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

TESTIMONY OF
NICHOLAS J. DI MASCIO AND EDWARD LIEBERMAN
ON BEHALF OF THE LONG ISLAND LIGHTING COMPANY
ON PHASE I EMERGENCY PLANNING CONTENTION 5(B) --
TRAFFIC CONGESTION AFFECTING ONSITE EMERGENCY WORKERS
AND OFFSITE LILCO PERSONNEL REPORTING TO THE SITE

PURPOSE

The purpose of this testimony is to address Suffolk County Contention EP 5(B), which alleges that LILCO has not adequately demonstrated that offsite personnel and onsite augmenting personnel will be able to get to the Shoreham site in the face of traffic congestion caused by the evacuating public. This testimony points out that offsite emergency personnel coming to the site (1) would likely be on the road before the evacuation of the public had gotten underway and so would reach the Station before traffic congestion developed and (2) would be coming toward the site, whereas the evacuating public would be

going in the opposite direction, and so their routes should not be congested.

Attachments to this Testimony:

5(B)-1	Resume of Nicholas J. Di Mascio
5(B)-2	Resume of Edward Lieberman
5(B)-3	Procedure SP 69.009.01, "Notifications"

LILCO, October 12, 1982

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Q1. Please identify yourself.

A1. [DiMascio] My name is Nicholas J. Di Mascio. My business address is Long Island Lighting Company, P. O. Box 628, Wading River, New York 11792. I am a Plant Engineer, Health Physics Section, employed by LILCO at the Shoreham Station. A copy of my professional qualifications is attached to this testimony as Attachment 5(B)-1.

[Lieberman] My name is Edward Lieberman. My business address is 300 Broadway, Huntington Station, New York 11746. I am a Vice President and principal of KLD

Associates, Inc., which performs traffic planning studies for LILCO in connection with emergency planning for the Shoreham Station. A copy of my professional qualifications is attached to this testimony as Attachment 5(B)-2.

Q2. What does Contention EP 5(B) say?

A2. [Di Mascio, Lieberman] Contention EP 5(B) reads as follows:

> EP6: OFFSITE RESPONSE ORGANIZATION AND ONSITE RESPONSE AUGMENTATION
> (SC, joined by NSC and SOC)
>
> Suffolk County contends that LILCO has failed to provide reasonable assurance that onsite assistance from offsite agencies will be forthcoming in the event of a radiological emergency at the Shoreham site (see, e.g., Plan at 5-8 and 6-15). LILCO has therefore not met the requirements of 10 C.F.R. §§50.47(b)(1), (2), (3), (8), (12) and (15), 10 CFR Part 50, Appendix E, Item A, and NUREG 0654. In addition, LILCO has not demonstrated adequately that it will be able to augment its onsite emergency response staff in a timely manner (see Plan, Ch. 5). LILCO has also, therefore, failed to meet the requirements of 10 CFR §50.47(b)(1) and (2). Thus:
>
> . . . .
>
> B. LILCO has not adequately demonstrated the possible effects of traffic congestion during evacuation of the population upon the ability of offsite personnel and/or onsite augmenting personnel to respond properly to the Shoreham site.

Q3. How does this contention relate to the other Phase I emergency planning contentions?

A3. [Di Mascio, Lieberman] The response of ambulance drivers is addressed under Contention EP 2(B). The augmenting of the onsite organization is addressed under Contention EP 7(B).

Q4. What offsite personnel will be expected to respond to the Shoreham Station site?

A4. [Di Mascio, Lieberman] The offsite personnel who will respond to the site are emergency support personnel such as policemen, firemen, and ambulance personnel. In addition, LILCO personnel will respond to augment the onsite personnel. We do not address ambulances in this testimony, since they are addressed under Contention EP 2(B).

Q5. Will traffic congestion restrict police access to the Shoreham Station site?

A5. [Di Mascio, Lieberman] No. Procedure SP 69.009.01, "Notifications" (Attachment 5(B)-3), requires that the Suffolk County EOC, located in the Suffolk County Police Headquarters, be notified within 15 minutes of the declaration of an emergency. Consequently, the response of the police will take place before the start of evacuation, and the police will reach the site well before the onset of congestion. Since mobile police will

respond, those units closest to the site will be assigned, minimizing both trip distance and travel time. Another factor is that travel to the Shoreham site is counterflow relative to evacuation traffic, which means that no congestion should be encountered by police vehicles. In addition, Suffolk County police could respond by helicopter.

Q6. Will traffic congestion restrict fire department vehicle access to the Shoreham Station site?

