobilizing emergency workers, the LERO is also responsible for notifying the general public within the Emergency Planning Zone.

LESSON PLAN I

EMERGENCY PREPAREDNESS OVERVIEW

B. Site Specific

Visual Display/ Staging Directions	Narration
S.99 Slow zoom to ECU on talent	In order to carry out this responsibility,   a prompt notification system has been de-   signed and installed throughout the Emer-   gency Planning Zone, which is capable of   notifying the general public within 15   minutes of a decision to do so.
S.100 Dissolve to shot of ECU or sirens	This system consists of 89 fixed sirens   for notification of the resident and   transient, or visiting, populations, to   tune to the Emergency Broadcast System.
S.101 Dissolve to shot of tone alert radio	Additionally, tone alert radios for   notifying specific locations with large   numbers of people such as schools,   hospitals, nursing homes and large   employers, have been distributed.
S.102 Dissolve to ECU talent in studio	The activation of the prompt notification   system will be closely coordinated with   announcements over the Emergency Broadcast   System Network. This ensures that people   will have immediate access to emergency   information and instructions. Should some   or all of the the siren system not

LESSON PLAN I

EMERGENCY PREPAREDNESS OVERVIEW

B. Site Specific

Visual Display/  
Staging Directions

Narration

- | function properly, people will be alerted  
| by a route alerting system.
- S.103 Cut away of truck with public address system audio under of announcements | Vehicles equipped with public address units will drive throughout affected areas of the Emergency Planning Zone telling residents to listen to the Emergency Broadcast System.
- S.104 Establish shot outside of EOC  
a. Supercopy EOC | Once the LERO has been mobilized, direction and coordination will come from one central location. This location is the Local Emergency Operation Center or EOC at the LILCO Brentwood Operations Facility.
- S.105 Dissolve into EOC. Show three men talking as in a meeting | From here, all LERO activities will be closely coordinated by the LERO management and all decisions will be communicated to LERO staff at their standby, emergency duty, or field positions.
- S.106 Cut. Show man at plant (operator) in Control Room on phone | The EOC will be activated at an Alert emergency classification or higher.

LESSON PLAN I

EMERGENCY PREPAREDNESS OVERVIEW

B. Site Specific

Visual Display/ Staging Directions	Narration
S.107 Cut to Show hand check- ing list of names on roster ECU Can read names	The amount of EOC staffing depends on the   severity of the emergency.   
S.108 Dissolve. Show several people typing at typewriters	In addition to emergency managers and   coordinators, communicators and   administrative staff will be provided to   support EOC operations.
S.109 Cut to show group leaving EOC at dusk	Sufficient staffing and supplies will be   available to allow continuous twenty-four   hour operations. The EOC will operate on   predesignated two twelve-hour shifts.
S.110 Cut to 4-way that is built . S.104 . RECS (show person on equipment) . Woman on telephone . Man at twx machine	The EOC has direct communications links to   Shoreham onsite and offsite emergency   facilities, and the Emergency News Center.     
S.111 Cut to show outside EOC Supercopy Emergency Worker Decontamination Center	The Local EOC will also serve as an   Emergency Worker Decontamination Center.   

LESSON PLAN I

EMERGENCY PREPAREDNESS OVERVIEW

B. Site Specific

Visual Display/ Staging Directions	Narration
S.112 Cut to show MS worker being checked	Here, emergency workers will be monitored   and, if necessary, decontaminated.
S.113 Cut to show hands sort- ing through radiation exposure records	In addition, all records of emergency   worker radiation exposure will be kept at   the center.
S.114 Dissolve to talent in studio MCU	Up to this point, we have primarily dis-   cussed basic concepts and operations of   the Local Emergency Response Plan and the   Local Emergency Response Organization; and   we have mentioned many of the functions of   activities which must be carried out by   the LERO during an emergency at Shoreham.
S.115 Talent begins move MS	In order to provide the LERO with guidance   as to what activities must be carried out   and how to implement those activities,
S.116 Talent walks to book case containing binders of procedures ECU binders	a set of detailed implementing procedures   has been developed as part of the Local   Offsite Radiological Emergency Response   Plan.   

LESSON PLAN I

EMERGENCY PREPAREDNESS OVERVIEW

B. Site Specific

Visual Display/ Staging Directions	Narration
S.117 Talent pull one binder out - opens binder and fans pages	These procedures provide detailed instructions to all segments of the LERO on how to perform their tasks during an emergency,
S.118 Dissolve to person filling out form	whether that task be maintaining records,
S.119 Cut to wheelchair vehicle	evacuation of special facilities, or
S.120 Out to S.112	transporting an injured individual who may have become contaminated.
S.121 Talent in studio MS	In addition, procedures have been developed which provide instructions for maintaining an adequate level of preparedness before an emergency occurs.
S.122 Desk, monitor, tape: workbook	This training program is an example of the implementation of one of the procedures developed to maintain emergency preparedness.
S.123 ECU talent in studio	In the near future, you will be provided with additional training sessions and materials to familiarize you with your LERO responsibilities.

LESSON PLAN I

EMERGENCY PREPAREDNESS OVERVIEW

B. Site Specific

Visual Display/ Staging Directions	Narration
S.124 Talent moves to Camera #2. Match shot	In order to demonstrate your knowledge and   understanding of the procedures, most LERO   members will participate in drills and   exercises of the emergency plan during the   course of each year.
S.125 Cut to Matrix chart	A detailed matrix listing of the proce-   dures, developed to support the emergency   plan, are contained in your workbook.
S.126 Cut to highlight area to show training sessions	The matrix also indicates the specific   procedures in which each of you will be   trained.
S.127 Dissolve to MS talent in studio	In this session we have explained what the   radiological emergency response plan is   and how the Local Offsite Radiological   Emergency Response Plan will be activated.
S.128 Burn LERO. Title over slide of people in shopping center	The plan specifies the emergency organi-   zation known as LERO and provides an   outline for how this organization will   protect the health and safety of the   general public living in the Emergency   Planning Zone near the Shoreham Plant.



LESSON PLAN I

EMERGENCY PREPAREDNESS OVERVIEW

B. Site Specific

Visual Display/ Staging Directions	Narration
S.129 Operator at plant on phone (he is in Control Room)	It provides the framework for the mobili- zation of the emergency organization,   dependent upon the severity of the   emergency.
S.130 7-Box org. char of LERO	It designates a command or coordinating   organization which makes all decisions.   This coordinating organization operates   from a center called the EOC.
S.131 ECU Talent in studio	And finally, the plan provides the organi- zation with procedures or instructions for   carrying out activities both prior to and   during an emergency situation at the   Shoreham Nuclear Power Station.
S.132 Slow zoom out Talent in studio	I've enjoyed hosting today's briefing and   look forward to our continuing training   sessions.
S.133 Title slide - Music under	 
S.134 Title slide - Music under	 
S.135 Title slide - Music under	 

LILCO EMERGENCY PREPAREDNESS OVERVIEW

SITE SPECIFIC

MODULE #2

VISUAL

NARRATION

SI cuts of various activities associated with this module as intro graphic. Super titles at appropriate (slides) (motion) scenes:

Music track under scenes

(T1) LILCO Emergency Preparedness Training Program

(T2) Module I

Site Specific Overview

- SI-1 Woman on telephone (Slide)
- SI-2 Man on radio LILCO car (Slide)
- SI-3 Shoreham Plant (Slide)
- SI-4 Two men reviewing procedure (Slide)
- SI-5 Organization Chart of LERO (Slide)
- SI-6 Ambulance (Slide)
- SI-7 LILCO Employee directing traffic (Slide)
- SI-8 USCG Boat (Slide)
- SI-9 Bus picking up passengers (Slide)
- SI-10 Traffic on LIE (Slide)

ATTACHMENT 13

LERO ORGANIZATION  
SCRIPT NO. 1  
RADIATION PROTECTION

Visual Display/ Staging Directions	Narration
S.1 Art of proton	Music track.
S.2 Art of nucleus	
S.3 Art of atom	
S.4 Art of 4 Atoms	
S.5 Fill screen with symbols of atoms	 
S.6 Hold S.5. Begin to super radiation symbol	 
S.7 Hold S.5. Bring in super of radiation symbol stronger	   
S.8 Hold S.5 under. Bring in radiation symbol to strongest point over S.5	   
S.9 Lose S.5 and bring up radiation symbol by self (see example for symbol color) black background	     
S.10 Hold S.9 and supercopy Radiation Protection	 

LERO ORGANIZATION

SCRIPT NO. 1

RADIATION PROTECTION

Visual Display/  
Staging Directions

Narration

S.10a MS of talent in studio | Hi, I'd like to welcome you to the second  
establish shot. He is | session of your Training Program. Today  
standing among set | our topic will be radiation, what is  
visuals. No chair on | radiation, where it comes from, it's  
stage. | effects and how it is controlled. So  
| let's begin.

S.11 Dissolve into earth shot | All substances on earth are made up from  
as viewed from space | one or more of about 100 different  
| elements.

S.12 Dissolve into slide of | The smallest part of an element that can  
atom | exist is called

S.13 Hold visual of atom S.12 | an atom.  
Supercopy atom on |  
narration que |

S.14 Repeat S.12 picture of | Each atom has three basic components;  
atom. No copy |

S.15 Dissolve to protons | protons,  
begin build |

S.16 Dissolve to protons and | neutrons  
neutrons. Cont. build |  
|

LERO ORGANIZATION  
SCRIPT NO. 1  
RADIATION PROTECTION

Visual Display/ Staging Directions	Narration
S.17 Dissolve into 3-slide of build protons, neutrons and electrons	and <u>electrons</u> .   
S.18 Dissolve into protons and neutrons	The protons and neutrons are tightly bound   together in the central part of the atom   called the <u>nucleus</u> .
S.19 Dissolve into nucleus and electrons	Lighter particles called <u>electrons</u> orbit   around the nucleus similar to the planets   orbiting around the sun.
S.20 Dissolve to stable atom	In most cases, if the number of neutrons   and protons in the nucleus are equal, the   atom is
a. Code copy: stable	"stable." Some atoms have unequal numbers   of protons and neutrons and are
S.21 Dissolve to unstable atom. Code copy unstable	"unstable." 
S.22 Dissolve to atom releasing energy	Unstable atoms continuously release energy   to eventually become stable.
S.23 Hold visual of S.22 Code radioactivity symbol over S.22	This released energy is called radiation   and these atoms are radioactive. 

LERO ORGANIZATION

SCRIPT NO. 1

RADIATION PROTECTION

Visual Display/ Staging Directions	Narration
S.24 Types of radiation Build alpha, beta and gamma symbols	There are three types of radiation:   alpha, beta and gamma radiation. 
S.25 Show just alpha and beta particles	Alpha and beta radiation are made up of   particles.
S.26 Show symbol for gamma ray as well	Gamma radiation is a form of wave energy   similar to sunlight and microwaves.
S.27 Cut to use slide A009 Training resource divi- sion graphic. ECU only on particle. Do not show nucleus	<u>Alpha particles</u> consist of two neutrons   and protons.   
S.28 Show alphas getting fainter as they go to rt side of frame and ruler below indicating 2 inches have faded by two inches	Alpha particles travel only 2 or 3 inches   in air before they lose their energy and   come harmlessly to rest.   

LERO ORGANIZATION

SCRIPT NO. 1

RADIATION PROTECTION

Visual Display/ Staging Directions	Narration
S.29 Dissolve to outline of man facing up to camera whole body. Show alpha particle stopping at outer skin layer	If an individual is exposed to alpha radiation, the radiation will lose all its energy within the outer layer of the skin.
S.30 Alpha particle in air	Because of this, alpha radiation does not pose an external radiation hazard and can be stopped or shielded with something as thin as a paper.
S.31 Cut to show Beta particle from A011 example slide. Do not show nucleus. Only beta	<u>Beta particles</u> are electrons,
S.32 Dissolve to slide A011 from example show beta and its nucleus	that have originated in the nucleus and travel very close to the speed of light.
B.33 Show ruler indicating 3 feet. Show beta particles getting dispersed as they go towards right side of frame	Beta particles can travel several feet in air before they are absorbed.



LERO ORGANIZATION

SCRIPT NO. 1

RADIATION PROTECTION

Visual Display/ Staging Directions	Narration
S.34 Dissolve to outline of man, show beta just penetrating skin. Out layer of skin is red	However, if an individual is exposed to beta radiation, it can partially penetrate skin and is considered an external radiation hazard.
S.35 Dissolve to hold S.34 lose beta particles Just leave red skin	
S.36 Dissolve to sheet of aluminum and sheet of plastic	Beta particles can be shielded by using thin sheets of aluminum or plastic.
S.37 Dissolve to gamma rays See A013 as example	The third type of radiation is gamma rays. Gamma rays are excess energy given off by a radioactive atom which has released an alpha or beta particle.
S.38 Gamma rays diminish in intensity as they move to right side of frame Ruler shows 10 feet	Gamma rays travel great distances in air depending on how much energy they have.
S.39 Outline of body. Gamma rays are passing through body - we see them enter body and exit on back side	If an individual is exposed to gamma radiation, the radiation will penetrate through their body, creating minimal damage as it passes.

LERO ORGANIZATION

SCRIPT NO. 1

RADIATION PROTECTION

Visual Display/ Staging Directions	Narration
S.40 Show father, mother and children - gamma rays are floating above	Gamma radiation is considered an external hazard to the entire body.
S.41 Show lead sheets 3 inch thick. Gamma rays go through all but last sheet. Have rays thin as they pass through the lead. Show a concrete wall 2 feet thick. Have rays thin as they pass through	To stop gamma radiation shielding materials, such as lead or concrete, are required.
S.42 Dissolve to atom throwing out alpha particle	When an atom gives off an alpha or beta particle, it becomes more stable.
S.43 Dissolve through 3-4 slide showing alpha particles thrown off of nucleus	It may have to go through multiple emissions before it becomes a stable atom.

LERO ORGANIZATION

SCRIPT NO. 1

RADIATION PROTECTION

Visual Display/  
Staging Directions

Narration

S.44 Dissolve to atom copy: Activity	Code	The rate at which the atom gives off these   alpha and beta particles is called   <u>activity</u> or radioactivity.
S.45 Use slide A025 as sample		The amount of activity of a group of atoms   decrease over a period of time.
S.46 Code: Half-life		The time it takes to decrease the activity   to half its original value is called the   <u>half-life</u> .
S.47 At various points on line show time pro- gression of evolution of man. Begin with prehistorical to today		Half-lives can range from fractions of a   seconds to billions of years.
S.48 MS Studio talent stand- ing on set		Let's now review the major topics covered   in this section. Everything on earth is   composed of elements made up of atoms   containing protons, neutrons, electrons.
S.49 Build		Atoms that are unstable, are called   radioactive and give off energy in the   form of 

LERO ORGANIZATION

SCRIPT NO. 1

RADIATION PROTECTION

Visual Display/ Staging Directions	Narration
S.50 2nd slide of build	either alpha or
S.51 3rd slide of build	beta particles and
S.52 4th slide of build	gamma rays.
S.53 Dissolve to alphas	Alphas are the least penetrating, betas
stopped at paper, beta's	are second and gammas are the most
go through paper, stop	penetrating.
at aluminum, gammas go	
through paper, aluminum	
stop at last lead sheet	
S.54 Repeat S.46	The rate at which alphas, betas and gammas
	are given off is called activity and time
	it takes to reduce activity to half its
	original amount is called half life.
S.55 MS talent in studio	Let's now stop for a minute and see if
Please stop tape	there are any questions.
S.56 Please stop tape	

ATTACHMENT 14

LERO ORGANIZATIONMODULE NO. 5LERO NOTIFICATIONS

Visual Display/ Staging Directions	Narration
S.1-12 Introduction slides and titles	 
S.13 Studio talent MS Camera position #1	When an emergency is declared at the   Shoreham Nuclear Power Station, a sequence   of events follow which may require your   cooperation.
S.13 Studio talent zoom in Camera position #1	You will recall from our previous modules   that there are four types of emergency   notification:
S.14 Cyron	They are:   - Unusual Event,   - Alert,   - Site Area Emergency and   - General Emergency.
S.15 Studio talent MS Camera position #2	As a LERO member, you will take specific   actions depending upon the emergency level   and your specific assignment.       

LERO ORGANIZATION

MODULE NO. 5

LERO NOTIFICATIONS

Visual Display/  
Staging Directions

Narration

- S.16 Motion manager of Local Response looking at beeper at home. MS MOS sound  
a. Cyron Standby  
b. Cyron Report
- S.17 Motion of bus driver at home on phone. MS
- S.18 MS studio talent  
Camera position #1  
Cyron:  
a. Different Notification GPS  
b. Equipment  
c. Site Area Emergency
- | For example, the Manager of Local Response will be notified for all emergencies. However, he will be placed on standby for an Unusual Event, and will report for all other emergencies.
- | On the other hand, most bus drivers are not notified until after an Alert has been declared, and only to be put on standby.
- | In this presentation we will discuss the entire notification process. We will first define the different notification groups. Second we will discuss the equipment that is used for notifying all LERO members. Finally, we will examine LERO notifications at a Site Area and General Emergency.
- |
- |
- |

LERO ORGANIZATION

MODULE NO. 5

LERO NOTIFICATIONS

Visual Display/  
Staging Directions

Narration

- |  |  |
|--|--|
| S.20 Copy slide Notification groups                  | There are three LERO notification groups.  |
| a. Group I   | We will refer to them here as Group 1,     |
| b. Group II  | Group 2 and Group 3.                       |
| c. Group III   | All personnel in a particular notification |
| S.19 Build 9-way in edit MOD 2                       | group are notified at the same time and    |
|  | will report at the same emergency level.   |
|  | Let's start with Group 1.                  |
|  |  |
| S.21 Chart code: Group I (yellow)                    | As you can see in this chart, Group 1      |
|  | members include the top LERO managers.     |
| S.22 Build Director of LR                            | These include the Director of Local        |
| a. Manager of LR                                     | Response, the Manager of Local Response    |
| b. Add other 5 coordinators                          | and those senior coordinators who report   |
|  | directly to them.                          |
| S.23 Motion of man pulling pager and reading display | These individuals are notified for every   |
|  | emergency classification.                  |
|  |  |
|  |  |
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LERO NOTIFICATIONS

Visual Display/ Staging Directions	Narration
S.24 7 men looking up to camera GP shot a. Code: Standby lose code b. Code: Report	Group 1 members are on standby for a   Notification of Unusual Event emergency   classification, but must report for all   other emergencies. 
S.25 Slide of pager a. Code: 1111 on pager b. Code: Radio waves	When Group 1 members are notified, it is   expected that they will stay within pager   range and be available to respond promptly   should the emergency be upgraded. 
S.26 Studio talent MS Camera position #1	Group 1 members have a leading role in the   response effort. Let's examine the next   notification group referred to here as   Group 2.
S.26 Motion 4 men and 1 woman talking together	Group 2 members are primarily middle LERO   management.
S.27 Slide art massive organ- ization chart. Code: LERO over chart (Group 2, blue)	As shown in the LERO organizational chart,   the leaders of this group report directly   to one of the following:     

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Visual Display/  
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Narration

- S.28 Build art of people at top | the Health Services Coordinator,  
a. Cont. build of people | the Evacuation Coordinator,  
b. Cont. build of people | the Lead Communicator,  
c. Cont. build of people | the Support Services Coordinator and  
d. Cont. build of people | the Coordinator of Public Information.  
Code build titles up |
- S.29 Hold art S.28. Lose all codes | Group 2 includes most of the  
a. Code Coordinator over chart | LERO Coordinators and part of their staffs.
- S.30 Motion show man leaving house entering car | Group 2 members must report to their  
pre-assigned locations when they are  
| notified.
- S.31 9-way build (EOC Communicator) Code: Alert MOD 2 | Notification for this group will be at  
Alert and higher emergency classifications.
- S.32 Studio talent ECU Camera position #1 (Group 3, green) | The last LERO notification group to be  
| notified is Group 3. This Group consists  
| of:  
|

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Visual Display/ Staging Directions	Narration
S.33 Art unde type. LERO	- Record Keepers
Group 3. Build titles	- Decontamination and Monitoring
a. RK	personnel
b. Decon & Monit pers	- Field Sanitary Support personnel
c. Field Site Sppt pers	
Lose Build	
S.34 Hold S.33 art - change	- Evacuation Route Spotters
color background. Build	- Road Crews
a. Evac Route Spotter	- Traffic Guides
b. Road Crews	
c. Traffic Guides	
S.35 Hold S.33 art - change	- Bus Dispatchers and Drivers
color background. Build	- Route Alert Drivers and
a. Bus Dis. and Drivers	- Relocation Center Security
b. Route Alert Drivers	
c. Relo Center Security	
S.37 Slide pager with 2255	Those individuals in this group who carry
a. Code on pager	pagers will be notified at the Alert stage
Alert	and will be put on standby.
Standby	To this group, standby means:
	a. Read applicable materials.

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Staging Directions

Narration

- | b. Stay close to your home or business  
| phone in case you are notified to  
| initiate callout lists.
- S.36 Motion of people walking into EOC  
a. Cyron: SAE | All other individuals will report to their  
| pre-assigned locations only after they are  
| notified that a Site Area Emergency has  
| been declared.
- S.38 Studio talent CU  
Camera position #1 | So, as you can see, Group 3 LERO members  
| are the last to be notified in an  
| emergency.  
| Let's quickly review. Notification is  
| divided into three groups.
- S.39 a. Art S.28 People at top. Code: Top LERO Management over people | The first group, which includes the top  
| LERO management, is notified at every  
| level of emergency.
- b. Build middle art people with 39a  
Code: Middle LERO Management | The second group consists of middle LERO  
| management and is notified after an Alert  
| has been declared.

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Narration

- S.39 c. Build last art people | And finally, Group 3 is notified, part at  
Code: Response per- | an Alert and part at the Site Area Emer-  
sonnel | gency classification.
- S.40 CU studio talent | Up to this point, we have been discussing  
Camera position #1 | the three notification groups of LERO. In  
| other words, who gets notified and when.
- S.41 ON camera move to MS | Let's now discuss how notification of each  
Camera position #2 | group is accomplished.
- S.42 Title "LERO Notifica- | There are two methods by which LERO  
tion" top over 2-way | members are notified,  
build |  
a. Slide Pager | pagers and commercial telephone.  
b. Slide Telephone |
- S.43 Repeat motion of man | The LILCO Paging System is used to notify  
picking up pager S.23 | Group 1, Group 2 and some of Group 3 LERO  
| members.
- S.44 Pager (several expo- | This paging system has the capability of  
sures) to give impres- | activating one or more selected groups of  
sion of multiple pagers | pagers.
- S.45 Slide shot of Customer | Therefore, the Customer Service Operator  
Service Oper. activating | can be very selective as to who is  
beeper system | notified.

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Visual Display/ Staging Directions	Narration
S.46 Motion of pager on belt MOS sound of encoder on que under narration	The pagers used by LERO members will sound   a distinct signal 
S.47 Slide of pager MS a. Code: 1111 on dis- play window	and show a digital display.   
S.48 Slide EUC of display window. Code: 1111 and allow pointing to code	This digital display is an indication of   the emergency classification, and the   action that you should take. 
S.49 Slide MS of pager and display window a. Code: 1111 b. 2222 c. 2255 d. 3333 e. 4444 f. 0000	There are five possible digital readouts   on the beeper. These are: "1111",   "2222", "2255", "3333", "4444", and "0000".           
S.50 Studio talent MCU Camera position #2	Each readout indicates a specific   emergency classification and action. For   example:   

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S.51 Slide of pager	In an Unusual Event, the "1111" is
a. Code: 1111 in window	displayed on all Group 1 pagers. This
b. Code: Unusual Event	indicates that a Notification of Unusual
over beeper	Event has been declared and that the
c. Build (hold S.51b)	recipient is on standby.
Standby. Lose all	
codes (have talent	
pause)	
S.52 Hold pager (S.51)	The "2222" digital display indicates that
a. Code: 2222	an <u>Alert</u> is in progress and that the
b. Code: Alert over	recipient must <u>report</u> to the pre-assigned
beeper	location.
c. Build (hold S.52b)	
Report. Lose all	
codes	
S.53 Studio talent MS	The 2255 is also used to indicate an
Camera position #1	Alert, but recipients of this display
a. Cyron: 2255	would standby and await further
b. Cyron: Alert	instructions.
c. Cyron: Standby	

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Narration

- S.54 Slide pager from (S.51) | The digital display 3333 is used to  
different angle | designate a Site Area Emergency. The  
a. Code: 3333 in window | response to this code is to report to your  
b. Code: Site Area | duty station.  
Emergency over pager |  
c. Code build (hold 55b) |  
Report |
- S.55 Slide pager from (S.55) | A General Emergency would be indicated by  
a. Code: General Emer | the display of 4444 and LERO members  
(hold S.56b) | receiving this notification should report  
b. Code: 4444 over | to their duty stations.  
window |  
c. Code build: Report |
- S.56 MS studio talent | Our last code is 0000. This display  
Camera position #1 | designates a de-escalation from Unusual  
a. Cyron: 0000 | Event. If you receive this display you  
b. Cyron: De-escalation | would come off of standby.  
|  
|  
|  
|



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Staging Directions

Narration

- S.57 Studio talent move on camera to MW shot  
Camera position #2  
a. Cyron: 99  
b. Cyron: 991111  
c. Cyron: 992222
- S.58 Studio talent zoom in to studio talent  
Camera position #2
- S.59 Slide zoom up Review
- S.60 Repeat 9-way build of EOC communication S.31  
Code:  
a. Outline of pager and telephone over build
- S.61 Repeat S.47 slide of pager
- | A word of caution: For purposes of exercises and communications testing, the number "99" will proceed the 4 digit visual display. For example "991111" or "992222".
- | Those LERO members who do not carry pagers will be notified, via commercial telephone by a LERO member who has been notified using a pager. This LERO member would inform you of the emergency classification and of your action.
- | Let's quickly review what we have covered to this point.
- | First, as a LERO member you may be notified via one of two communication devices; a pager or commercial telephone.
- | If you are notified through a pager, you will know the emergency classification and

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Visual Display/ Staging Directions	Narration
a. Code: Emergency Classification	your action by the digital readout or your   pager.
b. Code: 1111 in window	
S.62 Studio talent MS Camera position #1	If you are contacted by telephone, you   will be informed of the emergency   classification and your action by the   Emergency Caller. You will also recall   that,
S.63 Repeat S.29	LERO notification will be implemented by
S.64 Hold S.29. Code:	groups depending on the level of the
a. Top LERO Mgt.	emergency. Group 1 is top LERO
b. Middle LERO Mgt.	management, Group 2 LERO middle management
c. Response personnel	and Group 3 is additional response   personnel.
S.65 Studio talent MS Camera position #2	Now let's take a look at the sequence of   events leading up to a LERO notification.
S.66 Motion of SNPS zoom in mode	Upon the declaration of an emergency at   the Shoreham Nuclear Power Station,
S.67 Dissolve MOD I into Motion of Control Room Communicator at SNPS	the Communicator in the Control Room will   notify the 

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Narration

- S.68 Motion of Customer Ser- | LILCO Customer Service Operator in  
vice Operator on hotline| Hicksville, unless the EOC has been  
phone | activated.
- S.69 Motion of EOC Lead | In that case, then the EOC Lead  
Communicator MOD 8 | Communicator will be notified.
- S.70 a. Cyron: Lead |  
Communicator |
- S.71 Motion of CSO activating| If the LILCO Customer Service Operator is  
beeper system initially | notified, then he will have the responsi-  
on phone, hang up, acti-| bility of initiating the LERO notificati-  
vate system. MS zoom | process.  
in to ECU |
- S.72 MS studio talent | However, if the EOC has been activated,  
Camera position #1 | then the Lead Communicator will initiate  
| all LERO notification.
- S.73 Match shot to MS studio | Now let's look at an example of how you  
talent. Camera posi- | would be notified once the plant has  
tion #2 | notified LERO.  
|  
|  
|

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S.86 MS studio talent	If you were a bus driver, here is how you
Camera position #1	would be notified:
S.87 ECU move on camera	In the event of an Alert, the pagers of
Studio talent. Camera	the bus drivers who are assigned as
position #2	Emergency Callers would be activated.
	Their pagers will display "2255". This
	means that an Alert is in progress and
	that they are on standby.
S.88 MS motion of bus driver	At this point, these emergency callers
with just beeper - he is  would not make any calls.	
reading display - MOS	
beeper sound under shot	
S.89 MS studio talent	If, the event is upgraded to a Site Area
Camera position #1	Emergency, these pagers would be activated
	again.
S.90 Slide shot of beeper	This time the pagers would display "3333".
S.55 and 55a	
a. Code: 3333	

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Staging Directions

Narration

- |   |  |
|---|--|
| S.91 Motion bus driver on<br>phone                                      | Each Emergency Caller would now notify<br>  their assigned personnel using commercial<br>  telephone.  |
| S.92 MS zoom into procedure<br>in his hand                              | Each caller has an Emergency Caller<br>  Procedure that includes the names and<br>  telephone numbers of bus drivers to call.                                  |
| S.93 Slide art shot of pro-<br>cedure MOD #2 (this is<br>now on motion) | Let's take a look at one of those<br>  procedures,<br>   |
| S.94 ECU slide shot of title<br>on procedure highlight                  | for example, Emergency Caller Procedure<br>  No. 45 for Bus Driver No. 9 who reports to<br>  the Riverhead Staging Area in the<br>  Riverhead District Office. |
| S.95 Hold S.96 and<br>a. Code: Six steps                                | There are six steps in this procedure.<br>   |
| S.96 Highlight ECU position<br>OI line for emergency<br>code            | For Step 1, you must circle the correct<br>  emergency code.<br> <br> <br> <br>  |

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Visual Display/ Staging Directions	Narration
S.97 Repeat S.92 and 92a Slide shot beeper and Code: 3333 all up	That is the digital display on the pager.   
S.98 Slide highlight line for time	Step 2, record the time that notification   was received.
S.99 Repeat S.95 and code build a. 2222 b. 3333 c. 4444	Step 3, if the emergency code is 2222,   3333 or 4444, continue on to the remaining   steps.   
S.100 Hold base slide S.101 and Code a. Outline of phone and number 14	Step 4, you must call at least 13 other   bus drivers whose names appear on your   list. 
S.101 Motion ECU of bus driver on phone	As you contact each person, give them the   time notification was received, and the   code (2222, 3333 or 4444).       

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S.102 Motion of bus driver's hand completing form		Step 6, requires that you write the date and time next to the name of each bus driver you contacted, and initial it.
S.103 Studio talent MS Camera position #1		Now let's tie all this together. First, in a
a. Cyron: Site Area		Site Area or General Emergency, all LERO
b. Cyron: General Emer		personnel are required to report for
		duty. All pagers will be activated and
		display "3333" or "4444". This means that
		a Site Area or General Emergency is in
		progress and that everyone must report.
S.104 Move on camera to MCU Camera position #2		Group 3 personnel will be contacted via the pagers and commercial telephone. Some
		individuals in Group 3 carry pagers and
		are called Emergency Callers.
S.105 Repeat motion S.103 bus driver on phone		Their responsibility is to call other LERO members listed in the emergency procedure.

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- S.106 Studio talent MCU | After an emergency situation no longer  
Camera position #1 | exists, action must be taken to either  
| reduce LERO staffing or de-activate the  
| entire organization.
- S.107 Box organization chart | The Director of Local Response or the  
Director of LR, Manager | Manager of Local Response  
of LR MOD 2 |
- S.108 Repeat S.69 motion of | will direct that all emergency personnel  
CSO on phone | be notified.
- S.109 Repeat S.73 motion pick | The system will be activated and will  
up at part CSO acti- | display code 0000.  
vates Pager System |  
a. Cyron: 0000 |
- S.110 Repeat motion of S.23 | Should you receive this display, you will  
man picking up pager | know that you are no longer needed for  
and reading display | duty.
- S.111 Repeat motion OSC S.26 | Those of you who don't carry pagers will  
4 men and 1 woman | be released by your immediate supervisor.  
talking together |  
|  
|



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Visual Display/ Staging Directions	Narration
S.112 Studio talent MS Camera position #1	O.K. Let's review our module on
a. Cyron: LERO Noti- fication	LERO notifications.   There are three notification groups; Group   1 LERO top managers, Group 2 LERO middle   managers and Group 3 response personnel.
S.113 Zoom into MCU of talent Camera position #1	Group 1 members are notified at every   emergency classification and always   report, except in
S.114 Cut to cyron Notifica- tion of Unusual Event	a Notification of Unusual Event when they   are on
S.115 Cut to cyron Standby	standby.
S.116 Cut to studio talent Camera position #2 MCU	Group 2 members are notified at an Alert   or a higher emergency classification and   must report whenever they are notified.
S.117 Repeat motion S.23 man picking up pager and reading display	Group 1 and Group 2 LERO members will   carry pagers and will be notified by a   digital numerical display and beeping tone   that an emergency is in progress.   

