

ARTIFICIAL
ISLAND



EMERGENCY PLAN

1994 HOPE CREEK
GRADED EXERCISE H94-06

64
BOOK #

EMERGENCY
PREPAREDNESS

PREPARED
TO PROTECT!



PSEG
The Energy People

9411020264 941025
PDR ADOCK 05000354
PDR

OCTOBER 25, 1994

ARTIFICIAL
ISLAND

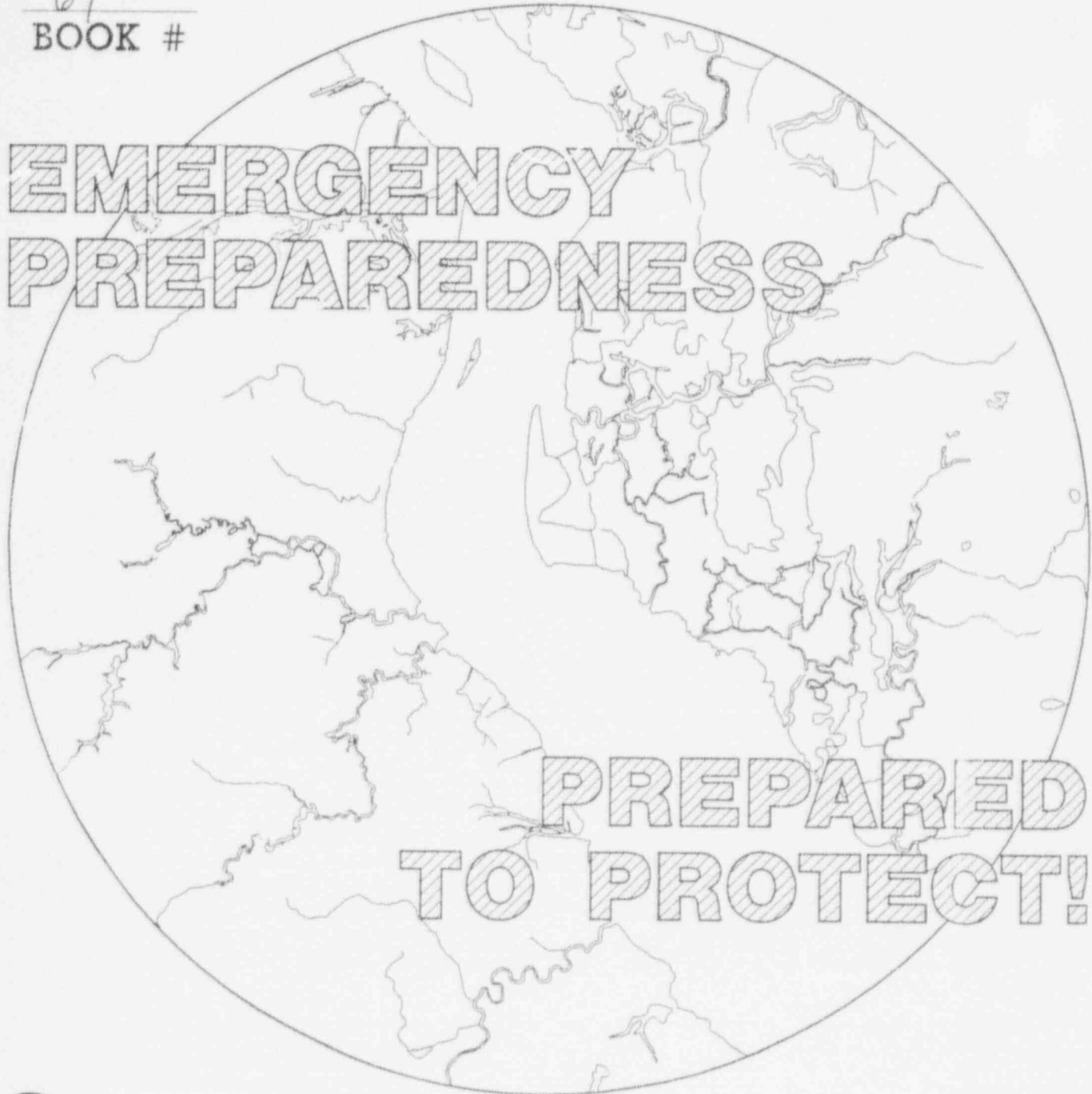


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SCENARIO MATERIAL CONTROL FORM
ARTIFICIAL ISLAND EMERGENCY PREPAREDNESS

Your signature below acknowledges the following:

A. Receipt of the below listed scenario materials of the
ARTIFICIAL ISLAND EMERGENCY PLAN ANNUAL EXERCISE 1994

CONTROL # _____

1. EXERCISE SCENARIO DATA BOOK _____

B. I understand the above scenario material is **CONFIDENTIAL** and shall not be transmitted or discussed with any individual who is not identified as either a member of the scenario development team or a designated referee or evaluator. (see approved list in enclosed Section 4.1, Referees/Scenario Development Assignment List)

C. I shall keep this scenario material **LOCKED UP** when not under my direct control.

D. I shall **IMMEDIATELY REPORT** any loss or suspected compromise of the contents of this material to the Head Referee or the EP Manager listed below.

Craig Banner (Head Referee) 609-339-1157

Tom DiGuisseppi (EP Manager) 609-339-1517

Your name (Print): _____

Signature

(Date): ____ / ____ / 94

cc: material recipient
file - scenario control 1994

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ARTIFICIAL ISLAND
ANNUAL EXERCISE 1994

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SECTION 1.0
ARTIFICIAL ISLAND
ANNUAL EXERCISE 1994
PARTICIPANT'S SCHEDULE

Thursday - Oct. 20

- A. OSC Referees/Observers Initial Briefing, book distribution and OSC Supplemental Scenario walkthroughs.
Time: 0900 - 1300
Location: Hope Creek TSC (lunch provided)
- B. PSE&G Referees/Observers Initial Briefing & book distribution. (other than OSC Referees)
Time: 1430 - 1600
Location: NDAB (TB2) Conference Room 9

Monday - Oct. 24

- A. NRC Exercise Briefing (Banner, Dior, Reece)
Time: 1300 - 1500
Location: EP Conference Room
- B. NRC Exercise Team Access Training & Tour
Time: 1500 - 1600
Location: Processing Center/EP Conference Room

Tuesday - Oct. 25

- A. PSE&G Referees/Observers Assemble prior to exercise.

<u>Times:</u>	<u>Locations:</u>	
0700 -	Simulator	- Simulator Referees Only
0730 -	TSC	- All Onsite Referees
0900 -	EOF	- All Offsite Referees
- B. Shift Player's Initial Conditions Briefing & Prestaging.
Times: 0730 - Control Room Staff 0800 - Onsite Shift
Locations: Hope Creek Simulator HC TSC
- C. Artificial Island Annual Exercise
Time: 0830 - 1530
Location: Hope Creek Station, Simulator, EOF, ENC
- D. Exercise Participants' Critique by Players, Referees, and Observers.
Time: Immediately following exercise termination.
Location: Various ERFs

Wednesday - Oct. 26

- A. PSE&G Lead Referees' Critique
Time: 0800 - 1100
Location: EP Conference Room
- B. PSE&G Referee, Management and Player's Critique
Time: 1300 - 1400
Location: Processing Center Room 1
- C. NRC Critique (NRC, Lead Refs, EP Staff, PSE&G Management)
Time: 1400 - 1500 (following PSE&G Critique)
Location: Processing Center Room 1

SECTION 2.0

PUBLIC SERVICE ELECTRIC AND GAS COMPANY ARTIFICIAL ISLAND HOPE CREEK GENERATING STATION 1994 ANNUAL EMERGENCY PREPAREDNESS EXERCISE

SCOPE AND OBJECTIVES

SCOPE:

The 1994 Annual Exercise of the Artificial Island Emergency Plan will simulate accident events at the Hope Creek Generating Station culminating in a radiological release.

The exercise will involve events that test the effectiveness of PSE&G's Emergency Preparedness Program and integrated capabilities of the State of Delaware in protecting the health and safety of the general public from a radiological emergency at Artificial Island.

The exercise will begin on Tuesday morning, October 25th and will conclude that afternoon.

This is an announced full participation exercise that will be evaluated by the NRC and FEMA Region III. The State of Delaware will fully participate in this exercise and the State of New Jersey will participate but are not being evaluated by FEMA. Current plans call for participation by the NRC as outlined in NUREG-0728, NRC Incident Response Plan.

To improve realism and to minimize the distraction to the Control Room Operators on duty, this exercise will be conducted from the Hope Creek Simulator at PSE&G's Nuclear Training Center. All other emergency response activities will take place in the designated response facilities of the emergency plan.

If the Hope Creek Simulator is at any time determined by the Referees to be providing erroneous or unrealistic operational data it shall be necessary to direct the Simulator Staff to freeze or shutdown the simulator for the remainder of the exercise to prevent negative training of the Hope Creek Operators.

If shutdown of the simulator is necessary, the exercise shall continue through the use of preplanned and prepared operational

SECTION 2.0

PUBLIC SERVICE ELECTRIC AND GAS COMPANY ARTIFICIAL ISLAND HOPE CREEK GENERATING STATION 1994 ANNUAL EMERGENCY PREPAREDNESS EXERCISE

SCOPE AND OBJECTIVES

SCOPE: (continued)

data, message forms, and other scenario control techniques in order to support demonstration of exercise objectives in all other Emergency Response Facilities.

To establish the scope and boundaries of the exercise scenario, a definitive set of objectives has been developed. The objectives were used to ascertain the required inputs to the exercise sequence of events and to establish evaluation critique areas to be observed during the exercise.

OBJECTIVES:

A. Emergency Response Facilities

1. Demonstrate the activation and staffing of emergency response facilities.
2. Demonstrate communication capabilities between emergency response facilities.
3. Demonstrate adequacy of facilities and displays to support emergency operations.

B. Event Classification and Notifications

1. Demonstrate proficiency in recognizing and classifying emergency conditions in accordance with the Hope Creek Event Classification Guide (ECG) and the ability to implement Emergency Plan Implementing Procedures (EPIP's).
2. Demonstrate the capability of the Hope Creek Generating Station to perform timely notifications to the States of New Jersey and Delaware.

SECTION 2.0

PUBLIC SERVICE ELECTRIC AND GAS COMPANY ARTIFICIAL ISLAND HOPE CREEK GENERATING STATION 1994 ANNUAL EMERGENCY PREPAREDNESS EXERCISE

SCOPE AND OBJECTIVES

3. Demonstrate the ability to communicate technical information between emergency response facilities and to the NRC utilizing the Emergency Notification System (ENS).
4. Demonstrate the capability to formulate around the clock emergency response duty rosters to allow the extended activation of the emergency response facilities.

C. Emergency Management

1. Demonstrate the capability of the Artificial Island Emergency Response Organization to implement the Artificial Island Emergency Plan and Procedures.
2. Demonstrate the ability to turnover Emergency Coordinator responsibilities between the Senior Nuclear Shift Supervisor, Emergency Duty Officer (EDO), and the Emergency Response Manager (ERM).
3. Demonstrate the ability of key emergency personnel to initiate and coordinate timely and effective decisions with respect to a radiological emergency and clearly demonstrate command and control functions as applicable.
4. Demonstrate effective organizational control and integrated radiological emergency response including:
 - 4.1 Deployment of field monitors.
 - 4.2 Receipt and analysis of radiological data.
5. Demonstrate that emergency management personnel (ERM and EDO) identify changing (degrading, improving) plant conditions and brief facility personnel concerning the degraded or improved plant status.

SECTION 2.0

PUBLIC SERVICE ELECTRIC AND GAS COMPANY ARTIFICIAL ISLAND HOPE CREEK GENERATING STATION 1994 ANNUAL EMERGENCY PREPAREDNESS EXERCISE

SCOPE AND OBJECTIVES

6. Demonstrate the ability of the Emergency Response Organization to interface with the NRC Site Response Team.

D. Accident Assessment

1. Demonstrate the ability of emergency response personnel to communicate with and control field teams along with receiving and assessing radiological data from the field teams and installed radiation monitors within the plant.
2. Demonstrate the ability of emergency response personnel to make Protective Action Recommendations (PAR's) based on plant conditions and/or dose assessment.

E. Public Information and Media Relations

1. Demonstrate the staffing of the Emergency News Center (ENC) by Artificial Island emergency response personnel and facility activation.
2. Demonstrate the capability to issue coordinated periodic public information bulletins.
3. Demonstrate the ability to provide rumor control and response to inquiries from the general public and media, as applicable, in a coordinated fashion.
4. Demonstrate the ability to provide clear, timely and accurate briefings to the News Media.

F. Operations and Operations Support

1. Demonstrate the Control Room Staff's ability to recognize operational symptoms and plant parameters indicative of degrading plant conditions and take appropriate corrective actions.

SECTION 2.0

PUBLIC SERVICE ELECTRIC AND GAS COMPANY ARTIFICIAL ISLAND HOPE CREEK GENERATING STATION 1994 ANNUAL EMERGENCY PREPAREDNESS EXERCISE

SCOPE AND OBJECTIVES

2. Demonstrate proper communications methods and ability to complete timely notifications to offsite agencies.
3. Demonstrate the ability to implement protective actions for site personnel.
4. Demonstrate command and control functions within the Operations Support Center (OSC).
5. Demonstrate the ability to properly set up, staff and operate the OSC.
6. Demonstrate the ability of OSC dispatched teams to respond to assigned tasks.

G. Health Physics and Exposure Control

1. Demonstrate the decision making process for limiting exposure of emergency workers.
2. Demonstrate methods and resources for distributing dosimetry and thyroid blocking agents, if appropriate, to emergency workers.
3. Demonstrate adequate health physics support for OSC teams deployed in areas of radiological concern.

H. Engineering and Technical Support

1. Demonstrate the ability to develop alternative methods or equipment alterations in response to accident affected plant systems or components.
2. Demonstrate the ability to assess plant operational data and provide recommendations concerning accident mitigation or engineering based PAR's.

SECTION 2.0

PUBLIC SERVICE ELECTRIC AND GAS COMPANY
ARTIFICIAL ISLAND
HOPE CREEK GENERATING STATION
1994 ANNUAL EMERGENCY PREPAREDNESS EXERCISE

SCOPE AND OBJECTIVES

3. Demonstrate the ability to identify or recognize when fission product boundaries are failed.
4. Demonstrate the ability to estimate fuel damage using the data available.


I. Security

1. Demonstrate effective site security operations and the ability to establish and control security access as defined in Security's Emergency Plan Implementing Procedures.

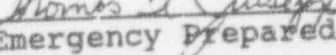
J. Exercise Control and Evaluation

1. Demonstrate the ability to control the scenario in accordance with the prescribed timeline.
2. Demonstrate the ability of the exercise referees to provide scenario data and address questions which pertain to data without prompting the players.
3. Demonstrate the ability to adequately critique the exercise performance.

Prepared By:


Admin. - Nuclear Onsite Emerg. Prep.

Approved By:


Emergency Preparedness Manager

SECTION 3.0
ARTIFICIAL ISLAND
ANNUAL EXERCISE
GUIDELINES AND PLAYER INFORMATION

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SECTION 3.1
ARTIFICIAL ISLAND
ANNUAL EXERCISE

EXERCISE GUIDELINES

I. Purpose

This document provides guidance for conducting the Artificial Island Annual Exercise. It provides methods for demonstrating emergency response capability and conducting the exercise.

II. Concept of Operations and Control of the Exercise

Public Service Electric and Gas Company (PSE&G) will supply official exercise referees and observers for each location where an emergency response may be demonstrated. Prior to the exercise, the referees and observers will receive an extensive exercise briefing and be provided with the appropriate locations, maps, timelines, and observation checklist(s) corresponding to their assignments.

Referees will hand out messages and/or cue cards and will make judgement decisions as required. If unplanned situations arise, they will contact the lead referee in their assigned Emergency Response Facility (ERF) for advice and resolution of the problem. Lead referees are designated for Simulator, TSC, OSC, EOF, ENC, and Control Point.

The head referee, stationed as the lead referee in the TSC, will be in overall command of conducting the exercise. All requests for modification or holding periods must be cleared through the Head Referee.