A6. [DiMascio, Lieberman] No. The travel distance from the Wading River Fire Department to the Shoreham Station site is about 1 1/2 miles, along a route which would not be used principally by evacuating traffic. This route is toward the site, while evacuating traffic moves away from the site. Consequently, congested conditions would not be encountered by vehicles traveling from the Wading River Fire Department to the site.

Q7. Will traffic congestion restrict offsite LILCO personnel access to the Shoreham Station site?

A7. [Di Mascio, Lieberman] No. Procedure SP 69.009.01, "Notifications" (Attachment 5(B)-3), requires that emergency response personnel be notified immediately following notification of the Suffolk County EOC.

Consequently, the response of LILCO personnel will take place before the start of evacuation and most, if not all, will reach the site before the onset of congestion. Since travel to the Shoreham site will be in the opposite direction to that of evacuating traffic, no congestion should be encountered. LILCO personnel will be familiarized with the evacuation routes that would be congested so that they will be able to avoid them in their trips to the site.

Q8. Will the traffic control strategies for an evacuation restrict access of personnel reporting to the Shoreham Station site?

A8. [Lieberman] No. Police manning the control points should be trained to provide right-of-way priority to emergency vehicles and to LILCO personnel in private vehicles with proper identification, regardless of control strategy instructions. We expect such a provision to be included in the Suffolk County emergency plan.

Q9. Contention EP 4 cites 10 C.F.R. § 50.47(b)(1), (b)(2), (b)(3), (b)(8), (b)(12), and (b)(15); 10 C.F.R. Part 50, and Appendix E, Item A, in addition to NUREG-0654. What do these regulations provide?

A9. [Di Mascio, Lieberman] 10 C.F.R. § 50.47(b)(1):

> (b) The onsite and offsite emergency response plans for nuclear power reactors must meet the following standards [footnote omitted]:
>
> (1) Primary responsibilities for emergency response by the nuclear facility licensee and by State and local organizations within the Emergency Planning Zones have been assigned, the emergency responsibilities of the various supporting organizations have been specifically established, and each principal response organization has staff to respond and to augment its initial response on a continuous basis.

§ 50.47(b)(2):

> (2) On-shift facility licensee responsibilities for emergency response are unambiguously defined, adequate staffing to provide initial facility accident response in key functional areas is maintained at all times, timely augmentation of response capabilities is available and the interfaces among various onsite response activities and offsite support and response activities are specified.

§ 50.47(b)(3):

> (3) Arrangments for requesting and effectively using assistance resources have been made, arrangements to accommodate State and local staff at the licensee's near-site Emergency Operations Facility have been made, and other organizations capable of augmenting the planned response have been identified.

§ 50.47(b)(8):

> (8) Adequate emergency facilities and equipment to support the emergency response are provided and maintained.

§ 50.47(b)(12):

> (12) Arrangements are made for medical services for contaminated injured individuals.

§ 50.47(b)(15):

> (15) Radiological emergency response training is provided to those who may be called on to assist in an emergency.

Appendix E, II.A:

> As a minimum, the following items shall be described:
>
> A. Onsite and offsite organizations for coping with emergencies and the means for notification, in the event of an emergency, of persons assigned to the emergency organizations.

Q10. Considering the possible effects of traffic congestion, in your judgment does the LILCO emergency plan fail to comply with any of these regulations?

A10. [Di Mascio, Lieberman] No.

PROFESSIONAL QUALIFICATIONS

NICHOLAS J. DiMASCIO

Nuclear Plant Engineer - Health Physics Sections

LONG ISLAND LIGHTING COMPANY

My name is Nicholas J. DiMascio and my business address is Long Island Lighting Company, Shoreham Nuclear Power Station, Post Office Box 628, Wading River, New York 11792. I have been Assistant Health Physics Engineer at the Shoreham Nuclear Power Station since October 1978. In this capacity I am responsible for the development of many station radiation protection programs and activities.

I was initially assigned the responsibility of developing a specification for the purchase of a combined Whole Body Counting and Ge(Li) Isotopic Analysis System. My other duties include: supervision of the Health Physics Technicians; preparation of Health Physics procedures; development of a computerized Dose Records Keeping System; establishment of a Respiratory Protection Program which meets the requirements of Regulatory Guide 8.15 and NUREG-0041; initiation of a TLD System; preparation of Emergency Plan and site Emergency Plan Implementing Procedures for compliance with guidance of

NUREG-0654 Rev.1; and assisting the Health Physics Engineer as required.