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Narration

- S.118 Motion bus driver on phone S.107 | Group 3 members report for a Site Area or  
| General Emergency only. They are notified  
| using the LILCO Paging System and  
| commercial telephone.
- S.119 Studio talent MCU Camera position #1 | LERO notification is initiated by the  
| Customer Service Operator in Hicksville.  
| If the Local EOC in Brentwood has been  
| activated, the Lead Communicator would  
| initiate the notifications.
- S.120 Studio talent. Camera position #1. Pull out to MS | There are six emergency codes. Each code  
| indicates an  
|  
a. Cyron: Emer Class | emergency classification  
b. Cyron: Action | and your required action.
- S.121 Continue pull out to establish shot studio talent. Camera position #1 | Your job as part of this notification  
| network is critical to the overall success  
| of LERO and our emergency response plan.  
|  
|  
|  
|

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Narration

Camer position #1

| Before we end this session, I would like  
| to take a moment to address a concern that  
| some of you may have at this point. This  
| concern involves the popular belief that  
| emergency workers may not respond to an  
| emergency notification or may even abandon  
| their emergency posts. You should all be  
| aware of the facts on this issue. Exten-  
| sive scientific studies on the behavior of  
| emergency workers during emergencies,  
| overwhelmingly, indicate that emergency  
| workers do respond when notified and do  
| carry out their responsibilities to the  
| fullest extent.

Bring up music track  
under talent

| I hope this module has been informative  
| and we will now stop the tape for ques-  
| tions you may have on LERO notifications.

S.122 Please stop tape

S.123 LERO Logo build over  
music

|  
|  
|

ATTACHMENT 15

LERO ORGANIZATION  
MODULE NO. 8  
EMERGENCY COMMUNICATIONS

Visual Display/ Staging Directions	Narration
S.1-12 Module slide intro- duction and titles	 
S.13 MS establishing shot of studio talent. Camera position #1	In the highly unlikely event of a   radiological incident at the Shoreham   Nuclear Power Station, it is important   that adequate communications be maintained   between all emergency response groups.
S.13a Zoom in MCU studio talent	Should actions become necessary, both an   onsite and an offsite response   organization would implement specific   communications procedures to support   efforts performed to protect the health   and safety of the general public.
S.14 Motion shot of SNPS. Zoom in to containment Building	During an incident at the Shoreham Nuclear   Power Station, the first emergency   communications action would take place in   the Shoreham Nuclear Power Station.       

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EMERGENCY COMMUNICATIONS

Visual Display/  
Staging Directions

Narration

S.15 Studio talent MS. Camera position #2	Offsite authorities, including LERO, must   be notified that an onsite emergency is in   progress. Notification will come from one   of the three locations:
a.	- The Plant Control Room,
b.	- The Technical Support Center, or
c.	- The Emergency Operations Facility,   depending upon the level of emergency.
d.	We will refer to these locations as "the   site".
e. MCU studio talent Camera position #2	Similarly, the LERO contact offsite is the   Customer Service Operator in Hicksville.   However, when the EOC is activated, the   Local EOC RECS Communicator will receive   the initial notification. We will refer   to these individuals as the LERO RECS   Communicator.   Initial notification is accomplished with   the   

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EMERGENCY COMMUNICATIONS

Visual Display/ Staging Directions	Narration
S.16 Hold S.15. Cyron copy radiological emergency communications system. Lose copy	Radiological Emergency Communications   System; should this system fail,   
S.17 Hold S.15. Cyron copy: LILCO Notifications Radio System	the LILCO Notification Radio System would   be used as backup. 
S.18 Studio talent. ECU Camera position #2	The second phase is the activation of   LERO. LERO personnel may be put on   standby or be requested to report to their   pre-assigned locations depending on the   level of the emergency.
S.19 Slide of pager. ECU  a. Slide of commercial telephone ECU	LERO activation is initiated with a paging   system    and then continues with commercial   telephone call outs.
S.22 Studio talent MS Camera position #1	The next phase is the vital communications   links to LERO or LERO communications   network. Let's begin by discussing the   communications link to the LERO organiza-   tion. The continuous flow of information

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EMERGENCY COMMUNICATIONS

Visual Display/  
Staging Directions

Narration

- | between the plant Control Room and the  
| Local EOC is critical to our success. The  
| Local EOC must have dependable two way  
| communications with:
- S.23 Build 4-way | - All LERO personnel inside the EP2  
a. LERO Coordinator on |  
telephone | - Federal, state and local agencies  
b. NY State Seal | - Hospitals, fire and rescue/dispatch  
c. Traffic Guide | stations, ambulance dispatch stations,  
d. Ambulance | and
- S.24 Hold 4-way S.23. Code | - Other outside agencies participating  
copy: All other out- | in the emergency effort.  
side agencies |
- S.25 Art slide of red phone | The LERO communication systems that  
with communication waves | satisfy these requirements are:  
emanating from phone |
- S.26 Build 4-way |  
a. Repeat S.25 | - Dedicated phone lines  
b. Commercial telephone | - Commercial telephones  
c. LILCO radio | - The LILCO Emergency Radio System and  
d. Telefax machine | - Telefax machines.



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EMERGENCY COMMUNICATIONS

Visual Display/  
Staging Directions

Narration

- |  |  |
|--|--|
| S.20 Motion of emergency broadcast system operator at WALK radio console                                       | The final phase is communicating protective actions, if any, to be taken by the general public. Sirens will be sounded to indicate that the community is advised to listen to the local emergency broadcast system radio station. This station will broadcast updates on the emergency effort. |
| S.21 Motion of family (father, mother, son, daughter) listening to portable radio in living room (S.47, MOD 6) | The public, through previously disseminated information, will be advised to listen to their radios upon receiving notifications by the siren system. Details on these activities will be explained later in this presentation.   |
| S.29 Copy slide zoom up<br>Review  | Let's review what we have discussed so far.<br> <br> <br> <br> <br> <br>   |

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EMERGENCY COMMUNICATIONS

Visual Display/  
Staging Directions

Narration

S.30 Repeat 4-way build S.26d | LERO has four basic communication needs:

Code copy: |

a. Initial Notification | - Initial notification

b. LERO Activation | - LERO activation

c. Public Notification | - LERO communications network and

d. LERO Communications | - Public notification

Network |

S.31 Art slide of red phone, | There are eight communications systems to  
commercial phone, | satisfy these needs:

radio, pager |

a. Code copy: Radio- | - The Radiological Emergency  
logical Emergency | Communications System

Communications Sys- |

tem. Lose code |

b. LILCO Notification | - LILCO Notification Radio System

Radio System. Lose |

code |

c. Paging System. Lose | - Paging System

code |

d. Prompt Notification | - The Prompt Notification System

System. Lose code |

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Visual Display/ Staging Directions	Narration
S.32 Hold art S.31	
a. Code: Dedicated phone lines. Lose code	- Dedicated Phone Lines   
b. Commercial Telephones Lose code	- Commercial Telephones 
c. LILCO Emergency Radio System. Lose code	- The LILCO Emergency Radio System and   
d. Telefax Machine	- Telefax Machines
S.33 Repeat S.28	
S.34 Copy slide Initial Warn- ing Notification System	Let's begin by focusing our attention on   the initial warning notification systems.
S.35 Hold S.34 and build copy Radiological Emergency Communication System	The Radiological Emergency Communication   System, or RECS, is the primary 24-hour   per day notification link         

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EMERGENCY COMMUNICATIONS

Visual Display/  
Staging Directions

Narration

- S.36 2-way art slide | between the site, LERO, the State and  
a. ECU of man on red | county authorities.  
phone |  
b. ECU of man at desk |  
on red phone |
- S.37 Art slide of 11 red | It is a "hot line" network of eleven  
telephones in circle. | telephones.  
Make sure red phones |  
have light indicator |  
in center |
- S.38 Slide ECU of hot line | The system is activated by lifting one of  
phone with manual ring | the receivers and depressing it's manual  
button | ring down button.
- S.39 Slide of Control Room | During an emergency, the site communicator  
Communicator on Hot Line | will pick up his RECS line and notify LERO  
Use same person as in | and officials at other RECS locations.  
S.42 |
- S.40 Slide shot of 11-way | To avoid confusion when all the parties  
Men and women on red | pick up their RECS lines, a procedure has  
phones. ECU each shot | been established to control the flow of  
| information.

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EMERGENCY COMMUNICATIONS

Visual Display/  
Staging Directions

Narration

- S.41 Repeat S.38 | First, the Site Communicator will depress  
| the ring down button and release.
- S.42 Motion of Control Room | After the ring stops, the Communicator  
Communicator (new | will lift the telephone and announce:  
person) on red phone |  
ECU |
- S.43 Motion hold S.42 and | "This is to report an incident at the  
have Communicator begin | Shoreham Nuclear Power Station. Stand by  
reading copy | for roll call."
- S.44 Motion cut away of Con- | The Communicator will then proceed with  
trol Room Communicator's | the roll call.  
hand and clipboard | "EMERGENCY OPERATIONS FACILITY"
- S.45 Motion of Control Room | "TECHNICAL SUPPORT CENTER"  
Communicator ECU on face | "LILCO CUSTOMER SERVICE"  
and phone. Communicator | "LOCAL EOC"  
continues to read copy | "NEW YORK STATE EOC"  
| "NEW YORK STATE WARNING POINT, ALBANY"  
| "NEW YORK STATE HEALTH DEPARTMENT"  
| "NEW YORK STATE SOUTHERN DISTRICT OFFICE"  
| "SUFFOLK COUNTY POLICE COMMUNICATIONS  
| CENTER"

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Visual Display/  
Staging Directions

Narration

| "SUFFOLK COUNTY DEPARTMENT OF EMERGENCY  
| PREPAREDNESS"  
S.46 Motion of Control Room | After the roll call is complete, the Site  
Communicator MS still | Communicator will read the Notification  
talking. Studio narra- | Fact Sheet over the RECS lines. He will  
tor MOS over video | then repeat the roll call except this time  
| add:  
a. Studio narrator reads | "Do you copy?" after each station call.  
this copy while S.46 |  
continues |  
S.47 Continue motion of Con- | Next, the Control Room Communicator will  
trol Room Communicator. | sign off by saying'  
Cut to ECU |  
a. Hold motion S.47. | "Long Island Lighting Company out at  
Studio talent read | (time) local and (date)".  
this copy. MOS over |  
video |  
S.48 Motion of Control Room | Finally, the Site Communicator will record  
Communicator's hand ECU | the parties informed on the Information  
making notes in infor- | Log Sheet.  
mation log |

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Visual Display/  
Staging Directions

Narration

S.49 Repeat motion S.42

| So as you can see, the Site Communicator  
| is the initiating party in the Initial  
| Notification Process.

S.50 MS studio talent

Camera position #1

| Let's now examine the function of the LERO  
| RECS Communicator. At this point, the  
| Local EOC has not been activated and the  
| Customer Service Operator is receiving all  
| initial notification.

a.

| The Customer Service Operator will respond  
| to the RECS roll call with:  
| "This is Customer Service Operator."

b.

| When the roll call is complete, he will  
| locate a copy of the Notification Fact  
| Sheet.

c.

| Then, the Customer Service Operator will  
| complete this form with the information  
| provided by the site RECS Communicator.

|  
|  
|  
|

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Staging Directions

Narration

- S.54 Cut away ECU of Communi- | and finally, after completing the noti-  
cator S.51 on red phone | fication sheet, requests the Site Communi-  
 | cator to repeat any missed information  
 | and, if necessary, correct any errors.
- S.55 MCU studio talent | Let's suppose now that the Local EOC in  
Camera position #1 | Brentwood is activated and you, the RECS  
 | Communicator there, are to come on duty.
- S.60 Slide of Customer Ser- | First, you must request Customer Service  
vice Operator at telefax | Operator to telecopy all General  
machine. Use same per- | Information sheets received from the  
son as in S.56 | Shoreham Communicator to the Local EOC by  
 | telefax. Make sure the Customer Service  
 | Operator has your telefax phone number.
- S.57 Motion Manager of Local | Second, at the request of the Manager of  
Response at red phone | Local Response, you will use the RECS line  
RECS Center with EOC | to inform Shoreham and all offsite  
Communicator | authorities about the transition from  
 | LILCO Customer Service to the EOC.



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Narration

- S.59 MS motion of RECS Com- | Just like the Site Communicator, you will  
municator preparing | perform a roll call using the following  
message for transmission | text:
- a. MS of RECS Communi- | "This is the Local EOC RECS Communicator,  
cator picking up red | State Your Name. At the direction of the  
phone and reading | Manager of Local Response, responsibility  
message | for receiving further notifications from  
| Shoreham is now transferred from the  
| Customer Service Operator to the Local  
| EOC".
- S.51 Person S.50 on red | From this point on, you will respond to  
phone ECU | the roll call from the Shoreham Nuclear  
a. Continue motion of | Power Station Communicator with  
S.51. Studio talent | "This is the Local EOC RECS  
reads this copy. MOS | Communicator."
- S.58 Art slide 2 red phones | This communications link will be  
connected via telephone | maintained from that point in time on to  
line | the conclusion of the emergency.
- a. Code: SNPS and EOC |  
|  
|

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Staging Directions

Narration

- S.61 MS studio talent. | To this point, we have been discussing the  
Camera position #2 | primary means of initial notification on  
| the RECS line. A backup communication  
| network knows as the LILCO Notification  
| Radio System and has been established  
| should the RECS fail.
- S.62 Zoom into ECU of talent. | This system utilizes the Electric System  
Camera position #2 | Operations frequency between the following  
| locations:
- S.63 5-way build | o The Plant Control Room  
a. Plant Control Room | o The Technical Support Center  
b. Technical Support |  
Center | o The Emergency Operations Facility  
c. Emergency Operations |  
Facility | o The Electric System Operations Office  
d. Electrical Systems | in Hicksville and  
Operations Office | o The Local EOC in Brentwood  
e. EOC | This radio system is monitored 24 hours
- S.64 Slide of radio at | per day in Hicksville by Electric Systems  
Hicksville. Code: | Operations which has direct access to the  
a. 24-hour clock over | LILCO Customer Service Office.  
radio |

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Visual Display/ Staging Directions	Narration
S.65 ECU of radio that represents SNPS radio (shoot this slide at Hicksville)	The Shoreham radio is manned by the Control Room Communicator.
S.66 4-way Build	
a. Repeat S.39	Should this system require activation due to land line communications problems
b. Repeat S.64	the Customer Service dispatcher can access RECS and the
c. Repeat S.26b	commercial telephone system to relay notifications to
d. Repeat S.23b	the other organizations included in the RECS network.
S.67 Zoom up copy slide review	Now let's review.

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Staging Directions

Narration

- S.68 Copy slide. Build | The first action of emergency  
Initial Notification | communications is Initial Notification.
- a. Code: Control Room | The Control Room Communicator notifies  
Communicator notifies | LERO and other offsite authorities of an  
LERO of emergency. | emergency at Shoreham.  
Hold S.68. Code out |
- b. Hold S.68. Code: | The primary means of around the clock  
Radiological Emer- | Initial Notification is known as the  
gency Communications | Radiological Emergency Communication  
System. Code out | System or RECS.
- c. Hold S.68. Code: | The RECS system is a hot line network  
Hot Line Network of | consisting of eleven telephones. The  
nine telephones | system may be activated from any of those  
| eleven locations.
- S.69 Repeat motion S.50 | Once the Local EOC has been activated, the  
| LERO RECS Communicator then becomes  
| responsible for receiving all  
| notifications from the site.
- S.70 Repeat slide S.64 | The LILCO Notification Radio System is  
| used as backup to the RECS lines.  
|

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Staging Directions

Narration

- S.71 Hold S.70. Code copy: | The LILCO Notification Radio System util-  
Electrical System Oper- | izes the Electric System Operations, or  
ation Frequency. Lose | ESO, frequency.  
code |
- S.72 Hold S.70 | Five facilities have equipment for  
| transmitting and receiving over the ESO  
| frequency.
- S.73 Repeat S.63 5-way build |
- a. Plant Control Room | o The Plant Control Room
  - b. TSC | o The Technical Support Center
  - c. EOF | o The Emergency Operations Facility
  - d. ESOO | o The Electric System Operations  
| Office and
  - e. EOC | o The Local Emergency Operations  
| Center
- S.74 Hold 5-way S.73. Code; | All of these communication networks and  
S.74a Initial Notifica- | facilities comprise the Initial  
tion System | Notification System.
- b. MS studio talent | Let's now stop the tape for a few minutes  
Camera position #1 | and see if there are any questions.
- c. Please stop tape |

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Visual Display/ Staging Directions	Narration
S.75 Studio talent MS. Camera position #1. He is holding LILCO pager	Let's now move on to the next phase of.   emergency communications. Namely, <u>LERO</u>   <u>Activation</u> .   Key LERO staff and lead personnel from   outside supporting agencies
S.76 Zoom into ECU of pager held by studio talent	will carry pagers. These individuals will   be notified through the LILCO paging   system.
S.77 Slide of pager. MOS tone under video	When the paging system is activated, each   pager will sound a distinct signal
S.78 Art code Digital Display on pager 1111	that shows a digital display. 
S.79 Slide showing man looking at pager display	You will then respond to either a   pre-assigned location or be on standby   depending on the digital readout.
S.80 Slide of digital display on pager S.77	Each numerical display indicates the   emergency level and your specific action.   For example:
a. Code: 1111	1111 is the readout
b. Build Unusual Event	assigned to an Unusual Event.
c. Build Standby	If notified, your actions would be to go   to a standby mode.

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Narration

- S.81 Lose all previous codes. |  
Hold slide S.77 |  
a. Code: 2222 | 2222 is an Alert classification.  
b. Build Alert | Upon receiving this readout,  
c. Build Report | You should report to your duty station.
- S.82 Lose all previous codes. |  
Hold slide S.77 |  
a. Code 2255 | Others may receive a 2255  
b. Build Alert | which indicates an Alert, however, the 55  
c. Build Standby | means that you should go to a standby  
S.83 Lose all previous codes. | status.
- Hold slide S.77 |  
a. Code: 3333 | 3333 designates a  
b. Build Site Area | Site Area Emergency.  
Emergency |  
c. Build Report | You would report to your duty station.
- S.84 Lose all previous codes. |  
Hold slide S.77 |  
a. Code: 4444 | 4444  
b. Build General | is a General Emergency notification and  
Emergency | you would.  
c. Build Report | Once again, report to your duty station.

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Narration

- S.85 Lose all previous codes. |
- Hold slide S.77 |
- a. Code: 5555 | 0000
- b. Build De-escalation | is Notification of a De-escalation from an  
from Unusual Event | Unusual Event.
- c. Build Come off | Your action would be to come off of  
standby | standby status
- S.86 Slide of man receiving | Those LERO members who do not carry pagers  
telephone call at home | will be notified by commercial telephone
- a. Hold S.86. Code: | using an established cascading callout  
Telephone Calling | system.
- List over S.86 |
- b. Hold S.86. Lose code | This simply means that some LERO members  
S.86a | who are notified by pager
- c. 2-way - Repeat S.86 | will be required to notify other LERO  
and other man re- | members by telephone.  
ceiving call on phone |  
at home |  
|  
|  
|



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Narration

- d. 2-way - Repeat slide | In summary, LERO initial notification is  
of man looking at | accomplished through the LILCO paging  
pager S.79 and man | system and commercial telephone.  
receiving telephine |  
call at home S.86 |
- S.87 Repeat S.77 with burn | The digital display on each pager  
digital display llll | indicates:  
a. Code copy: Level of | the level of emergency and  
Emergency |  
b. Build Actions to be | what specific action you should take.  
taken |
- S.88 Studio talent MS. | To this point, we have examined two phases  
Camera position #1 | of emergency communications:  
a. Cyron copy over | - Initial Notification and  
talent: Initial Noti- |  
fication. Lose cyron |  
b. Cyron copy over | - LERO Activation  
talent: LERO Acti- |  
vation. Lose cyron |  
|  
|

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Narration

- S.102 Zoom up copy: LERO | The next phase of emergency communications  
Communications Network | is the LERO Communications Network.
- S.103 Motion show LERO Coor- | This is basically how the LERO  
dinator on phone (S.81, | Coordinators keep in touch with all  
MOD 6) | responding LERO groups and agencies.
- S.104 Repeat S.26 4-way. | There are four LERO Communication Systems:  
Build code copy: |  
a. Dedicated Telephone | - Dedicated Telephone Lines  
Lines |  
b. Commercial Tele- | - Commercial Telephones  
phones |  
c. LILCO Emergency | - The LILCO Emergency Radio System and  
Radio System |  
d. Telefax Machines | - Telefax Machines
- S.105 Repeat S.58 | Let's examine each part of the system.  
a. Code copy: Repeat | Dedicated Telephone Lines provide  
S.32a | additional communication capabilities  
| between key individuals in the Local  
| Emergency Response Organization.  
|  
|

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Narration

- S.106 Art slide 2-way | This system is outside the commercial  
a. Art two red phones | telephone network and is not subject to  
S.105 | telephone switching office overload.  
b. Art four people |  
talking on commer- |  
cial telephones |
- S.107 Repeat nine red phones | Dedicated lines are similar to the RECS  
S.37 | lines, except
- S.108 Repeat S.105. No code | only two telephones are connected per line.
- S.109 Art slide | Should a telephone be picked up at one  
a. Red phone's arm | end, the telephone rings at the other end.  
being picked up by |  
hand |  
b. Red phone's arm |  
still on instrument |  
MOS ring of tele- |  
phone on narration |  
que |
- S.110 Art slide 18 red phones | There are six such dedicated telephone  
Code copy: Up and out | lines:  
|

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Narration

c. EOC to WALK radio	-	Local EOC to the Emergency Broadcast Station WALK Radio
d. ENC to WALK radio		
e. EOC to EOF Response Manager	-	Local EOC to EOF Response Manager
f. EOC to EOF Dose Assessment Staff	-	Local EOC to EOF Dose Assessment Staff
g. EOC to Brookhaven National Laboratory	-	Local EOC to Brookhaven National Laboratory
h. EOC to Brookhaven Substation	-	Local EOC to Brookhaven Substation and
i. EOC to ENC	-	Local EOC to Emergency News Center
S.111 MS studio talent. Camera position #2		That's a brief explanation of the dedicated telephone system. Let's now see how the commerical telephone system can be used by LERO.  Commercial telephones are mainly a backup emergency communication system. However, they are used as the primary communications line to:

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Narration

	- Nassau County
	- Hospitals and
	- The U.S. Coast Guard
S.112 Close zoom into studio talent to ECU. Camera position #2	In order to ensure dependable communications, LILCO has requested priority service maintenance from the New York Telephone Company for restoring service provided to the following facilities:
S.113 4-way build	
a. EOC	o Local EOC
b. LILCO EOF	o LILCO EOF
c. SNPS	o LILCO Shoreham Site, and
d. BNL	o Brookhaven National Laboratory
S.114 Studio talent MS. Camera position #1	We also must have a communication capability between emergency facilities and field personnel.
S.115 Slide of LILCO Emergency Radio System. ECU on radio. Code copy build over radio	The LILCO Emergency Radio System provides this communications capability between   

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Visual Display/ Staging Directions	Narration
a. EOC	
b. Emergency Response Coordinators	Emergency Response Coordinators at the   Local EOC and
c. Field personnel	field emergency response personnel.
S.116 Slide ECU of frequency dial on radio. Code copy:	There are five radio frequencies and each   is used by one of the following groups: 
a. Field survey teams	- Field Survey Teams
b. Traffic guides	- Traffic Guides
c. Road crews and evacuation route spotters	- Road Crew and Evacuation Route Spotters 
d. Bus staging locations and bus transfer points	- Staging Locations and Bus Transfer   Points and
e. Ambulance and fire and rescue dispatch stations	- Ambulance and Fire/Rescue Dispatch   Stations. 
S.117 Slide external EOC	The base station is the Local EOC,
S.118 Slide EOC radios (S.115)	and is equipped with radios that transmit   and receive all five frequencies.

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Narration

- S.119 Slide of Traffic Guide | Mobile radios for communications between  
with portable radio | the field and the EOC are provided at  
| central locations such as transfer points.
- S.120 Slide of Rescue vehicle | Hospitals, fire and rescue vehicles are  
Driver is on radio | equipped with their own radios which are  
| used in day-to-day operations.
- S.121 Slide Dispatch | These emergency agencies will be  
Operator on radio | coordinated through their normal radio  
| frequencies.
- S.122 Slide LERO Coordinator | The LERO Coordinators will have direct  
on commercial phone | radio or telephone communications with all  
| normal dispatch locations.
- S.123 ECU of Emergency | The Emergency Medical Services Radio  
Medical Service radio | network provides a backup communications  
a. Code copy: EMSR | capability to hospitals via dispatching  
Network | stations.

|  
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|

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Staging Directions

Narration

- S.124 ECU studio talent. | Let's quickly review. The LILCO Emergency  
Camera position #2 | Radio System consists of five dedicated  
| radio frequencies for communications  
| between the EOC and field personnel.  
| Hospitals and other applicable groups will  
| use their normal radio systems and will be  
| coordinated through their routine dispatch  
| locations.
- S.125 Cut to MS studio talent | The last LERO Communication system is the  
Camera position #1. | Telefax Machine System.  
Cyron copy: Telefax |  
Machines System |
- S.126 Lose Cyron copy. Hold | All the communication systems discussed  
MS studio talent. | thus far are used primarily for voice or  
Camera position #1 | sound communication.
- S.127 Slide shot of telefax | The Telefax Machines are used mainly for  
machine. Telefax oper- | transmitting and receiving data.  
ator looking at printer |
- S.128 Slide ECU of page being | It is a device that transmits and receives  
printed on telefax | written or graphic information to another  
machine | location.



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Staging Directions

Narration

- S.129 Show operator inserting printed page into machine for transmission | A page 8-1/2" x 11" is inserted in the Telefax Machine and the information on the page is coded and transmitted through the telephone system in about six minutes.
- S.130 ECU of telephone motem used to transmit telefax copying | Each Telefax Machine is connected to a telephone line for transmission of the data.
- S.131 MS of telefax machine printing page received from other station | The Telefax Machine receiving the information decodes the sound arriving through the telephone and prints it on the copy.
- a. Hold S.131. Code copy: Telecopier | Another name for a Telefax Machine is a Telecopier.
- S.132 Slide plant engineer completing plant data form at EOF | During an emergency at the Shoreham Nuclear Power Station, plant data forms are filled out in the Plant Control Room, TSC or EOF.
- S.133 Slide same engineer S.132 transmitting form on telefax machine | These forms are transmitted most accurately through the Telefax Machine System.

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Narration

- S.134 Repeat slide telefax machine S.131. Code copy:
- a. EOF
  - b. ENC
  - c. EOC
- S.135 MS studio talent. Camera position #1
- S.136 Repeat S.26 4-way
- a. Red phone
  - b. Black phone
  - c. LILCO Emergency Radio System
  - d. Telefax machine
- S.137 Repeat S.37
- | Telefax Machines are located in:
- |
- |
- | - The EOF
- | - The ENC
- | - The Local EOC and
- | - The Customer Service Office
- | This concludes our discussion of the four
- | LERO Communication Systems. Let's review.
- | The LERO Coordinators keep in touch with
- | all responding groups and agencies through
- | four LERO communication systems.
- |
- | - Dedicated Telephone Lines
- | - Commercial Telephones
- | - The LILCO Emergency Radio System and
- |
- | - Telefax Machines
- | Dedicated telephone lines ensure additional
- | communication capabilities between key
- | individuals in LERO.

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Narration

S.138 Repeat S.110

| Dedicated lines are similar to RECS lines  
| except that they have only two ends.  
| There are six such pairs.

S.139 Repeat S.26b

| Commercial telephones are used mainly for  
| backup to other communication systems.  
| However, they are also the primary means  
| of communication to:

a. Code copy: Nassau  
County

| - Nassau County  
|

b. Hospital

| - Hospitals and

c. US Coast Guard

| - The U.S. Coast Guard

S.140 Repeat S.115

| The LILCO Emergency Radio System provides  
| a means of communications between the  
| Local EOC and field personnel.

S.141 Repeat S.116

| This radio system operates on five  
| different frequencies. Each frequency is  
| reserved for a specific field group.

S.142 Repeat S.121

| The Emergency Medical Services Radio  
| Network provides backup communication  
| means to hospitals via dispatch stations.  
|

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Narration

S.143 Repeat S.127 | A Telefax Machine is used for transmitting  
| and receiving data.

S.144 Repeat S.128. Code | Four facilities have Telefax Machines:  
copy: |  
a. EOF | - The EOF  
b. ENC | - The ENC  
c. EOC | - The Local EOC and  
| - The Customer Service Office

S.89 MS studio talent | The last phase of emergency communications  
Camera position #1 | is Public Notification.  
| Should a radiological emergency occur at  
| the Shoreham Nuclear Power Station, it may  
| be necessary to alert and inform the  
| general public.

S.90 Repeat art S.58 MOD 6. | A system of 89 sirens mounted throughout  
Sirens in zone map | the 10-mile EPZ will be used to sound the  
| initial alert.

a. Motion of family | Through an extensive education program,  
listening to radio | residents will know to tune to the  
in livng room S.21 | Emergency Broadcast System when the sirens  
| are sounded.

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Narration

- S.91 Motion zoom into sirens | These sirens are activated from one of the  
(S.53 MOD 6) | following places:
- S.92 Hold motion S.91 |
- a. Cyron copy S.92a | - The Local EOC  
Local EOC |
- b. Brookhaven Substation | - The Brookhaven Substation and  
| - The Plant Control Room
- S.93 Motion of car driving | In case of an immediate  
into Brookhaven Sub- |  
station |
- a. Cyron copy: Site | Site Area or  
Area Emergency |
- b. General Emergency | General Emergency, the sirens would be  
| activated from the Plant Control Room upon  
| the direction of the Director of Local  
| Response.
- S.94 Slide of tone alert | In addition to the sirens, there is a tone  
radio (S.91 MOD 6) | alert radio system.

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Narration

- S.95 Hold S.94. Code copy: | These are special radios provided to  
| facilities such as  
a. Schools | schools,  
b. Hospitals | hospitals,  
c. Ambulance and fire | ambulance and fire rescue corps,  
corps |  
d. Nursing Homes | nursing homes and  
e. Major employers | major employers.
- S.96 Lose all previous codes | A tone alert radio is automatically  
Hold S.94 | activated by a unique signal sent from the  
a. Code: Radio signal | Local Emergency Broadcast Radio Station.  
being received by |  
tone alert radio |
- S.97 Lose code. Hold S.94 | These radios are always tuned to WALK.  
a. Code: WALK radio |
- S.98 Motion of man entering | Also, in the unlikely event of a siren  
his car with address | malfunction, mobile public address systems  
system mounted on top | mounted on vehicles would be used to  
(S.82 MOD 6) | notify the public to tune to the Emergency  
| Broadcast Station.  
|

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Staging Directions

Narration

S.99 Studio talent MS.  
Camera position #2

| Let's review the public notification phase  
| of emergency communications:  
| First, a system of 89 sirens mounted  
| throughout the 10-mile EPZ will be used to  
| alert the public.

S.100 Slow zoom into studio  
talent to ECU. Camera  
position #2

| These sirens are activated from one of  
| several places:  
|     - The Local EOC  
|     - The Brookhaven Substation and  
|     - Plant Control Room  
| Tone alert radios have been installed in  
| special facilities such as hospitals,  
| nursing homes, schools and major employers.  
| These special radios are always tuned to  
| WALK.

Hold S.100 ECU of  
talent. Camera posi-  
tion #2

| Mobile public address systems mounted on  
| vehicles can be used as a backup route  
| alerting system should any of the sirens  
| fail.

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Staging Directions

Narration

S.153 Begin zoom out studio talent. Camera position #2	This concludes our module on Emergency   Communication Systems. In summary, you   should know that emergency communications   can be categorized as ...   - Initial Notification   - LERO Activation   - Public Notification   - LERO Communications Network and
S.153a. Zoom out to establishing shot Camera position #2	Recall that initial notification begins   with plant Control Room personnel   notifying all offsite authorities that an   event is in progress. You should be able   to describe RECS and the LILCO   Notification Radio System as devices of   initial notification.   In addition, you should know how LERO is   activated using a paging system and   commercial telephone lines.   How public notification is accomplished   using the Prompt Notification System and 



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S.155 Establish shot of studio talent. Camera position #1	S.156 a and b LERO logo build	S.157 Please stop tape	The major LERO communication systems, such   as:   - Dedicated Telephone Lines   - Commercial Telephones   - LILCO Emergency Radio Systems and   - Telefax Machines    Your job as part of this communications   network and capability is critical to the   overall success of LERO and our emergency   response plan. I hope this module has   been informative and we will now stop the   tape for questions you may have on   emergency communications.                
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ATTACHMENT 16

LERO ORGANIZATIONMODULE NO. 8aPORTABLE RADIO INSTALLATION AND OPERATION

Visual Display/ Staging Directions	Narration
S.1-12 Introduction	
S.13 Studio talent. Camera position #1 WS	Hello. I would like to take this   opportunity to congratulate you on the   completion of the classroom phase of the   LERO training program.
S.14 Hold talent Camera Position #1. Zoom to MS	Today you will be starting on the next   phase of LERO training, which will consist   of a series of supervised drills, which   will give you the opportunity to practice   some of the skills and principals which   you were taught in the classroom.
S.15 Hold talent Camera Position #1. Zoom to ECU	Now, in several of the classroom sessions,   if you will remember, we mentioned that   many of you will be using portable radios   to communicate with your coordinators   located at either of the staging areas or   the Local EOC.