As initiating events are provided, the Plant Staff will determine the nature of the emergency and implement appropriate emergency plan procedures. This will include a determination of the emergency classification in accordance with the Event Classification Guide. Players should notify the lead referee at the appropriate ERF prior to formal escalation or de-escalation of the emergency classification. If the proposed classification change is within 15 minutes of the scenario timeline or

will not have any adverse effect on the scenario, the referee will allow play to proceed. Required notification for changes in event classification shall be completed in accordance with the Event Classification Guide.

The hypothesized emergency will continue to develop based on data and information provided to emergency response personnel. As the situation develops, information will be forwarded to appropriate personnel for the determination of actions to be taken in response to hypothesized emergency. If a conflict exists between the scenario (hypothesized) data and the actual (simulator driven) data, the scenario data shall be utilized.

Certain inconsistencies (such as radiation level, equipment availability, etc.) may be intentional and required to provide an exercise basis which will test emergency response to the maximum extent feasible in the limited time frame of the exercise. The lead referees will have the authority to resolve or explain any inconsistencies or problem which may occur during the exercise.

III. General Guidance for the Conduct of the Exercise

Participants shall avoid taking any actions during the exercise which would actually reduce plant or public safety. The potential for creating a real radiological emergency or endangering the public shall be specifically avoided.

1.0 Simulating Emergency Actions

Since the exercise is intended to provide demonstration of actual abilities as closely as is reasonably possible, the participants should act as they would during a real emergency. All actual actions shall be taken where possible. Simulation will be utilized only when it is not feasible to perform the actual action. (Refer to Section 5.4)

Actual evacuation of a segment of the general public for exercise purpose is undesirable due to the unnecessary public hazard created and great public inconvenience of such action. No actual evacuations of the public are planned.

2.0 Avoiding Violation of Laws

Intentional violation of laws is not justifiable during any exercise. To implement this guideline, the following actions must be taken prior to conduct all exercises:

- a. All observers and potential drill participants must be specifically informed of the need to avoid intentional violation of all Federal, State, and local laws, regulations, ordinances, statutes, and other legal restrictions. The orders of all police, sheriffs, and other authorities should be followed as would normally be the case.
- b. Drill participants shall not direct illegal actions be taken by other drill participants or members of the general public.
- c. Drill participants should not intentionally take illegal actions when being called out to participate in an exercise. Specifically, local traffic laws such as speed laws shall be observed.

3.0 Avoiding Personal and Property Endangerment

Participants and observers shall be instructed to avoid endangering property (public or private), other personnel responding to the exercise, members of the general public, animals, and the environment.

4.0 Action to Minimize Public Inconvenience

It is not the intent, nor is it desirable or feasible to effectively train or test the public response during the conduct of radiological emergency exercises. Public inconvenience is to be minimized.

The action of Federal, State, County and municipal agencies, and nuclear power plant operators receive continuous public notice and scrutiny; therefore, the conduct of an exercise could arouse public concern that an actual emergency is occurring. In order to minimize public inconvenience and concern, the following actions are being included in the exercise plan:

- a. A few days prior to the exercise, the public within the affected area will be informed of the impending conduct of a radiological emergency exercise. Press releases from Public Service Electric & Gas (PSE&G) will be used to accomplish this. Prior to the exercise the public shall be informed of the following as a minimum:
1. The purpose of the exercise and that it is a routine function not intended to inconvenience the public unnecessary.
 2. The exercise requires no public action or involvement.
 3. The exercise will be conducted at a preselected time during a specifically stated time period.
 4. The siren system will not be activated.
- b. Emergency Response Personnel should make every effort to prevent the public from being misinformed about the nature of the exercise. Therefore, it is important to inform members of the public that an exercise is in progress and that their involvement is not required, whenever direct public contact occurs in the field. In addition, it is important to preface, interject, and conclude conversations that can be overheard by the public with the words, "This is a drill." Conversations that can be monitored by the public include those on telephones, radios, loudspeakers, telegraphs, etc.

5.0 Maintaining Emergency Readiness

During the performance of an exercise the ability to recognize a real emergency, terminate the exercise, and respond to the new situation must be maintained. Therefore, the exercise scenario and actions of the participants shall not include any actions which affect or degrade the condition of systems, equipment or supplies, or affect the detection, assessment, or response capability to radiological or other emergencies.

The exercise will be terminated should a situation develop at the station which could adversely affect the licensee's ability to protect public health and safety.

All messages about real events shall be clearly identified as such. For example, precede a real message with "THIS IS NOT, repeat THIS IS NOT A DRILL".

IV. Emergency Response Implementation and Operations

1.0 Initial Notification

Initial notification will be made in accordance with the Event Classification Guide (ECG).

2.0 Plant Operations

It should be emphasized that the exercise will in no way interrupt normal plant operations, production, and safety. The responses of operations support personnel and plant operators will be simulated when taking action to combat the emergency. To avoid distracting the actual control room staff, the Simulator will be utilized for all drill activities which would involve control room personnel with the exception of PA (page announcement) and enabling of PASS sampling.

3.0 Environmental Monitoring Teams

The Nuclear Generating Station will dispatch field monitoring teams. The referees will provide hypothesized field data which will be used to determine radiation readings at preselected locations. However, these teams will be equipped with the necessary equipment to enable them to determine actual area gamma dose rates and airborne radioiodine concentrations. The monitoring teams will not be suited up in anticontamination clothing, but will have such equipment at their disposal.

4.0 Public Notification

Actual emergency message transmissions via the Emergency Broadcast System (EBS) will not occur.

5.0 Public Information

The Emergency News Center (ENC) will be activated for the Artificial Island Exercise.

6.0 Communications

Communications between the exercise participants will occur in accordance with the appropriate Emergency Plan Implementing Procedures. Should any primary communication path become inoperative or prove inadequate, backup means of communication will be utilized as appropriate.

V. Closeout of the Exercise

The exercise will be terminated by the joint concurrence of the PSE&G Head Referee and Lead NRC Inspector after the major objectives have been demonstrated.

ARTIFICIAL ISLAND
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PLAYER INSTRUCTIONS

1. Know the drill organization.

Players - shall aggressively work to mitigate the consequences of the simulated emergency. (includes NRC Region I Incident Response Team)

Referees - shall control the exercise events to ensure objectives are met, including safe performance.

NRC Evaluators/ Observers - shall assess the response capabilities of the players, the facilities, the plan and procedures as well as the scenario and drill control of the referees.

2. Wear your player identification.
3. Drill messages, written or verbal, are issued by the referees as needed to keep the exercise scenario on track.
4. Players may ask referees for information, initial conditions, symptoms or indications of simulated problems, etc, which would normally be available to them.
5. You must comply with all reasonable directions of the referees for your safety and that of others.
6. If you disagree with the referee's direction, consult with the lead referee in your facility for a ruling.
7. Don't be overly concerned with scenario details that appear unrealistic. (Drillsmanship)
8. Do not "simulate" your actions unless directed by the referee or if actually performing that action will potentially affect plant status or personnel safety. When in doubt, ask the Referee to repeat or reconsider a direction given to you.
9. Speak up when communicating with other players and occasionally think out loud so the referees and evaluators can follow your actions and thoughts.
10. Play as if the simulated radiation levels of the exercise scenario were actually present. Take every opportunity to demonstrate your knowledge of ALARA and radiation protection principles.
11. Do not allow your performance to be distracted by non-drill participants.
12. Complete all of the documentation as thoroughly as possible. (this includes status boards, communication forms, tagging requests, EIPs, log books, etc.)

ARTIFICIAL ISLAND
ANNUAL EXERCISE 1994

PLAYER INSTRUCTIONS (cont'd)

13. Keep a list of items that you feel should be addressed to improve your emergency preparedness, drill effectiveness, or any problems encountered that may require corrective actions. Your solutions are welcomed as well, but at the least we need to identify the problems.
14. A critique for all participants in each facility will follow immediately after the exercise ends and should last about 60 minutes allowing everyone the opportunity for feedback, both positive and areas of concern.
15. Remember to say, "This is a drill", in all verbal communications and write "Drill" on all documents used.
16. Control Room Staff players will participate from the Simulator. An Artificial Island phone number has been set up (x3339) along with a radio base station in the Simulator to facilitate communications.

The PA System is not operable in or from the Simulator.

NETS phone numbers for the Control Room have been programed to transfer automatically to the Simulator.

17. Scenario data is generated and provided by different means during the course of the exercise. Some inconsistencies are unavoidable. If in doubt, ask the lead referee in your facility which data to use and which to ignore.

For the most part, operational parameters will be generated live off the Simulator while radiological data is "canned" or prepared ahead of time in order to facilitate control and distribution throughout the ten mile radius surrounding Artificial Island and onsite.

SOME FINAL REMINDERS FOR THE SAKE OF SAFETY

18. When entering the RCA for drill related activities you are required to abide by all normal radiation protection rules.

Absolutely no one, including Referees or Observers, is permitted to disregard normal station rules of any kind.

CAUTION: DO NOT ENTER REAL HIGH RADIATION AREAS OR CROSS ANY REAL STEP-OFF PADS FOR DRILL ACTIVITIES.

19. Follow all industrial safety rules including use of hard hats, safety glasses, hearing protection, etc.
20. Do not open any electrical panels, breakers, or cabinets or otherwise physically come in contact with plant equipment that may affect your safety or the plant status.

ARTIFICIAL ISLAND
ANNUAL EXERCISE 1994

PLAYER INSTRUCTIONS (cont'd)

21. Immediately contact the duty SNSS if any real plant problems are discovered. The drill may be suspended at any time at the direction of the duty SNSS or Head Referee if a real operational problem develops.

Players and referees will be notified to back away until such time as the duty SNSS determines that the drill may continue.

22. EMIS Tagging: If any real (not scenario related) problems with equipment or plant systems you are working with or around are detected, take a moment to properly document those discrepancies in accordance with plant procedures and ensure that the duty Operations Staff is notified.

**CONTROL ROOM STAFF - HOPE CREEK SIMULATOR
SPECIAL INSTRUCTIONS**

1. NETS phones are programed to bypass the Hope Creek Control Room. Be sure to say, "This is a drill", when communicating over the phones, radio, or PA system. Otherwise, regard yourself to be in your Control Room.
2. Radio in the Simulator is live and may used as you would your Control Room Radio.
3. DID Extension 3339 on the Communications Console is a live Artificial Island phone extension.
4. Plant PA announcements that you must make for drill purposes will be relayed by a designated individual (drill controller) in the Control Room onsite.
5. You are expected to respond to all Simulated events as you would in a real emergency within the Simulator.
 - a) Follow your EOPs and other approved procedures.
 - b) Communicate as you do during your Simulator training, but try to **OVERCOMMUNICATE** to the extent that the Simulator Referees are always aware of the actions you intend to take in time for them to intervene as needed to support the scenario.
6. Communicators, CM1 and CM2, are expected to obtain data from the Simulator boards unless directed otherwise. (some data must be mocked up; radiological readings, Met data, H2/O2 concentrations, etc.)
7. When directing the OSC or other players outside the Control Room to take actions for drill purposes, be sure to preface your directions by saying, "Simulate", as in "Simulate racking out the Breaker."

Also remind the player to ensure they have a referee with them in the field. It may be necessary for the player to stop by the OSC area and ask for a referee if the OSC has not yet been activated.
8. The Shift Rad Pro Tech will not participate in the Simulator, but you will be supplied RMS data consistent with the scenario from the RM-11 terminal. Disregard any radiological data off the simulator front and back panels with the exception of alarms.

The RMS Trouble Overhead Annunciator will be used as needed by the simulator referee to key you to looking for changes in the RMS data off the RM-11.
9. NET data is provided in book form emulating the computer screen located in the Control Room.

CONTROL ROOM STAFF - HOPE CREEK SIMULATOR
SPECIAL INSTRUCTIONS (cont'd)

SIMULATOR LIMITATIONS/ DRILL SCENARIO CONSTRAINTS

1. Plant components (pumps, valves, pipes, etc.) that will fail for scenario purposes will be programmed or controlled to fail by the Simulator referee at the appropriate times.

As long as the Simulator is live, you need to respond in accordance with your training and procedures to the alarms and indications that you see.

Occasionally, the referee may interject an event or modify the displayed symptoms using a message form if simulation is not possible.

2. If the Simulator crashes or your actions are causing plant parameters to deviate significantly from the expected (planned) data for any reason, the simulator referee will be directed to **FREEZE** the program. Play will then continue by the most appropriate method to get us back on the scenario timeline.

- a) **Back track** may be used to reset conditions.
- b) **Time out** may be called with the simulator reinitialized at a later time period in the scenario with an appropriate "interim briefing" provided by the referees as to what was postulated to have occurred up to that point.
- c) **Dark board:** The simulator may be turned off and left off with play continuing using paper message forms and prepared operational data forms.

NOTE: **FREEZE** periods for the simulator do not stop the rest of the drill from proceeding. It is an internal control for our use in keeping the operational data consistent with the prepared radiological data. You shall continue to play and verbally describe to the referees what actions you would be taking.

- d) When in **FREEZE**, continue to follow your EOPS, communicate with other facilities as if nothing has happened unless a large step change in the operational data needs to be explained. Keep the drill going unless the simulator referee specifically allows you to relax or take a break.
3. Some individual parameters may be mocked up if they are required to respond (for scenario control) in a manner that is inconsistent with the simulator modeling.

For example;

- radiological data
- meteorological data
- Drywell Hydrogen/Oxygen Concentrations

CONTROL ROOM STAFF - HOPE CREEK SIMULATOR
SPECIAL INSTRUCTIONS (cont'd)

- some indications of Containment failure, release into the Reactor Bldg
 - some types of component failures (specific OSC objectives may dictate)
 - RCS break locations and/or sizes
 - peak values of critical parameters that assume worst case conditions and therefore exceed design bases (scenario license invoked)
4. If you suspect a real problem with a Simulator indication you may call an I&C Technician to come to the Control Room from the OSC.

For scenario control, tell the Referee of your intended request and a Simulator Staff personnel will role play the I&C Tech. to troubleshoot the problem.

5. Other limitations:

- Bldg Watches; cannot directly contact EOs except by phone or radio since PA is not connected to the Island.
- OSCC interface must be strictly by phone
- EC turnover by phone only
- SRPT interface with Control Room Staff, phone only;

NOTE: A referee will ROLE PLAY the SRPT at times during the exercise to provide the SNSS (EC) with SSCL Radiological Information for review and approval.

OPPORTUNITIES

1. IMPROVED PLANT SAFETY: Ability to conduct Emergency Plan drills from outside of the real control room.
2. Better realism for Control Room Staff during periods of live simulator action.
3. Improved realism for the TSC and EOF staffs also through the SPDS link from the Simulator since they can see the operational data changing instantaneously.

HOPE CREEK SHIFT PERSONNEL
DRILL PLAYERS

SPECIAL INSTRUCTIONS

In addition to the normal player instructions, please keep the following in mind.

1. Control Room Staff players will be participating from the Hope Creek Simulator at the Training Center.

If you need to speak with the SNSS or any of his Control Room Staff you can use the NETS phones to call the CR and the calls will be forwarded automatically to the Simulator or you may use the DID phones to call 3339. (no prefix is needed)

2. If you need to go to the Control Room for any reason, a referee stationed there will assist you as needed by either role playing the SNSS or directing you to call the simulator. For example:

EDO should call the Simulator to speak with the SNSS for EC turnover briefing.

OSC Coordinator should call the SNSS at Simulator to ensure team priorities are correct.

3. Scenario problems will be addressed by the Head Referee located in the TSC.
4. Real emergency situations, should they arise, should not be reported via NETS to the Control Room. Use the plant PA system or DID phones. Be sure to emphasize, "This is not a drill!"
5. SPDS in the TSC and EOF should be live (real time) off the Hope Creek Simulator model during all or most of the drill.
6. The Simulator operational data may differ from that expected or predicted when the radiological data was generated. Do not let any potential disconnects in the data throw you or let it drag down your performance.
7. Simulation may be temporarily frozen at the Simulator from time to time in an effort to control the data, but keep in mind that the drill continues even during the those periods unless the Head Referee specifically stops the drill for some other reason.
8. When the drill begins (very shortly), you are on shift, at work in your normal work locations and ready to respond. That is, you should have your normal tools and gear with you, as appropriate, to your normal assignment. The emergency plan depends on our being ready to dispatch emergency teams quickly.