I was awarded my Bachelors degree in Radiological Health Physics in 1974 from Lowell Technological Institute. I subsequently attended the University of New York at Stonybrook where I worked towards a Master of Science degree in Industrial Management. I earned the last twelve credits of a Master of Science degree in Nuclear Engineering at the Polytechnic Institute of New York. In addition, I successfully completed numerous training programs ranging from four days to twelve weeks. These programs include: Boiling Water Reactor Health Physics Technology (General Electric); Basic Power Plant Systems (Stone & Webster); Various Health Physics Workshops (Health Physics Society); Boiling Water Reactor Radiochemistry Technology (General Electric); Radiological Emergency Response Coordinators Course (United States Environmental Protection Agency); and Planning for Nuclear Emergencies (Harvard School of Public Health).

From November to June 1973 I was employed by the New England Electric Company for a summer internship program. I was assigned as Health Physics Assistant at the Yankee Rowe and Vermont Yankee Nuclear Power Stations and assumed the following duties: the performance of routine surveys and analyses; the use of radiation sources for the calibration of portable survey instrumentation; the provision of health physics coverage

during a refueling outage at Vermont Yankee; a detailed survey of normal gaseous effluent releases at the site boundary of Yankee Rowe; and the collection of offsite environmental samples--liquid, gaseous, and ground--for analyses of annual releases from Yankee Rowe.

From June 1974 to September 1978 I was employed by Stone & Webster Engineering Company as an Engineer in the Radiation Protection Department. My duties included performing the required accident analyses, evaluating radiation safety and determining adequate shielding for systems and components within nuclear power plants. I participated in a 10 CFR Part 50, Appendix I evaluation of effluent releases for Millstone Units 1 and 2. I developed specification for a digital radiation monitoring system for the Shoreham Nuclear Power Station as well as determining detector setpoints for the radiation monitoring system at North Anna Units 1 and 2. While still an employee at Stone & Webster, I was assigned to LILCO as a consultant at the Shoreham Nuclear Power Station for approximately fifteen months to assist the Health Physics Engineer in preoperational planning and procedure development.

Since October 1978 I have been a LILCO employee and, more specifically, have been assigned to the Shoreham Operating Staff as a Nuclear Plant Engineer in the Health Physics Section. During this period I have been assigned to On-Site Training I and II and training at Vallecito's Nuclear Training

Center commensurate with performing duties with the position of Assistant Health Physics Engineer. On-Site Training I included formal classroom lectures on components and operation of systems at the Shoreham Nuclear Power Station. On-Training II involved classroom lectures on operating procedures of each section of the Plant Staff, and familiarization of several emergency operating procedures. My assignment at General Electric's Vallecito's Nuclear Training Center included intensive formal classroom theory on BWR Health Physics Technology and practical applications through actual performance of normal routine surveys and calibrations.

I am a member of the Health Physics Society and the Greater New York Chapter of Health Physics Society.

My experience with radiation is extensive. In time increments ranging from twelve weeks to two years, I gained experience at Vermont Yankee, Yankee Atomic, Stone & Webster, General Electric and Lowell Technological Institute working with isotopes and their related types of uses. This experience included working with Co-60 and Cs-137 isotopes for calibration and check sources; mixed corrosion, mixed fission, and mixed activation products isotopes for use involving reactor coolant, radwaste, plant radiation, plant contamination and class experiments; noble gases isotopes for use as gas effluent samples and class experiments; and a Tritium isotope for liquid samples usage.

The training I received at Vermont Yankee, Yankee Atomic, Stone & Webster, General Electric and Lowell Technological Institute consisted of either on-the-job or formal training sessions. Ranging from three weeks to four years, the types of training I received involved: principles and practices of radiation protection; radioactivity measurement standardization and monitoring techniques and instruments; mathematics and calculations basic to use and measurement of radioactivity; and biological effects of radiation.

PROFESSIONAL QUALIFICATIONS

EDWARD LIEBERMAN

Vice President

KLD ASSOCIATES, INC.

My name is Edward Lieberman and my business address is KLD Associates, Inc., 300 Broadway, Huntington Station, New York 10007. I am presently Vice President of KLD Associates, Inc.

I received my Bachelor of Science degree in Civil Engineering in 1951 from Polytechnic Institute of Brooklyn. I was awarded my Master of Science degrees in Civil Engineering in 1954 from Columbia University and in Aero Engineering in 1967 from Polytechnic Institute of Brooklyn. I subsequently worked on a Doctorate degree in Transportation Planning at Polytechnic Institute of New York. I am a member of Chi Epsilon Honorary Fraternity.

