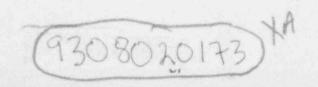
CONSOLIDATED EDISON COMPANY OF NEW YORK

INDIAN POINT UNIT NO. 2

DRILL SCENARIO NO. 1993



# CONSOLIDATED EDISON COMPANY OF NEW YORK INDIAN POINT UNIT NO. 2 DRILL SCENARIO NO. 1993

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# CONSOLIDATED EDISON COMPANY OF NEW YORK INDIAN POINT UNIT NO. 2 DRILL SCENARIO NO. 1993

## I. INTRODUCTION

The purpose of this exercise is to demonstrate Con Edison's capability to effectively implement the Indian Point Unit No. 2 Site Emergency Plan and Procedures and the interface with New York State and the counties of Westchester, Rockland, Orange and Putnam.

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

Section II Objectives - this section defines the licensee exercise objectives.

Section III Exercise 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 responsive actions of the participants are also detailed. These anticipated actions may be used as a guide in evaluating the exercise. 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 exercise messages and Controller Field Reports which will be utilized to control the progress of the exercise scenario.

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

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

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

Section VIII Radiological 'nformation - this section contains time-sequenced radiological information in the following categories as required by the scenario:

- Primary Coolant Activity
- Containment Activity
- Release Path Activity
- Plant Radiation Levels
- · Reuter-Stokes Readings
- Plume Monitoring Data & Figures
- Offsite TLD Readings
- Post Accident Samples
- Post Accident Offsite Contamination Levels
- Medical Emergency Data

Section IX Logistics - this section contains information and direction for the handling of peripheral items related to the drill, including:

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

#### CONSOLIDATED EDISON COMPANY OF NEW YORK

#### INDIAN POINT UNIT NO. 2

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#### **OBJECTIVES**

Our objectives are to demonstrate the licensee's:

- ability to identify emergencies through the four (4) classifications utilizing the EAL tables.
- ability to notify to offsite authorities within 15 minutes of the initial (NUE) declaration and again at the closeout.
- ability to activate the emergency organization as delineated in Section 5 of the Emergency Plan. This includes completing Level II within 60 minutes.
- ability to activate the EOF, CCR, TSC, OSC, ENC, CIG, and CRC.
   NOTE: State/Counties are not participating.
- 5. ability to communicate between offsite monitoring teams and licensee facilities.
- 6. ability to transmit data from the TSC to the EOF.
- ability to deploy offsite and onsite radiological monitoring teams.
- ability to deploy inplant radiological monitoring teams.
- ability to receive and assess radiological data.
- ability to complete assembly and accountability of site personnel within 30 minutes.
   (no evacuation of site personnel will be demonstrated and there will be no activation of the alert notification [siren] system).
- 11. command and control at the emergency response facilities.
- ability to changeover responsibility for the direction and control of the emergency force from the Senior Watch Supervisor to the Plant Operations Manager and then to the Emergency Director.

- 13. ability of facility staff to perform their specified emergency plan job function in an efficient manner.
- 14. site access control and security measures to ensure there are no delays to the passage of EOF emergency personnel to the EOF.
- 15. ability to perform dose projections and determine recommended protective actions, if applicable.
- 16. personnel radiological exposure control capabilities for emergency personnel.
- ability to brief the media in an accurate, coordinated, and timely manner.
   NOTE: State/Counties are not participating.
- 18. ability to plan for a shift change.
- 19. ability to de-escalate the emergency and declare the recovery stage. (Recovery Center will not be activated).

# CONSOLIDATED EDISON COMPANY OF NEW YORK

#### INDIAN POINT UNIT NO. 2

#### DRILL SCENARIO NO. 1993

#### III. DRILL SCENARIO

#### Initial Conditions

The Indian Point Unit 2 Nuclear Generating Station has been at full power for 177 days. A severe thunderstorm watch was declared at 0630. All plant parameters are normal and stable. A routine vapor containment (VC) building pressure relief is in progress. Equipment out of service for corrective maintenance are 22 Safety Injection (SI) pump and 22 Auxiliary Boiler Feed Pump. Limiting Condition of Operation (LCO) action statements are in effect for both of these pieces of equipment.

#### Narrative Summary

A tornado is observed by Operations touching down near Charles Point. When the Central Control Room (CCR) is notified, a Notification of Unusual Event (NUE) will be declared based on the Indian Point Unit 2 Emergency Plan NUE event Table Item 5D, Natural Phenomena.

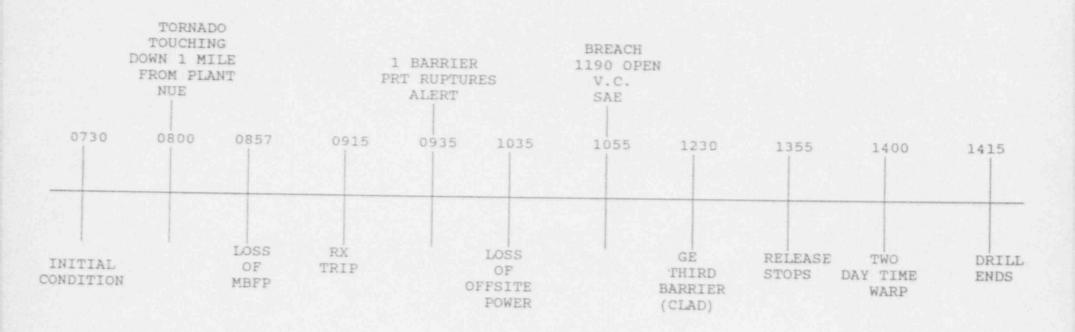
The Central Control Room Operator will attempt to secure the in progress VC pressure relief when VC pressure reaches the desired value. Upon securing the pressure relief, Valve PCV-1190 (the inside VC pressure relief Valve) closes, while PCV-1191 and PCV-1192 (the outside VC pressure relief valves) remain open.

A loss of #21 Main Boiler Feed Pump occurs with an ensuing automatic turbine runback. Reactor Coolant System (RCS) pressure increases to the Power Operated Relief Valve (PORV) set point resulting in a PORV actuation. As pressure drops, the PORV's close, but pressure continues to decrease. The Pressurizer Relief Tank (PRT) pressure, level, and temperature increase, indicating that either the PORV's have not fully closed or a Safety Valve is open. The acoustic monitor confirms the Safety Valve is open causing a Small Break Loss of Coolant Accident (SBLOCA). A reactor trip occurs on low RCS pressure. RCS pressure continues to decrease resulting in a Safety Injection. As PRT pressure increases the rupture disc blows by design resulting in excessive Reactor Coolant System Leakage. An Alert will be declared on a Reactor Coolant System barrier breach as confirmed by RCS leakage into the VC at a rate of greater than 100 gpm.

While the CCR operators are responding to the Safety Injection a loss of offsite power occurs. Diesel Generators 21 and 22 tie on to their respective 480 volt buses. Diesel Generator 23 output breaker fails to close causing 480 volt Bus 6A to remain de-energized. After resetting SI and Containment Isolation Phase A, as directed by procedure, an electrical fault results in PCV-1190 opening creating a direct pathway from containment to atmosphere. A site area emergency will be declared based on a second barrier breach confirmed by a failure of the Containment Isolation function.

The ongoing small break LOCA results in voids in the Reactor Vessel. The Reactor Vessel Level Indicating System (RVLIS) shows a continued decreases in Reactor Vessel Level. After the core is uncovered, increasing radiation levels in the VC indicate the potential for fuel failure. An RCS sample is provided to the CCR indicating greater than 28 uci/cc. Increasing radiation levels in the VC are indicated on the R25 radiation monitoring. A general emergency will be declared based on the failure of a third barrier, the fuel, as indicated by the RCS sample.

Restoration of plant equipment begins with a re-energization of Bus 6A and the restoration of Safeguards equipment. An instrument and control technician installs an electrical jumper which causes Valve PCV-1190 to go closed and terminate the release. A time warp occurs in which the Reactor Core will be considered in a safe condition with no further potential releases of radioactive material to the environment. The Emergency Director will close out the emergency and declare the commencement of the recovery stage at which time the drill will terminate.



## INITIATING MESSAGE NUMBER

TIME		EVENT SUMMARY
T = 07:30	1	Initial conditions are:
		- Operating for 177 days at full power.
		- A severe thunderstorm alert was declared at 0630.
		- Plant parameters are stable and normal.
		- All Gas Turbine are running a/c AOI-28.0.7.
		- Equipment out on LCO are #22 SI Pump and #22 Aux. Boiler Feed Pump.
		- Pressure relief in progress.
T = 08:00	Α	- Tornado is seen by NPO touching down at Charles Point.
		ANTICIPATED RESULTS
		Control Room Operator
		- Continue in A-28.0.7 and IP-1032.
		Senior Watch Supervisor
		- Declares an NUE due to Table 5D. Any tornado observed within one mile of site.

INITIATING MESSAGE NUMBER

#### TIME

#### **EVENT SUMMARY**

Fills out Radiological Emergency Data Form Part 1.

Direct the communicator to make appropriate notification with IP-1002.

T - 08:30 2

CCR Operators stop pressure relieving.

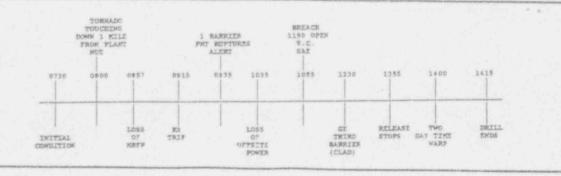
- Valve No. 1190 closes but valves No. 1192 and No. 1192 stay open.

#### ANTICIPATED RESULTS

### Control Room Operator

T = 08:45 B

- Send NPO to investigate why valves No. 1190 and No. 1192 didn't close.



INITIATING MESSAGE NUMBER

#### TIME

#### **EVENT SUMMARY**

T = 08:57

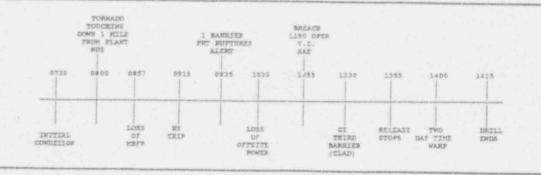
3

- Loss of 21 MBFP occurs.
- RCS pressure increases to open PORV resulting in PORV activation.
- As pressure drops PORV close but pressure decrease does not stop.
- PRT pressure and level increase.
- Acoustic Monitor indicates Safety Valve still open.

#### ANTICIPATED RESULTS

# Central Control Room Operator

- Make sure automatic action take place for loss of MFWP.



INITIATING MESSAGE NUMBER

#### TIME

#### **EVENT SUMMARY**

T = 09:15 4

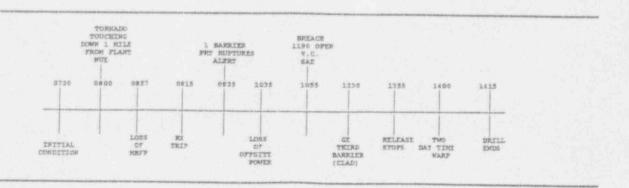
Reactor Trips on low RCS pressure.

- Pressurizing level increases due to vapor space break.

## ANTICIPATED RESULTS

Control Room Operator

Enter E-O



INITIATING MESSAGE NUMBER

#### TIME

## **EVENT SUMMARY**

T = 09:20

5

- RCS pressure continues to decrease resulting in Safety Injection.
- #21 SI Pump failed to start SI on signal.

# ANTICIPATED RESULTS

Control Room Operator

- Re-enter E-O step 1

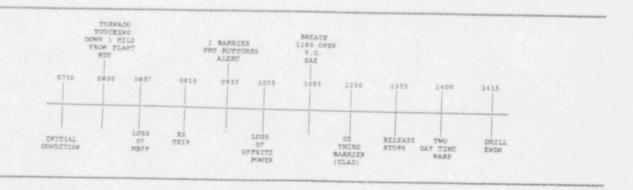
Senior Watch Supervisor

- Send NPO to investigate.

C #21 SI Pump

T = 09:35 6

- PRT Disc Ruptures



INITIATING MESSAGE NUMBER

#### TIME

#### **EVENT SUMMARY**

T = 09:40

#### ANTICIPATED RESULTS

#### Senior Watch Supervisor

 Declares Alert due to RCS leakage > 100 gpm which constitutes a RCS breach.

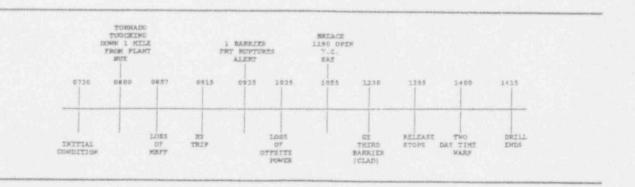
## Control Room Operator

Directs Sound Site Emergency Assembly Alarm.

- Fills out "Rad. Emergency Data Form Part 1".
- Direct communicator to make appropriate notification in accordance with IP-1002.

T = 10:30 8

- Loss of offsite power occurs.
- #21 and #22 EDG pick up load on Busses 5A, 2A and 3A.
- #23 EDG Breaker fails to close due to Bus 6A.
- No high head injection pumps.
- RCS pressure to high for low head injection.
- Core uncovering continues.



INITIATING MESSAGE NUMBER

#### TIME

#### **EVENT SUMMARY**

T = 10:55

9

- After SI and Phase A reset Valve No. 1228 is opened.
- Valve No. 1190 opens Attempt to close Valve failed.

# ANTICIPATED RESULTS

# Emergency Director (ED)

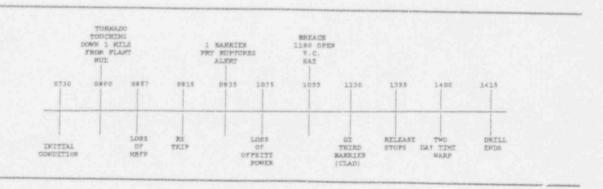
- Declares SAE because two Barrier Breach.
- Fills out "Rad. Emergency Data Form Part 1".
- Have offsite authorities notified.
- Evacuate onsite nonessential personnel.

# Central Control Room

T = 11:05

D

- Send NPO to investigate why Valve No. 1190 failed to close.



INITIATING MESSAGE NUMBER

#### TIME

## **EVENT SUMMARY**

T = 12:30

10

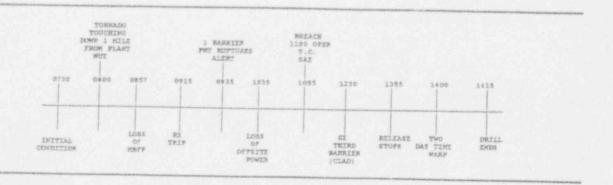
- Small Break LOCA results in voids in Rx vessel.
- RVLIS level continues to decrease.
- R-25 and 26 increasing in V.C.
- E
- Samples taken from RCS indicates > 28 uci/cc.

# ANTICIPATED RESULTS

Emergency Director (ED)

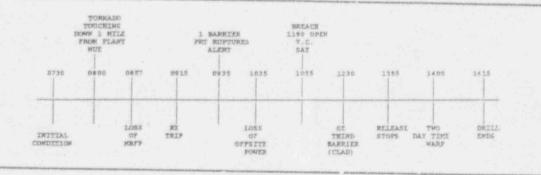
11

- Declares a GE a/c fuel clad - Breach third Barrier failure.



INITIATING MESSAGE NUMBER

TIME		EVENT SUMMARY		
T = 13:30	F	- Power restored to Bus 6A upon restoration of #23 EDG.		
T = 13:45	G	- Number 22 SI Pump repair turnover to CCR.		
T = 13:55	Н	- I & C installs jumper which closes Valve PCV-1190.		
		- Terminates release		
		- Plant proceeding to cold shutdown.		
T = 14:00	12	- Two Day Time Warp.		
		- Rx in cold shutdown.		
		- All equipment functioning normal.		



## CONSOLIDATED EDISON COMPANY OF NEW YORK

### INDIAN POINT UNIT NO. 2

#### DRILL SCENARIO NO. 1993

#### IV. MESSAGE

TO:

ALL DRILL PARTICIPANTS

LOCATION:

ALL LOCATIONS

TIME:

When the players report to the facility

MESSAGE:

**DRILL GROUND RULES** 

All participants are required to observe the following 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 a drill. Make a positive statement that this is a drill-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.
- Take no actions that affect unit or non-drill related operations.
- Take immediate action(s) to restore safe operation, if an unsafe condition exists. Ignore drill situation if actual safety becomes a concern.
- Use only the information provided in accordance with the ground rules or derived from approved procedures. <u>Do not improvise information.</u>
  - 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).
  - 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. The intent of the scenario is to test inplementation of the emergency plans and procedures by Con Edison and the offsite authorities. In certain instances the logic involved in selecting the details stretches the imagination. This has been done to accommodate the onsite and offsite objectives of the drill. Do not become overly concerned when this occurs.
- 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 drill in order to keep the drill progressing in accordance with the scenario. Observer/Controllers will also observe all aspects of the drill to prepare an in-house evaluation of plans, procedures and training.
- Be sure that the Con Edison Observer/Controller is aware of your actions (actual or simulated).
- Make all procedurally required notifications unless directed not to do so by the Controller.
- 7. If samples inside or outside the site are deemed necessary, their collection will be performed and their analysis conducted unless simulations is directed by a Controller. Observer/Controllers will accompany the survey teams, onsite and offsite.
- 8. This drill is conducted to evaluate our plans and procedures. The drill is also a training vehicle for members of the Con edison 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 drill.
- 9. If, during any part of the drill, 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.
- The Radiation Work Permit number for the emergency drill is 10001. This
  number will be used by all participants and observer/controllers entering the
  radiation area.

#### SIMULATION

# CONTROL ROOM (CR)

1. Kluse

# TECHNICAL SUPPORT CENTER (TSC)

None

# OPERATIONAL SUPPORT CENTER (OSC)

- 1. Anti-C and respirators for teams
- 2. Sampling and Counting, including the PASS
- 3. Entry of repair teams into contaminated areas or areas
- 4. Requiring a site specific RWP

# **EMERGENCY OPERATIONS FACILITY (EOF)**

- 1. Kluse
- 2. Disarming of Halon System
- 3. Switching ventilation to internal mode
- 4. Evacuation and movement of all non-essential personnel
- 5. Estimates of population dose after recovery
- 6. Buchanan Sub Station Service Center not participating
- With the exception of the Security Guard for CCR, EOF and onsite team, all other security requests will be simulated.
- The Main Gate and the Command Guard house will be secured for one hour after the assembly alarm is sounded. At another times it will be simulated.

# ASTORIA ECC

 Only one offsite team needs to be dispatched from Astoria. After the team is dispatched, the rest of the personnel may be released for normal duty.

# CORPORATE RESPONSE CENTER (CRC)

 CRC personnel are only required to contact appropriate directors, managers and chief engineers once after activating the facility stating, "This is a notification drill being performed in conjunction with an Indian Point Site Drill. Thank you."

# CENTRAL INFORMATION GROUP (CIG)

 The initiation of the Automated Telephone Emergency Notification Service (IP-1002 Section 5.4.1.c). TO:

SENIOR WATCH SUPERVISOR

LOCATION:

CENTRAL CONTROL ROOM

TIME:

T = 07:30

MESSAGE: NO. 1

### This is a Drill

Con Edison Indian Point Unit No. 2 has been operating at full power for 177 days.

AOI-28.0.7 completed through Step 3.2.3.

A severe thunderstorm watch was declared at 06:30.

Plant parameters are stable and normal.

All Gas Turbines are running per procedure.

VC pressure relief in progress.

No. 22 SIS Pump was taken out for service at 06:00 for seal replacement. The

Pump is expects back at approximately 15:00.

No. 22 ABFP is in for repairs since 16:00 yesterday and is expected back for service at approximately 16:00 today.

## CONTROLLER FIELD REPORT A

TO: NUCLEAR PLANT OPERATOR

LOCATION: ROOF OF THE TURBINE HALL

TiME: T = 08:00

MESSAGE:

#### This is a Drill

It is expected that the SRO has dispatched an NPO to the roof of the turbine hall building to perform a tornado watch (per AOI-28.0.7).

The NPO will observe a tornado touching down within one mile of the plant at Charles Point. It is expected that the NPO will relay this information to the CCR.

TO:

CENTRAL CONTROL ROOM

LOCATION: CONTROL OPERATOR

TIME: T = 08:30

MESSAGE: NO. 2

#### This is a Drill

The Control Operator, upon attempting to secure from a pressure relief, receives alarms and indications as follows:

- Indication light SL Panel PCV-1191 and PCV-1192 indicate open.
- Indication light SL Panel PCV-1190 indicates closed.

# CONTROLLER FIELD REPORT B

TO:

NPO REPAIR TEAM

LOCATION:

PCV-1191 AND 1192

TIME:

T = 08:45

MESSAGE:

## This is a Drill

It is expected that the Control Room Operator will dispatch an NPO to close the valves from the Fan Room. If this occurs, inform the NPO that the valves will not close.

It is expected that the SWS will request that the Maintenance Section send a team to the CCR where the SWS will direct them to make a detailed investigation.

Give the following information when trouble shooting starts and it is requested.

VALVE	INITIAL INVESTIGATION	DETAILED INVESTIGATION
PCV-1191	Problem is not electrical	Valve stem is broken - jamming valve
PCV-1192	Problem is not electrical	Problem is a broken spring and a butterfly
		shaft is jammed.

TO:

CONTROL ROOM OPERATOR

LOCATION:

CONTROL ROOM

TIME:

T = 08:57

MESSAGE: NO. 3

# This is a Drill

Loss of No. 21 Main Boiler Feed Pump occurs.

Reactor Coolant System pressure increases to activate PORV's.

As pressure drops PORV's close, but Pressurizer pressure does not stop decreasing.

PRT level increases.

Pressurizer Safety Discharge Outlet header temperature indicates increasing.

Acoustic monitor indicates that the Safety Valves are open.

#### SCENARIO NO. 1993

TO:

CONTROL ROOM OPERATOR

LOCATION: CONTROL ROOM

TIME: T = 09:15

MESSAGE:

NO. 4

# This is a Drill

Reactor Trip on Low Pressurizer Pressure, Turbine Trip. All equipment functions are normal.

TO:

CONTROL ROOM OPERATOR

LOCATION: CONTROL ROOM

TIME:

T = 09:20

MESSAGE NO. 5

# This is a Drill

Safety Injection, Low Pressurizer Pressure.

No. 21 SI Pump fails to start.

## CONTROLLER FIELD REPORT C

TO:

CONTROL ROOM OPERATOR

LOCATION:

CONTROL ROOM

TIME:

T = 09:30

MESSAGE:

#### This is a Drill

It is expected that the SWS will send an NPO to see why Safety Injection Pump No. 21 failed to start as an initial investigation. After being informed by the NPO of the status of the pump, it is expected that a repair team will be sent from the OSC to make a detailed investigation.

Give the following information when trouble shooting starts and it is requested.

Pump

Initial Investigation

Detailed Investigation

21 SIP

Problem is not electrical

Problem is a wiped bearings. Estimated

repair time is 8 hours.

TO: CONTROL ROOM OPERATOR

LOCATION: CONTROL ROOM

TIME:

T = 09:35

MESSAGE: NO. 6

## This a Drill

Increasing pressure in the PRT.

PRT Disc Ruptures.

Increasing level in the Containment pump.

Pressure decreases in the PRT.

#### SCENARIO NO. 1993

TO: CONTROL ROOM CONTROLLER

LOCATION: CONTROL ROOM

TIME: T = 09:40

MESSAGE: NO. 7

#### This is a Drill

SWS should declare an Alert because of RCS Barrier Breach.

TO:

CONTROL ROOM OPERATOR

LOCATION:

CONTROL ROOM

TIME:

T = 10:30

MESSAGE:

NO. 8

#### This is a Drill

As a result of the Tornado a disturbance in the offsite electrical power system causes a loss of all offsite power supplies into the plant.

EDG's have already started, however, only EDG No. 21 and No. 22 load to the bus.

No. 23 EDG Breaker fails to close due to fault on Bus 6A.

> No high head Safety Injection Pumps available.

TO:

CONTROL ROOM CONTROLLER

LOCATION: CONTROL ROOM

TIME:

T = 10:55

MESSAGE: NO. 9

# This is a Drill

> After Control Room Operator resets SI and Phase A, valve 1228 is opened as per E-1.

> Valve 1190 inadvertently opens, attempts to close failed, valve will not close.

# This a Drill

# CONTROLLER FIELD REPORT D

TO: CONTROL ROOM OPERATOR

LOCATION: CONTROL ROOM

TIME: T = 11:05

MESSAGE:

This is a Drill

Attempts to close Valve No. 1190 unsuccessful.

# CONTROLLER FIELD REPORT E

TO: CHEMIST

LOCATION: CHEMISTRY FIELD

TIME: T = 12:30

MESSAGE:

This is a Drill

RCS System Sample

> 28 uci/cc

#### SCENARIO NO. 1993

TO:

CONTROL ROOM OPERATOR

LOCATION:

CONTROL ROOM

TIME:

T = 12:30

MESSAGE: NO. 10

# This is a Drill

- > Small break LOCA results in voids in the Reactor Vessel head.
- > RVLIS reading declining.
- > Sample taken from RCS indicates > 28 uci/cc.

#### SCENARIO NO. 1993

TO:

CONTROLLER

LOCATION:

CONTROL ROOM/EOF

TIME:

T = 12:45

MESSAGE: NO. 11

This is a Drill

Emergency Director should declare a General Emergency as a result of the third barrier breach (fuel clad).

