

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)
(Shoreham Nuclear Power Station,) (Emergency Planning --
Unit 1)) Phase I)
)

TESTIMONY OF WILLIAM F. RENZ AND PHILIP FRIEDMAN
FOR THE LONG ISLAND LIGHTING COMPANY
ON PHASE I EMERGENCY PLANNING CONTENTION
11(A), (B), and (C) -- COMMUNICATIONS WITH OFFSITE
RESPONSE ORGANIZATIONS

PURPOSE

The purpose of this testimony is to demonstrate that the Long Island Lighting Company's (LILCO's) total communication system satisfies the regulatory requirements and guidelines governing communications with offsite response organizations. The primary and back-up communication systems ensure the dependability of necessary communications under the most extreme conditions, i.e., power outage, sabotage, overload, and inclement weather. In short, the combination of the primary and back-up communication systems that LILCO intends to use ensures that required communication links will be available for contact with offsite response organizations.

Attachments to this Testimony:

| | |
|---------|---|
| EP 11-1 | Resume of William F. Renz |
| EP 11-2 | Resume of Philip Friedman |
| EP 11-3 | LILCO Emergency Plan section 7.2, "Communications Systems" |
| EP 11-4 | LILCO CIP-2, "Communications Equipment" |

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RESPONSE ORGANIZATIONS

Q1. Please state your name and business address.

A1. [Renz] My name is William F. Renz. My business address
is 175 East Old Country Road, Hicksville, New York 11801.

[Friedman] My name is Philip Friedman. My business
address is CONTEL Information Systems, 130 Steamboat Road,
Great Neck, New York 11024.

Q2. By whom are you employed and in what position?

A2. [Renz] I am employed by LILCO as a Scientist, Nuclear
Engineering Department. My primary responsibilities cur-
rently involve corporate and offsite emergency planning
efforts.

[Friedman] I am employed by CONTEL Information Systems as manager for information and management services. I also have primary corporate responsibility for all marketing, sales, and technical support to the electric and gas utility industry.

Q3. Please state your professional qualifications and why you are knowledgeable about the issues raised in EP 11(A), (B), and (C).

A3. [Renz] My resume, describing my professional qualifications, is Attachment EP 11-1. My knowledge of the issues raised in EP 11(A), (B), and (C) stems from my current position with LILCO. I have been assigned full-time to emergency planning since coming to the Nuclear Engineering Department in November 1980. As part of my duties, I am primarily responsible for the emergency planning communication system.

[Friedman] My resume, describing my professional qualifications, is Attachment EP 11-2. My company was hired as a consultant to LILCO with respect to Shoreham's communication systems. Personally, I have fifteen years of experience working at or for the electric and gas utility industry. Recent related assignments include communications

emergency preparedness planning for Public Service Electric & Gas and communications and network design for the Idaho Power Company.

Q4. Are you familiar with the text of EP 11(A), (B), and (C)?

A4. [Renz & Friedman] Yes. EP 11(A), (B), and (C) state:

The Plan relies completely for communication with off-site national, state, and local response organizations upon telephone communications (e.g. 7.2.1 through 7.2.8) and on a low powered UHF Radio Based Station and a VHF Radio Based Station (7.2.10) (footnote deleted). It fail to meet the criteria of 10 CFR 50.47(b)(2)(5)(6), 10 CFR 50 Appendix E, IV Paras D(3) and E(9) and NUREG-0654, Appendix 3, Para C(1), in the following respects:

A. Insofar as the Plan relies on telephone communications (7.2.1 through 7.2.8), it does not take into account the possibility of (1) a power outage, (2) sabotage and (3) overload. This omission is especially significant because the Plan describes the Hotline (footnote deleted) as the "primary means for notification of the State and County of emergency conditions at Shoreham." (7.2.1; see also 5.4).

B. Assuming that the telephone communications depend upon overhead, outdoor lines (there is nothing to the contrary in the Plan), the telephone communication network is vulnerable to extreme weather conditions, especially to sleet and ice formations on its lines and poles.

C. The Plan relies on commercial

telephone lines as "the primary communication link" for hospitals, Coast Guard, and DOE (7.2.4). These lines will become overloaded in an emergency, thus preventing communication with these vital offsite organizations.

Q5. EP 11 states that LILCO's emergency plan, with respect to communications with offsite response organizations, fails to meet certain regulatory requirements and guidelines. Are you familiar with those requirements and guidelines?

A5. [Renz] Yes. The relevant portions of 10 C.F.R. § 50.47 provide:

(b) The onsite and offsite emergency response plans for nuclear power reactors must meet the following standards (footnote deleted):

* * *

(2) [T]imely augmentation of response capabilities is available and the interfaces among various onsite response activities and offsite support and response activities are specified.

* * *

(5) Procedures have been established for notification, by the licensee, of State and local response organizations and for notification of emergency personnel by all organizations . . . and means to provide early notification and clear instruction to the populace within the plume exposure pathway Emergency Planning Zone have been established.

(6) Provisions exist for prompt

communications among principal response organizations to emergency personnel and to the public.

In addition, EP 11 cites 10 C.F.R. Part 50, Appendix E, IV (D)(3) and (E)(9), which state in relevant part:

(D)(3) A licensee shall have the capability to notify responsible State and local governmental agencies within 15 minutes after declaring an emergency. The licensee shall demonstrate that the State/local officials have the capability to make a public notification decision promptly on being informed by the licensee of an emergency condition. . . . The design objective of the prompt public notification system shall be to have the capability to essentially complete the initial notification of the public within the plume exposure pathway EPZ within about 15 minutes.

* * *

(E) Adequate provisions shall be made and described for emergency facilities and equipment, including:

(9) At least one onsite and one offsite communications system; each system shall have a backup power source.

All communication plans shall have arrangements for emergencies, including titles and alternates for those in charge at both ends of the communication links and the primary and backup means of communication. Where consistent with the function of the governmental agency, these arrangements will include:

(a) Provision for communications with contiguous State/local governments within the plume exposure pathway EPZ. Such communications shall be tested monthly.

(b) Provision for communications with Federal emergency response organizations. Such communications systems shall be tested annually.

(c) Provision for communications among the nuclear power reactor control room, the onsite technical support center, and the near-site emergency operations facility; and among the nuclear facility, the principal State and local emergency operations centers, and the field assessment teams. Such communications systems shall be tested annually.

(d) Provisions for communications by the licensee with NRC Headquarters and the appropriate NRC Regional Office Operations Center from the nuclear power reactor control room, the onsite technical support center, and the near-site emergency operations facility. Such communications shall be tested monthly.

In addition, EP 11 cites NUREG-0654, Appendix 3(C)(1), which states in relevant part:

Federal, State and local government and utility authorities must develop and maintain plans, systems, procedures and relationships that are effective in mobilizing responsible authorities and operating elements in alerting and notifying the general public and in assuring appropriate and effective responses by the public.

In sum, EP 11 cites various regulatory requirements and guidelines that call for a communication system adequate to provide necessary offsite communications in case of a radiological emergency.

Q6. Does LILCO's communication system, providing necessary contacts with offsite response organizations, satisfy these regulatory requirements and guidelines?

A6. [Renz] Yes.

Q7. Simply put, what is the gist of EP 11?

A7. [Renz & Friedman] To our best understanding, the contention apparently focuses on perceived vulnerabilities with LILCO's primary communication system. According to the contention, these vulnerabilities include a telephone power outage, sabotage, extreme weather conditions, and overload. LILCO's primary communication system during a radiological emergency consists of a Hotline, dedicated lines, and a commercial telephone system. The primary system is backed by a radio communication network. These systems provide the flexibility and reliability necessary to accommodate the cited vulnerabilities and maintain necessary communication links with offsite response organizations.