With almost 30 years of professional experience, I have managed numerous major projects. I pioneered the development and application of traffic simulation models, making major innovations in the state-of-the-art in the Traffic Engineering profession. I have also been responsible for many engineering studies involving data collection and analysis and design of traffic control systems to expedite traffic flow and relieve congestion.

I have developed simulation models to study traffic performance on urban networks, freeways, and freeway corridors. I am currently working on a traffic simulation model for two-lane, two-way rural roads. These programs include consideration of pedestrians' interaction with vehicular traffic, truck and bus operations, special turning lanes, and vehicle fuel consumption and emissions; both pretimed and actuated traffic signal controls are represented.

I was responsible for the theoretical development of DYNEV, a DYnamic Network EVacuation model. The DYNEV model consists of two major components: an equilibrium traffic assignment model and a macroscopic dynamic traffic simultation model designed for all types of roadway facilities (urban streets, freeways, rural roads).

DYNEV is designed to be used as a tool to develop and organize evacuation plans needed as part of general disaster preparedness planning. DYNEV was used to analyze an existing evacuation scenario at the Con Edison Indian Point Nuclear Power Station and is currently being used to develop an extensive evacuation plan for the LILCO Shoreham Nuclear Power Station on Long Island, New York.

In developing this evacuation plan for LILCO's Shoreham Nuclear Power Station, my activities include definition of evacuation scenarios, definition of the evacuation network,

development of traffic control treatments and of traffic routing patterns, analysis of trip tables, analysis of simulation results, optimization of evacuation strategies and the preparation of formal documentation.

I was also responsible for the designs of the NETSIM microscopic urban traffic simulation model (formerly UTCS-1) and of the SCOT freeway traffic simulation model. The NETSIM microscopic traffic simulation model developed for the Federal Highway Administration, enables agencies to evaluate traffic operations in urban environments. The SCOT model was developed for the Transportation Systems Center of the Department of Transportation. This program includes a dynamic traffic assignment algrithm which routes traffic over a network in response to changing traffic flow characteristics to satisfy a specified origin-destination table. In addition, I have developed advanced traffic control policies for urban traffic for the FHWA-sponsored UTCS Project, as well as a bus preemption policy to enhance the performance of mass transit operations within urban environs.

I designed and programmed the advanced "Third Generation" area-wide, cycle-free control policies for moderate and congested traffic flow for computer-monitored real-time systems. I also developed a cycle-based, off-line computational procedure named SIGOP-II, to optimize traffic signal timing patterns to minimize system "disutility.'

I led a group of traffic engineers and systems analysts in developing a system of macroscopic traffic simulation models designed to evaluate Transportation Systems Management (TSM) strategies. This software system, named TRAFLO, also includes an equilibrium traffic assignment model. This model has been distributed to other agencies including FEMA.

I designed an "Integrated Traffic Simulation System," named TRAF, which will eventually incorporate all the best traffic simulation models available. Using structured programming techniques, TRAF will integrate: NETSIM, TRAFLO, INTRAS (a microscopic freeway traffic simulation model), and a microscopic rural-road simulation model.

I served as Principal Investigator on NCHRP Project 3-20 entitled, "Traffic Signal Warrants." This project involved both field data collection and the application of the NETSIM model to study intersection delay as a function of traffic volume, type of control and geometrics. In turn, I developed and documented new signal warrants which wll be incorporated in the next version of the Manual on Uniform Traffic Control Devices (MUTCD).

Under NHTSA sponsorship, I directed a research study to evaluate a Driver Vehicle Evaluation Model named DRIVEM. This model simulates the resonse of motorists to hazardous events. The effort included analysis of the model formulation and

software and sensitivity testing. A workshop was designed, organized, scheduled and conducted by myself and other KLD professionals; experts from all over the U.S. were invited to recommend specific NHTSA research activities for the further development of the model. A recommended research program constituted the major output of the contract.

Over the years I have been involved in a number of other studies to evaluate traffic operations on large-scale road networks, using one or more of the models described above.

Prior to 1960 I applied my skills to the areas of stress analysis, vibrations, fluid dynamics and numerical analysis of differential equations. These analyses were programmed for the IBM 7090 and System 360, CDC 6600 and 7600, G.E. 625 and UNIVAC 1108 digital computers in assembly language, FORTRAN and PLI. I also designed the logic and real-time programming for a sonar simulator built for the Department of Navy and monitored by a PDP-8 process-control digital computer.

