

Murray Selman
Vice President

GORDON

Consolidated Edison Company of New York, Inc.
Indian Point Station
Broadway & Bleakley Ave.
Buchanan, NY 10511
Telephone (914) 737-8116

April 22, 1985

Re: Indian Point Unit Nos. 1 and 2
Docket Nos. 50-03 and 50-247

Dr. Thomas E. Murley
Regional Administrator - Region I
U.S. Nuclear Regulatory Commission
631 Park Avenue
King of Prussia, PA 19406

Dear Dr. Murley:

Attached is a copy of the scenario for the annual Indian Point 2 onsite emergency drill currently scheduled for June 5, 1985. To ensure a spontaneous and unbiased response to evolving events described in the attached scenario we have limited distribution of the attached to those persons who are not players and are required to review and approve this submittal. We request that these same procedures be employed by your staff.

This submittal is made in accordance with the suggested reporting schedule as outlined in Mr. R. C. Haynes letter of October 26, 1981.

Should you or your staff have any questions please call me.

Very truly yours,

Murray Selman

Attachment

cc: Senior Resident Inspector
U.S. Nuclear Regulatory Commission
P.O. Box 38
Buchanan, New York 10511

8610200194 850422
PDR ADOCK 05000003
F PDR

IE35
11

CONSOLIDATED EDISON COMPANY OF NEW YORK

INDIAN POINT UNIT NO. 2

DRILL SCENARIO NO. 1985

No. 5

CONTROLLED COPY

CONSOLIDATED EDISON COMPANY OF NEW YORK

INDIAN POINT UNIT NO. 2

DRILL SCENARIO NO. 1985

TABLE OF CONTENTS

Section

- | | |
|-------|-------------------------------------|
| I. | Introduction |
| II. | Objectives |
| III. | Drill Scenario |
| IV. | Messages & Controller Field Reports |
| V. | Observer/Controller Instructions |
| VI. | Plant Status Log |
| VII. | Radiological/Meteorological Log |
| VIII. | Radiological Information |
| IX. | Logistics |

CONSOLIDATED EDISON COMPANY OF NEW YORK

INDIAN POINT UNIT NO. 2

DRILL SCENARIO NO. 1985

I. INTRODUCTION

The purpose of this drill is to demonstrate Con Edison's capability to effectively implement the Indian Point Unit No. 2 Site Emergency Plan and Procedures.

This document has been prepared to assist the drill Observer/Controllers in the conduct and evaluation of the drill. It contains all the information and data necessary to properly conduct the drill in an efficient and coordinated manner and is broken down as follows:

Section II Objectives - this section defines the drill objectives

Section III Drill Scenario - this section describes the Indian Point Unit No. 2 postulated sequence of events occurring which will require the onsite emergency response organizations to respond. For each event described, the anticipated results of the participants are also detailed. These results should be used as a guide in evaluating the drill. However, it should be noted that the results observed may vary from those stated and should be evaluated on a case-by-case basis with respect to applicable procedures.

Section IV Messages - this section contains copies of the drill messages which will be utilized to control the progress of the drill scenario.

Section V Observer/Controller Instructions - this section provides general instructions to the drill Observers and Controllers in the conduct of the drill. Also included is evaluation criteria for evaluating the responses of the drill participants.

Section VI Plant Status Log - this section contains time-related information (non-radiological) concerning plant conditions, which corresponds to the development of the drill scenario.

Section VII Radiological/Meteorological Log - this section contains time-related plant radiological and meteorological data which corresponds to the development of the drill scenario.

Section VIII Radiological Information - this section contains time-related radiological information in the following categories as required by the scenario:

- o Primary Coolant Activity
- o Containment Activity
- o Release Path Activity

- o Plant Radiation Levels
- o Facility Radiation Levels
- o Reuter-Stokes Readings
- o Plume Monitoring Data & Figures
- o Offsite TLD Readings
- o Post Accident Samples
- o Post Accident Offsite Contamination Levels
- o Medical Emergency Data

Section IX Logistics - this section contains information and direction for the handling of peripheral items related to the day of the drill.

- o Food for participants
- o Access lists
- o Methods of identification of players, controllers, observers, visitors, etc.

CONSOLIDATED EDISON COMPANY OF NEW YORK

INDIAN POINT UNIT NO. 2

DRILL SCENARIO NO. 1985

II. OBJECTIVES

A. Emergency Operations Facilities

1. Demonstrate the activation and staffing of emergency response facilities.
 - o Control Room (CR)*
 - o Technical Support Center (TSC)
 - o Operational Support Center (OSC)
 - o Emergency Operations Facility (EOF)
 - o Corporate Response Center (CRC)
- * A separate non-operating watch organization will be identified and instructed as to the time to report to the control room. This will ensure their availability to respond when the Chief Controller starts the drill.
2. Demonstrate Indian Point Unit No. 2's communication capabilities among the Control Room (CR), Technical Support Center (TSC), Emergency Operations Facility (EOF), Operations Support Center (OSC) and Emergency News Center (ENC).
3. Demonstrate emergency communications capability between Indian Point Unit No. 2 and the State/County Warning Points including the Radiological Emergency Communications System (RECS-Hot Line).
4. Demonstrate the ability of Indian Point to coordinate, control and deploy radiological monitoring teams via the respective field communications system.

B. Alerting and Mobilization of Officials and Staff

1. Demonstrate the ability of Indian Point Unit No. 2 staff to classify actual or potential emergencies in accordance with Indian Point Emergency Plan Implementation Procedures as to:
 - o Alert
 - o Site Area Emergency
2. Demonstrate the capability of Indian Point Unit No. 2 to notify the State, local and Federal levels of government in accordance with Federal and established protocols.

3. Demonstrate the capability to communicate technical information between Indian Point Unit No. 2 emergency facilities and the State and Counties. The extent of the interface with the offsite authorities will be limited due to the nature and scope of an onsite annual exercise. Indian Point Unit No. 2 will also demonstrate communicating with the NRC via the NRC Hot Line.
4. Demonstrate the capability of Indian Point Unit No. 2 to notify and activate emergency response personnel.

C. Emergency Operations Management

1. Evaluate the adequacy and capability of implementation of the Indian Point Unit No. 2 radiological emergency plan.
2. Demonstrate the emergency response capabilities of Indian Point Unit No. 2.
3. Demonstrate the capability of Indian Point Unit No. 2 to implement its radiological emergency preparedness plan in a manner satisfying NRC acceptance criteria.
4. Demonstrate the ability of key emergency personnel at Indian Point Unit No. 2 to initiate and coordinate timely and effective decisions with respect to a radiological emergency, and clearly demonstrate command and control functions at the station.
5. Demonstrate that there is effective organizational control (direction and control) and integrated onsite radiological emergency response including deployment of field monitors, and receipt and analysis of field data.

D. Accident Assessment

1. Demonstrate the ability of Indian Point Unit No. 2 to receive and assess radiological data from field teams in accordance with the emergency plan implementation procedures.
2. Demonstrate the ability of Indian Point Unit No. 2 to calculate dose projections, compare the projections to the Protective Action Guides (PAGs) and determine appropriate protective actions.
3. Demonstrate the activation, operations and reporting procedures of Indian Point Unit No. 2 field monitoring teams dispatched beyond the site boundary.

E. Actions to Protect the Public

1. Demonstrate the capability of Indian Point Unit No. 2 personnel to assess the actual or potential exposure to radiation of the offsite population and to recommend appropriate Protective Actions.

F. Health, Medical and Exposure Control Measures

1. Demonstrate our accountability practices as well as the capability to minimize Indian Point employee exposure in accordance with the provisions of the Indian Point Unit No. 2 onsite Emergency Plan Implementation Procedures. Accountability practices and exposure control measures will be limited to a small group of non-essential personnel within the protected area and the assembly areas at the Simulator Building and Con Edison Construction Office.
2. Demonstrate the decision process for limiting exposure of emergency workers.

CONSOLIDATED EDISON COMPANY OF NEW YORK

INDIAN POINT UNIT NO. 2

DRILL SCENARIO NO. 1985

III. DRILL SCENARIO

Initial Conditions

Con Edison Indian Point Unit No.2 has been shutdown for a refueling outage for 10 days and the first spent fuel elements have been placed in the fuel storage building. Spent fuel is in the process of being unloaded from the reactor vessel.

Narrative Summary

The fuel handling crew in the fuel storage building is moving a spent fuel cask from the south end of the building to the storage pool via the crane. As the cask travels over the area of the spent fuel removed from the reactor during this outage, the cables break and the cask falls into the pool.

The fuel storage building ARM alarms in the Control Room and all the local monitors in the fuel storage building alarm warning the crew to evacuate. After evacuating the building the fuel handling crew notifies the Senior Watch Supervisor of the accident.

After analyzing the ARMs and PRMs, the Senior Watch Supervisor declares an ALERT. Notification is made to the offsite authorities. The site emergency assembly alarm is sounded. Assembly will be limited to a small group of non-essential personnel who are working within the protected area fence of Unit No. 2 and the Simulator and Con Edison Construction Office Building.

Mobilization will be handled by the individual facility directors as per procedure.

Later the release rate increases to a level requiring the declaration of a Site Area Emergency. While the time lapse between the release levels necessitating the declaration of an Alert and a Site Area Emergency is not realistic, it will allow for the original dose assessment to be performed by the Senior Watch Supervisor and the subsequent assessment by the Emergency Operations Facility personnel.

The release will continue for approximately two hours to allow offsite air concentrations and field measurements to be performed.

No post accident offsite sampling will be required and a recovery phase will not be demonstrated. It is expected that the drill will be terminated at 1130 hours.

DETAILED SCENARIO TIME LINE

TIME	INITIATING MESSAGE NUMBER	EVENT SUMMARY
T = 08:30	1	Initial Conditions established.
T = 08:40	A	Fuel Handling Reactor Operator (FHRO) & Controller leave the Control Room and go to the Fuel Storage Building (FSB). FHRO will not be told his job until they reach the FSB.
T = 08:55	2	FHRO is told that the spent fuel cask he has been moving across the storage pool drops on top of fuel elements that have been among the first removed from the core. Violent bubbling is seen in the pool water. FSB air monitoring and ARM alarms.
<u>ANTICIPATED RESULTS</u>		
<u>Fuel Handling Reactor Operator (FHRO)</u>		
<ul style="list-style-type: none"> - Immediately evacuates FSB. - Goes to the nearest phone to call the Control Room. 		
T = 08:57	3	Control Room category alarms initiated. o ARM/PRM high radiation.
<u>ANTICIPATED RESULTS</u>		
<u>Control Room Operator (CRO)</u>		
<ul style="list-style-type: none"> - Inspects instruments on ARM/PRM panel. - Reviews Abnormal Operating Instructions A.12.2 and A.13.B. - Reviews Abnormal Operating Instruction A.17.2 		
T = 08:59	4	The FHRO should call the Control Room and report the accident.
T = 09:00	5	Alarmed radiation monitor values.
		R-5 2.5 R/hr R-13 Offscale R-14 Offscale R-27 1.0 x 10 ⁻¹ Ci/sec

DETAILED SCENARIO TIME LINE

TIME	INITIATING MESSAGE NUMBER	EVENT SUMMARY
		<u>ANTICIPATED RESULTS</u>
		<u>Control Room Operator (CRO)</u>
		- Notifies Senior Watch Supervisor.
		<u>Senior Watch Supervisor (SWS)</u>
		- Declares an ALERT because of Initiating Condition No. 6.
		- Fills out "Radiological Emergency Data Form, Part I."
		- Directs the "Communicator" to make the appropriate notifications in accordance with IP-1002.
		- Starts offsite dose assessment IP-1007.
	B	- Dispatches Watch Rad Prot Tech to survey the Fan Bldg. and the PAB.
	C	- Dispatches the Watch Chem Tech to sample the Plant Vent.
		- Obtains Reuter-Stokes readings IP-1037.
		- Determines whether any protective actions are required. A no protective action recommendation would be con- sidered correct.
		<u>Operations Control Center (OCC)</u>
	D	- Follows directions in IP-1002 section 4.4.
T = 09:05	6	Controller gives OCC duty person the message contents for tape. "This is a drill. All personnel previously designated as players are to report to the EOF."
		Controller specifies individuals to be notified under 4.4.5 and 4.4.6.
		Controller deletes requirements of 4.4.3.

DETAILED SCENARIO TIME LINE

TIME	INITIATING MESSAGE NUMBER	EVENT SUMMARY
T = 09:10	7	The SWS should declare an ALERT at this time and initiate appropriate actions and notifications if not already done.
T = 09:10	E	OSC staffing limitations set by Controll
T = 09:30		The Watch Rad Prot Tech reports the results of the Fan Bldg/PAB field survey to the SWS.
T = 09:45		The Watch Chem Tech reports the results of the Plant Vent sample to the SWS.
T = 10:00	8	Controller gives CRO message that the Plant Vent curie per second discharge has jumped up by a factor of 100.

ANTICIPATED RESULTSControl Room Operator (CRO)

- Notifies Senior Watch Supervisor and Plant Operation Manager.

Plant Operations Manager (POM)

- Notifies the Emergency Director and recommends the emergency classification be changed to a SAE because of initiating condition No. 8.
- Directs the OSC Coordinators to send a Rad Protection Tech to perform a field survey at the Fan Building and the Primary Auxiliary Building 80' el.
- Directs the OSC Coordinators to have the Chem Tech sample the plant vent and determine the radioactive concentration

Emergency Director (ED)

- Declares a SITE AREA EMERGENCY because of initiating Condition No. 8.
- Determines whether any protective actions are required. A recommendation for sheltering within a 5 mile radius would be considered correct.

DETAILED SCENARIO TIME LINE

TIME	INITIATING MESSAGE NUMBER	EVENT SUMMARY
		<ul style="list-style-type: none"> - Has "Radiological Emergency Data ' Forms, Parts I, II & III" filled out. - Directs the EOF "Communicator" to make appropriate notification to the offsite authorities and Con Edison facilities. - Directs ORAD to initiate further offsite sampling to evaluate radiation levels. - Obtain status of accountability. - Directs evacuation of relocation of all non-essential personnel.
		<u>Offsite Radiological Assessment Director (ORAD)</u>
		<ul style="list-style-type: none"> - Check information obtained from TSC. - Perform necessary dose projections. Determine recommended protective actions using IP-1013. Review with ED. - Confers with Dose Assessment H.P. and dispatch offsite monitoring teams to specified environmental sampling survey points. - Continues to mobilize the EOF staff if full activation has not been completed as yet. - Directs Survey Team H.P. to monitor the radiological condition at the EOF. - Directs Survey Team H.P. to have site boundary surveys performed as called for.
		<u>TSC Manager</u>
		<ul style="list-style-type: none"> - Continues to have full mobilization of TSC staff implemented. - Transmits plant data to EOF. - Investigates the isotopic makeup of the spent fuel radioactivity related to full power days and time after shutdown.