# CONTROLLER FIELD REPORT F

TO: CONTROL ROOM OPERATOR

LOCATION:

CONTROL ROOM

TIME:

T = 13:30

MESSAGE:

This is a Drill

> Maintenance completes repairs on EDG No. 23.

> EDG No. 23 energizes Bus 6A.

#### CONTROLLER FIELD REPORT G

TO: CONTROL ROOM OPERATOR

LOCATION: CONTROL ROOM

TIME:

T = 13:45

MESSAGE:

This is a Drill

> SIS Pump No. 22 repairs completed.

> SIS Pump No. 22 placed in service.

#### CONTROLLER FIELD REPORT H

TO:

CONTROL ROOM OPERATOR

LOCATION:

CONTROL ROOM

TIME:

T = 13:55

MESSAGE:

#### This is a Drill

- > 1 & C installs jumper to close Valve No. 1190.
- > Maintenance repairs Valve No. 1191 and valve closes.
- > Plant proceeding to cold shutdown.

TO:

CONTROL ROOM OPERATOR

LOCATION: CONTROL ROOM

TIME:

T = 14:00

MESSAGE: NO. 12

This is a Drill

Two Day Time Warp.

Reactor in cold shutdown.

All equipment normal.

#### CONSOLIDATED EDISON COMPANY OF NEW YORK INDIAN POINT UNIT NO. 2 DRILL SCENARIO NO. 1993

# 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. The assignment sheets at the end of this section contain the listing of all exercise players, Observers and Controllers, as well as their locations.

# Exercise Control Instructions

- All Controllers shall be pre-positioned at least one half hour prior to the first message time.
- Prior to exercise commencement, all Controller communications will be tested to ensure satisfactory exercise control.
- 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. Message 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. Messages & Field Reports Messages providing information are given to the participant at the specific time. The Controller may clarify the message by answering questions to ensure that no extraneous meaning is read into the message. Field reports are for the Controller's use and are not given to the participant. When the field report contains direction to the Controller to provide information it is done verbally. 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.
- 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 or providing.

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

- 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 inplant 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 organization 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 consists only of stating that a practice drill is underway at the plant and all events are simulated (i.e., not real).
- Some exercise participants may insists 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/Controller's comments should consider the evaluation elements set forth in Section C, "Exercise Evaluation Criteria." All notes taken should be retained for the purpose of reconstructing the exercise chronology and preparing a written critique to 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 Chief 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:

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

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

The following procedures could be used in the evaluation:

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

#### SCENARIO NO. 1993

IP-1013	Recommendation of Protective Actions for offsite
IP-1016	Population Obtaining Meteorological Data
IP-1020	Airborne Radioiodine Determination
IP-1021	Manual Update and Readout of Proteus Plant Parameter Data
IP-1024	Emergency Classification
IP-1037	Obtaining Offsite Reuter-Stokes Monitor Data
IP-1038	Emergency Personnel Exposure
IP-1043	Operation of the NYS Radiological Emergency Communication System (RECS)
IP-1047	Obtaining Offsite Exposure Rates from MIDAS Via Control Room Terminal.

Plus Immediate Action Procedures for SWS, CRO, WATCH HP, POM

## 2. Technical Support Center

The Observer/Controller should observer the following:

- Timely activation
- A minimum of four qualified persons manning the center.
- Field survey performed.
- Field survey performed.
- Noble gas monitor set up.
- "Frisker" set up.
- Work performed in professional manner.
- Phones are plugged in and direct lines to Control Room, OSC, and EOF are checked out.

The following IP-1020	procedures are to be used in the evaluation: Airborne Radioiodine Determination	
IP-1021	Manual Update and Readout of Proteus Plant Parameter Data	
IP-1035 IP-1041	Technical Support Center	

### Central Information Group (CIG)

The Observer/Controller should observer the following:

- Timely initiation of a call to the paging service company.
- Adequate communications, including how problems with the radio and telephones are handled. Message handling and communication logging procedures.
- Verification call to Indian Point Unit No. 2 Control Room for authenticity of emergency.
- Preparation of records of personnel who has called in.

The following procedure is to be used in the evaluation:

IP-1002 Emergency Notification and Communication

#### Assembly Area

The Observer/Controller should observe the following:

- Do they seek out their section or department accountability officer, generally stay together as a group and remain orderly?
- 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.
- 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

## Operational Support Center

The Observer/Controller should observe the following:

- Is there documentation of accountability and is it understandable to others?
- Do the personnel awaiting assignment remain orderly?

- Were radiation surveys performed and recorded?
- Receipt of request to form teams.
- Handling the assignment of team members.

The following procedures are to be used in the evaluation.

IP-1020	Airborne Radioiodine Determination
IP-1023	Operational Support Center
IP-1027	Site Personnel Accountability and Evacuation
IP-1041	Use of the Triton to Monitor Radiogas.

### 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:

- The Emergency Director is in command of the EOF.
- 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.
- Any extra personnel, spectators and those awaiting orders are quietly standing out of the way.
- The Health Physics or support personnel are performing duties in a timely and efficient manner and reporting results to either the Emergency Director or ORAD.
- Instrumentation deployed in the EOF is placed in a noninterfering position.
- Adequate communications, including how problems with the radio and telephone are handled. Message handling and communications logging procedures.
- 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 teams(s).

- Prompt notification to the NRC, NYS and Counties of exposure data and changes to site meteorological conditions.
- The Emergency Director assigns, where possible his routine calls to someone else thereby leaving himself free to command the action.
- Data forms filled out and turned in to the ORAD/Health Physicist.
- Timely deployment of teams.
- A central point for receipt of radiological monitoring data is designated and adequate communications with field teams demonstrated.
- Demonstrate ability to assess plant conditions, reclassify the incluent (if appropriate), develop timely protective action recommendations, and communicate to offsite authorities in an accurate and timely manner.
- Demonstrate ability to control radiological monitoring field teams for "plume-tracking," and ingestion pathway monitoring.
- Demonstrate ability to develop recommendations for recovery and re-entry activities.
- Demonstrate ability to provide radiation exposure control for emergency workers.

The following procedures are to be used in the evaluation:

IP-1002 IP-1003	Emergency Notification and Communication Planned Discharge of Containment Atmosphere During Accident Conditions
IP-1004	Post Accident Offsite Environmental Surveys, Sampling and Counting
IP-1005	Use of MS-2/SPA-3 to Determine Thyroid Burdens
IP-1006	Site Perimeter Surveys
IP-1007	Determine of the Magnitude of Release and Exposure Rate
IP-1013	Recommendations of Protective Actions for Offsite Population
IP-1016	Obtaining Meteorological Data
IP-1020	Airborne Radioiodine Determination

IP-1021	Manual Update and Readout of Proteus Plant
	Parameter Data
IP-1024	Emergency Classification
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 Noble Gas
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, COMM, EOF CLERICAL

# 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 Radiation Protection Technician gives other directions because of radiological conditions. The Observer/Controller will pay special attention to the above along with the following:

- Timely activation or establishment of control points.
- No one is wearing Anti-C clothing when leaving the site.
- 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 the Service Center building complex.

Check on the following items:

Received KI dose (simulated) from ORAD if required.

NOTE: Do not actually take the KI Dose.

- They have a dosimeter and TLD badge.
- They have a charcoal filter respirator when leaving the building complex to perform a survey.
- Radio check performed before leaving the EOF parking lot.
- Field readings taken along the route to the designated area.
   Simulated field data will only be available at designated monitoring points.
- Work performed in a professional manner.
- 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:

- Received KI dose (simulated) from ORAD if required.
  - NOTE: Do not actually take the KI dose.
- Operational check performed on survey instruments, sample counter and sample pump before leaving the EOF parking lot.
- Equipment check-off performed.
- Assignment of badges and dosimeters before leaving the EOF parking lot.

- Charcoal cartridge respirator made available before leaving EOF parking lot.
- Survey instrument made ready to take field readings.
- Radio check-out by communication to EOF before leaving.
- Beta and gamma field surveys performed on the way to sample point.
- Sampling and field surveys performed at sample location.
- Instrument calibration performed and samples counted.
- 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 Radioiodine Determination
IP-1034	Mobilization and Operational Procedure for Offsite Monitoring Teams - Supplemental Response
IP-1039	Offsite Contamination Checks

## 10. Health Physics Technician (HPT)

The Observer/Controller should observe the following:

- HPT follows his instructions indicated in immediate action procedures.
- HPT performs survey as indicated using appropriate instrumentation.

The following procedures are to be used in the evaluation:

IP-1010	Search and Rescue Teams
IP-1011	Repair and Corrective Action
IP-1020	Airborne Radioiodine 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:

- Chemistry Technician follows Chemistry Procedures as appropriate.
- Samples are actually collected and counted, as indicated by the scenario.
- 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
IPC-E-002	Coolant Post Accident Sampling and Analysis of the
IPC-E-003	Vapor Containment Atmosphere Post Accident Sampling and Analysis of Plant
IPC-E-004	Discharges to Atmosphere Post Accident Sampling and Analysis of Main Steam Releases to Atmosphere

### 12. Maintenance Repair Team

The Observer/Controller should observe the following:

- Response and repair time.
- Proper equipment brought to perform the work.
- Maintenance Repair Team members follow Health Physics Technician's instructions.
- 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

# EMERGENCY EXERCISE/DRILL

# OBSERVER/CONTROLLER LOG SHEET

Name:	Date:	
Location:		
TIME	OBSERVATION/COMMENT	

#### ATTACHMENT 7.2 Page 1 OF 3

# EMERGENCY DRILL PARTICIPANT ASSIGNMENT SHEET Controllers-Observers

LOCATION	POSITION	NAME
CCR	Chief Controller	Inzirillo, F.
	Controller	Limoges, Ferrick
	Controller - SWS Dose Assessment	****
	Controller Communicators	Bollin, E.
	Controller - Watch HP Technician	Gately, D.
	Controller - Watch Chem Technician	Peters, J.
	Controller - Medical	***
	Controller - Fire Brigade	20 To 10 to 10 to 10
	Controller - NPO	Stroppel, M.
	Controller - Data Displayer	Hood, H.
TSC	Controller	Hayes, C.
	Info flow & Observer - utilization	Sutton, R.
	Observer - Communicator	Redding, R.
OSC	Controller - Coordinators TSC 53'	Julian, J.
	Controller OSC Team (Maint)	Puppa, J.
	Controller - OSC Team (Maint)	Montalvo, E.
	Controller - OSC Team (I&C)	Naku, K.
	Controller - OSC Team (Rad Pro)	Cubeta, G.
	Controller - OSC Team (Chem)	Kohnken, J.
	Controller - 72' Elevation	Pisiak, B.
EOF	Controller	Ferraro, A.
	Observer - Communicators	Whitney, M.
. F-4-1-1	Observer - Dose Assessment	Smith, D.

#### ATTACHMENT 7.2 Page 2 OF 3

# EMERGENCY DRILL PARTICIPANT ASSIGNMENT SHEET Controllers-Observers

LOCATION	POSITION	NAME
EOF	Controller - Emergency Director	McAvoy, J.
	Controller - Offsite Team	Sadlon, S.
	Controller - Offsite Team	Miller, D.
	Controller - Onsite Team	Martucci, R.
ASSEMBLY	Observer - Area A-B	Grassie, W.
	Observer - Simulator	Miller, M.
	Observer - Constr. Off. Complex	Condon, C.
	Observer - M.O. Building	Note that the same of the same
	Observer - 72' TS/Admin	Cummings, B.
	Observer - Unit No. 1 Admin Bldg.	Giaccone, F.
	Observer - Service Center	****
	Observer - Security Admin Bldg.	Capalbo, R.
SECURITY	Controller - Controller Guard House	Elsroth, T.
	Observer - River Front Gate	20 M of the bar 40
	Observer - Main Gate	10 10 10 to 10 20
	Observer	Transport as
ENC	Controller	Assigned by Walder
	Observer	п
	Observer	6
	Observer	¥
CIG	Controller	Ross, M.
CRC	Controller	Wystepek

#### ATTACHMENT 7.1 Page 3 OF 3

# EMERGENCY DRILL PARTICIPANT ASSIGNMENT SHEET Controllers-Observers

LOCATION	POSITION	NAME
ASTORIA-ECC	Controller	Peters, R.
	Controller - Offsite Team	Megluevich
RC	Controller	10 10 10 to 10
AFOF	Controller	Ferraro, A.

#### ATTACHMENT 7.1 Page 1 OF 4

# EMERGENCY DRILL PARTICIPANT ASSIGNMENT SHEET

JOB FUNCTION	NAME
Emergency Director (ED)	Miele, M.
Offsite Radiological Assessment Director	Gaynor, D.
Dose Assessment Health Physics	Teague, T.
Survey Team Health Physics	Magee, M.
Technical Advisor	Griffith
MIDAS Operators	Hewitt, R.
EOF Information Liaison	Spall, M.
Technical Advisor to Public Information	Primrose
Liaison to NYS EOC	
EOF Communicator No. 1 & 2	Falciano, Maier
Offsite Team	Ressihuber, B. Muller, Mettery, English,
Onsite Team	Baier, J., Agrest
Astoria ECC Coordinator	Colenaro
Astoria Backup Team(s)	Lynch, Damsky
Meteorologist	Cohen
EOF Clerical	Daly, Accomando, Birong, D.
SAS/Proteus Operator	Genadry, A.
Plant Operations Manager	Hugo, G.
TSC Manager	Curry, J.
I & C Coordinator	Olson, B.
Radiation Protection Coordinator	Shannon, M.
Maintenance Coordinator	Meyer, W.

#### ATTACHMENT 7.1 Page 2 OF 4

# EMERGENCY DRILL PARTICIPANT ASSIGNMENT SHEET

JOB FUNCTION	NAME
Test & Performance Engineer	Barlok, J.
Systems Analysis Coordinator	Bar, A.
TSC Communicator	Barlin, I.
Data Courier	McKeon
TSC Communicator at CCR	Primrose, H.
Data Processor at CCR	Brooks, T.
Core Physics Engineer	Wong
Document Controller	Armstrong
Data Logger/SAS-Proteus Operator	Matalanis
TSC Clerical	Saylor, McKeon
OSC Manager	Noto, M.
Accountability Officer	McHugh
OSC Communicator	Evans, G.
Chemistry	Poplees, Accomando, Scott
Maintenance	Doyle, Tamburri, Bunch, Downing Nichols, Jerrick, Perez, Larson
EOF Clerical	Capalbo, R.,Edip,S.,McGuire,K.
Instrument & Control	Karasinski, Edling, Keves, Mak, Dupilka, Lisewski
Quality Assurance	Boardman, Trombeta
Radiation Protection	Galleghar, Buda, Burris, Cubeta, Mages, Danielle
Material Control Storekeeper	Mete
Accident Victim	
METACON/First Aid Team	5 VARIABLES

#### ATTACHMENT 7.1 Page 3 OF 4

# EMERGENCY DRILL PARTICIPANT ASSIGNMENT SHEET

JOB FUNCTION	NAME
Medical Representative	# 0 @ \$1 0 m
Senior Watch Supervisor	Jawor, J.
Support Facility Supervisor	Spangenberger
Senior Reactor Operator	Gorman, A.
Reactor Operator	O'Dell
Nuclear Plant Operators (7)	Pasquale, M., Jones, R., Schlagel, Studley, Campbell, Suneson, Hagarty
Watch Engineer	Santini
Control Room Communicator	Spagnola
Security Supervisors	Cullen, G.
Watch Rad Pro Tech	Colville, R.
Watch Chem Tech	Higgins, P.
Administration & Logistics Manager	Smith, L.
Engineering & Construction Support Manager	Remshaw
Central Information Group	Watch
Recovery Manager	
Schedule & Planning Coordinator	
Project Management Specialist	
Emergency News Center Director	Walden, D.
Asst. Emergency News Center Director	Assigned by Walden
Corporate Spokesperson	Evans, J. M.
Information Coordinator	Assigned by Walden
Information Gatherer	

#### ATTACHMENT 7.1 Page 4 OF 4

# EMERGENCY DRILL PARTICIPANT ASSIGNMENT SHEET

JOB FUNCTION	NAME
Writer	Assigned by Walden
Government Liaison	
Media Liaison	u u
Technical Expert	Reese
Health Physics Expert	Parry
Documenter	Assigned by Walden
Status Board Person	н
Rumor Control Staff	11
Inquiry Response Staff	H
Audio/Visual Coordinator	H
Registration Coordinator	ti .
Telecopier Operator	H
Photocopier Operator	ii ii
Typist	
Messenger	Et .

Re: 1 07: 93			TORNADO		IC PR		LBMFP	TRIP	SI	BL DI:	
PARAMETER TIME	07:30	07:45	08:00	00:15	08:30	08:45	09:00	09:15	09:20	09:35	09:45
Reactor Shutdown (Y/N)	N	N	N	N	A.3						07.40
NIS Power_range (%)	100	100	100	100	100	N 100	N	Y	Y	Y	Y
NIS Interim Range				100	100	100	75	0	0	0	0-
#35 (Amps)	3.7E-04	3.7E-04	3.7E-04	3.7E-04	3.7E-04	3.7E-04	2.8E-04	E 35 10			
NIS Interim Range						2.15 04	2.05-04	3.2E-10.	5.2E-10	1.2E-11	1.2E-11
#36 (Amps)	3.9E-04	3.9E-04	3.9E-04	3.9E-04	3.9E-04	3.9E-04	2.9E-04	5 25 10	F 25 10	V	
NIS Source Range						J. J. 04	2. JL U4	5.3E-10	5.3E-1U	1.6E-11	1.6E-11
#31 (Amps)	0	0	0		0	0	0	0		2000	
NIS Source Range								U	G	7000	7000
#32 (Amps)	0	0	0	0	0	0	0	D		0500	
RCS Incor T/C								U	0	9500	9500
(Center)(DegF)	599	599	599	599	599	599	586	558	558	con	For
RCS Incor T/C							500	000	338	599	599
(Highest)(DegF)	603	603	603	605	605	605	596	562	562	600	
RCS Pressure (PSIG)	2254	2254	2254	2254	2254	2254	2245	1872	1700	603 1510	603
RCS Avg. Temp. (DegF)	559	559	559	559	559	559	556	545	541	574	1510
RCS Cold Leg Temp. (Dec	yF) 533	533	533	533	533	533	537	545	535	545	574
SAT Meter Margin (DegF)		41	41	41	41	41	51	64	64	040	545
RCP in Service (Y/N)	Y	Y	Y	Y	Y	4	Y	Y	Ÿ	N N	0
Pressurizer Level (%)	40	40	40	40	40	40	40	51	71	100	N
Reactor Vessel Level (% 5/6 WR Levels #21 (%)		116	116	116	116	116	116	115	115	95	100
#22	55	55	55	55	55	55	55	52	52	52	62 62
#53	53	53	53	53	53	53	53	51	51	63	63
	53	53	53	53	53	53	53	52	52	59	59
\$24 5/6 Press #21 (PSIG	55	55	55	55	55	55	55	53	53	61	61
5/6 Press #21 (PSIG		564	664	664	564	564	699	1005	1005	1005	1005
#23	658	658	658	658	658	658	692	1002	1002	1002	1003
*23	663	663	663	663	663	663	695	1004	1004	1004	1002
VC Pressure (PSIG)	666	666	566	666	666	666	704	998	998	998	998
VC Temperature (DegF)	-0.3	-0.4	-0.2	-0.2	-0.3	-0.3	-0.3	-0.3	-0.3	1.2	1.2
VC Sump Level (ft.)	95	95	95	95	95	95	95	93	93	99	99
VC Hydrogen (%)	40.2	40.2	40.2	40.2	40.2	40.2	40.2	40.2	40.2	40.2	41.2
	0	0	0	0	0	0	0	0	D	Ü	0
	28.1	28.1	28.1	28.1	28.1	28.1	28.1	200	200	100	100
SG22 SG23	0	0	0	0	0	0	0	201	201	112	112
5623 5G24	0	0	0	0	0	. 0	0	198	198	98	98
RWST Level (ft.)	0	0	0	. 0	0	0	0	203	203	102	102
Cond Stor Tk Level (ft.	37.6	37.6	37.6	37.6	37.6	37.6	37.6	37.5	37.5	37.0	36.5
The second in Level (FE.	) 28.5	28.5	28.5	28.5	28.5	28.5	28.5	28.5	28.4	28.4	28.4

NUE

1190 SHUT 2 VLV OPN

DE 1 07/ 33			OFFSITE		FAIL OPEN						JE WINDOW
PARAMETER TIME	10:00	10:15	10:30	10:45	10:55	11:15	11:30	11:45	12:00	12:15	12:30
Reactor Shutdown (Y/N)	Y	Y	Y	Y	Y	Y	Y	Y			
NIS Power range (%)	0	0-	0	0	0	0	0	0	Y	Y	Y
NIS Interim Range									U	0	. 0
#35 (Amps)	1.2E-11	1.2E-11	1.2E-11	1.2E-11	1.2E-11	1.1E-11	1 1F-11	1.1E-11	1 15 11		
NIS Interim Range								4 - 4 5 - 4 4	1.1E-11	1.1E-11	1.1E-11
#36 (Amps)	1.6E-11	1.6E-11	1.6E-11	1.5E-11	1.5E-11	1.5F-11	1 5F-11	1 SE-11	1.5E-11		
NIS Source Range						****	1.02 11	1 - 1/2 1 1	1.05-11	1.3E-11	1.4E-11
#31 (Amps)	6700	6400	6100	5900	5500	5200	4900	46.00	1200		
NIS Source Range					0000	02.00	4 200	4600	4300	4000	3700
#32 (Amps)	9050	8600	8150	7700	7250	6800	6350	Enno	E450		
RCS Incor T/C					1230	0000	0330	5900	5450	5000	4550
(Center)(DegF)	603	639	637	660	690	722	21.4	magain a	70.0		
RCS Incor T/C					0.50	122	714	754	759	797	793
(Highest)(DegF)	625	645	655	665	695	725	745				
RCS Pressure (PSIG)	1500	1530	1560	1500	1500		745	760	780	795	820
RCS Avg. Temp.(DegF)	587	595	600	605		1500	1500	1500	1550	1405	1300
RCS Cold Leg Temp. (DegF)	548	545	545	545	621	643	655	665	676	689	708
SAT Meter Margin (DegF)	0	0	0		547	561	564	570	573	584	597
RCP in Service (Y/N)	N	N	N	0	0	0		0	0	0	0
Pressurizer Level (%)	100	100	100	N	H	N	M	N	14	N	N
Reactor Vessel Level (%)	77	76	75	100	100	100	100	100	100	100	100
5/6 WR Levels #21 (%)	62	62	62	73	68	63	58	53	45	30	23
#22	63	63		62	52	60	59	58	55	54	54
#23	59	59	63	63	63	63	60	58	55	53	52
#24	61	61	59	58	58	58	57	57	57	57	57
5/G Press #21 (PSIG)	1005		61	61	61	61	-60	59	59	59	59
#22		1005	1005	1005	985	964	944	915	908	904	894
#23	1002	1002	1002	1002	950	932	912	912	903	887	883
#24	1004	1004	1004	1004	1002	999	978	969	964	963	964
	1005	1005	1005	1005	998	979	978	962	936	932	932
VC Pressure (PSIG)	1.8	2.1	2.3	2.4	1.9	1.1	0.9	0.5	0.5	0.6	0.2
VC Temperature (DegF)	101	102	102	102	102	103	104	104	104	104	105
VC Sump Level (ft.)	43.4	45.9	45.9	45.9	45.9	45.9	45.9	45.9	45.9	45.9	45.9
VC Hydrogen (%)	0	0	0	0	0	0	0	0	0.73%	0.78%	
Aux FW Flow SG21 (GPM)	100	100	100	100	203	203	203	203	203	203	
SG22	112	112	112	112	204	204	204	204	204	203	203
5623	98	98	0	0	0	0	0	0	0		204
SG24	102	102	0	0	0	0	0	0	0	0	0
RWST Level (ft.)	36.2	35.9	35.6	35.3	35.0	34.7	34.4	34.1		0	0
Cond Stor Tk Level (ft.)	28.4	28.3	28.3	28.3	28.3	28.3	28.2	28.2	33.8 28.2	33.5	33.2 28.2