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Visual Display/  
Staging Directions

Narration

- S.16 Match shot Camera Position #2 MS | Because of the importance of radio  
| communications between the field and these  
| various facilities, this video  
| presentation was developed to show you,  
| step by step, how to install these  
| portable radios in your car and, then, the  
| correct way to operate them.
- S.17 Zoom into ECU | Okay. Now, let's watch Bob as he shows us  
| how to install one of the radios which you  
| will be using.
- S.18 Motion - two men, one hands canvas bag to the other | When the radio is given to you, it will be  
| packed in a canvas carrying case.
- S.19 Motion - same two men talking. Man with bag receives antennae | When you receive your radio, tell the  
| person giving it to you if you have a rain  
| gutter on your car.
- S.20 Motion - ECU of antennae clip | If your car does have a rain gutter, he  
| will give you an antennae that can be  
| clipped to the gutter.

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S.21 Motion - ECU antennae magnetic	If your car does not have a gutter, you   will be given an antennae with a magnetic   mount.
S.22 Motion - man at car and setting up radio (cutaways)	Next, take the radio and antennae to your   car and take the transceiver or radio out   of the canvas bag, placing it on the   passenger side of the front seat.
S.23 Motion - man removes tape. ECU	Then, remove the tape from the antennae   wire.
S.24 Motion - man rolls down window and passes cable through	Roll down the passenger side window.   Pass the cable through the open window and 
S.25 Motion - man securing clip to gutter (ECU)	attach the antennae to the roof or rain   gutter.
S.26 Motion - Establish magnetic mount, Zoom in to show flat side and place on roof	If you have a magnetic-type antennae   mount, simply place it flat side down on   the roof. 
S.27 Motion - ECU - squeeze clip together and place on gutter	If you have the clip type, squeeze the   clips together and place it on the rain   gutter.

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S.28 Continue motion from S.27	Then, rock the clips a little to make sure   it is attached snugly to the gutter.
S.29 Studio talent. Camera position #1. ECU	A word of caution--if you use a magnetic   mount antennae, you may find that driving   fast will cause the antennae to slide   around. Should this happen, either drive   slower or take the magnetic antennae off   when traveling at highway speeds.
S.30 Match shot Camera Position #2. MS	Now that Bob has the antennae attached to   the roof,
S.31 Motion - man plugs in antennae jack and screws it down (cutaways)	he will then plug the antennae jack into   the socket in the front of the radio.   When doing this, the jack should be   plugged in and then screwed down tight.
S.32 Motion - ECU clip with jaws	Next, he will take the clip with the clamp   jaws and
S.33 Motion - clipping to seat frame	clamp it to any clean metal surface in the   car. A good place is the seat frame.
S.34 Motion - ECU of power cord plug	The radio power cord for this radio has a   plug on it that will fit into the   cigarette lighter socket of any car.

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- S.35 Motion - man in action | To attach this cord, Bob simply removes  
| the cigarette lighter, and plugs the cord  
| into the lighter socket.
- S.36 Motion - closing door | When you close your door, be careful not  
and taking caution not | to kink the antennae cable.  
to kink cable |
- S.37 Studio talent. Camera | Okay, at this point, the radio and the  
position #2. ECU | antennae have been fully installed and the  
| radio is ready to be turned on. However,  
| before it can be used, Bob will first have  
| to make some adjustments.
- S.38 Motion - man in action | To do this, Bob first turns the squelch  
| control all the way to the right and then  
| turns the radio on.
- S.39 ECU green light - on | A green light on the front of the radio  
| indicates that the radio is on.
- S.40 Motion - man in action. | Next, Bob will adjust the volume to the  
Zoom into ECU | desired level, and then
- S.41 Continue motion S.40 | slowly turn the squelch control to the  
| left until the hushing noise stops.  
| The radio is now in a receive mode.

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- S.42 Studio talent. Camera | One point you should all remember is that  
position #1. CU | most cars will have power available at the  
| lighter socket with the ignition off.
- S.43 ECU green light - off | If the green light does not come on with  
| the ignition off,
- S.44 ECU turning ignition on | set your ignition switch in the accessory  
| position
- S.45 ECU green light - on | and try turning the radio on again.
- S.46 Studio talent. Camera | At this point, Bob is now ready to do a  
position #1. MS | transmission check.  
| But first I want to caution you, not to  
| touch the antennae after it is connected.  
Zoom in to ECU | When you are transmitting, the antennae  
| will give you a shock if you touch it.
- S.47 Motion - man picking up | When making a transmission, always begin  
mic | with the unit number.
- S.48 ECU - yellow number | This is the yellow number on the front of  
| the unit.
- S.49 Motion - man in action | Remove the mike from the clip and press  
a. Clip | the red button to transmit.  
b. Red button |



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S.50 Man speaking over radio	"This is unit 2014, Traffic Control Post
a. ECU releases red	47, to Riverhead Staging Area. How do you
button on over	read me? Over."
S.51 CU - speaker and live	"This is Riverhead Staging Area. We read
sound - talent	you 20/20 Post 47. Over."
S.52 Motion - man in car	"This is unit 2014. Read too 20/20,
speaks	Riverhead. We are proceeding to Post 47.
a. Releases red button	Over."
on over	
S.53 CU - speaker and live	"10/4, Post 47. This is Riverhead Base
sound	out."
S.54 Repeat S.50 video	Notice that Bob releases the red button on
	the mike to receive a message. This
	clears the channel for other transmissions.
S.55 ECU red light on then	Notice also that the red light goes on and
off	off indicating a transmit mode.
S.56 Studio talent. Camera	It is important for your to understand
position #1. MS	that when you push that button on the
	mike, you are transmitting to all of the
	mobile units and the base station.

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Zoom into ECU.	You are affectively dominating that   channel and preventing other communica-   tions. Therefore, keep you transmissions   brief and to the point.
S.57 Match shot Camera Posi- tion #2 MS	Your radio will also monitor and pick up   all other transmissions that occur. <u>Do</u>   <u>not transmit</u> when another tranmission is   in progress. If you do, you will cut off   their transmission.
S.58 ECU yellow number Zoom out	"Unit 2014, this is Riverhead Staging   Area. Leave the area and proceed to"   (simulate break in transmission).
S.59 Live sound a. static b. voice talent	Hey Johnny, you going back to the shop   tonight for the league tournament?"
S.60 CU - man looking puzzled	"2014, do you copy."
S.61 Man locks at radio even more puzzled.	"Yea, but I have to pick up my bowling   shirt first. Over."
S.62 Talent Camera position #1 ECU	Remember, <u>wait</u> for the channel to clear.     

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- S.63 Zoom out on talent | Also, when you are transmitting, try not  
| to stand next to the antennae and stay  
| away from large structures or vehicles and  
| low-lying areas.
- S.64 Motion - man moving antennae | If you are not receiving clearly, moving  
| the antennae an inch or two will usually  
| clear up the transmission.
- S.65 Motion - man hangs up mic | When you are done transmitting, hang the  
| mike back on the clip.
- S.66 Motion - man lies mic and gets out on seat - key down | If you leave it lying around, the red key  
| could accidently get depressed and no one  
| on the channel will be able to transmit.  
- Cutaway to red light on. MOS | "Unit 2011, come in. This is Riverhead  
| Staging Area."
- S.67 Man at console. MOS | "Unit 2011, come in." Pause. Cut to mike  
| on seat.
- S.68 CU | "Unit 2017, come in." Pause. Cut to mike  
a. Mic on seat | on seat.  
b. Red light on |  
|  
|

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S.69 Motion - man gets in car - hangs up mic	Unit 2011, come in. This is Riverhead   Staging Area."
a. Live sound - talent	
b. Live sound - talent	This is 2011. Go ahead Riverhead."
S.70 Studio talent. MS Camera position #1	When you are transmitting, remember to   keep your transmission short and to the   point.
S.71 Motion - talent on radio - live	"Well (drawn out), ah,... just out here   and, ah,...we'll be settin up pretty soon   and, ah,...think we'll, ah,...tone on   radio.
S.72 Studio talent. Camera position #2. CU	If you transmit more than 1 minute, your   radio will automatically cut you off and   sound its tone.
S.73 Motion of action. CU	To retransmit, release the mike button and   press it again.
S.74 Talent in studio. Camera position #1. ECU	Again, keep your transmissions short and   to the point.
S.75 Match shot Camera posi- tion #2. MS	To help you keep them short, you should   know a few of the basic codes used for   radio communications.

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S.75 a. Cyron

| For example:

| 20/20 means:

|

|

|

b. Cyron

| 10/4 means:

|

|

|

| and means:

|

|

|

| These and additional codes are listed in  
| the handout which was distributed for this  
| presentation.

Zoom into ECU

| Now, let's review what we have covered in  
| this presentation, shall we.

S.76 Motion - CU car with  
rain gutter

| For installation, first determine if your  
| car has a rain gutter or not.

|

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- |   |   |
|---|---|
| S.77 Repeat motion S.20                 | If you have a gutter, get a clip-type<br>  antennae mount.  |
| S.78 Repeat motion S.21                 | If not, get a magnetic-type mount.  |
| S.79 Repeat motion S.24 and<br>S.25     | Then, open the car window, feed the<br>  antennae cable through the window, and<br>  attach the antennae to the roof.   |
| S.80 Repeat motion S.31                 | Next, plug the antennae jack in the radio<br>  and screw it down tight.   |
| S.81 Repeat S.35                        | Now, remove the cigarette lighter and plug<br>  in the power cord.  |
| S.82 Repeat S.38                        | Turn the squelch control all the way to<br>  the right and turn on the radio.   |
| S.83 Repeat S.39, S.40, S.41            | Check that the green light is on, adjust<br>  the volume, and turn down the squelch<br>  until the hushing sound stops. |
| S.84 Repeat S.66 - cutaway<br>red light | You are now ready to transmit and receive.<br>  |
| S.85 Motion - man starts car            | If you are going to make a long<br>  transmission, start your car to keep the<br>  battery charged.<br>                 |

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S.86 Repeat S.65	Remember to keep your mike hung up when   not in use and
S.87 Motion - ECU of antennae on car	do not touch the antennae. 
S.88 Blue screen with cyron codes	Use the codes you have leared today to   keep your transmissions clear and to the   point.
S.89 Studio talent. Camera position #1. MS	If you follow the simple procedures and   practices we have presented here, you will   be able to depend on your radio for good,   reliable communication.
S.90 Zoom out to establishing shot. Camera position #1	I want to thank you for your time. I hope   this presentation will help you with the   operation of your portable radios and I   wish you good luck with the drill program.
S.91 Logo build	Music up.   Music out.
S.92 Please stop tape	     

ATTACHMENT 17



LERO ORGANIZATIONMODULE NO. 9PERSONNEL DOSIMETRY DEMONSTRATION

Visual Display/ Staging Directions	Narration
S.1 Live studio talent MS Camera #1	Hi. I would like to welcome you to the   Personnel Dosimetry Demonstration portion   of the LERO Training Program.   By now you should have completed the   Radiation Protection Training Module and   the exercises in your workbook.
S.2 Zoom into talent Camera #1	During that session you learned that a   dosimeter is an instrument which can   record radiation exposure. You were given   two types of dosimeters to look at and   handle.
S.3 Shot of direct-reading dosimeters	The two types were a direct-reading   dosimeter and a
S.4 Shot of TLD dosimeter	thermoluminescent dosimeter.
S.5 Cyron TLD	The second one is more commonly called a   <u>TLD</u> Badge.
S.6 MS live studio talent Camera position #2	During this training session, we'll talk   more about the dosimetry some of you shall   be asked to wear. As part of this   session, we will be talking about the   following topics:

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Visual Display/ Staging Directions	Narration
S.7 Slide copy: Who will be given dosimeters	Who in the LERO organization will be given dosimeters,
S.8 When you will receive your dosimeter	Where and when these LERO members will receive their dosimeters, and
S.9 Proper handling of a dosimeter	Why it is so important that you wear and handle your dosimeter properly.
S.10 Live studio talent ECU Camera position #1	Let's begin. Who should wear dosimetry? The general answer is anyone who may possibly receive radiation exposure. Among LERO personnel, there are two major groups:
S.11 Shot (art) of 10-mile EPZ - Mod #1	Group one is anyone required to enter the 10-mile Emergency Protection Zone.
S.12 Build copy	This would include:
a. Traffic Guides	- Traffic Guides
b. Road Crews	- Road Crews
c. Evacuation Route Spotters	- Evacuation Route Spotters
d. Route Alerting Drivers	- Route Alerting Drivers

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S.12 Build copy	
e. Bus Drivers	- Bus Drivers and
f. Survey Personnel	- Survey Personnel
S.14 Live studio talent MS Camera position #1	Group two includes anyone outside the   Emergency Planning Zone who may be exposed   to radioactive contamination on people,   cars or equipment. This would include:
S.15 Build	
Rad Monitoring Team	- Radiation Monitoring personnel and
a. Decon personnel monitoring worker	Decontamination personnel at the EOC   and Relocation Centers and
b. Relocation Center monitoring personnel checking worker in to RC	
S.16 c. Ambulance with Driver	- Ambulance personnel who are trans-   porting contaminated individuals to   hospitals.
S.17 Talent ECU - Camera position #2	Prior to leaving your reporting location,   each of you will receive a briefing by   your coordinator or dispatcher. At that   time, each of you will be told who needs

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	to wear dosimetry while performing their   job. If you think you've been overlooked,   check with your coordinator or dispatcher,   the Record Keepers or the Dosimetry   Coordinator to see if your job requires   you to wear it.
S.18 Talent turns from ECU Camera position #2 to MS Camera #1	Let's now turn our attention to how and   when you will receive your dosimetry. 
S.19 Man on phone at home	In the event that you are asked to respond   to a radiological emergency
S.20 Traffic Guide at inter- section	you will report to either 
S.21 Copy build	
a. Staging Area b. Relocation Center c. EOC	a Staging Area,   a Relocation Center or   the Emergency Operations Center.
S.22 Show Record Keeper pulling box out of storage	Your personal dosimetry equipment will be   kept on location at each of these sites. 
S.23 Show Record Keeper passing out dosimeters to workers	Dosimetry Record Keepers will be assigned   to hand out the dosimetry and 

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S.24 Show Record Keeper filling out forms for worker	see that the proper individual records are   kept. 
S.25 Show three dosimeters in same shot	Each of you will be given three different   dosimeters.
S.26 Show two direct-reading dosimeters; cyron copy; direct-reading dosimeter	Two will be direct-reading dosimeters and   
S.27 Show TLD dosimeter and cyron copy; TLD Dosi- meter	one will be a TLD Badge.   
S.28 2-way. Show art of scale 0-200 m/rem dosi- meter and shot of actual dosimeter	One direct-reading dosimeter will have a   scale which ranges from 0 to 200   milliroentgen.   
S.29 2-way. Show art of scale 0-5 Rem; shot of actual dosimeter	The other will have a scale which ranges   from 0 to 5 Roentgen.   As you remember from the workbook which   accompanied the Radiation Protection   Training Tape, the Roentgen is a unit of

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Visual Display/ Staging Directions	Narration
S.30 Show TLD Badge. Copy: Radiosensitive crystal with arrow pointing to crystal	radiation exposure per unit of air. The   unit of exposure used for people is the   Rem. However, the Reontgen and the Rem   are, for all intents and purposes, equal.   Therefore, the results from the direct-   reading dosimeters will usually be   recorded in terms of millirem or Rems.   The TLD Badges have a radioactive sensing   crystal and cannot be read by your. They   will be processed either at the EOC or at   Brookhaven. The results, which are very   accurate, will become part of your   permanent exposure record.
S.31 Show Record Keeper checking inventory in boxes include direct- reading dosimeters and TLD Badges as well as forms.	Upon arrival at the dosimetry distribution   locations, the Record Keepers will remove   the dosimeters, the dosimeter chargers and   the exposure record forms from the storage   locations. 
S.32 Show Record Keepers setting up tables for work area	Using available tables and chairs they   will set up a work area. 

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Visual Display/ Staging Directions	Narration
S.33 Show Record Keepers zeroing direct-reading dosimeters	Each direct-reading dosimeter will be set to zero using a dosimeter charger.
S.34 Show Record Keeper completing forms. Worker is in front of desk	In addition to charging the dosimeters, each Record Keeper will complete three forms for each worker receiving dosimetry. They are:
S.35 Shot of Emergency Worker Daily Dosimeter Form Card	the Emergency Worker Daily Dose Record Card,   the Emergency Worker Permanent Dose Record Forms, and
S.36 Shot of Emergency Worker Permanent Dose Record Form	the Emergency Worker Log Out/Log In Form.   You will be asked to fill in the personal information on the first two forms. This
S.37 Shot of Log Out/In Form	includes your name, address, social
S.38 Show worker completing forms. Cyron copy:	security number, date of birth and sex.
a. Name	
b. Address	
c. Social Security No.	
d. Date of Birth	
e. Sex	

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Visual Display/ Staging Directions	Narration
S.39 Show Record Keeper completing forms. Cyron copy: a. Dosimeter Serial No. b. Dosimeter Scale c. Date d. Initial Reading	The Record Keeper will enter the information relating to dosimetry, such as the dosimeter serial numbers, the direct-reading dosimeter scale ranges, the dates and the initial readings.
S.40 Art of Daily Dose Card and Permanent Dose Record Form	You will need to take the Daily Dose Card and a copy of the Permanent Dose Record Form with you when you leave.
S.41 Show worker arriving at Decon Center and turning in dosimeters to Record Keeper	After completing your job, you will report to the Emergency Worker Decontamination Facility at the EOC.
S.42 Show Record Keeper reading dosimeter	There, your direct-reading dosimetry will be read and
S.43 Show Record Keeper completing forms of worker	a Record Keeper will enter this information on your Permanent Dose Record Form
S.44 ECU of hand completing Out/In Dosimeter Form	and on the Log Out/Log In Form both of which will have been forwarded to the Decontamination Center. You will be



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- | instructed to enter the same information  
| on your Daily Dose Record Card.
- S.45 Art of forms and TLD | The Permanent Dose Record Card, the Log  
Badge from Decon Center | Out/Log In Sheet, and the TLD Badge will  
to Dosimetry Coordinator | be sent to the Dosimetry Coordinator at  
| the EOC.
- S.46 Show TLD Badge being | Your TLD Badge will be processed at either  
processed at BNL | the EOC or at the Brookhaven National  
| Laboratory.
- S.47 Show Record Keeper | The results will be entered by a Record  
filing records in | Keeper on your Permanent Dose Record Form.  
folder in file drawer | Using this Permanent Dose Record Form, the  
| Dosimetry Coordinator will insure that
- S.48 Show man talking to | each of you do not exceed the allowable  
coordinator - man has | radiation exposure limit as established by  
file folder in hand and | federal agencies.  
is refering to forms in | All this may seem like a lot of paper  
folder | work, but it serves a major purpose to
- S.49 Talent MS. Camera | keep Emergency Workers from exceeding  
position #1 |

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Visual Display/ Staging Directions	Narration
S.50 Hold S.49. Cyron: 5 Rem. Lose cyron	5 Rem total external exposure to the whole   body.
S.51 Show Record Keeper; worker at desk	Daily, the Dosimeter Coordinator will   receive a list of all persons with   exposures in excess
S.52 Build cyron 1 Red/Day	of 1 Rem per day or
S.53 Cyron 3 Rem Total	3 Rem total.
S.54 Show two men talking - one represents coordin- ator other is emergency worker. Worker is being  reassigned by coordin- ator to other job	An attempt will be made to reassign these   individuals to tasks where they will not   receive further exposure.   The 5 Rem total for whole body exposure is   a limit set by the Protective Action
S.55 Shot of books labeled PAG	Guides for the general public.   This guide is based on recommendations   made by the Environmental Protection
S.56 Art EPA	Agency (EPA). While the EPA allows higher   exposures for emergency workers than the   general public, it is LERO policy that   emergency workers be covered by the   general public guidelines.

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Visual Display/ Staging Directions	Narration
S.57 Art ALARA	The limit was set to keep the effect on   Emergency Workers from radiation exposure   as low as reasonably achievable.
S.58 Outline of man. Rad symbol outside man. MOD 3 # S-75	At 5 Rem total exposure, there is no   detectable damage to the body. 
S.59 Outline of man - show muscles, nerves; blood vessels. MOD 3 # 131A	In fact, effects on the body such as   changes in the blood cannot be detected   until an excess of 25 Rem is reached.
S.60 Cells in various stages of growth, repair and regeneration MOD 3 # 133	Research indicates that the body's repair   mechanisms are able to correct what little   damage may be done.
S.61 Show worker reading his dosimeter a. Code copy: 5 Rem	So as long as you maintain your total   exposures below   5 Rem, the risks should be minimal.
S.62 ECU talent studio	The ultimate responsibility for main-   taining your exposure as low as possible   is yours. Do not stay in a radiation area   any longer than necessary to do your job.   Follow your procedures. Don't enter a   radiation area if you have no job to do   there. Go around it.

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S.63 Show worker putting on dosimeters	Most important, <u>wear</u> the dosimetry that   you are given.
S.64 ECU dosimeters (all 3) on red vest outside crowded together	All three should be worn together on the   upper part of the body. 
S.65 Show worker placing dosimeters down on desk very gently	Also, handle them with reasonable care. 
S.66 ECU talent studio	Don't drop your dosimetry. If a direct-   reading dosimeter becomes damaged, it may   not register the correct exposure. If the   TLD Badge opens up, the crystal may be   lost. Also, don't submerge your direct-   reading dosimeters in water and most   important,
S.67 Show new worker reading dosimeter	check your direct-reading dosimeter at 
a. Code: 30 minute clock over 67	least every 30 minutes when in a radiation   field.   

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S.68 Show worker receiving dosimeters from Record Keeper - she has paper in hand and is telling him expected dose	In addition to issuing you dosimetry, your Record Keeper will brief you on your allowable dose and time limitations in the field as identified to him or her by the Radiation Health Coordinator.
S.69 MS talent in studio	If your direct-reading dosimeter indicates you have received your allowable dose in
S.70 Show traffic guide getting in car leaving post	less time, inform your LERO dispatcher or coordinator as soon as possible.
S.71 Show same worker arriving EWDC	If your 0-200 mRem dosimetry goes off-scale, inform your dispatcher and coordinator and continue to read your 0-5 R dosimeter. If your 0-5 Roentgen dosimeter reads 3.5 Roentgens, inform your dispatcher or coordinator, leave the area and report to the Emergency Worker Decontamination Center.
S.72 Reuse S.68	The calculated doses are only an estimate of your exposure.
S.73 Reuse S.67	Your dosimetry is the best indication of your dose.

LERO ORGANIZATION

MODULE NO. 9

PERSONNEL DOSIMETRY DEMONSTRATION

Visual Display/  
Staging Directions

Narration

- S.74 Two way | So remember to wear it properly and check  
S - S.64 | your exposure often.  
S - S.67a |
- S.75 MS talent in studio | So let's review what we have covered so  
| far - by now each of you should be  
| familiar with which jobs will require  
| dosimeters, and how and where you will  
| receive your dosimeter.
- S.76 Slow zoom into talent | I've also discussed what individual forms  
| must be filled out. Most important, I  
| hope you have gained a good feel for why  
| it is so important that you wear your  
| dosimetry, handle it properly and check  
| your own exposure often.
- S.77 Slow zoom out to | Let's now stop the tape and spend a few  
establish shot | minutes becoming acquainted with each of  
| the dosimeters and the procedure for  
| reading the instruments. Your instructor  
| will also answer any questions you may  
| have on this subject - See you shortly.
- a. Please stop tape |

LERO ORGANIZATION

MODULE NO. 9

PERSONNEL DOSIMETRY DEMONSTRATION

Visual Display/  
Staging Directions

Narration

S.78 MS studio talent

| I hope your practice session and workbook  
| activities were helpful in understanding  
| personnel dosimetry. Let's review this  
| session for today. First and foremost,  
| remember each of you is responsible for  
| your own dose exposure.

S.79 Reuse S.43

| Each of you will be issued three  
| dosimeters with which to monitor your dose:  
| two direct-reading dosimeters and

S.80 Reuse S.25

| one TLD Badge.

S.81 Reuse S.26

| These dosimeters will record your indi-  
| vidual exposures and the results will be

S.82 Reuse S.27

| entered on your personal forms. The

S.83 Reuse S.64

| Record Keepers will insure that your per-  
| sonal records are complete and that they

S.84 Reuse S.36

| accurately reflect your accumulated dose.

S.85 ECU studio talent

| Remember to check your direct-reading  
| dosimeters often. At a reading of 3.5  
| Roentgen, inform your dispatcher or  
| coordinator, leave the area and report to  
| the Emergency Workers Decontamination  
| Center.

LERO ORGANIZATION

MODULE NO. 9

PERSONNEL DOSIMETRY DEMONSTRATION

Visual Display/  
Staging Directions

Narration

S.86 Begin slow zoom out of | To protect your dosimeter it's important  
talent | to insure you do not drop your dosimeter

| or damage your TLD Badge in any way.

S.87 Continue zoom to full | If you follow these instructions, your  
shot of talent and set | actual dose will be reduced and you will

| not exceed your permissible exposure

| limits.

S.88 Please stop tape |

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ATTACHMENT 18

LERO ORGANIZATIONMODULE NO. 10RADIOLOGICAL MONITORING AND DECONTAMINATION

Visual Display/ Staging Directions	Narration
S.1-12 Opening slides and module titles	 
S.13 MS establishing shot studio talent. Camera position #1	Hello, and welcome to our module on Radio-   logical Monitoring and Decontamination.   
S.14 Slow zoom into studio talent. Camera position #1	By this time, in your LERO training   program you will have seen the Radiation   Protection Training tape and completed the   accompanying workbook exercises. During   that session, we discussed radioactive   contamination, and learned that   contamination is the presence of   radioactive material in a location where   it is not desired.
S.15 Dissolve to M.U of studio talent. Camera position #2	During this session I will be discussing   two related topics, radiation monitoring   and decontamination. Monitoring is the   process of determining the amount of   ionizing radiation or radioactive material   which is present in a given area. Decon-   tamination is the process of removing

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MODULE NO. 10

RADIOLOGICAL MONITORING AND DECONTAMINATION

Visual Display/  
Staging Directions

Narration

- S.16 Slow zoom out of 10-mile EPZ. Art during edit | radioactive contamination.
- S.16 Slow zoom out of 10-mile EPZ. Art during edit | In the unlikely event that a nuclear accident resulted in the release of radioactive to the atmosphere, the plume could contain radioactive particulate matter.
- S.17 4-way build | People, vehicles and equipment could become contaminated as the particles settled out of the plume.
- a. Art S.16 |
- b. People crowd shot |
- c. Parked cars |
- d. LERO portable radio |
- S.18 Art smoke released from stack | Since the plume would behave the same way as smoke from a stack,
- S.19 Art of plume exposure pathway full art S.16 | this contamination would be along a fairly narrow path in the direction of the prevailing wind, and may only effect a few sections of the 10-mile EPZ.
- S.20 Motion of several people entering Decontamination Center | LERO will provide monitoring and decontamination for all evacuees arriving at the Relocation Centers and for all emergency workers who were deployed into the EPZ.

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RADIOLOGICAL MONITORING AND DECONTAMINATION

Visual Display/  
Staging Directions

Narration

- S.21 MS Camera position #1 | During the remainder of this presentation,  
Studio talent | I will be telling you how LERO personnel  
| will provide these services. I will  
| discuss this topic in three parts.
- S.22 Hold S.21. Cyron copy: | In part one, we'll cover the basic  
Procedures for Monitor- | procedures for monitoring and  
ing and Decontamination | decontamination.  
Lose cyron |
- S.23 Hold S.21. Cyron copy: | In part two, I will provide you with  
How and Where. Lose | details on how and where people will be  
cyron | monitored and decontaminated. The
- S.24 Hold S.21. Cyron copy: | monitoring and decontamination of vehicles  
Vehicles and Equipment | and equipment will be discussed in part  
| three of our training session. Let's  
| begin.
- S.25 Slide shot Count Rate | Monitoring for contamination will be done  
Meter | using an instrument called a count rate  
| meter and a
- S.26 Slide shot Detector | Mueller radiation detection probe.  
probe |  
|

LERO ORGANIZATION

MODULE NO. 10

RADIOLOGICAL MONITORING AND DECONTAMINATION

Visual Display/ Staging Directions	Narration
S.28 Hold S.27. Code: Arrow pointing to probe	The probe is that part of the instrument   which actually detects the radiation.
S.29 Shot of probe a. Code: Gamma ray b. Code: Beta particle	Each time a   gamma ray or a   beta particle strikes the probe,
S.30 Lose codes. Zoom out circle to show several electrical impulses	   a reaction occurs inside and an electric   pulse is generated.
S.31 Art of meter. Show meter arrow at 30 - MOS counter audio under narration	   The number of pulses are counted over a   period of time and displayed on the meter. 
S.32 Hold S.31. Code: CPM	   The units on the scale are counts per
S.33 Art of country scene a. Code: Meter over 33 - Meter is at 15 CPM	minute or CPM.   Background radiation is typically   10 to 15 CPM as you can see on this meter. 

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RADIOLOGICAL MONITORING AND DECONTAMINATION

Visual Display/ Staging Directions	Narration
S.34 Hold 33; 33a. MOS audio of counter wp over narration	As you can hear, the meter makes an   audible clicking sound as well. 
S.35 Hold 33. Lose 33a. Code	Although 10 to 15 counts per minute is   considered a normal average background   count,
b. Hold 33. Code Meter at 30 CPM over 33	it is perfectly normal to have an   occasional higher peak in this count rate.
S.36 Show rad symbol (atom) art and wave represent- ing decay next to rad symbol	This is due to the random way in which   radioactive decay occurs. 
S.37 Show art just of wave - wave is tighter at places a. and loosen at others	It is a certainty that a given number of   decays will occur during a set amount of   time, however,   the decay will occur at random intervals.
S.38 Meter at 15 CPM	So, even if your background count rate is   usually 15 CPM, a momentary
S.39 Show meter arrow at 40 CPM	jump to 30 or 40 CPM is not unusual.   

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Visual Display/ Staging Directions	Narration
S.40 Hold S.39. Code: Rad symbol (IRS) over 39	If an increase in the count rate is from   contamination, the count rate will stay   elevated.
S.41 Slide of probe pointing to rad symbol (IRS)	Therefore, if you suspect that an elevated   count rate is contamination, stop and hold   the probe over the area
a. Code: 10 second clock over art	for 10 seconds or so. 
S.42 Repeat S.39	This will let the meter settle down and   you will get a better reading.
S.43 Side of car, show probe 1/2 inch from car	When monitoring for contamination, hold   the probe approximately 1/2 inch from the
a. Code: 1/2 inch between car and probe	surface you are scanning. 
S.44 Hold 43 base. Lose 43a code and code: Rad symbol (IRS) on car	At this distance, you will still detect   the radiation, but you will be less likely   to contaminate the surface of the probe.       

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RADIOLOGICAL MONITORING AND DECONTAMINATION

Visual Display/  
Staging Directions

Narration

- S.46 Multiple shots of probe | Scan the surface slowly, say about 4 to 6  
being moved over part | inches per second to give the meter time  
of surface | to react.  
a. Code: 4-6 inch ruler|
- S.47 Probe pointing to | When monitoring, pay careful attention to  
a. tire of car | areas likely to become contaminated, like  
b. persons shoes | the tires of the car, bottoms of shoes, or  
c. pants cuffs | pants cuffs.  
| Vehicles and equipment will be considered  
| to be externally contaminated when the  
| meter reads 150 counts per minute or  
| greater above background. People are  
| considered contaminated according to the  
| more stringent criteria of 50 counts per  
| minute or greater above background.  
| If monitoring of individuals, vehicles or  
| pieces of equipment indicate the presence  
| of unwanted radioactive particles,  
| decontamination will be necessary.
- S.48 Show full shot of car - | Removing contamination is much the same as  
a. Code: Rad symbol | removing very fine particles of dirt from  
(IRS) over car | the surface of an object.