DETAILED SCENARIO TIME LINE

TIME	INITIATING MESSAGE NUMBER	EVENT SUMMARY
		<ul style="list-style-type: none"> - Checks the balance of ventilation system to preclude spread of activity in plant. - Supports Control Room and maintenance activities.
		<u>Chief Accountability Officer (CAO)</u>
		<ul style="list-style-type: none"> - Expected to complete accountability within 30 minutes of the declaration of an SAE. - Continues to mobilize the OSC minimum staffing requirements as per IP-1023. - Supplies repair and corrective action team members as requested by OSC Coordinators.
		<u>Radiation Protection Technician (RPT)</u>
		<ul style="list-style-type: none"> - Provides radiological control for the Control Room, including set up of Step-Off Pad and "frisker" at entrance from turbine floor to SWS office; or as directed by the SWS. - Performs surveys requested by SWS or POM. - Evaluates PRM-ARM instrumentation; - Determines status of controlled area evacuation, and reports to SWS.
		<u>Survey Team Health Physicist (STHP)</u>
		<ul style="list-style-type: none"> - Checks equipment availability. - Performs field survey at EOF; including set-up of TRITON in accordance with IP-1041, and set-up of SAM-2/RD-22 and RM-14/HP-210 Counter and Air Sampler in accordance with IP-1020. - Obtains two (2) Handi-Talkies from Security. - Assigns film badges and dosimeters.

DETAILED SCENARIO TIME LINE

TIME	INITIATING MESSAGE NUMBER	EVENT SUMMARY
		<ul style="list-style-type: none"> - Sets-up FRISKER and Step-off Pad at upper and lower entrance of EOF. - Performs appropriate surveys approximately every 30 minutes. - Follows and maintains personnel exposure and contamination control for all personnel. - Confers with ORAD and dispatches onsite field survey teams and receives data. Places field survey readings on Site Map.
T = 10:15	9	The Emergency Director should declare a <u>SITE AREA EMERGENCY</u> and initiate appropriate actions and notifications if it has not already been done.
T = 10:30		The Rad Protection Tech reports the results of the Fan Building/Primary Auxiliary Building 80' el. to the OSC Rad Protection Coordinator.
T = 10:45		The Chem Tech reports the results of the Plant Vent sample to the Rad Protection Coordinator and Chemistry Supervisor.
T = 10:45	G	CCR activation requirements set by Controller.
T = 10:47	10	The Controller gives the CRC personnel the following message to be used when they contact appropriate Directors and Managers as per IP-1019. "This is a notification drill being performed in conjunction with an Indian Point Site drill. You are not required to participate. This is a drill. Thank you."
T = 11:15	11	The release has terminated.
T = 11:30	12	The drill is terminated.

CONSOLIDATED EDISON COMPANY OF NEW YORK

INDIAN POINT UNIT NO. 2

DRILL SCENARIO NO. 1985

IV. MESSAGES

TO: ALL EXERCISE PARTICIPANTS

FROM: ALL LOCATIONS

TIME: When the players report to the facility

MESSAGE: EXERCISE GROUND RULES

All Exercise participants are required to observe the following Exercise Ground Rules for the entire duration of the Exercise. If you have any questions, ask your Facility Controller for clarification at this time.

1. Ensure that all communications indicate that this is only an exercise. Make a positive statement that this is an exercise-related message at the beginning and end of all messages or conversations. If communication lines are kept open for extended periods, periodically repeat the caution. This is especially critical when transmitting messages over communication facilities that are monitored by non-Consolidated Edison personnel.
2. Take no actions that affect unit or non-exercise related operations.
3. Take immediate action(s) to restore safe operation, if an unsafe condition exists. Ignore exercise situation if actual safety becomes a concern.
4. Use only the information provided in accordance with the exercise ground rules or derived from approved procedures. Do not improvise information. Provide the actual outside temperature and precipitation conditions, when applicable.
 - a. Controllers will provide appropriate information at the location where that information would normally be available (e.g., Reactor status at the Control Room, dose rate readings with field teams, meteorological information at Control Room or EOF).
 - b. Only selected parameters and readings will be provided. The selected information will be sufficient to make decisions in accordance with Con Edison plans and procedures.

- c. DO NOT BECOME OVERLY CONCERNED WITH THE MECHANICS OF THE REACTOR OR THE CAUSE OF THE ACCIDENT. THIS EXERCISE IS DESIGNED TO TEST CON EDISON PLANS AND PROCEDURES AND IS NOT CONCERNED WITH BRAINSTORMING THE PROBABILITY, FEASIBILITY OR DETAILED MECHANICS OF THE SIMULATED ACCIDENT.
 - d. There will be a Con Edison Observer/Controller at each important location. Controllers will provide information and clarification on which actions are to be simulated or are outside the scope of this exercise in order to keep the exercise progressing in accordance with the scenario. Observer/Controllers will also observe all aspects of the exercise to prepare an in-house evaluation of plans, procedures and training.
- 5. Be sure that the Con Edison Observer/Controller is aware of your actions (actual or simulated).
 - 6. Make all required notifications. All notifications outside the Company will be for information only.
 - 7. If samples inside or outside the site are deemed necessary, they will actually be collected if possible, and their analysis conducted or simulated if directed by a Controller. Observer/Controllers will accompany the survey teams, both onsite and offsite.
 - 8. This exercise is conducted to evaluate our plans and procedures. The exercise is also a training vehicle for members of the Con Ed Emergency Response Organization to practice working together and with outside organizations. Please make note of any improvements in any area that you observe as a participant and submit them to the Observer/Controller at the conclusion of the exercise.
 - 9. If, during any part of the exercise, you are having trouble accomplishing your required duties, confusion arises, or clarification is necessary, ask your Controller. Controller assistance or clarification does not necessarily imply failure on your part. Your Controller will know the limitations of information he can provide you.
 - 10. The Radiation Work Permit number for the emergency drill is 7700. This number will be used by all participants and observer/controllers entering the radiation area.
 - 11. Damage control teams shall obtain tools and radiation protection equipment necessary to perform assigned tasks. Damage control teams assigned tasks in non-radiation areas shall report to the actual location and simulate performance of the task. Due to ALARA considerations, damage control teams assigned tasks in radiation areas shall report to the locker room and simulate entry to the work area and performance of the task. Use of Anti-C's and respirators shall be simulated.

TO: SENIOR WATCH SUPERVISOR
LOCATION: CONTROL ROOM
TIME: T = 08:30
MESSAGE: NO. 1

This is a Drill

Con Edison Indian Point Unit No. 2 has been shutdown for a refueling outage for 10 days and the first spent fuel elements have been placed in the fuel storage building. Spent fuel is in the process of being unloaded from the reactor vessel.

This is a Drill

CONTROLLER FIELD REPORT A

TIME: 08:40

LOCATION: FAN BUILDING - OUTSIDE DOOR TO FUEL STORAGE BLDG.

Inform the Fuel Handling Reactor Operator (FHRO) that a refueling outage is in progress and he is at the present time inside the Fuel Storage Building. Some spent fuel has been removed from the reactor core to the FSB.

Give the FHRO message no. 2.

Request the FHRO explain what his actions would be for the conditions indicated on the message.

If the FHRO does not notify the control room within 5 minutes give him message no. 4.

TO: FUEL HANDLING REACTOR OPERATOR
LOCATION: FUEL STORAGE BUILDING
TIME: TIME = 08:55
MESSAGE: NO. 2

This is a Drill

You have been moving a spent fuel cask, via the overhead crane, from the south end of the building toward the north end. When the cask reached the pool area where the just recently removed fuel elements are located, the apparatus breaks and the cask falls into the pool on top of the spent fuel elements.

Violent bubbling in the water occurs and the Fuel Storage Building air monitoring and ARM instruments alarm.

This is a Drill

TO: CONTROL ROOM OPERATOR
LOCATION: CENTRAL CONTROL ROOM
TIME: T = 08:57
MESSAGE: NO. 3

This is a Drill

Control Room category alarms initiated.

o ARM/PRM high radiation.

This is a Drill

TO: FUEL HANDLING REACTOR OPERATOR
LOCATION: FAN BUILDING/PRIMARY AUXILIARY BUILDING
TIME: T = 08:59 if FHRO has not notified CCR
MESSAGE: NO. 4

This is a Drill

You should notify the Central Control Room of the accident.

This is a Drill

TO: CONTROL ROOM OPERATOR/SENIOR WATCH SUPERVISOR
LOCATION: CENTRAL CONTROL ROOM
TIME: T = 09:00 after instrumentation is monitored
MESSAGE: NO. 5

This is a Drill

R-5	2.5 R/hr
R-13	Offscale high
R-14	Offscale high
R-27	2.0×10^{-1} Ci/sec

This is a Drill

CONTROLLER FIELD REPORT B

TIME: 09:00 plus

LOCATION: FAN BUILDING & PRIMARY AUXILIARY BUILDING

You may expect the Senior Watch Supervisor to dispatch the Watch Rad Protection Tech to perform a field survey at the Fan Building, el 80' of the Primary Auxiliary Building and possibly the 98' el of the PAB.

As the field survey is performed, give the mR/hr values for the survey point as obtained from Section 8, TAB D.

CONTROLLER FIELD REPORT C

TIME: 09:00 plus
LOCATION: PRIMARY AUXILIARY BUILDING 98' el.

You may expect the Senior Watch Supervisor to dispatch the Watch Chemistry Tech to sample the plant vent. You may also expect the SWS to direct the Watch Rad Prot Tech to perform a field survey in the plant vent sample area before the dispatch of the Chem Tech or to accompany the Chem Tech to provide radiological protection.

It is not necessary for the Chem Tech to take a sample when he arrives at the 98' el vent sample point but you should have him explain the procedure and the time necessary to obtain the sample.

After arriving back at the radiochem laboratory, you should wait approximately 30 minutes before supplying the sample values obtained from Section 8, TAB C. It is not necessary for the Tech to count a sample.

CONTROLLER FIELD REPORT D

TIME: 09:05

LOCATION: OPERATIONS CONTROL CENTER

The OCC duty person has been called by the control room communicator and informed that an ALERT has been declared. After the OCC duty person has called the control room to verify the ALERT, he will proceed to follow the notification requirements in IP-1002. Because this is a limited participation drill certain requirements of IP-1002 must be deleted.

Give the OCC Duty Person the specific parts of message no. 6 as he requires them. Do not give the Duty Person the complete message at the start.

TO: OPERATIONS CONTROL CENTER DUTY PERSON
LOCATION: OPERATIONS CONTROL CENTER
TIME: T = 09:05 after notification by CCR
MESSAGE: NO. 6

This is a Drill

- Message for tape; "This is a drill. All personnel previously designated as players are to report to the EOF."
- The names of the players for section 4.4.5 & 4.4.6 of IP-1002 are . Controller may obtain them from section 5 of the scenario.
- The notification requirements of section 4.4.3 of IP-1002 are deleted.

This is a Drill

TO: SENIOR WATCH SUPERVISOR
LOCATION: CENTRAL CONTROL ROOM
TIME: T = 09:10 if SWS has not declared an ALERT
MESSAGE: NO. 7

This is a Drill

You should declare an ALERT at this time because Initiating Condition No. 6 has been satisfied and initiate appropriate actions and notifications.

This is a Drill

CONTROLLER FIELD REPORT E

TIME: 09:10 Approximately

LOCATION: OPERATIONAL SUPPORT CENTER

After the Chief Accountability Officer arrives at the Operational Support Center, the CAO will proceed to activate the minimum personnel requirements as per IP-1023.

You should notify the CAO that the Material Control Storekeeper need not be activated for this drill.

TO: CONTROL ROOM OPERATOR

LOCATION: CENTRAL CONTROL ROOM

TIME: T = 10:00

MESSAGE: NO. 8

This is a Drill

R - 27 discharge rate has jumped to 34 Ci/sec.

This is a Drill

CONTROLLER FIELD REPORT F

TIME: 10:00 plus

LOCATION: TSC/OSC & FAN BLDG/PAB

You may expect the OSC Rad Protection Coordinator to dispatch a Rad Protection Tech (1 or 2) and a Chem Tech to survey the Fan Bldg., PAB 80' el and PAB 98' el and to obtain a plant vent sample.

It is not necessary for the Chem Tech to take a sample when he arrives at the 98' el vent sample point but you should have him explain the procedure and the time necessary to obtain the sample. If for some reason this is the same Tech who sampled the plant vent before, he need not go through the discription again.

As the Rad Prot Tech performs the field surveys, give him the mR/hr values for the survey points as obtained from Section 8, TAB D.

After arriving back at the radiochem laboratory, you should wait approximately 30 minutes before supplying the sample values obtained from Section 8, TAB C. It is not necessary for the Tech to count a sample.

TO: EMERGENCY DIRECTOR
LOCATION: EMERGENCY OPERATIONS FACILITY
TIME: T = 10:15 if ED has not declared a SAE
MESSAGE: NO. 9

This is a Drill

You should declare a SITE AREA EMERGENCY at this time because
Initiating Condition No. 8 has been satisfied and initiate appropriate
actions and notifications.

This is a Drill

CONTROLLER FIELD REPORT G

TIME: 10:45 Approximately
LOCATION: CORPORATE RESPONSE CENTER

After the CRC personnel have set up the CRC you should expect that they will start the activation of appropriate managers and directors. There is no need for the managers and directors to come into 4 Irving Place, only to be contacted by telephone.

Give the CRC personnel message no. 10.

If the CRC personnel did not initiate contacting the appropriate managers and directors on their own, and you were required to give them message no. 10 in a timely manner in order to keep the scenario on time, so note in your critique notes.

TO: CORPORATE RESPONSE CENTER PERSONNEL
LOCATION: CORPORATE RESPONSE CENTER
TIME: 10:47 Approximately
MESSAGE: NO. 10

This is a Drill

Message to be given to each person responding to your call. "This is a notification drill being performed in conjunction with an Indian Point Site drill. You are not required to participate. This is a drill. Thank you."