HOPE CREEK SHIFT PERSONNEL
DRILL PLAYERS (cont'd)

Exception: NEO's should begin the drill in the OSC area unless directed otherwise by a referee for prestaging. This is to facilitate communications with the SNSS in the simulator.

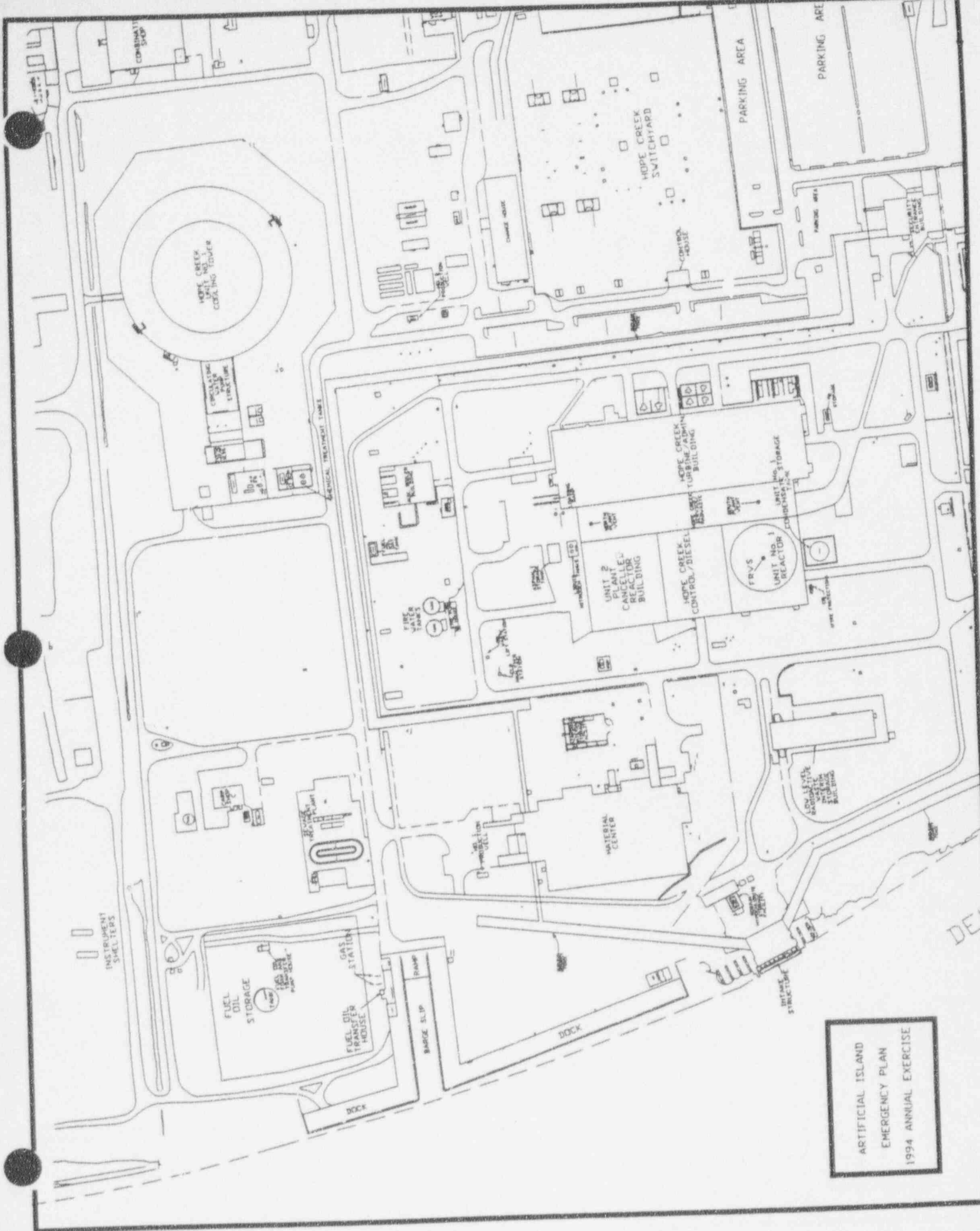
9. EMIS Tagging Reminder: If during the course of the drill, any problems with equipment or plant systems you are working with or around are detected, take a moment to properly document those discrepancies in accordance with plant procedures and ensure that the duty Operations Staff is notified.

SECTION 3.3

ARTIFICIAL ISLAND
ANNUAL EXERCISE

PARTICIPATING LOCATIONS

<u>LOCATIONS</u>	<u>PAGE #</u>
A. SITE MAP OF GENERATING STATION	3.3.1
B. TRAINING SIMULATOR (NTC)	3.3.2
C. OPERATIONS SUPPORT CENTER (OSC)	3.3.3
D. TECHNICAL SUPPORT CENTER (TSC)	3.3.4
E. MAP LOCATIONS OF NUCLEAR TRAINING CENTER & EMERGENCY NEWS CENTER	3.3.5
F. EMERGENCY OPERATIONS FACILITY (EOF)	3.3.6
G. EMERGENCY NEWS CENTER (ENC) (GREATER SALEM COMMUNITY CENTER)	3.3.7



ARTIFICIAL ISLAND
 EMERGENCY PLAN
 1994 ANNUAL EXERCISE



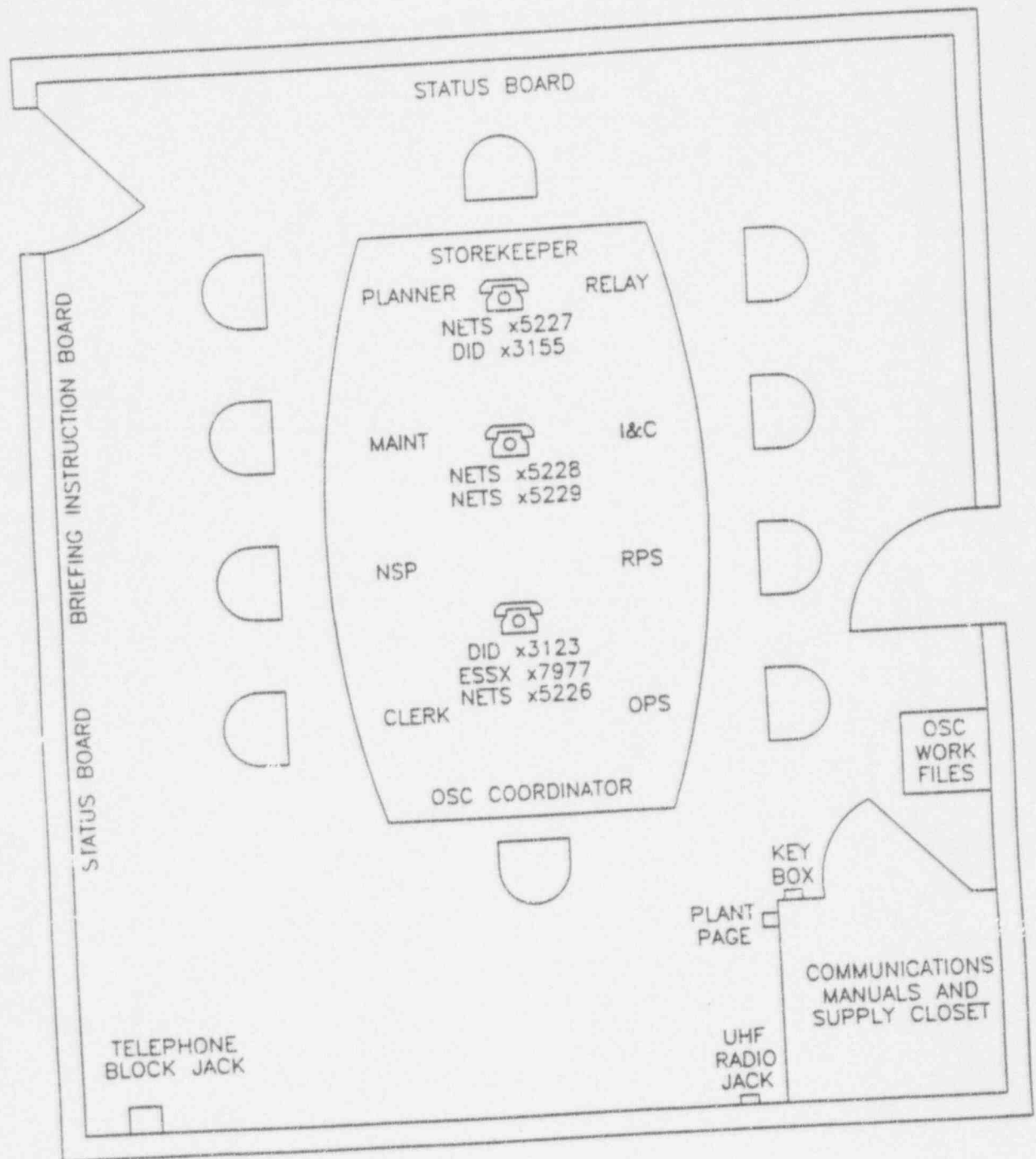
HOPE CREEK SIMULATOR

EMERGENCY OPERATIONS FACILITY (ECF)

244 CHESTNUT ST.
SALEM, N.J.

Student Entrance Gate (Open)

HOPE CREEK OPERATIONS SUPPORT CENTER



HOPE CREEK GENERATING STATION TECHNICAL SUPPORT CENTER

COMMUNICATIONS

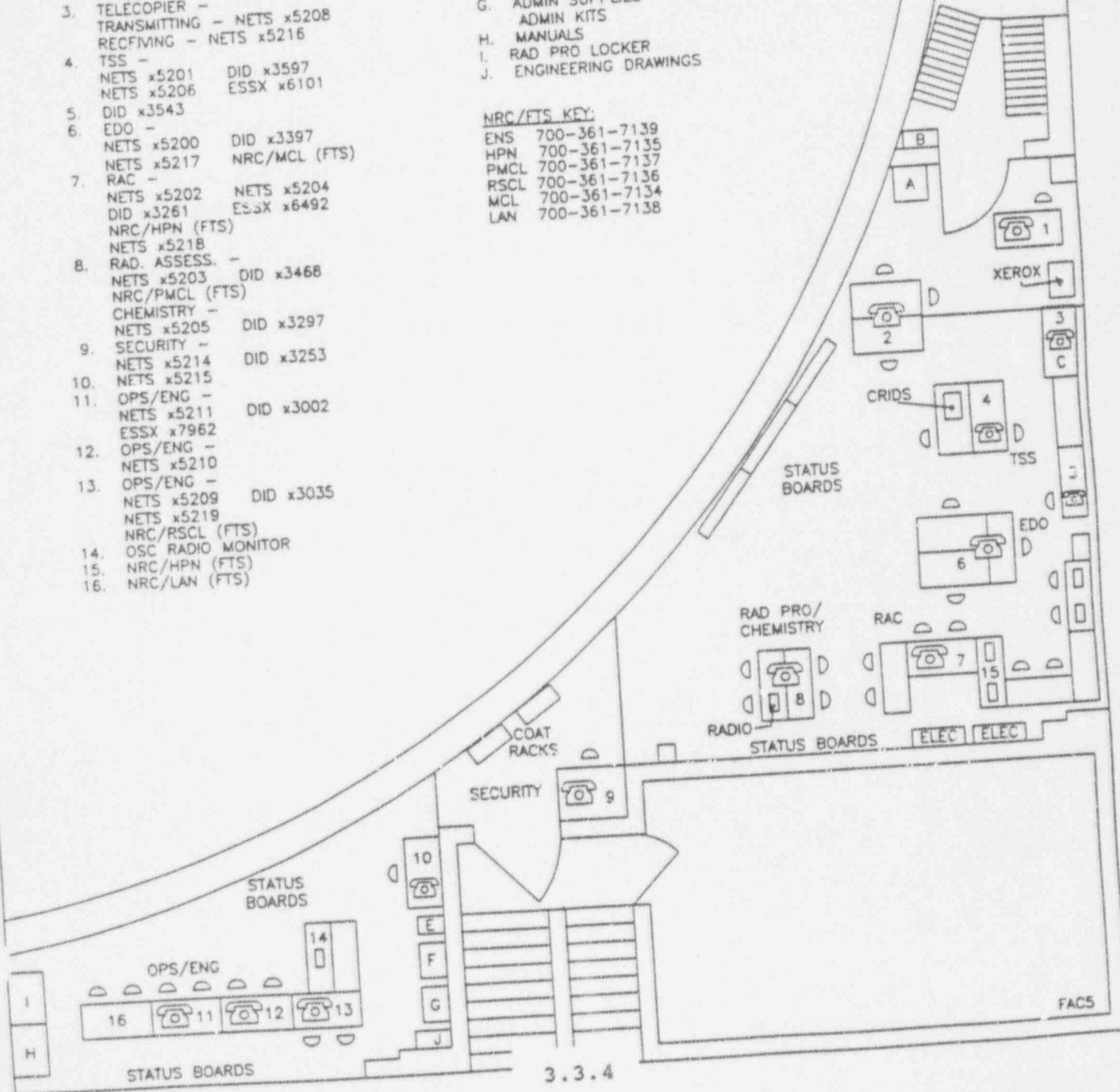
1. ADMIN -
NETS x5207 DID x3593
2. COMMUNICATORS -
NETS x5212 DID x3295
NETS x5213 DID x3595
ESSX x7963
NAWAS NRC/ENS (FTS)
3. TELECOPIER -
TRANSMITTING - NETS x5208
RECFIVING - NETS x5216
4. TSS -
NETS x5201 DID x3597
NETS x5206 ESSX x6101
5. DID x3543
6. EDO -
NETS x5200 DID x3397
NETS x5217 NRC/MCL (FTS)
7. RAC -
NETS x5202 NETS x5204
DID x3261 ESSX x6492
NRC/HPN (FTS)
NETS x5218
8. RAD. ASSESS. -
NETS x5203 DID x3468
NRC/PMCL (FTS)
CHEMISTRY -
NETS x5205 DID x3297
9. SECURITY -
NETS x5214 DID x3253
10. NETS x5215
11. OPS/ENG -
NETS x5211 DID x3002
ESSX x7962
12. OPS/ENG -
NETS x5210
13. OPS/ENG -
NETS x5209 DID x3035
NETS x5219
NRC/RSCL (FTS)
14. OSC RADIO MONITOR
15. NRC/HPN (FTS)
16. NRC/LAN (FTS)