I am a member of the American Society of Civil Engineers, the Institute of Transportation Engineers, the Association of Computing Machinery and the Transportaton Research Board (TRB). I am also a member of the Capacity Committee and of the Traffic Flow Theory and Characteristics Committee of the TRB. I am a licensed Professional Engineer in New York, Maryland, and Florida.

The following list comprises selected publications of my studies and findings:

"DYNET - A Dynamic Network Simulation of Urban Traffic Flow," Proceedings, Third Annual Simulation Symposium, 1970.

"Simulation of Traffic Flow at Signalized Intersections: the SURF System," Proceedings, 1970 Summer Computer Simulation Conference, 1970.

"Dynamic Analysis of Freeway Corridor Traffic," ASME paper, Trans. 70-42.

"Simulation of Corridor Traffic: The SCOT Model," "Highway Research Record No. 409, 1972.

"Logical Design and Demonstration of UTCS-1 Network Simulation Model," Highway Research Record No. 409, 1972 with R. D. Worrall and J. M. Bruggerman).

"Variable Cycle Signal Timing Program: Volumes 1-4," Final Report of Contract DOT-FH-11-7924, June, 1974.

"Traffic Signal Warrants," KLD TR-51, Final Report on NCHRP Project 3-20/1, December 1976 (with G. F. King and R. Goldblatt).

"Rapid Signal Transition Algorithm," Transportation Research Record No. 509, 1974 (with D. Wicks).

"Subnetwork Structuring and Interfacing for UTCS Project-Program of Simulation Studies," KLD TR-5, January, 1972.

"Development of a Bus Signal Preemption Policy and a System Analysis of Bus Operations," KLD TR-11, April 1973.

"SIGOP-II - Program to Calculate Optimal, Cycle-Based Traffic Signal Timing Patterns, Volumes 1 and 2," Final Report, Contract DOT-FH-11-7924, KLD TR-29 and TR-30, December 1974. Summary report in Transportation Research Record 596, 1976 (with J. Woo).

"Developing a Predictor for Highly Responsive System-Based Control," Transportation Research Record 596, 1976 (with W. McShane and R. Goldblatt).

"A New Approach for Specifying Delay-Based Traffic Signal Warrants," Transportation Research Special Report 153 - Better Use of Existing Transportation Facilities, 1976.

"Network Flow Simulation for Urban Traffic Control Systems," Vols. 1-5, PB230-760, PB230-761, PB230-762, PB230-763, PB230-764, 1974 (with R. Worrall). Vols. 2-4 updated 1977, KLD TR-60, TR-61, TR-62 (with D. Wicks and J. Woo).

"Extension of the UTCS-1 Traffic Simulation Program to Incorporate Computation of Vehicular Fuel Consumption and Emissions," KLD TR-63, 1976 (with N. Rosenfield).

"Analysis and Comparison of the UTCS Second- and Third-Generation Predictor Models," KLD TR-35, 1975.

"Urban Traffic Control System (UTCS) Third Generation Control (3-GC) Policy," Vol. 1, 1976 (with A. Liff).

"Design of TRAFIC Operating System (TOS), KLD TR-57, 1977.

"Revisions to the UTCS-1 Traffic Simulation Model to Enhance Operational Efficiency," KLD TR-59, 1977 (with A. Wu).

"The Role of Capacity in Computer Traffic Control," in Research Directions in Computer Control of Urban Traffic Systems, ASCE, 1979.

"Traffic Simulation: Past, Present and Potential," in Hamburger, W.S. and Steinman, L., eds., Proceedings of the International Symposium of Traffic Control Systems, Unversity of California, Berkeley, 1979.

"TRAFLO: A New Tool to Evaluate Transportation System Management Strategies," presented at the 59th Annual Meeting of the Transportation Research Board, 1980 (with B. Andrews).

"Determination of the Lateral Deployment of Traffic on an Approach to an Intersection," presented at the 59th Annual Meeting of the Transportation Research Board, 1980.

"Service Rates of Mixed Traffic on the Left-Most Lane of an Approach," presented at the 59th Annual Meeting of the Transportation Research Board, 1980 (with W. R. McShane).

"Development of a TRANSYT-Based Traffic Simulation Model," presented at the 59th Annual Meeting of the Transportation Research Board, 1980 (with M. Yedlin).

"Hybrid Macroscopic-Microscopic Traffic Simulation Model," presented at the 59th Annual Meeting of the Transportation Research Board, 1980 (with M. C. Davila).

"A Model for Calculating Safe Passing Distance on Two Lane Rural Road," presented at the 60th Annual Meeting of the Transportation Research Board, 1981.