This is a Drill

TO: CONTROL ROOM OPERATOR
LOCATION: CENTRAL CONTROL ROOM
TIME: T = 11:15
MESSAGE: NO. 11

This is a Drill

The release has terminated.

This is a Drill

TO: EMERGENCY DIRECTOR
LOCATION: EMERGENCY OPERATIONS FACILITY
TIME: T = 11:30
MESSAGE: NO. 12

This is a Drill

The drill is terminated. There is no need to activate the recovery center or to perform post accident offsite environmental surveys.

This is a Drill

CONSOLIDATED EDISON COMPANY OF NEW YORK
INDIAN POINT UNIT NO. 2
DRILL SCENARIO NO. 1985

V. OBSERVER/CONTROLLER INSTRUCTIONS

A. Exercise Control Organization

Exercise Observer/Controllers shall be appointed in order to control, observe, and later critique exercise activities. The title "Observer/Controller" is used to designate either a single, or dual function during the exercise. Observers will be assigned to watch exercise activities as they occur. They will provide no input or active involvement or direction to any participants during the exercise. Their only function is to quietly observe in order to later help develop a representative critique of exercise participants' actions. Controllers will be assigned to various "key" locations in order to actively control the progress of the exercise. They will input Control and Contingency Messages at the appropriate times and provide any necessary interpretation to exercise participants. Controllers will be the only ones who can answer participants' questions. They will also function as Observers to help evaluate performance; thus Observer/Controllers. The designation below of Observer/Controller will mean either Observer, Controller, or Observer and Controller. The "Chief Controller" is the lead exercise manager (or controller) and will be located in the Control Room. Prior to the exercise, Observer/Controller instructions will be provided in order to familiarize all Observer/Controllers with the entire scope of the exercise, and answer any specific questions. Attachment A provides a listing of all exercise Observers and Controllers, as well as their locations. Attachment B provides a listing of all exercise players.

B. Exercise Control Instructions

1. All Controllers shall be pre-positioned at least one half hour prior to the first message time.
2. Prior to exercise commencement, all Controller communications will be tested to ensure satisfactory exercise control.
3. All Controllers will comply with instructions from the Chief Controller.
4. Each Controller will have copies of the messages controlling the progress of the exercise scenario. Messages shall be delivered by the Controller at the appropriate times, to the designated individual(s). In the case of emergency declarations, if the response of exercise participants necessitates the use of a contingency message, the situation should be discussed with the Chief Controller prior to issuance of the message.

Controllers will use the following techniques to control the exercise in accordance with the scenario.

- a. Control Messages - Control messages provide information to the participants and/or cause the participants to take action needed to keep the exercise moving smoothly. The Controller will give a hard copy of the control message to the designated participant at the specified time. Simultaneously, the Controller will provide the essential information verbally. The Controller will follow through and clarify the message by answering questions to ensure that the participants do not read extraneous meaning into the message. The Controller will not tell participants what action they are expected to take.
- b. Contingency Messages - Contingency messages will be used only if participants fail to take the major actions expected from the control messages by the time designated. Controllers will give the contingency message to the designated participant and explain in as much detail as necessary what actions the participant is expected to perform. Contingency messages are used to keep the exercise on schedule, though their use may indicate inadequate plan implementation.
- c. Control Information - Controllers for Health Physics and Environs Field Teams will provide instrument readings and other information to team members verbally when they request it by performing the measurements, etc. Controllers will refer to their current location and the applicable time period to obtain requested data from the appropriate tables in Section 8.
- d. Control Guidance - Controllers will provide verbal guidance to participants to keep the exercise oriented to the pre-arranged scope and scenario. Controllers will direct participants to simulate certain actions that are outside the immediate scope of the exercise at the time participants announce their intention to perform the action. Observer/Controllers will note that the participants simulated the action. Participants must request information that is not automatically provided from participants at other locations. Controllers will steer participants away from types of information that are outside the exercise scope to avoid bogging the exercise down in a quest for information that Controllers do not possess and have no intention of providing.

NOTE: All messages controlling the progress of the exercise scenario are noted with a number.

5. All Controllers shall synchronize their watches to ensure that messages are delivered at the proper time. Times on messages are real time.
6. Each Controller will have copies of time-related plant and radiological parameters (data) corresponding to the development of the exercise scenario. This information should be issued, only upon request or when required, to the appropriate exercise participants by either the Control Room Drill Controller, or Controllers accompanying the radiological monitoring or implant health physics personnel.
7. Controllers shall not provide information to the exercise participants regarding scenario development or resolution of problem areas encountered. The exercise participants are expected to obtain information through their own organizations and exercise their own judgements in determining response actions and resolving problems.
8. Any inquiries originating from the general public, as a result of exercise activities, will be referred to a Controller. An explanation will consist only of stating that a practice drill is underway at the plant and all events are simulated (i.e., not real).
9. Some exercise participants may insist that certain parts of the scenario are unrealistic. The Drill Controller has the sole authority to clarify any questions regarding scenario content.
10. Each Observer/Controller should use the Log Sheet contained at the end of this section to take detailed notes regarding the progress of the exercise and the responses of the exercise participants at their respective assigned locations. Each Observer/Controller should carefully note the arrival and departure times for exercise participants, the times at which major activities or milestones occur, and problem areas encountered. Observer/Controllers' comments should consider the evaluation elements set forth in Section C, "Exercise Evaluation Criteria." All notes taken should be retained for the purposes of reconstructing the exercise chronology and preparing a written critique of the exercise.
11. The exercise is tentatively scheduled to end as indicated in the last message. Instructions for reassembly of the Observer/Controller team will be given at that time.

NOTE: In the event of a real emergency during the exercise, the exercise may be immediately terminated by the Drill Controller, if deemed appropriate.

C. Exercise Evaluation Criteria

Observer/Controllers shall familiarize themselves with the duties and action requirements of the personnel they are monitoring.

Certain generic evaluation points are to be considered for all locations/participants, as appropriate. These include:

- o Notification, alerting and mobilization of emergency response personnel.
- o Adequate communications capabilities among onsite and offsite emergency response facilities and personnel.
- o Timely activation of emergency facilities and teams.
- o Clear and appropriate direction and control of all exercise activities.
- o Emergency procedures are followed. In some cases they should be referred to during accomplishment of specific duties; e.g., dose assessment.
- o Overall adequacy of the scenario to test the various emergency preparedness plans and procedures.
- o Benefit of the exercise to its participants.

The following guidelines provide basic evaluation criteria which must be addressed by the Observer/Controller in order to effectively critique the exercise. Evaluation criteria are grouped according to exercise activity location and individual (or team) functions.

NOTE: Specific exercise performance must be compared directly with company emergency procedures. Therefore, individuals assigned as Observer/Controllers shall be cognizant of the respective procedures and all actions that shall be carried out by the participants they observe.

After completion of the drill, and before the end of the next normal working day, the Chief Controller shall hold a verbal critique, where all Observer/Controllers shall discuss their observations and any noted shortcomings, and present their recommendations to improve performance and emergency preparedness. Critique comments will be requested from all participants at the conclusion of the exercise.

1. Control Room

Prior to initiating the exercise, the Drill Controller will confer with the Senior Watch Supervisor (SWS) in order to identify any ongoing operational or maintenance activities that should not be interrupted. Those personnel engaged in these activities will be notified that they are to disregard any exercise-related announcements or activities. Emphasis should be made, however, that in the event of a real emergency the exercise may be terminated and station announcements will specify "THIS IS NOT A DRILL" and that instructions should be followed by all personnel.

The Observer/Controller shall observe the action of all personnel assigned to the Control Room and all personnel who report to the Control Room for assignment. In addition, he will pay special attention to the following:

- o Use of map and overlays.
- o Placement of calls to NRC, NYS and Counties.
- o Notification, alerting and mobilization of emergency response personnel, including calling in off-duty personnel.
- o Operations handling of accident conditions if appropriate.
- o Instructions given to Search and Rescue teams, Repair and Corrective Action teams, and Rad Protection and Chem. Techs by the Senior Watch Supervisor (SWS).
- o Does the SWS handle the emergency by directing his people or trying to do the work himself.
- o Is the time frame of actions by the SWS reasonable enough.
- o Deportment of all personnel in the Control Room.

The following procedures are to be used in the evaluation:

IP-1001	Mobilization of Onsite Emergency Organization
IP-1002	Emergency Notification and Communication
IP-1003	Planned Discharge of Containment Atmosphere During Accident Conditions
IP-1007	Determination of the Magnitude of Release and Exposure Rate
IP-1010	Search and Rescue Teams
IP-1011	Repair and Corrective Action
IP-1013	Recommendation of Protective Actions for Offsite Population

- o Verification call to Indian Point Unit No. 2 Control Room for authenticity of emergency.
- o Preparation of records of personnel who have called in.

The following procedure is to be used in the evaluation:

IP-1002 Emergency Notification and Communication

4. Assembly Area

The Observer/Controller should observe the following:

- o Do they seek out their section or department accountability officer, generally stay together as a group and remain orderly?
- o Were Assembly Area radiation surveys performed and results recorded? This will depend on whether there is an SAE or GE classification and releases to the environment.
- o Is there documentation of accountability and is it understandable to others.

The following procedure is to be used in the evaluation:

IP-1027 Site Personnel Accountability and Evacuation

5. Operational Support Center

The Observer/Controller should observe the following:

- o Is there documentation of accountability and is it understandable to others?
- o Do the personnel awaiting assignment remain orderly?
- o Were radiation surveys performed and recorded?
- o Receipt of request to form teams.
- o Handling the assignment of team members.

The following procedures are to be used in the evaluation.

IP-1020 Airborne Iodine - 131 Determination

IP-1023 Operational Support Center

IP-1027 Site Personnel Accountability and Evacuation

IP-1041 Use of the Triton to Monitor Noblegas.

- o Verification call to Indian Point Unit No. 2 Control Room for authenticity of emergency.
- o Preparation of records of personnel who have called in.

The following procedure is to be used in the evaluation:

IP-1002 Emergency Notification and Communication

4. Assembly Area

The Observer/Controller should observe the following:

- o Do they seek out their section or department accountability officer, generally stay together as a group and remain orderly?
- o Were Assembly Area radiation surveys performed and results recorded? This will depend on whether there is an SAE or GE classification and releases to the environment.
- o Is there documentation of accountability and is it understandable to others.

The following procedure is to be used in the evaluation:

IP-1027 Site Personnel Accountability and Evacuation

5. Operational Support Center

The Observer/Controller should observe the following:

- o Is there documentation of accountability and is it understandable to others?
- o Do the personnel awaiting assignment remain orderly?
- o Were radiation surveys performed and recorded?
- o Receipt of request to form teams.
- o Handling the assignment of team members.

The following procedures are to be used in the evaluation.

IP-1020 Airborne Iodine - 131 Determination

IP-1023 Operational Support Center

IP-1027 Site Personnel Accountability and Evacuation

IP-1041 Use of the Triton to Monitor Noblegas.

6. Emergency Operations Facility

This is the command post for the interface with offsite authorities and it should seem so to the Observer/Controller. Look for the following things:

- o The Emergency Director is in command of the EOF.
- o The ORAD is in control of the radiological assessment activities, and reports results and recommendations to the Emergency Director in a timely and efficient manner.
- o Any extra personnel, spectators and those awaiting orders are quietly standing out of the way.
- o The H.P. or support personnel are performing duties in a timely and efficient manner and reporting results to either the Emergency Director or ORAD.
- o Instrumentation deployed in the EOF is placed in a non-interfering position.
- o Adequate communications, including how problems with the radio and telephone are handled. Message handling and communications logging procedures.
- o Radioactive release rates, whole body and thyroid exposures to the offsite population are calculated quickly after the receipt of data from the Control Room or the offsite monitoring team(s).
- o Prompt notification to the NRC, NYS and Counties of exposure data and changes to site meteorological conditions.
- o The Emergency Director assigns, where possible, his routine calls to someone else thereby leaving himself free to command the action.
- o Data forms filled out and turned in to the ORAD/Health Physicist.
- o Timely deployment of teams.
- o A central point for receipt of radiological monitoring data is designated and adequate communications with field teams demonstrated.
- o Demonstrate ability to assess plant conditions, reclassify the incident (if appropriate), develop timely protective action recommendations, or communicate with offsite authorities in an accurate and timely manner.

- o Demonstrate ability to control radiological monitoring field teams for "plume-tracking," and ingestion pathway monitoring.
- o Demonstrate ability to develop recommendations for recovery and re-entry activities.
- o Demonstrate ability to provide radiation exposure control for emergency workers.

The following procedures are to be used in the evaluation:

IP-1002	Emergency Notification and Communication
IP-1003	Planned Discharge of Containment Atmosphere During Accident Conditions
IP-1004	Post Accident Offsite Environmental Surveys, Sampling and Counting
IP-1005	Use of SAM-2/RD-22 to Determine Thyroid Burdens
IP-1006	Site Perimeter Surveys
IP-1007	Determination of the Magnitude of Release and Exposure Rate
IP-1013	Recommendation of Protective Actions for Offsite Population
IP-1016	Obtaining Meteorological Data
IP-1020	Airborne Iodine - 131 Determination
IP-1021	Manual Update and Readout of Proteus Plant Parameter Data
IP-1029	Emergency Closeout/Class Reduction Written Summary to Authorities
IP-1036	Estimation of Population Dose Within the 10 Mile Emergency Planning Zone
IP-1037	Obtaining Offsite Reuter-Stokes Monitor Data
IP-1038	Emergency Personnel Exposure
IP-1041	Use of Triton to Monitor Noblegas
IP-1043	Operation of the NYS Radiological Emergency Communications System (RECS)
IP-1048	Deescalation of Emergency and Initiation of Recovery

Plus Immediate Action Procedures for ED, TA, ORAD, DAHP, STHP, MIDAS, EOF COMM, EOF CLERK

7. Security Building(s) or Security Control Points

It is to be noted that all normal practices, such as sign-out and use of the hand and foot monitor and the portal monitor, are to be accomplished unless the Rad Prot Technician gives other directions because of radiological conditions. The Observer/Controller will pay special attention to the above along with the following:

- o Timely activation or establishment of control points.

- o No one is wearing Anti-C clothing when leaving the site.
- o All alarms from monitoring equipment or computer card terminals are acknowledged.