Q8. What part of LILCO's emergency plan describes its communication system?

A8. [Renz] The LILCO communication system is described in

section 7.2 of the LILCO Emergency Plan and in LILCO CIP-2, "Communications Equipment," Attachments EP 11-3 and EP 11-4, respectively.

- Q9. Please describe the primary communication systems that will be in use at Shoreham during a radiological emergency.
- A9. [Renz & Friedman] In case of a radiological emergency at Shoreham, the primary means for notifying the State and Suffolk County will be by use of a "Hotline." A Hotline is a group of individually dedicated circuits integrated via a series of bridges. It is significant to note that in a Hotline architecture a loss of one device or circuit does not disable the entire configuration. The Hotline is made operational upon pick-up of the receiver and depression of the manual ring-down button. The Hotline is designed to allow simultaneous communication among the Control Room, Technical Support Center, Emergency Operations Facility, New York State Emergency Operations Center (Albany), New York State Southern District Office (Poughkeepsie), Suffolk County Emergency Operations Center, and Suffolk County Police Communications Center. In short, use of the Hotline during a radiological emergency will allow for timely notification by plant personnel to all applicable State and County agencies.

In addition to the Hotline, dedicated lines serve as a secured and primary means of offsite communication with the NRC, as well as providing a means of communication within the company. A dedicated line is a pair of wires allocated for the exclusive use of two devices in a point to point configuration. The NRC dedicated phone system will allow simultaneous communication with the NRC's Bethesda Office and their King Of Prussia Regional Office. Thus, the dedicated lines will allow simultaneous communication from the plant to the NRC, on a headquarters and regional basis.

Dedicated lines internal to the company are used to provide a means for information exchange among key personnel.

Q10. What communications will take place on the internal dedicated lines?

A10. [Renz] These dedicated lines will allow communication between the following locations:

1. Technical Support Center to Control Room;
2. Control Room to the Operational Support Center;
3. Technical Support Center to Operational Support Center;

4. Technical Support Center to Emergency Operations Facilities (two separate dedicated lines);
5. Emergency Operations Facility to Emergency News Center;
6. Emergency Operations Facility to Control Room;
7. Emergency Operations Facility to Support Corporate Headquarters; and
8. Technical Support Center to the Office of Public Affairs in Mineola.

These separate dedicated lines will allow prompt communication among the company's emergency response facilities, most of which are offsite, in the event of a radiological emergency.

The importance of these dedicated lines is two-fold. First, these lines ensure intra-company communications. Second, these dedicated lines provide an alternative method of communication to offsite response organizations. If for some reason plant personnel are unable to communicate directly with these offsite organizations, communications may be made indirectly by use of these dedicated lines.

Q11. What additional modes exist in the primary communication network?

A11. [Renz and Friedman] In addition to the Hotline and dedicated lines, a commercial telephone system is in place to allow for necessary communications. These telephones are located in various parts of the plant, including the Control Room, Technical Support Center, and Operational Support Center. This commercial telephone system will allow offsite communications and provide a back-up to the Hotline and dedicated phone lines.

Q12. Has anything been done to provide a back-up to LILCO's equipment that connects with the commercial telephone network?

A12. [Friedman] Yes. A Bell Telephone supported Dimension System 2000 will be installed. The System 2000 has a dual microprocessor configuration and extensive error diagnostic analysis capabilities providing a high reliability factor.

Q13. What other forms of communication exist within the plant itself?

A13. [Renz] There is a party-page system consisting of six separate and independent communications channels, one page and five party lines, which provide voice communications between two or more locations within the plant. There is also a sound powered telephone system that consists of independent stringed circuits connecting critical points in the plant. This system requires no power and is, therefore, not affected by a loss of site power.

Q14. Please describe other intra-company communication systems.

A14. [Renz and Friedman] There is an automatic switching system (CENTREX) that operates independently of the commercial telephone system. Though this system is intended for intra-company use, it does have access to the commercial telephone system by use of specific and widely known access codes.

Q15. Focusing specifically on communications between the plant and offsite organizations, in the event that the Hotline, dedicated phone lines, and commercial telephone system are rendered useless, is there a back-up communication system that will allow LILCO to notify necessary offsite response organizations in the event of a radiological emergency?

A15. [Renz and Friedman] Yes, there is a separate back-up system, in addition to the back-ups contained in the primary system. That is, the primary system contains its own back-up. For example, if for some reason the Hotline does not work, dedicated lines may be available to relay information. If for some reason the Hotline and the dedicated lines are inoperable, the commercial telephone system may be available for use.

Moreover, the Hotline, the dedicated lines and the commercial telephone system are vulnerable to different types of hazards. For example, the commercial telephone system may be susceptible to overload. The Hotline and dedicated lines, however, do not suffer from this vulnerability as they are only available for use by a limited number of key personnel.

In addition to back-ups in the primary system, there is radio communication between the plant and offsite organizations. This radio communication system consists of four different frequencies. One of these frequencies is the Suffolk County Police Department's county-wide frequency and another frequency is the Suffolk County Police Department's sixth precinct frequency. Security personnel at Shoreham have access to these frequencies and may

notify the Suffolk County Police Department if necessary. In addition, in case of problems with other means of communication, these frequencies may be used to have the Suffolk County Police Department request or relay information. Note also that the Suffolk County Police Communications Center in Yaphank is located within one-half mile of the County's Emergency Operations Center. An underground dedicated line will exist between these two locations so that the Emergency Operations Center and the Suffolk County Police Department may be in constant communication. This underground dedicated line is, of course, not susceptible to the same vulnerabilities facing the overhead telephone lines between these locations.

The two other frequencies in the radio communication system are LILCO-owned. One frequency, normally used by one of LILCO's operating departments, will be utilized during a radiological emergency for communication with the downwind survey teams. Prior to the time that such communication is necessary, this frequency may be exclusively available for emergency communications. By using this frequency, the Technical Support Center may make contact with offsite response organizations through the Emergency Operations Facility.

The second LILCO-owned frequency is a company-wide frequency used during normal operations by Electric Systems Operations.

Q16. What is the Electric Systems Operations frequency?

A16. [Renz] The Electric Systems Operations frequency is used during normal operations to maintain electrical system integrity. There will be a base station in both the Technical Support Center and the Emergency Operations Facility. The Electric Systems Operations frequency will allow communication, during a radiological emergency, from onsite in either the Control Room or Technical Support Center to various offsite locations. For example, the Electric Systems Operations frequency may be used, directly or indirectly, to contact the Emergency Operations Facility, LILCO's Hicksville Operations Center, or any other operating unit within the LILCO generation system.

The Electric Systems Operations frequency, which allows for company-wide communication broadcast, provides reliability and flexibility to the overall network. For example, in the event that the primary communication systems are inoperable, onsite personnel may use the Electric Systems Operations frequency to contact other locations in

the LILCO system. Assigned personnel at those locations may then perform necessary information dissemination functions, directed by the Shoreham onsite personnel.

Q17. Are there any back-up communication systems other than those you have already described?

A17. [Renz] Yes. LILCO also has available to it the National Alert Warning System (NAWAS). NAWAS consists of a series of primary and secondary circuits. Shoreham is on a secondary circuit allowing contact with both Suffolk and Nassau Counties. Nassau County, by use of their primary circuit, may then relay messages from either Shoreham or Suffolk County, or both, to New York State. Note that NAWAS is independent of the commercial telephone system, and therefore not subject to the same vulnerabilities that may affect the commercial system.

Q18. Mr. Renz, would you summarize your conclusions regarding this contention?

A18. [Renz] LILCO realizes that a dependable communications network is an essential aspect of an emergency response. Much care has been spent on the overall communication system.