MC-1

Submitted: N D Mascio

Reviewed/OQA Engr.: Robert P Sleszynski

Approved/Plant Mgr.: J Rivello

SP Number 69.009.01
Revision 0
Date Eff 7/9/82
TPC
TPC
TPC

NOTIFICATIONS

1.0 PURPOSE

To specify the means by which notification for all emergency levels are made and to delineate personnel who would be called to augment the emergency response organization.

2.0 RESPONSIBILITY

The Health Physics Engineer is responsible for ensuring compliance with this procedure.

3.0 DISCUSSION

3.1 Establishment of a quick effective means of notification of an emergency is a critical part of emergency response. Primary and secondary modes of communication are provided to insure the availability of proper communications.

3.2 Preplanned message statements allow for accurate and complete transfer of information. Persons making the notification simply read prewritten statements containing the necessary information. Communications guidelines are given in Appendix 12.6.

3.3 The preplanned message forms are filled out by either a Communicator (CR), EPA #2 (TSC) or EPA #1 (EOF) depending upon the highest facility activated. The fact sheet is approved by either the Emergency Director or the Response Manager before transmission to appropriate authorities.

3.4 Topics covered in this procedure:

4.0 PRECAUTIONS

Only persons authorized by the Emergency Director/Response Manager shall make notifications as prescribed in this procedure.

5.0 PREREQUISITES

An emergency has been classified in accordance with SP 69.Ø1Ø.Ø1, Classification of Emergency Action Levels.

6.0 LIMITATIONS AND ACTIONS

N/A

7.0 MATERIALS AND EQUIPMENT

Communications equipment as described in Ref. 11.1.

8.0 PROCEDURE

8.1 Initial Notification

8.1.1 Communicator (CR) fill out a Notification Fact Sheet (Appendix 12.1) and submit it to the Emergency Director for approval.

8.1.2 Emergency Director provide an approved Notification Fact Sheet to the Communicator and direct him to make the following notifications.

8.1.3 Communicator, using the primary communications mode given in the Required Notification Call List (Appendix 12.3) make the following notifications by reading the Notification Fact Sheet. Obtain all information required to fill in Appendix 12.3.

1. Notify the following personnel:

   Plant Manager
   Vice President - Nuclear
   Chief Operating Engineer
   Chief Technical Engineer

NOTE: If these personnel are notified by beeper, do not read off the Notification Fact Sheet.

2. Notify the LILCO Gas Systems Operator by means of the Card Dialer Phone, so that appropriate corporate personnel can be notified in accordance with CIP-1, Corporate Notifications

3. Notify New York State, Suffolk County and New York State Sourthern District Office by means of the hotline within 15 minutes of classification.

8.1.4 Licensed Operator, make initial notification to the NRC within 1 hour of declaration by use of the Emergency Notification System (ENS). After the TSC is activated, this function shall be continuted at that center. Record the notification on Appendix 12.3.

NOTE: The NRC will require the ENS to be continuously manned if they so desire in order to be kept appraised of the emergency situation. Provide all information asked for, if possible. The operator should ask the NRC if they will speak to a different person so that you can resume operational duties.

8.2 Subsequent Notifications

8.2.1 Communicator, using the primary communications mode given in the Supplementary Notification Call List (Appendix 12.4) and record them on the Call List. Obtain all necessary information to

complete the Call List.

NOTE: Some supplementary notifications may have to be performed expeditiously for prompt response (e.g. Coast Guard for waterborne releases). Guidelines for all supplementary notifications are given in Appendix 12.4.

8.2.2 Communicator, call in additional station personnel as directed. Use the Internal Notification Call List (Appendix 12.5) for the appropriate on or off-hour time and emergency classification.

8.3 Verification

8.3.1 Notifications made by use of dedicated lines require no verification.

8.3.2 All calls made to offsite agencies by use of commercial lines require the individual receiving the notification to call back and verify that the necessary information has been received.

8.3.3 Notification by beeper of essential personnel (Step 8.1.3.1) is verified when these personnel call on the Conference Phone and are briefed by the Emergency Director on the status of plant conditions.

8.4 Follow-up Notification

8.4.1 Communicator (CR) or Emergency Planning Advisor #1 or 2 (TSC or EOF) fill out a Dose Assessment Fact Sheet (Appendix 12.2) and submit it to the Emergency Director/Response Manager for approval.

8.4.2 Emergency Director/Response Manager, provide a completed Dose Assessment Fact Sheet to a Communicator and direct him to make notifications to the agencies on the Notification Call List (Appendix 12.3) and to appropriate agencies on the Subsequent Notification Call List (Appendix 12.4).