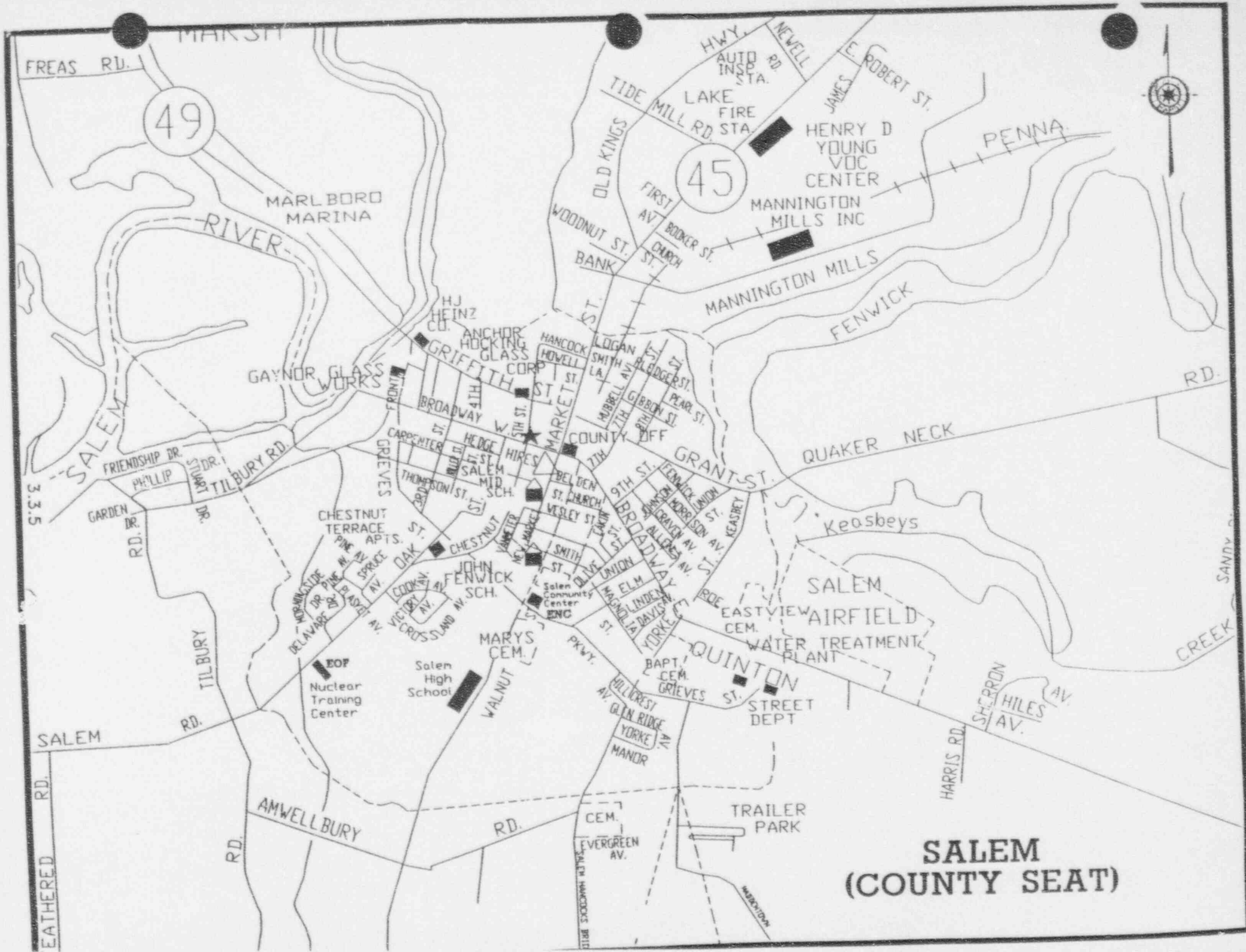
CABINETS

- A. CODE-A-PHONE
ECG & AIEPIP WORK FILES
XEROX & FAX SUPPLIES
P.A. SYSTEM
- B. STORAGE
- C. STATUS BOARD STORAGE
- E. MISCELLANEOUS
- F. ENGINEERING SUPPLIES
MISCELLANEOUS ADMIN SUPPLIES
- G. ADMIN SUPPLIES
ADMIN KITS
- H. MANUALS
- I. RAD PRO LOCKER
- J. ENGINEERING DRAWINGS

NRC/FTS KEY:

- ENS 700-361-7139
HPN 700-361-7135
PMCL 700-361-7137
RSCL 700-361-7136
MCL 700-361-7134
LAN 700-361-7138





49

45

SALEM (COUNTY SEAT)

FREAS RD.

MARK ST

Hwy. NEWELL

E ROBERT ST.
JAMES

LAKE FIRE STA.
TIDE MILL RD STA.

HENRY D YOUNG VOC CENTER

MANNINGTON MILLS INC

PENNA.

MARLBORO MARINA

SALEM RIVER

WOODNUT ST.
BANK

MANNINGTON MILLS

FENWICK

GAYNOR GLASS WORKS

ANCHOR HOCKING GLASS CORP

HANCOCK HOWELL

LOGAN SMITH

QUAKER NECK

FRIENDSHIP DR

TILBURY RD.

BROADWAY

MARKET ST.

GRANT ST.

Keasbeys

CHESTNUT TERRACE APTS.

JOHN FENWICK AV. SCH.

SMITH ST.

BROADWAY

SALEM AIRFIELD

WATER TREATMENT PLANT

EOP Nuclear Training Center

Salem High School

MARYS CEM.

QUINTON STREET DEPT

EASTVIEW CEM.

SHERIDAN HILES AV.

SALEM

TILBURY RD.

AMWELLBURY RD.

RD.

VERGREEN AV.

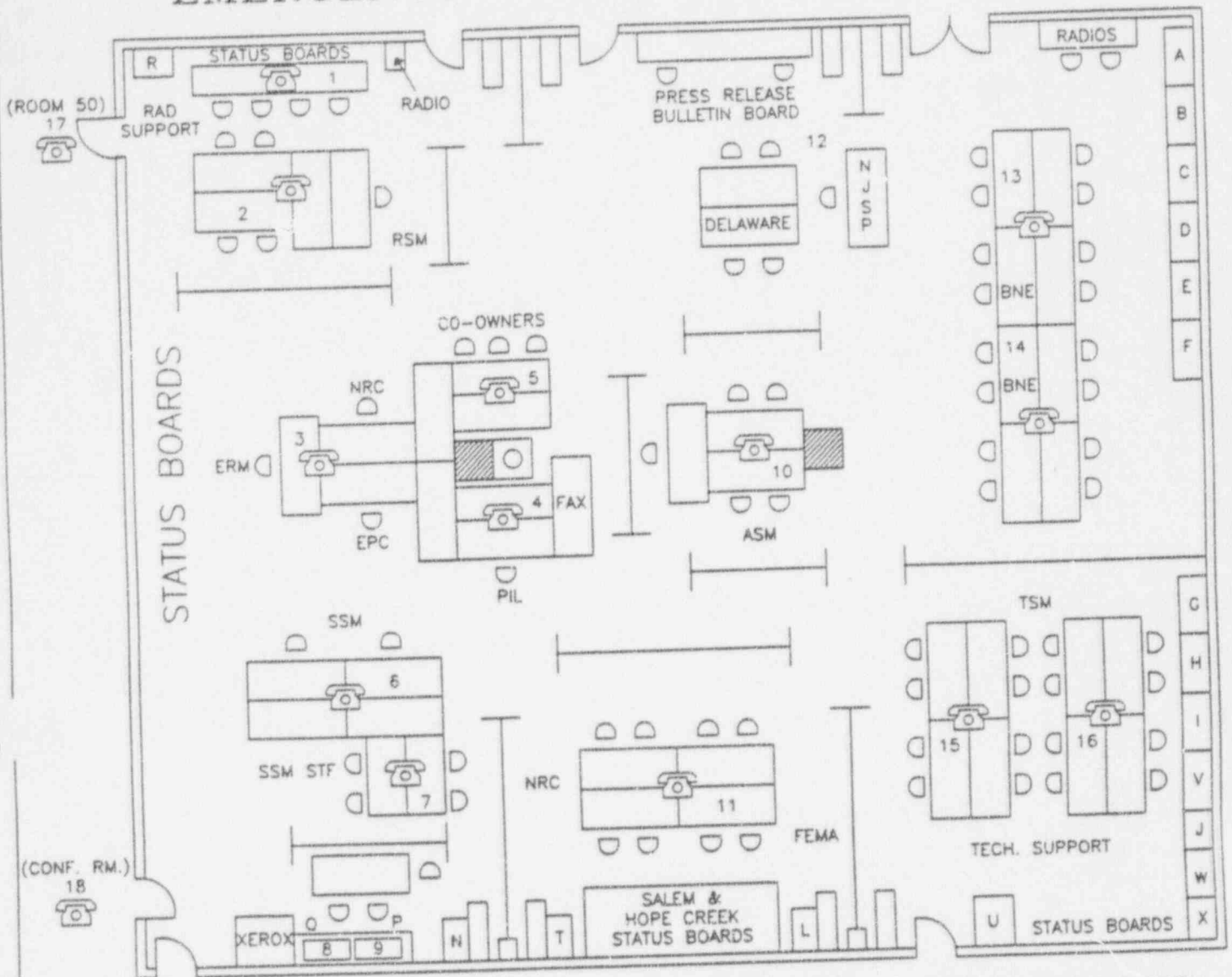
TRAILER PARK

HARRIS RD.

EATHERED RD.



EMERGENCY OPERATIONS FACILITY



ROOM "A" COMMUNICATIONS

- LOCKER R
 1. NETS x5005 DID x3763
 NETS x5006 NRC/PMCL (FTS)
 2. NETS x5001 DID x3992
 NETS x5002 DID x3993
 NETS x5003 ESSX x7455
 NETS x5004 ESSX x7466
 ESSX x7468
 NRC/HPN (FTS)
 LOCKER O
 3. NETS x5000 DID x3989
 DID x3761 ESSX x7877
 NRC/MCL (FTS)
 4. NETS x5011 NETS x5010
 ESSX x7517 DID x3889
 5. DID x3907, 3916, 3932
 LOCKER N
 6. NETS x5012 DID x3762
 NETS x5037 ESSX x7518
 7. NETS x5013 ESSX x7508
 NETS x5014 ESSX x7519
 NAWAS NETS x5042
 NRC/ENS (FTS)
 8. TRANSMITTING TELECOPIER
 NETS x5034
 9. RECEIVING TELECOPIER
 NETS x5035

ROOM "A" COMMUNICATIONS (CONT.)

- CABINET O
 SALEM & HOPE CREEK ECG WORK
 FILES
 CABINET P
 SALEM & HOPE CREEK AIEPIP WORK
 FILES

ROOM "B" COMMUNICATIONS

- COLUMN
 10. NETS x5008 ESSX x7511
 NETS x5009
 LOCKER L
 11. NETS x5015 DID x3766
 NETS x5016 ESSX x8520
 NRC/ENS (FTS)
 NRC/HPN - (FTS)
 NRC/LAN - (FTS)
 12. NETS x5024 DID x3994
 NETS x5025 ESSX x7728
 NETS x5032 DID x3960

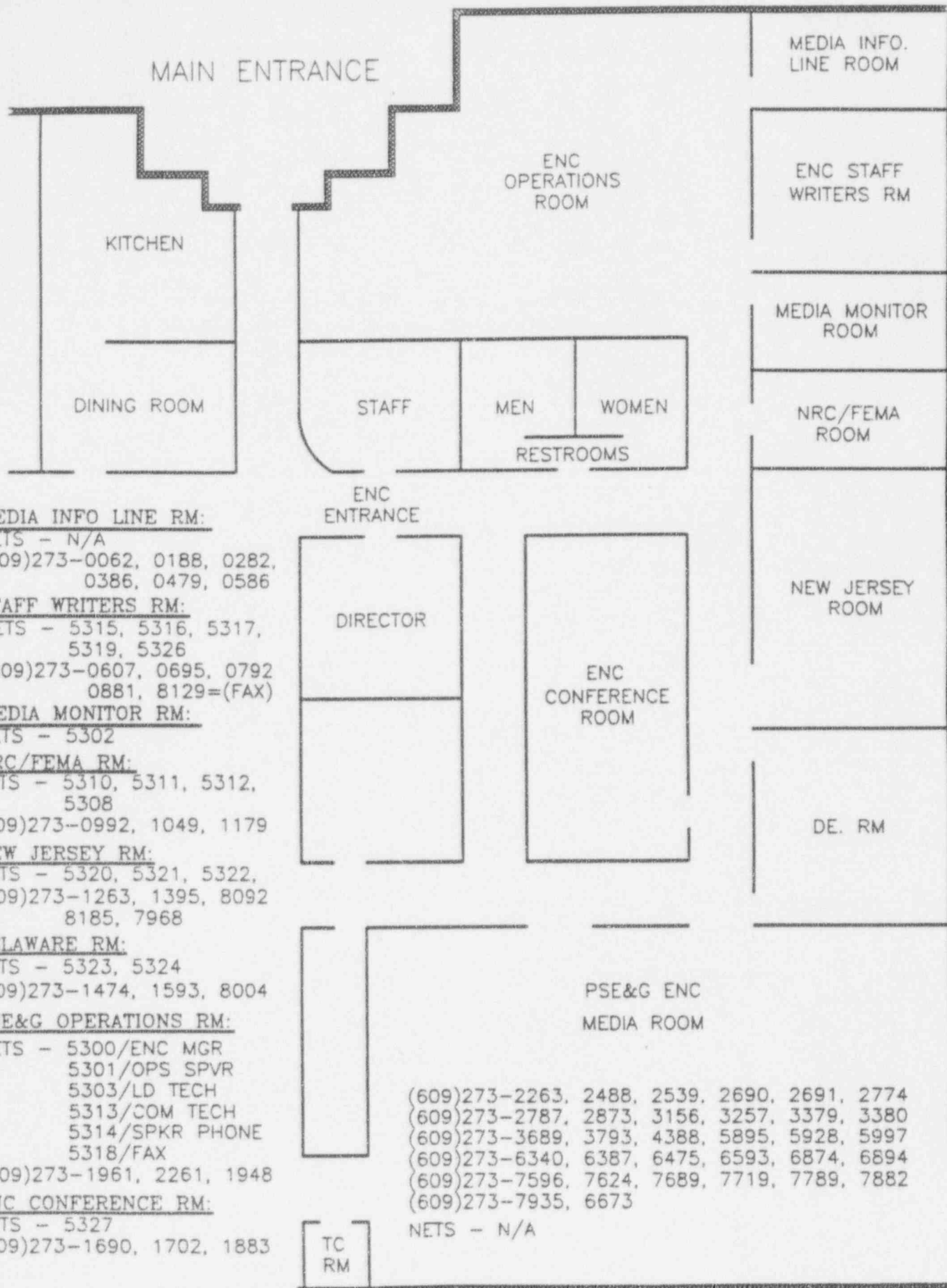
NRC/FTS KEY:

- | | | |
|------------------|-------------------|------------------|
| ENS 700-361-3874 | PMCL 700-361-3876 | MCL 700-361-3872 |
| HPN 700-361-3871 | RSCL 700-361-3873 | LAN 700-361-3875 |
| | | FAC2 |

ROOM "C" COMMUNICATIONS

- LOCKER A
 13. NETS x5021 ESSX x8519
 DID x3995
 LOCKER F
 14. NETS x5022 DID x3788
 NETS x5023 DID x3789
 ESSX x7650
 LOCKER J
 15. NETS x5007 DID x3765
 NETS x5020 DID x3991
 ESSX x7580
 16. NETS x5017
 NETS x5018
 NETS x5019
 NRC/RSCL (FTS)
 CONFERENCE ROOMS
 17. NETS x5038
 18. NETS x5036

PSE&G - EMERGENCY NEWS CENTER



MEDIA INFO LINE RM:

NETS - N/A
 (609)273-0062, 0188, 0282,
 0386, 0479, 0586

STAFF WRITERS RM:

NETS - 5315, 5316, 5317,
 5319, 5326
 (609)273-0607, 0695, 0792
 0881, 8129=(FAX)

MEDIA MONITOR RM:

NETS - 5302

NRC/FEMA RM:

NETS - 5310, 5311, 5312,
 5308
 (609)273-0992, 1049, 1179

NEW JERSEY RM:

NETS - 5320, 5321, 5322,
 (609)273-1263, 1395, 8092
 8185, 7968

DELAWARE RM:

NETS - 5323, 5324
 (609)273-1474, 1593, 8004

PSE&G OPERATIONS RM:

NETS - 5300/ENC MGR
 5301/OPS SPVR
 5303/LD TECH
 5313/COM TECH
 5314/SPKR PHONE
 5318/FAX
 (609)273-1961, 2261, 1948

ENC CONFERENCE RM:

NETS - 5327
 (609)273-1690, 1702, 1883

PSE&G ENC
 MEDIA ROOM
 (609)273-2263, 2488, 2539, 2690, 2691, 2774
 (609)273-2787, 2873, 3156, 3257, 3379, 3380
 (609)273-3689, 3793, 4388, 5895, 5928, 5997
 (609)273-6340, 6387, 6475, 6593, 6874, 6894
 (609)273-7596, 7624, 7689, 7719, 7789, 7882
 (609)273-7935, 6673

NETS - N/A

TC
 RM

SECTION 3.4

PLAYER PARTICIPANT'S EVALUATION REPORT

Drill Type: Artificial Island Annual Exercise

Date: October 25, 1994

Drill Number: H94-06

Your Emergency Position Title: _____

Facility: (circle one) SIM OSC TSC CP EOF ENC

Summary of Comments/Deficiencies/Suggestions

Positive Observations: _____

Facility/Equipment problems: _____

Procedure problems: _____

Scenario problems: _____

Other comments/concerns/suggestions, etc: _____

Submitted by: _____
(optional)

(continue on back
if needed)

SECTION 3.4

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Positive Observations: _____

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Scenario problems: _____

Other comments/concerns/suggestions, etc:

Submitted by: _____
(optional)

(continue on back
if needed)

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Drill Number: H94-06

Your Emergency Position Title: _____

Facility: (circle one) SIM OSC TSC CP EOF ENC

Summary of Comments/Deficiencies/Suggestions

Positive Observations: _____

Facility/Equipment problems: _____

Procedure problems: _____

Scenario problems: _____

Other comments/concerns/suggestions, etc: _____

Submitted by: _____
(optional)

(continue on back if needed)

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Positive Observations: _____

Facility/Equipment problems: _____

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Scenario problems: _____

Other comments/concerns/suggestions, etc: _____

Submitted by: _____
(optional)

(continue on back
if needed)

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Summary of Comments/Deficiencies/Suggestions

Positive Observations: _____

Facility/Equipment problems: _____

Procedure problems: _____

Scenario problems: _____

Other comments/concerns/suggestions, etc: _____

Submitted by: _____
(optional)

(continue on back
if needed)

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Drill Type: Artificial Island Annual Exercise

Date: October 25, 1994

Drill Number: H94-06

Your Emergency Position Title: _____

Facility: (circle one) SIM OSC TSC CP EOF ENC

Summary of Comments/Deficiencies/Suggestions

Positive Observations: _____

Facility/Equipment problems: _____

Procedure problems: _____

Scenario problems: _____

Other comments/concerns/suggestions, etc: _____

Submitted by: _____
(optional)

(continue on back
if needed)

EXERCISE SIGN-IN SHEET

Drill Type: **Artificial Island Annual Exercise**

Drill Number: H94-06 Facility: SIM OSC TSC CP EOF ENC

Time: _____ to _____ hrs.