The overall system has been engineered to allow for needed flexibility. Depending on the situation, a communication path may be implemented by using one, or a combination, of the various systems identified above. This redundancy and flexibility will allow the communications necessary for an emergency response.

Q19. Mr. Friedman, would you summarize your conclusions regarding this contention?

A19. [Friedman] An analysis of the primary and back-up communication systems clearly demonstrates that LILCO has met, and in some cases exceeded, the requirements identified in the answer to question 5. A multi-redundant environment has been developed with the inclusion of hotlines, dedicated lines, commercial telephone, intra-company exchange, and radio networks. These available options ensure that key people and locations will be notified in a timely fashion. Accordingly, I see no validity to the issues raised in EP 11 (A), (B), and (C).

PROFESSIONAL QUALIFICATIONS

WILLIAM F. RENZ

Associate Scientist, Nuclear Engineering Department,
Nuclear Engineering Division

LONG ISLAND LIGHTING COMPANY

My name is William F. Renz. I am a Scientist in the Nuclear Engineering Department of the Long Island Lighting Company (LILCO). My business address is 175 East Old Country Road, Hicksville, New York 11801. I am responsible for keeping the status of the Shoreham Nuclear Power Station (SNPS) Emergency Plan up-to-date in accordance with any resolutions to NRC-generated comments. I also coordinate the development of the SNPS Corporate Implementing Procedures with the Engineering Control department, Stone & Webster, and the WTM Management Corporation in support of the Plan.

I represent LILCO on the New York State Radiological Emergency Preparedness Group Scenario Development Task Force, on the New York State Power Pool Subcommittee on Emergency Planning, in negotiations with Suffolk County's Departments of Planning, Emergency Preparedness and Health Services. I am also responsible for maintaining working relationships with Suffolk County and Stone & Webster as well as other Emergency Planning contractors as needed.

I am responsible for coordinating the development and implementation of the Prompt Notification System and the communication requirements regarding the specifications for the Hotline, dedicated lines, beepers, radios and other specific emergency communication systems.

I have a Bachelor of Science degree in Oceanography from The George Washington University (1977). I have done post graduate study in the field of Water Pollution Research Technology. I am presently attending Polytechnic Institute of New York and am studying for a Master of Science degree in Technology Management.

Prior to assuming my present responsibilities at LILCO, I was a Field Inspector in the Underground Lines Department (1979-80). My responsibilities there were associated with the supervision of pipe line contractor activities dealing with the installation of new gas services and mains in the Bellmore Operations Center territory. I responded to all customer complaints directed toward this activity. I prepared the capital portion of the Weekly Workload Plan for Area 8 utilizing pre-check and date due reports and an area monthly forecast plan. I administered all PSC-required programs (10-year, 5-year, Annual Curb Cock Inspection, Valve, Substructure, Major Mains, Vegetation and Hazardous Mains) within the Bellmore Operations Center territory. I directed all 5-year, 10-year and vegetation programs with respect to contractor performance.

In addition, I prechecked all New Business Department work orders, including gas, electric and cathodic protection orders. I also prepared annual work orders for main replacement and, as directed by the Area Supervisor, performed economic analyses involving their investigation, implementation and use in current program work within the Bellmore Operations territory. As a Field Inspector, I coordinated efforts aimed at the restoration of roadways with State and local authorities.

From 1978 to 1979 I was a Systems Mapper in LILCO's Systems Engineering department. I was responsible for accurately updating all types of LILCO distribution maps from the various source documents available including work order historicals, map corrections, etc., as well as for the plotting of the electrical and gas distribution systems for future company reference.

Before joining LILCO, I was employed for one year, in 1978, as Office Manager for Poolservice Company in Arlington, Virginia. My duties included Public Relations, Managing Home Pool Maintenance, Cover Sales and some structural repairs to residential pools and their systems. This involved a cost analysis on each contract prepared including work-sheets, payment schedules and inflative and overhead costs.

In 1977 I gained field experience, for which I received special recognition, as the chosen leader and chief scientist of the 12:00 to 4:00 watch during a water pollution research

cruise sponsored by the Marine Science Consortium covering the Chesapeake Bay and chosen surrounding sites. My parameter, total organic carbon in bottom sediments, covered 105 stations in seven days.

As a result of my participation in the aforementioned cruise, I was asked to participate on a similar cruise from off the coast of Brazil to Puerto Rico, sponsored by the U.S. Navy.

I also participated in various field studies from 1973 to 1977, including a topographic study between Washington, D.C. and Harpers Ferry, West Virginia; a coastal ecosystem study on Wallops Island, Virginia; a core strata study of Pleistocene rocks in Lewes, Delaware; and a Miocene rock strata study in Calvert Cliffs, Maryland.

My relevant professional training includes training in Principles of Nuclear Power (1979), administered by LILCO; Introduction to Boiling Water Reactor Nuclear Power Plants (1981), administered by General Physics Corporation; and training in a Radiological Emergency Planning seminar (1981), administered by the Federal Emergency Management Association (FEMA).

PROFESSIONAL QUALIFICATIONS

PHILIP FRIEDMAN

Manager, Information Management Consulting

CONTEL INFORMATION SYSTEMS

My name is Philip Friedman. My business address is ConTel Information Systems, 130 Steamboat Road, Great Neck, New York 11024. I am currently the Manager of Information Management Consulting at ConTel Information Systems. I have held this position since June of 1982. Prior to my assignment as Manager of Information Management Consulting, from 1981 to 1982, I was Senior Scientist of ConTel's Information Systems.

I received my Bachelor of Science degree at Brooklyn College in 1970. In 1968 RCA Institute awarded me an A.A.S. degree in Electrical Technology. I also received certification in Systems Analysis from the New School for Social Research in 1973. In addition, I have participated in and attended extensive management and data processing seminars and courses.

From 1966 to 1967 I was employed by International Business Machines (IBM) in Customer Field Engineering (Communications). As a Customer Field Engineer, I was responsible for both field troubleshooting and upgrades on the 360

and 370 series computers. One of my specific tasks included field testing of remote telecommunications equipment.

Subsequently, from 1967 to 1976, I held several engineering and computer positions at Consolidated Edison of New York. From 1975 to 1976 I held the position of Manager, Corporate Time Sharing Services. In this capacity I managed both the company's in-house and outside vendor remote computing services effort. This encompassed EDP planning, systems management, application evaluation and extensive user support. The systems with which I worked encompassed IBM 370 under OS/VS2 and MVS with tools such as TSO, IMS and Ramis, CDC CYBER and 6000 series computers with IFM, SYS 2K, TOTAL and associated data base systems.

Prior to my position as Manager of Corporate Time Sharing at Consolidated Edison, I was an Engineer and engaged in all aspects of distribution, engineering design, accounting and construction. In addition, I was responsible for developing the first automated work order and productivity system.

As a National Sales Manager for the Utilities division of United Computing Systems from 1976 to 1979, I managed the sales, marketing and technical support functions for a large computer service bureau. I provided corporate management with defined business objectives and necessary functions to support the sales effort. One of my specific technical tasks included the design and implementation of an energy audit system for a

major insurance carrier. I also designed a plant accounting system for a public utility.

As Vice President of Ebasco Business Consulting Company from 1979 to 1981, I was responsible for directing the client consulting assignments in multi-scope areas of data processing and systems design. I participated and managed projects in the area of automated mapping, facilities management, and power plant maintenance information systems. My clients ranged from most major domestic utilities to products-oriented Fortune 500 companies.

One of my primary responsibilities as Manager of Information Management Consulting for ConTel Information Systems includes the implementation of studies and evaluations in data processing applications, integrated systems and communications networks. Specifically, I have designed an automated resource management system for the Metropolitan Transportation Authority of New York. For this same project I also managed a capacity planning study that encompassed the evaluation of an on-line triplex computer mainframe center.