The following procedures are to be used in the evaluation:

IP-1017 Issuance and Use of Radiological Equipment
Stored in the Command Guard House

8. Onsite Monitoring Teams

Onsite monitoring teams will normally be assigned field survey work onsite, outside of the protected area fence, and at the Service Center building complex. Check on the following items:

- o Received KI dose (simulated) from ORAD if required.

NOTE: Do not actually take the KI Dose.

- o They have a dosimeter and film badge.
- o They have a charcoal filter respirator when leaving the building complex to perform a survey.
- o Radio check performed before leaving the EOF parking lot.
- o Field readings taken along the route to the designated area. Simulated field data will only be available at designated monitoring points.
- o Work performed in a professional manner.
- o Data forms filled out as appropriate and turned in to the ORAD/Health Physicist.

The following procedures are to be used in the evaluation:

IP-1006 Site Perimeter Surveys
IP-1008 Personnel Radiological Check and Decontamination
IP-1009 Radiological Check and Decontamination of Vehicles
IP-1014 Radiological Check of Equipment Before it Leaves the Site
IP-1028 Onsite (out of plant) Field Surveys

9. Offsite Monitoring Teams

The Observer/Controller should observe the following:

- o Received KI dose (simulated) from ORAD if required.

NOTE: Do not actually take the KI dose.

- o Operational check performed on survey instruments, sample counter and sample pump before leaving the EOF parking lot.
- o Equipment check-off performed.
- o Assignment of badges and dosimeters before leaving the EOF parking lot.
- o Charcoal cartridge respirator made available before leaving EOF parking lot.
- o Survey instrument made ready to take field readings.
- o Radio check-out by communication to EOF before leaving.
- o Beta and gamma field surveys performed on the way to sample point.
- o Sampling and field surveys performed at sample location.
- o Instrument calibration performed and samples counted.
- o Air sampling started.

The following procedures are to be used in the evaluation:

IP-1004	Post Accident Offsite Environmental Surveys, Sampling and Counting
IP-1006	Site Perimeter Surveys
IP-1008	Personnel Radiological Check and Decontamination
IP-1009	Radiological Check and Decontamination of Vehicles
IP-1015	Mobilization and Operational Procedure for Offsite Monitoring Teams - Immediate Response.
IP-1020	Airborne Iodine - 131 Determination
IP-1034	Mobilization and Operational Procedure for off-site Monitoring Teams - Supplemental Response
IP-1039	Offsite Contamination Checks

10. Radiation Protection Technician (RPT)

The Observer/Controller should observe the following:

- o RPT follows his instructions indicated in immediate action procedures.
- o RPT follows instructions from SWS or OSC coordinator.
- o RPT performs survey as indicated using appropriate instrumentation.

- o RPT performs duties during medical emergency as indicated in IP-1012.

The following procedures are to be used in the evaluation:

IP-1010 Search and Rescue Teams
 IP-1011 Repair and Corrective Action
 IP-1012 Onsite Medical Emergency
 IP-1020 Airborne Iodine - 131 Determination
 IP-1042 In-Plant Radiological Surveys and Sampling

Plus Immediate Action Procedure WATCH H.P.

11. Chemistry Technician

The Observer/Controller should observe the following:

- o Chemistry Technician follows Chemistry Procedures as appropriate.
- o Samples are actually collected and counted, as indicated by the scenario.
- o Results of sample counting (simulated and real) are transmitted to the SWS or OSC Coordinator as appropriate.

The following procedures are to be used in the evaluation:

IPC-E-001 Post Accident Sampling and Analysis of
 -Reactor Coolant
 IPC-E-002 Post Accident Sampling and Analysis of
 the Vapor Containment Atmosphere
 IPC-E-003 Post Accident Sampling and Analysis of
 Plant Discharges for Noblegas, Radio-
 iodines and Particulates.

12. Maintenance Repair Team

The Observer/Controller should observe the following:

- o Response and repair time.
- o Proper equipment brought to perform the work.
- o Maintenance Repair Team members follow Rad Prot Technician's instructions.
- o Radiological precautions taken.

The following procedures are to be used in the evaluation.

IP-1010 Search and Rescue Teams
 IP-1011 Repair and Corrective Action
 IP-1023 Operational Support Center

CONSOLIDATED EDISON COMPANY OF NEW YORK
INDIAN POINT UNIT NO. 2

EMERGENCY PREPAREDNESS EXERCISE

OBSERVER/CONTROLLER LOG SHEET

Name: _____

Date: _____

Location: _____

TIMEOBSERVATION/COMMENT

--	--

ATTACHMENT A

Page 1 of 2

EMERGENCY DRILL ASSIGNMENT SHEET
CONTROLLERS-OBSERVERS

June 1985 Drill Date

LOCATION	POSITION	NAME
CCR	Chief Controller	D. McCloskey
	Controller	A. Nespoli
	Observer - SWS Dose Assm't	E. Imbimbo
	Observer - Communicators (2)	B. Raskovic
	Controller - Watch Rad Prot Tech	G. Rumold
	Controller - Watch Chem Tech	J. Higgins
	Controller - Medical	-----
	Controller - Fire Brigade	-----
	Controller - NPO	Designated by NPG
TSC	Controller	A. Wynne
	Observer - Data Processing	F. Inzirillo
	Observer - Communicator	A. Brescia
	Observer - TSC Personnel @ CR	Impell Consultant
OSC	Controller - 72' elevation	W. Ryan
	Observer - 72' elevation	V. Nutter
	Observer - 53' Conference Rm	Impell Consultant
	Controller - OSC Team	E. Everett
	Controller - OSC Team	-----
	Controller - OSC Team	J. White
	Controller - OSC Team	-----
	Controller - OSC Team	-----
EOF	Controller	G.H. Liebler
	Observer - Communicators (2)	J. Spivak
	Observer - Dose Assm't	A. Ferraro
	Observer - Emergency Director	Liebler & Ferraro

ATTACHMENT A

Page 2 of 2

EMERGENCY DRILL ASSIGNMENT SHEET
CONTROLLERS-OBSERVERS

June 1985 Drill Date

LOCATION	POSITION	NAME
EOF	Controller - Offsite Team	M. Byster
	Controller - Offsite Team	E. Goetchius
	Controller - Onsite Team	M. DiGenova
ASSEMBLY	Observer - Area A-B	-----
	Observer - Simulator	-----
	Observer - Constr. Office	-----
	Observer - M.O. Bldg.	-----
	Observer - 72 TS/Admin	-----
	Observer - Unit No 1 Admin Bldg	-----
	Observer - Service Center	-----
SECURITY	Command Guard House	T. Elstroth
	River Front Gate	-----
	Main Gate	-----
	Service Center	-----
ENC	Controller	Designated by Publ. Info.
	Observer	-----
	Observer	-----
	Observer	-----
OCC	Observer	C. Hughes
CRC	Observer	M. Smith
ASTORIA-ECC	Observer	-----
RC	Observer	-----
AEOF	Observer	-----

ATTACHMENT B

Page 1 of 4

EMERGENCY DRILL PLAYER ASSIGNMENT SHEET

JUNE 1985 DRILL

Date _____

JOB FUNCTION	NAME
Emergency Director (ED)	J. Basile
Technical Advisor to ED	J. Makepeace
Offsite Radiological Assm't Director	T. Teague
Dose Assessment H.P.	D. Smith
Survey Team H.P.	D. Miller
MIDAS Operator	R. Hewitt
Communicators	M. Shannon J. Bahr
Clerical	S. Mathieson P. Allan E. O'Shaughnessy
Onsite Team	J. Zendek M. Magee
Offsite Team	P. Madigan R. Schacklinsky V. Lander L. Mettey
Astoria ECC Coordinator	-----
Astoria Backup Team	-----
EOF Information Liaison	B. Lindgren
Tech Advisor to EOF Information Liaison	J. Goodale J. Goebel
Liaison to NYS EOC	-----
Meteorologist	-----
TSC Manager	J. Quirk
Schedule & Planning Coordinator	N. Prezioso
System Analysis Coordinator	D. Rush
Core Physics Engineer	J. Trapp
I & C Support Coordinator	H. Somers

ATTACHMENT B

Page 2 of 4

EMERGENCY DRILL PLAYER ASSIGNMENT SHEET

JUNE 1985 DRILL

Date _____

JOB FUNCTION	NAME
Test & Performance Engineer	J. Barlok
Communicator at TSC	SRO or RO Designated by NPG*
TSC Communicator at CCR	SRO or RO Designated by NPG*
Data Facility Supervisor	P. Santini
Data Courier	E. Schlechting
Data Processor at CCR	SRO or RO Designated by NPG*
Data Processor at TSC	L. Volpe
Document Controller	R. LoBue
Core Physics Coordinator	-----
Licensing Support Coordinator	-----
Procedure Support Coordinator	N. Lizzo
Plant Operations Manager	T. Schmeiser
Senior Watch Supervisor	SWS Designated by NPG*
Shift Technical Advisor	V. Mullin
Senior Reactor Operator	SRO Designated by NPG*
Reactor Operator	RO Designated by NPG*
Operations Communicator at CCR	SRO or RO Designated by NPG*
Support Facility Supervisor	SFS Designated by NPG*
Nuclear Plant Operators	NPOs Designated by NPG*
Watch Chemistry Technician	H. Scott
Watch Radiation Protection Technician	Tech Designated by EH&S*
Security	J. Boylan

*Watch schedule will influence who is designated.

Attachment B

Page 3 of 4

EMERGENCY DRILL PLAYER ASSIGNMENT SHEET

JUNE 1985 DRILL

Date _____

JOB FUNCTION	NAME
Radiation Protection Coordinator - OSC	J. Cullen
Maintenance Coordinator - OSC	J. Sullivan
I & C Coordinator - OSC	J. Odendahl
Q.A. Supervisor - OSC	R. Landwaard
Project Management Specialist	W. Matson
Material Control Storekeeper	-----
Chief Accountability Officer	G. Borreggine
Accountability Staff	W. Breckel
Communicator at OSC	J. Sullivan
OSC Individual Team Member - Maintenance	T. McKenna J. Buljeta R. Bunch J. Nigro W. Dodd D. Downing F. Jerrich
OSC Individual Team Member - I & C	D. Baumgarte J. Ifkovitz R. Karasinski E. Baisel G. Durkee J. Glickman P. Keyes
OSC Individual Team Member - Rad Prot	F. Viosky M. Williams J. Porrazo T. Kunkel C. Mayo D. Andersson
OSC Individual Team Member - Operations	Supv and 5 NFOs Designated by NPG*
OSC Individual Team Member - Chemistry	J. Kohnken J. Connolly D. Gabriel
OSC Individual Team Member - QA	F. Urbin
Facility Rad Prot Tech - TSC, OSC, CR	Obtained from OSC members
Medical Representative	-----
Administrative and Logistics Manager	C. Biersack
Engineer & Construction Support Manager	M. Silberstein
OCC Watch Person	As scheduled
Emergency News Center Director	Designated by L. Kleinman
Emergency News Center Office Manager	↓

Attachment B

Page 4 of 4

EMERGENCY DRILL PLAYER ASSIGNMENT SHEET

JUNE 1985 DRILL

Date

JOB FUNCTION	NAME
Corporate Spokesperson	Designated by L. Kleinman
Information Coordinator	
Information Gatherer	
Writer	
Government Liaison	
Media Liaison	
Technical Expert	
Health Physics Expert	
Documenter	
Status Board Person	
Rumor Control Staff	
Inquiry Response Staff	
Audio/Visual Coordinator	
Registration Coordinator	
Telecopier Operator	
Photocopier Operator	
Typist	
Messenger	
Recovery Manager	-----

CONTROLLER PHONE LIST

CCR	737-8021	Next to Map Table
	739-1126	Next to Map Table
	526-5379	CR Communicator Position
TSC	737-2952	TSC Mgr's Desk
	526-5390	TSC Mgr's Desk
OSC	526-5555,6,7	OSC Coordinator's Desk @ TSC
	526-5558,70,73	OSC 72' Elev. CAO area
	526-5695,96	OSC 72' Elev. HP area
EOF	526-5263	All Consoles
	737-7235	Upper Level

PLANT STATUS LOG

SCENARIO NO. 1985

PARAMETER	TIME	08:30	09:00	09:30	10:00	10:30	10:50	11:00
Reactor Shutdown (Y/N)		Y	Y	Y	Y	Y	Y	Y
NIS Power Range (%)		0	0	0	0	0	0	0
NIS Interim. Range #35 (Amps)		10 ⁻¹⁰	10 ⁻¹⁰	10 ⁻¹⁰	10 ⁻¹⁰	10 ⁻¹⁰	10 ⁻¹⁰	10 ⁻¹⁰
NIS Interim. Range #36 (Amps)		10 ⁻¹⁰	10 ⁻¹⁰	10 ⁻¹⁰	10 ⁻¹⁰	10 ⁻¹⁰	10 ⁻¹⁰	10 ⁻¹⁰
NIS Source Range #31 (CPM)		200	200	200	200	200	200	200
NIS Source Range #32 (CPM)		150	150	150	150	150	150	150
RCS Incore T/C (Center) (°F)		120	120	120	120	120	120	120
RCS Incore T/C (Highest) (°F)		140	140	140	140	140	140	140
RCS Pressure (PSIG)		0	0	0	0	0	0	0
RCS Avg. Temp. (°F)		120	120	120	120	120	120	120
RCS Cold Leg Temp. (°F)		120	120	120	120	120	120	120
SAT Meter Margin (°F)		130	130	130	130	130	130	130
RCP in Service (Y/N)		N	N	N	N	N	N	N
Pressurizer Level (%)		40	40	40	40	40	40	40
Reactor Vessel Level (%)		100	100	100	100	100	100	100
S/G Levels #21 (%)		100	100	100	100	100	100	100
#22		100	100	100	100	100	100	100
#23		100	100	100	100	100	100	100
#24		100	100	100	100	100	100	100
S/G Press #21 (PSIG)		0	0	0	0	0	0	0
#22		0	0	0	0	0	0	0
#23		0	0	0	0	0	0	0
#24		0	0	0	0	0	0	0
VC Pressure (PSIG)		0	0	0	0	0	0	0
VC Temperature (°F)		90	90	90	90	90	90	90
VC Sump Level (ft.)		30	30	30	30	30	30	30
VC Hydrogen (%)		0	0	0	0	0	0	0
Aux FW Flow SG21 (GPM)		0	0	0	0	0	0	0
SG22 (GPM)		0	0	0	0	0	0	0
SG23 (GPM)		0	0	0	0	0	0	0
SG24 (GPM)		0	0	0	0	0	0	0
RWST Level (ft.)		13	13	13	13	13	13	13
Cond Stor Tk Level (ft)		30	30	30	30	30	30	30