Date: October 25, 1994

Social Security Number	1. Print Name 2. Signature	Emergency Plan Position / Title
	1.	
	2.	
	1.	
	2.	
	1.	
	2.	
	1.	
	2.	
	1.	
	2.	
	1.	
	2.	
	1.	
	2.	
	1.	
	2.	

EXERCISE SIGN-IN SHEET

Drill Type: **Artificial Island Annual Exercise**

Drill Number: H94-06 Facility: SIM OSC TSC CP EOF ENC

Time: _____ to _____ hrs. Date: October 25, 1994

Social Security Number	1. Print Name 2. Signature	Emergency Plan Position / Title
	1.	
	2.	
	1.	
	2.	
	1.	
	2.	
	1.	
	2.	
	1.	
	2.	
	1.	
	2.	
	1.	
	2.	
	1.	
	2.	
	1.	
	2.	
	1.	
	2.	

SECTION 4.0
ARTIFICIAL ISLAND
ANNUAL EXERCISE
REFEREE/OBSERVER INFORMATION

<u>SECTION #</u>	<u>SECTION NAME</u>	<u>PAGE #</u>
4.1	Referee/Observer & Player Lists	4.1.0
4.2	Referee/Observer Instructions	4.2.0
4.3	Referee Evaluation Sheets & Report	4.3.0
4.4	Phone Lists (NETS, DID, ESSX)	4.4.0

ARTIFICIAL ISLAND
ANNUAL EXERCISE (H94-06)
OCTOBER 25, 1994

REFEREE/OBSERVER ASSIGNMENT LIST
REV. 2

<u>BOOK NO.</u>	<u>NAME</u>	<u>LOCATION/DUTIES</u>
1.	MITCH DIOR	SIML - LEAD REF - SNSS & CR OVERALL
2.	DAVE FAWCETT	SIML - OPERATIONS/OSC INTERFACE
3.	DENNIS KABACHINSKI	SIML - OPERATIONS/SIMULATOR CONTROL
4.	MARTY LICHTNER	SIML - OPERATIONS/EOPS
5.	BILL WECKSTEIN	SIML - COMMUNICATIONS/RMS DATA
N/A	TBA - D. POWELL	CR - SIMULATOR/PLANT INTERFACE
6.	MARK AZZARO	OSC - LEAD REF - OSCC & OSC OVERALL
7.	LARRY ZITKEVITZ	OSC - RAD PRO - RPS EXP CONTROL
8.	HARLAN HANSON, JR.	OSC - TEAM ACTIVITIES
9.	BILL SUTTON	OSC - TEAM ACTIVITIES
10.	TERRY O'BRIEN	OSC - TEAM ACTIVITIES
11.	WAYNE BOOZ	OSC - TEAM ACTIVITIES
12.	JOHN DILKS	OSC - TEAM ACTIVITIES
13.	BOB STAMATO	OSC - TEAM ACTIVITIES
14.	DEVON PRICE	OSC - TEAM ACTIVITIES
15.	BRJAN SEBASTIAN	OSC - TEAM ACTIVITIES
16.	JOHN CARLIN	OSC - FIRE BRIGADE ACTIVITIES
17.	JOHN HARRIS	CP - LEAD REF - RPS INP & CP OVERALL
18.	DAVE MASON	CP - RAD PRO ACTIVITIES
19.	MIKE ADZIMA	CP - CHEM/PASS ACTIVITIES
20.	CRAIG BANNER	TSC - HEAD REF - EDO/TSS & TSC OVERALL
21.	RAY REECE	TSC - RAD PRO ACTIVITIES
22.	JOHN MOLNFR	TSC - RAD PRO ACTIVITIES
23.	MIKE KULIG	TSC - ONSITE FIELD TEAM ACTIVITIES
24.	BILL BERG	TSC - ENGINEERING ACTIVITIES
25.	FRANK SAFIN	TSC - CORE DAMAGE ASSESSMENT
26.	GEORGE THOMSON	TSC - COMMUNICATIONS/ADMIN SUPPORT
27.	JOE LOEB	TSC - SECURITY ACTIVITIES
28.	BARRY WEISER	MGH - SECURITY CENTER ACTIVITIES
29.	JIM SCHAFFER	EOF - LEAD REF - EOF OVERALL
30.	BOB YEWDALE	EOF - DOSE ASSESSMENT
31.	JOHN TREJO	EOF - RAD PRO ACTIVITIES OVERALL
32.	GARY NAYLER	EOF - ENGINEERING/TECH SUPPORT
33.	BOB MALONE	EOF - COMMUNICATIONS/NRC INTERFACE
34.	PHIL DUCA	EOF - SITE SUPPORT ACTIVITIES
35.	KAREN ROOTS	EOF - ADMIN SUPPORT
36.	LUCIUS CLARK	EOF - OFFSITE FIELD TEAM
37.	JEANNE HEDGE	EOF - OFFSITE FIELD TEAM
38.	MICHAELE CAMP	ENC - LEAD REF - ENC OVERALL
39.	TOM BROWN	ENC - OPERATIONS/COMMUNICATIONS
40.	BILL STEWART	ENC - OPERATIONS/GOVT RELATIONS
41.	DAWN DRUMMOND-WOLFROM	ENC - MEDIA MONITORS
42.	JOHN MOONEY	ENC - MEDIA INTERFACE
43.	STEVE STASOLLA	DEL - DELAWARE LEAD REFEREE OVERALL
44.	MARY ANN QUINN	NJ - BNE REFEREE

HOPE CREEK GRADED EXERCISE (H94-06)
 DRILL PLAYER ASSIGNMENT LISTING

NO.	NAME	LOCATION/POSITION
1.	K. Krueger	SIM - SNSS
2.	R. Cummins	SIM - NSTA
3.	S. Dennis	SIM - NSS
4.	G. Schmelz	SIM - NCO
5.	M. Roman	SIM - NCO
6.	T. Catalano	SIM - Communicator (CM1)
7.	J. Price	SIM - Communicator (CM2)
8.	S. Miller	OSC - Coordinator
9.	J. Lewis	OSC - Maintenance Sup. (Mech.)
10.	A. Vegliante	OSC - Shift Control Tech Elec
11.	G. Parris, Jr.	OSC - Cont Tech Elec
12.	B. Booz	OSC - I & C Supervisor
13.	G. Scimeca	OSC - Nuc Tech Machinist
14.	G. Pison	OSC - Shift I & C Tech
15.	T. Quirk	OSC - Cont Tech I & C
16.	E. Bubier	OSC - Operations Supervisor
17.	C. Hernandez	OSC - Equipment Operator
18.	E. Schilling	OSC - Equipment Operator
19.	T. Kretzer	OSC - Equipment Operator
20.	TBA - O'Malley	OSC - Radwaste Operator
21.	T. Wallender	OSC - Rad Pro Supv Exp Cont
22.	H. Thompson	OSC - Fire Brigade Supv
23.	T. Denny	OSC - Fire Brigade
24.	P. Uhland	OSC - Fire Brigade
25.	F. Schemelely	OSC - Fire Brigade
26.	B. Schmid	OSC - Fire Brigade
27.	G. Pitton	OSC - Fire Brigade
28.	J. Hagan	OSC - Fire Brigade
29.	A. Knight	OSC - Fire Brigade
30.	D. Buck	OSC - Duty Storekeeper
31.	F. Mauro	OSC - Planner
32.	M. MacWatters	OSC - Administrative Clerk
33.	D. Brown	OSC - Nuc. Tech Welder
34.	T. Fries	OSC - Relay Supervisor
35.	B. Solomen	OSC - Relay Technician
36.	G. Parkhurst	CP - Rad Pro Supv In Plant
37.	T. Lake	CP - Chem Supv
38.	S. Poinsett	CP - Chem Tech/PASS
39.	M. Fagan	CP - Chem Tech/PASS
40.	B. Humphries	CP - Shift Rad Pro Tech
41.	W. Wagner	CP - Rad Pro Tech
42.	R. McCarthy	CP - Rad Pro Tech
43.	T. Rollins	CP - Rad Pro Tech
44.	C. Roller	CP - Rad Pro Tech

HOPE CREEK GRADED EXERCISE (H94-06)
DRILL PLAYER ASSIGNMENT LISTING

NO.	NAME	LOCATION/POSITION
45.	T. McCleave	CP - Rad Pro Tech
46.	J. Seymour	CP - Rad Pro Tech
47.	J. Fitzpatrick	TSC - Salem Rad Pro Tech
48.	G. Ondricek, Jr.	TSC - Salem Rad Pro Tech
49.	M. Trum	TSC - EDO
50.	B. Gary	TSC - RAC
51.	L. Wagner	TSC - TSS
52.	M. Vest	TSC - Admin Support Supv
53.	A. House	TSC - EPA
54.	TBA - Renwick	TSC - Security Liaison
55.	G. Slaby	TSC - Chemistry Supervisor
56.	C. Vinne	TSC - Rad Pro Supv. - Offsite
57.	J. Iannucci	TSC - Rad Pro Tech
58.	L. Riley	TSC - Rad Pro Tech
59.	R. Harrington	TSC - Rad Pro Tech
60.	P. Opsal	TSC - Tech Supp Team Leader
61.	V. Rao	TSC - Electrical Engineer
62.	R. Masten	TSC - Mechanical Engineer
63.	J. Hawrylak	TSC - Controls Engineer
64.	R. Schmidt	TSC - Core Thermal Engineer
65.	C. Brennan	TSC - Nuclear Fuels Engineer
66.	D. Fisher	TSC - Communicator
67.	R. Lickliter	TSC - Communicator
68.	L. Dyer	TSC - Admin Support
69.	K. Master	TSC - Admin Support
70.	L. Locke	TSC - Admin Support
71.	S. Delp	TSC - Admin Support (TDR)
72.	L. Maier	TSC - Admin Support (RP)
73.	TBA - Renwick	TSC - Security Force Member
74.	L. Miller	EOF - ERM
75.	M. Simpson	EOF - RSM
76.	J. Bailey	EOF - TSM
77.	B. McKeever	EOF - ASM
78.	C. Bauer	EOF - SSM
79.	B. Billings	EOF - Rad Assess Staff
80.	D. Branham	EOF - Rad Assess Staff
81.	J. Russell	EOF - Rad Assess Staff
82.	D. Parks	EOF - Rad Assess Staff
83.	D. Granberg	EOF - Rad Assess Staff
84.	P. Quick	EOF - Rad Assess Staff
85.	D. Tisdal	EOF - Field Team Comm
86.	J. Beattie	EOF - Off Site Team
87.	T. Migdal	EOF - Off Site Team
88.	A. Wesolek	EOF - Off Site Team
89.	J. Livermore	EOF - Off Site Team
90.	C. Manges, Jr.	EOF - Licensing Support
91.	W. DeNardi	EOF - System Engineer
92.	M. Idell	EOF - System Engineer
93.	W. Maher	EOF - System Engineer
94.	A. Johnson	EOF - System Engineer
95.	B. Bovankovich	EOF - System Engineer

**HOPE CREEK GRADED EXERCISE (H94-06)
DRILL PLAYER ASSIGNMENT LISTING**

NO.	NAME	LOCATION/POSITION
96.	C. Atkinson	EOF - Controls Engineer
97.	J. Bussman	EOF - Electrical Engineer
98.	P. Fallin	EOF - Admin Support
99.	D. Wyckoff	EOF - Admin Support
100.	A. Lloyd	EOF - Admin Support
101.	C. Tolley	EOF - Admin Support
102.	L. Veasey	EOF - Admin Support
103.	A. Gross	EOF - Admin Support - RP
104.	D. Hitchner	EOF - Personnel Supervisor
105.	M. Klessel	EOF - Purchasing Support
106.	R. Gehret, Jr.	EOF - Material Control
107.	W. Chausse	EOF - SSM Ops Staff
108.	E. Dean	EOF - SSM Staff (CM1)
109.	R. Rudy	EOF - SSM Staff (CM2)
110.	M. Ivanick	EOF - Security Liaison
111.	D. Burgin	EOF - EPA
112.	T. DiGuisseppi	EOF - EPC
113.	TBA - Renwick	EOF - Security Force Member #1
114.	TBA - Renwick	EOF - Security Force Member #2
115.	R. Bell	EOF - Public Info Liaison
116.	T. Chipko	EOF - Telecommunications Supp
117.	M. Sesok	EOF - A.E. Co-owner Rep.
118.	B. Burricelli	ENC - Company Spokesperson
119.	B. Gorman	ENC - ENC Manager
120.	C. Florentz	ENC - PIM/Comm Supervisor
121.	L. Aversa	ENC - Lead Tech Adv.
122.	R. Bashall	ENC - Tech Advisor
123.	R. Bravo	ENC - Tech Advisor
124.	F. Centore	ENC - Staff Writer
125.	P. Lanning	ENC - Staff Writer
126.	F. Davis	ENC - Media Monitor
127.	E. Kidd	ENC - Media Monitor
128.	P. Travers	ENC - Industry Coord
129.	E. McManus	ENC - Rumor Control Coord
130.	R. Sutton	ENC - Media Info Supervisor
131.	M. Haberland	ENC - Media Info Line Operator
132.	V. Moniz	ENC - Media Info Line Operator
133.	C. Vitale	ENC - Media Info Line Operator
134.	D. Straubmuller	ENC - Ops Supervisor
135.	D. Cheeseman	ENC - Admin Supp
136.	D. Fedosick	ENC - Admin Supp
137.	A. Shimp	ENC - Admin Supp
138.	K. Leach	ENC - Admin Supp
139.	M. Rodrigues	ENC - Admin Supp
140.	F. Smith	ENC - Admin Supp
141.	J. Garofalo	ENC - Gov. Affairs Coordinator
142.	P. Jefferson	ENC - Audio Visual Serv Coord
143.	TBA - Renwick	ENC - Security Force Member #1
144.	TBA - Renwick	ENC - Security Force Member #2
145.	TBA - Renwick	ENC - Security Force Member #3
146.	J. Dotterer	ENC - Computer Analyst
147.	TBA - Weckstein	ENC - RMC Spokesperson

SECTION 4.2

ARTIFICIAL ISLAND
ANNUAL EXERCISE
REFEREE AND OBSERVER INSTRUCTIONS

1. Referees are assigned by PSE&G to all key functional areas to control and evaluate the exercise. In addition, they are prepared to accompany team into the field (onsite and offsite) to provide data and event messages that support the overall exercise scenario.

Observers may also be assigned to provide additional feedback regarding the effectiveness of the exercise and the plan.

2. Onsite Referees and Observers will coordinate their activities with the Head Referee in the Technical Support Center. If unable to contact the Head Referee, then contact the OSC Lead Referee.

Offsite Referees and Observers will contact the EOF Lead Referee.

3. Message forms and simulated operational/ radiological data are used to initiate, modify, and complete the events that comprise the overall scenario.