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RADIOLOGICAL MONITORING AND DECONTAMINATION

Visual Display/  
Staging Directions

Narration

- S.49 Show same car S.48. Lose | If it is a smooth surface, flushing the  
code of Rad symbols | area with water may be enough.  
(IRS) - |  
a. Code: Water being |  
sprayed on car |
- S.53 Soap, water bucket and | Soap, water and a scrub brush can all be  
scrub bursh next to car | used when decontaminating either people,  
| vehicles or equipment.
- S.54 Show man hosing off car | Protective clothing such as rubber gloves  
ECU on man. He has | and rain gear should be worn by personnel  
rubber gloves and rain | hosing down contaminated vehicles  
gear on also boots |  
a. Code: Rad symbol in | so that they can protect themselves from  
(IRS) water around | becoming contaminated.  
car |
- S.55 Show car S.48. Code | A good practice to follow is to clean from  
Show few rad symbols | an area of low contamination towards an  
(IRS) on car side - | area of high contamination.  
more on top, hood, trunk |  
lid, tires, door handle |  
|

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RADIOLOGICAL MONITORING AND DECONTAMINATION

Visual Display/ Staging Directions	Narration
S.56 Yellow plastic bag filled with rags, rubber gloves and sponges	Rags, sponges, gloves, etc., which have become contaminated as a result of cleaning an object,
S.57 ECU top of bag. Tag on bag at top has radiation symbol on it	should be properly bagged and tagged so that they will be disposed of properly.
S.58 Art black and white symbol indicating radiation (IRS)	You should also be familiar with symbols used to identify "clean" areas and "contaminated" areas.
S.59 Art zoom up symbol for radiation in yellow a. change color to magenta	The colors yellow and magenta are used internationally to symbolize radiation.
S.60 Build 4-way a. Radiation symbol b. Slide yellow and magenta rope coiled in pile c. Slide yellow and magenta tape d. Slide yellow and magenta radiation signs	The monitoring and decontamination personnel will use yellow and magenta rope, tape, signs, etc. to mark off contaminated areas.

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RADIOLOGICAL MONITORING AND DECONTAMINATION

Visual Display/ Staging Directions	Narration
S.62 Show group of cars in roped off area - rope is yellow. Rad symbols (IRS) on signs on rope	Everything within these boundaries will be assumed to be contaminated.
S.63 Show person in doorway - Doorway is marked clean exit. Another person is monitoring man in exit	There will be locations marked as "clean" exits. A person must be monitored at that exit before he can step out of the area.
S.64 Show another car entering parking lot of S.62 People in car a. Code radiation symbol (atom) over new car	All people and vehicles which have been in the EPZ will be monitored when they arrive at the facilities.
S.65 Show sidewalk to building yellow rope and rad signs (IRS) on side of sidewalk	The route people use from the parking lot to the first monitoring station should be clearly marked using yellow and magenta tape, rope and signs.

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Visual Display/  
Staging Directions

Narration

- S.66 Hold 64 and | The route is to be treated as if it were a  
a. Code: small rad | contaminated path. If you step into any  
symbols (atom) on | of these "declared contaminated areas",  
sidewalk | remember, you are now considered contamin-  
b. Code: A foot stop on | ated until monitoring proves otherwise.  
sidewalk |
- S.67 Hold 66. Lose all codes | Areas which will be roped off will include  
| the sidewalk to the Decontamination  
| Facility, the  
S.68 Building with people | monitoring and decontamination facility  
walking in. Rad symbol | itself and  
(IRS) next to doorway |
- S.69 Repeat S.62 | the temporary parking lot.
- S.70 4-way build | In addition, contaminated vehicles,  
a. Repeat S.64 and 64a | parking lots, and areas where contaminated  
b. Repeat ECU of S.62 | equipment has been stored are to be roped  
c. Repeat S.63 | off.  
d. Group of radios in |  
storage area. Yellow |  
rope around area |  
|

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Visual Display/  
Staging Directions

Narration

S.71 MS studio talent. Camera position #1	Before we discuss monitoring and decontam-   ination of people and equipment, let's   pause for questions.
S.72 Please stop tape	
S.73 MS studio talent. Camera position #1	Monitoring and decontamination facilities   for evacuees and their vehicles will be   provided at the Relocation Centers.
S.74 Copy slide build Relo- cation Centers a. State Univ. NY b. Boces, Islip c. SCCC at Seldon	The Relocation Centers will be at the   State University of New York at Stony   Brook, at BOCES in Islip, and at the   Suffolk County Community College in Seldon. 
S.76 Brentwood EOC a. Code: Emergency Worker Decontamina- tion Facility	The monitoring and decontamination   facility for emergency workers will be   located at the Local EOC in Brentwood.   All emergency workers must report to this   center upon completion of their emergency   tasks.     

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Visual Display/ Staging Directions	Narration
S.77 Radiation symbol (IRS) a. Code: Procedure	Both evacuees and emergency workers will   go through essentially the same procedure.
S.78 Motion of two vehicles being waved into parking lot. Families in cars	As people arrive in their vehicles, they   will be directed to park in a temporary   parking lot.
S.79 Motion of car being monitored	Their car will remain there until it has   been monitored.
S.80 Motion show LERO member talking to man in car	Each person will be directed to a   monitoring station.
S.81 Motion of LERO member going over man with RM- 14-Family in background	There, monitoring personnel will scan their   body for contamination using the count   rate meter with the detector probe.
S.82 ECU of scanner	Particular attention will be paid to   scanning areas where contamination is most   likely to collect or to be a problem.
S.83 4-way slide build a. ECU scanner at shoes b. ECU scanner at knee c. ECU scanner at hair d. ECU scanner at nose and mouth area	Such areas would be the bottom of the   shoes, knees and elbows, the hair and the   area around the nose and mouth.     

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RADIOLOGICAL MONITORING AND DECONTAMINATION

Visual Display/ Staging Directions	Narration
S.84 Motion show LERO worker filling out Decontamination Form	Record forms will be filled out for each person monitored.
S.85 Motion show man being directed to next station by LERO worker	If the person is clean, he will be directed to proceed to a second monitoring station.
S.86 Motion show same man S.85 being given thyroid scan	<u>There, he will receive a thyroid scan to check for excessive internal contamination from radioiodines.</u>
S.87 Motion show person entering an area marked Decontamination Area	However, if the person is contaminated, he will be directed to proceed to the decontamination area.
S.88 Motion show LERO worker putting clothing in plastic bag	There, any contaminated clothing will be bagged and labeled. If monitoring of the skin still indicates the presence of contamination, a form will be filled out which indicates the location on the person's body where the contamination is located.
S.89 Motion show LERO worker instructing man on proper washing procedure	The decontamination personnel will instruct the individual on how to properly wash the contaminated area.

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MODULE NO. 10

RADIOLOGICAL MONITORING AND DECONTAMINATION

Visual Display/ Staging Directions	Narration
S.90 Motion ECU on washing instruction posted in shower	In addition, instructions will be displayed on placards inside the shower facilities.
S.91 Motion show man showering with soap and scrub brush	One of the following four methods will be recommended:   1. Wash for 2-3 minutes using soap, water and a soft scrub brush, then rinse.
S.92 Motion dissolve to same man using waterless hand cleaning on arms	2. Rub in a waterless hand cleaner for 2-3 minutes, then rinse.
S.93 Motion dissolve into show same man using detergent rubbing into paste	3. Make a paste using a detergent, wash using a <u>mild</u> scrubbing action, then rinse.
S.94 Motion dissolve into show same man rinsing with water	4. Wash <u>gently</u> with lava soap, then rinse.   Use luke warm water when washing. If the water is too hot, the pores in the skin can open up. The radioactive particles may then lodge in the pores and become difficult to remove.



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RADIOLOGICAL MONITORING AND DECONTAMINATION

Visual Display/  
Staging Directions

Narration

- | Similarly, care should be taken not to  
| scratch, scrape or otherwise break the  
| skin surface when using a brush or harsh  
| soap.  
| The individual will be remonitored after  
| each washing.
- S.95 Motion show LERO worker | If a person is still contaminated after  
with probe going over | trying each of these methods three times,  
person in S.89 | he or she will be transported to a  
| hospital for further attention.
- S.96 Motion show person S.89 | If the person is clean, he or she will be  
at table receiving over- | given a clean set of overalls from the  
alls from LERO worker | supplies which will be located at each  
| facility.
- S.97 Motion show same person | Once cleaned of surface contamination, the  
S.89 at thyroid moni- | individual will then be sent to the  
toring station waiting | thyroid monitoring station.  
for check |
- S.98 Art body outline and | Iodine which is either ingested or inhaled  
thyroid gland indicated | will be concentrated in the thyroid gland.

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RADIOLOGICAL MONITORING AND DECONTAMINATION

Visual Display/ Staging Directions	Narration
S.99 Art of Rad symbols (atom) in sky	In the event of a major accident, the   plume is assumed to contain radioactive   iodine.
S.100 Motion show LERO worker monitoring man S.89 for excessive thyroid contamination	The thyroid of evacuees and emergency   workers will be monitored to make sure no   one has excessive thyroid contamination   from exposure to the plume.
S.101 Motion ECU probe be- tween adam's apple and top of collar bone	The probe will be placed horizontally on   the neck between the Adam's apple and the   top of the collar bone and held for about   5 seconds.
S.102 Motion Cut away of LERO worker recording data on Decontamination Form	The average meter reading in counts per   minute will be recorded on the   individual's exposure record.
S.103 Motion Art slide of meter - arrow at 90 CPM	If the average reading is equal to or   greater than 150 counts per minute <u>above</u>   <u>background</u> , the individual will be sent to   a hospital for further attention.     

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RADIOLOGICAL MONITORING AND DECONTAMINATION

Visual Display/ Staging Directions	Narration
S.104 Motion show person going through door. Label door clean exit	If the thyroid scan does not indicate anything unusual, the individual will proceed from the monitoring/decontamination area through a clean exit.
S.105 Motion ECU of file being placed in file cabinet	His or her exposure record will be retained on file.
S.106 Motion person outside of clean exit door with family LERO worker pointing across parking lot	If the person is an evacuee, he or she will be directed to a member of the American Red Cross.
S.107 Slide Red Cross flag	The American Red Cross will be operating the Relocation Centers.
S.108 Studio talent MCU. Camera position #1	They will assist in providing the evacuees with shelter, food, counseling and medical services. Emergency workers undergo the same monitoring and decontamination process, however, they will remain at the EOC until they are either reassigned or released from duty and sent home.

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Visual Display/  
Staging Directions

Narration

- S.109 Begin zoom out to establish shot. Camera position #1 | Now, before I proceed to describe what will be done with contaminated vehicles or equipment, are there any questions on the monitoring or decontamination of people?
- S.110 Please stop tape |
- S.111 MS studio talent. Camera position #1 | At this time I will discuss the monitoring and decontaminating of vehicles and equipment.
- S.112 Motion pan cars in lot Lot has appropriate roped off area | As mentioned previously, vehicles which have been in the EPZ will be parked in a temporary lot until they can be checked for contamination.
- S.113 Motion show LERO worker scanning car | Monitoring personnel will carefully scan each vehicle both inside and out.
- S.114 Motion cut to ECU of scanner on hood of car | Careful attention will be paid to horizontal surfaces and areas that could most likely come in contact with contamination.
- S.115 Show worker with probe moving from tires to door handle | On the outside of the vehicle, this would include tires and door handles.

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Visual Display/  
Staging Directions

Narration

- S.116 Motion show worker in- | Inside, careful attention will be paid to  
side of car with probe | monitoring areas such as the steering  
checking area of steer- | wheel, the brake and gas pedals, the  
ing wheel and drivers | driver's seat and so on.  
seat |
- S.117 Motion cut to person | A vehicle contamination report will be  
outside filling out | filled out by the monitoring personnel for  
form | each vehicle.
- S.118 Motion show worker | If the vehicle is found to be clean of  
getting into car and | contamination, it will be moved to the  
moving it | clean parking area. A copy of the report  
| will remain with the vehicle.
- S.119 Motion show car going | If the vehicle is contaminated, it will be  
into Decontamination | turned over to the decontamination  
area | personnel along with a copy of the  
| contamination report.
- S.120 Motion show two men | Attempts will first be made to  
wiping car with cloths | decontaminate the vehicle by wiping down  
and sponges | smooth surfaces with damp cloths or  
| sponges.  
|  
|

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Visual Display/  
Staging Directions

Narration

- S.121 Motion show worker | Contaminated upholstery and othe similar  
vacuuming upholstery | surfaces will be vacuumed first,  
S.122 Motion dissolve to same | then carefully cleaned with a mild  
worker wiping seat with | detergent or solvent solution.  
sponge |  
S.123 Motion cut to bucket | Detergent in hot water and a scrub brush  
with hot water brush | will be used if the vehicle is still  
next to bucket | contaminated after the first cleaning.  
S.124 Motion show car driving | If this fails, the vehicle will be parked  
into contaminated lot | in the contaminated vehicle parking lot.  
S.125 Motion show worker | A copy of the vehicle contamination report  
opening door and | will remain inside it to be used when  
getting out - He puts | further decontaminating is attempted at a  
form dowr on seat | later more convenient date.  
S.126 Motion cut to file | The originals of the vehicle contamination  
folder going into file | reports will be kept on file by the  
cabinet Repeat 105 | Radiation Health Coordinator. Any  
| equipment used by the emergency worker is  
| to be left with the vehicle to be  
| monitored.  
|  
|

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Visual Display/  
Staging Directions

Narration

S.127 ECU studio talent  
Camera position #1

| If it is practical, the equipment will be  
| decontaminated and released for use.  
| Otherwise, it is to be set aside in a  
| controlled area to await further attention  
| at a more practical time.  
| Let's now stop the tape so that your class  
| instructor can answer any questions which  
| you may have.

S.128 Please stop tape

|

S.129 MS camera position #1  
studio talent

| I hope your practice session and workbook  
| were helpful in explaining to you how  
| monitoring and decontamination activities  
| will be carried out by LERO. Let's now  
| review some of the more important points  
| covered by today's training session.

S.130 Repeat S.112

| First, all people, vehicles and other  
| equipment arriving at the EOC or Relo-  
| cation Centers which have been in the EPZ  
| will be checked for contamination.

S.131 Repeat S.81

| Monitoring for external contamination and  
| for

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RADIOLOGICAL MONITORING AND DECONTAMINATION

Visual Display/  
Staging Directions

Narration

S.132 Repeat S.101

| radioiodine uptake by the thyroid will be  
| done at the Relocation Centers for  
| evacuees and at the EOC for emergency  
| workers.  
| People are considered to be externally  
| contaminated at meter readings of 50 CPM  
| or greater above background. The thyroid  
| gland is considered to be contaminated at  
| meter readings of 150 CPM or greater above  
| background. Vehicles and equipment are  
| considered to be contaminated at meter  
| readings of 180 CPM or greater above  
| background.

S.133 Repeat S.105

| Contamination Records will be filled out  
| and maintained for each contaminated  
| person, vehicle, or piece of equipment  
| which is monitored.

S.134 Repeat S.91

| Decontamination of both people and  
| vehicles will be accomplished using soap,  
| water, scrub brushes and detergents.  
|



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Staging Directions

Narration

S.135 Studio talent MCU  
Camera position #1

| If difficulty is encountered in  
| decontaminating a person, or if monitoring  
| indicates a person has received excessive  
| thyroid contamination, he will be taken to  
| a hospital for additional attention.

S.136 Slow zoom out to  
establish shot. Camera  
position #1

| I hope this module has been informative  
| and will assist you in performing your  
| vital LERO task.

S.137 Please stop tape

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ATTACHMENT 19

LERO ORGANIZATIONMODULE NO. 12TRAFFIC CONTROL

Visual Display/ Staging Directions	Narration
S.1 Zoom out on art of 10- mile EPZ during edit	Evacuation from the Emergency Planning   Zone.
S.2 Motion show family load- ing luggage into the car and getting in	Remote, yet it could happen - day or   night, in good weather or bad. People   could be notified to leave their homes.
S.3 Motion car backs out of driveway	Most would evacuate by car. 
S.4 Motion residents getting on bus	Some would not have their own transpor-   tation and will have to be evacuated by   bus or special vehicles. The safe
S.5 Establish shot location talent, by car and bus	evacuation of residents is of primary   concern to everyone and each of you plays   a key part in that effort. Hello, I'm Joe
S.6 Slow zoom into MS a. Super name and title	Sheehan. Welcome to your training module   on Traffic Control.
S.7-19 Slide introduction and module titles	(Music intro over slides) 
S.20 Repeat S.1 art of 10- mile EPZ	As you know, the Emergency Planning Zone   or EPZ for Shoreham is an area around the   plant with an approximate ten-mile radius. 

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- |   |  |
|---|--|
| S.21 Art zones on zone map  | This EPZ, in which more than 100,000<br>  people live, is divided into 19 planning<br>  zones. Although our planning allows for<br>  the evacuation of the entire EPZ, if an |
| a. Code: Glow a wedge<br>over several adjoin-<br>ing zones to end of<br>10-mile EPZ | evacuation is ordered, it is most likely<br>  that only a few selected zones would have<br>  to evacuate.  |
| b. Lose code. Hold 21<br>and code arrow point-<br>ing out of 10-mile<br>EPZ         | As part of LERO, you may be called to<br>  assist in the evacuation of any or all of<br>  the zones.   |
| S.22 Build 4-way  | LERO will assist in transporting people by   |
| a. 21b  | bus, aid traffic flow and help to evacuate   |
| b. Bus and driver   | special facilities such as hospitals and   |
| c. LERO member direct-<br>ing traffic   | nursing homes.   |
| d. Ambulance loading<br>person  | <br> <br>  |

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- S.23 Box title slide, copy | To accomplish this task, a group known as  
in box: Evacuation | the Evacuation Group has been designated.  
Group - Register |  
Slides 23 & 24 |
- S.24 Show box with Evacuation | Direction and leadership for this group is  
Coordinator title in box | provided through the Evacuation  
Register Slides 24 & 25 | Coordinator.
- S.25 Manager of Local Re- | As you will recall from your previous  
sponse box | training session, this individual reports  
| to the Manager of Local Response.
- S.26 Show Evacuation Group | The LERO evacuation group performs three  
box. Three boxes under- | primary functions, with a group for each  
Code WP on narration que | task:  
slide in box |
- a. Bus Driver in bus | o Transportation for residents who don't  
| have vehicles,
  - b. Ambulance | o Evacuation of nursing homes, health  
| facilities or residents with impaired  
| mobility, and
  - c. Man directing traffic | o Traffic control to keep vehicle flow  
| as smooth as possible by directing the

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- | evacuating public to predesignated routes  
| and helping people know which way to go.
- S.27 Hold S.26 glow box 26c - | Let's examine your task, Traffic Control,  
man directing traffic | in more detail:
- S.28 Dissolve to full frame | As part of the Traffic Control Group, your  
of S.26c - man direct- | primary function is to aid the flow of  
ing traffic | traffic on predesignated evacuation routes.
- S.29 Build Traffic Control | Traffic Control is headed by the Traffic  
organization chart | Control Coordinator located at the Local  
box with Traffic Control | Emergency Operations Center and is divided  
Coordinator | into three field groups:
- S.30 Hold S.29 build addi- | The Traffic Guides,  
tional boxes below |  
a. Traffic Guides | Road Crews, and  
b. Road Crews | Evacuation Route Spotters.  
c. Evacuation Route |  
Spotters |
- S.31 Cut to slide of | Each of these groups will have a coor-  
building (EOC) at | dinator in the Local Emergency Operations  
Brentwood | Center which will be the coordination  
| center for controlling and monitoring the  
| traffic control operation.

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S.32 Hold S.31 EOC building | These are:  
and code boxes over bldg| - The Traffic Control Point Coordinator  
a. Traffic Control Point| - The Road Logistics Coordinator  
Coordinator | - The Evacuation Route Coordinator  
b. Road Logistics Coor. |  
c. Evacuation Route |  
Coordinator |

S.33 Radio console with | Traffic Control will have 2 dedicated  
operator | communicators in the EOC who

S.34 ECU of radio mic from | relays orders to field groups and receives  
S.33 | updates from them.

S.35 Studio talent ECU. | Let's now discuss the special jobs of  
Camera position #1 | Traffic Control personnel. First, the  
| Traffic Control Coordinator.

S.36 Box with copy: Traffic | The Traffic Control Coordinator is head of  
Control Coordinator | the Traffic Control Group.

S:37 Hold S.36. Code box | He reports to the Evacuation Coordinator  
above him. Code copy: | and directs the overall mobilization and  
Evacuation Coordinator | operation of the traffic guides, road  
| crews and route spotters.  
|

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- S.38 Slide two men talking | When the Traffic Control Coordinator  
| arrives at the Local EOC, he will first be  
| briefed by the Evacuation Coordinator.
- S.39 Repeat art S.21 10-mile | They will discuss the traffic control  
zone map. Code dots | actions including the possible manning of  
inside the zone at | predesignated traffic control points  
various intersections | within the 10-mile EPZ.
- S.40 Show meeting with 3 men | The Traffic Control Coordinator should  
and 1 woman in office | always remain up-to-date and briefed on  
1 man is Traffic Control | field radiological conditions so as to  
Coordinator | keep his coordinators informed.
- S.41 ECU of Traffic Control | He will also, keep the coordinators  
Coordinator in meeting | reporting to him informed of any changes  
from S.40 | in the evacuation operation and radiation  
| release situation will allow the field  
| groups to be deployed efficiently.  
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- S.42 Show Traffic Guide on portable radio - has protective clothing and dosimeters | and good communication is vital to keep radiation exposures to the field personnel as low as possible.
- S.43 Show guide reading pencil dosimeter. Same person in S.42 | The goal is always to prevent workers from receiving radiation exposures over 3.5 Rem.
- S.44 Studio talent. Camera position #1 MIS | Now let's discuss the groups that will be deployed in the field and their coordinators. As mentioned, each of the three field groups has a coordinator in the EOC. First, we will talk about the Traffic Guides.
- S.45 Copy box slide Traffic Control Point Coord. | Directing the activities of the Traffic Guides is the Traffic Control Point Coordinator.
- S.46 3 People at meeting table: Director of Local Response, Evacuation Coord., Traffic Control Point Coordinator | When an evacuation is recommended by the Director of Local Response, the Traffic Control Point Coordinator first verifies the zones to be evacuated with the Evacuation Coordinator.

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- S.47 Detailed map of one 10- | Each zone, has a number of designated  
mile EPZ zone | traffic control points.  
a. Code circle at inter- |  
sections in this zone |
- S.48 ECU of specified inter- | Traffic control points are  
section from detailed | road intersections, exits or entrances  
map (S.49) | where traffic guides will direct traffic  
| to assist the flow of vehicles onto and  
| along specified evacuation routes.
- S.49 Repeat 10-mile zone map | In and around the EPZ there are 143 of  
S.21. | these traffic control points.  
a. Over map code 143 |
- S.50 Motion of Traffic Con- | Experience with evacuations in the United  
trol person waving | States, resulting from both natural and  
traffic through an in- | technological emergencies, has shown that  
tersection. This person | an evacuating public can benefit from the  
is not a LERO worker | kind of information traffic guides can  
| give.
- S.51 Motion of person S.50 | The evacuating public typically follows  
talking to person in | directions and evacuates in an orderly  
car ECU | manner.

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- S.52 Slide of sheet with TC procedure and instruction  
a. Code: Copy Traffic Control Procedure 3.6.3 over S.52
- | A list of all these traffic control points with specific instructions on how to direct traffic for each point is shown in an attachment to the LERO Plan Traffic Control Procedure Number 3.6.3.
- S.53 Show group of people seated - man passing out packets  
a. Man takes procedure out of packet
- | This procedure will be available to the coordinators in the EOC and will be given to each Traffic Guide in a packet, along with other information, when dispatched from a Staging Area.
- S.54 Slide of sample list from student workbook
- | You will see a sample from this list of posts in your Traffic Control workbook that you will receive after this presentation.
- S.55 Show Traffic Control Point Coordinator reviewing list of Control Points
- | From the list of traffic control points, the Traffic Control Point Coordinator will determine the number of posts to be manned for the zones that will be evacuated.

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- S.56 2-way | To dispatch Traffic Guides, the  
a. Communicator at EOC | communicator in the EOC will contact the  
on dedicated tele- | Lead Traffic Guide by dedicated telephone  
phone | at the Staging Area or areas nearest the  
b. Lead Traffic Guide at | zones to be evacuated.  
Staging Area on dedi- |  
cated telephone |
- S.57 Show map S.21. Code | This brings up the point of notification  
over copy map 57a | and mobilization. When directed, Traffic  
Traffic Guides, 57b Road | Guides, Road Crews and Route Spotters will  
Crews, 57c Route | report to one of the Staging Areas and  
Spotters | remain on standby.
- S.58 Slide of student work- | The method and sequence of this notifi-  
book | cation and mobilization will be discussed  
a. Code: Traffic Con- | in detail in the Traffic Control Workbook  
trol Workbook over | that you will receive.  
S.58 |
- S.59 Motion - Lead Traffic | After being informed by the EOC, the Lead  
Guide meeting with | Traffic Guide will brief and deploy the  
Traffic Guides & hand- | Traffic Guides from the Staging Area after  
ing out packets | distributing their equipment and emergency  
| packets.

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- S.60 Art of 10-mile EPZ zone | If additional zones need to be evacuated,  
map S.21 |  
a. Burn in arrow over |  
different zones |
- S.61 Lead Traffic Guide on | the Lead Traffic Guide at the appropriate  
dedicated telephone at | Staging Area would be contacted again to  
Staging Area. Full name | request additional Traffic Guide  
S.56b | deployment.
- S.62 Studio talent ECU. | To sum up this point and give some illus-  
Camera position #1 | trations, let's go through an actual  
| mobilization and the activities of the  
| Traffic Guides.
- S.63 Motion establish shot of | It's 5:30 PM on a Tuesday afternoon.  
man with family at home | Husband tells wife, "I heard on that radio  
in living room | that Shoreham had an Alert about 2:00  
a. Cut aways | today. We'll have to wait to see if I get  
| called in."  
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S.64 Motion Brentwood EOC filled with people, establish shot and cut aways 2nd floor Brent- wood	Under the Alert, the EOC was activated.   The Traffic Control Coordinator, Evacua-   tion Route Coordinator, Traffic Control   Point Coordinator and Road Logistics   Coordinator were all notified by pager and   reported to the EOC.
S.65 Motion telephone rings Man at home picks up phone. Voice over Motion Man (Jack) pull- ing out of driveway, voice over	"Jack, this is John Wayfield. There's been   a Site Area Emergency declared at Shoreham.   Please report to your Staging Area."   Jack, "O.K. I'm leaving right now."   
S.66 Motion (John Wayfield) on phone at home	John Wayfield is one of 15 designated   Traffic Guides who are paged and who will   each notify a group of Traffic Guides.
S.67 Motion (Riverhead Stag- ing Area). Show Staging Area entrances - man in S.65 drives in	After being notified, the Traffic Guide   will drive to his Staging Area.   
S.68 Motion show Security checking ID of man S.65	He'll show his LERO ID to security. 

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- S.69 Motion show dosimeters | He next goes to get his dosimeters and  
being distributed to man| puts them on right away.
- S.65. |
- a. ECU out away. Show |  
how to put on dosimeters|
- S.70 Slide show Traffic Con- | Back at the EOC, the Traffic Control Point  
trol Point Coordinator | Coordinator has determined which Traffic  
with list of Traffic | Control points should be manned.  
Control posts and Traf- |  
fic Control procedure |  
in discussion with other|  
coordinator |
- S.71 Slide show Traffic Guide| Each Traffic Guide will receive his  
inventorying equipment | equipment and emergency packet which he  
| will inventory with a simple check-off  
| list found in the packet.
- S.72 Show Lead Traffic Guide | The Traffic Guide gets his assignment and  
briefing group of Traf- | briefing from the LERO Traffic Guide who  
fic Guides | is coordinating the Traffic Control  
| personnel activities at the Staging Area.  
|

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- S.73 Motion Traffic Guide | The Traffic Guide drives to his assigned  
arriving at 4-way inter-| post, checks his dosimetry and sets up the  
section, reviews list in| equipment.  
truck, checks dosimeters|
- S.74 Graphic of 4-way inter- | The Traffic Guide will then send all east,  
section. Arrows indi- | west and southbound traffic, south,  
cating desired flow of | according to the directions on the Traffic  
traffic for east, west | Control Post list.  
and southbound |
- S.75 Motion of Traffic Guide | Notice for this type of intersection three  
waving hands, motioning | lanes of traffic are directed down one  
traffic to halt in 2 | lane.  
lanes and directing |  
vehicles in remaining |  
lane down desired street|
- S.76 A vehicle arrives at the| In this case, a vehicle has arrived  
intersection of the | traveling opposite to the planned  
evacuation route | evacuation direction. Our Traffic Guide  
a. Cut aways to cover | stops the vehicle and explains to the  
copy. Traffic Guide | driver that there is an evacuation under-  
stops car and talks | way. The guide then asks the driver if it  
to driver | is vital that he travel in the EPZ. The  
| driver says yes.



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- S.77 Motion Traffic Guide | The Traffic Guide then permits the driver  
allows driver to con- | to continue traveling.  
tinue |
- S.78 Motion Traffic Guide | If it was not vital that the driver  
directing driver to turn | continue, the Traffic Guide would direct  
around | the vehicle to turn around and go back the  
| way it came.
- S.79 Motion police car | If the police arrive, turn over control to  
arrives at intersection | them.  
| Explain to the police what your operation
- S.80 Traffic Guide talking | is at the traffic post. State that you  
to policeman | will turn over the post to the officer,  
| but will remain at the post to monitor and  
| report the traffic flow to the EOC.
- S.81 Show guide taking out | Show the material in the emergency packet  
emergency packet, show- | to the officer, explain the instructions  
ing it to officer and | and Traffic Control Post List to him and  
explaining the different | show him how you have been guiding the  
items in packet | traffic.
- |
- |

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- S.82 Motion show Traffic Guide showing dosimeters to policeman | Show your dosimeters to the officer and tell what they are.
- S.83 Motion of Traffic Guide recording dose on dose card | Record a dosimeter reading when the officer arrives and when he leaves the post to determine his dose.
- S.84 Motion of officer looking into pencil dosimeter and talking to Traffic Guide | Inform him that while you are at the post, you will be using your dosimeters to see if radiation is present, and if it is, that it is at safe levels.
- S.85 Motion Traffic Guide on radio | After explaining these things, call the EOC.
- a. Pan to policeman directing traffic MOS audio | "This is Post 47. The police have arrived. I've given them all the information and they've begun directing the traffic. I'll be in contact from here with further information."

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- S.86 Motion show Traffic | When the Lead Traffic Guide radios to tell  
Guide and police officer| you that your assignment is over or when  
getting into cars and | you are called, suggest to the policeman  
leaving intersection | to follow you to the EOC so that he can  
| get a contamination check.
- S.87 MS studio talent. | Now let's stop the tape for a few minutes  
Camera position #1 | to see if you have any questions on what  
| we have covered thus far. I'll see you in  
| just a few minutes.
- S.88 Slide Please stop tape |
- S.89 MS studio talent. | Next let's discuss the Road Logistics  
Camera position #1 | Coordinator and job of the Road Crew.
- S.90 Box with title Road | The Road Logistics Coordinator directs the  
Logistics Coordinator | operations and control of the Road Crew.  
with several Road Crew |  
boxes under him |
- S.91 Show Road Crew truck and| The Road Crew helps to clear any  
personnel hooking up | evacuation route blockages such as stalled  
stalled vehicle | or abandoned vehicles.  
|  
|

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- S.92 Two men talking looking at map one is Traffic Control Coordinator other is Road Logistics Coordinator | The Traffic Control Coordinator will request the Road Logistics Coordinator to initiate road crew operations.
- S.93 ECU of hand reviewing map section 10-mile EPZ | If evacuation is ordered, the Road Logistics Coordinator will first verify the zones to be evacuated with the Traffic Control Coordinator.
- S.94 Show Lead Traffic Guide on dedicated telephone at Staging Area | To mobilize the road crews, contact is again made with the Lead Traffic Guide at the appropriate Staging Area by dedicated telephone.
- S.95 10-mile EPZ map (31) Code circle at Riverhead Staging Area | The first Staging Area to be contacted will be nearest the zones to be evacuated.
- S.96 Show two men getting into tow truck | A request will be made to dispatch the road crew to be stationed along the
- S.97 Show men S.95 hooking up car for tow. | evacuation routes. When an obstruction is reported by a Traffic Guide or Route Spotter, the road crews will then clear any obstructions to the flow of traffic.

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S.98 Map 10-mile EPZ zone map a. 2 arrows in zones next to each other	If the size of the area to be evacuated   increases, additional road crews will be   called out from the Staging Areas. 
S.99 Man in tow truck on radio	When in the field, road crews should keep   in close radio contact with the EOC during   their deployment.
S.100 Full shot of truck and driver a. Code: Rad symbol (IRS) over top of truck	If severe radiation conditions are   projected for a zone, orders will be given   to abandon the routes in the affected   areas. 
S.101 Route Spotter next to car on overpass - he is looking through field glasses at traffic below	Now let's discuss the job of Route   Spotters.     
S.102 Hold S:101. Code box charts. Show Route Spotter reporting to Evacuation Route Coord.	Route Spotters are under the direction of   the Evacuation Route Coordinator.   