Another assignment for which I was responsible was the design of a cross-country data network, including a scenario for disaster recovery, for National Medical Enterprises. In addition, I am overseeing a study involving voice communications and new technology assessments associated with the Salem Nuclear Generating Facility for Public Service Electric and Gas

(PSE&G) of New Jersey. This study encompasses the integration of multiple information sources into a real time response environment.

I also developed a methodology to model and optimize a VM/CMS data network for Idaho Power Company. Subsequent phases of this project included disaster recovery planning and SNA migration analysis.

With respect to LILCO, I am currently managing a detailed, integrated communications study for the Shoreham nuclear facility. Tasks inherent in this study include information assessment, alternative analysis and selection of strategic communications directions.

For the department of Sanitation of the City of New York, I am managing the design of a data network that encompasses assessment of needs, development of proposal, vendor selection, implementation assistance and data network topological design.

I am a member of the Institute of Electrical and Electronic Engineers (IEEE) and the American Gas Association (AGA).

A list of my publications and presentations comprises the following: "Use of a Turn-Around Document in a Reliability System," published in 1976 under the sponsorship of the Edison Electric Institute Forum; "Distribution Construction Management," published in 1979 and sponsored by the Electric

Council of New England--Transmission and Distribution Conference; "Facilities Mapping--the Engineering Data Base of the 80's," published in February 1981 and integrated into the Transmission and Distribution publication; "Integrated Information Systems," published in May 1981 under the sponsorship of the New England Utilities Systems Conference; and "Automated Field Productivity--Fact or Fiction," published in March 1982 as an Electric-Utility Transmission and Distribution Publication.

Communications between the Site, County, Southern District ODP and the State's Albany office are facilitated by use of the Hotline, the NAWAS dedicated phone system, and commercial telephone lines. Radios are used as back-up systems for emergencies. Upon activation, either by the State Commissioner of Health or the Suffolk County Emergency Preparedness Office, communications, planning and coordination personnel will be available to assist with the appropriate emergency response.

7.1.7 New York State Emergency Operations Center (NYSEOC)

The State Emergency Operations Center is located in the substructure of the Public Security Building, State Office Building Campus, Albany, New York. State Warning Point communications system and the Office of Disaster Preparedness are also located in this center. Communication systems operate on an around-the-clock basis. Upon activation, planning and coordination personnel will be available to assist with the appropriate emergency response. Communications between the site and New York State are carried out by the Hotline, the NAWAS dedicated telephone system and commercial telephone lines. Radio communications shall be established to serve as a back-up system.

7.1.8 Support Corporate Headquarters (SCH)

The Support Corporate Headquarters is located at the load control center of the LILCO Operations Office in Hicksville, New York. SNPS is approximately 45 miles east-northeast of Hicksville. The Support Corporate Headquarters Response Team consists of Company officials drawn from the various departments affected by the emergency. This team provides administrative, logistic, technical, information, communications and personnel support to the Response Manager.

7.2 Communications Systems

The SNPS communication capabilities include multiple systems and redundant power supplies which ensure the transmitting and receiving of vital information within the plant and with locations onsite and offsite. Table 7-1 shows the multiple communication modes and where each mode is available for emergency communications.

Following is a list of available communication systems with a brief description of the intended use of each:

7.2.1 Hotline

This communications link will be the primary means for notification of the State and County of emergency conditions at Shoreham. These dedicated phone lines, made operational upon pick-up of the receiver and selection of desired location, shall provide the capability enabling any and all of the following locations to communicate simultaneously:

Control Room

Technical Support Center

Emergency Operations Facility

New York State Emergency Operations Center (Albany)

New York State Southern District Office (Poughkeepsie)

Suffolk County Emergency Operations Center

Suffolk County Police Communications Center

Twenty-four hour per day manning is provided in the Control Room by the Emergency Communicator, in the Suffolk County Plan by the Police Department, and in the New York State Plan by the New York State Police.

7.2.2 Dedicated Lines

In addition to the Hotline, dedicated lines will be installed as the primary means of communication with the Nuclear Regulatory Commission and for intra-Company communications.

This will be a dedicated phone system which will allow simultaneous communication with the NRC's Bethesda Office and their King Of Prussia Regional Office.

Internally, there are seven separate dedicated lines located as follows:

1. TSC to Control Room (CR;
2. CR to OSC;
3. TSC to OSC;
4. TSC to EOF;
5. EOF to ENC;
6. EOF to CR; and
7. EOF to SCH.

7.2.3 National Alert Warning System (NAWAS)

A dedicated NAWAS line will serve as the primary back-up communication link between the Shoreham site and offsite officials.

7.2.4 Commercial Telephone

The commercial telephone system consists of various dial-type telephones connected to the New York Bell Telephone System. These

phones provide a means of communication offsite, and may be used as another back-up to the Hotline. They are located in various parts of the plant as well as the following:

Control Room

Technical Support Center

Operational Support Center

Emergency Operations Facility

Commercial telephones shall also be the primary communications link used for such support organizations as hospitals, U. S. Coast Guard and the U. S. Department of Energy. The primary responsibility to notify and request support from the U. S. Coast Guard lies with Suffolk County as depicted in the Suffolk County Radiological Emergency Response Plan.

Ambulance response is coordinated through the Suffolk County Department of Fire Safety. Direct communication is possible between all County agencies such that, indirect communication is possible between Shoreham and The Department of Fire Safety.

7.2.5 Emergency Card Dialer Phone

The emergency card dialer phone is connected to the commercial telephone system and has automatic dialing capability by insertion of pre-coded dialing cards. This phone shall be located in the Control Room, and can be moved to the Technical Support Center when it is activated.

7.2.6 Private Automatic Exchange

The private automatic telephone exchange consists of a network of commercial telephones that may be used in the dialing mode for intra-site communications. These phones are located throughout the plant including the following locations:

Control Room

Technical Support Center

Operational Support Center

7.2.7 Public Address and Party Line

Six separate and independent communications channels, one page and five party lines, exist to provide voice communications between two or more locations within the plant, even in areas of extreme noise. The page channel is used to call personnel over the speakers, issue plantwide instructions or communicate between two or more handsets. The party lines are used to carry on intercommunications after the

page channel call is completed. Audio tone signals can be introduced into this system to allow for possible fire, system emergencies, etc. Each handset and speaker has its own amplifier and they are independent of all other components in the system with respect to their operation. The page/party line system is supplied by an uninterruptible power source and is not dependent upon the onsite supply. This system is located throughout the site, as well as the following areas:

Control Room

Technical Support Center

Operational Support Center

7.2.8 Sound Powered Telephone

The sound powered telephone system consists of independent string circuits connecting critical points in the plant. Communications within the system is by means of sound powered, portable headsets which can be plugged into any jack along a string circuit located throughout the plant. The sound powered phone system requires no power and is not affected by a loss of site power. This system shall be located in various areas within the plant.

7.2.9 Beepers

In conjunction with the call-out by commercial telephone of Company personnel essential to the emergency organizations, beepers will also be activated. Upon activation of beepers, personnel shall call in on predetermined phone numbers to be given the course of action to be taken, plus any pertinent information regarding the emergency situation. Personnel issued beepers may include, but not be limited to, the following:

Plant Manager

Chief Technical Engineer

Chief Operating Engineer

Health Physics Engineer

Operating Engineer

Reactor Engineer

Security Supervisor

7.2.10 Two-Way Radio

A low powered UHF Radio Base Station with two frequencies, is established at the plant for communications between the Control Room

Radio Communications Center and portable "walkie-talkie" units, as well as with offsite locations. A third frequency on this UHF Radio Base Station has been established and verified to provide the capability of two-way voice communication link between the Technical Support Center, Emergency Operations Facility and the downwind survey teams throughout the 10 mile EPZ.