RELEASE STARTS

BASED ON SAMPLE

K.V. I O7 793				RESTORE POWER	STURE 22SIP	SHUT			TIME WARP	
PARAMETER TIME	12:45	13:00	13:15	13:30	13:45	13,55	14:00	14:15	08:00	08-15
Reactor Shutdown (Y/N) NIS Power range (Z) NIS Interim Range	>0	>0	>0	>0	>0	> O	7 0	>0	> 0	2 / > 0
#35 (Amps) NIS Interim Range	1.1E-11	1. IE-11	1.1E-11	1,16-11	1.0E-11	1.0E-11	1,0E-11	1.0E-11	1.0E-12	1. OF-12
*36 (Amps)	1.,4E-11	1,4E-11	1.4E-11	1.4E-11	1.4E-11	1,46-11	1.3E-11	1.3E-11	***	DE-1
WIS Source Range	3400	3100	2800	2500	2200	1900	1600	1300	m	K
RCS Incor 1/C	4100	3650	3200	2750	2300	1850	1400	950	7	i i
(Center)(DegF) RCS Incor T/C	829	847	867	907	887	897	468	897	94	92
(Highest)(DegF)	840	965	895	915	913	Ulb	qua	200		
PLS Aug Toan (hans)	1250	1100	1150	1300	1500	1475	1400	1450	110	90 %
Cold Leg Temp.	0.00	HE V	759	770	771	773	774	773	110	108
SAT Meter Nargin (DeqF)	0		n c	07.4	063	637	644	651	110	108
RCP in Service (Y/N)	Z	Z	z	D Z	) Z	5 2	0 :	0 3	0	0
vel (%	100	100	100	100	100	1001	101	Z. C	z	Z
Keactor Vessel Level (2)	158	(m)	32	8	44	215	2000	200	ວ ທູ	0 4
CC# # 27	T C	I 6	8	20	6.4	AL AL	(E)	47	0 (0	3 03
# 23	200	7 6	at n	43	40	भ	To M	47	63	53
424	- or	o de	מ מ	200	in i	Co.	ĺò	22	59	500
5/6 Press #21 (PSIG)	522	875	847	828	RD O	70 00	259	מיים מיים	61	61
U 17	B73	873	869	861	837	810	BOIL	585	0 0	O 0
T T T T T T T T T T T T T T T T T T T	965	965	2967	968	396	696	026	971	0 0	) C
UC Pressure (PSIG)	200	מממ	On c	293	936	936	937	937	0	0
	106	107	0.00	100	0.0	0.7	1.0	ent .	0.1	0.1
	45.9	A. C. C.	45.9	A 7. CO	200	100	601	109	82	82
fydragen (%)	2, 33%	3.05%	3.46%	3,59%	4.042	A 35%	AU. U.	מינים ע	40.2	40.2
	203	203	203	203	203	203	2013	2000.1	0.00%	0.00%
5622	204	204	204	204	204	204	204	202	0 0	<b>-</b>
2002	0	0	0	0	0	0	0	0	0	0 0
RMST Level (ft.)	200	0 00	0 0	0 0	0	0	0	: 0	0	0
Cond Star Tk Level (ft.)	28.1	V X	28.1	26.1	28.1	31.4 28.0	31.1	30.8	35.3	35.3
	the star and the title the said one has part						0,00	. 0.82	Z8.3	28.3

PARAMETER		TIME	PARAMETER		TIME
		07:30			07:3
Office Down A Child					
Offsite Power Available	138KV	0	Service Water Pumps	#21	0
6900 Volt	13.8KV	S	(Circle Essential Hdr)	#22	S
03/00 40/1	BUS NO. 1	0		#23	0
	BUS NO. 2	0		#24	S
	BUS NO. 3	0		#25	0
	BUS NO. 4	0		#26	0
	BUS NO. 5	0	Circ Water Pumps	#21	0
480 Volt	BUS NO. 6	0		#22	0
100 4011	BUS 5A	0		#23	0
	BUS ZA	0		#24	0
	BUS 3A	0		#25	0
Company D. Co.	BUS 6A	0		#26	0
Emergency D/Gs	#21	S	Condensate Pumps	#21	0
	#22	S		#22	0
as Turbines	#23	S		#23	0
Gas Turbines	GT-1	0	Comp. Cool Heat Exch	#21	0
	GT-2	0		#22	S
SIS Pumps	GT-3	0	RHR Heat Exchanger	#21	S
1 2 Puliting	#21	S		#22	S
	#22	0/5	Fan Cooler Units	#21	0
HR Pumps	#23	S		#22	0
	#21	\$		#23	0
harging Pumps		\$		#24	0
not girtig ir catigos	#21	0		#25	0
	#22	S			
x Coolant Pumps	#23	S			
1 3445	#21	0	VC Isol. Phase A	(Y/N)	N
		0	VC Isol. Phase B	(Y/N)	×
	#23	0	VC Isol. Vent	(Y/N)	И
omponent Cooling Pumps	#24	0			
person southly rumps	#21	5	Exceptions PCV-1190,1191	,1192	OPEN
	#22	0			
ux Component Cooling Pump	#23	0	High Head SIS Flow	#21 (GPM)	0
- Falsarett Courting Punc		S		#22 (GPH)	0
ux Feed Water Pumps	#22	S		#23 (GPM)	- 0
THE RESERVE OF LANGE	#21	S		#24 (GPM)	0
	#23	0/5	Low Head SIS Flow	#21 (GPM)	0
ontainment Spray Pumps	#21	S		#22 (GPM)	0.
The second secon		5		#23 (GPM)	0
acirculation Pumps	#22	\$		#24 (GPM)	0
on solution Panos	#21	S	Accumulator Level	#21 (%)	67
drogen Recombiner	#22	S		#22 (%)	66
were recombiner	#21	S		#23 (%)	67
	#22	\$		#24 (%)	68

Legend 0 = Operating

O/S = Out of Service used to denote defective equipment

S = Standby

 $\star$   $\star$  Change on status from previous log

PARAMETER		TIME	PARAMETER		TIME
		07:45			07:4
Offsite Power Available	4.900				
ALLBITE LOWEL WAS I SOLE	138KV	0	Service Water Pumps	#21	0
6900 Volt	13.8KV	S	(Circle Essential Hdr)	#22	S
07VV 7VLL	BUS NO. 1	0		#23	0
	BUS NO. 2	0		#24	S
	BUS NO. 3	0		#25	0
	BUS NO. 4	0		#26	0
	BUS NO. 5	0	Circ Water Pumps	#21	0
480 Volt	BUS NO. 6	0		#22	0
	BUS 5A	0		#23	0
	BUS ZA	0		#24	0
	BUS 3A	0		#25	0
Emergency D/Gs	8US 6A	0		#26	0
34147 6705	#21	\$	Condensate Pumps	#21	0
		- s		#22	0
las Turbines	#23 GT-1	8		#23	0
	G1-2	0	Comp. Cool Heat Exch	#21	0
	61-3	0	202	#22	S
IS Pumps	#21	S	RHR Heat Exchanger	#21	S
	#22	0/5	ter test and a second	#22	S
	#23	S	Fan Cooler Units	#21	0
HR Pumps	#21	S		#22	0
	#22	S		#23	0
harging Pumps	#21	0		#24	0
	#22	S		#25	0
	#23	5			
x Coolant Pumps	#21	0	UE tool where to		
	#22	0	VC Isol. Phase A Complete	(Y/N)	N
	#23	0	VC Isol. Phase B Complete	(Y/N)	N
	#24	0	VC Isol. Vent Complete	(Y/N)	н
omponent Cooling Pumps	#21	S	Examples and the same		
The section of the se	#22	0	Exceptions PCV-1190,1191,	1192	OPEN
	#23	0	Wish Hard St. St.		
ix Component Cooling Pump		S	High Head SIS Flow	#21 (GPM)	0
- Language	#22	S		#22 (GPM)	0
ux Feed Water Pumps	#21	S		#23 (GPM)	0
	#22	0/5	low Head Str Plan	#24 (GPM)	0
	#23	S	LOW Head SIS Flow	#21 (GPM)	0
ntairment Spray Pumps	#21	S		#22 (GPM)	0
	#22	S		#23 (GPM)	0
circulation Pumps	#21	s	Accumulator Level	#24 (GPM)	0
	#22	S	verginitatoi Fedet	#21 (%)	67
drogen Recombiner	#21	5		#22 (%)	66
	#22	5		#23 (%)	67
	W.C.C.			#24 (%)	68

Legend 0 = Operating

0/S = Out of Service used to denote defective equipment

S = Standby

PARAMETER		-	TIME	PARAMETER		TIME
		-	08:00			08:0
044-1						
Offsite Power Available		58KV	0	Service Water Pumps	#21	0
4000 W-1+		.BKV	5	(Circle Essential Hdr)	#22	S
8	BUS NO		0		#23	0
	BUS NO		0		#24	S
	BUS NO		0		#25	0
	BUS NO		0		#26	0
	BUS NO		0	Circ Water Pumps	#21	0
ARR CO. T.	BUS NO		0		#22	0
	BUS	5A	0		#23	0
	BUS	ZA	0		#24	0
	BUS	3A	0		#25	0
Construction of the	BUS	6A	0		#26	0
Emergency D/Gs		#21	5	Condensate Pumps	#21	0
		#22	\$		#22	0
		#23	S		#23	0
Gas Turbines		1-1	0	Comp. Cool Heat Exch	#21	0
		1-2	0		#22	S
		1-3	0	RHR Heat Exchanger	#21	s
IIS Pumps		#21	S		#22	\$
		#22	0/\$	Fan Cooler Units	#21	0
		#23	S		#22	0
KR Pumps		#21	S		#23	0
		#22	S		#24	0
harging Pumps		#21	0		#25	0
		#22	S			
		Y23	S			
x Coolant Pumps		¥21	0	VC Isol. Phase A Complete	(Y/N)	N
		122	0	VC Isol. Phase B Complete	(Y/N)	N
		123	0	VC Isol. Vent Complete	(Y/N)	N
	1	124	0			
omponent Cooling Pumps		121	S	Exceptions PCV-1190,1191,	1192	OPEN
		122	- 0			
		23	0	High Head SIS Flow	#21 (GPM)	0
ux Component Cooling Pump	e á	21	S		#22 (GPM)	0
		55	\$		#23 (GPM)	0
ux feed Water Pumps	i	21	\$		#24 (GPM)	0
	#	22	0/9	Low Head SIS Flow	#21 (GPM)	0
	#	23	S		#22 (GPM)	0
ontainment Spray Pumps	#	21	\$		#23 (GPM)	0
	Ħ	22	S		#24 (GPM)	0
ecirculation Pumps	#	21	5	Accumulator Level	#21 (%)	67
	tt tt	22	\$		#22 (%)	66
ydrogen Recombiner	#	21	S		#23 (%)	67
	#	22	S		#24 (%)	68

Legend 0 = Operating

O/S = Out of Service used to denote defective equipment

S = Standby

PARAMETER		TIME	PARAMETER		TIME
		08:15			08:1
				ACCUPATION OF STREET ASSESSMENT A	
Offsite Power Available	138KV	0	Service Water Pumps	#21	0
4000 4014	13.8KV	S	(Circle Essential Hdr)	#22	S
6900 Volt	BUS NO. 1	0		#23	0
	BUS NO. 2	0		#24	S
	BUS NO. 3	0		#25	0
	BUS NO. 4	0		#26	0
	BUS NO. 5	0	Circ Water Pumps	#21	0
	BUS NO. 6	0		#22	0
480 Volt	BUS 5A	0		#23	0
	BUS ZA	0		#24	0
	BUS 3A	0		#25	0
	BUS 6A	0		#26	0
Emergency D/Gs	#21	S	Condensate Pumps	#21	0
	#22	2		#22	0
	#23	2		#23	0
Gas Turbines	GT-1	0	Comp. Cool Heat Exch	#21	0
	GT-2	0		#22	S
	GT-3	0	RHR Heat Exchanger	#21	s
SIS Pumps	#21	S		#22	S
	#22	0/5	Fan Cooler Units	#21	0
	#23	\$		#22	0
RHR Pumps	#21	S		#23	0
	#22	S		#24	0
Charging Pumps	#21	0		#25	0
	#22	S			
	#23	S			
Rx Coolant Pumps	#21	0	VC Isol. Phase A Complete	(Y/N)	H
	#22	0	VC Isol. Phase 8 Complete	(Y/N)	H
	#23	0	VC Isol. Vent Complete	(Y/N)	N
	#24	0			
omponent Cooling Pumps	#21	S	Exceptions PCV-1190,119	1,1192	OPEN
	#22	0			
	#23	0	High Head SIS Flow	#21 (GPM)	0
ux Component Cooling Pumps		S		#22 (GPM)	0
	#22	S		#23 (GPM)	0
ux feed Water Pumps	#21			#24 (GPK)	0
	#22	0/5	Low Head SIS Flow	#21 (GPM)	0
	#23	S		#22 (GPM)	0
ontainment Spray Pumps	#21	S		#23 (GPM)	0
	#22	S		#24 (GPM)	0
ecirculation Pumps	#21	S	Accumulator Level	#21 (%)	67
where the same state of the sa	#22	S		#22 (%)	66
vdrogen Recombiner	#21	\$		#23 (%)	67
	#22	S		#24 (%)	68

Legend 0 = Operating

O/S = Out of Service used to denote defective equipment

S = Standby

PARAMETER		TIME	PARAMETER		TIME
		08:30	****		08:3
Offsite Power Available					
Diffsite Power Available	138KV	0	Service Water Pumps	#21	0
4000 V-14	13.8KV	S	(Circle Essential Hdr)	#22	S
	BUS NO. 1	0		#23	0
	BUS NO. 2	0		#24	5
	BUS NO. 3	0		#25	0
	BUS NO. 4	0		#26	0
	BUS NO. 5	0	Circ Water Pumps	#21	0
/ 00 Vals	BUS NO. 6	0		#22	0
480 Volt	BUS 5A	0		#23	0
	BUS 2A	0		#24	0
	BUS 3A	0		#25	0
	BUS 6A	0		#26	0
Emergency D/Gs	#21	S	Condensate Pumps	#21	0
	#22	S		#22	0
	#23	S		#23	0
Gas Turbines	GT-1	0	Comp. Cool Heat Exch	#21	. 0
	G7-2	0		#22	S
116.6	G1-3	0	RHR Heat Exchanger	#21	S
SIS Pumps	#21			#22	0
	#22	0/5	Fan Cooler Units	#21	0
	#23	S		#22	0
RHR Pumps	#21	8		#23	0
	#22	S		#24	0
Charging Pumps	#21	0		#25	0
	#22	2			
	#23	S			
x Coolant Pumps	#21	0	VC Isol. Phase A	(Y/N)	N
	#22	0	VC Isol. Phase B	(Y/N)	И
	#23	0	VC Isol. Vent	(Y/H)	N
	#24	0			
omponent Cooling Pumps	#21	S	Exceptions PCV-1191,11	92	OPEN
	#22	0	PCV-1190		CLOSED
	#23	0	High Head SIS Flow	#21 (GPM)	0
ux Component Cooling Pump	s #21	\$		#22 (GPM)	0
	#22	S		#23 (GPM)	0
ux Feed Water Pumps	#21	S		#24 (GPM)	0
	#22	0/8	Low Head SIS Flow	#21 (GPM)	0
	#23	S		#22 (GPM)	0
ontainment Spray Pumps	#21	S		#23 (GPM)	0
	#22	S		#24 (GPM)	0
ecirculation Pumps	#21	s	Accumulator Level	#21 (%)	67
	#22	S		#22 (%)	66
ydrogen Recombiner	#21	S		#23 (%)	67
	#22	S		#24 (X)	68

Legend 0 = Operating

O/S = Out of Service used to denote defective equipment

S = Standby

PARAMETER		TIME	PARAMETER		TIME
-		08:45			08:4
Offsite Power Available	138KV	0	Service Water Pumps	#21	0
	13.8KV	S	(Circle Essential Hdr)	#22	S
В	BUS NO. 1	0		#23	0
	BUS NO. 2	0		#24	S
	BUS NO. 3	0		#25	0
	BUS NO. 4	0		#26	0
	BUS NO. 5	0	Circ Water Pumps	#21	0
7.600	BUS NO. 6	0		#22	0
	BUS 5A	0		#23	0
	BUS 2A	0		#24	0
	BUS 3A	0		#25	0
	BUS 6A	0		#26	0
Emergency D/Gs	#21	0	Condensate Pumps	#21	0
	#22	D		#22	0
Con Turbles	#23	0		#23	0
Gas Turbines	GT-1	S	Comp. Cool Heat Exch	#21	0
	GT-2	\$		#22	S
C1C D	GT-3	S	RHR Heat Exchanger	#21	S
SIS Pumps	#21	S		#22	S
	#22	0/\$	Fan Cooler Units	#21	0
NIR R	#23	5		#22	0
RHR Pumps	#21	\$		#23	0
	#22	S		#24	0
Charging Pumps	#21	0		#25	0
	#22	S			
	#23	S			
X Coolant Pumps	#21	0	VC Isol. Phase A	(Y/N)	N
	#22	0	VC Isol. Phase B	(Y/N)	N
	#23	0	VC Isol. Vent	(Y/N)	н
	#24	0			
omponent Cooling Pumps	#21	S	Exceptions PCV-1191,119	72	OPEN
	#22	0	PCV-1190		CLOSED
	#23	0	High Head SIS Flow	#21 (GPM)	0
ux Component Cooling Pump		S		#22 (GPM)	0
	#22	S		#23 (GPM)	0
ux Feed Water Pumps	#21	8		#24 (GPM)	0
	#22	0/5	Low Head SIS Flow	#21 (GPM)	0
	#23	2		#22 (GPM)	0
ontainment Spray Pumps	#21	S		#23 (GPM)	0
and and and an a	#22	3		#24 (GPM)	0
ecirculation Pumps	#21	S	Accumulator Level	#21 (%)	67
where we will be a second of the second of t	#22	S		#22 (%)	66
ydrogen Recombiner	#21	S		#23 (%)	67
	#22	S		#24 (%)	68

Legend 0 = Operating

O/S = Out of Service used to denote defective equipment

S = Starkby

PARAMETER		TIME	PARAMETER		TIME
		09:00			09:0
					2717
Offsite Power Available	138KV	0	Service Water Pumps	#21	0
Name .	13.8KV	5	(Circle Essential Hdr)	#22	S
6900 Volt	BUS NO. 1	0		#23	0
	BUS NO. 2	0		#24	s
BL	BUS NO. 3	0		#25	0
	BUS NO. 4	0		#26	0
	BUS NC. 5	0	Circ Water Pumps	#21	0
(00)	BUS NO. 6	0		#22	0
480 Volt	BUS 5A	0		#23	0
	BUS ZA	0		#24	0
	BUS 3A	0		#25	0
	BUS 6A	0		#26	0
Emergency D/Gs	#21	5	Condensate Pumps	#21	0
	#22	S		#22	0
	#23	S		#23	0
Ges Turbines	GT-1	0	Comp. Cool Heat Exch	#21	0
	GT-3	0		#22	S
	GT-3	0	RHR Heat Exchanger	#21	S
SIS Pumps	#21	8		#22	S
	#22	0/8	Fan Cooler Units	#21	0
	#23	\$		#22	0
HR Pumps	#21	S		#23	0
	#22	- 8		#24	0
harging Pumps	#21	0		#25	0
	#22	S			
	#23	S			
x Coolant Pumps	#21	0	VC Isol. Phase A	(Y/N)	N
	#22	0	VC 1sol. Phase B	(Y/N)	н
	#23	0	VC Isol. Vent	(Y/N)	N
	#24	0			
omponent Cooling Pumps	#21	S	Exceptions PCV-1191, 11	92	OPEN
	#22	0	PCV-1190		CLOSE
	#23	0	High Head SIS Flow	#21	(GPM) O
ux Component Coaling Pum	rs #21	S			(GPM) O
	#22	S			(GPM) O
lux Feed Water Pumps	#21	0*			(GPM) O
	#22	0/8	Low Head SIS Flow		(GPM) O
	#23	0*			(GPM) D
ontainment Spray Pumps	#21	s			(GPM) O
	#22	S			(GPM) D
ecirculation Pumps	#21	5	Accumulator Level	#21	
	#22	S		#22	
vdrogen Recombiner	#21	S		#23	
	#22	s		#24	

Legand 0 = Operating

O/S = Out of Service used to denote defective equipment

S = Standby

<sup>\* =</sup> Change on status from previous log

PARAMETER		TIME	PARAMETER		TIME
		09:15			09:1
044-11-					
Offsite Power Available	138kV	0	Service Water Pumps	#21	0
4000 vals	13.8KV	S	(Circle Essential Hdr)	#22	S
6900 Volt	BUS NO. 1	0		#23	0
	BUS NO. 2	0		#24	S
	BUS NO. 3	0		#25	0
	BUS NO. 4	0		#26	0
	BUS NO. 5	0	Sirc Water Pumps	#21	٥
(DO USE)	BUS NO. 6	0		#22	0
480 Volt	BUS 5A	0		#23	0
	BUS 2A	0		#24	0
	BUS 3A	0		#25	0
	BUS 6A	0		#26	0
Emergency D/Gs	#21	8	Condensate Pumps	#21	0
	#22	S		#22	0
	#23	S		#23	s*
Gas Turbines	GT-1	0	Comp. Cool Heat Exch	#21	0
	GT-2	0		#22	S
	GT-3	0	RHR Heat Exchanger	#21	S
IS Pumps	#21	S		#22	5
	#22	0/5	Fan Cooler Units	#21	0
	#23	S		#22	0
THR Pumps	#21	5		#23	0
	#22	S		#24	0
harging Pumps	#21	0		#25	0
	#22	S			
	#23	S			
X Coolant Pumps	#21	0	VC Isol. Phase A	CH/H)	N
	#22	0	VC isol. Phase B	(Y/N)	N
	#23	0	VC Isol. Vent	(Y/N)	н
	#24	0			
omponent Cooling Pumps	#21	S	Exceptions PCV-1191,119	2	OPEN
	#22	0	PCV-1190		CLOSE
	#23	0	High Head SIS Flow	#21 (GPM)	0
LUX Component Cooling Pump	s #21	S		#22 (GPM)	0
	#22	\$		#23 (GPM)	0
ux Feed Water Pumps	#21	0		#24 (GPM)	0
	#22	0/\$	Low Head SIS Flow	#21 (GPM)	0
	#23	0		#22 (GPM)	0
ontainment Spray Pumps	#21	S		#23 (GPM)	0
	#22	S		#24 (GPM)	0
ecirculation Pumps	#21	S	Accumulator Level	#21 (%)	67
	#22	s		#22 (%)	66
rdrogen Recombiner	#21	s		#23 (%)	67
	#22	S		#24 (%)	68

Legend 0 = Operating

0/S = Out of Service used to denote defective equipment

S = Standby

PARAMETER		TIME	PARAMETER		TIME
		09:20			09:2
					VYIE
Offsite Power Available	138KV	0	Service Water Pumps	#21	0
Anna	13.8KV	S	(Circle Essential Hdr)	#22	0*
6900 Volt	BUS NO. 1	0		#23	0
	BUS NO. 2	0		#24	S
	BUS NO. 3	0		#25	s*
	BUS NO. 4	0		#26	s*
	BUS NO. 5	0	Circ Water Pumps	#21	0
/90 1/-14	BUS NO. 6	0		#22	0
480 Volt	BUS 5A	0		#23	0
	BUS ZA	0		#24	0
	BUS 3A	0		#25	0
	BUS 6A	0		#26	0
Emergency D/Gs	#21	0*	Condensate Pumps	#21	0
	#22	0*		#22	0
	#23	0*		#23	5*
Gas Turbines	GT - 1	0	Comp. Cool Heat Exch	#21	0
	GT-2	0		#22	S
	GT-3	0	RHR Heat Exchanger	#21	0
SIS Pumps	#21	0/8*		#22	0
	#22	0/5	Fan Cooler Units	#21	0
DUB D.	#23	0*		#22	0
RHR Pumps	#21	0*		#23	0
Change of	#22	0*		#24	0
Charging Pumps	#21	S		#25	0
	#22	S			
No. Contract	#23	S			
Rx Coolant Pumps	#21	- 0	VC Isol. Phase A	(Y/N)	Y
	#22	0	VC 1sol. Phase B	(Y/N)	N
	#23	0	VC Isol. Vent	(Y/N)	и
	#24	0			
Component Cooling Pumps	#21	0	Exceptions PCV-1191, 1	192	OPEN
	#22	0	PCV-1190		CLOSED
	#23	0	High Head SIS Flow	#21 (GPM)	0
Aux Component Cooling Pump		0*		#22 (GPM)	0
and the second second	#22	0*		#23 (GPM)	0
lux feed Water Pumps	#21	0		#24 (GPM)	0
	#22	0/5	Low Head SIS Flow	#21 (GPM)	0
	#23	0		#22 (GPM)	0
ontainment Spray Pumps	#21	\$		#23 (GPM)	0
	#22	S		#24 (GPM)	0
ecirculation Pumps	#21	S	Accumulator Level	#21 (%)	67
	#22	S		#22 (%)	66
ydrogen Recombiner	#21	S		#23 (%)	67
	#22	S		#24 (%)	68

Legend 0 = Operating

D/S = Out of Service used to denote defective equipment

S = Standby

PARAMETER		TIME	PARAMETER		TIME
		09:30			09:3
044-14-0-14-14-14-14-14-14-14-14-14-14-14-14-14-					
Offsite Power Available	138KV	0	Service Water Pumps	#21	0
anno una	13.8KV	S	(Circle Essential Hdr)	#22	0*
6900 Volt	BUS NO. 1	0		#23	0
	BUS NO. 2	0		#24	S
	BUS NO. 3	0		#25	- 2*
	BUS NO. 4	0		#26	5*
	BUS NO. 5	0	Circ Water Pumps	#21	0
480 Volt	BUS NO. 6	0		#22	0
AGO YOLL	BUS 5A	0		#23	0
	BUS 2A	0		#24	0
	BUS 3A	0		#25	0
	BUS 6A	0		#26	0
Emergency D/Gs	#21	0*	Condensate Pumps	#21	. 0
	#22	0*		#22	0
	#23	0*		#23	s*
Gas Turbines	ti)-1	0	Comp. Cool Heat Exch	#21	0
	GT-2	0		#22	S
	GT-3	0	RHR Heat Exchanger	#21	0
SIS Pumps	#21	0/8		#22	0
	#22	0/8	Fan Cooler Units	#21	0
	#23	0		#22	0
thr Pumps	#21	0		#23	0
	#22	0		#24	.0
tharging Pumps	#21	0*		#25	0
	#22	S			
	#23	S			
x Coolant Pumps	#21	0	VC Isol. Phase A	(Y/N)	Y
	#22	0	VC Isol. Phase B	(Y/W)	N
	#23	0	VC Isol, Vent	(Y/N)	н
	#24	0			
omponent Cooling Pumps	#21	0	Exceptions PCV-1191, 1	192	OPEN
	#22	0	PCV-1190		CLOSED
	#23	0	High Head SIS Flow	#21 (GPM)	0
ux Component Cooling Pump	os #21	0		#22 (GPM)	0
	#22	0		#23 (GPM)	0
ux Feed Water Pumps	#21	0		#24 (GPM)	0
	#22	0/5	Low Head SIS Flow	#21 (GPM)	0
	#23	0		#22 (GPM)	0
ontainment Spray Pumps	#21	\$		#23 (GPM)	0
	#22	\$		#24 (GPM)	0
ecirculation Pumps	#21	S	Accumulator Level	#21 (%)	67
	#22	S		#22 (%)	66
vdrogen Recombiner	#21	S		#23 (%)	67
	#22	S		#24 (%)	68