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- S.103 Hold 101: Route Spot- | As a Route Spotter, you will drive  
ters on field glasses | predesignated spotter routes to locate  
looking at traffic | blockage problems.
- S.104 Show same person in 101 | The Route Spotters are mobilized in the  
at home on phone | same way as the other field groups.
- S.105 Show Traffic Control | When directed by the Evacuation Route  
Coordinator talking | Coordinator, route spotters will begin  
with Evacuation Route | their operations.  
Coordinator reviewing |  
map |
- S.106 Show group of men and | If an evacuation is ordered, a request  
women in work clothes | will be made for Evacuation Route Spotters  
in briefing at Staging | to be dispatched into the evacuation area  
Area | to survey specific zones.
- S.107 Show 10-mile EPZ zone | Again, if the area to be evacuated  
map. Show arrow over | increases, the Staging Area will dispatch  
adjacent area | additional personnel at the request of the  
| Evacuation Route Coordinator.
- S.108 Show Route Spotter on | If the zone should be abandoned by  
portable radio at car | Emergency Workers due to the severity of  
| the release or direction of the plume, you  
| will be relieved from the area right away.

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S.109 MS studio talent. Camera position #2	Let's now discuss and review some   additional information that you as field   personnel will need to know. As   previously mentioned, you will initially   report to one of the Staging Areas.
a. Begin zoom into ECU Studio talent. Camera position #2	Before LERO is mobilized, you will be told   which Staging Area to report to. During a   Site Area or General Emergency, field   personnel will be telephoned by a   designated traffic control person who is   part of the LILCO Paging System.
S.110 Show man showing badge to Security at Staging Area	When you arrive at a Staging Area, display   your LERO ID to security personnel who   will check you off on a roster.
S.111 Show man standing in front of table	You will then go to the Dosimetry Record   Keeper.
S.112 Man seated behind table - Man filling out Dose Record Form	The Dosimetry Record Keeper will log you in 
S.113 Show man S.112 giving man S.111 3 dosimeters	and issue two direct-reading dosimeters   and a TLD Badge.

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- S.114 ECU of man S.111 put- | Put them on immediately.  
ting on 3 dosimeters |
- S.115 Show 2 men being di- | Next, a Lead Traffic Guide will assist you  
rected to waiting area | in preparing for deployment.  
by third man |
- S.116 Show group being given | You will receive a briefing describing  
briefing | your specific assignment.
- S.117 Show collection of | Traffic Guides, Road Crews and Route  
equipment man is doing | Spotters will next receive their special  
inventory of his equip- | equipment and emergency packets.  
ment - flashlight, | Many of the basic equipment items are the  
flares, traffic cones | same for the different groups, such as  
| flashlights, flares, traffic cones and  
| rain gear.
- S.118 2-way | Each deployed field member will be  
a. Portable radio | provided with a radio that is either a  
b. Radio mounted in | portable unit or mounted in the vehicle.  
truck |
- S.119 Show different man in- | Each individual or team will also get an  
ventorying packet: map, | emergency packet.  
traffic control point | This packet contains maps, traffic control  
procedure, checklist |



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S.120 Title slide: Major Steps		procedures, and a step-by-step checklist to guide you throughout your deployment. Steps included in this checklist are:
S.121 Man checking flashlight Repeat burn over Step 1		Step 1 An inventory of your equipment and emergency packet. Be sure everything is there and that it works.
S.122 ECU of dosimeters on outside of raincoat Burn Step 2 over visual		Step 2 A reminder to wear your personnel dosimeters.
S.123 Repeat S.115. Burn Step 3 over visual		Step 3 Instructions to obtain a briefing from the Lead Traffic Guide and
S.124 Show man getting into truck. Burn Step 4 over visual		Step 4 Instructions to proceed to your route or post.
S.125 Show man on portable radio. Burn Step 5 over visual		Step 5 Once you arrive at your post, radio your Lead Traffic Guide and your group coordinator at the EOC and keep them up-to-date on your activities.

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S.126 Man reading his dosi- meter. Burn Step 6 over visual	Step 6	<b>Read your dosimeter frequently!</b> If the 0-200 mR dosimeter goes off scale, notify your coordinator and begin to read the 0-5 R dosimeter.
S.127 Pencil dosimeter with zoom out circle of dosimeter scale. Needle at 3.5 R		If it goes up to 3.5 R, inform your coordinator, who will tell you to leave the area and provide you with further instructions.
a. Personnel dosimeter with zoom out of dosimeter scale needle at 5R		If your dosimeter goes up to 5R before you've contacted your coordinator, leave the area immediately.
S.128 Police officer talking to Traffic Guide. Burn Step 7 over visual	Step 7	If a police officer arrives at your post, turn over control to the officer.
S.129 Man putting on rain coat		If your deployment area happens to be in or near the plume, your coordinator will tell you to put on your rain gear.
S.130 Same man (S.129) put- ting on 3 dosimeters outer side of rain coat		This will help to prevent your clothes from becoming contaminated.

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- S.131 Show men entering EOC | Finally, when your field work is  
| completed, or if specifically directed,  
| report to the Local EOC for monitoring and  
| decontamination.
- S.132 Show men at table | At the EOC a separate area will be set up  
standing also a person | for monitoring and decontamination of  
seated behind table | Emergency Workers.
- S.133 Man seated behind | Once you arrive at the EOC, you will first  
table is reading | be logged in and have your dosimeters  
workers dosimeter | processed,
- S.134 Worker being monitored | then you will be monitored for  
| radiological contamination.
- S.135 Group of people seated | After completing these monitoring tests, a  
at EOC class room re- | briefing will be held with your  
ceiving briefing | coordinator.
- S.136 Studio talent MS | So, those are the jobs of the LERO Traffic  
Camera position #1 | Control Personnel.  
| What are some of the important things to  
| remember?  
| First. The coordinators of the Road  
| Crews, Traffic Guides and Route Spotters

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	report to the EOC. The EOC in Brentwood
	is the command and control location for
	traffic control.
S.137 Slow zoom into talent	Secondly, field groups report to pre-
Camers position #1	assigned Staging Areas. The Lead Traffic
	Guide will direct the field personnel
	prior to their deployment. At the Staging
	Area, they are issued their equipment,
	dosimeters, and instructions and will
	receive a briefing.
S.138 Match shot MS. Camera	When you are in the field, remember to
position #2	communicate with your coordinator. And it
	is very important to read your dosimeters
	often. You are the person most
	responsible for monitoring your own
	exposure.
S.139 Motion Traffic Guide	Third. Traffic Guides are posted at
setting up post at	pre-determined intersections or other
intersection	roadway locations.

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Visual Display/  
Staging Directions

Narration

- | They will assist the traffic flow much the  
| same as a fireman or citizen at an acci-  
| dent scene.
- S.140 Motion police car pull- | If the police arrive, turn over control to  
ing into intersection | them.
- S.141 Motion of Road Crew | The Road Crews travel within the EPZ in  
truck driving down | tow trucks or other company vehicles.  
highway |
- S.142 Motion of Road Crew and | They help clear roadways when specific  
truck hooking up car | requests for assistance come in from the  
for tow | Route Spotters or Traffic Guides.
- S.143 Art box slide Road | Road crews report to the Road Logistics  
Logistics Coordinator | Coordinator.  
with Road Crew boxes |  
below him |
- S.144 Motion of Evacuation | Evacuation Route Spotters will drive along  
Route Spotters driving | designated spotter routes.  
along highway - shot |  
from back seat |  
|  
|

LERO ORGANIZATION

MODULE NO. 12

TRAFFIC CONTROL

Visual Display/  
Staging Directions

Narration

- S.145 Same person S.144 picks up portable radio to report traffic problem | They will report traffic tie-ups and identify obstructions for removal by road crews.
- S.146 Route Spotter on over-pass looking through field glasses down onto traffic | They will also respond to specific requests to investigate traffic delays spotted by the Traffic Guides or Road Crews.
- S.149 Art Org. chart slide top box Evacuation Route Coordinator - bottom box Evacuation Route Spotters | Evacuation Route Spotters report to the Evacuation Route Coordinator.
- S.148 Studio talent ECU Camera position #1 | Lastly. Traffic control has 2 of their own communicators in the EOC who will send and receive all messages between the coordinators, Staging Areas and field teams.
- S:149 Zoom out to establish shot. Camera position #1 | Traffic control is essential to a prompt and efficient evacuation. Your job as a member of LERO is critical to our overall success. I hope this module has aided in your understanding of this vital LERO function.

LERO ORGANIZATION

MODULE NO. 12

TRAFFIC CONTROL

Visual Display/  
Staging Directions

Narration

S.150 LERO Logo Build ABCDE | (Music up)

S.151 Please stop tape | (Music out)

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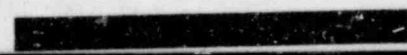
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ATTACHMENT 20

(bound separately as  
Volume 5)



ATTACHM. NT 21



LONG ISLAND LIGHTING COMPANY  
LOCAL EMERGENCY RESPONSE ORGANIZATION  
DECONTAMINATION TABLETOP DRILL  
REV. 0

Prepared by:

Impell Corporation  
December, 1983

LERO EXERCISE/DRILL SCENARIO

- Part 1 Objectives and Guidelines
- Part 2 Date/Time/Locations/Participant's Titles
- Part 3 Agenda
- Part 4 Topics for Discussion
- Part 5 Controllers
- Part 6 Participants

Submitted by:

*W L A. Dore*

Emergency Planning Coordinator

12-5-83

Date

APPROVALS:

**CAUTION**

**APPROVALS MUST BE SIGNED AT LEAST 24 HOURS  
BEFORE ANY EXERCISE OR DRILL MAY BE PERFORMED.**

\_\_\_\_\_  
Manager of LERO

\_\_\_\_\_  
Date

1.0 OBJECTIVES AND GUIDELINES

The primary objective of this session is to discuss the setup and operation of a monitoring/decontamination facility. Problems encountered in implementing the procedures shall be discussed.

The following procedures will be reviewed:

- OPIP 3.6.2, Potassium Iodide Distribution
- OPIP 3.9.1, Dosimetry and Exposure Control
- OPIP 3.9.2, Radiological Monitoring/Decontamination of  
Emergency Workers and Evacuees
- OPIP 4.2.1, Relocation Center Operations
- OPIP 4.2.2, Handling and Transport of Contaminated and/or  
Injured Individuals to Medical Facilities

2.0 DATE/TIME/LOCATION/PARTICIPANT'S TITLES

Date:

December 6, 1983

Time:

8:00 AM to 12:00 Noon

Location:

Room 210, Operations Building 1,  
Hicksville

Participant's Titles:

<u>Job No.</u>	<u>Job Title</u>	<u>LERO Reporting Location</u>
26A	Decontamination Coordinator	Brentwood
26B	Decontamination Leaders - Relocation Center	Relocation Centers
Non-LILCO 26C	Radiation Health Coordinator Decontamination Leader - EOC	Brentwood Brentwood

3.0 AGENDA

8:00 AM - 8:20 AM	Introductions followed by a general discussion on what is to be accomplished during the session.
8:20 AM - 10:00 AM	Review OPIP 3.9.2 and discuss how to set up a monitoring/decontamination area given any shower facility. Facility staffing and equipment inventories will also be reviewed.
10:00 AM - 10:15 AM	Coffee break
10:15 AM - 12:00 Noon	Resume session. Review how a decontamination facility will interface with the Emergency Operations Center and with the Relocation Center. Discuss problems and/or questions posed by the Decontamination Leaders. Review the further training to be received by the Monitoring/Decontamination personnel.
12:00 Noon	Terminate the session

4.0 TOPICS FOR DISCUSSION

The following subjects will be reviewed:

- o Set up and operation of a decontamination facility
- o RM-14 count rate meter
- o Exposure control (dosimetry)
- o Protective clothing
- o Controlled areas
- o Equipment (inventory and location)
- o Facility staffing
- o Interface between the Decontamination Facility, the Relocation Center and the Emergency Operations Center

5.0 CONTROLLERS

- |                    |                   |
|--------------------|-------------------|
| 1. Lead Controller | <u>D.A. Beres</u> |
| 2. Controller #1   | <u>G. Krieger</u> |
| 3. Controller #2   | <u>B. Kobel</u>   |

6.0 PARTICIPANTS

See attached sheets.

ATTACHMENT 22



LESSON PLAN: TRAFFIC DIRECTION AND CONTROL

PREPARED BY: Howard Krieger

DATE: August - 1983

FOR USE AT: Training of Traffic Guides

LESSON OBJECTIVES:

- A. To train Traffic Guides in the fundamentals of traffic guidance and control.
- B. To review the procedures and equipment they will need to successfully accomplish this mission.

SCOPE:

Instruction: Positioning of personnel of a site, signaling - (hand and whistle), safety precautions, safety apparel, setting cones and signs, use of dosimetry equipment, public relations, priority for authorized emergency vehicles (NYS VTL §101) and buses, basic criteria for using good judgement.

INSTRUCTIONAL AIDS:

Overhead Projector  
Transparencies  
Chalk Board  
3/4" VCR  
Television  
Videotapes - "A Safe Journey Through Traffic Engineering"  
"Look Where You Are Going"

## TRAFFIC CONTROL

### I. INTRODUCTION

### II. BODY

- A. Traffic Guides arrival at traffic control point
- B. Placement of cones and signs
- C. Traffic Guides position in roadway
- D. Signaling, hand and whistle
- E. Safety precautions
- F. Dosimetry equipment
- G. Public relations with motor vehicle operators
- H. Emergency vehicles as defined by NYS Vehicle and Traffic Law and buses
- I. If police arrive
- J. Personal safety

### III. SUMMARY

## I. INTRODUCTION:

Directing traffic is a part of the Traffic Control Function and it is both an art and a science. It is an art from the standpoint that it requires a certain amount of human judgement in providing guidance for others and in maintaining control of conflicting movements so as to avoid accidents and to maintain a high productive level of traffic movement. It is a science because it involves applying specific rules which will produce desired results.

Traffic Guides assigned to a Traffic Control Point, will usually find their work to coordinate traffic movement, has three major parts:

1. Expediting traffic flow by directing traffic units in when and how to move, whenever congestion or other hazard makes traffic movements dangerous or difficult. The assigned Traffic Guide assumes responsibility for manually directing traffic.
2. Emergency direction of traffic to meet unusual or unexpected conditions. Directing traffic in emergencies requires special techniques. There will be a degree of uncertainty by some motorists at the control points. Authorized emergency vehicles must not only be given the right-of-way, but may also require skilled traffic direction to anticipate their needs and keep traffic lanes open at these points.
3. Answering questions on almost every possible subject. The Traffic Guide is an information source: he is in uniform, and apparently on duty. The questions must be answered courteously, and rapidly: the safe movement of traffic must be maintained by the guide.

## II. BODY:

### A. Traffic Guides arrival at traffic control point:

1. Survey assigned traffic control point.
  - a. Observe traffic control device, if any; do not tamper with it unless instructed otherwise
  - b. Accident or disabled vehicles in roadway - clear if possible, otherwise notify Lead Traffic Guide of blockage problems if they arise
  - c. Observe weather conditions
2. Place LERO vehicle so that its physical location will not violate a traffic safety rule and avoid interfering with desired traffic flow.
  - a. Make sure dosimeters are placed on clothing

**B. Placement of cones:**

1. Check traffic control point schematic drawings and set up post according to drawing.
  - a. Safety precautions when setting cones at their specific locations
  - b. Poor visibility - extra precautions
  - c. Identify major and minor improvements of traffic flow
2. Ascertain that cones do not block any movement unless otherwise instructed. That is, these cones will indicate the proper movement of traffic and may close some lanes but, except for a limited number of control points, will not completely block access to any roadway.

**C. Traffic Guides position in roadway:**

1. Seven main types of intersections:
  - a. Different safe positions depending on traffic direction or flow and complexity of intersection.
    1. Two-way traffic E/W and one-way traffic north
    2. Two-way traffic E/W and one-way traffic south
    3. One-way traffic east and one-way traffic south
    4. One-way traffic north and one-way traffic west
    5. Two-way traffic all directions
    6. "T" intersection, wall on left, two-way traffic north and south and one-way traffic west
    7. "T" intersection wall on left, two-way traffic north and south and two-way traffic east and west on street to the east
  - b. Generally, your position in the roadway is indicated on the traffic control point map and is based on:
    1. Direction and volume of traffic
    2. Turns within intersection
    3. Being visible to approaching traffic

4. Being able to see approaching traffic
5. Not interferring with traffic flow
6. Being located as to exercise proper control
7. Visual contact of conditions within your line of sight
8. Your own safety in the roadway
9. Whether two or more Traffic Guides are assigned

D. Signaling, Hand and Whistle:

1. Generally - When working at an intersection:
  - a. Adjust position where most effective - do not stand motionless
  - b. Always provide control with hand signals
  - c. Check that there is available storage downstream before directing traffic movement. Avoid spillback condition
  - d. Be certain flow has been completely halted before giving a signal for traffic to proceed in the new direction
2. Hand signals:
  - a. To stop traffic:
    1. Point with arm and forefinger
    2. Look straight at driver you want to stop
    3. Wait until sure driver sees Traffic Guide
  - b. Signal to stop:
    1. Use palm of hand which was used to point
    2. Extend arm
    3. Fingers should point up
    4. Palm confronting the driver

- c. Stop traffic from one side and then the other:
  - 1. Ending up with both arms extended
  - 2. One palm confront traffic on the left
  - 3. The other palm confronting traffic on the right
- d. To start traffic:
  - 1. Stand with side toward traffic to be put in motion
  - 2. Point at the car which is to be moved
  - 3. Make sure you have the driver's attention
- e. Signal to start:
  - 1. Outstretch arm nearest traffic to be started
  - 2. Palm up
  - 3. Swing hand up and over chin
- f. After traffic has begun to move:
  - 1. From one side
  - 2. Drop that arm to side
  - 3. Start traffic moving from other side in same way
  - 4. Using other arm
- g. Authorizing left turn:
  - 1. Halt traffic in lanes the turning car must cross
  - 2. Use open palm stop signal
  - 3. Signal turning car with other arm
  - 4. Swing arm and point to the direction of the turn

3. Whistle Signals:

- a. A Traffic Guide may use traffic whistle signals when necessary to regulate the movement of traffic

- b. The following signals will be used:
  - 1. One blast - moving traffic shall stop
  - 2. Two blasts - cross traffic shall move
  - 3. Three or more blasts - all moving traffic shall stop
    - a. Emergency signal used for
    - b. Approach of emergency vehicles

E. Safety Precautions:

- 1. During times of poor visibility:
  - a. Provide means for motorist to see you
  - b. Use emergency vest and raincoat
  - c. Use flashlight if necessary
  - d. Use street illumination to maximum advantage
- 2. Do not remain in path of on-coming vehicle when stopping or directing them.
  - a. Brakes can fail
  - b. Signals can be misunderstood
  - c. Motorist can fail to see you
- 3. Stand with shoulders parallel to moving stream of traffic.
  - a. Makes a smaller profile
  - b. Minimize danger of passing vehicle striking Traffic Guide
- 4. Be constantly observant of trucks with bodies protruding beyond cabs.
- 5. When permitting left turn:
  - a. Direct vehicles to turn in front of Traffic Guide
  - b. Do not allow turns to be made around you

- c. Avoid possibility of being struck by rear of vehicle
- d. Be alert to commercial vehicles that extend far beyond the rear wheels; end of body can swing out and strike Traffic Guide
- 6. Avoid unnecessary change of positions.
  - a. Motorist's actions are based on this first observation
  - b. Motorist may not have a chance to observe changed position
- 7. Before permitting traffic to move, be certain there is enough room to clear Traffic Guide.
  - a. Prevent possibility of being pinned against another vehicle
- 8. Do not stand in roadway when giving information or directions.
  - a. Direct vehicle to curb

F. Dosimetry Equipment:

Make sure dosimeters are placed on clothing upon receipt.

G. Public Relations:

1. Information:

- a. Providing information to motorists is a secondary duty to traffic direction.
- b. Have guides direct people to listen to WALK or give them rumor control numbers.

2. Altered direction:

It will sometimes be necessary to discourage a motorist from turning or proceeding in a certain direction, and this will be irritating to that motorist most of the time. Even though the Traffic Guide may be tired from a long period of standing on the pavement, he should resist the temptation to become angry. The Traffic Guide should remain firm, (don't "bawl-out" motorist), make his gestures clear, and emphasize them with the whistle.



#### H. Emergency Vehicles:

One of the Traffic Guide's major objectives are to clear a path for authorized emergency vehicles, to assist vehicles out of the restricted area, to expedite the flow of traffic.

1. New York State Vehicle and Traffic Law Section #101 - Authorized Emergency Vehicle
  - a. Ambulance
  - b. Police Department or Sheriff
  - c. Fire Department
  - d. Public Utility Company when on emergency calls
  - e. Law Enforcement Officer of Conservation Department while enforcement of conservation law
  - f. Civil defense emergency vehicle
  - g. Ordnance disposal vehicle of the Armed Forces of the United States
  - h. Evacuation buses

#### I. If police arrive at your post:

1. Turn over control to them, if requested, and offer assistance.
2. Brief them on the strategy of the control post and any problems that have arisen during the emergency.
3. Remain with the police officer throughout the duration of the assignment to provide radiological dose information and communications to the EOC as well as the lend assistance to the officer directing traffic.
4. Have policeman accompany you to the Emergency Worker Decontamination Center at the completion of the assignment.

#### J. Personal Safety:

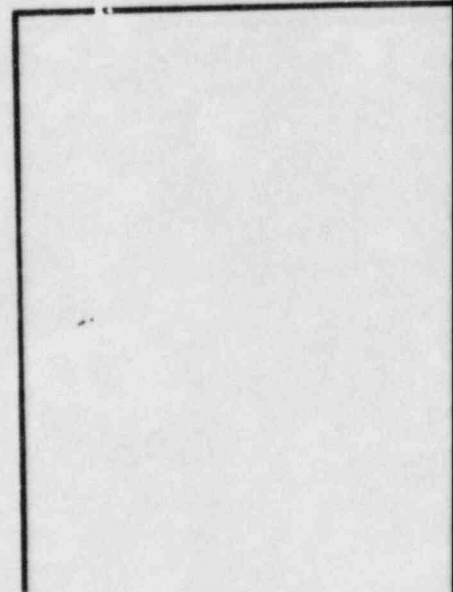
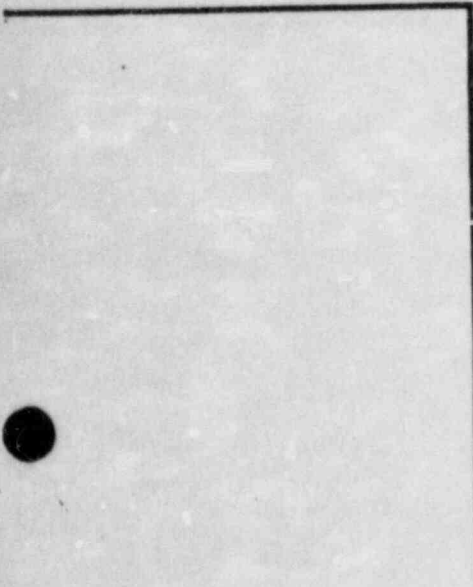
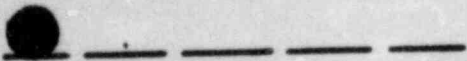
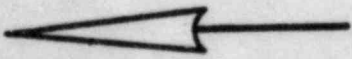
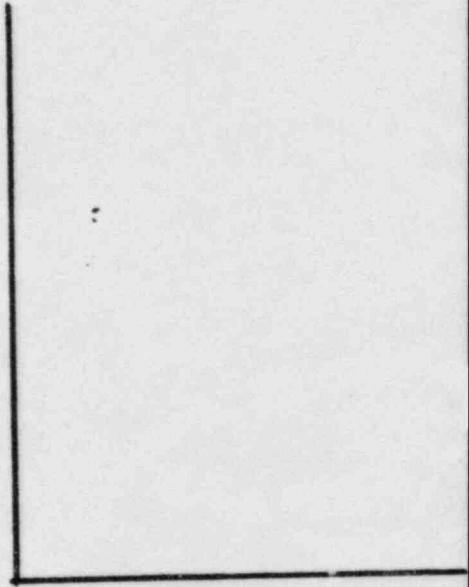
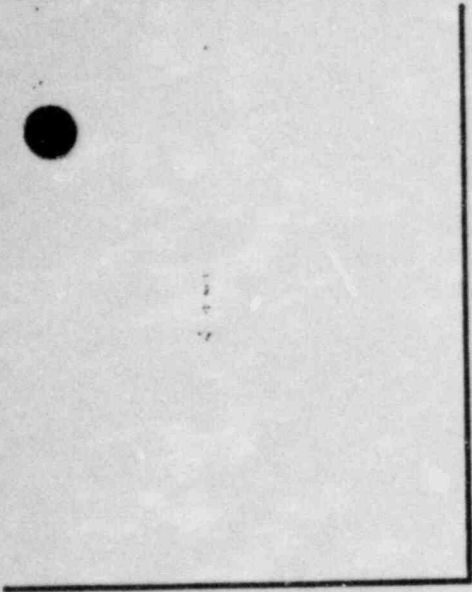
1. Remember:
  - a. Position yourself properly in roadway
  - b. Don't move around unnecessarily

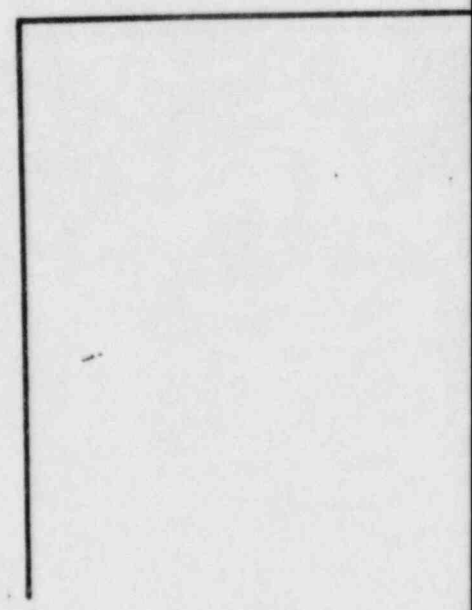
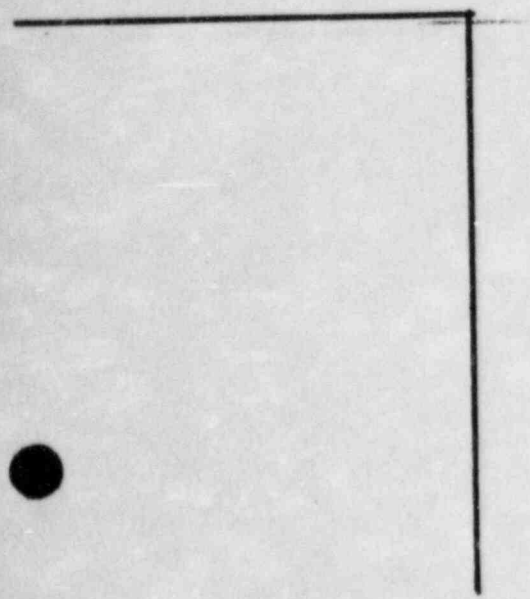
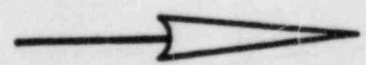
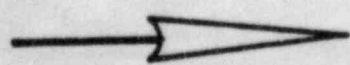
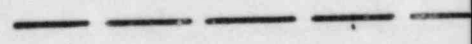
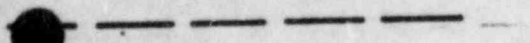
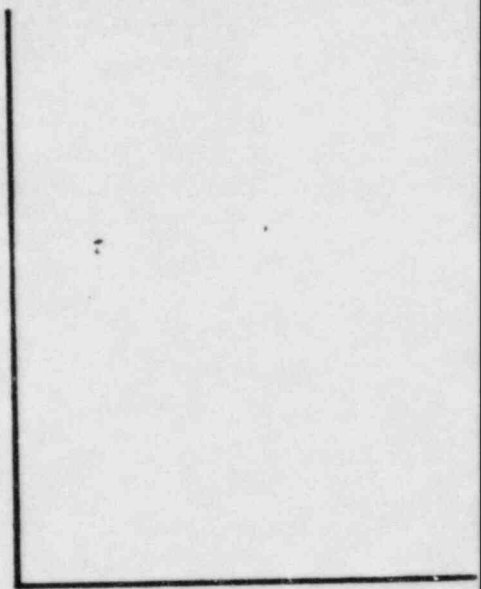
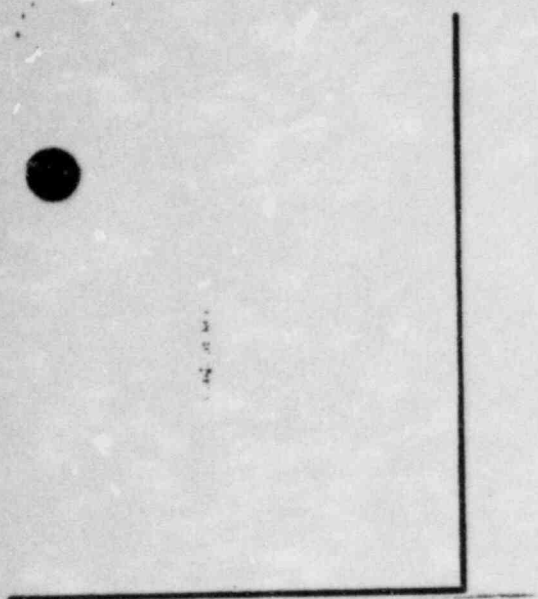
- c. Stay alert
- d. Be wary of turning vehicles, particularly trucks, trailers
- e. Be alert of protruding objects or parts of vehicles
- f. Never Step Backwards
- g. Keep moving traffic under observation at all times
- h. When turning around in intersection, always turn in the direction in which traffic is moving
- i. Watch trailer truck; cab tires and trailer pivots
- j. Stand with shoulders parallel to moving traffic
  - 1. Smaller profile
  - 2. Minimize danger of passing vehicle striking you
- k. When several Traffic Guides are working a traffic control point, it is essential that they cooperate and establish a harmonious rhythm in the movement of traffic in that location. Normally, the easiest way to establish this is for one Traffic Guide to take the lead and the other to follow that lead in determining when traffic will move and when it will stop. The controlling Traffic Guide assesses the overall situation and decides which traffic to start and how long to allow it to flow. When he is ready to change to a different pattern, he should establish eye contact with his partner, nod his head or in some other way indicate this indication of an upcoming change, then hold up his hands to notify drivers of the change in the flow and make sure that his partner is following suit. It is also possible to keep in touch with each other by previously agreed upon signals with the whistle which will communicate the intentions from one Traffic Guide to another.