A VHF Radio Base Station shall be established to provide the capability of two-way voice communication link between the station and police. At the station, links will be established in the Control Room and the Technical Support Center. This link shall also be established in the Suffolk County Emergency Operations Center. Both ends of this communications link, as well as the aforementioned, are manned on a 24-hour per day basis. The Emergency Communicator for the Company and the Suffolk County Police for the County, provide this coverage.

7.3 Assessment Facilities

The following instrumentation and monitoring techniques are available for emergency assessment in each of the categories listed below:

7.3.1 Natural Phenomena

In the event an emergency is the result of a natural phenomenon, there is instrumentation to monitor its severity. Seismic monitoring is accomplished by a time history acceleration system which records triaxial acceleration from three discrete locations. This system provides monitoring and recording capabilities of impact motion and behavior of the plant in the event of an earthquake. The seismic monitoring system also provides an audible and visual annunciation to indicate to the Control Room operator a seismic event.

The existing onsite meteorological equipment includes a 400 foot tower located approximately one mile to the west of the reactor building. A ten meter tower positioned onsite provides specific parameters integrated with those provided by the 400 foot tower. The following parameters will be monitored on the primary meteorological towers and telemetered to the plant via a multiplexed lease line system:

1. Wind direction at elevation 33 feet (10 meter tower).
2. Wind direction at elevation 150 feet (400 foot tower).
3. Wind speed at elevation 33 feet (10 meter tower).
4. Wind speed at elevation 150 feet (400 foot tower).
5. Temperature at elevation 150 feet (400 foot tower).
6. Temperature at elevation 33 feet (400 foot tower).
7. Sigma theta (10 meter tower).

TABLE 7-1

A. Control Room

1. Hotline
2. Dedicated Lines
3. NAWAS
4. Commercial Telephone
5. Private Automatic Exchange
6. Page/Party System
7. Sound Powered Phone
8. Card Dialer Phone
9. Radio

B. Technical Support Center

1. Hotline
2. Dedicated Lines
3. NAWAS
4. Commercial Telephone
5. Private Automatic Exchange
6. Page/Party System
7. Sound Powered Phone
8. (Card Dialer Phone)
9. Radio

C. Operational Support Center

1. Commercial Telephone
2. Private Automatic Exchange
3. Page/Party System

D. Emergency Operations Facility

1. Hotline
2. Dedicated Lines
3. NAWAS
4. Commercial Telephone
5. Private Automatic Exchange
6. Radio

E. New York State Emergency
Operations Center

1. Hotline
2. NAWAS
3. Commercial Telephone
4. Radio

F. Suffolk County Emergency
Operations Center

1. Hotline
2. NAWAS
3. Commercial Telephone
4. Radio

Submitted: Reviewed/OQA Engr.: NAApproved/Plant Mgr.: J. Ruvelli

CIP Number: 2
Revision: 0
Date Eff.: 8/19/82
TPC
TPC
TPC

COMMUNICATIONS EQUIPMENT

1.0 PURPOSE

To describe the communications equipment that are available for emergency use, their location, their function, and their testing schedule, procedures and documentation. Specific operating instructions are not included.

2.0 RESPONSIBILITY

The Emergency Planning Advisors #1 and #2 shall be responsible for this procedure, insuring that:

- 2.1 Certain equipment will be dedicated for emergency response and will be in place and operating condition at all times.
- 2.2 Certain equipment, although not dedicated to emergency response, but pre-determined for use in an emergency, will be available and operating; their locations known at all times and accessible to support such a response at all times.
- 2.3 All personnel and their alternates assigned to operate this equipment are qualified in their use.
- 2.4 Qualified personnel are available to test this equipment and if required initiate repair orders on a scheduled basis and shall be available upon activation for required maintenance repairs and replacement.

- 2.5 Additional and/or replacement equipment is available as required.
- 2.6 Operating instructions for all equipment is available for reference.

3.0 DISCUSSION

- 3.1 The Shoreham Nuclear Power Station (SNPS) communications capabilities include multiple systems and redundant power supplies which ensures transmission and reception of vital information within the plant and within locations on-site and off-site.
- 3.2 Figure I provides the primary emergency communication modes, paths and color codes for telephone hardware at each emergency facility. Appendix 12.1 illustrates the type of communications capability provided in each of the emergency facilities listed. Appendix 12.6 provides a listing of all emergency response related telephones in the Control Room Technical Support Center, Operational Support Center, and the Emergency Operations Facility.
- 3.3 Communication equipment covered in this procedure include:
 - 3.3.1 Primary Communications Lines and Equipment (dedicated).
 - 3.3.1.1 Hotline
 - 3.3.1.2 Other Deicated Lines
 - .1 NRC
 - .2 Internal
 - .3 NAWAS
 - 3.3.2 Commercial Telephone (Non-dedicated)
 - 3.3.3 Emergency Card Dialer Phone
 - 3.3.4 Private Automatic Exchange
 - 3.3.5 Public Address and Party Line
 - 3.3.6 Sound Powered Telephone
 - 3.3.7 Paging System
 - 3.3.8 Two-way Radio
 - 3.3.9 Hard Copy Transceivers (Telecopy)

4.0 PRECAUTIONS

N/A

5.0 PREREQUISITES

This equipment must be tested and documented on a regularly scheduled basis. Substandard conditions shall be reported immediately to the appropriate authorities, repair orders initiated immediately.

See Section 8.0 Procedures for Testing Schedules.

6.0 LIMITATIONS AND ACTIONS

Specific operating instructions for the communications equipment described are not included.

7.0 MATERIALS AND EQUIPMENT

7.1 Primary Communications Lines and Equipment (Dedicated)

7.1.1 Hotline

This dedicated phone, made operational upon pickup of the receiver and depression of the manual ring button, will be the primary means of notification to the State and County of emergency conditions at SNPS. The color and locations of hot line phones providing the capability of simultaneous communication are as follows:

- .1 Gold Telephone (1) - Control Room
- .2 Gold Telephone (1) - Technical Support Center
- .3 Gold Telephone (1) - Emergency Operations Facility
- .4 Red Telephone (1) - New York State Emergency Operations Center (Albany)
- .5 Red Telephone (2) - New York State Warning Point (Albany)
- .6 Red Telephone (1) - New York State Radiological Emergency Preparedness Group
- .7 Red Telephone (1) - New York State Southern District Office (Poughkeepsie)
- .8 Red Telephone (1) - Suffolk County Emergency Operations Center
- .9 Red Telephone (1) - Suffolk County Police Department Communications Center

TOTAL HOTLINE 10

7.1.2 Other Dedicated Lines

In addition to the Hotline, dedicated lines have been installed as primary means of communication with the following:

7.1.2.1 Nuclear Regulatory Commission- ENS/HP Networks

This system will allow simultaneous communication with NRC's Bethesda Office and their King of Prussia Regional Office as well as the SNPS Control Room, Technical Support Center and Emergency Operations Facility. The type, quantity and location of such units shall be as follows:

- .1 Red Telephone (1) - NRC - Bethesda, MD
- .2 Red Telephone (1) - NRC - King of Prussia, PA
- .3 Red Telephone (1) - SNPS - Control Room
- .4 Red Telephone (1) - SNPS TSC
- .5 Red Telephone (1) - SNPS EOF

TOTAL NRC 5

7.1.2.2 Internal

These shall be separate dedicated lines with automatic ring upon receiver off-hook between the following locations:

- .1 Beige (2) Telephones - (1) CR - (1) TSC
- .2 Beige (2) Telephones - (1) CR - (1) OSC
- .3 Beige (2) Telephones - (1) CR - (1) EOF
- .4 Beige (2) Telephones - (1) TSC - (1) EOF
- .5 Beige (2) Telephones - (1) TSC - (1) OSC
- .6 Beige (2) Telephones - (1) EOF - (1) SCH
- .7 Beige (2) Telephones - (1) EOF - (1) ENC

TOTAL INTERNAL 14

7.1.2.3 National Alert Warning System (NAWAS)

A dedicated NAWAS line will service as the primary backup communication between the Shoreham site, the Suffolk County Emergency Operations Center and the New York State Emergency Operations Center (Albany). The color and location of NAWAS units are as follows:

- .1 Red Telephone (1) - Control Room
- .2 Red Telephone (1) - Suffolk County EOC
- .3 Red Telephone (1) - NYSEOC, Albany

TOTAL NAWAS 3

7.2 Commercial Telephone

The commercial telephone system consists of various dial-type telephones connected to the New York Bell

Telephone System. These phones provide a means of communication between the various organizations and may be used as secondary backup to the Hotline. They are located throughout the Company's facilities as well as the following:

- 7.2.1 Control Room - CR
 - 7.2.2 Technical Support Center - TSC
 - 7.2.3 Operational Support Center - OSC
 - 7.2.4 Emergency Operations Facility - EOP
 - 7.2.5 Emergency News Center - ENC
 - 7.2.6 Support Corporate Headquarters - SCH
- 7.3 Emergency Card Dialer Phone

The emergency card dialer phone is connected to the commercial telephone system and has automatic dialing capability by insertion of pre-coded dialing cards. This phone will be located in the Control Room, or the Technical Support Center when activated.

7.4 Private Automatic Exchange

The private automatic telephone exchange consists of a network of commercial telephones that may be used in the dialing mode for intra-site communications. These phones are located throughout the plant including the following locations.

- 7.4.1 Control Room
- 7.4.2 Technical Support Center
- 7.4.3 Operational Support Center
- 7.4.4 Emergency Operations Facility
- 7.4.5 Support Corporate Headquarters

7.5 Public Address and Party Line

Six separate and independent communications channels, one page and five party lines, exist to provide voice communication between two or more locations within the plant, even in areas of extreme noise. The page channel is used to call personnel over the loud speakers, issue plantwide instructions or communicate between two or more handsets. The party lines are used to carry on inter-communications after the page channel call is completed. Audio tone signals can be introduced into this

system to allow for possible fire, system emergencies, etc. Each handset and speaker has its own amplifier and they are independent of all other components in the system with respect to their operation. The page/party system is supplied by an uninterruptible power source and is not dependent upon the on-site power supply. This system is located throughout the site, as well as the following areas:

7.5.1 Control Room

7.5.2 Technical Support Center

7.5.3 Operational Support Center

7.6 Sound Powered Telephone

The sound powered telephone system consists of independent string circuits connecting critical points in the plant. Communications within the system is by means of sound powered, portable headsets which can be plugged into any jack along a string circuit located throughout the plant. The sound powered phone system requires no power and is not affected by a loss of site power. This system shall be located in the following locations, as well as various areas within the plant.

7.6.1 Control Room

7.6.2 Technical Support Center

7.6.3 Operational Support Center

7.7 Paging System

In conjunction with the call-out by commercial telephone of Company personnel essential to the emergency organizations, beepers will also be activated. Upon activation of beepers, personnel shall call in on predetermined phone numbers to be given the course of action to be taken, plus any pertinent information regarding the emergency situation. Those personnel issued beepers, include, but may not be limited to, the following:

7.7.1 Onsite:

- .1 Plant Manager
- .2 Chief Technical Engineer
- .3 Chief Operating Engineer
- .4 Health Physics Engineer
- .5 Operating Engineer
- .6 Reactor Engineer
- .7 Security Supervisor
- .8 Emergency Planning Advisor #2

7.7.2 Offsite:

- .1 Response Manager
- .2 Emergency Communications Director
- .3 Emergency Communications Liaison
- .4 Technical Support Manager
- .5 Radiological Control Manager
- .6 Design and Construction Support Manager
- .7 Administration and Scheduling Manager
- .8 Emergency Planning Advisor #1

7.8 Two-Way Radio

7.8.1 A low powered UHF Radio Base Station with two frequencies, is established at the plant for communications between the Control Room Radio Communications Center and portable "walkie-talkie" units, as well as with offsite locations. A third frequency on this UHF Radio Base Station shall be established to provide the capability of two-way voice communication link between the Technical Support Center and the downwind survey teams.

7.4.2 A VHF Radio Base Station shall be established to provide the capability of two-way voice communication link between the station and police. At the station, links will be established in the Control Room and the Technical Support Center. This link shall also be established in the Suffolk County Emergency Operations Center. Both ends of this communications link, as well as the aforementioned, are manned on a 24-hour per day basis. The Emergency Communicator for the Company and the Suffolk County Police for the County, provide this coverage.

7.9 Hard Copy Transceivers (Telecopy)

Transceivers also referred to as facsimile machines are used for transmitting and receiving hard copies of some source documents via use of commercial telephones. In order that data can be transmitted or received, the transceivers must be compatible.

7.9.1 Type of Transceivers - (A Graphic Sciences, Inc., Dex 1100 Series Model) is to be used at all locations.

7.9.2 Location of Transceivers

- .1 Control Room Communications Center
- .2 Technical Support Center
- .3 Emergency Operations Facility
- .4 Support Corporate Headquarters
- .5 Emergency News Center

8.0 PROCEDURE

Testing schedule and signoffs of dedicated communications lines and equipment are presented in this section. Actual testing procedures for all (onsite and offsite) communications equipment to be tested on a scheduled basis are provided in SP 69.062.01, Emergency Response Facilities Equipment Control and Readiness Check and in Appendix 12.2 of this procedure.

8.1 Testing Schedules and Sign-offs

The primary communication lines and equipment (dedicated) as indicated in Section 7.0 of this procedure must be tested on a scheduled basis. Successful testing will be signed-off by the tester. Unacceptable testing will require initiation a repair order and upon completion of the repair, and verification, the sign-off will be made.

8.2 Testing Schedules

See Appendix 12.3 for Test Schedules of primary communication lines and equipment.

8.3 Communications and Equipment Log

A log, see Appendix 12.4, at each facility will be maintained indicating schedule dates of testing, sign-off (name of tester and date) if test is successful. If equipment does not meet acceptable criteria, repair order will be initiated, the number logged and the originator indicated. Upon repair completion the test will be repeated and signed-off if equipment operates correctly.

9.0 ACCEPTANCE CRITERIA

N/A

10.0 FINAL CONDITIONS

N/A

11.0 References

- 11.1 SP 69.062.01, Emergency Response Facilities Equipment Control and Readiness Check.