PLANT STATUS LOG

SCENARIO NO. 1985

PARAMETER	TIME	11:10	11:15	11:25	11:30
Reactor Shutdown (Y/N)		Y	Y	Y	Y
NIS Power Range (%)		0	0	0	0
NIS Interim. Range #35 (Amps)		10 ⁻¹⁰	10 ⁻¹⁰	10 ⁻¹⁰	10 ⁻¹⁰
NIS Interim. Range #36 (Amps)		10 ⁻¹⁰	10 ⁻¹⁰	10 ⁻¹⁰	10 ⁻¹⁰
NIS Source Range #31 (CPM)		200	200	200	200
NIS Source Range #32 (CPM)		150	150	150	150
RCS Incore T/C (Center) (°F)		120	120	120	120
RCS Incore T/C (Highest) (°F)		140	140	140	140
RCS Pressure (PSIG)		0	0	0	0
RCS Avg. Temp. (°F)		120	120	120	120
RCS Cold Leg Temp. (°F)		120	120	120	120
SAT Meter Margin (°F)		130	130	130	130
RCP in Service (Y/N)		N	N	N	N
Pressurizer Level (%)		40	40	40	40
Reactor Vessel Level (%)		100	100	100	100
S/G Levels #21 (%)		100	100	100	100
#22		100	100	100	100
#23		100	100	100	100
#24		100	100	100	100
S/G Press #21 (PSIG)		0	0	0	0
#22		0	0	0	0
#23		0	0	0	0
#24		0	0	0	0
VC Pressure (PSIG)		0	0	0	0
VC Temperature (°F)		90	90	90	90
VC Sump Level (ft.)		30	30	30	30
VC Hydrogen (%)		0	0	0	0
Aux FW Flow SG21 (GPM)		0	0	0	0
SG22 (GPM)		0	0	0	0
SG23 (GPM)		0	0	0	0
SG24 (GPM)		0	0	0	0
RWST Level (ft.)		13	13	13	13
Cond Stor Tk Level (ft.)		30	30	30	30

PLANT STATUS LOG

SENARIO NO. 1985

PARAMETER		TIME
		08:30
Offsite Power Available	138KV	0
	13.8KV	0
Emergency D/Gs	#21	S
	#22	S
	#23	S
Gas Turbines	GT-1	S
	GT-2	S
	GT-3	S
SIS Pumps	#21	S
	#22	S
	#23	S
RHR Pumps	#21	0
	#22	S
Charging Pumps	#21	S
	#22	0
	#23	S
Containment Spray Pumps	#21	S
	#22	S
Recirculation Pumps	#21	S
	#22	S
Component Cooling Pumps	#21	S
	#22	0
	#23	S
Aux Component Cooling Pumps	#21	S
	#22	S
Aux Boiler Feed Pumps	#21	S
	#22	0/S
	#23	S
Fan Cooler Units	#21	0
	#22	0
	#23	0/S
	#24	0/S
	#25	0/S

PARAMETER		TIME
		08:30
Service Water Pumps	#21	0
(Essential Header)	#22	0
	#23	S
	#24	0
	#25	S
	#26	S
Component Cool Heat Exch	#21	0
	#22	0
RHR Heat Exchanger	#21	0
	#22	0
Hydrogen Recombiner	#21	S
	#22	S
VC Isol. Phase A Complete (Y/N)		N
VC Isol. Phase B Complete (Y/N)		N
VC Isol. Vent. Complete (Y/N)		N
Exceptions		
High Head SIS Flow	#21 (GPM)	S
	#22 (GPM)	S
	#23 (GPM)	S
	#24 (GPM)	S
Low Head SIS Flow	#21 (GPM)	300
	#22 (GPM)	300
	#23 (GPM)	300
	#24 (GPM)	300
Accumulator Level	#21 (%)	0/S
	#22 (%)	0/S
	#23 (%)	0/S
	#24 (%)	0/S
BIT Level	(%)	0/S
BIT Pressure	(PSIG)	0/S

Legend: 0 = Operating
 0/S = Out of Service
 S = Standby
 * = Change on status from previous log

PLANT STATUS LOG

SENARIO NO. 1985

PARAMETER	TIME
	10:00
Offsite Power Available	138KV 0
Emergency D/Gs	13.8KV 0
	#21 S
	#22 S
	#23 S
Gas Turbines	GT-1 S
	GT-2 S
	GT-3 S
SIS Pumps	#21 S
	#22 S
	#23 S
RHR Pumps	#21 0
	#22 S
Charging Pumps	#21 S
	#22 0
	#23 S
Containment Spray Pumps	#21 S
	#22 S
Recirculation Pumps	#21 S
	#22 S
Component Cooling Pumps	#21 S
	#22 0
	#23 S
Aux Component Cooling Pumps	#21 S
	#22 S
Aux Boiler Feed Pumps	#21 S
	#22 0/S
Fan Cooler Units	#23 S
	#21 0
	#22 0
	#23 0/S
	#24 0/S
	#25 0/S

Legend: 0 = Operating
0/S = Out of Service
S = Standby
* = Change on status from previous log

PARAMETER	TIME
	10:00
Service Water Pumps (Essential Header)	#21 0
	#22 0
	#23 S
	#24 0
	#25 S
	#26 S
Component Cool Heat Exch	#21 0
	#22 0
RHR Heat Exchanger	#21 0
	#22 0
Hydrogen Recombiner	#21 S
	#22 S
VC Isol. Phase A Complete (Y/N)	N
VC Isol. Phase B Complete (Y/N)	N
VC Isol. Vent. Complete (Y/N)	N
Exceptions	
High Head SIS Flow	#21 (GPH) S
	#22 (GPH) S
	#23 (GPH) S
	#24 (GPH) S
Low Head SIS Flow	#21 (GPH) 300
	#22 (GPH) 300
	#23 (GPH) 300
	#24 (GPH) 300
Accumulator Level	#21 (%) 0/S
	#22 (%) 0/S
	#23 (%) 0/S
	#24 (%) 0/S
BIT Level	(%) 0/S
BIT Pressure	(PSIG) 0/S

PLANT STATUS LOG

SENARIO NO. 1985

PARAMETER		TIME
		11:30
Offsite Power Available	138KV	0
	13.8KV	0
Emergency D/Gs	#21	S
	#22	S
	#23	S
Gas Turbines	GT-1	S
	GT-2	S
	GT-3	S
SIS Pumps	#21	S
	#22	S
	#23	S
RHR Pumps	#21	0
	#22	S
Charging Pumps	#21	S
	#22	0
	#23	S
Containment Spray Pumps	#21	S
	#22	S
Recirculation Pumps	#21	S
	#22	S
Component Cooling Pumps	#21	S
	#22	0
	#23	S
Aux Component Cooling Pumps	#21	S
	#22	S
Aux Boiler Feed Pumps	#21	S
	#22	0/S
	#23	S
Fan Cooler Units	#21	0
	#22	0
	#23	0/S
	#24	0/S
	#25	0/S

PARAMETER		TIME
		11:30
Service Water Pumps	#21	0
(Essential Header)	#22	0
	#23	S
	#24	0
	#25	S
	#26	S
Component Cool Heat Exch	#21	0
	#22	0
RHR Heat Exchanger	#21	0
	#22	0
Hydrogen Recombiner	#21	S
	#22	S
VC Isol. Phase A Complete (Y/N)		N
VC Isol. Phase B Complete (Y/N)		N
VC Isol. Vent. Complete (Y/N)		N
Exceptions		
High Head SIS Flow	#21 (GPM)	S
	#22 (GPM)	S
	#23 (GPM)	S
	#24 (GPM)	S
Low Head SIS Flow	#21 (GPM)	300
	#22 (GPM)	300
	#23 (GPM)	300
	#24 (GPM)	300
Accumulator Level	#21 (%)	0/S
	#22 (%)	0/S
	#23 (%)	0/S
	#24 (%)	0/S
BIT Level	(%)	0/S
BIT Pressure	(PSIG)	0/S

Legend: 0 = Operating
 0/S = Out of Service
 S = Standby
 * = Change on status from previous log

RADIOLOGICAL/METEOROLOGICAL LOG

SCENARIO NO. 1985

PARAMETER	TIME	08:30	09:00	09:30	10:00	10:30	10:50	11:00
R-1 CCR mR/hr		< 1	< 1	< 1	2	2	2	2
R-2 VC 80' mR/hr		2	2	2	2	2	2	2
R-4 Chrg. Pump mR/hr		1	1	1	2	2	2	2
R-5 F.S.B. mR/hr		2	2,500	2,500	OFFSCALE	OFFSCALE	OFFSCALE	OFFSCALE
R-6 Sample Rm mR/hr		2	2	2	3	3	3	3
R-7 VC Seal Table mR/hr		2	2	2	2	2	2	2
R-8 Drum Sta. mR/hr		2	2	2	4	4	4	4
R-10 Stm Line Penet mR/hr		10	10	10	10	10	10	10
R-11 VC Part CPM		2,000	2,000	2,000	2,000	2,000	2,000	2,000
R-12 VC Gas CPM		800	800	800	800	800	800	800
R-13 Vent Part CPM		1,700	OFFSCALE	OFFSCALE	OFFSCALE	OFFSCALE	OFFSCALE	OFFSCALE
R-14 Vent Gas CPM		3,700	OFFSCALE	OFFSCALE	OFFSCALE	OFFSCALE	OFFSCALE	OFFSCALE
R-15 Air Ejector CPM		500	500	500	500	500	500	500
R-16 F.C. Water CPM		15,000	15,000	15,000	15,000	15,000	15,000	15,000
R-17 Comp. Cool CPM		10,000	10,000	10,000	10,000	10,000	10,000	10,000
R-18 Liquid Waste CPM		850	850	850	850	850	850	850
R-19 S/G B.D. CPM		750	750	750	750	750	750	750
R-23 F.C. Water CPM		650	650	650	650	650	650	650
R-25 VC HI-Rge R/hr		< 1	< 1	< 1	< 1	< 1	< 1	< 1
R-26 VC HI-Rge R/hr		< 1	< 1	< 1	< 1	< 1	< 1	< 1
R-27 Vent Monitor uCi/cc		0	5x10 ⁻³	5x10 ⁻³	5x10 ⁻¹	5x10 ⁻¹	5x10 ⁻¹	1x10 ⁻²
R-27 Vent Flow Rate CFM		90,000	90,000	90,000	90,000	90,000	90,000	90,000
R-27 Vent Dis Rate uCi/sec		0	2x10 ⁵	2x10 ⁵	2x10 ⁷	2x10 ⁷	2x10 ⁷	4x10 ⁵
Main Steam #21 Rad Mon CPM		300	300	300	300	300	300	300
#22		300	300	300	300	300	300	300
#23		300	300	300	300	300	300	300
#24		350	350	350	350	350	350	350
Vent Flow Rate CFM		90,000	90,000	90,000	90,000	90,000	90,000	90,000
Main Steam Exh Lbs/Hr		0	0	0	0	0	0	0
Air Ejector CFM		0	0	0	0	0	0	0
(measured value)								
METEOROLOGICAL								
Wind Speed (meters/sec)		3.5	4.0	4.5	4.0	4.5	4.5	4.5
Wind Direction (degrees)		248	240	235	240	245	245	245
Pasquill								
Stability Category		D	D	D	D	D	D	D

PARAMETER	TIME	11:10	11:15	11:25	11:30
R-1 CCR mR/hr		< 1	< 1	< 1	< 1
R-2 VC 80' mR/hr		2	2	2	2
R-4 Chrg. Pump mR/hr		1	1	1	1
R-5 F.S.B. mR/hr		2,700	8	2	2
R-6 Sample Rm mR/hr		2	2	2	2
R-7 VC Seal Table mR/hr		2	2	2	2
R-8 Drum Sta. mR/hr		2	2	2	2
R-10 Stm Line Penet mR/hr		10	10	10	10
R-11 VC Part CPM		2,000	2,000	2,000	2,000
R-12 VC Gas CPM		800	800	800	800
R-13 Vent Part CPM		8,000	3,000	1,700	1,700
R-14 Vent Gas CPM		10,000	5,000	3,700	3,700
R-15 Air Ejector CPM		500	500	500	500
R-16 F.C. Water CPM		15,000	15,000	15,000	15,000
R-17 Comp. Cool CPM		10,000	10,000	10,000	10,000
R-18 Liquid Waste CPM		850	850	850	850
R-19 S/G B.D. CPM		750	750	750	750
R-23 F.C. Water CPM		650	650	650	650
R-25 VC HI-Rge R/hr		< 1	< 1	< 1	< 1
R-26 VC HI-Rge R/hr		< 1	< 1	< 1	< 1
R-27 Vent Monitor uCi/cc		5x10 ⁻⁶	1x10 ⁻⁷	0	0
R-27 Vent Flow Rate CFM		90,000	90,000	90,000	90,000
R-27 Vent Dis Rate uCi/sec		2x10 ⁻²	4	0	0
Main Steam #21 Rad Mon CPM		300	300	300	300
#22		300	300	300	300
#23		300	300	300	300
#24		350	350	350	350
Vent Flow Rate CFM		90,000	90,000	90,000	90,000
Main Steam Exh Lbs/hr		0	0	0	0
Air Ejector CFM		0	0	0	0
(measured value)					
METEOROLOGICAL					
Wind Speed (meters/sec)		4.5	4.5	4.5	4.5
Wind Direction (degrees)		245	245	245	245
Pasquill					
Stability Category		D	D	D	D

CONSOLIDATED EDISON COMPANY OF NEW YORK

INDIAN POINT UNIT NO. 2

DRILL SCENARIO 1985

VIII.