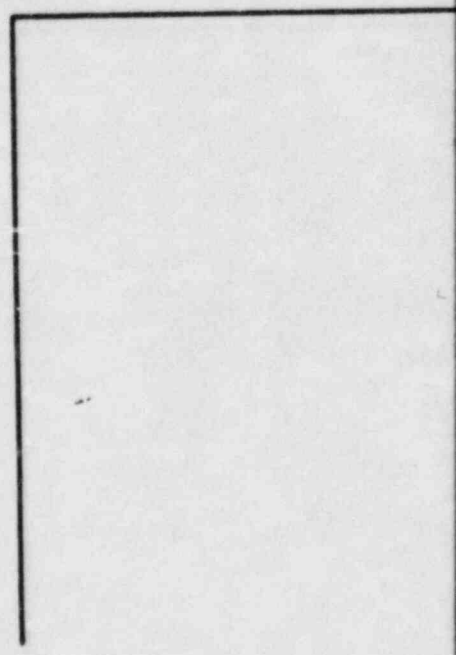
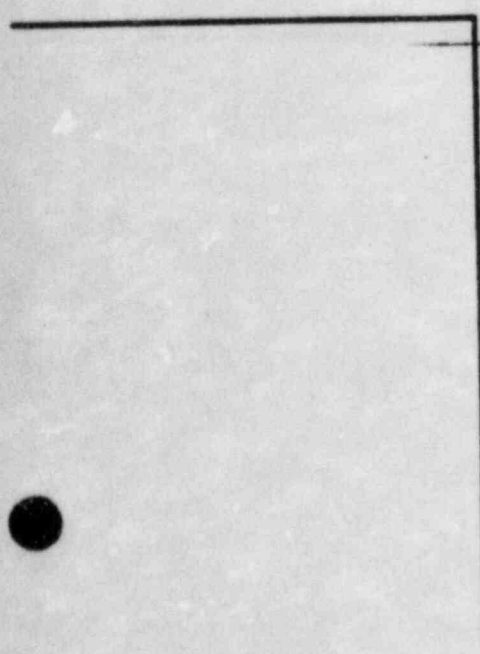
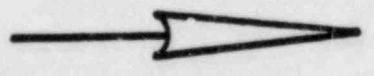
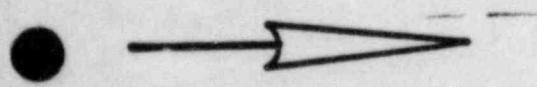
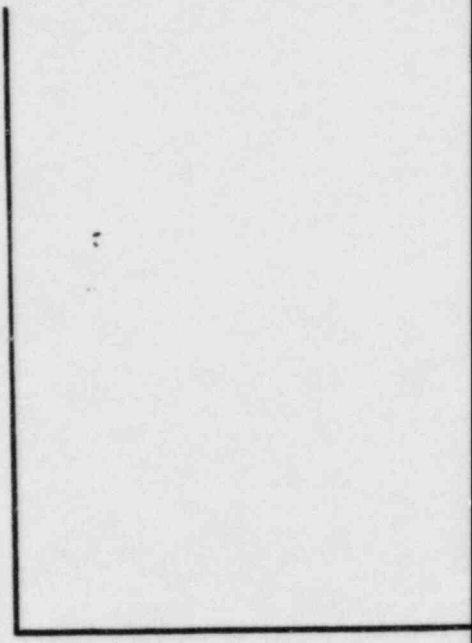
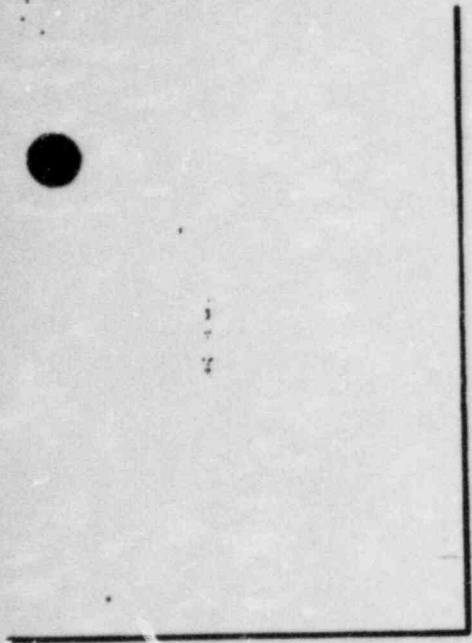
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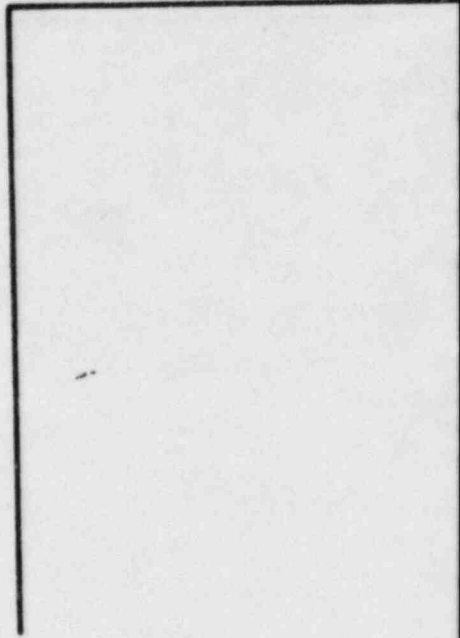
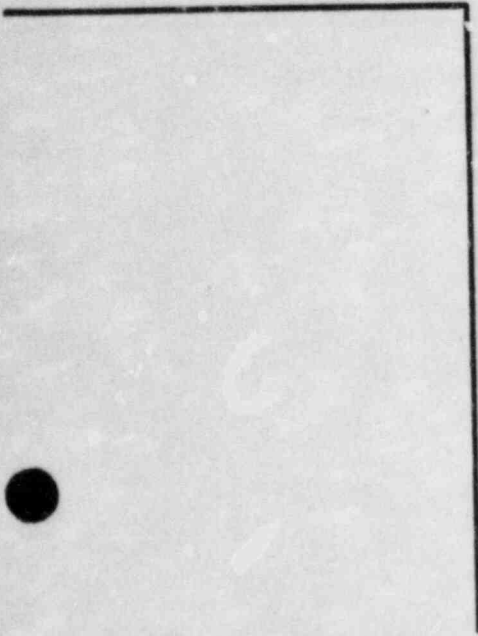
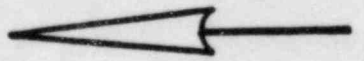
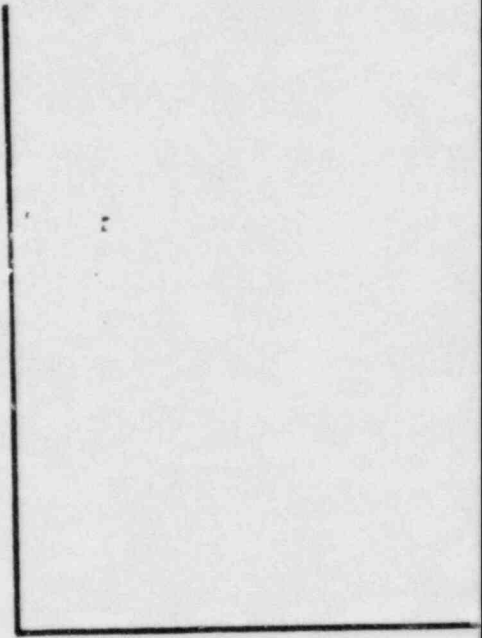
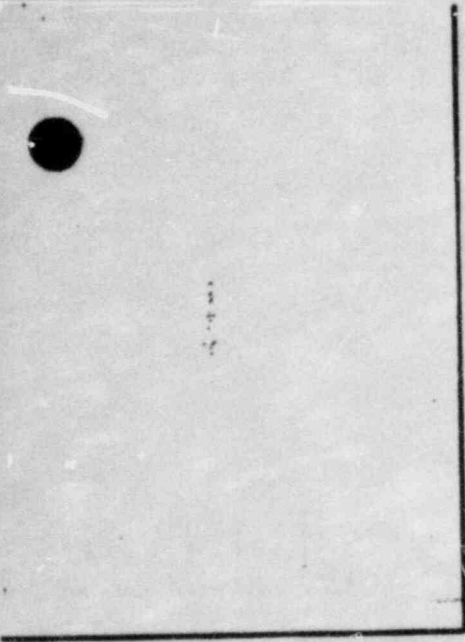
The Traffic Guide plays an important role of traffic control during a radiological emergency at the Shoreham Nuclear Power Station (SNPS). It is the situation in which he works directly with people, providing a continuous service by expediting the flow of traffic out of the EPZ on evacuation routes. He is further serving by assuring that safety prevails. Directing traffic can be hard tedious work, but if the Traffic Guide follows the guidelines we have discussed, he will find it to be a very rewarding experience.

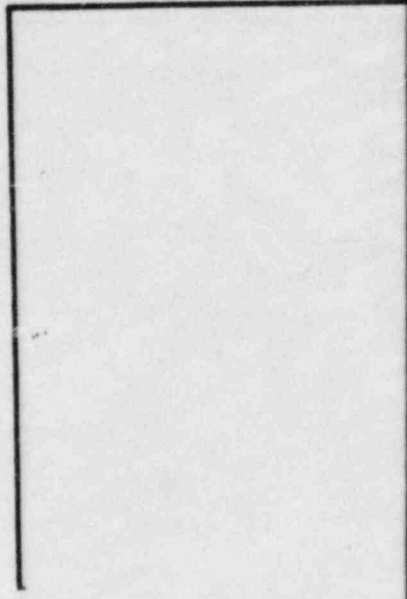
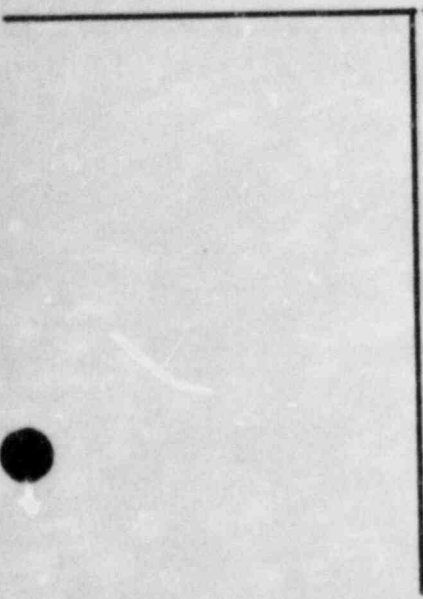
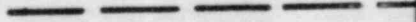
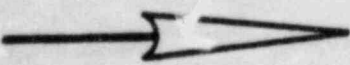
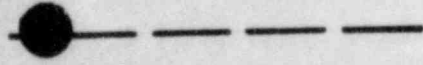
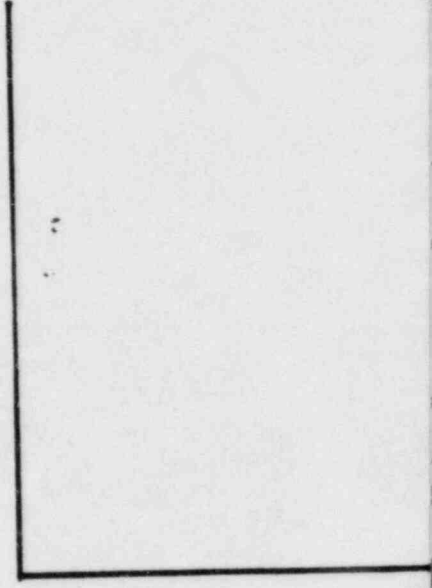
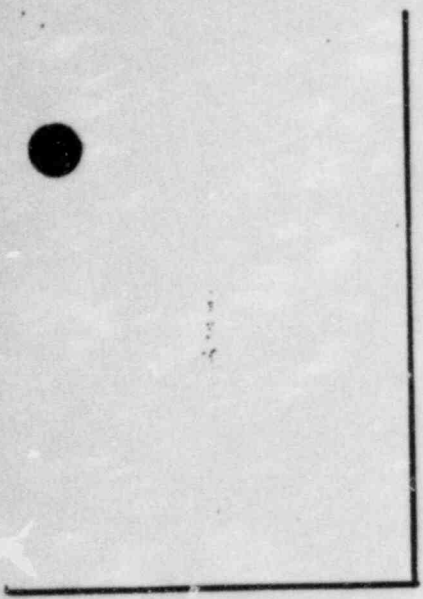
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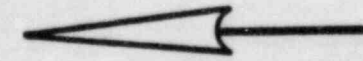




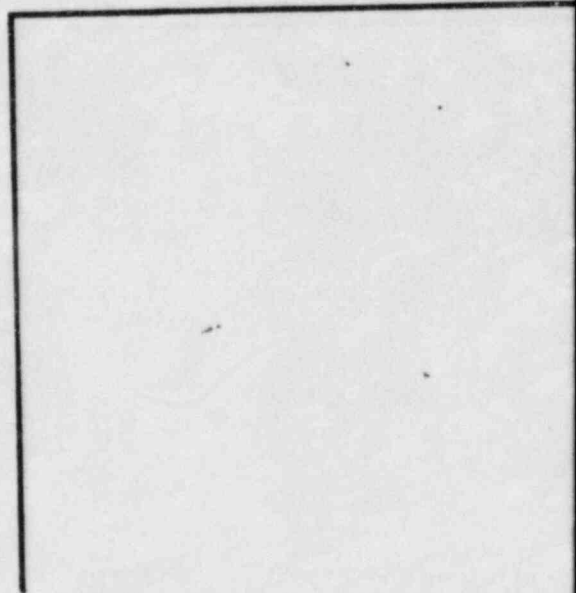
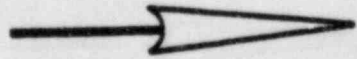
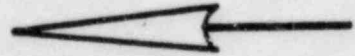
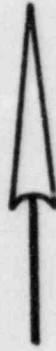




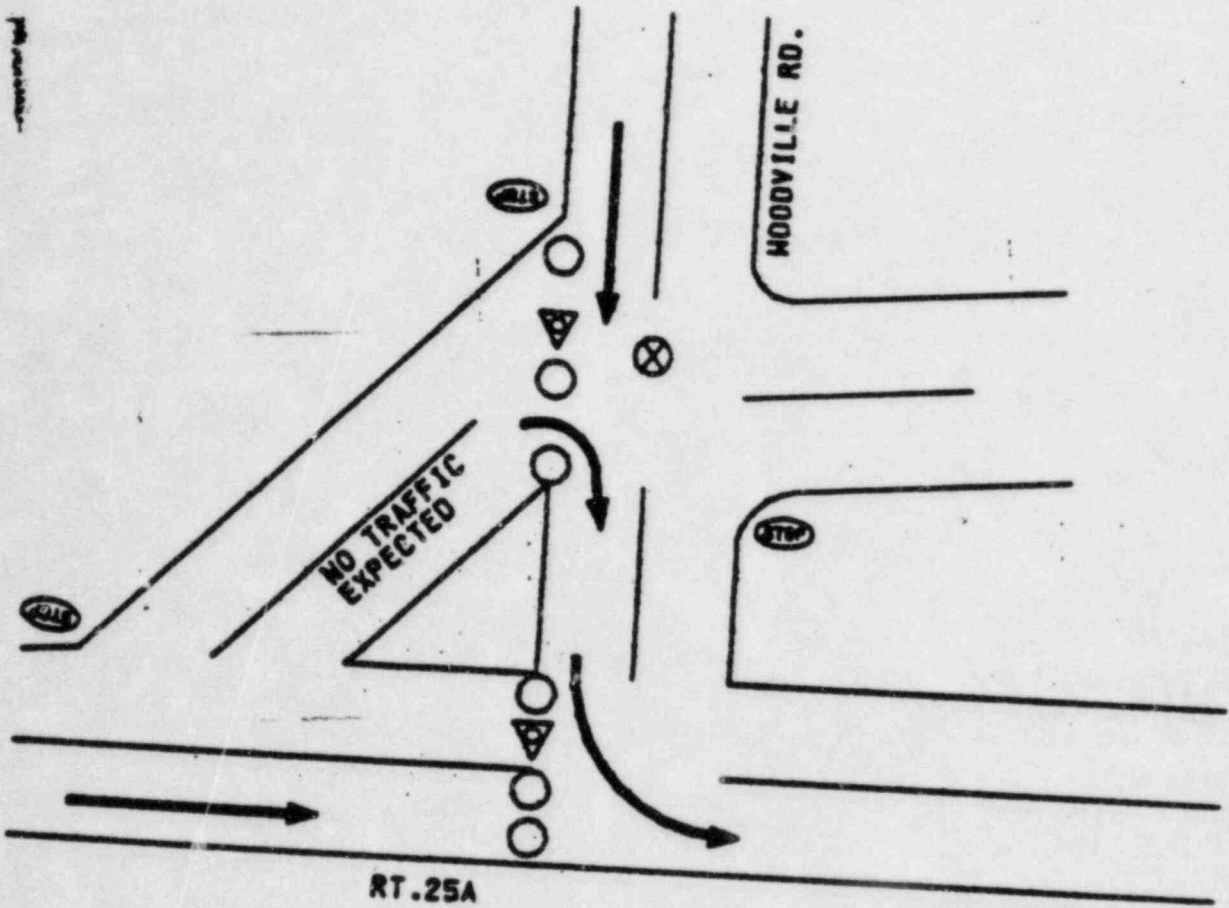
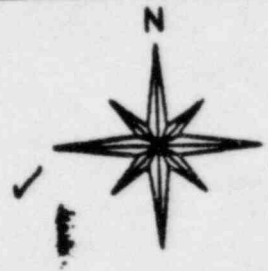








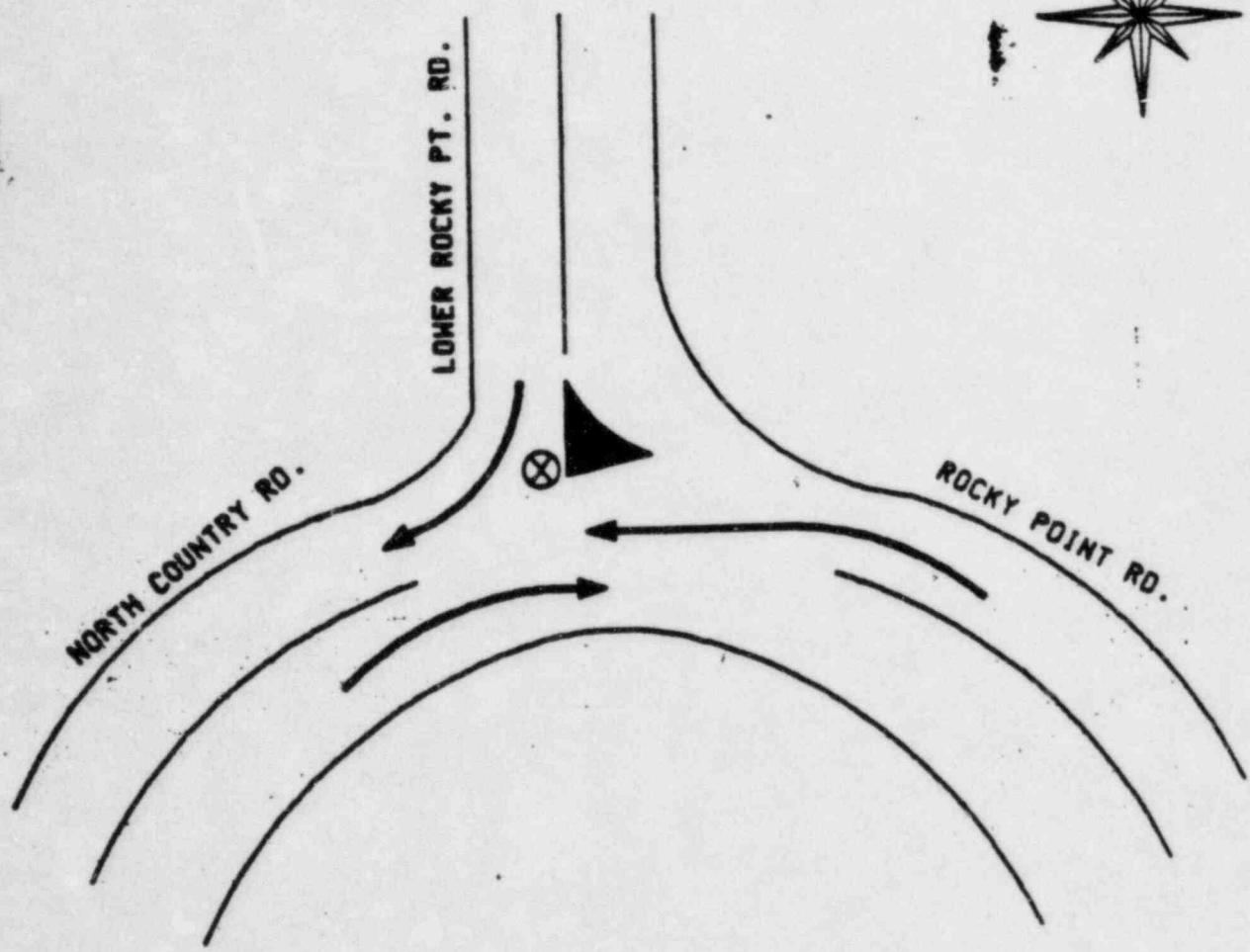
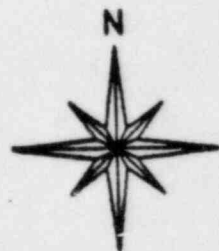
# TRAFFIC CONTROL POINT # 5










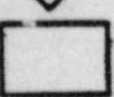
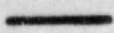
## LEGENO

- CONES
- ▽ FLASHING LIGHT
- ▽ LIGHT ON TOP OF CONE
- ⊗ TRAFFIC GUIDE
- ⊗ TRAFFIC SIGNAL
- ⊗ STOP SIGN
- ▽ YIELD SIGN
- ROAD SIGN
- EVACUATION ROUTE

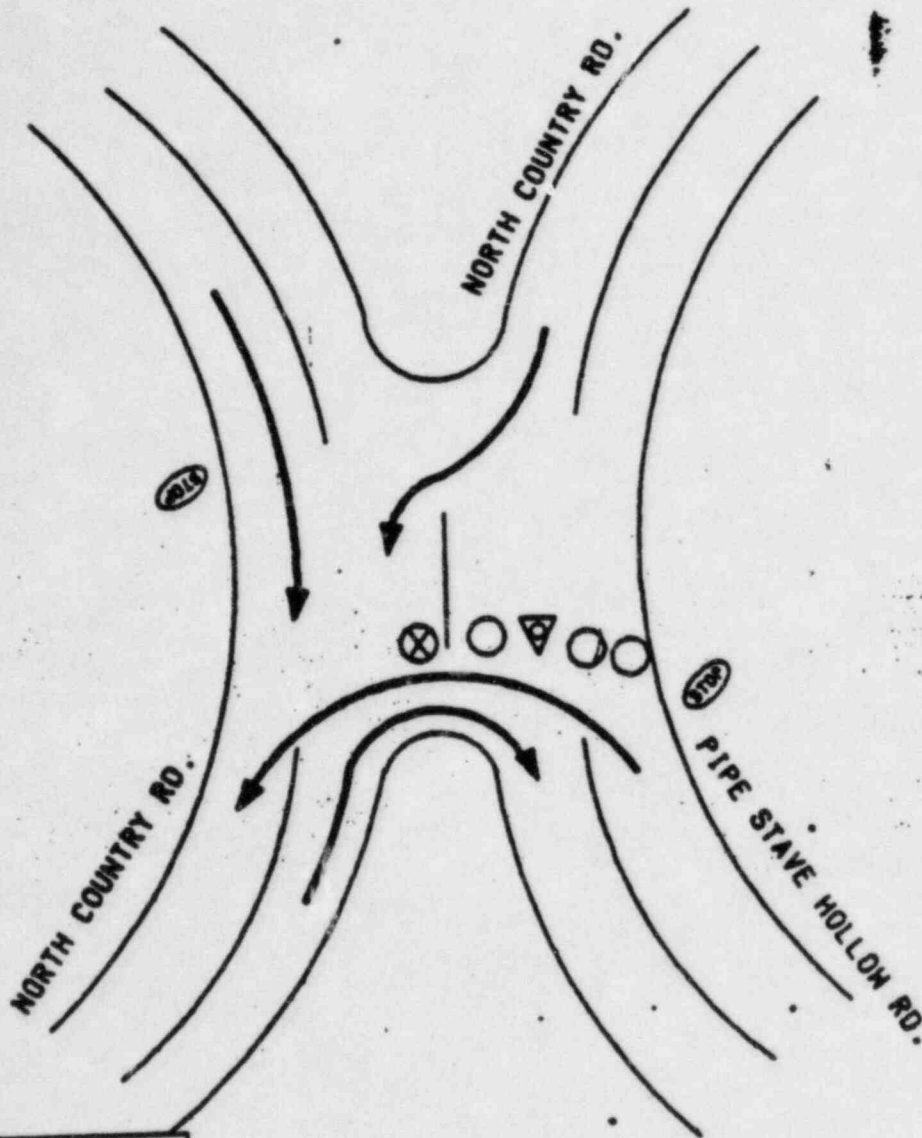
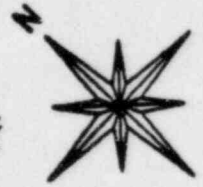
# TRAFFIC CONTROL POINT # 42










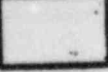

## LEGEND

-  CONES
-  FLASHING LIGHT
-  LIGHT ON TOP OF CONE
-  TRAFFIC GUIDE
-  TRAFFIC SIGNAL
-  STOP SIGN
-  YIELD SIGN
-  ROAD SIGN
-  EVACUATION ROUTE

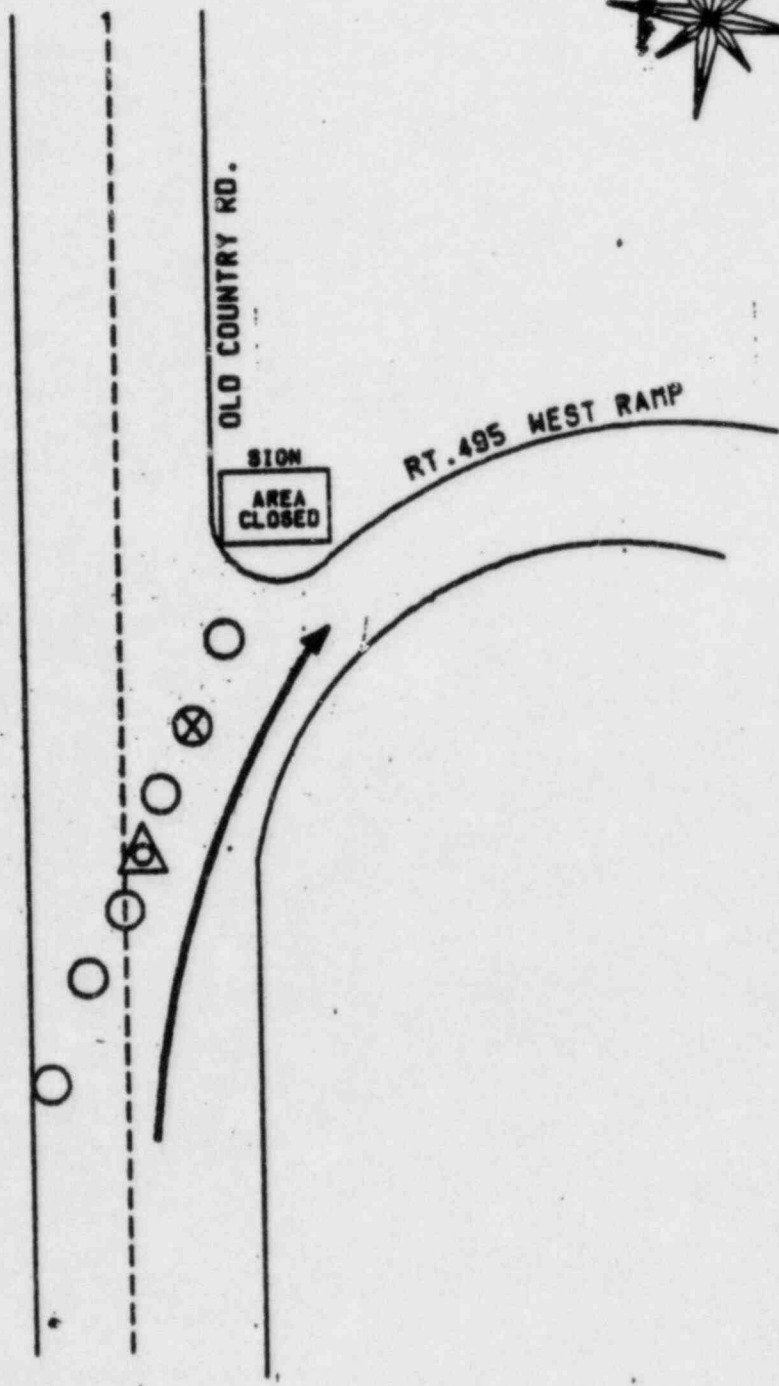
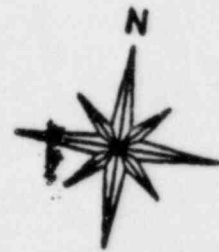
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## LEGEND

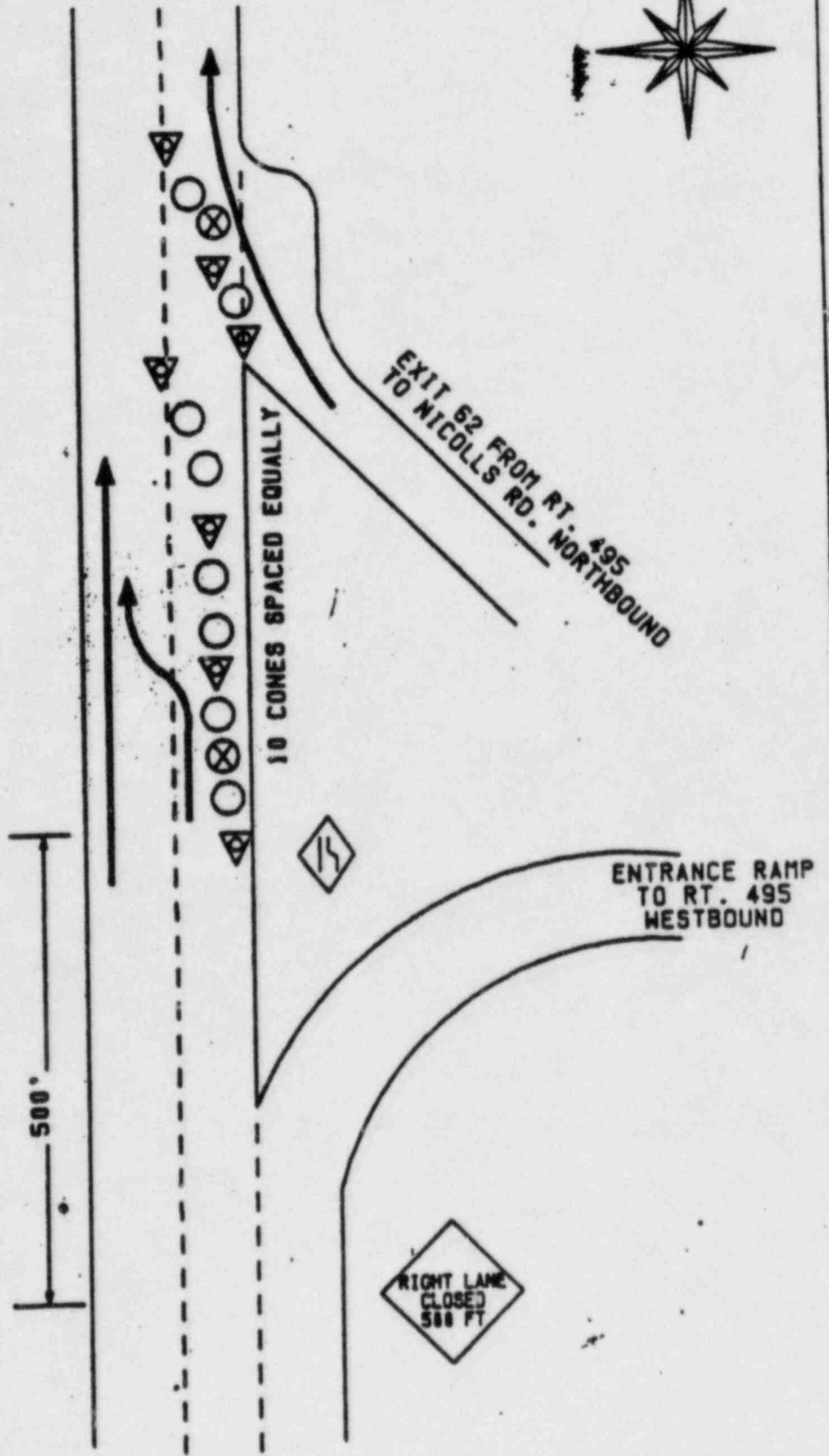
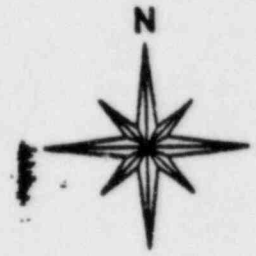
-  CONES
-  FLASHING LIGHT
-  LIGHT ON TOP OF CONE
-  TRAFFIC GUIDE
-  TRAFFIC SIGNAL
-  STOP SIGN
-  YIELD SIGN
-  ROAD SIGN
-  EVACUATION ROUTE

# TRAFFIC CONTROL POINT # 72



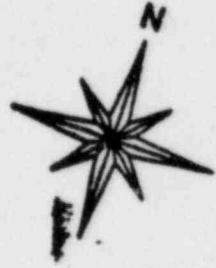
LEGEND	
○	CONES
▽	FLASHING LIGHT
▽	LIGHT ON TOP OF CONE
⊗	TRAFFIC GUIDE
⊠	TRAFFIC SIGNAL
⊠	STOP SIGN
▽	YIELD SIGN
□	ROAD SIGN
—	EVACUATION ROUTE

# TRAFFIC CONTROL POINT # 87

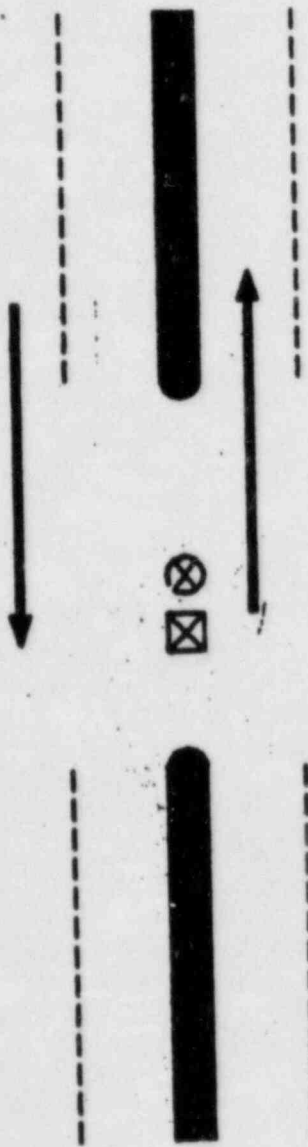


LEGEND	
	CONES
	FLASHING LIGHT
	LIGHT ON TOP OF CONE
	TRAFFIC GUIDE
	TRAFFIC SIGNAL
	STOP SIGN
	YIELD SIGN
	ROAD SIGN
	EVACUATION ROUTE

# TRAFFIC CONTROL POINT # 90










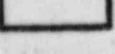

NICOLLS RD.