Legend 0 = Operating

D/S = Out of Service used to denote defective equipment

S = Standby

PARAMETER		TIME	PARAMETER	-	TIME
		09:35			09:3
O:fsite Power Available	17000				
ALLONG! WASITSDIE	138KV	0	Service Water Pumps	#21	0
6900 Volt	13.8KV	S	(Circle Essential Hdr)	#22	0*
	BUS NO. 1	0		#23	0
	BUS NO. 3	0		#24	S
	BUS NO. 4	0		#25	\$*
	BUS NO. 5	0		#26	5*
	BUS NO. 6	0	Circ Water Pumps	#21	0
480 Volt		0		#22	0
		0		#23	0
		0		#24	0
	BUS 3A	0		#25	0
Emergency D/Gs	BUS 6A	0		#26	0
gency pros	#21	0	Condensate Pumps	#21	0
	#22	0		#22	0
Gas Turbines	#23	0		#23	s*
as fulbines	GT-1	0	Comp. Cool Heat Exch	#21	0
	GT-2	0		#22	S
SIS Pumps	GT-3	0	RHR Heat Exchanger	#21	0
	#21	0/5		#22	0
	#22	0/8	Fan Cooler Units	#21	0
HR Pumps	#23	0		#22	0
	#21	0		#23	0
Charging Pumps	#22	0		#24	0
marging rumps	#21	0		#25	0
	#22	S			
x Coolant Pumps	#23	S			
A coulant rumps	#21	5	VC Isol. Phase A	(W/Y)	Y
	#22	s*	VC Isol. Phase B	(Y/N)	N
	#23	s*	VC Isol. Vent	(Y/N)	H
omponent Cooling Pumps	#24	s*			
on porient conting Pumps	#21	0*	Exceptions PCV-1191, 1	192	OPEN
	#22	0	PCV-1190		CLOSED
ux Component Cooling Pum	#23	0	High Head SIS Flow	#21 (GPM)	0
av rembonent cooting ban		0		#22 (GPM)	0
IN Food Users Day	#22	0		#23 (GPM)	0
ux Feed Water Pumps	#21	0		#24 (GPM)	0
	#22	0/5	Low Head SIS Flow	#21 (GPM)	0
ontalement Commo	#23	0		#22 (GPM)	0
ontainment Spray Pumps	#21	S		#23 (GPM)	0
not and and and	#22	S		#24 (GPM)	0
ecirculation Pumps	#21	S	Accumulator Level	#21 (%)	67
winners Barrett	#22	3 7		#22 (%)	66
ydrogen Recombiner	#21	S		#23 (%)	67
	#22	5		#24 (%)	68

Legend 0 = Operating

O/S = Out of Service used to denote defective equipment

S = Standby

PARAMETER		TIME	PARAMETER		TIME
		09:45			09:4
Offsite Power Available					
OLIVITE LOMEL VANITADIS	138KV	0	Service Water Pumps	#21	0
6900 Volt	13.8KV	S	(Circle Essential Hdr)	#22	0*
0700 YULC	BUS NO. 1	0		#23	0
	BUS NO. 2	0		#24	S
	BUS NO. 3	0		#25	s*
	BUS NO. 4	0		#26	s*
	BUS NO. 5	0	Circ Water Pumps	#21	0
CHO NO NO NO	BUS NO. 6	0		#22	0
	BUS SA	0		#23	0
	BUS ZA	0		#24	0
	BUS 3A	0		#25	0
	BUS 6A	0		#25	0
Emergency D/Gs	#21	0	Condensate Pumps	#21	0
	#22	0		#22	0
Can Yumhina	#23	0		#23	s*
Gas Turbines	GT - 1	0	Comp. Cool Heat Exch	#21	0
	GT-2	0		#55	S
SIS Pumps	GT-3	0	RHR Heat Exchanger	#21	0
	#21	0/5		#22	0
	#22	0/5	Fan Cooler Units	#21	0
HR Pumps	#23	0		#22	0
ink rumps	#21	0		#23	.0
Charging Pumps	#22	0		#24	0
morging runps	#21	0*		#25	0
	#22	S			
x Coolant Pumps	#23	\$			
a courant rungs	#21	S	VC Isol. Phase A	(Y/N)	Y
	#22	S	VC Isol, Phase 8	(Y/N)	N
	#23	2	VC Isol. Vent	(Y/N)	
omeonant Conline Dome	#24	\$			*
omponent Cooling Pumps	#21	0	Exceptions PCV-1191, 1	192	OPEN
	#22	0	PCV-1190		CLOSED
ux Component Cooling Pump	#23	0	High Head SIS Flow	#21 (GPM)	0
ax component cooting rump		0		#22 (GPM)	0
IN Ford United Names	#22	0		#23 (GPM)	0
ux Feed Water Pumps	#21	0		#24 (GPM)	0
	#22	0/\$	Low Head SIS Flow	#21 (GPM)	.0
ontainment form	#23	0		#22 (GPM)	0
ontainment Spray Pumps	#21	5		#23 (GPM)	0
animalianian n	#22	S		#24 (GPM)	0
ecirculation Pumps	#21	5	Accumulator Level	#21 (%)	67
whomas Named I	#22	S		#22 (%)	66
vdrogen Recombiner	#21	S		#23 (%)	57
	#22	S		#24 (%)	68

Legend 0 = Operating

0/S = Out of Service used to denote defective equipment

S = Standby

PARAMETER		TIME	PARAMETER		TIME
-		10:00			10:0
Offsite Power Available	138KV	0	Service Water Pumps	#21	0
	13.8KV	2	(Circle Essential Hdr)	#22	0*
6900 Volt	BUS NO. 1	0		#23	0
	BUS WO. 2	0		#24	S
	BUS NO. 3	0		#25	s*
	BUS NO. 4	0		#26	s*
	BUS NO. 5	0	Circ Water Pumps	#21	0
	BUS NO. 6	0		#22	0
480 Volt	BUS 5A	0		#23	0
	BUS 2A	0		#24	0
	BUS 3A	0		#25	0
	BUS 6A	0		#26	0
Emergency D/Gs	#21	0*	Condensate Pumps	#21	0
	#22	0*		#22	0
	#23	0*		#23	s*
Gas Turbines	GT - 1	0	Comp. Cool Heat Exch	#21	0
	GT-2	0		#22	5
	GT-3	0	RHR Heat Exchanger	#21	0
SIS Pumps	#21	0/5*		#22	S
	#22	0/\$	Fan Cooler Units	#21	0
	#23	0		#22	0
HR Pumps	#21	0		#23	0
	#22	0		#24	0
Charging Pumps	#21	0*		#25	0
	#22	S			
	#23	S			
x Coolant Pumps	#21	0	VC Isol. Phase A	(Y/N)	Y
	#22	0	VC Isol. Phase B	(Y/N)	N
	#23	0	VC Isot. Vent	(Y/N)	N
	#24	0			
omponent Cooling Pumps	#21	0*	Exceptions FCV-1191, 1	192	OPEN
	#22	0	PCV-1190		CLOSED
	#23	0	High Head S!& Flow	#21 (GPM)	0
ux Component Cooling Pump	ns #21	0*	PLG.	#22 (GPM)	0
	#22	c*		#23 (GPM)	0
ux Feed Water Pumps	#21	0		#24 (GPM)	0
	#22	0/5	Low Head SIS Flow	#21 (GPM)	0
	#23	0		#22 (GPM)	
ontainment Spray Pumps	#21	S			0
	#22	S		#23 (GPM)	0
ecirculation Pumps	#21	S	Accumulator Level	#24 (GPM)	0
	#22	S	Medicinator Faset	#21 (%)	67
ydrogen Recombiner	#21	S		#22 (%)	66
and the control of th	#22			#23 (%)	67
	*66	S		#24 (%)	68

Legend 0 = Operating

0/S = Out of Service used to denote defective equipment

S = Standby

PARAMETER		TIME	PARAMETER		TIME
	-	10:15	dament and the second		10:1
Official name of the control					
Offsite Power Available	138KV	0	Service Water Pumps	#21	0
6900 Volt	13.8KV	S	(Circle Essential Hdr)	#22	0*
0700 7011	BUS NO. 1	0		#23	0
	BUS NO. 2	0		#24	8
	BUS NO. 3	0		#25	s*
	BUS NO. 4	0		#26	s*
	BUS NO. 5	0	Circ Water Pumps	#21	0
480 Volt	BUS NO. 6	0		#22	0
	BUS 5A BUS 2A	0		#23	. 0
		0		#24	0
	BUS 3A BUS 6A	0		#25	0
Emergency D/Gs		0		#26	0
	#21	0	Condensate Pumps	#21	0
	#23	0		#22	0
Gas Turbines	GT-1	0		#23	s*
	GT-2	0	Comp. Cool Heat Exch	#21	0
	GT-3	0	PHE 11.	#22	2
SIS Pumps	#21	0/5	RHR Heat Exchanger	#21	0
	#22	0/5	Fan Cooler Units	#22	0
	#23	0	ran cooler units	#21	0
THR PLETEDS	#21	0		#22	0
	#22	0		#23	0
harging Pumps	#21	0*		#24	0
	#22	5		#25	0
	#23	S			
x Coolant Pumps	#21	S	VC Isol. Phase A	FW 1414	
	#22	S	VC isol. Phase B	(Y/N)	Y
	#23	s	VC Isol. Vent	(Y/K)	н
	#24	S	7301. 7611.	(Y/N)	N
omponent Cooling Pumps	#21	0	Exceptions PCV-1191, 1	100	
	#22	0	PCV-1190	145	OPEN
	#23	0	High Head SIS Flow	471 2000	CLOSED
x Component Cooling Pumps	#21	0	might mead als flor	#21 (GPM) #22 (GPM)	0
	#22	0			0
ux Feed Water Pumps	#21	0		#23 (GPM)	0
	#22	0/5	Low Head SIS Flow	#24 (GPM) #21 (GPM)	0
	#23	0		#21 (GPM)	0
entainment Spray Pumps	#21	S		#23 (GPM)	0
	#22	S		#24 (GPM)	0
circulation Pumps	#21	S	Accumulator Level	#21 (%)	67
	#22	S		#22 (%)	66
drogen Recombiner	#21	S		#23 (%)	67
	#22	\$		#24 (%)	68

Legend 0 = Operating

O/S = Out of Service used to denote defective equipment

S = Standby

PARAMETER		TIME	PARAMETER		TIME
		10:30			10:3
Offsite Power Available	47000				
ATTACK TOWER KVEITEDLE	138KV	0/5"	Service Water Pumps	#21	0
6900 Volt	13.8KV	s s*	(Circle Essential Hdr)	#22	0
	BUS NO. 1	s*		#23	s*
	BUS NO. 3	s*		#24	S
	BUS NO. 4	s*		#25	S
	BUS NO. 5	5*		#26	5
	BUS NO. 6	s*	Circ Water Pumps	#21	5*
480 Volt	BUS ZA	0		#22	S*
	BUS 3A	0		#23	s*
	BUS 5A	0		#24	5*
	BUS 6A	0/5		#25	s*
Emergency D/Gs	#21	0		#26	s*
	#22	0	Concensate Pumps	#21	s*
	#23	0		#22	s*
Gas Turbines	G1-1	0		#23	5*
	GT-2	D	Comp. Cool Heat Exch	#21	0
	GT-3	0	Nun	#22	S
SIS Pumps	#21	0/5	RHR Heat Exchanger	#21	0
	#22	0/5	Eng Coults of the	#22	0
	#23	s*	Fan Cooler Units	#21	0
RHR Pumps	#21	0		#22	0
	#22	s*		#23	0
Charging Pumps	#21	0		#24	0
	#22	S		#25	s*
	#23	s*			
tx Coolant Pumps	#21	S	VC Isol. Phase A		
	#22	S	VC Isol. Phase B	(Y/N)	¥
	#23	S	VC Isol. Vent	(Y/N)	N
	#24	s	Table Vent	(Y/N)	H
omponent Cooling Pumps	#21	0	Exceptions PCV-1191, 1	100	
	#22	0	PCV-1190	142	OPEN
	#23	s*	High Head SIS Flow	474 conu.	CLOSED
ux Component Cooling Pumps	#21	0		#21 (GPM)	0
	#22	s*		#22 (GPM)	0
ux Feed Water Pumps	#21	0		#23 (GPM)	0
	#22	0/5	Low Head SIS Flow	#24 (GPM)	0
	#23	5*		#21 (GPM)	0
ontainment Spray Pumps	#21	S		#22 (GPM)	0
	#22	S		#23 (GPM)	0
ecirculation Pumps	#21	S	Accumulator Level	#24 (GPM)	0
	#22	S	LEVEL	#21 (%)	67
drogen Recombiner	#21	S		#22 (%)	66
	#22	S		#23 (%)	67
				#24 (%)	68

Legend D = Operating

0/5 = Out of Service used to denote defective equipment

S = Standby

		PARAMETER		TIME
	10:45			10:4
			#21	0
		(Circle Essential Hdr)	#22	0
			#23	S
			#24	S
			#25	S
			#26	S
		Circ Water Pumps	#21	S
			#22	S
			#23	S
			#24	S
	0		#25	S
	0/5		#26	S
#21	0	Condensate Pumps	#21	s
#22	0		#22	S
	0		#23	S
GT-1	0	Comp. Cool Heat Exch	#21	0
GT-2	0		#22	S
	0	RHR Heat Exchanger	#21	0
	0/5		\$25	0
	0/5	Fan Cooler Units	#21	0
	S		#22	0
	0		#23	0
#22	2,		#24	0
#21	0		#25	s
#22	S			
#23	s*			
#21	S	VC Isol. Phase A	(Y/N)	Y
#22	S	VC Isol. Phase B		N
#23	S	VC Isol. Vent		N
#24	S			
#21	0	Exceptions PCV-1191, 1	192	OPEN
#22	0			CLOSED
#23	s*	High Head SIS Flow	#21 (GPM)	0
s #21	0			0
#22	S			0
#21	0			0
#22	0/\$	Low Head SIS Flow		0
#23	S			
#21	S			0
#22	S			
#21	S	Accumulator Level		0
#22	S	100000000000000000000000000000000000000		67
	5			66
#22	S		#23 (%) #24 (%)	67 68
	13.8kV 8US NO. 1 BUS NO. 2 BUS NO. 3 BUS NO. 6 BUS SA BUS	138KV O/S 13.8KV S 8US NO. 1 S 8US NO. 2 S 8US NO. 3 S 8US NO. 4 S 8US NO. 6 S 8US ZA O 8US 3A O 8US 5A O 8US 5A O 8US 6A O/S #21 O #22 O #23 O GT-1 O GT-2 O GT-3 O #21 O/S #22 O/S #23 S* #21 O #22 S #23 S* #21 O #22 S #23 S #21 S	138KV O/S Service Water Pumps 13.8KV S (Circle Essential Hdr) 8US NO. 1 S 8US NO. 2 S 8US NO. 3 S 8US NO. 6 S 8US NO. 6 S 8US 3A O 8US 5A O 8US 6A O/S #21 O Condensate Pumps #22 O #23 O GT-1 O Comp. Cool Heat Exch GT-2 O RHR Heat Exchanger #21 O/S #22 O/S Fan Cooler Units #22 S* #21 O #22 S #23 S* #21 O Exceptions PCV-1191, 1 #22 O Exceptions PCV-1190, 1 #22 S #23 S* #21 O Exceptions PCV-1190 #22 S #23 S* #21 O Exceptions PCV-1191, 1 #22 S #23 S* #21 O Exceptions PCV-1190 #22 S #23 S Accumulator Level #22 S #21 S	13.8kV 0/S Service Water Pumps #21 13.8kV 5 (Circle Essential Edr) #22 8US NO. 1 5 #23 8US NO. 2 5 #24 8US NO. 3 5 #25 8US NO. 4 5 #26 8US NO. 5 S Circ Water Pumps #21 8US NO. 6 S #22 8US NO. 6 S #22 8US S A O #23 8US S A O #24 8US S A O #25 8US S A O METER PUMPS #21 8US S A O ME

Legend 0 = Operating

O/S = Out of Service used to denote defective equipment

S = Standby

PARAMETER		TIME	PARAMETER		TIME
		10:55			10:5
Miles and a second					
Offsite Power Available	138KV		Service Water Pumps	#21	0
6900 Volt	13.8KV		(Circle Essential Hdr)	#22	0
oann Aort	BUS NO. 1	5		#23	S
	BUS NO. 2	5		#24	5
	BUS NO. 3	S		#25	5
	BUS NO. 4	S		#26	S
	BUS NO. 5	S	Circ Water Pumps	#21	S
(00 Wells	BUS NO. 6	\$		#22	S
480 Volt	BUS ZA	0		#23	S
	BUS 3A	0		#24	S
	BUS 5A	0		#25	S
	BUS 6A	0/5		#26	S
Emergency D/Gs	#21	0	Condensate Pumps	#21	S
	#22	0		#22	s
	#23	0		#23	S
las Turbines	GT-1	0	Comp. Cool Heat Exch	#21	0
	GT-2	0		#22	S
	GT-3	0	RHR Heat Exchanger	#21	0
SIS Pumps	#21	0/\$		#22	0
	#22	0/5	Fan Cooler Units	#21	0
	#23	S		#22	0
HR Pumps	#21	0		#23	0
	#22	S		#24	0
harging Pumps	#21	0		#25	S
	#22	S			
	#23	s*			
x Coolant Pumps	#21	S	VC Isol, Phase A	(Y/N)	Y
	#22	S	VC Isol. Phase B	(Y/N)	N
	#23	\$	VC Isol, Vent	(Y/N)	N
	#24	S			
omponent Cooling Pumps	#21	0	Exceptions PCV-1190, 1	191, 1192	OPEN
	#22	0			
	#23	S	High Head SIS Flow	#21 (GPM)	0
ux Component Cooling Pump	19 #21	0		#22 (GPM)	0
	#22	S		#23 (GPM)	0
IX Feed Water Pumps	#21	0		#24 (GPM)	0
	#22	0/8	Low Head SIS Flow	#21 (GPM)	0
	#23	S		#22 (GPM)	0
entainment Spray Pumps	#21	S		#23 (GPM)	0
	#22	S		#24 (GPM)	0
circulation Pumps	#21	S	Accumulator Level	#21 (%)	67
	#22	S		#22 (%)	66
rdrogen Recombiner	#21	S		#23 (%)	67
	#22	S		#24 (%)	68

Legend 0 = Operating

 $\Omega/S \approx Out of Service used to denote defective equipment$ 

S = Standby

PARAMETER		TIME	PARAMETER		TIME
		11:00			11:0
Offsite Power Available	138KV	0/5	Service Water Pumps	#21	0
	13.8KV	S	(Circle Essential Hdr)	#22	0
6900 Volt	BUS NO. 1	S		#23	S
	BUS NO. 2	S		#24	S
	BUS NO. 3	S		#25	S
	BUS NO. 4			#26	s
	BUS NO. 5	S	Circ Water Pumps	#21	S
	BUS NO. 6	S		#22	S
480 Volt	BUS 2A	0		#23	S
	BUS 3A	. 0		#24	S
	BUS 5A	0		#25	S
	BUS 6A	0/5		#26	S
Emergency D/Gs	#21	0	Condensate Pumps	#21	0
	#22	0		#22	0
	#23	0		#23	0
Gas Turbines	GT - 1	0	Comp. Cool Heat Exch	#21	0
	GT-2	0		#22	S
	G1-3	0	RHR Heat Exchanger	#21	0
SIS Pumps	#21	0/5		#22	0
	#22	0/8	Fen Cooler Units	#21	0
	#23	S		#22	0
HR Pumps	#21	0		#23	0
	#22	\$		#24	0
harging Pumps	#21	0		#25	S
	#22	5			
	#23	S			
x Coolant Pumps	#21	5	VC Isol. Phase A	(Y/N)	Y
	#22	S	VC Isol. Phase B	(Y/N)	M
	#23	\$	VC Isol. Vent	(Y/N)	N
	#24	S			
omponent Cooling Pumps	#21	0	Exceptions PCV-1190, 1	191, 1192	OPEN
	#22	0			
	#23	S	High Head SIS Flow	#21 (GPH)	0
ux Component Cooling Pump		0		#22 (GPM)	0
	#22	\$		#23 (GPM)	0
ux feed Water Pumps	#21	0		#24 (GPM)	0
	#22	0/5	Low Head SIS Flow	#21 (GPM)	0
	#23	S		#22 (GPM)	0
ontainment Spray Pumps	#21	S		#23 (GPM)	0
	#22	5		#24 (GPM)	0
ecirculation Pumps	#21	S	Accumulator Level	#21 (X)	67
	#22	\$		#22 (%)	66
rdrogen Recombiner	#21	5		#23 (%)	67
	#22	S		#24 (%)	68

Legend 0 = Operating

0/5 = Out of Service used to denote defective equipment

S = Standby

PARAMETER		TIME	PARAMETER		TIME
		11:15			11:1
Offsite Power Available	138K		Service Water Pumps	#21	0
	13.8K		(Circle Essential Hdr)	#22	0
6900 Volt	BUS NO.			#23	S
	BUS NO. 3			#24	5
	BUS NO. 1			#25	S
	BUS NO. 4			#26	S
	BUS NO. 5		Circ Water Pumps	#21	S
/ 00 No.1 x	BUS NO. 6			#22	S
480 Volt	BUS 24			#23	
	BUS 34			#24	S
	BUS 5/			#25	S
	BUS 64			#26	5
Emergency D/Gs	#21		Condensate Pumps	#21	S
	#22			#22	\$
Ten Purchase	#23			#23	5
Gas Turbines	G1-1		Comp. Cool Heat Exch	#21	0
	GT - 2			#22	S
10.0	G1-3		RHR Heat Exchanger	#21	0
SIS Pumps	#21			#22	0
	#22		fan Cooler Units	#21	0
	#23			#22	0
RHR Pumps	#21			#23	0
	#22			#24	0
Charging Pumps	#21			#25	\$
	#22				
	#23				
x Coolant Pumps	#21	\$	VC Isol. Phase A	(Y/N)	Y
	#22	S	VC Isol. Phase 8	(Y/H)	N N
	#23	5	VC Isal, Vent	(Y/N)	N
	#24	S			
omponent Cooling Pumps	#21	0	Exceptions PCV-1190, 1	191, 1192	OPEN
	#22	0			
	#23	5	High Head SIS Flow	#21 (GPM)	0
ux Component Cooling Pump		0		#22 (GPM)	0
	#22	S		#23 (GPM)	0
ux Feed Water Pumps	#21	0		#24 (GPM)	0
	#22	0/\$	Low Head SIS Flow	#21 (GPM)	0
	#23	5		#22 (GPM)	0
ontainment Spray Pumps	#21	S		#23 (GPM)	0
	#22	S		#24 (GPM)	0
ecirculation Pumps	#21	5	Accumulator Level	#21 (%)	67
	#22	S		#22 (%)	66
ydrogen Recombiner	#21	\$		#23 (%)	67
	#22	S		#24 (%)	68

Legend 0 = Operating

0/S = Out of Service used to denote defective equipment

S = Standby

PARAMETER		TIME	PARAMETER		TIME
		11:30			11:3
					The second second second
Offsite Power Available	138kV	0/5	Service Water Pumps	#21	0
	13.8KV	S	(Circle Essential Hdr)	#22	0
6900 Volt	BUS NO. 1	S		#23	S
	BUS NO. 2	5		#24	5
	BUS NO. 3	S		#25	S
	BUS NO. 4	5		#26	5
	BUS NO. 5	S	Circ Water Pumps	#21	S
CAR III II	BUS NO. 6	S		#22	S
	BUS ZA	0		#23	S
	BUS 3A	0		#24	S
	BUS 5A	0		#25	S
	BUS 6A	0/5		#26	S
Emergency D/Gs	#21	0	Condensate Pumps	#21	S
	#22	0		#22	5
	#23	0		#23	S
ias Turbines	GT-1	0	Comp. Cool Heat Exch	#21	0
	G7-2	0		#22	S
15 5	G1-3	0	RHR Heat Exchanger	#21	0
IS Pumps	#21	0/5		#22	0
	#22	0/5	Fan Cooler Units	#21	0
	#23	S		#22	. 0
HR Pumps	#21	0		#23	0
	#22	S		#24	0
harging Pumps	#21	0		#25	s
	#22	S			
	#23	S			
x Coolant Pumps	#21	S	VC Isol. Phase A	(Y/N)	Y
	#22	S	VC Isol. Phase B	(Y/N)	N
	#23	S	VC Isol. Vent	(Y/N)	N
	#24	S			
omponent Cooling Pumps	#21	0	Exceptions PCV-1190, 1	191, 1192	OPEN
	#22	0			
	#23	S	High Head SIS Flow	#21 (GPM)	0
ux Component Cooling Pump	s #21	0		#22 (GPM)	0
	#22	S		#23 (GPM)	0
ux Feed Water Pumps	#21	0		#24 (GPM)	0
	#22	0/5	Low Head SIS Flow	#21 (GPM)	0
	#23	S		#22 (GPM)	0
ontainment Spray Pumps	#21	S		#23 (GPM)	0
	#22	\$		#24 (GPM)	0
ecirculation Pumps	#21	S	Accumulator Level	#21 (%)	67
	#22	S		#22 (%)	66
drogen Recombiner	#21	S		#23 (%)	67
	#22	5		#24 (%)	68