12.0 Appendices

12.1 Emergency Facility Communications List

12.2 Emergency Communications Equipment Test Procedures

12.2.1 Dedicated Telephone

12.2.2 Commercial Telephone

- 12.2.3 Emergency Card Dialer Phone
- 12.2.4 Private Automatic Exchange
- 12.2.5 Public Address and Party Line
- 12.2.6 Sound Powered Telephone
- 12.2.7 Paging System
- 12.2.8 2-Way Radio
- 12.2.9 Hard Copy Tranceivers (Telecopy)
- 12.3 Communications Equipment Test Schedules
- 12.4 Communications Equipment Test Log - Form CPF - 2-1
- 12.5 Major Communications Modes and Paths
- 12.6 Emergency Response Telephone Directory

APPENDIX 12.1

EMERGENCY FACILITY COMMUNICATIONS LIST

A. Control Room

1. Hotline
2. NRC Lines
3. Dedicated Lines
4. NAWAS
5. Commercial Telephone
6. Private Automatic Exchange
7. Page/Party System
8. Sound Powered Phone
9. Card Dialer Phone
10. Radio
11. Transceiver

C. Operational Support Center

1. Commercial Telephone
2. Private Automatic Exchange
3. Page/Party System
4. Transceivers

B. Technical Support Center

1. Hotline
2. NRC Lines
3. Dedicated Lines
4. NAWAS
5. Commercial Telephone
6. Private Automatic Exchange
7. Page/Party System
8. Sound Powered Phone
9. Card Dialer Phone*
10. Radio
11. Transceiver

D. Emergency Operations Facility

1. Hotline
2. NRC Lines
3. Dedicated Lines
4. NAWAS
5. Commercial Telephone
6. Private Automatic Exchange
7. Radio
8. Transceiver

* When transferred from Control Room to TSC

APPENDIX 12.1 (Continued)

E. New York State Emergency
Operations Center

1. Hotline
2. NAWAS
3. Commercial Telephone
4. Radio

G. Emergency News Center

1. Dedicated Line
2. Transceiver
3. Commercial Telephone

I. Support Corporate
Headquarters

1. Dedicated Lines
2. Commercial Telephone
3. Private Automatic Exchange
4. Radio
5. Transceiver

F. Suffolk County Emergency
Operations Center

1. Hotline
2. NAWAS
3. Commercial Telephone
4. Radio

H. Nuclear Regulatory Commission

1. Dedicated Lines
2. Commercial Telephone

J. Suffolk County Police
Department Communications
Center

1. Hotline
2. Commercial Telephone

12.2.1 Dedicated Telephone

Hotline - (Gold Telephone)

- Location: Control Room, Technical Support Center,
Emergency Operations Facility
Connections With:
 - New York State EOC (Albany)
 - New York State Warning Point (Albany)
 - New York State Radiological Emergency Preparedness Group
 - New York State Southern District Office (Poughkeepsie)
 - Suffolk County Emergency Operations Facility
 - Suffolk County Police Department Communications Center
- Identification Numbers: Later
- Test Procedure: Each of the three LILCO Hot Lines shall be tested at the frequency specified in Appendix 12.3 of this procedure. Testing shall be performed in the following manner:
 - Pickup the receiver and wait for a response from each of the New York State or Suffolk County locations expected to be contacted at the time of the test.
 - Identify yourself with the following message; "This is a test of the Shoreham Emergency Communications System, Other Parties Identify Yourself." Upon completion of the role call repeat the following; "This test of the Shoreham Emergency Communications System is complete. Thank you for your participation."

NRC Dedicated Telephones - (Red Telephone)

- Location: Control Room, Technical Support Center
Emergency Operations Facility
Connections With:
 - Nuclear Regulatory Commission - Bethesda, Maryland
 - Nuclear Regulatory Commission - King of Prussia, Pennsylvania
- Identification Numbers: Later

- Test Procedure

A test is initiated by the NRC as follows:

- The NRC duty officer calls Shoreham Nuclear Power Station and identifies himself.
- The party answering is required to identify himself. Both parties hang up.
- Shoreham Nuclear Power Station personnel waits 10 seconds and then picks up ENS line.
- NRC will ask caller to hold while a party conference is established with the Regional Office.
- After the quality of the connection is noted, the test is terminated.
- All corrective action is initiated by the NRC.

LILCO Internal Dedicated Telephones

- Locations:

Control Room - Technical Support Center
Control Room - Operational Support Center
Control Room - Emergency Operations Facility
Technical Support Center - Emergency Operations Center
Technical Support Center - Operational Support Center
Emergency Operations Center - Support Corporate Hdqtrs.
Emergency Operations Facility - Emergency News Center

- Identification Numbers: Later

- Test Procedure:

- Prior to initiating the testing of each telephone link, assure the telephone at the other end of the link is connected and staffed.
- Pick up the receiver, allow the other telephone to ring.
- The party answering the call should allow the telephone to ring, as a minimum, two or three times.
- Have the party on the other end of the line repeat the procedure.

National Alert Warning System (NAWAS)

- Location: Control Room
Connects With
 - Suffolk County Emergency Operations Center
 - New York State Emergency Operations Center, Albany
- Identification Numbers: Later
- Test Procedure: Follow the same test procedure as outlined for "Hotline."
- Testing Responsibility: It is the responsibility of the Emergency Organization to test all dedicated telephone lines with the exception of the NRC dedicated telephones. The NRC will initiate testing and corrective actions should any be necessary.
- Record Keeping Responsibility: It is the responsibility of the Emergency Organization to document all testing of dedicated telephones with the exception of the NRC dedicated telephones. The NRC will provide documentation for their system.

12.2.2 Commercial Telephone

- Location: Control Room - 3 Units
Technical Support Center - 16 Units
Operational Support Center - 1 Units
Emergency Operations Facility - 32 Units
Emergency News Center - ___ Units
Support Corporate Headquarters - ___ Units

- Identification Numbers: Later

Control Room:

Later

Technical Support Center:

Later

Operational Support Center:

Later

Emergency Operations Facility:

Later

Emergency News Center:

Later

Support Corporate Headquarters:

Later

- Testing Procedure - Prior to initiating any testing, identify a local telephone to which test calls may be placed. Once a test number is identified, place calls from each phone to be tested to the identified phone. Allow one or two rings before terminating the test. No answer at the other end will be necessary to assure operability.
- Test Responsibility: Emergency Organization
- Recordkeeping Responsibility: Emergency Organization

12.2.3 Card Dialer Telephone - 1 unit

- Location: Control Room Communications Center and Technical Support Center when activated.
- Identification Number: CRCC @516-929-4842 - single line access
- Suggested Test: Use, preprepared "Dialing Cards" to perform three (3) test calls such as: a) in-house (plant), (b) local calls and (c) long distance call. Following initiation of each test call, wait for a positive verification from the party being called.
- Testing Responsibility: Emergency Organization
- Recordkeeping Responsibility: Emergency Organization

12.2.4 Private Automatic Exchange

This testing will be performed and documented in conjunction with 12.2.2 Commercial Telephone.

12.2.5 Page Party System

Handsets: 161 Units
Speakers: 126 Units

- Location: Page Party System handsets and speakers are located throughout SNPS facilities including: Turbine Building, Heater Bay, Reactor Building, Control Building, Yard Areas, Screen well and Office and Services Building.
- Identification Numbers: Hand set and speaker ID nos. may be found in SP 23.319.01, Plant Communications or System Descriptions: Communications - System 1020.319.
- Test Responsibility: Later
- Recordkeeping Responsibility: Later
- Test Procedure: Later

12.2.6 Sound Powered Telephone - 119 *Units in 15 String Circuits

| <u>String</u> | <u>Units</u> | <u>String</u> | <u>Units</u> | <u>String</u> | <u>Units</u> |
|---------------|--------------|---------------|--------------|---------------|--------------|
| 1 | 6 | 6 | 12 | 11 | 15* |
| 2 | 6 | 7 | 4 | 12 | 16 |
| 3 | 7 | 8 | 7 | 13 | 4 |
| 4 | 2 | 9 | 9 | 14 | 12 |
| 5 | 5 | 10 | 6 | R | 8 |

*5 additional units to be provided later.

Portable headsets - unknown quantity

Patch circuits on the sound-powered panel in the Main Control Room (1R53-PCH-PNI)

- Location: Sound powered telephone jacks are located in the following facilities: Control Building, Reactor Building, Radwaste Building, Yard, Screenwell, Turbine Building and Heater Bay.