RADIOLOGICAL INFORMATION

TAB A	TABLE 1:	Primary Coolant Activity
TAB B	TABLE 2:	Containment Activity
TAB C	TABLE 3:	Release Path Activity
TAB D	TABLE 4:	Plant Radiation Levels & Equipment Status For Controllers
TAB E	TABLE 5:	Facility Radiation Levels
TAB F	TABLE 6:	Reuter-Stokes Readings
TAB G	TABLE 7:	Plume Monitoring Data & Figures
TAB H	TABLE 8:	Offsite TLD Readings
TAB I	TABLE 9:	Post Accident Samples
TAB J	TABLE 10:	Post Accident Offsite Contami- nation Levels
TAB K	TABLE 11:	Medical Emergency Data

TABLE 1
PRIMARY COOLANT ACTIVITY

<u>Nuclide</u>	<u>hrs.</u>	<u>hrs.</u>	<u>hrs.</u>	<u>hrs.</u>
	<u>uCi/ml</u>	<u>uCi/ml</u>	<u>uCi/ml</u>	<u>uCi/ml</u>
I-131				
132				
133				
134				
135				
Xe-133				
133m				
135				
135m				
138				
Kr-85				
85m				
87				
88				
Te-132				
Cs-134				
137				
138				
Ce-144				
Le-140				
Ba-140				

NOT REQUIRED FOR THIS SCENARIO

TABLE 2CONTAINMENT ACTIVITY

<u>Nuclide</u>	<u>hrs</u> <u>uCi/cc</u>	<u>hrs</u> <u>uCi/cc</u>	<u>hrs</u> <u>uCi/cc</u>	<u>hrs</u> <u>uCi/cc</u>	<u>hrs</u> <u>uCi/cc</u>
I-131					
132					
133					
134					
135					
Xe-133					
133m					
135					
135m					
138					
Kr-85					
85m					
87					
88					
Te-132					
Cs-134					
137					
138					
Ce-144					
La-140					
Ba-140					

NOT REQUIRED FOR THIS SCENARIO

TABLE 3
RELEASE PATH ACTIVITY

RELEASE PATH	MEASUREMENT METHOD	TIME	RADIATION LEVELS	
PLANT VENT	VENT CONTACT METHOD	09:00	BACKGROUND	
		10:00	6 mR/hr	
		10:50	6 mR/hr	
		11:00	BACKGROUND	
PLANT VENT	CHEMISTRY SAMPLE	09:00	Noble Gas 6×10^{-3} uCi/cc	
			I-131	uCi/cc
			I-132	NOT uCi/cc
			I-133	DETECT- uCi/cc
			I-134	ABLE uCi/cc
			I-135	uCi/cc
		10:00	Noble Gas 6×10^{-1} uCi/cc	
			I-131	uCi/cc
			I-132	NOT uCi/cc
			I-133	DETECT- uCi/cc
			I-134	ABLE uCi/cc
			I-135	uCi/cc
		10:50	Noble Gas 6×10^{-1} uCi/cc	
			I-131	uCi/cc
			I-132	NOT uCi/cc
			I-133	DETECT- uCi/cc
			I-134	ABLE uCi/cc
			I-135	uCi/cc
		11:00	Noble Gas 6×10^{-6} uCi/cc	
			I-131	uCi/cc
			I-132	NOT uCi/cc
			I-133	DETECT- uCi/cc
			I-134	ABLE uCi/cc
			I-135	uCi/cc

NOTE:

Vent contract reading provided to Rad Prot Tech. Chemistry data available 30 minutes after the sample is taken.

TABLE 4
PLANT RADIATION LEVELS

LOCATION	TIME	RADIATION LEVELS	
Fan Bldg. - Point 1	08:30	1	mR/hr
	09:00	250	mR/hr
	10:00	3500	mR/hr
	11:00	300	mR/hr
	11:15	10	mR/hr
Point 2	08:30	1	mR/hr
	09:00	10	mR/hr
	10:00	350	mR/hr
	11:00	15	mR/hr
	11:15	5	mR/hr
Point 3	08:30	1	mR/hr
	09:00	3	mR/hr
	10:00	80	mR/hr
	11:00	5	mR/hr
	11:15	2	mR/hr
Point 4	08:30	1	mR/hr
	09:00	2	mR/hr
	10:00	25	mR/hr
	11:00	2	mR/hr
	11:15	1	mR/hr
Point 5	08:30	1	mR/hr
	09:00	1	mR/hr
	10:00	10	mR/hr
	11:00	2	mR/hr
	11:15	1	mR/hr
Point 6	08:30	1	mR/hr
	09:00	1	mR/hr
	10:00	5	mR/hr
	11:00	2	mR/hr
	11:15	1	mR/hr

NOTE 1: All loose contamination and airborne concentrations are actual levels detected.

NOTE 2: Data to be supplied to Rad Prot Tech at the locations after the survey is performed.

INDIAN POINT NUCLEAR POWER STATION

UNIT NO. 2

RADIATION SURVEY FORM NO. 2

Serial No. _____

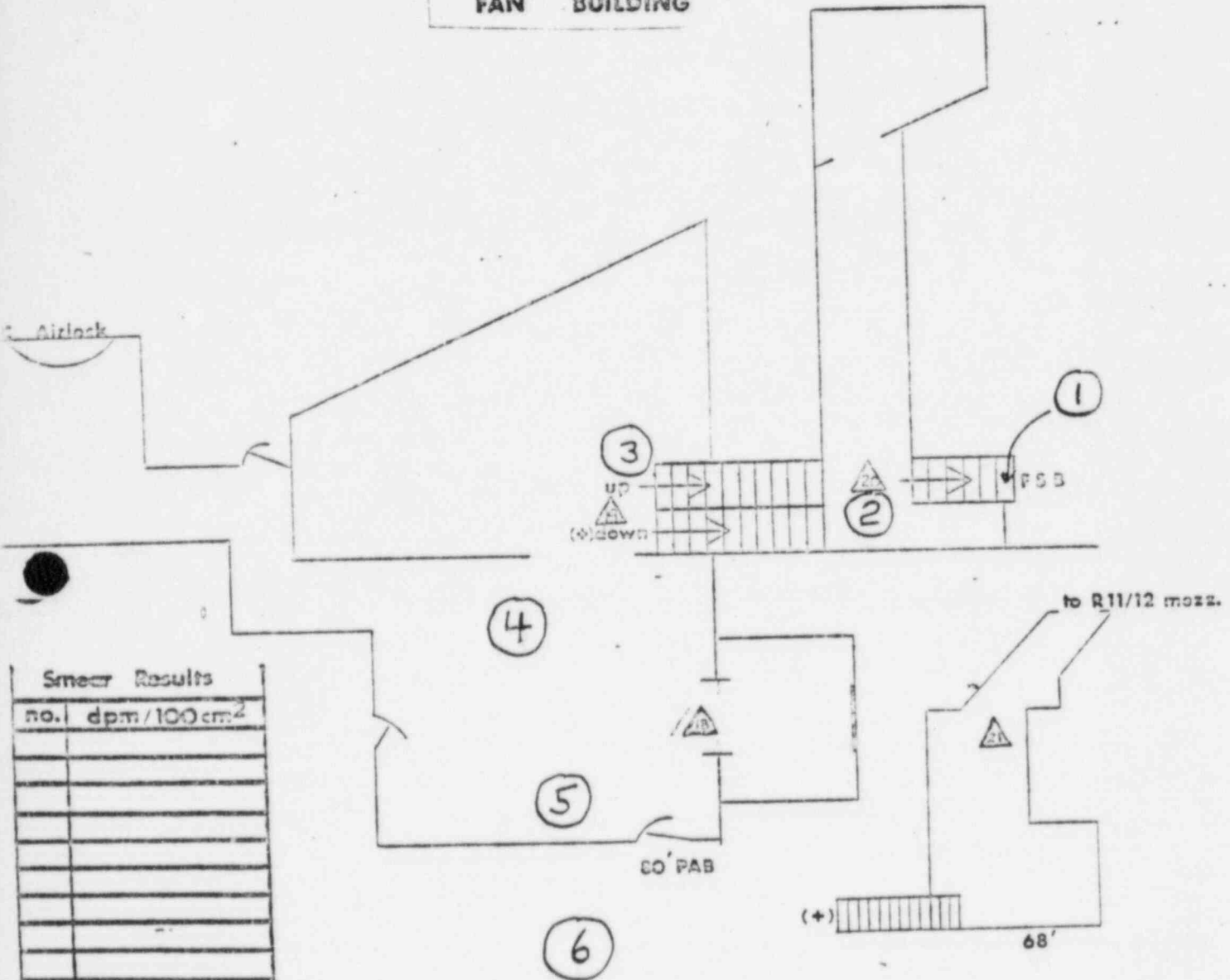
REACTOR POWER LEVEL _____

Time: _____

Survey by: _____

Reviewed by: _____

FAN BUILDING



Smear Results

no. dpm/100 cm²

TABLE 4
PLANT RADIATION LEVELS

LOCATION	TIME	RADIATION LEVELS	
Alley By - Point 1 Plant Vent	08:30	1	mR/hr
	09:00	7	mR/hr
	10:00	690	mR/hr
	11:00	8	mR/hr
	11:15	1	mR/hr
Point 2	08:30	1	mR/hr
	09:00	1	mR/hr
	10:00	10	mR/hr
	11:00	1	mR/hr
	11:15	1	mR/hr
98' PAB - Point 1	08:30	< 1	mR/hr
	09:00	2	mR/hr
	10:00	100	mR/hr
	11:00	4	mR/hr
	11:15	< 1	mR/hr
Point 2	08:30	< 1	mR/hr
	09:00	2	mR/hr
	10:00	150	mR/hr
	11:00	6	mR/hr
	11:15	< 1	mR/hr
Point 3	08:30	< 1	mR/hr
	09:00	1	mR/hr
	10:00	50	mR/hr
	11:00	2	mR/hr
	11:15	< 1	mR/hr
Point 4	08:30	< 1	mR/hr
	09:00	< 1	mR/hr
	10:00	15	mR/hr
	11:00	1	mR/hr
	11:15	< 1	mR/hr

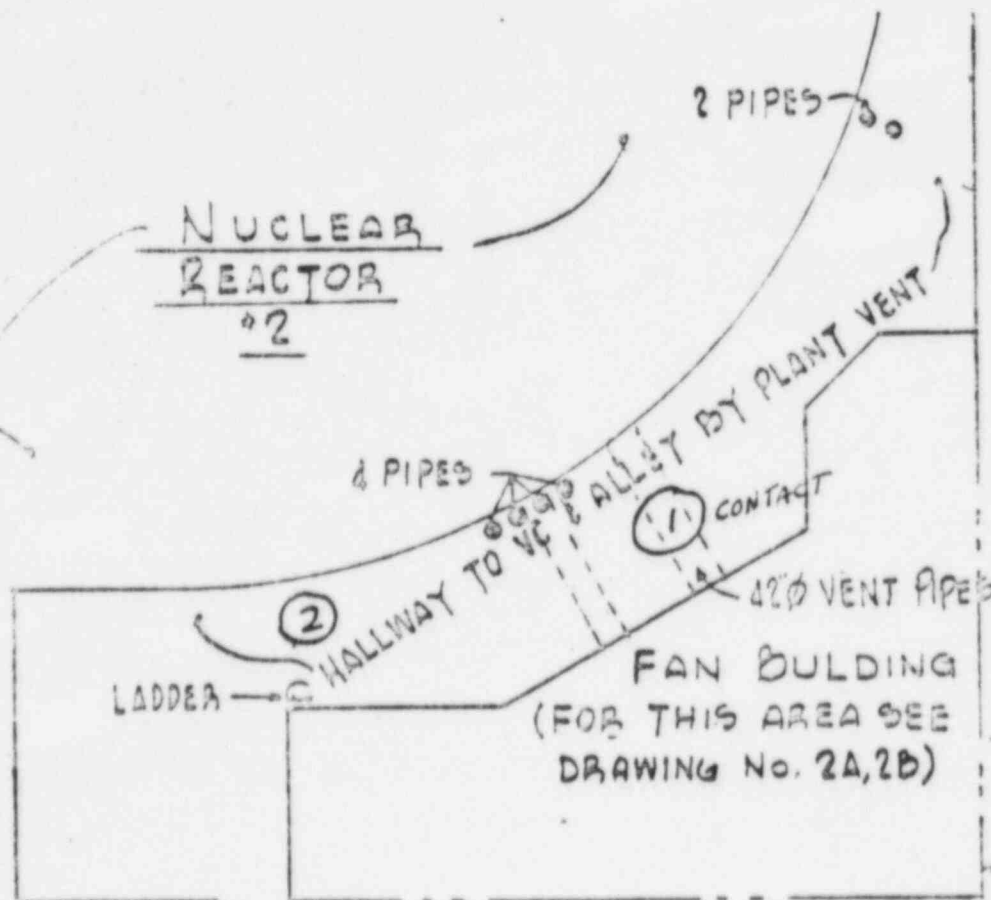
NOTE 1: All loose contamination and airborne concentrations are actual levels detected.

NOTE 2: Data to be supplied to Rad Prot Tech at the locations after the survey is performed.

UNIT NO. 2
RADIATION SURVEY FORM NO. 3B

Serial No. _____

Date: _____ Time: _____ Survey by: _____ Reviewed by: _____

[illegible]

ALLEY BY PLANT VENT

HIGH RADIATION GATE

o-HUB DRAIN-H.D.

o - FLOOR DRAIN-F.D.

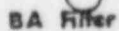
PROTECTIVE CLOTHING AND EQUIPMENT REQUIREMENTS					
HEAD	BODY	FEET	HANDS	DOSIMETRY	RESPIRATORY
<input type="checkbox"/> Surgeon's Cap <input type="checkbox"/> Hood <input type="checkbox"/> Water Proof Cover <input type="checkbox"/> Face-Shield <input type="checkbox"/> Goggles	<input type="checkbox"/> 1 Pr. Coveralls <input type="checkbox"/> 2 Pr. Coveralls <input type="checkbox"/> Lab Coat <input type="checkbox"/> Disp. Coverall <input type="checkbox"/> QA Coveralls <input type="checkbox"/> Waterproof Outer Layer <input type="checkbox"/> No Personal Outer Clothing	<input type="checkbox"/> Rubber Boots <input type="checkbox"/> PVC Boots SHOE COVERS <input type="checkbox"/> High Plastic <input type="checkbox"/> Taped to Coveralls <input type="checkbox"/> Low Plastics	<input type="checkbox"/> Cotton Inserts <input type="checkbox"/> Cotton Glove <input type="checkbox"/> Water Proof Glove <input type="checkbox"/> Rubber Gloves <input type="checkbox"/> Surgeon's Gloves <input type="checkbox"/> Taped to Coveralls	<input type="checkbox"/> Film Badge—Whole Body <input type="checkbox"/> Film Badge—Extremity <input type="checkbox"/> Film Badge—Neutron <input type="checkbox"/> Dosimeter TLD	<input type="checkbox"/> Half Face <input type="checkbox"/> Full Face <input type="checkbox"/> Air Line Mask <input type="checkbox"/> Air Supply Hood <input type="checkbox"/> Self Contained CARTRIDGE <input type="checkbox"/> Charcoal <input type="checkbox"/> Particulate

1. General dose rate readings are to be taken at waist level and Hot Spots are also to be indicated in MR/HR at location taken.
2. * Denotes contact readings in MR/HR.
3. Contamination results are recorded in DPM/100CM². Indicate and circle location on survey diagram.
4. Record reactor power % if radiation survey is being performed.