8.4.3 Communicator, notify the appropriate authorities on Appendix 12.3 and 12.4, using the Dose Assessment Fact Sheet (Appendix 12.2). Obtain the necessary information to complete the Call Lists.

9.0 ACCEPTANCE CRITERIA

N/A

10.0 FINAL CONDITIONS

All notifications have been logged on the appropriate call lists.

11.0 REFERENCES

11.1 CIP-3 , Communications Equipment

11.2 SP 69.Ø1Ø.Ø1, Classifications of Emergency Action Levels

12.0 APPENDICES

12.1 Notification Fact Sheet, SPF 69.ØØ9.Ø1-1

12.2 Dose Assessment Fact Sheet, SPF 69.ØØ9.Ø1-2

12.3 Notification Call List, SPF 69.ØØ9.Ø1-3

12.4 Supplementary Notification Call List, SPF 69.ØØ9.Ø1-4

12.5 Internal Notification Call List, SPF 69.ØØ9.Ø1-5

12.6 Communications Guidelines

12.7 NRC Notification Call List, SPF 69.ØØ9.Ø1-6

Part 1 - NOTIFICATION FACT SHEET

1. Date and Time of Message Transmittal:

_____ / _____
Date Time (24 hr clock)

2. Nuclear Facility providing the initial report:
   - (A) Indian Pt. No. 2
   - (B) Indian Pt. No. 3
   - (C) Ginna Station
   - (D) Nine Mile Pt. Unit 1
   - (E) Fitzpatrick Plant
   - (F) Shoreham Station
   - (G) Other _____

3. Reported by: (A) _____ (B) _____
Name Title

4. This (A) is (B) is NOT, an excerise.

5. Emergency Classification:
   - (A) Unusual Event
   - (B) Alert
   - (C) Site Area Emergency
   - (D) General Emergency

6. This Classification occured at _____, _____.
Date Time (24 hr clock)

7. Brief Event Description/Initiating Condition: _____
_____
_____

8. There:
   - (A) has NOT been a release of radioactivity.
   - (B) has been a release of radioactivity to the ATMOSPHERE.
   - (C) has been a release of radioactivity to a BODY OF WATER.
   - (D) has been a GROUND SPILL release of radioactivity. _____

9. The release (A) is continuing (B) has terminated (C) not applicable.

10. Protective Actions:
   - (A) There is no need for protective actions outside the site boundary.
   - (B) Protective Actions are under consideration.
   - (C) Recommended Protective Actions:

     Shelter within _____ miles/or sectors/or ERPA's.
     Evacuate within _____ miles/or sectors/or ERPA's.

11. Weather:
   - (A) Wind Speed _____ miles per hour or _____ meters per second.
   - (B) Direction (from) _____ degrees.
   - (C) Stability Class (A-G) _____.
   - (D) General Weather Conditions (if available) _____

ED/RM Approval _____

SPF 69.009.01-1, Rev. 0

Part II - DOSE ASSESSMENT FACT SHEET

12. Prognosis for Worsening or Termination of the Emergency: _____

_____

13. In Plant Emergency Response Actions Underway: _____

_____

14. Utility Off-Site Emergency Response Action Underway: _____

_____

15. Release Information

(A) ATMOSPHERIC RELEASE

	Actual	Projected
Date and Time Release Started	_____	_____ _____
Duration of Release	_____ hrs	_____ hrs
Noble Gas Release Rate	_____ Ci/sec	_____ Ci/sec
Radioiodine Release	_____ Ci/sec	_____ Ci/sec
Elevated or Ground Release	_____	_____

(B) WATERBORNE RELEASE

Date and Time Release Started	_____	_____
Duration of Release	_____ hrs	_____ hrs
Volume of Release	_____ gal	_____ gal
Radioactivity Concentration (gross)	_____ uCI/ml	_____ uCi/ml
Total Radioactivity Released	_____ Ci	_____ Ci
Radionuclides in Release	_____ uCi/ml	_____ uCi/ml
	_____ uCi/ml	_____ uCi/ml
	_____ uCi/ml	_____ uCi/ml

Basis for release data e.g. effluent monitors, grab sample, composite sample and sample location: _____

16. Dose and Measurements and Projections

(A) SITE BOUNDARY

	Actual	Projected
Whole Body Dose Rate	_____ mR	_____ mr/hr
Whole Body Commitment		_____ Rem
Thyroid Dose	_____ mRem	_____ mRem
Thyroid Dose		_____ Rem