Three kinds of messages are used:

Controlling messages used as the primary means of implementing scenario events by presenting postulated alarms or indications to the appropriate player(s) to supplement or augment Simulator or field indications.

Contingency messages used at the discretion of the Head Referee in order to maintain the scenario timeline or prompt specific response activities that were planned to be evaluated (exercise objectives related).

Dark Board messages used at the discretion of the Simulator Lead Referee if the simulator is not in service. These messages provide alarms and indications that the CR Staff would normally observe if the simulator was in use.

Messages are expected to be provided to the designated drill player at the time specified on the form. Although generally self sufficient, the referee may follow-up with an explanation of the message to ensure that it is understood.

Referees will not initially provide information to the players regarding scenario development or the resolution of problem areas encountered. The players are expected to obtain information through their own organization and exercise their own judgment in determining response actions and resolving problems.

In the event of incorrect or incomplete responses, or if the

REFEREE AND OBSERVER INSTRUCTIONS (cont'd)

player indicates lack of knowledge of how to proceed, the referee will prompt the player with the necessary instructions or contingency messages and will note the deficiency for later critique.

4. The scenario events are hypothetical. Any portions of the scenario depicting plant system operational transients are simulated events. No Control Room actions, or reactions involving operation of plant systems, or affecting generation capability will be initiated. All exercise scenario messages will begin and end with the words,

"THIS IS A DRILL".

Referees stationed at areas vital to maintaining generating capability should be especially aware, and take extra precautions, in issuing messages or giving instructions regarding the scenario events.

5. Where practical, operational and radiological data will be displayed on the Simulator in real time or in hard copy format at locations where the data would normally be available to the player during a real emergency. Referees will control the use of this information to ensure that the correct data is displayed at the correct time and to provide interpolated data between prepared time intervals.
6. Players may occasionally insist that certain parts of the scenario are unrealistic. The lead referees have the authority to clarify any questions regarding scenario content. However, in some cases, it may be necessary to exercise "scenario license" to preserve the continuity of the drill and meet the objectives of the exercise.

Players are expected to demonstrate good drillsmanship by accepting the referee's decision and continue to play while noting their concerns for resolution at the critique.

7. Prior to drill commencement, lead referees shall establish communications with their counterparts in each facility. All referee watches and clocks shall be synchronized with the Simulator to ensure the proper control of messages and data per the timeline of the scenario.
8. OSC Referees and those observers or evaluators who intend to follow team activities must be prepared ahead of time to do so. (i.e. Vital Area access, RWP sign-in, hard hats and glasses if needed, etc.)
9. Scenario problems not covered in this exercise manual must be referred to the Head Referee for resolution if they are in any way affecting the safe or effective conduct of this exercise.
10. For drills exceeding four hours, a meal may be provided by PSE&G, however, there is no specific meal time break in the scenario. All participants, including referees, should be allotted time for their meal as time permits, but not to

REFEREE AND OBSERVER INSTRUCTIONS (cont'd)

interfere with the exercise.

11. NRC Region I Incident Response Team members are regarded as players during the course of this exercise and will be evaluated by the NRC exercise evaluators.

DO's

1. Know the overall Referee/ Observer organization. Know especially the Lead Referee in your facility or area.
2. Remember that there are two clocks:
Scenario time, starting at 00:00 and real clock time.
3. Identify the players you are controlling or observing.
4. Identify yourself to the players as their referee/ observer. Ensure all participants wear ID provided (i.e. shirts, hats)
5. Determine the phone (or radio for field teams) that you will use to maintain communications with your lead referee.
6. Position yourself to maximize your effectiveness in issuing messages and controlling the responses of the recipients.
7. Keep the play on schedule by issuing messages on time. Refer to the overall scenario timeline.
8. Make sure the players understand what the message is trying to convey, but do not prompt what is expected of the player to perform.
9. Allow the players reasonable flexibility to do their functions and demonstrate their skill, knowledge, and initiative.
10. Remember to call the Head Referee to report if players actions depart significantly from the scenario script and may affect the overall scenario timeline. If necessary, intervene with the player actions to put the scenario back on track, "for scenario control".
11. Identify yourself to any Federal evaluators (NRC/FEMA). Make them reasonably aware of your interactions with the players as you control the scenario.
12. Make notes on good and bad things that happen. Note both strengths and weaknesses in individual performances as well as the plan. Attempt to assess the causes of poor performance and use the observation checklists.
13. Attend the post drill critique session to provide your comments and recommendations to the Lead Referees.
14. Remember, if a real emergency or operational problem occurs, call off your portion of the exercise and notify the Head Referee immediately!

REFEREE AND OBSERVER INSTRUCTIONS (cont'd)

DO's (cont'd)

15. Ensure that actual problems with plant equipment or structures that are discovered during the exercise, if any, are identified to the duty SNSS and documented by the players if necessary (EMIS tagging).

DON'Ts

1. Don't leave your post at key times.
2. Don't prompt the players except through use of approved messages.
3. Don't coach the players.
4. Don't criticize or praise the player's actions during the play of the drill.
5. Don't allow the players to introduce events or modify the data.

In other words, don't deviate from the scenario timeline unless such actions are expressly permitted by the Head Referee.

6. Don't allow the player's actions, or your own, to violate normal plant rules regarding security, safety, or radiological controls.

Always exercise your authority as a referee to ensure plant and personnel safety. That is controlling, not prompting.

7. Don't allow the players to be distracted by the presence of observers or evaluators. These participants may wish to ask questions of the players in order to better understand the actions they are observing.

Such questions are permissible, but should be directed first to the referee who may provide the answer or at least participate in the interview with the player to ensure there is no misunderstanding.

8. Don't forget that the NRC Region I Incident Response Team members are players also, and are not privy to the scenario. As players they are encouraged to interact with our emergency response players as an integrated team.

SECTION 4.3

ARTIFICIAL ISLAND
ANNUAL EXERCISE

REFEREE OBSERVATION SHEETS

Page #

- 4.3.1 Control Room Command and Control/Operations
- 4.3.2 Control Room Notifications and Communications
- 4.3.3 TSC Command and Control/Security
- 4.3.4 TSC Technical Support
- 4.3.5 TSC Radiological Assessment/Chemistry Response
- 4.3.6 TSC Notification and Communication/Administration Support
- 4.3.7 OSC Command and Control/Operations/Communications
- 4.3.8 OSC Support Personnel
- 4.3.9 Chemistry Sampling and Analysis Teams
- 4.3.10 Control Point Command and Control/Operations/Communications
- 4.3.11(a) Inplant Radiation Monitoring Teams
- 4.3.11(b) Onsite Radiation Monitoring Teams
- 4.3.11(c) Offsite Radiation Monitoring Teams
- 4.3.12 EOF Radiological Assessment
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- 4.3.14 EOF Command and Control/Operations/Security
- 4.3.15 EOF Communications/Administrative Support
- 4.3.16 ENC Public Information and Media Relations
- 4.3.17 Exercise Control and Evaluation
- 4.3.18 Observation/Evaluation Sheet (Referees/Observers)
- 4.3.20 Controller Critique Guidelines

4.3.1 OBSERVATION CHECKLIST

Area/Function Observed: Control Room Command and Control/Operations

Name: _____ Exercise Date: _____

		(check one)	
<u>Exercise Objectives to be demonstrated</u>		<u>Adequate</u>	<u>Inadequate</u>
A.2	Provide technical and operational information concerning plant status/prognosis to appropriate TSC and EOF emergency personnel.	_____	_____
B.1	Recognizing and classifying emergency conditions.	_____	_____
C.1	Implement appropriate Emergency Plan procedures.	_____	_____
C.2	Transfer responsibilities of Emergency Coordinator.	_____	_____
C.3	Command and control of Control Room emergency response.	_____	_____
C.4	Establishing and directing OSC team priorities through the OSCC.	_____	_____
C.5	Identify changing plant conditions and brief Control Room personnel concerning degraded or improved plant status.	_____	_____
C.6	Ability of the Control Room Staff to interface with the NRC Site Response Team.	_____	_____
F.1	Recognizing operational symptoms and parameters indicative of degrading plant conditions.	_____	_____

Signed: _____

Note: Use the back of this sheet to give details on any "inadequate" demonstrations of objectives.

Return completed checklist to the Emergency Preparedness Manager, MC-N37.

4.3.2 OBSERVATION CHECKLIST

Area/Function Observed: Control Room Notifications and Communications

Name: _____ Exercise Date: _____

<u>Exercise Objectives to be demonstrated</u>		(check one)	
		<u>Adequate</u>	<u>Inadequate</u>
A.2	Communications capabilities between Emergency Response Facilities.	_____	_____
B.1	Implement notifications and data communications in accordance with procedures.	_____	_____
B.2	Capability to perform timely notifications to the States of New Jersey and Delaware.	_____	_____
B.3	Capability to notify and communicate with the NRC via secondary phone lines.	_____	_____
F.2	Proper communications methods and timely notifications to offsite agencies.	_____	_____

Signed: _____

Note: Use the back of this sheet to give details on any "inadequate" demonstrations of objectives.

Return completed checklist to the Emergency Preparedness Manager, MC-W37.

4.3.3 OBSERVATION CHECKLIST

Area/Function Observed: TSC Command and Control/Security

Name: _____ Exercise Date: _____

<u>Exercise Objectives to be demonstrated</u>		(check one)	
		<u>Adequate</u>	<u>Inadequate</u>
A.1	Activation and staffing of the Technical Support Center.	_____	_____
B.1	Recognizing and classifying emergency conditions.	_____	_____
C.1	Implement appropriate Emergency Plan procedures.	_____	_____
C.2	Transfer responsibilities of Emergency Coordinator.	_____	_____
C.3	Command and control of TSC emergency response.	_____	_____
C.4	Effective organizational control and integrated emergency response.	_____	_____
C.5	Identify changing plant conditions and brief TSC personnel concerning degraded or improved plant status.	_____	_____
C.6	Ability of the TSC Staff to interface with the NRC Site Response Team.	_____	_____
I.1	Establishing and controlling security access onsite and maintaining personnel accountability within the Protected Area.	_____	_____

Signed: _____

Note: Use the back of this sheet to give details on any "inadequate" demonstrations of objectives.

Return completed checklist to the Emergency Preparedness Manager, MC-N37.

4.3.4 OBSERVATION CHECKLIST

Area/Function Observed: TSC Technical Support/Engineering

Name: _____ Exercise Date: _____

<u>Exercise Objectives to be demonstrated</u>	(check one)	
	<u>Adequate</u>	<u>Inadequate</u>
B.3 Communicate technical information between emergency response facilities.	_____	_____
C.1 Implement appropriate Emergency Plan procedures.	_____	_____
H.1 Develop alternative methods or equipment alterations in response to accidents affecting plant systems or components.	_____	_____
H.2 Assess plant operational data and provide recommendations concerning accident mitigation and engineering based PAR's when appropriate.	_____	_____
H.3 Identify or recognize when fission product boundaries are breached.	_____	_____
H.4 Estimate fuel damage using available data should core damage occur.	_____	_____

Signed: _____

Note: Use the back of this sheet to give details on any "inadequate" demonstrations of objectives.

Return completed checklist to the Emergency Preparedness Manager, MC-N37.

4.3.5 OBSERVATION CHECKLIST

Area/Function Observed: TSC Radiological/Chemistry

Name: _____ Exercise Date: _____

<u>Exercise Objectives to be demonstrated</u>		(check one)	
		<u>Adequate</u>	<u>Inadequate</u>
C.1	Implement appropriate Emergency Plan procedures.	_____	_____
C.4	Coordinate, control, and deploy radiological monitoring teams.	_____	_____
D.1	Communicate with and control field monitoring teams and receipt and analysis of field data.	_____	_____
D.2	Determine recommendations of PAR's based on dose projections or plant chemistry.	_____	_____
G.1	Decision making for limiting exposure of emergency response personnel.	_____	_____
G.2	Perform dose assessment and effectively distribute dosimetry and thyroid blocking agents, if appropriate.	_____	_____

Signed: _____

Note: Use the back of this sheet to give details on any "inadequate" demonstrations of objectives.

Return completed checklist to the Emergency Preparedness Manager, MC-N37.

4.3.6 OBSERVATION CHECKLIST

Area/Function Observed: TSC Notifications/Communications/Admin. Support

Name: _____ Exercise Date: _____

<u>Exercise Objectives to be demonstrated</u>		(check one)	
		<u>Adequate</u>	<u>Inadequate</u>
A.2	Communications capabilities between emergency response facilities.	_____	_____
A.3	Facilities and displays to support emergency operations.	_____	_____
B.2	Capability to perform timely notifications to the States of New Jersey and Delaware.	_____	_____
B.3	Communicate technical information between emergency response facilities.	_____	_____
B.3	Capability to notify and communicate with the NRC via the Emergency Notification System (ENS).	_____	_____
B.4	Capability to formulate around the clock emergency response duty rosters to allow extended activation of emergency response.	_____	_____
F.2	Proper communications methods and timely notifications to offsite agencies.	_____	_____

Signed: _____

Note: Use the back of this sheet to give details on any "inadequate" demonstrations of objectives.

Return completed checklist to the Emergency Preparedness Manager, MC-N37.

4.3.7 OBSERVATION CHECKLIST

Area/Function Observed: OSC Command and Control/Operations/Communications

Name: _____ Exercise Date: _____

<u>Exercise Objectives to be demonstrated</u>	(check one)	
	<u>Adequate</u>	<u>Inadequate</u>
A.2 Communications capabilities between emergency response facilities.	_____	_____
B.3 Communication of technical information between the OSC and other ERFs.	_____	_____
C.1 Implement appropriate Emergency Plan procedures.	_____	_____
F.4 Command and control functions within the OSC.	_____	_____
F.5 Properly set-up, staff, and operate the OSC.	_____	_____
F.6 Coordinate the dispatch of OSC teams to meet SNSS priorities.	_____	_____
G.3 Adequate health physics support for OSC dispatched teams deployed in areas of radiological concern.	_____	_____

Signed: _____

Note: Use the back of this sheet to give details on any "inadequate" demonstrations of objectives.

Return completed checklist to the Emergency Preparedness Manager, MC-N37.

4.3.8 OBSERVATION CHECKLIST

Area/Function Observed: OSC Support Personnel

Name: _____ Exercise Date: _____

<u>Exercise Objectives to be demonstrated</u>		(check one)	
		<u>Adequate</u>	<u>Inadequate</u>
F.3	Implement protective actions for site personnel dispatched from the OSC.	_____	_____
F.5	Properly set-up, staff, and operate the OSC.	_____	_____
F.6	Capability of dispatched OSC teams to respond as directed by the OSCC.	_____	_____
G.3	Adequate health physics support for OSC dispatched teams deployed in areas of radiological concern.	_____	_____

Signed: _____

Note: Use the back of this sheet to give details on any "inadequate" demonstrations of objectives.

Return completed checklist to the Emergency Preparedness Manager, MC-N37.

4.3.9 OBSERVATION CHECKLIST

Area/Function Observed: Chemistry Sampling and Analysis

Name: _____ Exercise Date: _____

<u>Exercise Objectives to be demonstrated</u>		(check one)	
		<u>Adequate</u>	<u>Inadequate</u>
A.2	Provide technical information concerning plant status/chemistry to the TSC.	_____	_____
C.1	Implement appropriate Emergency Plan procedures.	_____	_____
G.3	Adequate health physics support for Chemistry sampling teams deployed in areas of radiological concern.	_____	_____

Signed: _____

Note: Use the back of this sheet to give details on any "inadequate" demonstrations of objectives.

Return completed checklist to the Emergency Preparedness Manager, MC-N37.

4.3.10 OBSERVATION CHECKLIST

Area/Function Observed: Control Point Command and Control/Communications

Name: _____ Exercise Date: _____

<u>Exercise Objectives to be demonstrated</u>		(check one)	
		<u>Adequate</u>	<u>Inadequate</u>
A.2	Communications capabilities between emergency response facilities.	_____	_____
B.3	Communication of technical information between the CP and other ERFs.	_____	_____
C.1	Implement appropriate Emergency Plan procedures.	_____	_____
C.3	Command and control of Control Point emergency response.	_____	_____
G.2	Methods and resources for distributing dosimetry and thyroid blocking agent to emergency responders, if appropriate.	_____	_____
G.3	Adequate health physics support for OSC dispatched teams deployed in areas of radiological concern.	_____	_____

Signed: _____

Note: Use the back of this sheet to give details on any "inadequate" demonstrations of objectives.