Legend 0 = Operating

0/S = Out of Service used to denote defective equipment

S = Standby

PARAMETER	-)	TIME	PARAMETER		TIME
		11:45			11:4
Offsite Power Available	138KV	0/\$	Service Water Pumps	#21	0
4000 W-1+	13.8KV	S	(Circle Essential Hdr)	#22	0
6900 Volt	BUS NO. 1	S		#23	S
	BUS NO. 2	S		#24	s
	BUS NO. 3	S		#25	S
	BUS NO. 4	\$		#26	S
	BUS NO. 5	S	Circ Water Pumps	#21	S
AND THE RESERVE OF THE PERSON	BUS NO. 6	S		#22	S
100 4011	BUS ZA	0		#23	S
	BUS 3A	0		#24	\$
	BUS 5A	0		#25	S
Emergency D/Gs	BUS 6A	0/\$		#26	S
the Bench nings	#21	0	Condensate Pumps	#21	\$
	#22	0		#22	S
las Turbines	#23	0		#23	S
ids full Diffes	GT-1	0	Comp. Cool Heat Exch	#21	0
	GT-2	0		#22	S
IS Pumps	GT-3	0	RHR Heat Exchanger	#21	0
	#21	0/\$		#22	. 0
	#22	0/5	Fan Cooler Units	#21	0
HR Pumps		S		#22	0
rin Franços	#21	0		#23	0
harging Pumps	#22	S		#24	0
ner ying runps	#21	0		#25	5
	#22	S			
x Coolant Pumps		S			
a courtaint runips	#21	S	VC Isol. Phase A	(Y/N)	Y
	#22	5	VC Isol. Phase B	(Y/N)	Ж
	#23	5	VC Isol. Vent	(Y/W)	N
omponent Cooling Pumps	#24	S			
superior booting runps	#21	0	Exceptions PCV-1190, 1	191, 1192	OPEN
	#22	0			
ux Component Cooling Pump	#23	S	High Read SIS Flow	#21 (GPM)	0
and a supported to the support of th	xs #21 #22	0		#22 (GPM)	0
ux Feed Water Pumps	#22	S		#23 (GPM)	0
and the same of th		0		#24 (GPM)	0
	#22	0/5	Low Head SIS Flow	#21 (GPM)	0
ontainment Spray Pumps	#21	S		#22 (GPM)	0
The state of the s		S		#23 (GPM)	0
ecirculation Pumps	#22	S		#24 (GPM)	0
TOTAL PURIS	#21	S	Accumulator Level	#21 (%)	67
ydrogen Recombiner	#22	S		#22 (%)	66
or offers vertices thet.	#21	S		#23 (%)	67
	#22	\$		#24 (%)	68

Legend 0 \* Operating

D/S = Out of Service used to denote defective equipment

S = Standby

# SCENARIO NO. 1993

PARAMETER		TIME	PARAMETER		TIME
		12:00			12:0
Official Process Access to the Contract of the					
Offsite Power Available	138KV	0/5	Service Water Pumps	#21	0
6900 Volt	13.8KV	S	(Circle Essential Hdr)	#22	. 0
DARO ADIT	BUS NO. 1	\$		#23	S
	BUS NO. 2	2		#24	S
	BUS NO. 3	Y.		#25	S
	BUS NO. 4	5		#26	S
	BUS NO. 5	S	Circ Water Pumps	#21	S
480 Volt	BUS NO. 6	S		#22	S
	BUS ZA	0		#23	S
	BUS 3A	0		#24	S
	BUS 5A	0		#25	S
mareance 570-	BUS 6A	0/5		#26	S
Emergency D/Gs	#21	0	Condensate Pumps	#21	S
	#22	0		#22	S
as Turbines	#23	0		#23	S
ids furbines	GT - 1	0	Comp. Cool Heat Exch	#21	0
	GT-2	0		#22	S
SIS Pumps	GT-3	0	RHR Heat Exchanger	#21	0
	#21	0/5		#22	0
	#22	0/8	fan Cooler Units	#21	0
the file assessed	#23	S		#22	0
Hik Pumps	#21	0		#23	0
	#22	S		#24	0
harging Pumps	#21	0		#25	S
	#22	S			
	#23	S			
x Coolant Pumps	#21	\$	VC Isol. Phase A	(Y/N)	Y
	#22	S	VC Isol. Phase B	(Y/N)	н
	#23	S	VC Isol. Vent	(Y/N)	N
	#24	\$			
omponent Cooling Pumps	#21	0	Exceptions PCV-1190, 1	191, 1192	OPEN
	#22	0			
	#23	S	High Head SIS Flow	#21 (GPM)	0
ux Component Cooling Pump	s #21	0		#22 (GPM)	0
	#22	S		#23 (GPM)	0
ux Feed Water Pumps	#21	0		#24 (GPM)	0
	#22	0/\$	Low Head SIS Flow	#21 (GPM)	0
	#23	S		#22 (GPM)	0
ntainment Spray Pumps	#21	S		#23 (GPM)	0
	#22	S		#24 (GPM)	
circulation Pumps	#21	S	Accumulator Level	#21 (%)	67
	#22	\$		#21 (%)	67
drogen Recombiner	#21	S			66
	#22	s		#23 (%)	67
				#24 (%)	68

Legend 0 = Operating

0/S = Out of Service used to denote defective equipment

S = Standby

PARAMETER		TIME	PARAMETER		TIME
-		12:15			12:1
Offsite Power Available	474				
VITSILE POWER AVBILADLE	138KV	0/5	Service Water Pumps	#21	0
6900 Volt	13.8KV	2	(Circle Essential Hdr)	#22	0
0700 VOLE	BUS NO. 1	5		#23	2
	BUS NO. 2	S		#24	S
	BUS NO. 3	S		#25	5
	BUS NO. 4	S		#26	S
	BUS NO. 5	2	Circ Water Pumps	#21	S
480 Volt	BUS NO. 6	8		#22	S
400 4011	BUS ZA	0		#23	S
	BUS 3A	0		#24	S
	BUS SA	0		#25	S
Emergency D/Gs	BUS 6A	0/5		#26	S
tive gency byus	#21	0	Condensate Pumps	#21	
	#22	0		#22	S
Gas Turbines	#23	D		#23	5
dus rui bines	GT-1	0	Comp. Cool Heat Exch	#21	0
	G1-2	0		#22	S
SIS Pumps	GT-3	0	RHR Heat Exchanger	#21	0
	#21	0/\$		#22	0
	#22	0/5	Fan Cooler Units	#21	0
HR Pumps	#23	S		#22	0
STIRL T SHIPLES	#21	0		#23	0
Charging Pumps	#22	S		#24	0
and group rules	#21	0		#25	5
	#22	S			
x Coolant Pumps	#23	S			
in costant raips	#21	S	VC Iscl. Phase A	(Y/N)	Υ
	#22	S	VC Isol. Phase B	(Y/N)	N
	#23	\$	VC Isol. Vent	(Y/N)	N
omponent Cooling Pumps		\$			
simple tooking rules	#21	0	Exceptions PCV-1190, 1	191, 1192	OPEN
	#23	0			
ux Component Cooling Pump		8	High Head SIS Flow	#21 (GPM)	0
an empowerit booting rule		0		#22 (GPM)	0
ux Feed Water Pumps	#22	S		#23 (GPM)	0
on reed woter runps	#21	0		#24 (GPM)	. 0
	#22	0/\$	Low Head SIS Flow	#21 (GPM)	0
ontainment Spray Pumps	#23	S		#22 (GPM)	0
on the residence of the same o	#21	5		#23 (GPM)	0
ecirculation Pumps	#22	2		#24 (GPM)	0
correction Pulips	#21	S	Accumulator Level	#21 (%)	67
ydrogen Recombiner	#22	S		#22 (X)	66
A CAME LA CONTRACTOR	#21	S		#23 (X)	67
	#22	2		#24 (%)	68

Legend 0 = Operating

0/S = Out of Service used to denote defective equipment

S = Standby

PARAMETER		TIME	PARAMETER		TIME
		12:30			12:3
***					
Offsite Power Available	138KV	0/5	Service Water Pumps	#21	0
6000 V. 1	13.8KV	S	(Circle Essential Hdr)	#22	0
6900 Volt	BUS NO. 1			#23	S
	BUS NO. 2	2		#24	S
	BUS NO. 3	S		#25	S
	BUS NO. 4			#26	S
	BUS NO. 5	S	Circ Water Pumps	#21	S
WAY AND A STATE OF THE STATE OF	BUS NO. 6	5		#22	S
400 VOLE	BUS 2A	0		#23	S
	BUS 3A	0		#24	5
	BUS 5A	0		#25	S
	BUS 6A	0/8		#26	S
Emergency D/Gs	#21	0	Condensate Pumps	#21	s
	#22	0		#22	S
	#23	0		#23	S
Gas Turbines	GT-1	0	Comp. Cool Heat Exch	#21	0
	G7-2	0		#22	S
1.C. Duwere	GT-3	0	RHR Heat Exchanger	#21	0
IS Pumps	#21	0/5		#22	0
	#22	0/8	Fan Cooler Units	#21	0
	#23	2		#22	0
HR Pumps	#21	0		#23	0
	#22	S		#24	0
harging Pumps	#21	0		#25	5
	#22	S			
	#23	S			
x Coolant Pumps	#21	S	VC Isol. Phase A	(Y/N)	Y
	#22		VC Isol, Phase B	(Y/W)	N
	#23	S	VC Isol, Vent	(Y/N)	N
	#24	S			
omponent Cooling Pumps	#21	0	Exceptions PCV-1190, 1	191, 1192	OPEN
	#22	0			
	#23	S	High Head SIS Flow	#21 (GPM)	0
ax Component Cooling Pumps	s #21	0		#22 (GPM)	0
	#22	\$		#23 (GPM)	0
ux Feed Water Pumps	#21	0		#24 (GPM)	0
	#22	0/5	Low Head SIS Flow	#21 (GPM)	0
	#23	\$		#22 (GPM)	0
ontainment Spray Pumps	#21	S		#23 (GPM)	0
	#22	s		#24 (GPM)	0
circulation Pumps	#21	S	Accumulator Level	#21 (X)	67
	#22	S		#22 (%)	66
drogen Recombiner	#21	S		#23 (X)	67
	#22	S		#24 (%)	68

Legend 0 = Operating

<sup>0/</sup>S = Out of Service used to denote defective equipment

S = Standby

<sup>\* \*</sup> Change on status from previous log

PARAMETER		TIME	PARAMETER		TIME
		12:45			12:4
Offsite Power Available	138KV				
THE PART NEET ADDIE	13.8KV	0/5	Service Water Pumps	#21	0
6900 Volt	BUS NO. 1	S	(Circle Essential Hdr)	#22	0
	BUS NO. 2	8		#23	5
	BUS NO. 3	2		#24	S
	BUS NO. 4	S		#25	S
	BUS NO. 5	S		#26	\$
	BUS NO. 6	S	Circ Water Pumps	#21	S
480 Volt	BUS ZA	0		#22	5
	BUS 3A	0		#23	S
	BUS 5A	0		#24	S
	BUS 6A			#25	S
Emergency D/Gs	#21	0/8		#26	S
	#22	0	Condensate Pumps	#21	S
	#23	0		#22	S
Gas Turbines	GT-1			#23	S
	GT-2	0	Comp. Cool Heat Exch	#21	0
	GT-3			#22	S
IIS Pumps	#21	0/5	RHR Heat Exchanger	#21	0
	#22	0/5		#22	0
	#23	5	Fan Cooler Units	#21	0
HR Pumps	#21	0		#22	0
	#22	S		#23	0
harging Pumps	#21	0		#24	0
	#22	S		#25	S
	#23	S			
x Coolant Pumps	#21	5	VC Isol, Phase A		
	#22	S	VC Isol. Phase B	(Y/N)	Y
	#23	S	VC Isol. Vent	(Y/N)	н
	#24	5	ve isot, vent	(Y/N)	Н
omponent Cooling Pumps	#21	0	Exceptions PCV-1190, 1		
	#22	0	Exceptions PCV-1190, 1	191, 1192	OPEN
	#23	S	High Head SIS Flow		
x Component Cooling Pumps		0	widn wead 212 brom	#21 (GPM)	0
	#22	S		#22 (GPM)	0
IX Feed Water Pumps	#21	0		#23 (GPM)	0
	#22	0/5	Low Head SIS Flow	#24 (GPM)	0
	#23	S	100 019 110M	#21 (GPM)	0
ntainment Spray Pumps	#21	S		#22 (GPM)	0
	#22	S		#23 (GPM)	0
circulation Pumps	#21	S	Accumulator Level	#24 (GPM)	. 0
	#22	S	TEACT	#21 (%)	67
drogen Recombiner	#21	s		#22 (%)	66
	#22	s		#23 (%)	67
				#24 (%)	68

Legend 0 = Operating

<sup>0/5 =</sup> Out of Service used to denote defective equipment

S = Standby

<sup>\* \*</sup> Change on status from previous log

PARAMEYER		TIME	PARAMETER		TIME
		13:00			13:0
Offsite Power Available	17000				
STATES AND AND THE PARTY OF THE	138KV	0/5	Service Water Pumps	#21	0
6900 Volt	BUS NO. 1	3	(Circle Essential Hdr)	#22	0
	BUS NO. 2	S		#23	S
	BUS NO. 3	S		#24	S
	BUS NO. 4	S S		#25	S
	BUS NO. 5	\$	Piles House B	#26	5
	BUS NO. 6	\$	Circ Water Pumps	#21	S
480 Volt	BUS 2A			#22	5
	BUS 3A	0		#23	S
	BUS 5A	0		#24	S
	BUS 6A	0/5		#25	S
Emergency D/Gs	#21	0	Company of the Compan	#26	S
	#22	0	Condensate Pumps	#21	S
	#23	0		#22	S
Gas Turbines	GT-1	0	Comp. Cool Heat Exch	#23	S
	GT-2	0	conp. Cool nest Exch	#21	0
	GT-3	0	RHR Heat Exchanger	#22	S
IS Pumps	#21	0/5	nin near Exchanger	#21	0
	#22	0/8	Fan Cooler Units	#21	.0
	#23	s		#22	0
HR Pumps	#21	0		#23	0
	#22	\$		#24	0
harging Pumps	#21	0		#25	S
	#22	S		72.5	9
	#23	S			
x Coclant Pumps	#21	S	VC Isol, Phase A	(Y/N)	Y
	#22	S	VC Isol. Phase B	(Y/N)	W
	#23	S	VC Isol, Vent	(Y/N)	8
	#24	S		(17/11)	
omponent Cooling Pumps	#21	0	Exceptions PCV-1190, 1	101 1102	ODEN
	#22	0		71, 1172	OPEN
	#23	S	High Head SIS Flow	#21 (GPM)	
ux Component Cooling Pump	s #21	0		#22 (GPM)	0
	#22	S		#23 (GPM)	
IX Feed Water Purgos	#21	0		#24 (GPM)	0
	#22	0/5	Low Head SIS Flow	#24 (GPM)	0
	#23	S		#21 (GPM)	0
ontainment Spray Pumps	#21	s		#23 (GPM)	0
	#22	S		#24 (GPM)	0
ecirculation Pumps	#21	S	Accumulator Level	#21 (%)	67
	#22	S		#22 (%)	66
rdrogen Recombiner	#21	S		#23 (%)	67
	#22	S		#24 (%)	68

Legend 0 = Operating

0/S = Out of Service used to denote defective equipment

S \* Standby

PARAMETER	-	TIME	PARAMETER	Property Commence of the Comme	TIME
-		13:15	And the same of th		13:1
Offsite Power Available	138KV	0/8	Service Water Pumps	#21	0
	13.8KV	S	(Circle Essential Kdr)	#22	0
6900 Volt	BUS NO. 1	S		#23	S
	BUS NO. 2	S		#24	S
	BUS NO. 3	S		#25	S
	BUS NO. 4	5		#26	S
	BUS NO. 5	S	Circ Water Pumps	#21	5
00 11-1-	BUS NO. 6	S		#22	S
480 Volt	BUS 2A	0		#23	S
	BUS 3A	0		#24	S
	BUS 5A	0		#25	S
	BUS 6A	0/8		#26	5
mergency D/Gs	#21	0	Condensate Pumps	#21	S
	#22	0		#22	S
	#23	0		#23	S
Gas Turbines	GT - 1	0	Comp. Cool Heat Exch	#21	0
	GT-Z	0		#22	s
	GT-3	0	RHR Heat Exchanger	#21	0
1S Pumps	#21	0/8		#22	0
	#22	0/8	Fan Cooler Units	#21	0
	#23			#22	0
HR Pumps	#21	0		#23	0
	#22	\$		#24	0
harging Pumps	#21	0		#25	S
	#22	S			
	#23	S			
x Coolant Pumps	#21	5	VC isol. Phase A	CY/N)	Y
	#22	S	VC Isol. Phase B	(Y/N)	N
	#23	\$	VC Isol. Vent	(Y/N)	N
	#24	S			
omponent Cooling Pumps	#21	. 0	Exceptions PCV-1190, 1	191, 1192	OPEN
	#22	0		,	OF ER
	#23	S	High Head SIS Flow	#21 (GPM)	0
ux Component Cooling Pump	s #21	0		#22 (GPM)	0
	#22	S		#23 (GPM)	0
x Feed Water Pumps	#21	0		#24 (GPM)	0
	#22	0/8	Low Head SIS Flow	#21 (GPM)	0
	#23	S		#22 (GPM)	0
ntainment Spray Pumps	#21	S		#23 (GPH)	0
	#22	S		#24 (GPM)	0
circulation Pumps	#21	S	Accumulator Level	#24 (GPM)	67
	#22	S			
drogen Recombiner	#21	S		#22 (%)	66
	#22	S		#23 (%) #24 (%)	67

Legend 0 × Operating

0/S = Out of Service used to denote defective equipment

S = Standby

PARAMETER		TIME	PARAMETER		TIME
		13:30			13:3
Affective Account to the same					
Offsite Power Available	138KV	0/\$	Service Water Pumps	#21	0
4000 No.14	13.8KV	S	(Circle Essential Hdr)	#22	0
6900 Volt	BUS NO. 1	S		#23	0*
	BUS NO. 2	S		#24	S
	BUS NO. 3	S		#25	S
	BUS NO. 4	S		#26	\$
	BUS NO. 5	S	Circ Water Pumps	#21	S
480 Volt	BUS NO. 6	\$		#22	S
100	BUS 2A	0		#23	S
	BUS 3A	0		#24	S
	BUS 5A	0*		#25	S
Emergency D/Gs	BUS 6A			#26	S
gency by as	#21	0	Condensate Pumps	#21	5
	#22	0		#22	S
Gas Turbines	#23 GT-1	0		#23	S
	GT-2	0	Comp. Cool Heat Exch	#21	0
	GT-3	0	700 U.S. T.	#22	S
IS Pumps	#21	0/8	RHR Heat Exchanger	#21	0
	#22	0/8	for Coules Inde	#22	. 0
	#23	0*	Fan Cooler Units	#21	0
HR Pumps	#21	0		#22	0
	#22	0*		#23	0
Charging Pumps	#21	0		#24	0
	#22	S		#25	0*
	#23	S			
x Coolant Pumps	#21	\$	VC Isol. Phase A		
	#22	S	VC Isol. Phase B	(Y/N)	Y
	#23	5	VC Isol. Vent	(Y/N)	N
	#24	5	ve isuc. vent	(Y/N)	N
amponent Cooling Pumps	#21	0	Exceptions PCV-1190, 1	101 1100	
	#22	0	Exceptions PCV-1190, 1	191, 1192	OPEN
	#23	0*	High Head SIS Flow	#21 conus	
ux Component Cooling Pung		0	might head 215 Tibe	#21 (GPM)	120
	#22	0		#22 (GPM)	120
ux Feed Water Pumps	#21	0		#23 (GPM) #24 (GPM)	0
	#22	0/5	Low Head SIS Flow	#24 (GPM)	140
	#23	s*	200 31000 210 7100	#21 (GPM)	0
ontainment Spray Pumps	#21	5			0
	#22	S		#23 (GPM) #24 (GPM)	0
ecirculation Pumps	#21	s	Accumulator Level	#24 (GPM) #21 (%)	0
	#22	S	TOTAL LEVEL	#21 (%)	67
ydrogen Recombiner	#21	s		#23 (%)	66
	#22	s			67
				#24 (%)	68

Legend 0 = Operating

 $0/s \approx 0$ ut of Service used to denote defective equipment

S = Standby

PARAMETER	-	TIME	PARAMETER		TIM
	-	13:45			13:
Offsite Power Available					
witsite rower Available	138KV	0/5	Service Water Pumps	#21	0
6900 Volt	13.8KV	S	(Circle Essential Hdr)	#22	0
0400 00(1	BUS NO. 1	S		#23	0
	BUS NO. 2	S		#24	S
	BUS NO. 3	S		#25	S
	BUS NO. 4	S		#26	S
	BUS NO. 5	S	Circ Water Pumps	#21	S
480 Volt	BUS NO. 6	8		#22	S
400 AOLL	BUS 2A	.0		#23	S
	BUS 3A	0		#24	S
	BUS 5A	0		#25	S
Emerana Ava	BUS 6A	0		#26	S
Emergency D/Gs	#21	0	Condensate Pumps	#21	s
	#22	0		#22	S
Gas Turbines	#23	0		#23	5
sas Turbines	GT-1	0	Comp. Cool Heat Exch	#21	0
	GT-2	0		#22	S
IS Pumps	GT-3	0	RHR Heat Exchanger	#21	0
	#21	\$/0		#22	0
	#22	0	Fan Cooler Units	#21	0
HR Pumps	#23	0		#22	0
nn ruigs	#21	0		#23	0
harging Pumps	#22	0		#24	0
and a compa	#21	0		#25	0
	#22	S			
x Coolant Pumps	#23	S			
a sociality runps	#21	S	VC 1sol. Phase A	(Y/N)	Y
	#22	S	VC Isol. Phase B	(Y/N)	N
	#23	\$	VC Isol. Vent	(Y/N)	N
omponent Cooling Pumps	#24				
siponent cooting rumps	#21	0	Exceptions PCV-1190, 1	191, 1192	OPEN
	#22	0			
Dr. Commonwell Co. 17 n.	#23	0	High Head SIS Flow	#21 (GPM)	0
ux Component Cooling Pump		0		#22 (GPM)	60
w Eand Union D.	#22	0		#23 (GPM)	80
x Feed Water Pumps	#21	0		#24 (GPM)	0
	#22	0/\$	Low Head SIS Flow	#21 (GPM)	0
nts/mast from	#23	S		#22 (GPM)	0
ntainment Spray Pumps	#21	S		#23 (GPM)	0
elecularian p	#22	S		#24 (GPM)	0
circulation Pumps	#21	S	Accumulator Level	#21 (%)	67
denone Denont	#22	S		#22 (%)	66
drogen Recombiner	#21	S		#23 (%)	67
	#22	\$		#24 (%)	68

Legend 0 = Operating

<sup>0/</sup>S = Out of Service used to denote defective equipment

S = Standby

<sup>\*</sup> a Change on status from previous log

PARAMETER		TIME	PARAMETER		TIM
		13:55	And the second section of the section of		72:
Offsite Power Available					
Withite Poler Available	138KV	0/5	Service Water Pumps	#21	
6900 Volt	13.8KV	S	(Circle Essential Hdr)	#22	
DADO AULT	BUS NO. 1	S		#23	
	MAR NO. 5	S		#24	
	BLS NO. 3	8		#25	5
	BUS NO. 4	8		#26	9
	BUS NO. 5	S	Circ Water Pumps	#21	5
480 Volt	BUS NO. 6	S		#22	S
ADD ADIE	BUS 2A	0		#23	S
	BUS 3A	0		#24	3
	BUS 5A	0		#25	S
Emergency D/Gs	BUS 6A	0		#26	S
cine gency by as	#21	0	Condensate Pumps	#21	5
	#22	0		#22	S
ne tooking	#23	0		#23	S
las Turbines	GT-1	0	Comp. Cool Heat Exch	#21	0
	G1-5	0		#22	S
SIS Pumps	GT-3	0	RHR Heat Exchanger	#21	0
	#21	0		#22	0
	#22	0/\$	Fan Cooler Units	#21	0
HR Pumps	#23	0		#22	0
	#21	0		#23	0
headan b	#22	0		#24	0
harging Pumps	#21	0		#25	0
	#22	S			
Cantaga Como	#23	S			
x Cociant Pumps	#21	S	VC Isol. Phase A	(Y/N)	Y
	#22	S	VC Isol. Phase B	(Y/N)	N
	#23	S	VC Isol, Vent	(Y/N)	N
Smoother Carliffer B.	#24	S			
omponent Cooling Pumps	#21	0	Exceptions PCV-1191, 1	192	OPEN
	#22	0	PCV-1190		CLOSE
	#23	0	High Head SIS Flow	#21 (GPM)	0
ux Component Cooling Pumps		0		#22 (GPM)	60
m food that a	#22	0		#23 (GPM)	0
x Feed Water Pumps	#21	0		#24 (GPM)	80
	#22	0/5	Low Head SIS Flow	#21 (GPM)	0
	#23	S		#22 (GPM)	0
ntainment Spray Pumps	#21	S		#23 (GPM)	0
elemitate e	#22	S		#24 (GPM)	0
circulation Pumps	*	2	Accumulator Level	#21 (%)	67
		S		#22 (%)	66
drogen Recombiner	#21	S		#23 (%)	67
	#22	S		#24 (%)	68