(B) PROJECTED OFFSITE

	2 Miles	5 Miles	10 Miles
Whole Body Dose Rate (mr/hr)	_____	_____	_____
Whole Body Dose (Rem)	_____	_____	_____
Thyroid Dose Commitment (1 hr Exposure) (mRem)	_____	_____	_____
Thyroid Dose (Total Commitment) (Rem)	_____	_____	_____

17. Protective Action Recommendations and the basis for that recommendation.

_____

_____

_____

ED/RM Approval _____

Appendix 12.3

REQUIRED NOTIFICATION CALL LIST

	Organization Individual	Communications Mode Primary/Alternates	Agency/Person Contacted Time/Intitials	Name of Person Contacted	Message Received and Verified Time/Initials
1.	Plant Manager	1. Beeper 2. X-201 3. Card Dialer Phone	/		/
2.	Vice President Nuclear	1. Beeper 2. 733-4013 3. Card Dialer Phone	/		/
3.	Chief Operating Engineer	1. Beeper 2. X-202 3. Card Dialer Phone	/		/
4.	Chief Technical Engineer	1. Beeper 2. X-203 3. Card Dialer Phone	/		/
5.	Gas Systems Operator	1. Card Dialer Phone	/		/

NOTE: These Notifications to be made within 15 minutes of Declaration

o.	New York State Emergency Operations	1. Hotline 2. NAWAS 3. Card Dialer Phone	/		/
7.	New York State Southern District Office	1. Hotline 2. NAWAS	/		/
8.	Suffolk County Emergency Operations Center	1. Hotline 2. NAWAS 3. Card Dialer Phone	/		/

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SUPPLEMENTARY NOTIFICATION CALL LIST

	Organization/ Individual	Communications Mode Primary/Alternates	Agency/Person Contacted Time/Initials	Name of Person Contacted	Message Received and Verified Time/Initials
1.	St. Joseph's Villa	1. Card Dialer Phone	/		/
	NOTE: Notify for all incidents involving offsite radiological consequences.				
2.	U.S. Coast Guard	1. Card Dialer Phone	/		/
	NOTE: Notify only for incidents affecting Long Island Sound				
3.	Radiation Management Corporation	1. Card Dialer Phone	/		/
	NOTE: Notify only for incidents involving severely contaminated individuals.				
4.	INPO	1. Card Dialer Phone	/		/
	NOTE: Notify for alert or higher classification				
	U.S. EPA	1. Card Dialer Phone	/		/
	NOTE: Notify for all incidents affecting environment.				
6.	U.S. Doe FRMAP Team	1. Card Dialer Phone	/		/
	NOTE: Notify only when directed by the Radiation Protection Manager/Radiological Control Manager				

SPF 69.ØØ9.Ø1-4, Rev. Ø

INTERNAL NOTIFICATION CALL LIST

(LATER)

SPF 69.ØØ9.Ø1-5, Rev. Ø

Appendix 12.6

COMMUNICATIONS GUIDELINES

Notify individuals/organizations listed in the Call Lists (Appendices 12.3 or 12.4) using one of the preplanned message forms as follows:

1. Call each individual/organization using the primary mode of communication. If the party cannot be contacted using the primary method, use the alternate method.

2. If a party cannot be contacted, bypass that party and proceed to the next one on the list. After all notifications have been completed, attempt to contact the bypassed parties. If a party still cannot be contacted, consider other methods such as relaying information through a third party.

3. When the party answers, identify yourself and inform the individual to obtain the form on which to record the notification. Pause to permit the individual time to obtain the form.

4. Read the notification, annunciating the information which is to be entered on the form.

5. After the notification has been completed, ask the individual to read back the notification and, if necessary, correct any errors.

6. Record the name of the individual and the time of contact on the Notification Call Lists.

7. Proceed to the next agency on the Call List until all organizations have been notified.

Appendix 12.7

NRC NOTIFICATION CALL LIST

	Organization Individual	Communications Mode Primary/Alternates	Agency/Person Contacted Time/Initials	Name of Person Contacted	Message Received and Verifed Time/Initials
	NOTE:	NRC Notifications (#9 and 10) to be performed by Licensed Operator only. Notification to NRC within 1 hour of classification.			
1.	NRC, Washington Office, Bethesda	1. Emerg. Notification System (ENS) Dedicated Phone 2. Card Dialer Phone	/		/
2.	NRC, Regional Office, King of Prussia	1. Emerg. Notification System (ENS) Dedicated Phone 2. Card Dialer Phone	/		/