Return completed checklist to the Emergency Preparedness Manager, MC-N37.

4.3.11(a) OBSERVATION CHECKLIST

Area/Function Observed: Inplant Monitoring Teams

Name: _____ Exercise Date: _____

<u>Exercise Objectives to be demonstrated</u>		(check one)	
		<u>Adequate</u>	<u>Inadequate</u>
C.1	Implement appropriate Emergency Plan procedures.	_____	_____
F.6	Coordinate the dispatch of OSC and CP teams to meet SNSS priorities.	_____	_____
G.2	Methods and resources for distributing dosimetry and thyroid blocking agent to emergency responders, if appropriate.	_____	_____
G.3	Adequate health physics support for OSC dispatched teams deployed in areas of radiological concern.	_____	_____

Signed: _____

Note: Use the back of this sheet to give details on any "inadequate" demonstrations of objectives.

Return completed checklist to the Emergency Preparedness Manager, MC-N37.

4.3.11(b) OBSERVATION CHECKLIST

Area/Function Observed: Onsite Monitoring Teams

Name: _____ Exercise Date: _____

<u>Exercise Objectives to be demonstrated</u>		(check one)	
		<u>Adequate</u>	<u>Inadequate</u>
C.1	Implement appropriate Emergency Plan procedures.	_____	_____
D.1	Communicate radiological data from the field to the TSC and respond to control.	_____	_____
G.2	Methods and resources for distributing dosimetry and thyroid blocking agent to emergency responders, if appropriate.	_____	_____

Signed: _____

Note: Use the back of this sheet to give details on any "inadequate" demonstrations of objectives.

Return completed checklist to the Emergency Preparedness Manager, MC-N37.

4.3.11(c) OBSERVATION CHECKLIST

Area/Function Observed: Offsite Monitoring Teams

Name: _____ Exercise Date: _____

Exercise Objectives to be demonstrated

(check one)
Adequate Inadequate

- | | | | |
|-----|--|-------|-------|
| C.1 | Implement appropriate Emergency Plan procedures. | _____ | _____ |
| D.1 | Communicate radiological data from the field to the EOF and respond to control. | _____ | _____ |
| G.2 | Methods and resources for distributing dosimetry and thyroid blocking agent to emergency responders, if appropriate. | _____ | _____ |

Signed: _____

Note: Use the back of this sheet to give details on any "inadequate" demonstrations of objectives.

Return completed checklist to the Emergency Preparedness Manager, MC-N37.

4.3.12 OBSERVATION CHECKLIST

Area/Function Observed: EOF Radiological Assessment

Name: _____ Exercise Date: _____

		(check one)	
<u>Exercise Objectives to be demonstrated</u>		<u>Adequate</u>	<u>Inadequate</u>
C.1	Implement appropriate Emergency Plan procedures.	_____	_____
C.4	Coordinate, control, and deploy radiological monitoring teams.	_____	_____
D.1	Communicate with and control field monitoring teams and receipt and analysis of field data.	_____	_____
D.2	Determine recommendations of PAR's based on dose projections or plant chemistry.	_____	_____
G.1	Decision making for limiting exposure of emergency response personnel.	_____	_____
G.2	Perform dose assessment and effectively distribute dosimetry and thyroid blocking agents, if appropriate.	_____	_____

Signed: _____

Note: Use the back of this sheet to give details on any "inadequate" demonstrations of objectives.

Return completed checklist to the Emergency Preparedness Manager, MC-N37.

4.3.13 OBSERVATION CHECKLIST

Area/Function Observed: EOF Technical Assessment/Engineering

Name: _____ Exercise Date: _____

(check one)
Adequate Inadequate

Exercise Objectives to be demonstrated

- | | | | |
|-----|--|-------|-------|
| B.3 | Communicate technical information between emergency response facilities. | _____ | _____ |
| C.1 | Implement appropriate Emergency Plan procedures. | _____ | _____ |
| H.1 | Develop alternative methods or equipment alterations in response to accidents affecting plant systems or components. | _____ | _____ |
| H.2 | Assess plant operational data and provide recommendations concerning accident mitigation and engineering based PAR's when appropriate. | _____ | _____ |
| H.3 | Identify or recognize when fission product boundaries are breached. | _____ | _____ |

Signed: _____

Note: Use the back of this sheet to give details on any "inadequate" demonstrations of objectives.

Return completed checklist to the Emergency Preparedness Manager, MC-N37.

4.3.14 OBSERVATION CHECKLIST

Area/Function Observed: EOF Command and Control/Operations/Security

Name: _____ Exercise Date: _____

		(check one)	
		<u>Adequate</u>	<u>Inadequate</u>
<u>Exercise Objectives to be demonstrated</u>			
A.1	Activation and staffing of the Emergency Operations Facility.	_____	_____
B.1	Recognizing and classifying emergency conditions.	_____	_____
C.1	Implement appropriate Emergency Plan procedures.	_____	_____
C.2	Transfer responsibilities of Emergency Coordinator.	_____	_____
C.3	Command and control of EOF emergency response.	_____	_____
C.4	Effective organizational control and integrated emergency response.	_____	_____
C.5	Identify changing plant conditions and brief EOF personnel concerning degraded or improved plant status.	_____	_____
C.6	Ability of the EOF Staff to interface with the NRC Site Response Team.	_____	_____
D.2	Determination of PAR's based on plant conditions and/or dose projections.	_____	_____
I.1	Establishing and controlling security access to the EOF.	_____	_____

Signed: _____

Note: Use the back of this sheet to give details on any "inadequate" demonstrations of objectives.

Return completed checklist to the Emergency Preparedness Manager, MC-N37.

4.3.15 OBSERVATION CHECKLIST

Area/Function Observed: EOF Communications/Admin. Support

Name: _____ Exercise Date: _____

<u>Exercise Objectives to be demonstrated</u>		(check one)	
		<u>Adequate</u>	<u>Inadequate</u>
A.2	Communications capabilities between emergency response facilities.	_____	_____
A.3	Facilities and displays to support emergency operations.	_____	_____
B.2	Capability to perform timely notifications to the States of New Jersey and Delaware.	_____	_____
B.3	Communicate technical information between emergency response facilities.	_____	_____
B.3	Capability to notify and communicate with the NRC via the Emergency Notification System (ENS).	_____	_____
B.4	Capability to formulate around the clock emergency response duty rosters to allow extended activation of emergency response.	_____	_____
F.2	Proper communications methods and timely notifications to offsite agencies.	_____	_____

Signed: _____

Note: Use the back of this sheet to give details on any "inadequate" demonstrations of objectives.

Return completed checklist to the Emergency Preparedness Manager, MC-N37.

4.3.16 OBSERVATION CHECKLIST

Area/Function Observed: ENC Public Information and Media Relations

Name: _____ Exercise Date: _____

<u>Exercise Objectives to be demonstrated</u>		(check one)	
		<u>Adequate</u>	<u>Inadequate</u>
A.2	Communications capabilities between emergency response facilities.	_____	_____
A.3	Facilities and displays to support emergency operations.	_____	_____
C.1	Implement appropriate Emergency Plan procedures.	_____	_____
E.1	Activation and staffing of the Emergency News Center (ENC).	_____	_____
E.2	Ability to issue coordinated periodic public information bulletins.	_____	_____
E.3	Ability to provide rumor control and response to inquiries from the general public in a coordinated fashion.	_____	_____
E.4	Ability to provide clear, timely, and accurate briefings to the news media.	_____	_____
I.1	Establish and control security access to the ENC.	_____	_____

Signed: _____

Note: Use the back of this sheet to give details on any "inadequate" demonstrations of objectives.

Return completed checklist to the Emergency Preparedness Manager, MC-N37.

4.3.17 OBSERVATION CHECKLIST

Area/Function Observed: Exercise Control and Evaluation

Name: _____ Exercise Date: _____

		(check one)	
<u>Exercise Objectives to be demonstrated</u>		<u>Adequate</u>	<u>Inadequate</u>
J.1	Ability to control the scenario in accordance with the prescribed timeline.	_____	_____
J.2	Ability to provide scenario data and address questions which pertain to the data without prompting.	_____	_____
J.3	Ability to adequately critique the exercise performance.	_____	_____

Signed: _____

Note: Use the back of this sheet to give details on any "inadequate" demonstrations of objectives.

Return completed checklist to the Emergency Preparedness Manager, MC-N37.

SECTION 4.3

REFEREE/ OBSERVER DRILL EVALUATION REPORT

Name: _____ Exercise/ Drill Date: Oct. 25, 1994

Location: (circle one) SIM OSC TSC CP EOF ENC

Exercise/ Drill Title: Artificial Island Annual Exercise (H94-06)

Drill Commenced: _____ (time) Drill Terminated: _____ (time)

Note: Refer to Critique Guidelines and Exercise/ Drill Objectives
OBSERVATIONS - Performance of area observed to include drillsmanship.
Areas of Good Performance by personnel: (continue on back, if needed)

Areas of Poor or Questionable Performance: (cont'd on back, if need)

(continued on next page)

Signature: _____

Title: _____

Phone: _____

REFEREE /OBSERVER DRILL EVALUATION REPORT (cont'd)

Facility/ Equipment problems or concerns:

Procedure problems or concerns:

(continued on next page)

Signature: _____

Title: _____

Phone: _____

**EMERGENCY PLAN DRILL/EXERCISE
CONTROLLER CRITIQUE GUIDELINES**

AREAS TO CRITIQUE

1. EMERGENCY RESPONSE ORGANIZATION
 - A. Staffing (full response, timely)
 - B. Facility set up (automatic, timely)
 - C. Command and control (clear, positive, proactive)
 - D. EC turnover (effective, timely)

2. CLASSIFICATIONS AND NOTIFICATIONS
 - A. Classifications (appropriate, timely)
 - B. Notifications to site personnel (clear, timely)
 - C. Notifications to States/Agencies (clear, timely)

3. COMMUNICATIONS
 - A. Within Group/Facility (clear, frequent, to the point)
 - B. Between ERFs (clear, frequent, complete)
 - C. Equipment (telephones, telecopiers, radios, PA)

4. PROCEDURE COMPLIANCE
 - A. Procedural guidance is sufficient?
 - B. Procedures (available, complied with)
 - C. Procedure forms, lists, data tables (up to date)

5. EXPOSURE CONTROL
 - A. Exposure minimized when possible (ALARA)
 - B. Rad monitoring equip./dosimetry (operable, available)
 - C. Protective Action Decisions/Recommendations (correct)

6. EMERGENCY MITIGATING ACTIONS
 - A. Mitigating actions taken were proper
 - B. Developing problems were anticipated (what if thinking)
 - C. Priorities established (clear, SNSS directed, revised as needed)

7. FACILITIES
 - A. Functional for response objectives
 - B. Supplies/Equip. (available, calibrated, operable)
 - C. Reference documents (available, up to date)

8. SCENARIO CONTROL
 - A. Scenario events (realistic, challenging, comprehensive)
 - B. Scenario data (consistent, sufficient, displayed well)

9. DRILLSMANSHIP
 - A. Referees prepared (scenario control, player interaction)
 - B. Players maintained involvement with drill events
 - C. Plant safety (separation of drill events and normal plant operation was adequately addressed)
 - D. Critique (problems identified, feedback, praise, player input, attendance forms)

LEAD REFEREE'S NOTE:

1. Take control of the critique meeting. Do not allow it to develop into a gripe session. Cut someone off (politely) if necessary. It will benefit the entire group and they will respect you for it.
2. Seek suggested solutions to problems identified.
3. Provide positive feedback (praise for good performance) as well as raising items of concern.
4. Distribute and collect participant evaluation report forms.
5. Collect all attendance forms distributed.
6. Limit the participant critique to 60 minutes.

NETS QUICK REFERENCE DIRECTORY [RED LABELS - PSE&G PRIVATE]

SALEM		EOF		HOPE CREEK		OFFSITE	
SNSS Area	NETS	EOF Area	NETS	SNSS Area	NETS	Offsite	NETS
CM1	5128	ERM	5000	CM1	5223	NJSP-Director	5410
CM2	5127	RSM	5001	CM2	5224	Comm.-NJSP	5400
CR Area		RSM Staff	5002	CR Area		SA County-NJSP	5414
CRI-Ops.	5120	Staff	5003	CR-Ops.	5221	Pub. Info.-NJSP	5415
CRI-NSS	5121	Staff	5004	CR-NSS	5220	BNE Liaison-NJSP	5416
CRI-Rad Data	5122	PPM Staff	5005	CR-Rad Data	5222	NJSP FAX	5413
CRII-Ops.	5123	Staff	5006	Op. Ready Rm.	5232	NJSP Woodstown	5403
CRII-NSS	5124	Staff	5007			CU County-NJSP	5417
CRII-Rad Data	5125	TSM Staff	5017			NJ - BNE	5401
QSC Area		Staff	5018			NJ - BNE FAX	5411
OSC - Coord.	5128	Staff	5019			NJ - BNE Lab	5422
ALARA Rev.	5129	Staff	5020			NJ - BNE FCP	5421
Maint.	5130	SSM	5012	QSC Area		Salem County	5402
Work CH. Ctr.	5137	CM1	5013	OSC - Coord.	5228	Salem County OPS	5423
CP Area		CM2	5014	Rod Pro	5227	CU County OPS	5403
SRPT	5132	FAX-RX	5035	Maint.	5228	Cumb. County PHD	5424
Chem. Assess.	5133	Ops Data	5037	I & C	5229	LAC Township	5404
TSC Area		Security	5042	CP Area			
EDO	5100	ASM	5008	SRPT	5230	DEMA Director	5412
TSS	5101	ASM Staff	5009	HP Count Rm.	5231	DEMA OPS/COMM.	5407
RAC	5102	PM	5010	TSC Area		DEMA - AAAG	5418
Rad. Assess.	5103	PM-FAX	5011	EDO	5200	DEMA AAAG FAX	5419
Rad. Assess.	5104	NRC	5015	TSS	5201	Del. S.P. Comm.	5406
Rad. Assess.	5105	NJ BNE	5021	RAC	5202	Kent Co. EOC	5409
Chem. Assess.	5106		5022	Rad. Assess.	5203	New Castle Co. EOC	5408
Rod. Data	5107		5023	Rad. Data	5204	WDEL - (Radio)	5420
Ops. Data	5109		5024	Chem. Assess.	5205		
Ops./Eng.	5110		5025	ISTL	5206		
Ops./Eng.	5111		5026	Admin. Sup.	5207		
Comm. #1	5112		5027	Ops./Eng.	5210		
Comm. #2	5113		5028	Ops./Eng.	5211		
FAX-RX	5114		5029	Ops./Eng.	5215		
NRC-Ops	5115		5030	Ops. Data	5208		
NRC-Rad.	5118		5031	Comm. #1	5212		
NRC-Comm.	5119		5032	Comm. #2	5213		
Security	5117		5033	FAX-RX	5218		
Admin. Sup.	5118		5034	NRC-Comm.	5217		
EDO Secretary	5108		5035	NRC-Rad.	5218		
			5036	NRC-Ops.	5219		
			5037	Security	5214		
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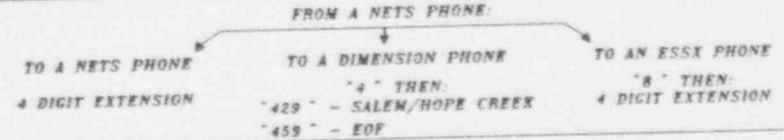
NETS - OPERATING INSTRUCTIONS [RED LABELS - PSE&G PRIVATE]

TO BARGE:
Dial 4 digit extension
Hear "Busy" signal
Press "Flash/Top" Button,
then pause and dial # - - 8 -
(Enters conversation in 8 sec.)