Legend 0 = Operating

0/S = Out of Service used to denote defective equipment

S = Standby

PARAMETER	-	TIME	PARAMETER		TIME
		14:00			14:00
Offsite Power Available	4 9 mm.				
NIINTE LOMEL WASITADIE	138KV	0*	Service Water Pumps	#21	0
6900 Volt	13.8KV	\$	(Circle Essential Hdr)	#22	s*
WYOM TOLL	BUS NO. 1	0*		#23	0
	BUS NO. 2	0*		#24	S
	BUS NO. 3	0*		#25	0*
	BUS NO. 4	0*		#26	0*
	BUS NO. 5	0*	Circ Water Pumps	#21	S
480 Volt	BUS NO. 6	0*		#22	\$
100 1011	BUS ZA	0		#23	S
	BUS 3A	0		#24	S
	BUS 5A	0		#25	S
Emergency D/Gs	BUS 6A	0		#26	- 3
March Dig	#21	S	Condersate Pumps	#21	5
	#22	8		#22	S
las Turbines	#23	S		#23	S
ms turbines	GT-1	S	Comp. Cool Heat Exch	#21	0
	GT-2	S		#22	8
IS Pumps	GT-3	S	RHR Heat Exchanger	#21	0
15 ruips	#21	2		#22	5*
	#22	\$	Fan Cooler Units	#21	0
HR PLANES	#23	S		#22	0
HR Pumps	#21	0		#23	0
haraina Nama	#22	s*		#24	0
harging Pumps	#21	S		#25	0
	#22	S			
v Canlant Dono	#23	S			
x Coolant Pumps	#21	S	VC Isol, Phase A	(Y/N)	н
	#22	\$	VC Isol. Phase B	(Y/N)	н
	#23	5	VC isol. Vent	(Y/N)	H
	#24	S			
omponent Coaling Pumps	#21	s*	Exceptions PCV-1190, 1	191, 1192	CLOSED
	#22	0			
	#23	0	High Head SIS Flow	#21 (GPM)	0
ux Component Cooling Pump		s*		#22 (GPM)	0
	#22	s*		#23 (GPM)	0
IX Feed Water Pumps	#21	s*		#24 (GPM)	0
	#22	s*	Low Head SIS Flow	#21 (GPM)	500
	#23	s*		#22 (GPM)	460
ntainment Spray Pumps	#21	S		#23 (GPM)	480
	#22	S		#24 (GPM)	510
circulation Pumps	#21	S	Accumulator Level	#21 (%)	67
	#22	S		#22 (%)	66
drogen Recombiner	#21	S		#23 (%)	67
	#22	S		#24 (%)	68

Legend 0 = Operating

Q/S \* Out of Service used to denote defective equipment

S = Standby

PARAMETER TIME	07:30	07:45	08:00	08:15	08:30	08:45	09:00
R-5987 MCC 98' mR/hr	1	1	1	1	1	1	1
R-1 CCR mR/hr	0.1	0.1	0.1	0.1	0.1	0.1	0.1
R-2 VC 80' mR/hr	1	1	1	1	1	1	1
R-4 Chrg. Pump mR/hr	1	1		1	1	î	1
R-5 F.S.B. mR/hr	0.2	0.2	0.2	0.2	0.2	0.2	0.2
R-6 Sample Rm. mR/hr	2	2	2	2	2	2	2
R-7 VC Seal Table mR/hr	5	5	5	5	5	5	5
R-8 Drum Sta. mR/hr	0.5	0.5	0.5	0.5	0.5	0.5	0.5
R-41 VC Part uCi/cc	4.0E-09						
R-42 VC Gas uCi/cc	1.0E-03						
R-43 Vent Part uCi/CC	4.0E-12						
R-44 Vent Gas uCi/cc	1.0E-08						
R-44 Vent Il31 uCi/cc	1.0E-11	1.0E-11	1.0E-11	1.0E-11	1.0E-11	1.0E-11	1.0E-00
R-45 Air Ejector uCi/cc	1.0E-07						
R-46 F.C. Water uCi/cc	2.0E-07						
R-47 Comp. Cool uCi/cc	2.0E-07						
R-48 Liquid Waste uCi/cc	2.0E-07						
R-49 S/G B.D. uCi/cc	2.0E-07						
R-53 F.C. Water uCi/cc	2.0E-07						
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	0	0	0	0	0	0
R-27 Vent Flow Rate CFM	4.5E+04						
R-27 Vent Dis Rate uCi/sec	0	0	0	0	0	0	0
R-28 Main Stm Rad Mon CPM	10	10	10	10	10	10	10
R-29 Main Stm Rad Mon CPM	10	10	10	10	10	10	10
R-30 Main Stm Rad Mon CPM	10	10	10	10	10	10	10
R-31 Main Stm Rad Mon CPM	10	10	10	10	10	10	10
Vent Flow Rate CFM							10
Main Steam Exh Lbs/Hr							
ir Ejector CFM							7 2 3 3 7
(measured value)		-					
METEOROLOGICAL							
Wind Speed (meters/sec)	6.8	6.8	6.8	6.8	6.8	6.8	6.8
Wind Direction (degrees)	270	270	270	270	270	270	270
Pasquill						2,0	270
Stability Catagory	D	D	D	D	. D	D	D

	CIME 09:15	09:30	09:40	09:45	10:00	10:15	10:30
R-5987 MCC 98' mR/hr	1	1	1	1	1	2	3
R-1 CCR mR/hr	0.1	0.1	0.1	1		1	1
R-2 VC 80' mR/hr		1	5	7	10	13	13
R-4 Chrg. Pump mR/hr		1	1		1	1	1
R-5 F.S.B. mR/hr	0.2	0.2	0.2	0.2	0.5	0.2	0.2
R-6 Sample Rm. mR/hr	2	2	2	2	2	2	2
R-7 VC Seal Table mR/	hr 5	5	12	15	18	22	25
R-8 Drum Sta. mR/hr	0.5	0.5	0.5	0.5	0.5	0.5	0.5
R-41 VC Part uCi/cc	4.0E-09	4.0E-09	4.0E-09	4.0E-09	4.0E-09	4.0E-09	
R-42 VC Gas uCi/cc	1.0E-03	1.0E-03	1.0E-03	1.0E-03	1.0E-03	1.0E-03	4.0E-09
R-43 Vent Part uCi/CC	4.0E-12	4.0E-12	4.0E-12	4.0E-12	4.0E-12	4.0E-12	1.0E-03
R-44 Vent Gas uCi/cc	1.0E-08	1.0E-08	1.0E-08	1.0E-08	1.0E-08	1.0E-08	4.0E-12
R-44 Vent I131 uCi/co	1.0E-11	1.0E-11	1.0E-11	1.0E-11	1.0E-11	1.0E-08	1.0E-08
R-45 Air Ejector uCi/		1.0E-07	1.0E-07	1.0E-07	1.0E-07	1.0E-07	1.0E-11
R-46 F.C. Water uCi/c	C 2.0E-07	2.0E-07	2.0E-07	2.0E-07	2.0E-07	2.0E-07	1.0E-07
R-47 Comp. Cool uCi/c		2.0E-07	2.0E-07	2.0E-07	2.0E-07	2.0E-07	2.0E-G7
R-48 Liquid Waste uCi	/cc 2.0E-07	2.0E-07	2.0E-07	2.0E-07	2.0E-07		2.0E-07
R-49 S/G B.D. uCi/cc		2.0E-07	2.0E-07	2.0E-07	2.0E-07	2.0E-07	2.0E-07
R-53 F.C. Water uCi/c		2.0E-07	2.0E.07	2.0E-07	2.0E-07	2.0E-07	2.0E-07
R-25 VC Hi-Rge R/hr	<1	<1	<1	<1	<1	2.0E-07	2.0E-07
R-26 VC Hi-Rge R/hr	<1	<1	<1	<1	<1	<1	<1
R-27 Vent Monitor uci		0	ō	0	0	<1	<1
R-27 Vent Flow Rate C	FM 4.5E+04	4.5E+04	4.5E+04	4.5E+04	4.5E+04	0	0
R-27 Vent Dis Rate uC		0	0	0		4.5E+04	4.5E+04
R-28 Main Stm Rad Mon	CPM 10	1.0	10	10	10	0	0
R-29 Main Stm Rad Mon		10	- 10	10	10	10	10
R-30 Main Stm Rad Mon		10	10	10	10	10	10
R-31 Main Stm Rad Mon		10	10	10	10	10	10
Vent Flow Rate CFM				20	10	10	10
Main Steam Exh Lbs/Hr							
Air Ejector CFM							
(measured value)							
METEOROLOGICAL							
Wind Speed (meters/se	c) 6.8	6.8	6.8	6.8	6.8		
Wind Direction (degre	ees) 270	270	270	270	270	6.8	6.8
Pasquill			2.70	270	270	270	270
Stability Catagory	D	D	D	D	D	D	D

PARAMETER TIME	10:45	10:55	11:00	11:15	11.20		
R-5987 MCC 98' mR/hr	1	1	1	1	11:30	11:45	12:00
R-1 CCR mR/hr	1	1	1		1	1	1
1-2 VC 80' mR/hr	17	21	25	1	1.	1	1
1-4 Chrg. Pump mR/hr	1	1	1	25	27	27	30
R-5 F.S.B. mR/hr	0.2	0.2	0.2	1	1	1	1
R-6 Sample Rm. mR/hr	2	2	2	0.2	0.2	0.2	0.2
R-7 VC Seal Table mR/hr	28	32	36	2	2	2	2
R-8 Drum Sta. mR/hr	0.5	0.5		38	4.0	42	45
R-41 VC Part uCi/cc	4.0E-09	4.0E-09	0.5	0.5	0.5	0.5	0.5
R-42 VC Gas uCi/cc	1.0E-03	1.0E-03	4.0E-09	4.0E-09	4.0E-09	4.0E-09	4.0E-09
R-43 Vent Part uCi/CC	4.0E-12	4.0E-12	1.0E-03	1.0E-03	1.0E-03	1.0E-03	1.0E-03
R-44 Vent Gas uCi/cc	1.0E-08	1.0E-08	4.0E-12	4.0E-12	4.0E-12	4.0E-12	4.0E-12
R-44 Vent Il31 uCi/cc	1.0E-11	1.0E-08	1.0E-08	1.0E-08	1.0E-08	1.0E-08	1.0E-08
R-45 Air Ejector uCi/cc	1.0E-07		1.0E-11	1.0E-11	1.0E-11	1.0E-11	1.0E-11
R-46 F.C. Water uCi/cc	2.0E-07	1.0E-07	1.0E-07	1.0E-07	1.0E-07	1.0E-07	1.0E-07
R-47 Comp. Cool uCi/cc	2.0E-07	2.0E-07	2.0E-07	2.0E-07	2.0E-07	2.05-07	2.0E-07
R-48 Liquid Waste uCi/cc		2.0E-07	2.0E-07	2.0E-07	2.0E-07	2.0E-07	2.0E-07
R-49 S/G B.D. uCi/cc	2.0E-07						
R-53 F.C. Water uCi/cc	2.0E-07						
R-25 VC Hi-Rge R/hr	2.0E-67	2.0E-07	2.0E-07	2.0E-07	2.0E-07	2.0E-07	2.0E-07
R-26 VC Hi-Rge R/hr	<1	<1	<1	<1	<1	<1	<1
R-27 Vent Monitor uCi/cc	<1	<1	<1	<1	<1	<1	<1
R-27 Vent Flow Rate CFM	0	0	0	0	. 0	0	0
27 Vent Flow Rate CFM	4.5E+04						
R-27 Vent Dis Rate uCi/se		0	0	0	0	0	0
R-28 Main Stm Rad Mon CPM		10	10	10	10	10	10
R-29 Main Stm Rad Mon CPM		10	10	10	10	10	10
R-30 Main Stm Rad Mon CPM		10	10	10	10	10	10
R-31 Main Stm Rad Mon CPM	10	10	10	10	10	10	10
ent Flow Rate CFM	-					_	10
Main Steam Exh Lbs/Hr							
ir Ejector CFM							
(measured value)							
ETEOROLOGICAL							
ind Speed (meters/sec)	6.8	6.8	6.8	6.8	6.8	6.0	
ind Direction (degreees)	270	270	270	270	270	6.8	6.8
asquill					210	270	270
tability Catagory	D	D	D	D	D	D	D

# RADIOLOGICAL/METEROLOGICAL LOG

	TIME 12:15	12:25	12:30	12:45	13:00	13:15	13:30
R-5987 MCC 98' mR/hr		1	1	1	1	1	1
R-1 CCR mR/hr	0.1	0.1	0.1	0.1	0.1	0.1	0.1
R-2 VC 80' mR/hr	35		OFFSCALE	OFFSCALE	OFFSCALE	OFFSCALE	OFFSCALE
R-4 Chrg. Pump mR/hr		. 1	1	1	1	1	1
R-5 F.S.B. mR/hr	0.2	0.2	0.2	0.2	0.2	0.2	0.2
R-6 Sample Rm. mR/hr		3	2	2	2	2	2
R-7 VC Seal Table mR	/hr 48	OFFSCALE		OFFSCALE	OFFSCALE	OFFSCALE	OFFSCALE
R-8 Drum Sta. mR/hr	0.5		0.5	0.5	0.5	0.5	0.5
R-41 VC Part uCi/cc	1.0E-0	5 OFFSCALE	OFFSCALE	OFFSCALE	OFFSCALE	OFFSCALE	OFFSCALE
R-42 VC Gas uCi/cc	1.0E-0	5 OFFSCALE	OFFSCALE	FFSCALE	OFFSCALE	OFFSCALE	OFFSCALE
R-43 Vent Part uCi/C			4.0E+12	4.0E+12	4.0E+12	4.0E+12	4.0E+12
R-44 Vent Gas uCi/cc			1.0E-08	1.0E-08	1.0E-08	1.0E-08	1.0E-08
R-44 Vent I131 uCi/c			1.0E-11	1.0E-11	1.0E-08	1.0E-08	1.0E-08
R-45 Air Ejector uCi,	/cc 1.0E-0		1.0E-07	1.0E-07	1.0E-07	1.0E-07	1.0E-07
R-46 F.C. Water uCi/	CC 2.0E-0	7 2.0E-07	2.0E-07	2.0E-07	2.0E-07	2.0E-07	2.0E-07
R-47 Comp. Cool uCi/			2.0E-07	2.0E-07	2.0E-07	2.0E-07	2.0E-07
R-48 Liquid Waste uC	i/cc 2.0E-0		2.0E-07	2.0E-07	2.0E-07	2.0E-07	2.0E-07
R-49 S/G B.D. uCi/cc			2.0E-07	2.0E-07	2.0E-07	2.0E-07	2.0E-07
R-53 F.C. Water uCi/c	cc 2.0E-0		2.0E-07	2.0E-07	2.0E-07	2.0E-07	2.0E-07
R-25 VC Hi-Rge R/hr	<1	1.5X101	6.0X101	2.6X10 <sup>2</sup>	4.0X103	4.5X10 <sup>3</sup>	4.5X10 <sup>3</sup>
R-26 VC Hi-Rge R/hr	<1		7.3X101	2.9X10 <sup>2</sup>	4.2X103	5.2X103	5.2X10 <sup>3</sup>
R-27 Vent Monitor uc:			7.1X10-2	3X10-1	4.7	5.7	6.2
R-27 Vent Flow Rate (	CFM 4.5E+0		4.5X104	4.X104	4.5E+04	4.5E+04	4.5E+04
R-27 Vent Dis Rate ud	Ci/sec 0		1.5X106	6.5X106	1.0X108	1.3X108	1.3X108
R-28 Main Stm Rad Mor	1 CPM 10		10	10	10	10	10
R-29 Main Stm Rad Mor	1 CPM 10		1.0	10	10	10	10
R-30 Main Stm Rad Mor	CPM 10		10	10	10	10	10
R-31 Main Stm Rad Mor	1 CPM 10		10	10	10	10	10
Vent Flow Rate CFM		_	-		2.0	10	10
Main Steam Exh Lbs/Hr	6140 mg - 111 mg		-				7 -
Air Ejector CFM							- T 46
(measured value)		-	-	1			
METEOROLOGICAL							
Wind Speed (meters/se	ec) 6.8	6.8	6.8	6.8	6.8	6.8	6.0
Wind Direction (degre			270	270	270	270	6.8
Pasquill				6,750	270	270	270
Stability Catagory	D	D	D	D	D	D	D

	TIME 13:45	13:55	14:00**	
R-5987 MCC 98' mR/hr	1	1	1	
R-1 CCR mR/hr	0.1	0.1	0.1	
R-2 VC 80' mR/hr	OFFSCAL		10000	
R-4 Chrg. Pump mR/hr	1	1	1	
R-5 F.S.B. mR/hr	0.2	0.2	0.2	
R-6 Sample Rm. mR/hr	2	2	2	
R-7 VC Seal Table mR	/hr OFFSCAL		10000	
R-8 Drum Sta. mR/hr	0.5	0.5	0.5	
R-41 VC Part uCi/cc	4.0E-09	4.0E-09	4.0E-09	
R-42 VC Gas uCi/cc	1.0E-03	1.0E-03	1.0E-03	
R-43 Vent Part uCi/C	C 4.0E-12	4.0E-12	4.0E+12	
R-44 Vent Gas uCi/cc	1.0E-08	1.0E-08	1.0E-08	
R-44 Vent I131 uCi/c	c 1.0E-11	1.0E-11	1.0E-11	
R-45 Air Ejector uCi	/cc 1.0E-07	1.0E-07	1.0E-07	
R-46 F.C. Water uCi/	cc 2.0E-07	2.0E-07	2.0E-07	
R-47 Comp. Cool uCi/	CC 2.0E-07	2.0E-07	2.0E-07	
R-48 Liquid Waste uC	i/cc 2.0E-07	2.0E-07	2.0E-07	
R-49 S/G B.D. uCi/cc	2.0E-07	2.0E-07	2.0E-07	
R-53 F.C. Water uCi/	CC 2.0E-07	2.0E-07	2.0E-07	
R-25 VC Hi-Rge R/hr	4.5X10 <sup>3</sup>	4.5X103	4.5X10 <sup>2</sup>	
R-26 VC Hi-Rge R/hr	5.2X10 <sup>3</sup>	5.2X103	5.2X10 <sup>2</sup>	
R-27 Vent Monitor uC	i/cc 6.2	0	0	
R-27 Vent Flow Rate	CFM 4.5E+04	4.5X104	4.5X10-4	
R-27 Vent Dis Rate u	Ci/sec 1.3X108	0	0	
R-28 Main Stm Rad Mon	n CPM 10	10	10	
R-29 Main Stm Rad Mon	n CPM 10	10	10	
R-30 Main Stm Rad Mon		10	10	
R-31 Main Stm Rad Mon	n CPM 10	10	10	
Vent Flow Rate CFM		-	_	
Main Steam Exh Lbs/Hi	r -	-	_	
Air Ejector CFM				
(measured value)		_	_	
METEOROLOGICAL				
Wind Speed (meters/se	ec) 6.8	6.8	6.8	
Wind Direction (degre	eees) 270	270	270	
Pasqu'll				
Stability Catagory	D	D	D	

\*\*Two days later

# CONSOLIDATED EDISON COMPANY OF NEW YORK INDIAN POINT UNIT NO. 2 DRILL SCENARIO NO. 1993

# VIII RADIOLOGICAL INFORMATION

TAB A TABLE 1: Primary Coolant Activity Boron Concentrations TAB B TABLE 2: Containment Activity TAB C TABLE 3: Release Path Activity TAB D TABLE 4: Plant/Sample Radiation Levels 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 Environmental Samples TAB J TABLE 10: Post Accident Offsite Contamition Levels TAB K TABLE 11: Medical Emergency Data

# Reactor Coolant

	08:00	09:30	10:30	11:00	11:30	12:00	12:30	13:00	13:30	14:00
Nuculide I-131 I-132 I-133 I-134 I-135 Xe-133 Xe-133m Xe-135m Xe-135m Xe-135m Xe-135m Xe-138 Kr-85 Kr-85m Kr-87 Kr-88 Rb-88 Rb-89 Te-132 Cs-134 Cs-137 Ce-144 La-140 Ba-140 La-142 Ba-142	uCi/cc 2.0E-03 3.2E-02 1.9E-02 6.7E-02 3.4E-04 8.3E-03 < LLD 2.5E-02 5.2E-03 2.7E-02 < LLD 2.0E-03 3.2E-03 3.3E-03 1.0E-02 8.0E-03 < LLD < LLD < LLD < LLD < LLD < LLD	uCi/cc 1.2E-02 8.5E-02 6.2E-02 1.5E-01 1.1E-01 5.8E-02 < LLD 6.7E-02 2.2E-02 3.1E-02 < LLD 8.0E-03 1.0E-02 1.2E-02 7.0E-02 5.0E-02 < LLD 2.1E-03 2.2E-03 < LLD < LLD < LLD < LLD < LLD	BCi/cc 2.1E-02 9.0E-02 8.0E-02 3.5E-02 1.2E-01 1.2E-01 < LLD 9.6E-02 5.0E-02 2.4E-02 < LLD 1.1E-02 8.0E-03 9.3E-03 5.2E-02 < LLD 5.0E-03 6.0E-03 < LLD	uCi/cc 3.0E-01 2.0S-01 8.0E-01 1.0E-02 4.0E-01 5.0E-01 < LLD 2.5E-01 7.0E-02 < LLD 3.7E-02 < LLD 2.0E-02 1.5E-02 < LLD 1.4E-02 1.6E-02 < LLD < LLD	uCi/cc 1.0E+00 8.0E-01 2.0E+00 3.0E-01 9.0E-01 1.7E+00 3.0E-01 1.0E-01 1.0E-01 1.0E-01 1.2E-01 1.0E-01 1.0E-01 1.LLD 1.2E-01 1.0E-02 5.6E-02 1.LLD	uCi/cc 3.9E+00 2.4E+00 7.0E+00 < LLD 3.5E+00 7.2E+00 9.4E-01 1.8E+00 6.0E-01 < LLD < LLD 1.1E+00 < LLD < LLD 2.1E-01 < LLD < LLD	uCi/ce 1.0E+01 7.2E+00 1.4E+01 < LLD 9.1E+00 3.2E+01 4.0E+00 < LLD < LLD 3.1E+00 < LLD 5.1E+00 4.6E+00 < LLD 9.0E-01 4.5E+00 4.7E+00 1.2E+00 < LLD 1.0E+00 < LLD	uCi/cc 2.5E+02 1.4E+02 3.0E+02 < LLD 1.6E+02 2.8E+03 1.9E+02 4.9E+02 < LLD < LLD < LLD < LLD < LLD < LLD < LLD < LLD 1.5E+01 4.5E+02 1.0E+02 1.2E+01 1.0E+01 6.2E+01	uCi/cc 3.2E+02 1.6E+02 3.5E+02 < LLD 1.6E+02 2.7E+03 1.8E+02 5.0E+02 1.7E+02 < LLD < LLD < LLD < LLD < LLD < LLD 5.3E+01 1.5E+03 5.3E+02 8.7E+01 5.0E+02 7.2E+01 4.7E+02	#Ci/cc 3.2E+02 1.6E+02 3.5E+02 < I.LD 1.6E+02 2.7E+03 1.8E+02 5.0E+02 1.7E+02 < LLD < LLD < LLD < LLD < LLD < LLD < LLD 5.3E+01 1.2E+03 1.5E+03 5.3E+02 8.7E+01 5.0E+02 7.2E+01 4.7E+02
EBAR	1.7	7.5E-01 1.4	7.3E-01	2.6E+00	8.2E+00	3.0E+01	1.3E+02	5.7E+03	8.9E+03	8.9E+03
6 Tech Spec	0.60	1.75	1.70	1.32 5.79	1.3	1.23	1.21	1.21	1.21	1.21
			*****	3.12	17.03	62.30	254.10	11583.73	18004.80	18004.80