ENTRANCE TO  
SUFFOLK COUNTY  
COMMUNITY COLLEGE



## LEGEND

-  CONES
-  FLASHING LIGHT
-  LIGHT ON TOP OF CONE
-  TRAFFIC GUIDE
-  TRAFFIC SIGNAL
-  STOP SIGN
-  YIELD SIGN
-  ROAD SIGN
-  EVACUATION ROUTE

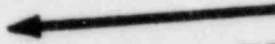
# TRAFFIC CONTROL POINT # 97



OLD TOWN RD.

RT. 347

MESCUNSET RD.



ARROWS INDICATE DIRECTION OF PRIMARY TRAFFIC FLOWS

### LEGEND



CONES



FLASHING LIGHT



LIGHT ON TOP OF CONE



TRAFFIC GUIDE



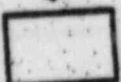
TRAFFIC SIGNAL



STOP SIGN



YIELD SIGN

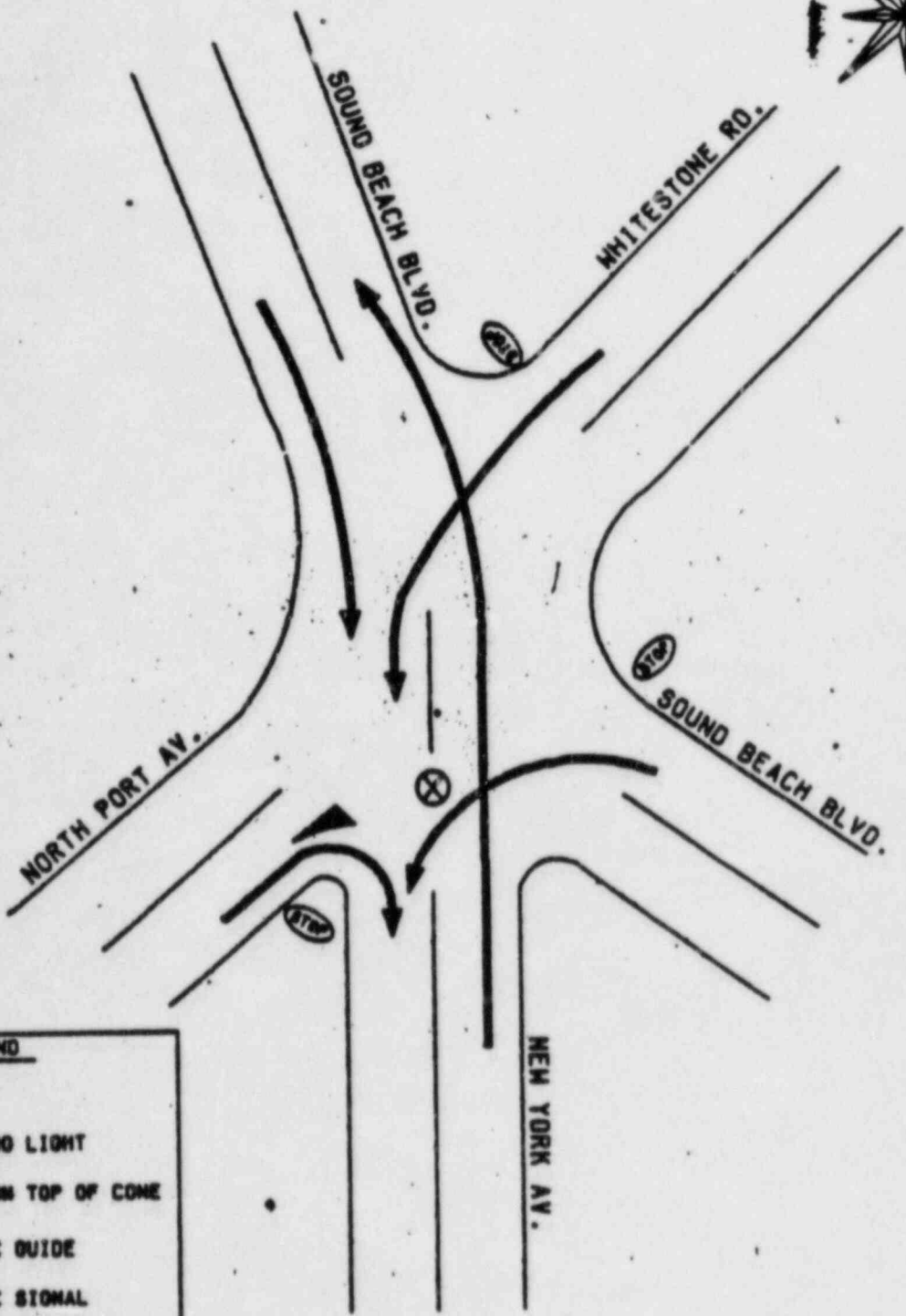
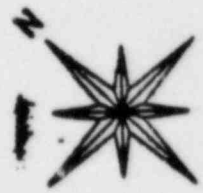


ROAD SIGN

EVACUATION ROUTE

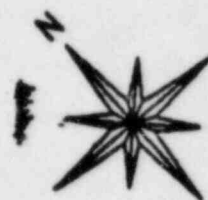


TRAFFIC CONTROL POINT # <sup>103</sup>~~141~~

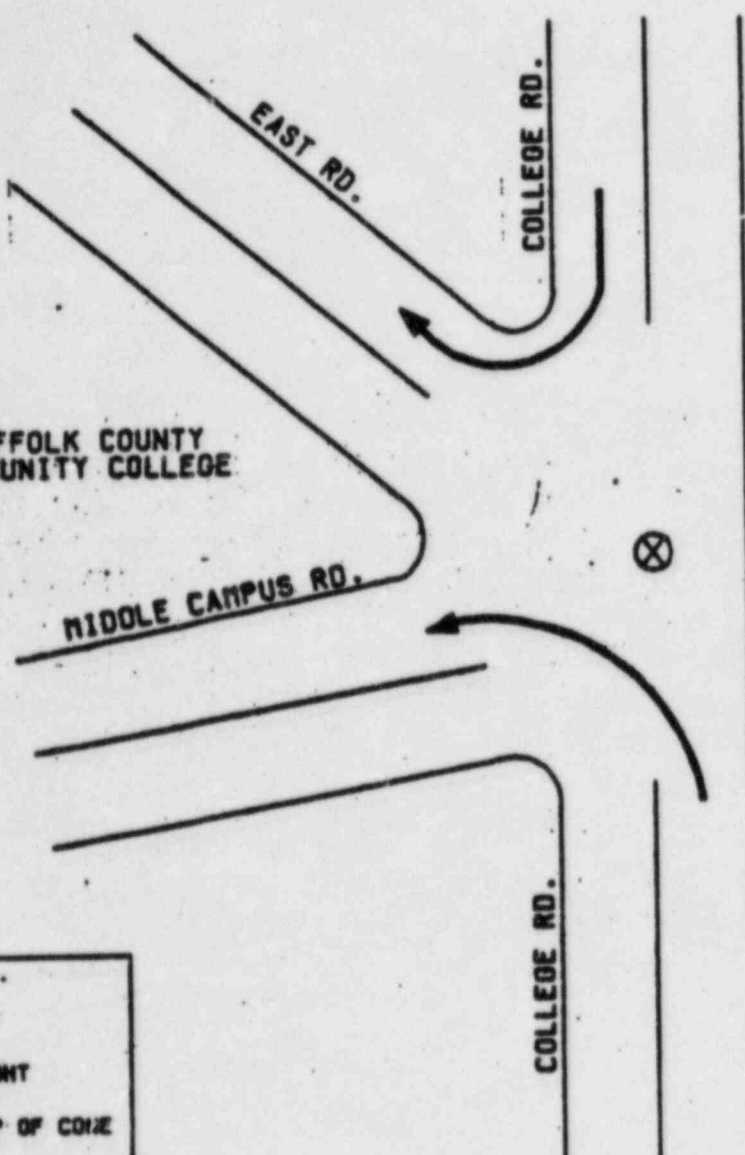


LEGEND	
	CONES
	FLASHING LIGHT
	LIGHT ON TOP OF CONE
	TRAFFIC GUIDE
	TRAFFIC SIGNAL
	STOP SIGN
	YIELD SIGN
	ROAD SIGN
	EVACUATION ROUTE










# TRAFFIC CONTROL POINT # 111



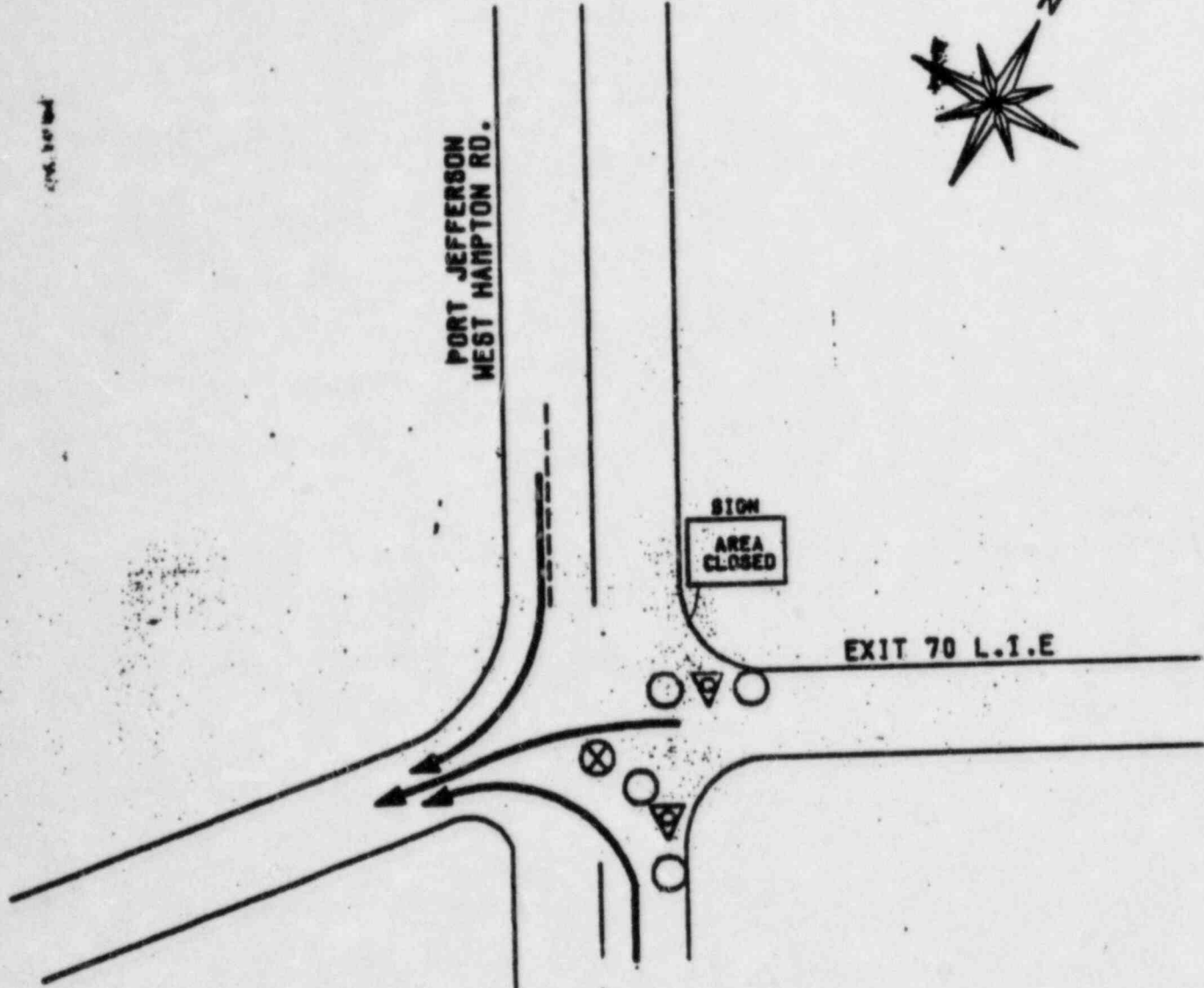
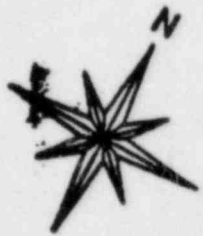
SUFFOLK COUNTY  
COMMUNITY COLLEGE



## LEGEND

-  CONES
-  FLASHING LIGHT
-  LIGHT ON TOP OF CONE
-  TRAFFIC GUIDE
-  TRAFFIC SIGNAL
-  STOP SIGN
-  YIELD SIGN
-  ROAD SIGN
-  EVACUATION ROUTE

# TRAFFIC CONTROL POINT # 131



LEGEND	
	CONES
	FLASHING LIGHT
	LIGHT ON TOP OF CONE
	TRAFFIC GUIDE
	TRAFFIC SIGNAL
	STOP SIGN
	YIELD SIGN
	ROAD SIGN
	EVACUATION ROUTE

ATTACHMENT 23

SYLLABUS

LESSON PLAN: Traffic Direction and Control  
INSTRUCTIONAL SESSION: Number II  
DURATION: 4 hours and 15 minutes  
TITLE: Hand Signals and Gestures  
PRIMARY INSTRUCTOR: Harry N. Babb, Ed. D.

LEARNING MATERIALS:

1. Street and highway intersection complex at the LILCO Hicksville site (see attached plot plan)
2. Standard yellow and white pavement markings
3. Traffic control signs
4. Four-face traffic signal with fixed-time and manual override features installed at Traffic Control Post number 1
5. Stop watch and timer
6. Traffic control booth with 360° field of vision (see attached booth plan)
7. Public address system
8. Equipment list for Traffic Guides
  - a. Yellow LILCO helmet
  - b. Reflectorized vest
  - c. Traffic whistle
  - d. Reflectorized traffic cones
  - e. White gloves
  - f. Rain gear
9. Minimum of 26 vehicles with fuel supply for each Traffic Guide Group (TGG) of 24. (Two spare vehicles in the event of mechanical failure)
10. Portable restroom facilities at site

### SPECIFIC INSTRUCTIONAL OBJECTIVES

At the conclusion of this training session Traffic Guides will:

1. Demonstrate the ability, through actual practice, to properly and safely start, stop and expedite the turning and merging movements of a continuous flow of traffic at low approach speeds during daylight hours at non-controlled, stop-sign-controlled, and traffic-signal-controlled intersections
2. Demonstrate the ability, through actual practice, to prevent or resolve conflict upon the approach of an emergency vehicle or a vehicle breakdown

### TESTING TECHNIQUES

Every Traffic Guide will be graded by the Instructional Staff with an "S" (Satisfactory) or a "U" ("Unsatisfactory") evaluation in the following categories:

Proficiency in the use of hand signals and gestures to:

1. Start a traffic flow
2. Stop a traffic flow
3. Expedite turning and merging of a traffic flow
4. Expedite movement of a traffic flow through a signalized intersection
5. Supplement whistle signals
6. Control traffic flow in the event of an unusual occurrence (vehicle breakdown, approach of emergency vehicles, etc.)
7. Proficiency in positioning traffic cones

To pass the training program, the Traffic Guide must achieve an "S" grade in all of the instructional modes. Any "U" grades will require additional training in the deficient area until an "S" grade is received.

TRAINING ACTIVITIES

1. Traffic Guide Group will be formed with 24 students. Each guide will be issued a numbered placard from 1 through 24
2. At the beginning of Training Session Number II, Traffic Guides and Instructional Staff will:
  - a. Examine plot diagram of training site
  - b. Receive their assignments and responsibilities
  - c. Review traffic control techniques from Training Session Number I
  - d. Discuss actions upon the approach of an emergency vehicle
    - (1) Guide has responsibility to provide for safe movement of emergency vehicle through intersection in an expeditious manner
    - (2) Guide, upon approach of emergency vehicle, stops all traffic but ensures that an open lane for emergency vehicles is maintained. May be necessary to clear traffic from intersection
    - (3) Guide may have to temporarily stop emergency vehicle if congestion or potential hazardous conditions have not been resolved
  - e. Discuss actions with regard to vehicle breakdowns
    - (1) Stalled vehicles can restrict traffic flow. Guide has responsibility to maintain flow
    - (2) Can vehicle be pushed to side of road or into a driveway?
    - (3) If vehicle cannot be moved, call for tow vehicle; direct traffic around stalled vehicle
  - f. Guides report to training site area, instructor demonstrates and explains:
    - (1) Proper position of guide
      - (a) alert stance
      - (b) body sideways to traffic flow

(2) Signals and gestures:

Stop Traffic with Two Motions

- (a) Point with arm and finger and holds point until driver sees
- (b) Raise pointed hand -- palm up to driver -- holds position until driver stops

Start Traffic with Two Motions

- (a) Guide stands sideways toward traffic to be started; points with arm and finger to vehicle he wants to start
- (b) Palm up, swing hand up over chin, bending arm only at elbow. (Same motion to maintain traffic flow)

Expedite Turning and Merging Movements

- (a) If traffic approaches from right, Traffic Guide points toward driver with right arm; if approach is from left, he points with left arm
- (b) Give driver time to see gesture then swing arm to point in direction driver is going
- (c) Left turns may require halting traffic in lanes turning driver may have to cross. Vehicle approaching from left: Guide (1) gives stop signal with right hand, (2) holds stop signal with right hand; and (3) gives turning gesture with left hand
- (d) Vehicle approaching from right: Guide (1) faces direction turning car is to follow, (2) halts oncoming vehicles with right arm and (3) signals turning vehicles with left arm

Direction and Control at Signalized Intersection

- (a) Avoid moving traffic flow against red signal unless



- (1) traffic volume on opposing lanes is very light and Guide has ensured that the opposing lane which has a green display is fully stopped and will not move until so directed by Guide
- (2) if two Guides acting in concert are assigned to the intersection, the precautions indicated in (a) above would apply
- (3) when two Guides are assigned to a traffic post one of the two must originate all signals and gestures; the other guide assists by helping to make the decisions known.

#### Traffic Whistle

- (a) Whistle used to get attention when hand signals deemed inadequate. Guide should be judicious in using whistle at all times. Voice signals seldom used because of possibility of misinterpretations
- (b) Whistle Signals
  - (1) one long blast: stop
  - (2) two short blasts: go
  - (3) several short blasts: gain attention

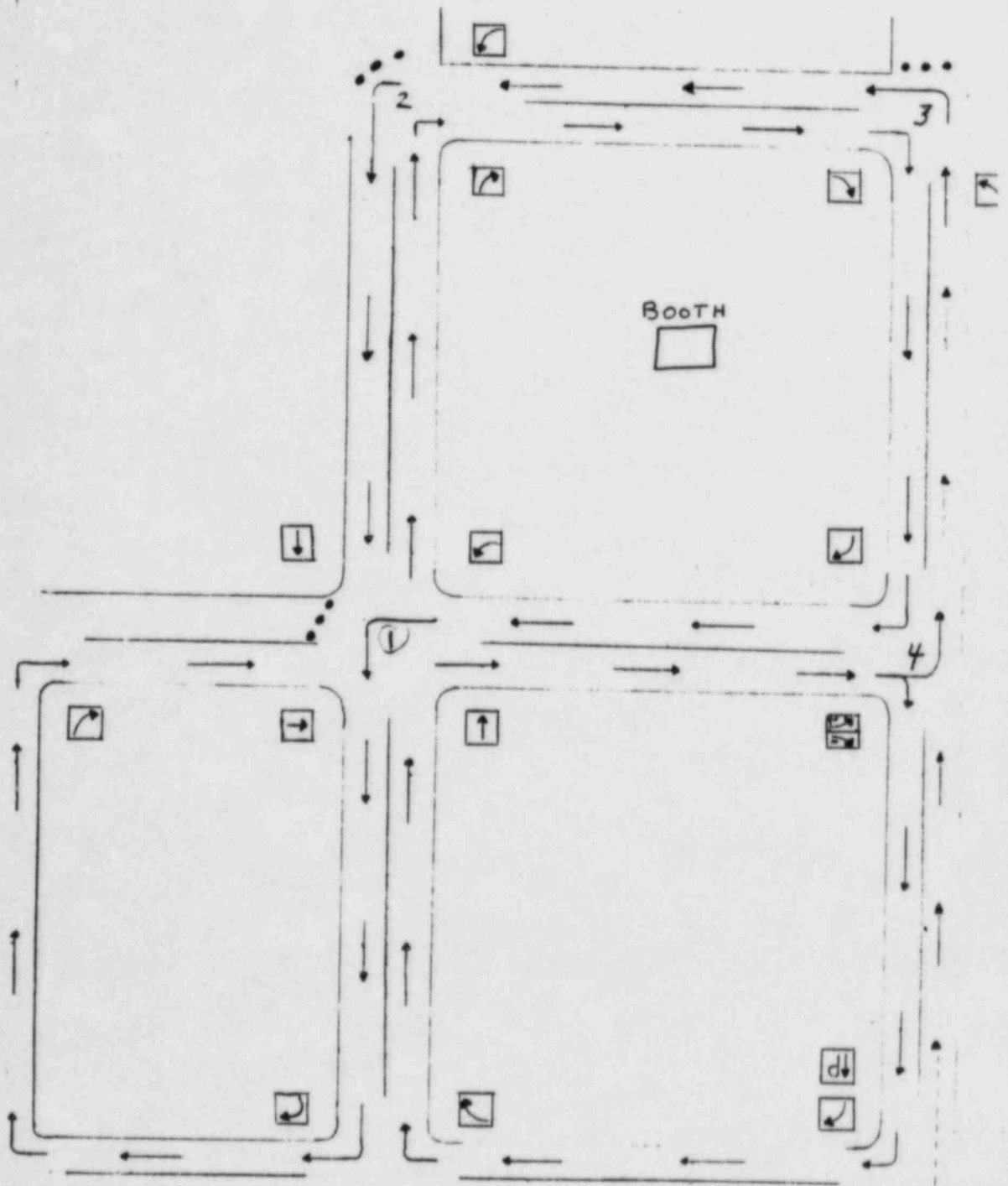
#### Guides Position in Intersection

- (a) Can Guide see and be seen by all approaching traffic?
- (b) Will Guide interfere with free movement of traffic and be forced to shift positions continually?
- (c) Can Guide handle all turning movements from his position?
- (d) Is Guide safe in this position?

At conclusion of instructor's demonstration, Traffic Guides will, under supervision, be required to practice the use of hand signals and gestures.

TRAINING SITE

1. As indicated on attached plot plan, Traffic Post 1 will include a 4-way traffic signal, Post 2 a stop sign and Posts 3 and 4 no controls.
2. Guides will be assigned to traffic posts in order displayed in the attached traffic post assignment chart.
3. Guides will have an opportunity to direct traffic at each of the four traffic posts.
4. When not guiding traffic, Traffic Guides will drive vehicles through the course; observing other traffic guides directing traffic.
5. Stress variables, such as the approach of an emergency vehicle or a vehicle breakdown, will be introduced into each training interval.
6. Instructors will be in close and continuous observation and supervision of the traffic guides directing traffic. When circumstances dictate, these instructors will take any necessary corrective actions.

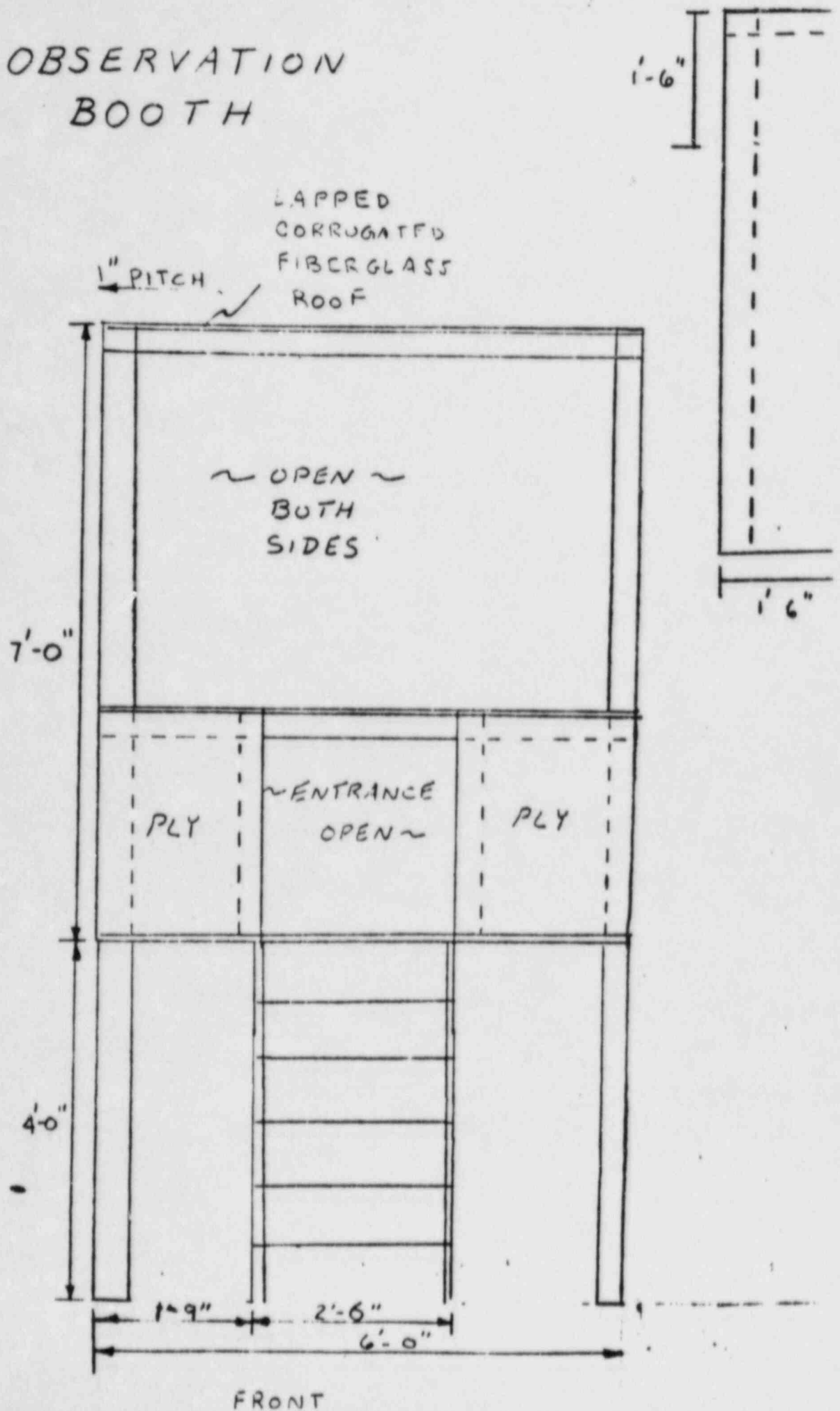


Traffic Post

- 1 Signalized
- 2 Stop Sign
- 3 No Control
- 4 No Control

PARKING AREA  
ENTERING CARS

# OBSERVATION BOOTH



PLYWOOD  
SHELVING

1'-6"

8" TYP

8" TYP

6'-0"

~ OPEN ~  
BOTH  
SIDES

PLYWOOD SIDING  
BACK, FRONT &  
SIDES

3'-1"

PLYWOOD  
FLOOR

RT SIDE



Observation Booth Notes

1. Plywood -- Outdoor 1/2"
2. Posts and Legs 2 x 4. Bracing for legs -- as needed.
3. Roof to be lapped fiberglass with 1" pitch for rain run-off. Fiberglass to extend 8" all around.
4. Stairs - 8" riser and step. 2 in. stock.
5. Top of shelving to be 3'-0" above floor.
6. Unit should allow dismantling breakdown for storage.

TRAFFIC POSTS

READY 1, 2, 3, 4, 5	#1 Instructor Demonstration	#2	#3	#4	10 Minute Time Intervals
5	1	2	3	4	1
6	5	1	2	3	2
7	6	5	1	2	3
8	7	6	5	1	4
9	8	7	6	5	5
10	9	8	7	6	<u>1st Hour</u> 6
11	10	9	8	7	7
12	11	10	9	8	8
13	12	11	10	9	9
14	13	12	11	10	10
15	14	13	12	11	11
16	15	14	13	12	2nd Hour 12
<u>15 Minute Break</u>					
17	16	15	14	13	13
18	17	16	15	14	14
19	18	17	16	15	15
20	19	19	17	16	16
21	20	19	18	17	17
22	21	20	19	18	<u>3rd Hour</u> 18
23	22	21	20	19	19
24	23	22	21	20	20
4	24	23	22	21	21
3	4	24	23	22	22
2	3	4	24	23	23
	2	3	4	24	<u>4th Hour</u> 24

ATTACHMENT 24



SYLLABUS

LESSON PLAN: Traffic Direction and Control  
During Darkness

INSTRUCTIONAL SESSION: Number III

DURATION: 3 hours

TITLE: Hand Signals, Gestures,  
Hand-held Flashlights, Flares

PRIMARY INSTRUCTOR: Harry N. Babb, Ed. D.

LEARNING MATERIALS:

1. Street and highway intersection complex at the LILCO Hicksville site (see attached plot plan)
2. Standard yellow and/or white pavement markings
3. Traffic control signs
4. Four-face traffic signal with fixed-time and manual override features installed at Traffic Control Post number 1
5. Stop watch and timer
6. Traffic control booth with 360° field of vision (see attached booth plan)
7. Public address system
8. Equipment list for Traffic Guides
  - a. Yellow LILCO helmet
  - b. Reflectorized vest
  - c. Traffic whistle
  - d. Reflectorized traffic cones
  - e. White gloves
  - f. Hand-held flashlight
  - g. Authorized rain gear
  - h. Flashing light attachment (for traffic cones)
  - i. Highway flares

9. Minimum of 26 vehicles with fuel for each group of 24 Traffic Guides
10. Portable restroom facilities at training site
11. Videotape facilities of Training Session Number II.

#### SPECIFIC INSTRUCTIONAL OBJECTIVES

At the conclusion of this training session Traffic Guides will:

1. Demonstrate the ability, through actual practice, to properly and safely start, stop and expedite the turning and merging movements of a continuous flow of traffic at low approach speeds during the hours of darkness at intersections controlled by traffic signals, stop signs or no controls.
2. Demonstrate the ability, through actual practice, to prevent or resolve conflict upon the approach of an authorized emergency vehicle, such as fire, police or ambulance vehicle, during the hours of darkness.
3. Demonstrate the ability, through actual practice, to divert or channelize the traffic stream around a disabled vehicle until said vehicle is removed during the hours of darkness.

#### TESTING TECHNIQUES

Every Traffic Guide will be graded by the Instructional Staff with an "S" (Satisfactory) or a "U" ("Unsatisfactory") evaluation in the following categories:

Proficiency in the use, during the hours of darkness, of hand signals, gestures, traffic whistle and hand-held flashlight to:

1. Start a traffic flow
2. Stop a traffic flow
3. Expedite turning and merging of a traffic flow
4. Expedite movement of traffic flow through a signalized intersection
5. Control traffic flow in the event of an unusual occurrence (vehicle breakdown, approach of emergency vehicles, etc.)