VIII-D-4

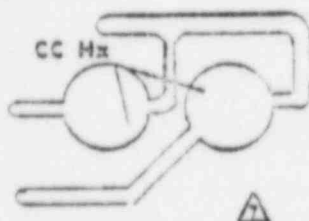
RADIATION SURVEY FORM NO. 8

Time: _____ Survey by: _____ Reviewed by: _____



Tanks

②



CC Hx

③



Non-regen. Hx

Concentrates
Holding Tank

VCT

RCP DP Gauges

RCF

NFD Shack

Storage

Motor Control

Seawater Return Hx

21 BAE

VIII-D-5

[illegible]

93' PAB

TABLE 4
PLANT RADIATION LEVELS

LOCATION	TIME	RADIATION LEVELS	
Plant Vent Chem Sample-Contact	09:00	1	mR/hr
	10:00	25	mR/hr
	11:00	2	mR/hr
	11:15	< 1	mR/hr
30' PAB - Point 1	08:30	< 1	mR/hr
	09:00	2	mR/hr
	10:00	130	mR/hr
	11:00	6	mR/hr
Point 1	11:15	< 1	mR/hr
	08:30	< 1	mR/hr
	09:00	3	mR/hr
	10:00	150	mR/hr
Point 2	11:00	7	mR/hr
	11:15	< 1	mR/hr
	08:30	< 1	mR/hr
	09:00	1	mR/hr
Point 3	10:00	75	mR/hr
	11:00	3	mR/hr
	11:15	< 1	mR/hr
	08:30	< 1	mR/hr
	09:00	< 1	mR/hr
	10:00	15	mR/hr
	11:00	1	mR/hr
	11:15	< 1	mR/hr

NOTE 1: All loose contamination and airborne concentrations are actual levels detected.

NOTE 2: Data to be supplied to Rad Prot Tech at the locations after the survey is performed.

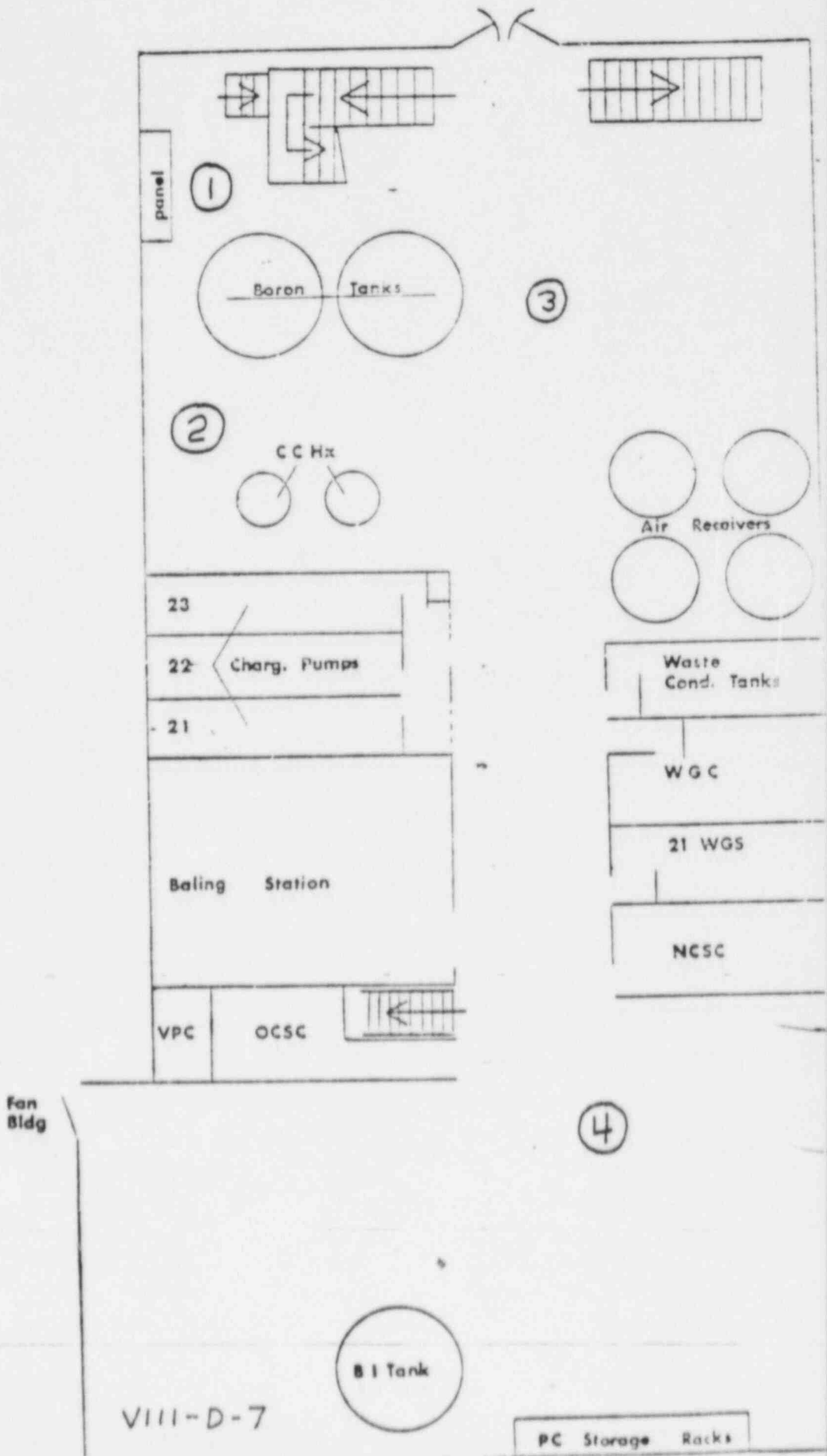
[illegible]

TABLE 5
FACILITY RADIATION LEVELS

LOCATION	TIME	1 METER HEIGHT READING		10 ft. ³ AIR SAMPLE		
		B + γ mR/hr	γ mR/hr	BKGD CPM	IODINE CPM	PART CPM
Emergency Operation Facility (EOF)	All Times	< 1.0	< 1.0	200	200	200
Operational Support Center (OSC)	All Times	< 1.0	< 1.0	200	200	200
Technical Support Center (TSC)	All Times	< 1.0	< 1.0	200	200	200
Control Room (CR)	All Times	< 1.0	< 1.0	200	200	200

NOTE: Data to be supplied to Rad Protection Technician after the survey is completed.

TABLE 6

REUTER-STOKES READINGSmR/hr

TIME	1	2	3	4	5	6	7	8	9	10	11
08:30	8E-3	8E-3	7E-3	7E-3	7E-3	7E-3	7E-3	7E-3	7E-3	7E-3	7E-3
09:00	8E-3	8E-3	8E-3	5E-2	7E-3	7E-3	7E-3	7E-3	7E-3	7E-3	7E-3
09:30	8E-3	8E-3	9E-3	4E-2	7E-3	7E-3	7E-3	7E-3	7E-3	7E-3	7E-3
10:05	8E-3	8E-3	2E-1	5E+0	7E-3	7E-3	7E-3	7E-3	7E-3	7E-3	7E-3
10:30	8E-3	8E-3	1E-1	4E+0	7E-3	7E-3	7E-3	7E-3	7E-3	7E-3	7E-3
10:55	8E-3	8E-3	1E-1	4E+0	7E-3	7E-3	7E-3	7E-3	7E-3	7E-3	7E-3
11:05	8E-3	8E-3	1E-2	9E-2	7E-3	7E-3	7E-3	7E-3	7E-3	7E-3	7E-3
11:15	8E-3	8E-3	8E-3	7E-3	7E-3	7E-3	7E-3	7E-3	7E-3	7E-3	7E-3
11:30	8E-3	8E-3	7E-3	6E-3	7E-3	7E-3	7E-3	7E-3	7E-3	7E-3	7E-3
11:45	8E-3	8E-3	7E-3	7E-3	7E-3	7E-3	7E-3	7E-3	7E-3	7E-3	7E-3

TABLE 6 (Continued)

RUETER-STOKES READINGS

TIME	12	13	14	15	16
08:30	8E-3	8E-3	8E-3	8E-3	8E-3
09:00	8E-3	8E-3	8E-3	8E-3	8E-3
09:30	8E-3	8E-3	8E-3	8E-3	8E-3
10:05	8E-3	8E-3	8E-3	8E-3	8E-3
10:30	8E-3	8E-3	8E-3	8E-3	8E-3
10:55	8E-3	8E-3	8E-3	8E-3	8E-3
11:05	8E-3	8E-3	8E-3	8E-3	8E-3
11:15	8E-3	8E-3	8E-3	8E-3	8E-3
11:30	8E-3	8E-3	8E-3	8E-3	8E-3
11:45	8E-3	8E-3	8E-3	8E-3	8E-3

TABLE 7

PLUME MONITORING DATA-SECTORS 2 THRU 5

TIME	EMERGENCY/FIXED SAMPLE SITE NO. OR CENTERING DIRECTION			1 METFR HEIGHT READING		10 FT ³ AIR SAMPLE DATA		
	NO.	DEG	MILES	B + γ mR/hr	γ mR/hr	BKGD CPM	IODINE CPM	PART CPM
ALL TIMES	2		1-10	< 1	< 1	200	200	200
08:42		60	2	< 1	< 1	200	200	200
09:12		60	2	< 1	< 1	200	200	200
10:12		60	2	5	3	200	200	200
11:12		60	2	< 1	< 1	200	200	200
11:22		60	2	< 1	< 1	200	200	200
11:37		60	2	< 1	< 1	200	200	200
11:47		60	2	< 1	< 1	200	200	200
09:00		60	5	< 1	< 1	200	200	200
09:30		60	5	< 1	< 1	200	200	200
10:30		60	5	2'	1	200	200	200
11:30		60	5	< 1	< 1	200	200	200
11:42		60	5	< 1	< 1	200	200	200
11:57		60	5	< 1	< 1	200	200	200
12:07		60	5	< 1	< 1	200	200	200
09:30		60	10	< 1	< 1	200	200	200
10:00		60	10	< 1	< 1	200	200	200
11:00		60	10	< 1	< 1	200	200	200
12:00		60	10	< 1	< 1	200	200	200
12:10		60	10	< 1	< 1	200	200	200
12:25		60	10	< 1	< 1	200	200	200
12:35		60	10	< 1	< 1	200	200	200

NOTE: Plume Center Line Direction Is Given In Degrees. The Emergency Or Fixed Sample Sites Are Indicated By Sector No. And Mile Distance.

TABLE 7

PLUME MONITORING DATA-SECTORS 2 THRU 5 (Continued)

TIME	EMERGENCY/FIXED SAMPLE SITE NO. OR CENTERING DIRECTION			1 METER HEIGHT READING		10 FT ³ AIR SAMPLE DATA		
	NO.	DEG	MILES	B + Y mR/hr	f mR/hr	BKGD CPM	IODINE CPM	PART CPM
08:36	3		1	< 1	< 1	200	200	200
09:06	3		1	2	2	200	200	200
10:06	3		1	9	5	200	200	200
11:06	3		1	2	1	200	200	200
11:16	3		1	< 1	< 1	200	200	200
11:31	3		1	< 1	< 1	200	200	200
11:41	3		1	< 1	< 1	200	200	200
08:48	3		3	< 1	< 1	200	200	200
09:18	3		3	< 1	< 1	200	200	200
10:18	3		3	< 1	< 1	200	200	200
11:18	3		3	< 1	< 1	200	200	200
11:28	3		3	< 1	< 1	200	200	200
11:43	3		3	< 1	< 1	200	200	200
11:52	3		3	< 1	< 1	200	200	200
09:06	3		6	< 1	< 1	200	200	200
09:36	3		6	< 1	< 1	200	200	200
10:36	3		6	< 1	< 1	200	200	200
11:36	3		6	< 1	< 1	200	200	200
11:46	3		6	< 1	< 1	200	200	200
12:01	3		6	< 1	< 1	200	200	200
12:11	3		6	< 1	< 1	200	200	200

NOTE: Plume Center Line Direction Is Given In Degrees. The Emergency Or Fixed Sample Sites Are Indicated By Sector No. And Mile Distance.

TABLE 7

PLUME MONITORING DATA-SECTORS 2 THRU 5 (Continued)

TIME	EMERGENCY/FIXED SAMPLE SITE NO. OR CENTERING DIRECTION	NO.	DEG	MILES	1 METER HEIGHT READING		10 FT ³ AIR SAMPLE DATA		PART
					B + γ mR/hr	γ mR/hr	BKGD CPM	IODINE CPM	
09:30	3			10	< 1	< 1	200	200	200
10:00	3			10	< 1	< 1	200	200	200
11:00	3			10	< 1	< 1	200	200	200
12:00	3			10	< 1	< 1	200	200	200
12:10	3			10	< 1	< 1	200	200	200
12:25	3			10	< 1	< 1	200	200	200
12:35	3			10	< 1	< 1	200	200	200
08:36	4			1	< 1	< 1	200	200	200
09:06	4			1	< 1	< 1	200	200	200
10:06	4			1	< 1	< 1	200	200	200
11:06	4			1	< 1	< 1	200	200	200
11:16	4			1	< 1	< 1	200	200	200
11:31	4			1	< 1	< 1	200	200	200
11:41	4			1	< 1	< 1	200	200	200
08:48	4			3	< 1	< 1	200	200	200
09:18	4			3	< 1	< 1	200	200	200
10:18	4			3	< 1	< 1	200	200	200
11:18	4			3	< 1	< 1	200	200	200
11:28	4			3	< 1	< 1	200	200	200
11:43	4			3	< 1	< 1	200	200	200
11:53	4			3	< 1	< 1	200	200	200

NOTE: Plume Center Line Direction Is Given In Degrees. The Emergency Or Fixed Sample Sites Are Indicated By Sector No. And Mile Distance.