# V C COOLING

	08:00	09:30	10:30	11:00	11:30	12:00	12:30	13:00	13:30	14:00
Nuculide I-131 I-132	uCi/cc 2.0E-09 < LLD	uCi/cc 2.1E-09 < LLD	uCi/cc 5.0E-07 < LLD	uCi/cc 1.0E-08	uCi/cc 8.0E-08	иСі/сс 1.1Е-07	uCi/cc 5.0E-06	uCi/cc 1.0E-03	uCi/cc 1.8E-03	uCi/cc 2.0E-03
I-133 I-134 I-135	1.0E-09 < LLD < LLD	1.3E-09 < LLD < LLD	4.5E-07 < LLD < LLD	1.5E-08	1.0E-07	2.0E-07	4.0E-07 8.0E-06	2.0E-04 2.1E-03	2.1E-04 2.2E-03	1.9E-04 2.5E-03
TOTAL	3.0E-09						3.0E-07	2.0E-06	1.5E-06	9.0E-07
TOTAL	3.06-09	3.4E-09	9.5E-07	2.5E-08	1.8E-07	3.1E-07	1.4E-05	3.3E-03	4.2E-03	4.7E-03
Xe-133 Xe-135m Xe-135 Xe-135m Xe-138 Kr-85 Kr-85 Kr-85 Kr-85m Kr-87	6.0E-04 < LLD 3.0E-04 1.0E-04 < LLD < LLD < LLD < LLD < LLD	6.0E-04 < LLD 3.0E-04 1.0E-04 < LLD < LLD < LLD < LLD < LLD	1.4E-02 < LLD 2.2E-04 1.8E-04 < LLD < LLD 2.3E-05 < LLD 9.3E-05	2.3E-02 < LLD 8.0E-04 6.5E-04 < LLD < LLD 4.3E-05 < LLD 2.3E-04	8.8E-02 < LLD 9.8E-03 6.5E-03 < LLD < LLD 1.2E-03 < LLD 7.3E-03	9.4E-02 9.4E-04 1.5E-02 9.6E-03 < LLD < LLD 9.2E-03 < LLD 1.0E-02	5.2E+00 9.0E-02 3.0E+00 2.0E+00 < LLD < LLD 7.5E-01 < LLD 9.0E-01	2.8E+01 1.9E+00 2.5E+01 1.9E+01 < LLD < LLD 1.1E+01 < LLD 9.0E+00	3.2E+01 2.8E+00 2.8E+01 2.6E+01 < LLD < LLD 1.3E+01 < LLD 1.1E+01	3.2E+01 2.8E+00 2.8E+01 2.6E+01 < LLD < LLD 1.3E+01 < LLD 1.1E+01
		1.06-03	1.56-02	2.3E-02	1.1E-01	1.4E-01	1.2E+01	9.3E+01	1.1E+02	1.1E+02
Rb-88 Rb-89 Te-132 Cs-134 Cs-137 Ce-144 La-140 Ba-140 La-142 Ba-142	1.0E-10 < LLD < LLD 4.4E-10 5.6E-10 < LLD < LLD < LLD < LLD < LLD	1.0E-10 < LLD < LLD 4.4E-10 5.6E-10 < LLD < LLD < LLD < LLD < LLD	6.8E-08 < LLD < LLD 6.0E-10 7.0E-10 < LLD < LLD < LLD < LLD < LLD < LLD	2.0E-07 < LLD < LLD 1.3E-09 1.5E-09 < LLD < LLD < LLD < LLD	3.8E-07 < LLD < LLD 1.5E-09 1.7E-09 < LLD < LLD < LLD < LLD	4.0E-07 < LLD < LLD 2.1E-09 2.4E-09 < LLD < LLD < LLD < LLD < LLD	8.2E-06 < LLD < LLD 4.2E-07 4.8E-07 < LLD < LLD < LLD < LLD < LLD	< LLD < LLD 2.0E+00 4.5E+01 4.7E+01 5.0E+00 8.0E+00 5.6E+00 7.0E+00 4.8E+00	< LLD < LLD 2.2E+00 5.1E+01 5.4E+01 5.3E+00 9.2E+00 6.1E+00 8.0E+00 5.2E+00	< LLD < LLD 2.2E+00 5.1E+01 5.4E+01 5.3E+00 9.2E+00 6.1E+00 8.0E+00 5.2E+00
Julia	1.11.09	1.16-09	6.9E-08	2.0E-07	3.8E-07	4.0E-07	9.1E-06	1.2E+02	1.4E+02	1.4E+02

# PLANT VENT

	08:00	09:30	10:30	11:00	11:30	12:00	12:30	13:00	13:30	14:00
Nuculide I-131 I-132 I-133 I-134	uCi/cc < LLD < LLD < LLD < LLD	uCi/cc < LLD < LLD < LLD < LLD	::Ci/cc < LLD < LLD < LLD < LLD	uCi/cc 3.0E-11 3.8E-11	uCi/cc 3.1E-10 3.7E-10	uCi/cc 2.2E-09 2.5E-09	uCi/cc 7.0E-08 3.5E-09 1.6E-08	uCi/cc 1.0E-05 2.0E-06 2.0E-05	uCi/cc 2.0E-05 2.0E-06 2.0E-05	uCi/cc LLD LLD LLD
I-135	< LLD	< LLD	< LLD				1.5E-09	2.0E-08	2.0E-08	LLD
TOTAL	0	0	0	6.8E-11	6.8E-10	4.7E-09	9.1E-08	3.2E-05	4.2E-05	0.0E+00
Xe-133 Xe-133m Xe-135 Xe-135m Xe-138 Kr-85 Kr-85m Kr-87 Kr-87	< LLD < LLD < LLD < LLD < LLD < LLD < LLD < LLD < LLD	< LLD < LLD < LLD < LLD < LLD < LLD < LLD < LLD < LLD	< LLD < LLD < LLD < LLD < LLD < LLD < LLD < LLD < LLD	8.2E-04 < LLD 1.5E-06 1.2E-06 < LLD < LLD 9.0E-07 < LLD 1.0E-06	1.1E-03 < LLD 3.0E-06 2.0E-06 < LLD < LLD 1.2E-05 < LLD 1.3E-05	1.3E-03 1.0E-06 4.0E-06 3.3E-06 < LLD < LLD 1.3E-05 < LLD 1.0E-05	2.5E-01 4.0E-04 2.3E-01 2.0E-01 < LLD < LLD 8.9E-02 < LLD 9.0E-02	1.8E+00 5.0E-01 2.1E+00 1.9E+00 < LLD < LLD 5.8E-01 < LLD 7.0E-01	3.0E+00 6.0E-01 3.2E+00 2.4E+00 < LLD < LLD 9.0E-01 < LLD 1.0E+00	LLD LLD LLD LLD LLD LLD LLD LLD
TOTAL	0.0E+00	0.0E+00	0.0E+00	8.2E-04	1.1E-03	1.3E-03	8.6E-01	7.6E+00	1.1E+01	0.0E+00

# PLANT/SAMPLE RADIATION LEVELS

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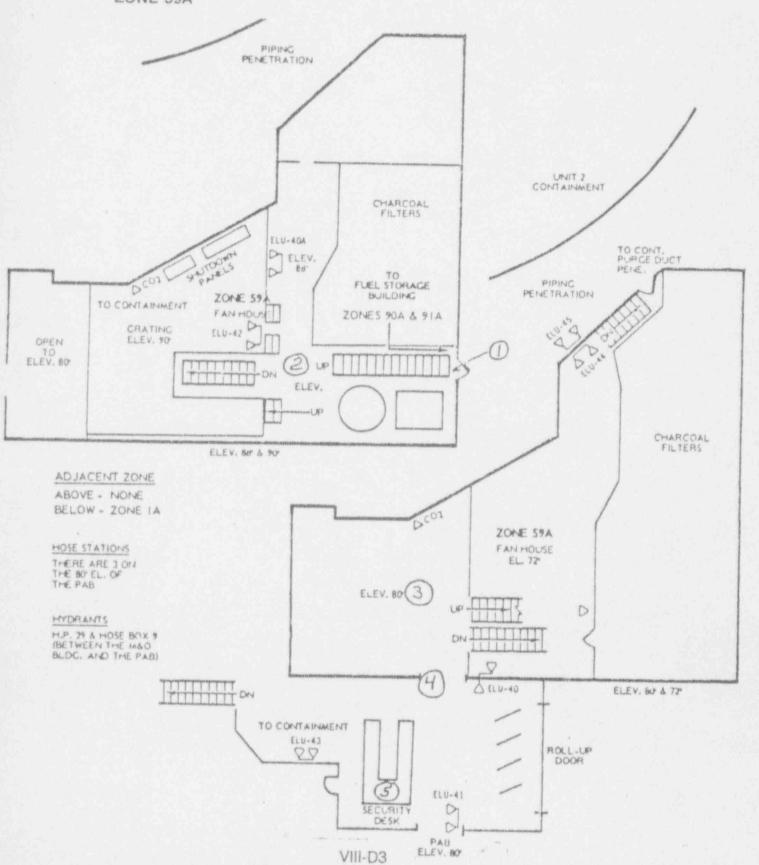
OCATION		TIME	RADIATIO	N LEVELS
AN BLDG F	Point 1	40.00		
THE DELICE.	Oll II	< 12:29	AS READ	mR/hr
		12:29 to 12:59	0	mR/hr
		13:00 to 13:55	900	mR/hr
		> 14:00	50	mR/hr
	oint 2	< 12:29	AS READ	mR/hr
		12:29 to 12:59	100	mR/hr
		13:00 to 13:55	1200	mR/hr
		> 14:00	50	mR/hr
P	oint 3	< 12:29	AS READ	mR/hr
		12:29 to 12:59	70	mR/hr
		13:00 to 13:55	825	mR/hr
		> 14:00	15	mR/hr
Р	oint 4	< 12:29	AS READ	mR/hr
		12:29 to 12:59	40	mR/hr
		13:00 to 13:55	200	mR/hr
		> 14:00	10	mR/hr
Po	oint 5	< 12:29	AS READ	mR/hr
		12:29 to 12:59	40	mR/hr
		13:00 to 13:55	200	mR/hr
		> 14:00	5	mR/hr

NOTE 1: All open window (OW) mR/hr readings will be the same as the closed window (CW) mR/hr readings listed above.

NOTE 2: All loose contamination and airborne concentrations are actual levels detected.

NOTE 3: Data to be supplied to Radiation Protection Technician at the locations after the survey is performed.

FAN HOUSE ELEVATION 80', 72', 88' 90' ZONE 59A



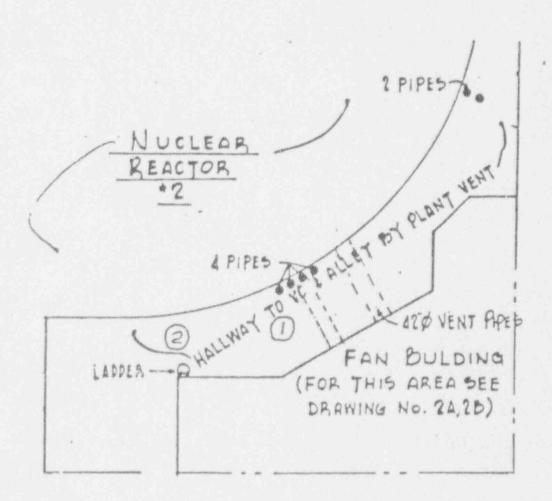
LOCATION		TIME	RADIATION LEVELS	
PLANT VENT - ALLEY BUILDING	Point 1	< 12:29 12:30 to 12:59 13:00 to 13:55 > 14:00	AS READ 150 15000 400	mR/hr mR/hr mR/hr mR/hr
	Point 2	< 12:29 12:30 to 12:59 13:00 to 13:55 > 14:00	AS READ 40 1300 50	mR/hr mR/hr mR/hr mR/hr

NOTE 1: All open window (OW) mR/hr readings will be the same as the closed window (CW) mR/hr readings listed above.

NOTE 2: All loose contamination and airborne concentrations are actual levels detected.

NOTE 3: Data to be supplied to Radiation Protection Technician at the locations after the survey is performed.

#### ALLEY BY PLANT VENT



ALLEY BY PLANT VENT

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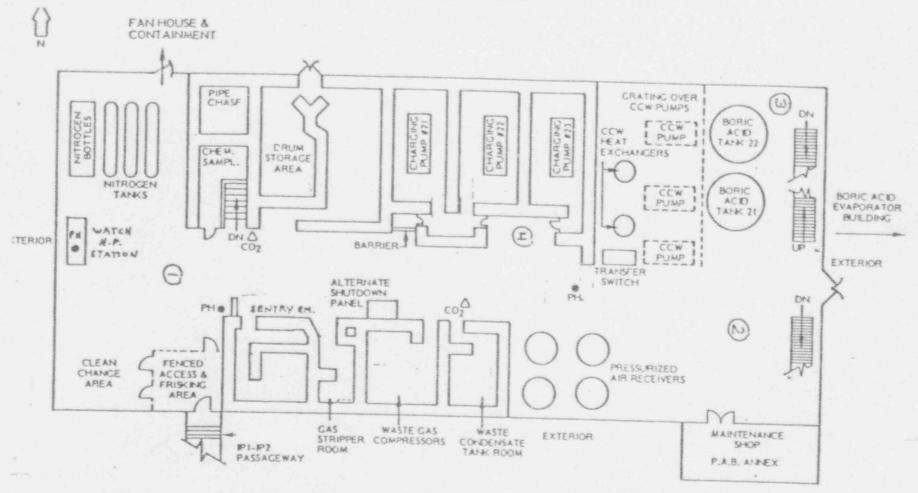
LOCATION		TIME	RADIATION LEVELS		
80' PAB -	Point 1	< 12:29 12:30 to 12:59 13:00 to 13:55 > 14:00	AS READ 15 30 2	mR/hr mR/hr mR/hr mR/hr	
	Point 2	< 12:29 12:30 to 12:59 13:00 to 13:55 > 14:00	AS READ 8 15 2	mR/hr mR/hr mR/hr mR/hr	
	Point 3	< 12:29 12:30 to 12:59 13:00 to 13:55 > 14:00	AS READ 8 10 2	mR/hr mR/hr mR/hr mR/hr	
	Point 4	< 12:29 12:30 to 12:59 12:30 to 13:55 > 14:00	AS READ 6 15 2	mR/hr mR/hr mR/hr mR/hr	

NOTE 1: All open window (OW) mR/hr readings will be the same as the closed window (CW) mR/hr readings listed above.

NOTE 2: All loose contamination and airborne concentrations are actual levels detected.

NOTE 3: Data to be supplied to Radiation Protection Technician at the locations after the survey is performed.

#### PRIMARY AUXILIARY BUILDING ELEVATION 80'



PRIMARY AUXILIARY BUILDING ELEVATION BOY

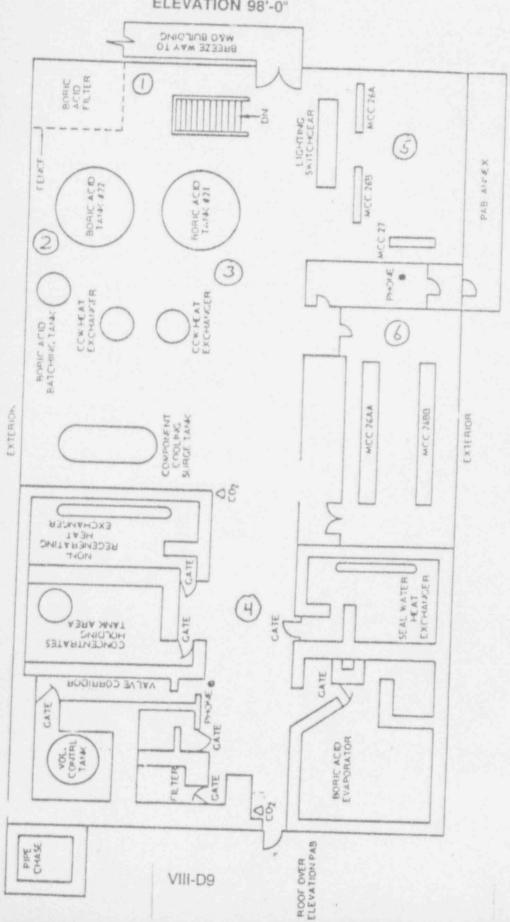
LOCATION		TIME	RADIATIO	N LEVELS
98' PAB	Point 1	< 12:29	AS READ	mR/hr
		12:30 to 12:59	8	mR/hr
		13:00 to 13:55	45	mR/hr
		> 14:00	8	mR/hr
	Point 2	< 12:29	AS READ	mR/hr
		12:30 to 12:59	8	mR/hr
		13:00 to 13:55	45	mR/hr
		> 14:00	8	mR/hr
	Point 3	< 12:29	AS READ	mR/hr
		12:30 to 12:59	7	mR/hr
		13:00 to 13:55	40	mR/hr
		> 14:00	7	mR/hr
	Point 4	< 12:30	AS READ	mR/hr
		12:30 to 12:59	8	mR/hr
		13:00 to 13:55	55	mR/hr
		> 14:00	7	mR/hr
	Point 5	< 12:29	AS READ	mR/hr
		12:30 to 12:59	6	mR/hr
		13:00 to 13:55	35	mR/hr
	-	> 14:00	4	mR/hr
	Point 6	< 12:30	AS READ	mR/hr
		12:30 to 12:59	6	mR/hr
		13:00 to 13:55	35	mR/hr
		> 14:00	2	mR/hr

NOTE 1: All open window (OW) mR/hr readings will be the same as the closed window (CW) mR/hr readings listed above.

NOTE 2: All loose contamination and airborne concentrations are actual levels detected.

NOTE 3: Data to be supplied to Radiation Protection Technician at the locations after the survey is performed.

## PRIMARY AUXILIARY BUILDING ELEVATION 98'-0"



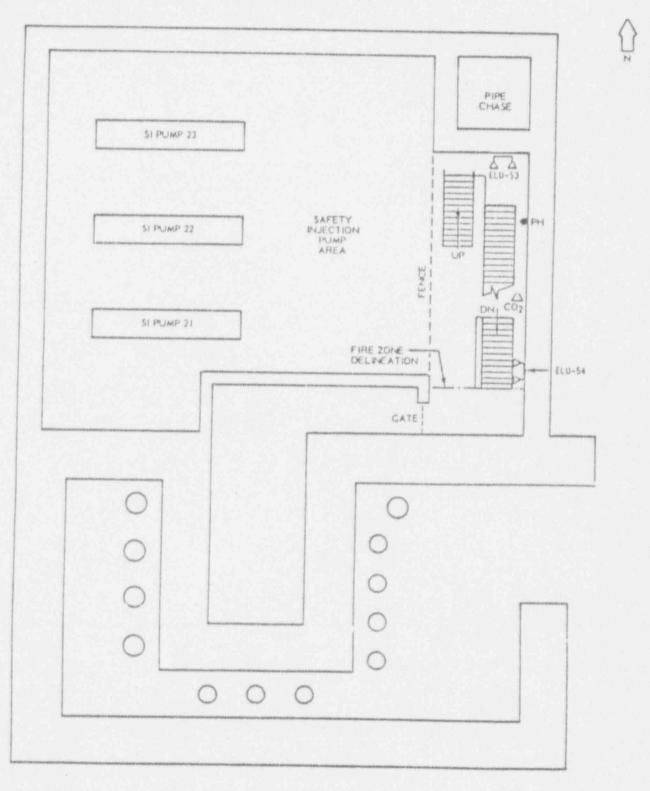
# TABLE 4 PLANT RADIATION LEVELS

LOCATION	TIME	RADIATION LEVELS		
SIS PUMPS - ROOM	ALL TIMES	0	mR/hr	

- NOTE 1: All open window (OW) mR/hr readings will be the same as the closed window (CW) mR/hr readings listed above.
- NOTE 2: All loose contamination and airborne concentrations are actual levels detected.
- NOTE 3: Data to be supplied to Radiation Protection Technician at the locations after survey is performed.

RHR PUMPS
PHYSICAL LAYOUT

# PRIMARY AUXILIARY BUILDING ELEVATION 59'



PRIMARY AUXILIARY BUILDING ELEVATION 59' VIII-D12

TABLE 4
SECURITY FENCE FIELD DATA -MR/HR

			L	OCATION PO	DINTS			
TIME	Α	В	C	D	E	F	G	
< 12:25	0	0	0	0	0	0	0	
12:25	0	1	4	1	0	0	0	
12:30	0	3	18	3	0	0	0	
12:45	0	20	78	30	0	0	0	
13:00	4	600	1010	750	0	0	0	
13:15	4	610	1315	800	0	0	0	
13:30	4	610	1315	800	0	0	0	
13:45	4	610	1315	800	0	0	0	
14:00	0	0	0	0	0	0	0	

LOCATION	TIME	RADIATION LEVELS		
SIMULATOR/VISITOR CENTER	< 12:59 13:30 to 13:55 > 14:00	AS READ mR/hr 7 mR/hr AS READ mR/hr		
SECURITY/ADMIN BUILDING	ALL TIMES	AS READ	mR/hr	
ASSEMBLY AREA A-B 15 FT TURBINE BLDG	ALL TIMES	AS READ	mR/hr	
M.O. BUILDING CONST OFFICE COMPLEX	< 12:59 13:30 to 13:55 < 14:00	AS READ 100 2	mR/hr mR/hr mR/hr	

NOTE 1: All open window (OW) mR/hr readings will be the same as the closed window (CW) mR/hr readings listed above.

NOTE 2: All loose contamination and airborne concentrations are actual levels detected.

NOTE 3: Data to be supplied to Radiation Protection Technician at the locations after the survey is performed.

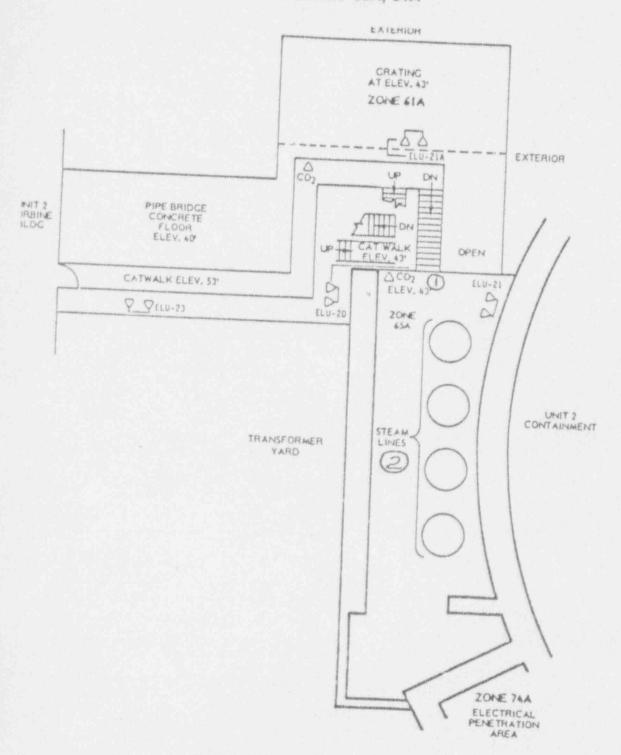
LOCATION		TIME	RADIATION LEVELS		
43' ABFP BLDG -	Point 1	< 12:29 12:30 to 12:59 13:00 to 13:55	AS READ 2 7	mR/hr mR/hr mR/hr	
PIPE PENET	Point 2	< 14:00 < 12:29 12:30 to 12:59 13:00 to 13:55	3 AS READ 10 100	mR/hr mR/hr mR/hr mR/hr	
18' ABFP BLDG -	Point 1	< 14:00 < 12:29 12:30 to 12:59 13:00 to 13:55 < 14:00	AS READ  1  5	mR/hr mR/hr mR/hr mR/hr mR/hr	
	Point 2	< 12:29 12:30 to 12:59 13:00 to 13:55 < 14:00	AS READ 1 10 2	mR/hr mR/hr mR/hr mR/hr	

NOTE 1: All open window (OW) mR/hr readings will be the same as the closed window (CW) mR/hr readings listed above.

NOTE 2: All loose contamination and airborne concentrations are actual levels detected.

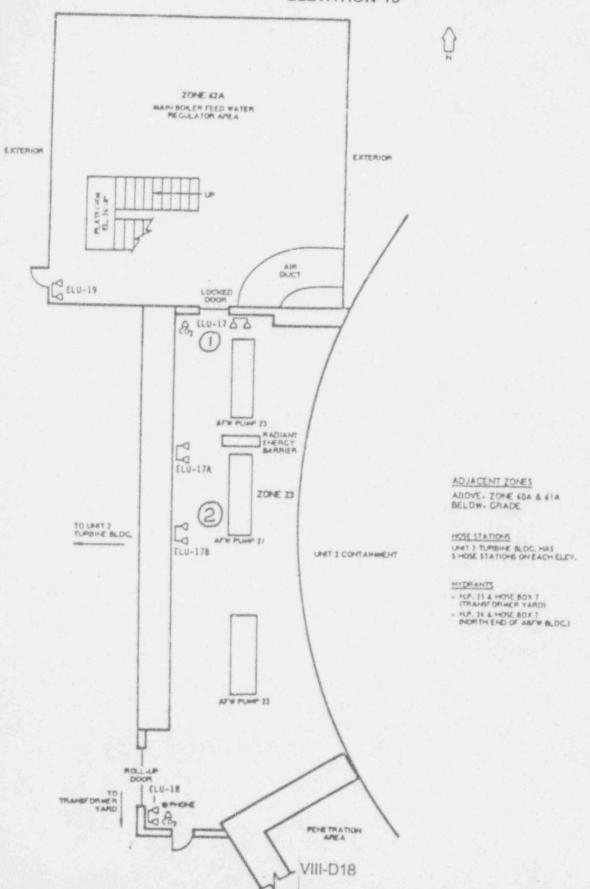
NOTE 3: Data to be supplied to Radiation Protection Technician at the locations after the survey is performed.