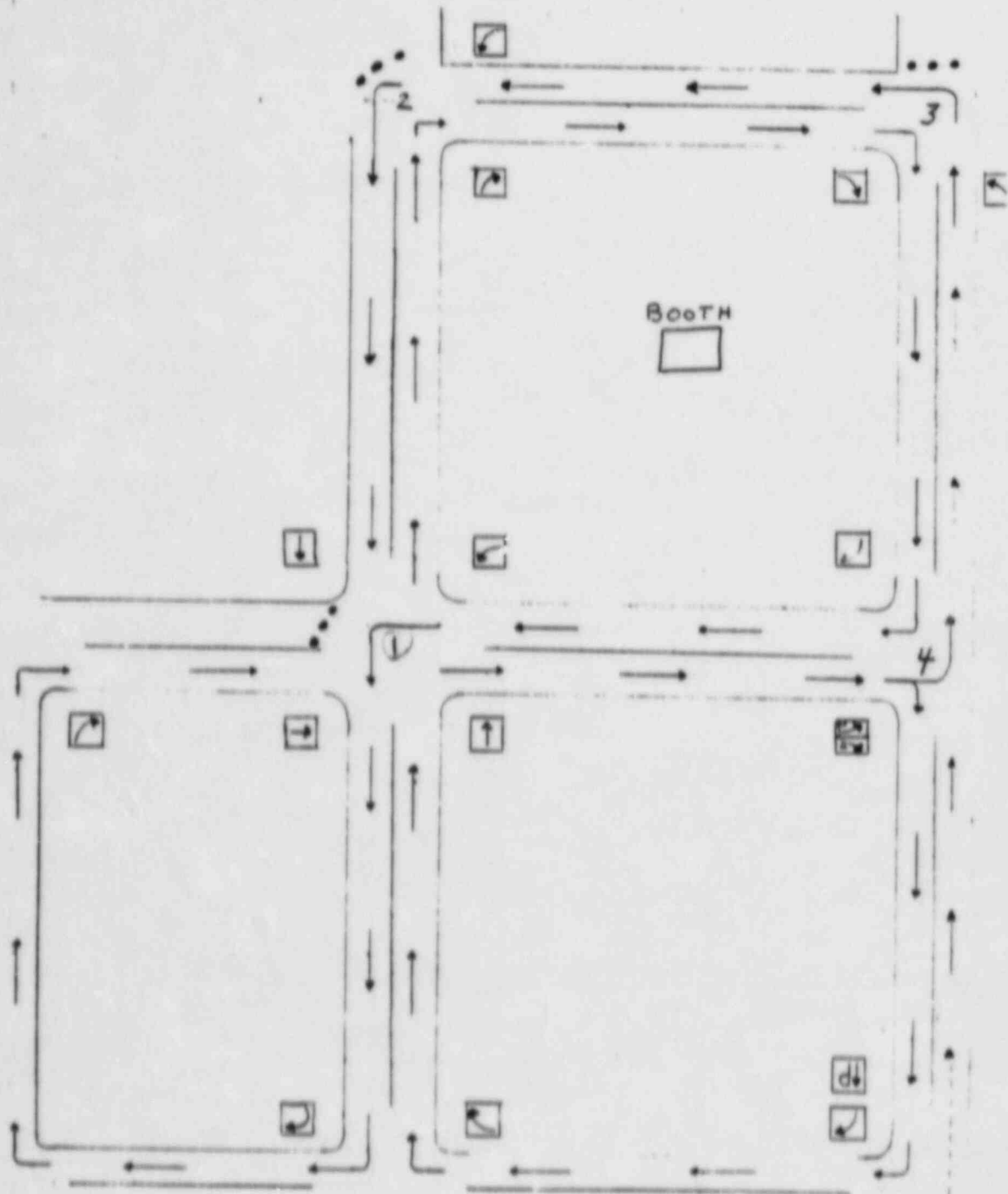
6. Proficiency in positioning traffic cones and highway flares

To pass this training session, the Traffic Guide must achieve an "S", Satisfactory in all of the instructional modes. Any "U", Unsatisfactory grades will require additional training in the deficient area until an "S" grade is achieved.

TRAINING ACTIVITIES

1. Traffic Guide class will be formed with 24 Traffic Guides. Each Guide will be issued a numbered placard from 1 through 24
2. At the beginning of Training Session Number III, the Guides and Instructional Staff will:
  - a. Review and critique the videotape of Training Session II.
  - b. Learn use and dangers of highway flares (fuses)
    - (1) Greatest danger in lighting process to eyes, face, hands
    - (2) Check area for fire danger before lighting flare (leaking gasoline, etc.)
    - (3) Light flare by pointing away and down with head and eyes turned away
    - (4) Care that molten material does not drip from flare. Stand upwind
    - (5) Walk toward oncoming traffic when positioning flare
    - (6) When removing -- do not step on flare -- insert burning end in earth or gently tap burning end on pavement.
  - c. Traffic Guides will view sketch of training site to ensure awareness of potential hazards and receive briefing on their expected roles in the darkness training session.
  - d. Traffic Guides will be instructed in use of hand-held flashlight in stopped vehicles.
    - (1) Guide slowly swings flashlight across path of approaching vehicles

- (2) Flashlight beam strikes pavement as elongated spot of moving light in front of approaching vehicle
  - (3) Guide does not stand directly in front of approaching vehicle
  - (4) Guide emphasizes stop requirement with standard open-palm-up gesture
3. a. Traffic Guides assigned to Traffic Posts in sequence. At beginning of onsite training, Guides 1 and 2, acting in concert, assume Traffic Post number 1. Guides 3 and 4, acting in concert, assume Traffic Post number 2. (See attached Traffic Post Assignment Schedule).
  - b. Guides 5 through 24 drive vehicles through prescribed course and observe inherent difficulties in darkness traffic direction and control. Guides can view limited vision that drivers have of other Traffic Guides who are actually directing traffic flow.
  - c. At end of ten minute interval, Guides 1 and 2 assume Traffic Post number 2 and Guides 3 and 4 assume Traffic Post number 1. At end of second ten minute interval, Guides 1, 2, 3, and 4 enter their vehicles and enter traffic flow on training site.
  - d. Guides 5, 6, 7, and 8, who had been observing Guides 1, 2, 3, and 4, now assume their positions at Traffic Posts number 1 and number 2 and perform their directing tasks until their time interval has elapsed then they enter their vehicles into traffic flow and are replaced at Traffic Posts number 1 and 2 by Traffic Guides 9, 10, 11, and 12 who perform for their allocated time before reentering the traffic flow. This procedure is continued until all Traffic Guides in the class (24) have, under direct supervision, completed their traffic direction and control tasks.
  - e. Stress variables such as the approach of an emergency vehicle or a traffic breakdown will be introduced into each training interval.
  - f. The Instructional Staff will be in close and continuous observation and supervision of the Traffic Guides assigned to Posts number 1 and number 2 and will, when circumstances dictate, take any necessary corrective measures deemed necessary.

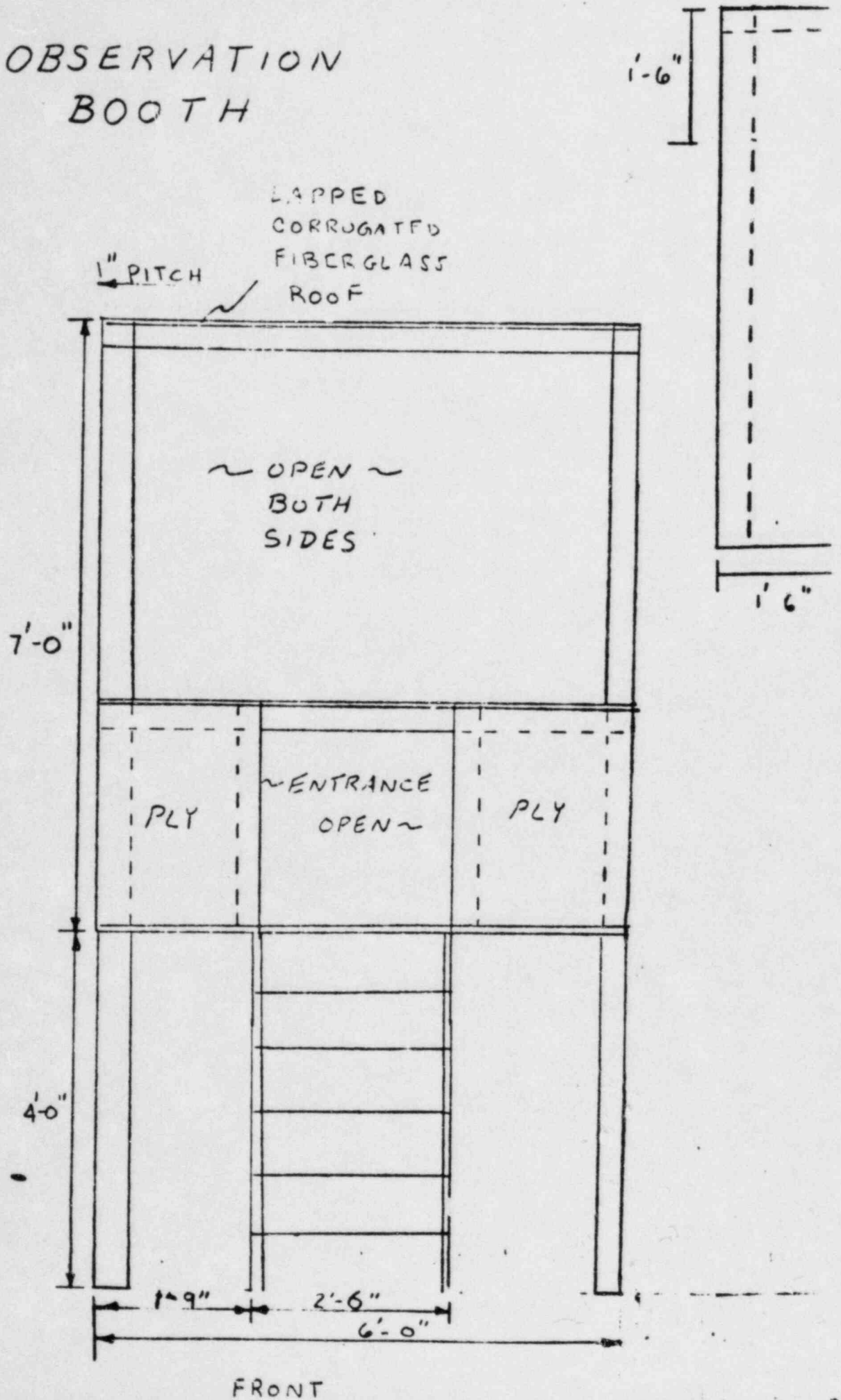


Traffic Post

- 1 Signalized
- 2 Stop Sign
- 3 No Control
- 4 No Control

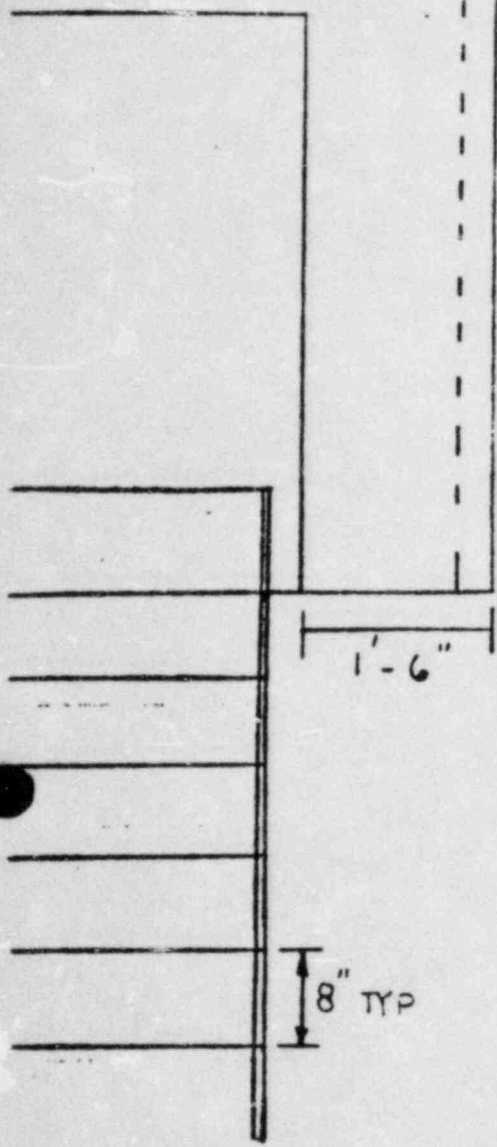
PARKING AREA  
ENTERING CARS

# OBSERVATION BOOTH



FRONT

PLYWOOD SHELVING



1'-6"

8" TYP

8" TYP

6'-0"

~ OPEN ~  
BOTH  
SIDES

PLYWOOD SIDING  
BACK, FRONT &  
SIDES

3'-1"

PLYWOOD  
FLOOR

RT. SIDE

Observation Booth Notes

1. Plywood -- Outdoor 1/2"
2. Posts and Legs 2 x 4. Bracing for legs -- as needed.
3. Roof to be lapped fiberglass with 1" pitch for rain run-off. Fiberglass to extend 8" all around.
4. Stairs - 8" riser and step. 2 in. stock.
5. Top of shelving to be 3'-0" above floor.
6. Unit should allow dismantling breakdown for storage.



Ready	Post #1	Post #2	20 Min. Interval			
1, 2, 3, 4	1-D	2-0	3-D	40	5	
	1-0	2-D	30	4-D	10	
	5, 6, 7, 8	3-D	4-0	1-D	2-0	15
		30	4D	10	2D	20
9, 10, 11, 12	5D	6D	7D	8	8	
	50	6D	70	8D	10	
	7D	80	5D	60	15	
	70	8D	50	6D	20	
13, 14, 15, 16	9D	100	11D	120	5	
	90	10D	110	12D	10	
	11D	120	9D	100	15	
	110	12D	90	10D	20	
17, 18, 19, 20	13D	140	15D	16	5	
	130	14D	150	16D	10	
	15D	160	13D	14C	15	
	150	16D	130	14D	20	
21, 22, 23, 24	17D	180	19D	200	5	
	170	18D	190	20D	10	
	19D	200	17D	180	15	
	190	20D	170	18D	20	
Not Ready - End Exercise	21D	220	23D	240	5	
	210	22D	230	24D	10	
	23D	240	21D	220	15	
	230	24D	210	22D	20	

Total - 2 hrs.

ATTACHMENT 25

COMMENT SHEET FOR ROUTE ALERT DRIVERS

ATTACHMENT 25

1. WHAT SIREN FAILED FOR YOUR ROUTE?
2. HOW LONG DID IT TAKE YOU TO GET TO THE STARTING POINT OF YOUR ROUTE?
3. ESTIMATE HOW MUCH OF THE ROUTE YOU COMPLETED IN 45 MINUTES OF DRIVING.
4. PLEASE WRITE DOWN ANY PROBLEMS YOU HAD WHILE PARTICIPATING IN THE DRILL. RETURN THIS FORM TO THE STAGING AREA AT THE END OF THE DRILL.

COMMENT SHEET FOR ROAD CREW MEMBERS

1. WHAT TRAFFIC CONTROL POINT WERE YOU SENT TO? \_\_\_\_\_

2. HOW LONG DID IT TAKE YOU TO GET THE TRAFFIC CONTROL POINT?  
\_\_\_\_\_

PLEASE WRITE DOWN ANY PROBLEMS YOU ENCOUNTERED WHILE PARTICIPATING  
IN THE DRILL. RETURN THIS FORM TO THE STAGING AREA AT THE END OF  
THE DRILL.

FOR THIS DRILL PLEASE FILL IN THE TIME IT TOOK YOU TO DRIVE FROM THE:

1. STAGING AREA TO THE BUS COMPANY

WHAT WAS THE NAME OF THE BUS COMPANY YOU DROVE TO?

2. BUS COMPANY TO YOUR ASSIGNED TRANSFER POINT (USE SCHOOL TRANSFER POINT NAME).

WHAT WAS THE NAME OF YOUR TRANSFER POINT (USE SCHOOL TRANSFER POINT NAME).

PLEASE WRITE DOWN ANY PROBLEMS YOU HAD ENCOUNTERED WHILE PARTICIPATING IN THE DRILL. RETURN THIS FORM TO THE STAGING AREA AT THE END OF THE DRILL.

FOR THIS DRILL PLEASE FILL IN THE FOLLOWING INFORMATION

1. WHAT WAS THE NAME OF THE TRANSFER POINT YOU REPORTED TO (USE SCHOOL TRANSFER POINT NAME)?
  
2. HOW LONG DID IT TAKE YOU TO DRIVE THERE FROM THE STAGING AREA?

PLEASE WRITE DOWN ANY PROBLEMS YOU ENCOUNTERED WHILE PARTICIPATING IN THE DRILL. RETURN THIS FORM TO THE STAGING AREA AT THE END OF THE DRILL.

FOR THIS DRILL PLEASE FILL IN THE FOLLOWING INFORMATION

1. WHAT WAS THE ROUTE NUMBER YOU DROVE?
  
2. HOW LONG DID IT TAKE YOU TO DRIVE THIS ROUTE (I.E. FROM THE TIME YOU LEFT THE TRANSFER POINT UNTIL THE TIME YOU REPORTED BACK TO IT? USE SCHOOL TRANSFER POINT TIME).

PLEASE WRITE DOWN ANY PROBLEMS YOU HAD ENCOUNTERED WHILE PARTICIPATING IN THE DRILL. RETURN THIS FORM TO THE STAGING AREA AT THE END OF THE DRILL.

COMMENT SHEET FOR ROAD CREW MEMBERS

1. WHAT DEPLOYMENT LOCATION WERE YOU SENT TO? \_\_\_\_\_  
\_\_\_\_\_

2. HOW LONG DID IT TAKE YOU TO GET THE DEPLOYMENT LOCATION?  
\_\_\_\_\_ MINUTES.

3. DID YOU HAVE ANY RADIO TRANSMISSION OR RECEPTION DIFFICULTIES?  
IF SO PLEASE DESCRIBE.

PLEASE WRITE DOWN ANY OTHER PROBLEMS YOU ENCOUNTERED WHILE PARTICI-  
PATING IN THE DRILL. RETURN THIS FORM TO THE STAGING AREA AT THE  
END OF THE DRILL.



COMMENT SHEET FOR TRAFFIC GUIDES

1. DID YOU HAVE ANY RADIO TRANSMISSION OR RECEPTION DIFFICULTIES?  
IF SO PLEASE DESCRIBE.
  
2. WAS THERE ENOUGH 'FREE' TIME (CLEAR CHANNEL TIME) ON THE  
RADIO SO YOU COULD TRANSMIT WITHOUT LONG WAITS FOR THE  
CHANNEL TO CLEAR? IF NOT PLEASE DESCRIBE.
  
3. WHAT TRAFFIC CONTROL POST DID YOU REPORT TO?
  
4. HOW LONG DID IT TAKE YOU TO GET THERE? \_\_\_\_\_ MINUTES

PLEASE WRITE DOWN ANY PROBLEMS YOU HAD ENCOUNTERED WHILE PARTICIPATING  
IN THE DRILL. RETURN THIS FORM TO THE STAGING AREA AT THE END OF  
THE DRILL.

COMMENT SHEET FOR ROUTE SPOTTERS

1. DID YOU HAVE ANY RADIO TRANSMISSION OR RECEPTION DIFFICULTIES?
2. WAS THERE ENOUGH 'FREE' TIME (CLEAR CHANNEL TIME) ON THE RADIO SO YOU COULD TRANSMIT WITHOUT LONG WAITS FOR THE CHANNEL TO CLEAR? IF NOT PLEASE DESCRIBE.
3. WHAT ROUTE NUMBER DID YOU DRIVE? \_\_\_\_\_
4. HOW LONG DID IT TAKE YOU TO GET THERE? \_\_\_\_\_ MINUTES.
5. HOW LONG DID IT TAKE YOU TO DRIVE YOUR ROUTE FOR THE FULL ROUNDTRIP? \_\_\_\_\_ MINUTES.

PLEASE WRITE DOWN ANY PROBLEMS YOU HAD ENCOUNTERED WHILE PARTICIPATING IN THE DRILL. RETURN THIS FORM TO THE STAGING AREA AT THE END OF THE DRILL.

ALL TRAFFIC GUIDES

As part of today's exercise we are requesting that you fill in the following times as you progress through the days activities. Your cooperation is greatly appreciated and will aid us in understanding and evaluating the capabilities of LERO.

- . Staging area: \_\_\_\_\_  
Indicate either Port Jefferson, Patchogue or Riverhead
  
- . Approximately how long after you reported did you receive your dosimetry? \_\_\_\_\_
  
- . Approximately how long was your briefing before being dispatched into the field? \_\_\_\_\_
  
- . Approximately how long did it take you to reach your post after leaving your briefing? \_\_\_\_\_

ATTACHMENT 26

LESSON PLAN: SESSEION 3

SESSION: Modules 8 and 9 TITLE: 1. EMERGENCY COMMUNICATIONS  
2. PERSONNEL DOSIMETRY

DURATION: 3-1/2 to 4 hours PRIMARY INSTRUCTOR: Staff

LEARNING MATERIALS: Modules 8 and 9 videotapes, 3/4" VTR deck, monitor, workbook inserts for each participant, LERO Training Program Workbook, Direct-Reading Dosimeters (Ranges 0-200 mR and 0-5 R), DRD chargers

TRAINING OBJECTIVES: Module 8

- A. List the four emergency communications requirements of the Local Emergency Response Organization.
- B. Identify the emergency communications system used to satisfy each emergency communications requirement.
- C. Describe the function of each emergency communications system.  
  
and be able to demonstrate this understanding by:
- D. Defining initial notification
- E. Listing and describing the primary and secondary emergency communications systems used in initial notification.
- F. Describing the two emergency communications systems used to notify LERO members.
- G. Explaining how the general public is notified.
- H. Describing all the emergency communications systems used in public notification.

TRAINING OBJECTIVES:  
(continued)

Module 9, Section I

The objectives of this portion of the LERO Training Program are to familiarize each emergency worker with methods used to control exposure to radiation. The following topics will be covered:

- A. Emergency Worker's responsibility to help minimize their exposure.
- B. The ALARA ("As Low As Reasonably Achievable") principle.
- C. Using time, distance and shielding to control external exposure.
- D. Using the drug potassium iodide to control internal exposure.
- E. Using protective clothing to control the spread of contamination.
- F. Protective Action Guide limits for emergency workers.
- G. Using dosimeters to minimize exposure
- H. Keeping records to monitor exposure.

MODULE 9, Section II

At the conclusion of the "Radiation Detection Instruments" section of the LERO Training Program, you will be familiar with:

- A. Types of dosimeters.
- B. Differences between a TLD badge and a direct-reading dosimeter.
- C. Reading a direct-reading dosimeter.
- D. Charging a direct-reading dosimeter.
- E. Wearing and handling dosimeters.
- F. Differences between meters and probes.
- G. Performing an operation check on an RM-14 with an HP-270 probe.

TRAINING OBJECTIVES:  
(continued)

Module 9, Section III

At the conclusion of the Dosimeter Distribution and Record Maintenance portion of the LERO Training Program, the trainee will:

- A. Understand his/her specific responsibilities relating to dosimeters and record maintenance.
- B. Know where and how dosimeters are issued
- C. Be familiar with required forms and records related to dosimetry.

SESSION STEP	SUBJECT	TRAINING AID
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I	Distribute workbooks and briefly discuss the content of the training session	Module 8 Videotape, LERO Training Program Workbook
	<ul style="list-style-type: none"> <li>a. Videotape for Module 8, Emergency Communications</li> <li>b. Workbook Module 8, Emergency Communications <ul style="list-style-type: none"> <li>1. Test at end of workbook Module 8</li> </ul> </li> </ul>	
II	Distribute questionnaires and request that they be completed and returned before the end of the session	Hold up copy of questionnaire
III	Show Module 8 Videotape, Emergency Communications	Module 8 Videotape
IV	Introduce workbook Module 8, Emergency Communications, which elaborates on videotape	LERO Training Program Workbook
	<p>To introduce this workbook, simply explain that there are certain communication requirements and that there are many communication systems that satisfy these needs.</p> <p>The communication requirements are:</p> <ul style="list-style-type: none"> <li>- Initial Notification</li> <li>- LERO Activation</li> <li>- LERO Communications Network</li> <li>- Public Notifications</li> </ul> <p>The communication systems are:</p> <ul style="list-style-type: none"> <li>- The Radiological Emergency Communications System</li> <li>- The LILCO Notification Radio System</li> <li>- The Paging System</li> <li>- The Prompt Notification System</li> <li>- Dedicated telephone lines</li> <li>- Commercial telephones</li> <li>- The LILCO Emergency Radio System</li> <li>- Telefax machines</li> </ul>	



- IV  
cont. | You may want to define each communication requirement and describe each communication system. However, the videotape will cover these parts thoroughly.
- V            Instruct trainees to read workbook section, Emergency Communications, and to answer all questions on the Module Review at the end of the tabbed section.            Hold up copy of test and show where it appears in the workbook
- a. Here trainees print information on first page of the test and their names at the top of all other pages of the Module Review.
- b. Allow 30 minutes for completion of book and test.
- VI            Distribute workbooks and briefly discuss the content of the training session.            Module 9 videotape, LERO Training Program Workbook
- a. Videotape for Module 9, Personnel Dosimetry
- b. Workbook Module 9, Section I, Radiation Exposure Control
1. Test at end of Section I
- c. Workbook Module 9, Section II, Radiation Detection Instruments
1. Test at end of Section II
- d. Workbook Module 9, Section III, Dosimeter Distribution and Record Maintenance
1. Test at end of Section III
- e. Questions and answers
- f. Fill in front page information on each workbook section

SESSION STEP	SUBJECT	TRAINING AID
VII	Distribute questionnaires and request that they be completed and returned before the end of the session.	Hold up copy of questionnaire
VIII	Show Module 9 videotape, Personnel Dosimetry	Module 9 videotape
IX	Introduce workbook Module 9, Personnel Dosimetry, Sections I - III, which elaborate on the videotape. <ul style="list-style-type: none"> <li>a. ALARA principle</li> <li>b. Protective Action Guide Limits</li> <li>c. Controlling exposure through dosimeters and other radiation detection instruments</li> <li>d. LERO and worker responsibilities for exposure control</li> </ul>	LERO Training Program Workbook
X	Instruct trainees to read workbook sections and answer all review questions at the end of the tabbed sections <ul style="list-style-type: none"> <li>a. Have trainees print information on the first page of each section and at the top of all review question pages</li> <li>b. Allow 1 hour for completion of the book and review questions</li> <li>c. Collect all these sections of review questions</li> </ul>	Hold up copy of each test and show where it appears in the workbook
XI	Review Module Content <ul style="list-style-type: none"> <li>a. Summarize main points</li> <li>b. Answer questions</li> </ul>	

MODULE 8

EMERGENCY COMMUNICATIONS

ANSWER KEY

1. Group A

RECS  
LILCO paging system  
Dedicated lines  
Tone Alert Radios

Group B

Public notification  
LERO communications  
LERO notification  
Initial notification

2. b

3. b

4. LILCO Paging System  
Commercial Telephone

5. From the digital code on the pagers or verbally for those notified by commercial telephone.

6. a

7. b

8. c

9. a

10. b

11. False

MODULE 8

EMERGENCY COMMUNICATIONS

ANSWER KEY

(continued)

12. a

13. a

14. a

15. b

16. b

17. b

18. b

MODULE 9

RADIATION EXPOSURE CONTROL - SECTION I

ANSWER KEY

1. As Low As Reasonably Achievable
2. Time, Distance, Shielding
3. a and c
4. c
5. Accumulated
6. d
7. d
8. True
9. 1.0 Rem/day or 3 Rem total
10. - Perform a life saving activity  
- Substantial reduction of public exposure can be obtained

MODULE 9

SECTION II

ANSWER KEY

1. 1. Direct-reading dosimeters  
2. TLD badges
2. All workers who may receive radiation exposure.
3. 1. Direct-reading - range 0-200 mR  
2. Direct-reading - range 0-5 R  
3. TLD badge
4. False  
False  
True  
False  
False
5. Direct-reading dosimeter charger
6. Monitor for contamination
7. The probe
8. c
9. No
10. Open

MODULE 9 - SECTION III

ANSWER KEY

1. Record keepers
2. Staging Areas  
Decontamination Facility at the EOC
3.
  1. Daily Dose Record Card
  2. Permanent Dose Record Form (copy)
4.
  1. Daily Dose Record Card
  2. Permanent Dose Record Form
  3. Log Out/Log In Form
5. Emergency Exposure Authorization Form
6. Director of Local Response
7.
  1. Direct-reading dosimeter -- Range: 0-200 mR
  2. Direct-reading dosimeter -- Range: 0-5 R
  3. TLD badge
8. At least every 30 minutes
9.
  1. Broken dosimeters
  2. 0-200 mR dosimeter offscale
  3. 0-5 R dosimeter reading 3.5 or more
10. Record keepers
11.  $200 \text{ mR} - 100 \text{ mR} = 100 \text{ mR}$   
 $(100 \text{ mR}) / (20 \text{ mR/hr}) = 5 \text{ hours}$

12.  $(4 \text{ hrs}) \times (10 \text{ mR/hr}) = 40 \text{ mR}$

13. 30 minutes  
↓

14.  $(50 \text{ mR}) (1.1) = 55 \text{ mR}$



ATTACHMENT 27

LESSON PLAN: EMERGENCY PREPAREDNESS OVERVIEW

SESSION: MODS 3 and 10 TITLE: 1. MOD 3 - RADIATION PROTECTION  
 2. MOD 10 - RADIOLOGICAL MONI-  
 TORING AND DECONTAMINATION

DURATION: 2-1/2 to 3 hours PRIMARY INSTRUCTOR: Staff

LEARNING MATERIALS: Modules 3 and 10 videotape, 3/4" VTR deck, monitor, workbook for each participant, questionnaire for each participant, Module No. 3 workbook insert, Eberline RM-14 count rate meter, Eberline HP 210 T and HP 270 GM probes, gas lantern mantles, FiestaWare plate (optional), self-reading pocket dosimeters, TLD badges

TRAINING OBJECTIVES: Module 3

- A. Understand atomic structure, such as protons, neutrons and electrons
- B. Know the three types of radiation
- C. Be familiar with the types of materials that will block radiation
- D. Understand the various units of measurement used in radiation protection
- E. Be able to identify natural and man-made sources of radiation
- F. Know how and at which levels radiation can cause damage
- G. Know the LERO worker radiation exposure limit
- H. Be able to identify the forms of radiation found in a nuclear power plant
- I. Know the difference between exposure and contamination
- J. Be familiar with methods for controlling and monitoring radiation

TRAINING OBJECTIVES:  
(continued)

Module 10

- A. Understand the basic function and use of a GM radiation probe and count rate meter
- B. Know how to recognize the radiation symbol
- C. Become familiarized with personnel and equipment monitoring techniques and contamination limits
- D. Become familiarized with various decontamination techniques for personnel and equipment

I	Distribute workbook insert for Module 3 and discuss the content of the training session. Show each of the four videotape segments for Module 3, pausing after each segment to highlight key points, answer questions and do workbook exercises.	Module No. 3 workbook insert; Module No. 3 videotape
II	First segment - Module 3 a. Atomic Structure b. Types of Radiation - Alpha - Beta - Gamma c. Activity, Half-life	Module No. 3 videotape
III	Questions, discussion Complete Part I written review questions	
IV	Second segment - Module 3 a. Radiation Units and Sources - Units - Exposure - Exposure Rate - Roentgen, Rad, Rem, Millirem - Natural and Man-made Sources of Radiation b. Demonstrate use of GM count rate meter and probes using gas lantern mantle and/or Fiestaware plate if available	Module No. 3 videotape
V	Questions, discussion Complete Part II written review questions	Eberline RM-14, HP 210 T and HP 270 probes, gas mantle and Fiestaware (optional)

- VI | Third segment - Module 3 Module No. 3  
videotape
- a. Biological Effects of Radiation
- Biology of the Cell
  - Direct and Indirect Actions
  - Radiosensitivity
  - Somatic and Genetic Effects
  - Acute vs. Chronic Exposure
- b. LERO Exposure Limit
- c. Forms of Radioactive Material
- Noble gases
  - Radioiodines
  - Particulates
- d. Review the assumptions used for Blackboard estimating radiation health risks for low-level exposure (i.e., linear hypothesis vs. threshold). Draw curve on blackboard, if available, to show these assumptions applied to exposures below levels where detectable effects are seen. Note that radiation standards assume that some small amount of risk may exist at low exposure levels.
- VII Questions, discussion  
Complete Part III written review questions
- VIII Forth segment - Module 3
- a. Control of Radiation
- Exposure vs. Contamination
  - Exposure Control Techniques
1. Time, Distance, Shielding
- Potassium Iodide

VIII  
cont.

- Radiation Monitoring

1. Self-reading pocket dosimeters
2. Thermoluminescent dosimeters

- b. Handout personnel monitoring devices and describe operating principles. Also caution against bumping or dropping self-reading pocket dosimeters to avoid over-response.

0-200 mR, 0-5 R,  
dosimeters, TLD  
badge

XI

Questions, discussion  
Complete Part IV written review questions

X

Collect completed review questions  
Parts 1-4, Module No. 3

XI

Introduce videotape for Module 10, Radiological Monitoring and Decontamination. Mention that this tape is being shown to all LERO personnel to acquaint them with procedures used for checking for potential contamination upon arrival at a Relocation Center or the Emergency Operations Center. Further, it reviews the types of techniques available for decontaminating personnel vehicles and equipment.

Module No. 10  
videotape

XII

a. Monitoring

- GM count rate meter and probe
- Units - counts per minute, background rate
- Survey methods
- Personnel, vehicle contamination limits
- Radiation symbol

XII  
cont.

b. Personnel Monitoring and  
Decontamination

- Monitoring techniques
- Decontamination instructions
- Thyroid monitoring

c. Equipment Monitoring and  
Decontamination

- Monitoring techniques
- Decontamination instructions