- Identification Numbers: Jack 1D Nos. may be found in SP23.319.01, Plant Communications or System Description: Communications - System 1020.319.
- Test Responsibility: Later
- Recordkeeping Responsibility: Later
- Test Procedure: Later

12.2.7 Paging System

- Staff Issued Pagers (Beepers)

Onsite:

Plant Manager
 Chief Technical Engineer
 Chief Operating Engineer
 Health Physics Engineer
 Operating Engineer
 Reactor Engineer
 Security Supervisor
 Emergency Planning Advisor #2

Offsite:

Response Manager
 Emergency Communications Director
 Emergency Communications Liaison
 Technical Support Manager
 Radiological Control Manager
 Design and Construction Support Manager
 Administration and Scheduling Manager
 Emergency Planning Advisor #1

- Serial Numbers: Later
- Telephone Numbers: Later
- Test Procedure:
 - Initiate the paging process by calling each of the above telephone numbers to activate the individual or group beepers.
 - When personnel paged call by commercial telephone provide the following message: "This is a test of the Shoreham Emergency Communications System." Request name of person contacted and location when contacted.

Test Responsibility: Emergency Organization

Recordkeeping Responsibility: Emergency Organization

12.2.8 Two-Way Radio

- Location: Control Room
- Serial Number: Later
- Test Procedure: Later
- Test Responsibility: Emergency Organization
- Recordkeeping Responsibility: Emergency Organization

12.2.9 Hard Copy Transceivers

- Location: Control Room
Technical Support Center
Emergency Operations Facility
Support Corporate Headquarters
Emergency News Center
- Serial Number: Later
- Telephone Number: Later
- Test Procedure: Later
- Test Responsibility: Emergency Organization
- Recordkeeping Responsibility: Emergency Organization

APPENDIX 12.3

TESTING SCHEDULE OF PRIMARY COMMUNICATION LINES AND EQUIPMENT (DEDICATED)

| | <u>Schedule</u> |
|--|-----------------|
| <u>Hotline</u> | |
| Control Room | Monthly |
| Technical Support Center | " |
| Emergency Operations Facility | " |
| New York State Emergency Operations (Albany) | " |
| New York State Southern District Office (Poughkeepsie) | " |
| Suffolk County Emergency Operations Center | " |
| Suffolk County Police Department Communications Center | " |
| New York State Warning Point | " |
| New York State Radiological Preparation Group | " |
| <u>Nuclear Regulatory Commission</u> | |
| Bethesda, Maryland | " |
| King of Prussia, Pennsylvania | " |
| Control Room | " |
| Technical Support Center | " |
| Emergency Operations Facility | " |
| <u>Internal</u> | |
| Control Room and Technical Support Center | " |
| Technical Support Center, Emergency Operations Facility, and Support Corporate Headquarters. | " |
| Emergency News Center | Annually |

APPENDIX 12.3 (Continued)

TESTING SCHEDULE OF PRIMARY COMMUNICATIONS
LINES AND EQUIPMENT (DEDICATED)

| <u>National Alert Warning System (NAWAS)</u> | <u>Schedule</u> |
|---|-----------------|
| Control Room | Annually |
| Suffolk County Emergency Operations Center | " |
| New York State Emergency Operations Center (Albany) | " |

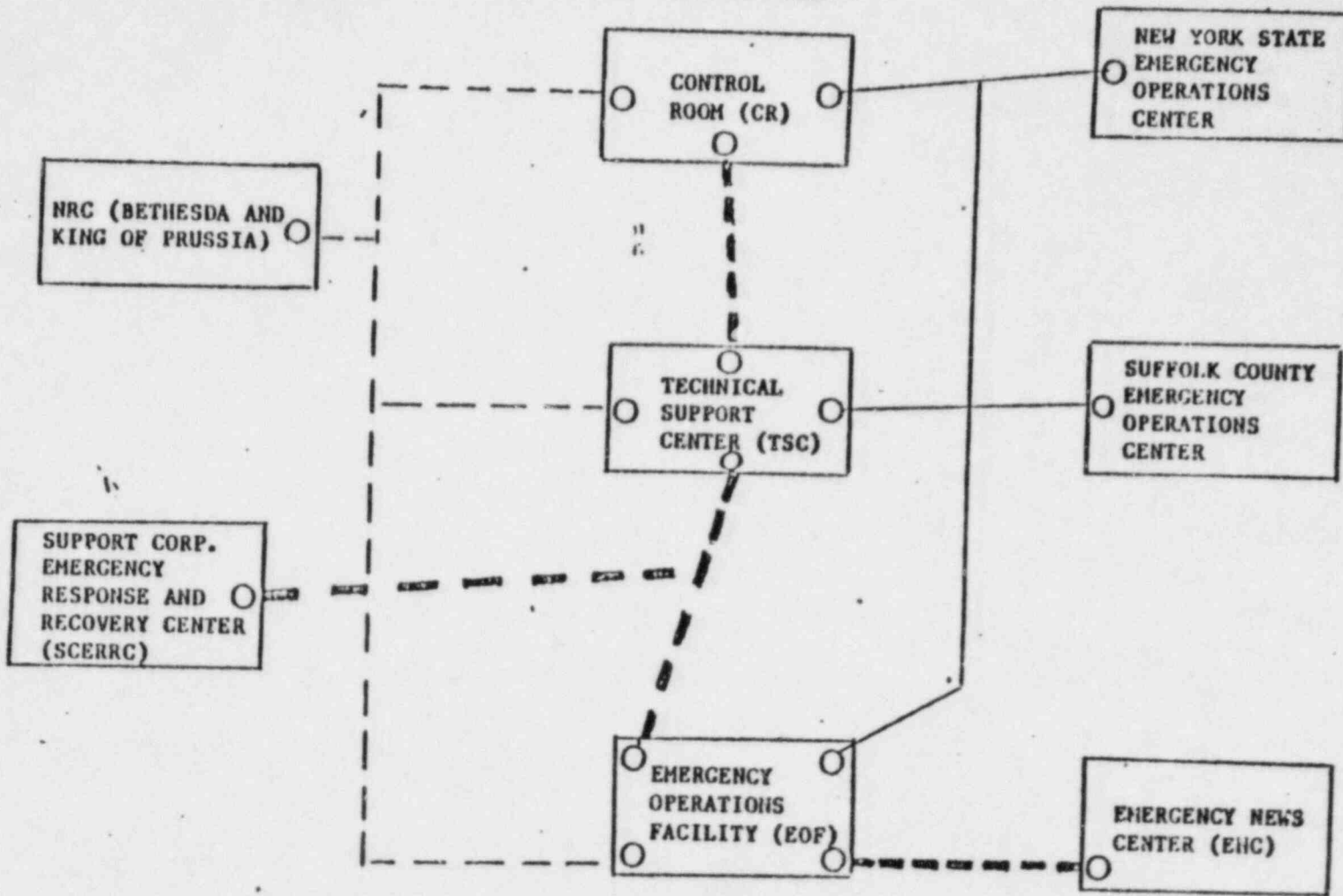
APPENDIX 12.4

COMMUNICATIONS TEST LOG

| <u>Communication Identification Number</u> | <u>Schedule Test Date</u> | <u>Actual Test Date</u> | <u>Acceptable</u> | <u>Non- Acceptable</u> | <u>Reason for Failure</u> | <u>Maintenance Work Order Issued</u> |
|--|-----------------------------------|---------------------------------|-------------------|----------------------------|-----------------------------------|--|
|--|-----------------------------------|---------------------------------|-------------------|----------------------------|-----------------------------------|--|

4

MAJOR COMMUNICATIONS MODES AND PATHS



KEY

Hot Line

NRC Dedicated Line

Intra-Company Dedicated Lines (3)

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APPENDIX 12.6

EMERGENCY RESPONSE
TELEPHONE DIRECTORY

includes

Control Room
Technical Support Center
Operational Support Center
Emergency Operations Center