#### MAIN STEAM VALVE ARE ELEVATIONS 43', 53' ZONES 65A, 61A



MAIN STEAM VALVE AREA ELEVATIONS 43', 53' ZONES 65A, 61A

# AUXILIARY BOILER FEEDWATER PUMP HOUSE ELEVATION 18'



#### PIPE PENETRATION 51'

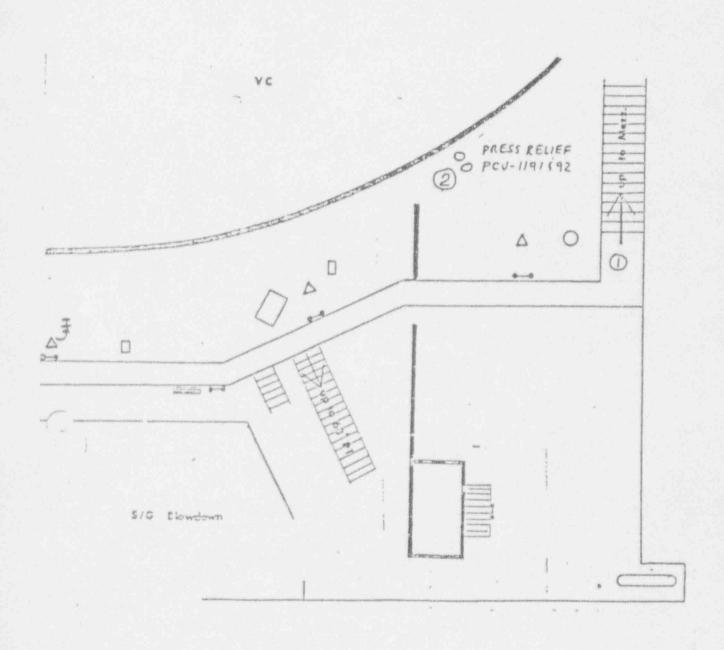


TABLE 5
FACILITY RADIATION LEVELS

		1 METER HEIGHT READING				AMPLE
LOCATION	TIME	0W mR/hr	CW mR/hr	BKGD CPM	IODINE CPM	PART CPM
Emergency Operation Facility (EOF)	ALL Times	<1.0	<1.0	20	20	20
Operational Support Center (OSC)	All Times	<1.0	<1.0	20	20	20
Technical Support Center (TSC)	All Times	< 1.0	<1.0	20	20	20
ontrol Room CR)	All Times	<1.0	<1.0	20	20	20
Recovery Center (RC)	All Times	<1.0	<1.0	20	20	20

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

TABLE 6

REUTER-STOKES READINGS

mR/HR

TIME 1 2 3										
LIME	1	2	3	4	5	6	7	8		
< 12:30				BKGD	BKGD	BKGD				
12:30				BKGD	4.7	2.0				
12:45				BKGD	19.1	8.4				
13:00				.01	285.0	78.0				
13:15				.03	348.0	97.0				
13:30				.03	348.0	97.0				
13:45				.03	348.0	<.1				
14:00				<.01	10.0	<.1				

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## TABLE 7

# PLUME MONITORING DATA AND FIGURES

		CW	OW	THYROID	CHARCOAL
		MR/hr	MR/hr	mRem/hr	CPM
TIME	< 1225				
WD	270°				
WS m/sec	6.8				
1/WS	0.15				
PASQUILL	D				
SB Xu/Q	1.4X10 <sup>-4</sup>	<1	<1	<1	BKGD
1 mi Xu/Q	5.1X10 <sup>-5</sup>	<1	<1	<1	BKGD
2 mi Xu/Q	1.9X10 <sup>-5</sup>	<1	<1	<1	BKGD
3 mi Xu/Q	1.0X10 <sup>-5</sup>	<1	<1	<1	BKGD
4 mi Xu/Q	6.8X10 <sup>-6</sup>	<1	<1	<1	BKGD
ai Xu/Q	5.1X10 <sup>-6</sup>	<1	<1	<1	BYGD
6 mi Xu/Q	3.8X10 <sup>-6</sup>	<1	<1	<1	BKGD
7 mi Xu/Q	3.2X10 <sup>-6</sup>	< 1	<1	<1	BKGD
8 mi Xu/Q	2.7X10 <sup>-6</sup>	<1	< 1	<1	BKGD
9 mi Xu/Q	2.3X10 <sup>-6</sup>	<1	<1	<1	BKGD
10 mi Xu/Q	2.1X10 <sup>-6</sup>	<1	< 1	<1	BKGD
N.G. Ci/sec					
Ci/sec					
/D HRS	3				
VB K1	4.3X10 <sup>5</sup>				
НҮ К2	7X10 <sup>8</sup>				

		CW	ow	THYROID	CHARCOAL				
	,	MR/hr	MR/hr	mRem/hr	CPM				
TIME	1225				CFM				
WD	270°								
WS m/sec	6.8								
1/WS	0.15								
PASQUILL	D								
SB Xu/Q	1.4X10 <sup>-4</sup>	3	4	<1	PVCD				
1 mi Xu/Q	5.0X10 <sup>-5</sup>	<1	<1	<1	BKGD BKGD				
2 mi Xu/Q	1 9X10 <sup>-3</sup>	<1	<1	<1					
3 mi Xu/Q	1.0X10 <sup>-5</sup>	<1	<1	<1	BKGD				
4 mi Xu/Q	6.8X10 <sup>-6</sup>	<1	<1	<1	BKGD				
ni Xu/Q	5.1X10 <sup>-6</sup>	<1	<1	<1	BKGD				
6 mi Xu/Q	3.8X10 <sup>-6</sup>	<1	<1	<1	BKGD				
7 mi Xu/Q	3.2X10 <sup>-6</sup>	<1	<1	<1	BKGD				
8 mi Xu/Q	2.7X10 <sup>-6</sup>	<1	<1	<1	BKGD				
9 mi Xu/Q	2.3X10 <sup>-6</sup>	<1	<1	<1	BKGD				
0 mi Xu/Q	2.1X10 <sup>-6</sup>	<1	<1	<1	BKGD				
l.G. Ci/sec	3.8X10 <sup>-1</sup>				BKGD				
Ci/sec	3.8X10 <sup>-5</sup>								
/D HRS	3 1/4								
VB K1	4.3X10 <sup>5</sup>								
НҮ К2	7.0X10 <sup>8</sup>								

		CW	OW	THYROID	CHARCOAL
		MR/hr	MR/hr	mRem/hr	CPM
TIME	1230				CIN
WD	270°				
WS m/sec	6.8				
1/WS	0.15				
PASQUILL	D				
SB Xu/Q	1.4X10 <sup>-4</sup>	14	18	2	
1 mi Xu/Q	5.0X10 <sup>-5</sup>	5	7	<1	6
2 mi Xu/Q	1.9X10 <sup>-5</sup>	2	3	<1	BKGD
3 mi Xu/Q	1.0X10 <sup>-5</sup>	<1	<1	<1	BKGD
4 mi Xu/Q	6.8X10 <sup>-6</sup>	<1	<1	<1	BKGD
⇒ mi Xu/Q	5.1X10 <sup>-6</sup>	<1	<1	<1	BKGD
6 mi Xu/Q	3.8X10 <sup>-6</sup>	<1	<1	<1	BKGD
7 mi Xu/Q	3.2X10 <sup>-6</sup>	<1	<1	<1	BKGD
8 mi Xu/Q	2.7X10 <sup>-6</sup>	<1	<1	<1	BKGD
9 mi Xu/Q	2.3X10 <sup>-6</sup>	<1	<1	<1	BKGD
0 mi Xu/Q	2.1X10-6	<1	<1	<1	BKGD
V.G. Ci/sec	1.5		1	1	BKGD
Ci/sec	1.5X10 <sup>-4</sup>				
/D HRS	3 1/4				
VB K1	4.3X10 <sup>5</sup>				
HY K2	7.0X10 <sup>8</sup>				

		CW	OW	THYROID	CHARCOAL
	-	MR/hr	MR/hr	mRem/hr	CPM
TIME	1245				
WD	270°				
WS m/sec	6.8				
1/WS	0.15				
PASQUILL	D				
SB Xu/Q	1.4X10 <sup>-4</sup>	60	78	10	30
1 mi Xu/Q	5.0X10 <sup>-5</sup>	21	27	3	9
2 mi Xu/Q	1.9X10 <sup>-5</sup>	8	10	1	3
3 mi Xu/Q	1.0X10 <sup>-5</sup>	4	6	<1	BKGD
4 mi Xu/Q	6.8X10 <sup>-6</sup>	3	5	<1	BKGD
. mi Xu/Q	5.1X10 <sup>-6</sup>	2	3	<1	BKGD
6 mi Xu/Q	3.8X10 <sup>-6</sup>	1	2	<1	BKGD
7 mi Xu/Q	3.2X10 <sup>-6</sup>	1	2	<1	BKGD
8 mi Xu/Q	2.7X10 <sup>-6</sup>	<1	<1	<1	BKGD
9 mi Xu/Q	2.3X10 <sup>-6</sup>	<1	<1	<1	BKGD
10 mi Xu/Q	2.1X10 <sup>-6</sup>	<1	<1	<1	BKGD
N.G. Ci/sec	6.5				DROD
Ci/sec	6.5X10 <sup>-4</sup>				
JD HRS	3 1/2				
VB K1	4.3X10 <sup>5</sup>				
НҮ К2	7.0X10 <sup>8</sup>				

		CW	OW	THYROID	CHARCOAL
	-	MR/hr	MR/hr	mRem/hr	СРМ
TIME	1300				No.
WD	270°				
WS m/sec	6.8				
1/WS	0.15				
PASQUILL	D				
SB Xu/Q	1.4X10 <sup>-4</sup>	780	1010	154	490
1 mi Xu/Q	5.0X10 <sup>-5</sup>	280	365	55	175
2 mi Xu/Q	1.9X10 <sup>-5</sup>	106	140	21	70
3 mi Xu/Q	1.0X10 <sup>-5</sup>	55	70	111	35
4 mi Xu/Q	6.8X10 <sup>-6</sup>	38	50	7	23
.ni Xu/Q	5.1X10 <sup>-6</sup>	28	35	6	19
6 mi Xu/Q	3.8X10 <sup>-6</sup>	21	27	4	13
7 mi Xu/Q	3.2X10 <sup>-6</sup>	18	23	3	9
8 mi Xu/Q	2.7X10 <sup>-6</sup>	15	18	3	9
9 mi Xu/Q	2.3X10 <sup>-6</sup>	13	16	2	6
0 mi Xu/Q	2.1X10 <sup>-6</sup>	12	15	2	6
N.G. Ci/sec	1X10 <sup>2</sup>				
Ci/sec	1X10 <sup>-2</sup>				
/D HRS	3 3/4				
VB K1	3.7X10 <sup>5</sup>				
НҮ К2	7X10 <sup>8</sup>				

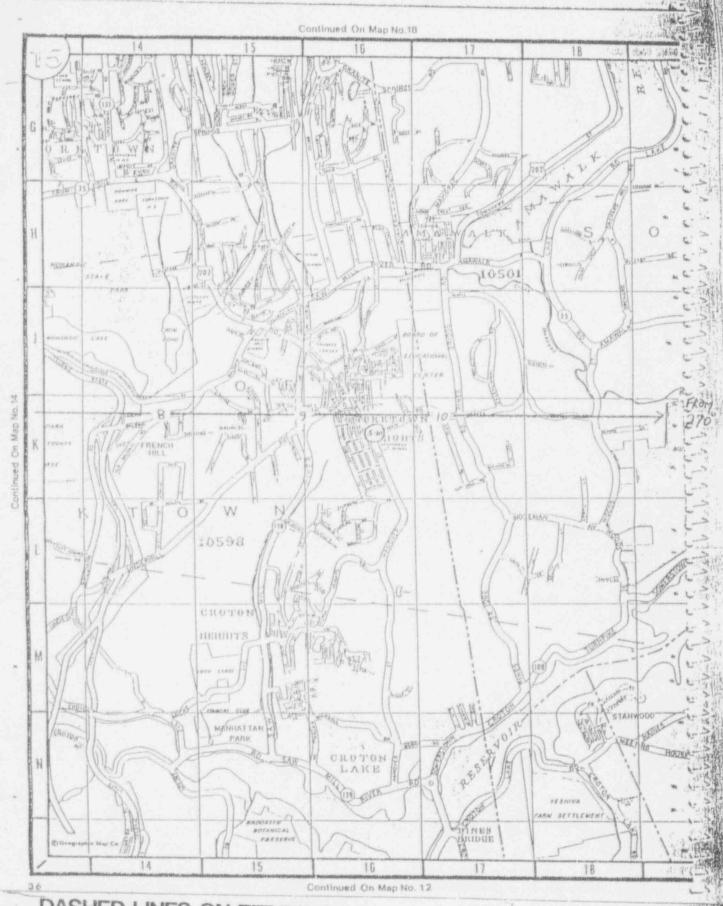
		CW	OW	THYROID	CHARCOAL
		MR/hr	MR/hr	mRem/hr	CPM
TIME	1315				CIW
WD	270°				
WS m/sec	6.8				
1/WS	0.15				
PASQUILL	D				
SB Xu/Q	1.4X10 <sup>-4</sup>	1010	1315	196	500
1 mi Xu/Q	5.0X10 <sup>-5</sup>	360	470	70	580
2 mi Xu/Q	1.9X10 <sup>-5</sup>	135	175	27	220
3 mi Xu/Q	1.0X10 <sup>-5</sup>	70	90	14	82
ıi Xu/Q	6.8X10 <sup>-6</sup>	50	65		47
5 mi Xu/Q	5.1X10 <sup>-6</sup>	35	45	10 7	30
6 mi Xu/Q	3.8X10 <sup>-6</sup>	25	32	5	23
7 mi Xu/Q	3.2X10 <sup>-6</sup>	20	26	5	14
8 mi Xu/Q	2.7X10 <sup>-6</sup>	19	24	4	14
9 mi Xu/Q	2.3X10 <sup>-6</sup>	17	20	3	13
l0 mi Xu/Q	2.1X10 <sup>-6</sup>	15	13	-	9
N.G. Ci/sec	1.3X10 <sup>2</sup>		10	3	9
Ci/sec	1.3X10 <sup>-2</sup>		+		
/D HRS	4				
VB K1	3.7X10 <sup>5</sup>	Control of the Contro			
НҮ К2	7X10 <sup>8</sup>				

		CW	OW	THYROID	CHARCOAI
The same of the sa	· · ·	MR/hr	MR/hr	mRem/hr	CPM
TIME	1330				
WD	270°				
WS m/sec	6.8				
1/WS	0.15				
PASQUILL	D				
SB Xu/Q	1.4X10 <sup>-4</sup>	1010	1315	196	580
1 mi Xu/Q	5.0X10 <sup>-5</sup>	360	470	70	220
2 mi Xu/Q	1.9X10 <sup>-5</sup>	135	175	27	82
3 mi Xu/Q	1.0X10 <sup>-5</sup>	70	90	14	47
₄ mi Xu/Q	6.8X10 <sup>-6</sup>	50	65	10	30
_ mi Xu/Q	5.1X10 <sup>-6</sup>	35	45	7	23
6 mi Xu/Q	3.8X10 <sup>-6</sup>	25	32	5	14
7 mi Xu/Q	3.2X10 <sup>-6</sup>	20	26	5	14
8 mi Xu/Q	2.7X10 <sup>-6</sup>	19	24	4	13
9 mi Xu/Q	2.3X10 <sup>-6</sup>	17	20	3	9
10 mi Xu/Q	2.1X10 <sup>-6</sup>	15	13	3	9
N.G. Ci/sec	1.3X10 <sup>2</sup>				
Ci/sec	1.3X10 <sup>-2</sup>				
/D HRS	4 1/4				
VB K1	3.7X10 <sup>5</sup>				
HY K2	7X10 <sup>8</sup>				

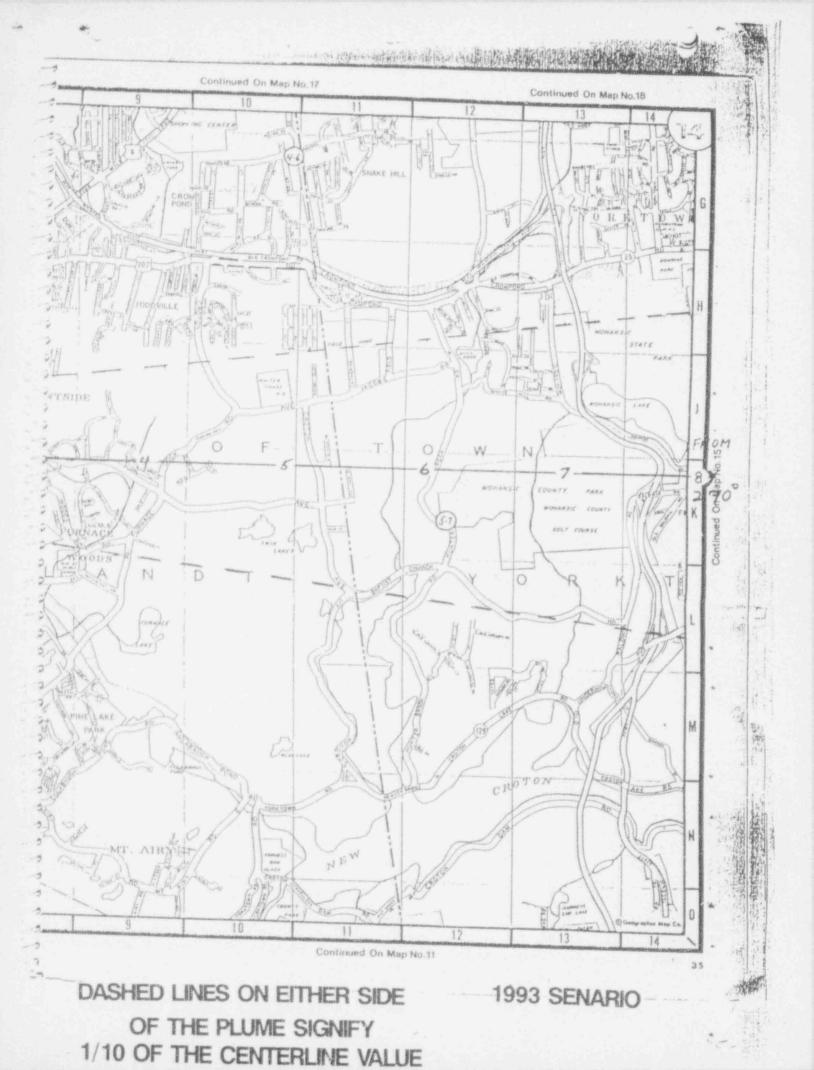
		CW	OW MR/hr	THYROID	CHARCOAL
		MR/hr		mRem/hr	
TIME	1345				TO IN
WD	270°				
WS m/sec	6.8				
1/WS	0.15				
PASQUILL	D				
SB Xu/Q	1.4X10 <sup>-4</sup>	1010	1315	196	500
1 mi Xu/Q	5.0X10 <sup>-5</sup>	360	470	70	580
2 mi Xu/Q	1.9X10 <sup>-5</sup>	135	175	27	220
3 mi Xu/Q	1.0X10 <sup>-5</sup>	70	90	14	82
4 mi Xu/Q	6.8X10 <sup>-6</sup>	50	65	10	47
.ni Xu/Q	5.1X10 <sup>-6</sup>	35	45	7	30
6 mi Xu/Q	3.8X10 <sup>-6</sup>	25	32	5	23
7 mi Xu/Q	3.2X10 <sup>-6</sup>	20	26	5	14
8 mi Xu/Q	2.7X10 <sup>-6</sup>	19	24	4	14
mi Xu/Q	2.3X10 <sup>-6</sup>	17	20	3	13
mi Xu/Q	2.1X10 <sup>-6</sup>	15	13	3	9
.G. Ci/sec	1.3X10 <sup>2</sup>				9
Ci/sec	1.3X10 <sup>-2</sup>				-
D HRS	4 1/2				
B K1	3.7X10 <sup>5</sup>				
НҮ К2	7X10 <sup>8</sup>				

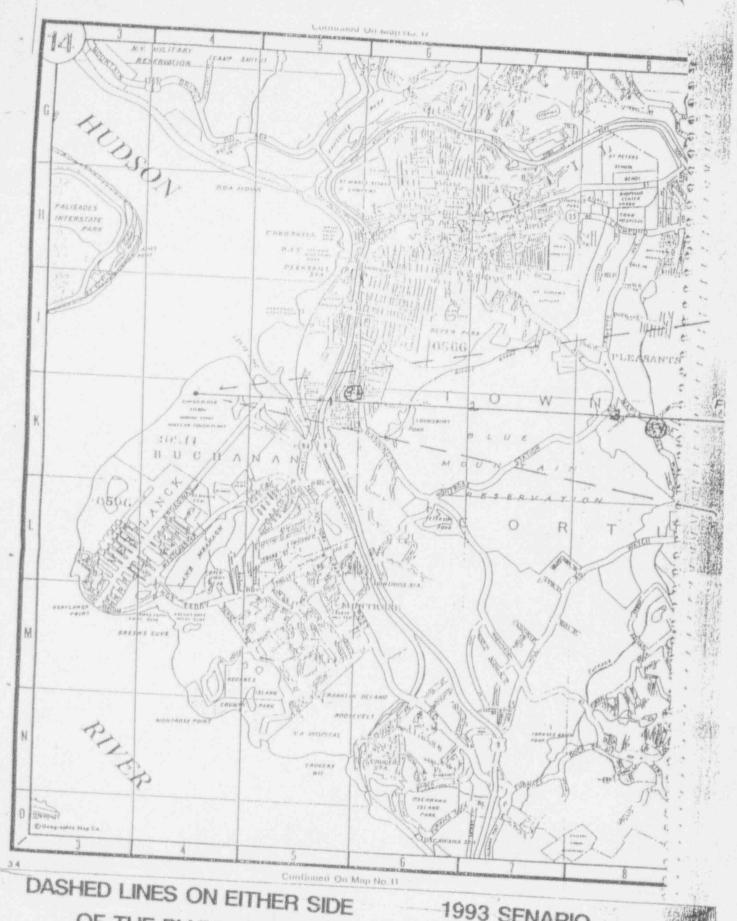
		CW	OW	THYROID	CHARCOAL
-		MR/hr	MR/hr	mRem/hr	СРМ
TIME	1400				CIVI
WD	270°				
WS m/sec	6.8				
1/WS	0.15				
PASQUILL	D				
SB Xu/Q	1.4X10 <sup>-4</sup>	<1	<1	<1	BCDD
1 mi Xu/Q	5.0X10 <sup>-5</sup>	<1	<1	<1	BGRD
2 mi Xu/Q	1.9X10 <sup>-5</sup>	135	175	27	BGRD
3 mi Xu/Q	1.0X10 <sup>-5</sup>	70	90	14	82
4 mi Xu/Q	6.8X10 <sup>-6</sup>	50	65	10	47
.ni Xu/Q	5.1X10 <sup>-6</sup>	35	45	7	30
6 mi Xu/Q	3.8X10 <sup>-6</sup>	25	32	5	23
7 mi Xu/Q	3.2X10 <sup>-6</sup>	20	26	5	14
8 mi Xu/Q	2.7X10 <sup>-6</sup>	19	24	4	14
9 mi Xu/Q	2.3X10 <sup>-6</sup>	17	20	3	13
0 mi Xu/Q	2.1X10 <sup>-6</sup>	15	13	3	9
V.G. Ci/sec	0				9
Ci/sec	0				
/D HRS	4 3/4				
VB K1	3.1X10 <sup>5</sup>				
HY K2	7X10 <sup>8</sup>				

		CW	OW	THYROID	CHARCOAL
		MR/hr	MR/hr	mRem/hr	CPM
TIME	1400 2 DAYS LATER				
WD	220°				
WS m/sec	5.2	AND ASSESSMENT OF THE PARTY OF			
1/WS	0.19				
PASQUILL	С	And the second s			
SB Xu/Q		<1	<1	<1	BGRD
1 mi Xu/Q		< 1	<1	<1	BGRD
2 mi Xu/Q		<1	<1	<1	BGRD
3 mi Xu/Q		<1	<1	<1	BGRD
4 mi Xu/Q		4.1	<1	<1	BGRD
∍ mi Xu/Q		< 1	<1	<1	BGRD
6 mi Xu/Q		<1	<1	< 1	BGRD
7 mi Xu/Q		<1	< 1	<1	BGRD
8 mi Xu/Q		<1	< 1	<1	BGRD
9 mi Xu/Q		<1	<1	<1	BGRD
0 mi Xu/Q		<1	<1	<1	BGRD
N.G. Ci/sec	0				
Ci/sec	0				
/D HRS					
VB K1					
HY K2					The state of the s



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TABLE 8
OFFSITE TLD READINGS

SECTOR	MILE RING	MREM	SECTOR	MILE RING MRFN	Ŋ
1	1 5 10		9	1 5 10	
2	1 5 10		10	1 5 10	
3	1 5 10		11	1 10 10	
4	1 5 10		12	1 5 10	
5	1 5 10	1362.8 89.8 32.9	13	1 5	
6	1 5 10		14	1 5 10	
7	1 5 10		15	1 5 10	
8	1 5 10		16	1 5 10	

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

# TABLE 9 POST ACCIDENT SAMPLES

# TABLE 10

# POST ACCIDENT OFFSITE CONTAMINATION LEVELS

# TABLE 11 MEDICAL EMERGENCY DATA

# CONSOLIDATED EDISON COMPANY OF NEW YORK

## INDIAN POINT UNIT NO. 2

# EXERCISE SCENARIO NO. 1993

#### 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
- Astoria Emergency Control Center
- Emergency News Center (Con Edison Personnel Only)

#### B. Participation

Assembly and accountability will be required by all Con Edison personnel and contractor personnel at the site. After accountability has been completed, personnel not participating as players, controllers or observers will be permitted to return to their normal work locations. New York Power Authority personnel and contractors are not required to participate.

#### C. Arm Band Use

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

Green

Controller

Red

Observer

White

Player

#### D. Access Lists

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 Security Controller one hour after the declaration of ALERT.

#### E. Lunch

Lunch will be provided to all players, observers and controllers at their respective facilities in order that the drill can continue without interruptions.

## F. Critique

Emergency Planning will hold a critique at 1000 hours on September 23, 1993 at the Simulator Auditorium. All controllers and observers shall attend.