TABLE 7

PLUME MONITORING DATA-SECTORS 2 THRU 5 (Continued)

TIME	EMERGENCY/FIXED SAMPLE SITE NO. OR CENTERING DIRECTION	NO.	DEG	MILES	1 METER HEIGHT READING		10 FT ³		AIR SAMPLE DATA	
					B + Y mR/hr	Y mR/hr	BKGD CPM	IODINE CPM	PART CPM	
09:06		4		6	<	<	200	200	200	
09:36		4		6	<	<	200	200	200	
10:36		4		6	<	<	200	200	200	
11:36		4		6	<	<	200	200	200	
11:46		4		6	<	<	200	200	200	
12:01		4		6	<	<	200	200	200	
12:11		4		6	<	<	200	200	200	
09:30		4		10	<	<	200	200	200	
10:00		4		10	<	<	200	200	200	
11:00		4		10	<	<	200	200	200	
12:00		4		10	<	<	200	200	200	
12:10		4		10	<	<	200	200	200	
12:25		4		10	<	<	200	200	200	
12:35		4		10	<	<	200	200	200	
ALL TIMES		5		1-10	<	<	200	200	200	

NOTE: Plume Center Line Direction Is Given In Degrees. The Emergency Or Fixed Sample Sites Are Indicated By Sector No. And Mile Distance.

TABLE 7 (Continued)

PLUME MONITORING DATA-SITE BOUNDARY SEGMENTS (mR/hr)

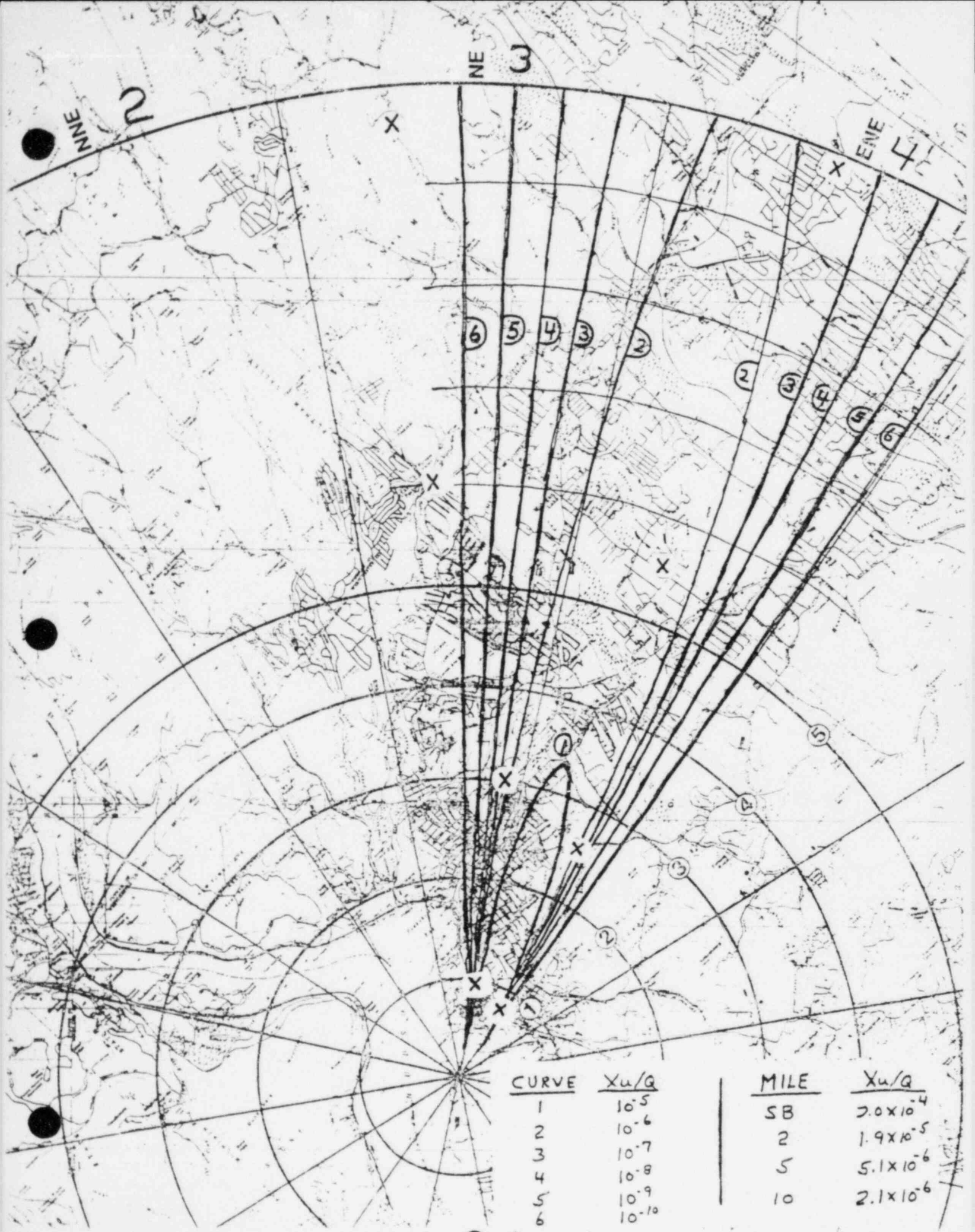
TIME	WIND DIR	1		2		3		4		5		6	
		B+	Y	B+	Y	B+	Y	B+	Y	B+	Y	B+	Y
08:30	248	<	1	<	1	<	1	<	1				
09:00	240	<	1	<	1	2	<	1	<	1			
10:00	240		5		3	180	100		7		4		
11:00	245	<	1	<	1	4	2	<	1	<	1		
11:15	245	<	1	<	1	<	1	<	1	<	1		
11:25	245	<	1	<	1	<	1	<	1	<	1		
> 11:35	245	<	1	<	1	<	1	<	1	<	1		

All other segments 1 mR/hr at ALL TIMES

PLUME MONITORING DATA-SITE BOUNDARY SEGMENTSAIR SAMPLES (CPM)

TIME	WIND DIR	1		2		3		4		5		6	
		IODINE	PART	IODINE	PART	IODINE	PART	IODINE	PART	IODINE	PART	IODINE	PART
08:30	248	200	200	200	200	200	200						
09:00	240	200	200	200	200	200	200						
10:00	240	200	200	200	200	200	200						
11:00	245	200	200	200	200	200	200						
11:15	245	200	200	200	200	200	200						
11:25	245	200	200	200	200	200	200						
> 11:35	245	200	200	200	200	200	200						

Counter BKGD and other segments 200 CPM at ALL TIMES



VIII-G-6

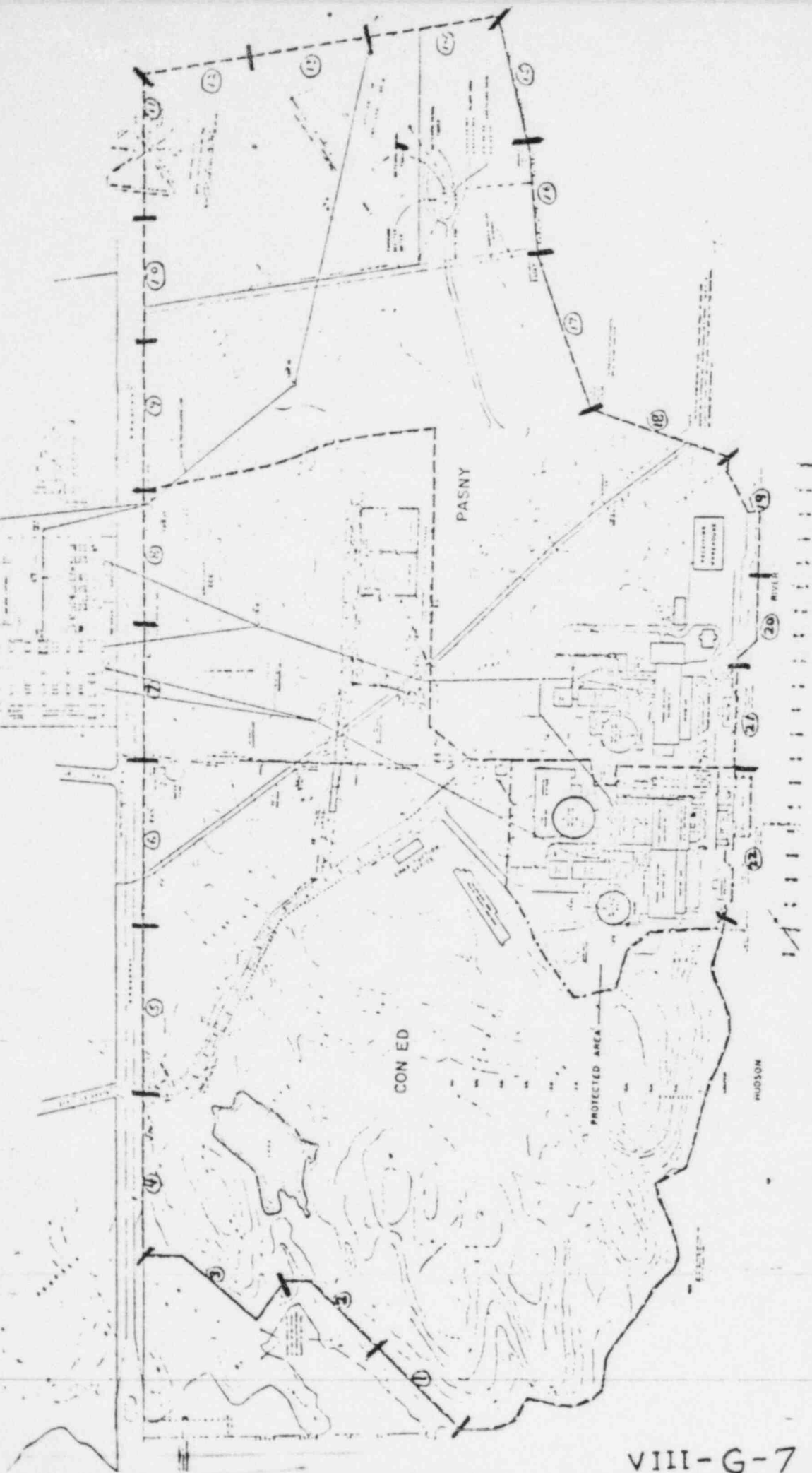


TABLE 8
OFFSITE TLD READINGS

<u>SECTOR</u>	<u>MILE RING</u>	<u>MREM</u>	<u>SECTOR</u>	<u>MILE RING</u>	<u>MREM</u>
1	1		9	1	
	5			5	
	10			10	
2	1		10	1	
	5			5	
	10			10	
3	1		11	1	
	5			5	
	10			10	
4	1		12	1	
	5			5	
	10			10	
5	1		13	1	
	5			5	
	10			10	
6	1		14	1	
	5			5	
	10			10	
7	1		15	1	
	5			5	
	10			10	
8	1		16	1	
	5			5	
	10			10	

NOTE: Data to be supplied to Offsite Radiological Assessment Director.

NOT REQUIRED FOR THIS SCENARIO

TABLE 9
POST ACCIDENT SAMPLES

SAMPLE MEDIUM	SECTOR MILE	TIME TAKEN	TIME COUNT	ISOTOPES IDENTIFIED	RADIOACTIVE CONCENTRATION*
------------------	----------------	---------------	---------------	------------------------	-------------------------------

NOT REQUIRED FOR THIS SCENARIO

* SOIL = uCi/kg
 Water = uCi/liter
 Vegetation = uCi/g dry weight

NOTE 1: one day later

NOTE 2: two days later

NOTE 3: Data to be provided to Offsite Radiological Assessment
Director after samples have been collected and processed.

TABLE 10POST ACCIDENT OFFSITE CONTAMINATION LEVELS

SECTOR MILE	SMEAR CHECK RESULTS-CPM		
	HRS	HRS (1)	HRS (2)

NOT REQUIRED FOR THIS SCENARIO

- NOTE 1: Time represents one (1) day later
2: Time represents two (2) days later
3: Data to be provided to Offsite Radiological Assessment
Director after checks are simulated.

TABLE 11

MEDICAL EMERGENCY DATA

NOT REQUIRED FOR THIS SCENARIO

CONSOLIDATED EDISON COMPANY OF NEW YORK

INDIAN POINT UNIT NO. 2

DRILL SCENARIO NO. 1985

IX. LOGISTICS

A. Drill Size

There will be a full scale activation of the following facilities.

- ° Control Room
- ° Technical Support Center
- ° Operational Support Center
- ° Emergency Operations Facility
- ° Corporate Response Center

B. Participation

Assembly and accountability will be limited to a small group of non-essential personnel within the protected area and the assembly areas at the Simulator Building and Con Edison Construction Office. After accountability has been completed, personnel not participating as players, controllers or observers will be permitted to return to their normal work locations. Refer to the notice on page IX-3.

C. Arm Band Use

The following arm band color coding will be used during the drill.

- Green - Controller
- Red - Observer
- White - Player
- Blue - NRC (available if they desire them)

D. Access

Access lists will only be prepared for the EOF for use by the Security Guard assigned to that post. All other Nuclear Power personnel not participating will be directed by their Department Managers to refrain from entering the TSC and OSC areas. Non drill participants requiring entry to the Control Room will be directed to contact the SWS assigned to the watch.

Security restrictions on entry through the Main Gate and Command Guard House will be lifted by the Chief Controller, through the Senior Watch Supervisor, one hour after the declaration of ALERT.

E. Lunch

Lunch will not be provided to drill participants and the normal lunch break will be held at the end of the drill. The drill is expected to be terminated at approximately 1200 hours.

F. Critique

A meeting of all observers and controllers, with the exception of Irving Place, will be held in the Simulator Cafeteria at 1300 hours on June 5, 1985 where critique comments will be discussed, categorized and prepared for the formal critique to be held at 0900 hours on June 6, 1985 at the Simulator Auditorium. The critique presentations will be made by the facility lead controllers. All players are welcome to attend.

Accountability and Operational Support Center Staffing
For the Dress Rehearsal and the June 5 Drill

1. All players will wear white arm bands.
2. Accountability Officers (AO) will be assigned for each of the following groups:
 - o NPG
 - o TS
 - o EH&S
 - o AS
 - o Construction

and they will await the call from the Chief Accountability Officer's staff at which time each AO will report that all personnel are accounted for.

3. Operational Support Center (OSC) team members wearing white arm bands will report to their respective section office when the "site assembly alarm" sounds. When each section's group of OSC team members is complete, they will report in person to the Chief Accountability Officer at the OSC.