TO CONFERENCE: (Add up to 8 parties)
Call 1st party
Press "Flash/Top" Button
Call 2nd party
Press "Flash" Button
Dial "- 4 -" (Brings all on line)

OUTSIDE LINE:
Dial "9"
Dial phone number desired
If calling outside 609,
dial 1 + Area Code

OUTSIDE LINE ALTERNATE:
Dial "8 -" (Access ESSX 1)
Dial "9 -" (Outside Line)
Dial 1-(Area Code) XXX-XXXX
(This originates from 201 Area Code)



PSE&G EMERGENCY NEWS CENTER

MEDIA INFORMATION LINE ROOM:	NRC
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DIMENSION ▶ (609) 339-XXXX
ESSX I ▶ (201) 430-XXXX
DIRECTORY

SALEM			EOF			HOPE CREEK		
SHSS AREA	DID	ESSX I	EOF AREA	DID	ESSX I	SHSS AREA	DID	ESSX I
SHSS	5200		ERW	3989	7877	COMM		7965
COMM	5533	8870	RSM	3992	7468	NSS	3027	
NSS U/1	5201		RSM STAFF	3763	7455	NSS	3058	
NSS U/2	5202		RSM STAFF	3993	7466	NSS	5848	
FAX - CALLBACK 5588			TSM	3765				
			TSM STAFF	3991	7580			
			SSM	3782	7518			
CR AREA			COMM		7508	CR AREA		
CR 1	5111	8858	COMM		7519	CR-OPS	3340	7984
CR 2	5222	8808	COM'S		7511	OPS READY RM	3318	
			ASW					
OSC AREA			EPC	3781		OSC AREA		
OSC OPS	2588	8320	PIL	3889	7517			
SITE PROTECTION	2589		NRC	3788	8520	OSC COORD	3123	7977
MAINTENANCE	5497		NJ BNE	3995	8519	RPS	3155	
MISC.	2978			3788	7850			
				3789				
CP AREA			NJSP	3990		CP AREA		
			DEL	3994	7728			
SRPT	2844		OFFSITE			SRPT	3741	
	2845		AGENCY	SECONDARY #		HP CHT RM	3673	
TSC AREA						TSC AREA		
EDO	2700		NJSP	(808) 882-4201		EDO	3387	
TSS		7981	NJSP FAX	(809) 882-4718		TSS	3587	8101
RAC	2701	7939	NJSP-			RAC	3281	6492
RAD ASSESS.	2702		WOODSTOWN	(809) 788-0774		RAD ASSESS.	3468	
RAD ASSESS.	2703		NJ-BNE	(809) 887-2032		RAD ASSESS.	3542	
RAD ASSESS.	2704		NJ-BNE FAX	(809) 887-8354		CHEMISTRY	3297	
RAD ASSESS.	2705		Salem County	(609) 769-1955		SECURITY	3252	
CHEMISTRY	2706		Cumberland	(609) 453-8528		OPS / ENG	3002	7962
SECURITY	2707			(609) 453-8500		OPS / ENG	3035	
OPS / ENG	2708	8821	L.A.C.	(609) 835-7300		CM1	3295	
CM1	2709					CM2	3593	7983
CM2	2710	8881	DEMA	(302) 834-4531		ADMIN	3593	
ADMIN	2711		DEMA FAX	(302) 838-1743		REMOTE SHUT-		
ADMIN ROOM	2712		Del. S.P.	(302) 739-5851		DOWN PANELED		
NRC ROOM	2713		KENT	(302) 878-8111				
			NEW CASTLE	(302) 371-7948				

NOAA - 24 Hr. Emergency Weather Service (609) 261-6604
 NOAA - Backup Emergency Weather Service (609) 261-6602
 National Earthquake Center (303) 273-8500

DIMENSION ▶ BEIGE LABELS
ESSX I ▶ BLACK LABELS
OPERATING INSTRUCTIONS

DIMENSION (DID)

FROM SALEM/HOPE CREEK DID } DIAL FOUR DIGIT EXT.
TO SALEM/HOPE CREEK DID }

FROM SALEM/HOPE CREEK DID } DIAL "4" THEN
TO EOF/NTC DID } 459 - xxxx

FROM SALEM/HOPE CREEK/EOF } DIAL "4" THEN
TO ESSX } 333 - xxxx

FROM EOF/NTC DID } DIAL "4" THEN
TO SALEM/HOPE CREEK DID } 429 - xxxx

ESSX

FROM ESSX } DIAL FOUR DIGIT EXT.
TO ESSX }

FROM ESSX } DIAL "4" THEN
TO SALEM/HOPE CREEK DID } 429 - xxxx

FROM ESSX } DIAL "4" THEN
TO EOF/NTC DID } 459 - xxxx

PLEASE NOTE:
 Dimension Telephones operate commercially from Area Code 609.
 ESSX I Telephones operate commercially from Area Code 201.

SECTION 5.0
ARTIFICIAL ISLAND
ANNUAL EXERCISE 1994
SCENARIO OVERVIEW

<u>SECTION #</u>	<u>SECTION NAME</u>	<u>PAGE #</u>
5.1	Scenario Synopsis	5.1.0
5.2	Scenario Timeline	5.2.0
5.3	Major Observable Onsite Events	5.3.0
5.4	Onsite Actual vs. Simulated Events	5.4.0
5.5	Radiological Assumptions	5.5.0
5.6	Comparison: Scenario vs. Industry Events	5.6.0

CAUTION:

**THIS SECTION IS FOR REFEREE/EVALUATOR REFERENCE ONLY !
SCENARIO INFORMATION AND DATA REQUIRED BY THE PLAYERS SHALL BE PROVIDED AND CONTROLLED FROM SECTIONS 6, 7, 8, 9 & 10 BY THE REFEREES.**

SECTION 5.1

ARTIFICIAL ISLAND
ANNUAL GRADED EXERCISE
OCTOBER 25, 1994

SCENARIO SYNOPSIS

INITIAL CONDITIONS:

Salem 1 is currently at 100% power.

Salem 2 is currently at 85% Power, with power ascension in progress following repairs to the #21 Main Feed Pump.

Hope Creek is at 95% Power, End of Life (EOL) Core, Step #743 of the pull sheet, with a coastdown in progress. The unit has been on line for the past 9 months.

All Major Equipment is Operable with the following exceptions:

- "B" CRD Pump (1B-P-207) is Cleared and Tagged to replace the pump motor, which failed during the night shift. Repairs are in progress and are expected to be completed on the day shift tomorrow.
- "A" Core Spray Loop is Cleared and Tagged for a scheduled preventative maintenance outage. Tech Spec LCO 3.5.1 was entered at 0607 yesterday morning, October 24. Work is in progress and should be completed by the end of swing shift tomorrow.
- "A" RACS Pump (1A-P-209) is Cleared and Tagged to repair the pump discharge check valve (1-ED-V013) and replace the pump outboard bearing. The pump was found to be rotating backwards due to the discharge check being stuck open. Work is in progress and is expected to be completed by swing shift today.

Reactor Coolant System (RCS) chemical sample analysis indicates several fuel pins are leaking, causing a minor increase in Reactor Coolant Activity. The leakage started one month ago and the Nuclear Fuels Group estimates approximately 0.01% clad defects currently. The leaking fuel pins are suspected to be manufacturing imperfections and will be replaced during the upcoming Refuel Outage. RCS activity is still well below Tech Spec Limits.

HTV RMS is inoperable

Scenario Synopsis

The exercise will begin at 08:30 with the Hope Creek Control Room Staff having completed shift turnover and prestaged in the Simulator Control Room.

At 08:33, the Control Room Crew will receive indication that **Non-Essential 480 VAC Unit Substation (USS) 10-B-130 has been lost.** The Unit Substation has overheated and is on fire. The loss of this Unit Substation among other things will cause a Loss of AC Power to various Condensate and Extraction Steam System Valves, that will become significant later in the scenario.

In addition, the **"B" Feedwater Heater String will isolate,** as power is lost to the Control Panel. As Feedwater Temperature begins to decrease, Reactor Power will increase. The NSS will refer to OP-AB.ZZ-0118, Loss of Feedwater Heaters and directs a Reactor Power decrease.

Smoke from the fire is beginning to fill the Turbine Building, Elevation 120' in the Electrical Switchgear Area.

The fire is limited to the 10-B-130 Unit Substation, but burns for greater than 10 minutes.

- * **UNUSUAL EVENT** should be declared by the SNSS based on ECG Section 14A, (Fire within a permanent plant structure lasting for greater than 10 minutes).

At 08:55, Fire Protection personnel will successfully extinguish the fire at 10-B-130 Unit Substation. Damage assessment will commence as soon as the area has been cleared of smoke.

At 09:01, the Loose Parts Monitor Overhead Alarm will annunciate in the Main Control Room. The #5 Jet Pump Riser will fail, as the elbow/mixer section (Ram's Head Assembly) suddenly separates from the top of the Jet Pump riser, resulting in a rapid decrease in flow in the #5 Jet Pump, as well as a decrease in Total Jet Pump Flow in the "B" Reactor Recirc Loop. As Core Flow decreases, a decrease in Reactor Power occurs.

The NSS will direct actions in accordance with OP-AB.ZZ-111, Jet Pump Failure. He will direct the NCO to validate the indications and refer to Tech Spec 3.4.1.2, which requires the plant to be in **Hot Shutdown within 12 Hours.** This failure will create the presence of several small Loose Parts in the Reactor Coolant System, that will become significant later in the exercise.

At 09:28, level in the #6C Feedwater Heater (FWH) will begin to increase as the result of a large tube leak. As level in the Heater continues to increase, a Heater Trip signal will be initiated. However, due to the previous loss of power to the extraction and condensate system valves, remote isolation of the #6C FWH is not possible from the Control Room. The NSS will again refer to OP-AB.ZZ-0118, Loss of Feedwater Heaters and dispatch an operator to attempt to locally isolate the #6C FWH.

At 09:41, the Control Room receives indication that Main Turbine Vibration has begun to increase. This increase in vibration is due to postulated water induction into the Main Turbine, due to a inability to isolate the #6C FWH, combined with a failure of the Bleeder Trip Valve associated with the #6C FWH. The water induction allows water to impinge on Turbine Blading and results in a subsequent imbalance of the Main Turbine.

The NSS will refer to OP-SO.AC-0001, Main Turbine Operation, which will require the Main Turbine be tripped due to the high vibration condition immediately when vibration reaches 12 mils.

At 09:47, before Main Turbine Vibration increases above 6 mils, the Main Turbine will trip on Low Bearing Oil Pressure, as the Bearing Oil Supply Header fails due to the increased Main Turbine Vibration. The Reactor Scrams and all Control Rods fully insert into the Reactor.

At 09:48, two Main Turbine Blades will be thrown through the East Side Wall of the Turbine Building and travel into the Hope Creek Switchyard, and impact with the 13.8 KV Ring Bus, Bus Section 2. This section of the 13.8 KV yard is destroyed and is not recoverable for the duration of the exercise.

At 09:49, the Primary Condensate Pump suction header, located on Elevation 54' of the Turbine Building ruptures due to the induced vibration from the failure of the Main Turbine and Condenser, resulting in a complete loss of Feedwater and Condensate.

- * ALERT should be declared by the SNSS based on ECG Section 13E, (Turbine Rotating Component Failure with casing penetration).

As Main Condenser Vacuum rapidly degrades, the MSIVS will close. RCIC will be used for Reactor Water Level Control. HPCI will be used for Reactor Pressure Control.

In response to Fire Alarms, the Control Room dispatches Site Protection per FP-EO.ZZ-0001(Z), Control Room Fire Response. There are no explosions or major fires from this event. There are small fires burning on Elevation 137' of the Turbine Building, which are brought under control within 15 minutes.

Due to the loss of 13.8 KV Bus Section 2, Station Service Transformers 1BX501, 1BX502 and 1BX503 will deenergize, resulting in a fast transfer of the associated loads to the "A" side Station Service Transformers. All loads successfully fast transfer, with the exception of the "B" 4160 VAC Vital Bus (10-A-402). The alternate Feeder Breaker for the "B" Vital Bus fails to close due to a breaker malfunction. As a result, the "B" Emergency Diesel Generator (EDG) will be started and load onto the "B" Vital Bus.

At 10:02, a small leak (less than 3 GPM) will develop just downstream of Instrument Root Valve 1BB-V-600 and associated Excess Flow Check Valve 1BBXV-3734B, which is associated with the #5 Jet Pump Flow Instrumentation, as well as the "B" Channel Fuel Zone Instrument. The Control Room will not receive indication of the leak at this time.

The leak has been caused by a small piece of the #5 Jet Pump beam, which is impacting against the instrument line and is causing oscillatory vibration of the instrument line. The leak is located in the South Pipe Chase, Reactor Building, Elevation 102'.

The significance of this small leak is that it will prevent manual operation of several valves after 10:51, for which remote operation will be lost, due to the loss of motive power. Since the leak is initially less than 3 GPM, the EFCV will not automatically close. During this time, the leak is only detectable if entry into the South Pipe Chase is attempted. If manual closure of the EFCV is attempted, it will close.

At 10:22, the "B" Emergency Diesel Generator (EDG) Lube Oil Suction line will develop a large, unisolable leak between the Lube Oil Reservoir and the Engine Driven Lube Oil Pump, resulting in a trip of the "B" EDG.

Loss of the "B" EDG causes the the "B" 4160 VAC Vital Bus to deenergize, resulting in a Loss of AC Power to the "B" RHR Pump, "B" Service Water Pump, "B" SACS Pump, "B" & "F" FRVS Recirc Fans and the "B" FRVS Vent Fan.

In addition, several valves will lose motive power, including the "B" Core Spray Injection Valve (1BEHV-F005B) and the "B" LPCI Injection Valve (1BCHV-F017B).

If not done during the Unusual Event, at approximately 10:30, the OSC should be activated. All inplant activities will be controlled by the OSC Coordinator under direction from the SNSS.

At 10:51, the leak in the South Pipe Chase will create an Overload/Power Failure condition on the "D" LPCI Injection Valve (1BCHV-F017D), as the valve motor experiences an internal short due to the current steam environment in the South Pipe Chase. The Control Room will receive indication of this condition. This is the first indication the Control Room receives that there may be a leak in the South Pipe Chase. This condition will prevent the valve from stroking open electrically upon a valid LPCI initiation signal.

The "B" Core Spray Injection Valve (1BEHV-F005B) and "B" LPCI Injection (1BCHV-F017B) are also effected by harsh environment in the South Pipe Chase. However, no alarms will be received, since the "B" Vital Bus is currently deenergized.

At approximately 11:00, the TSC should be activated. Emergency Coordinator duties will be transferred from the SNSS to the Emergency Duty Officer (EDO)

At 11:02, the leak in the South Pipe Chase will exceed 5 GPM and the Excess Flow Check Valve will close, isolating the leak. Reactor Water Level indication on the "B" Channel Fuel Zone instrument will be lost.

At 11:33, the Loose Parts Monitor Overhead Alarm re flashes, as a large piece of the failed #5 Jet Pumps Elbow/Mixer Section, which had been wedged between the tops of Jet Pumps #6 & 7 and the Reactor Vessel Wall, has come loose and has been drawn into the "B" Recirc Pump Suction Piping.

At 11:35, the "B" Reactor Recirc Pump Suction Piping experiences a catastrophic failure, as the loose part impacts the suction piping. The impact results in an unisolable failure of the suction piping.

Reactor Water Level rapidly decreases to the Top of Active Fuel and then slowly recovers. Drywell Pressure rapidly increases and then stabilizes at approximately 20 PSIG. Reactor Pressure rapidly decrease, resulting in the isolation of the HPCI and RCIC Systems.

- * SITE AREA EMERGENCY should be declared by the Emergency Duty Officer (EDO) based on ECG Section 1D, (Loss of Coolant Accident Greater than Makeup Capacity).

Upon receipt of the LOCA signal, the "D" Core Spray Pump, "C" and "D" RHR Pumps will start. However, only the "C" RHR Pump will inject to the Reactor Vessel, as the injection valves associated with the other pumps can not be opened.

In addition, the "A" RHR Pump, which was running in Torus Cooling, will trip approximately 1 minutes after the LOCA signal is received.

All Primary Containment Isolation Valves will close on the LOCA signal, with the exception of the Drywell Atmospheric Gaseous Radioactivity Monitoring Inboard Isolation Valve, 1SKHV-5018, which fails to fully close and indicates dual position in the Main Control Room. A Bailey Logic Card has failed, preventing remote valve closure from the Main Control Room.

Attempts to manually close 1SKHV-5018 will be unsuccessful due to a failure of the Motor Operator declutch lever. The manual isolation valve associated with the penetration can not be closed due to a bent stem.

As Reactor Coolant continues to enters the Drywell Air Space, insulation and lagging material are blown throughout the Drywell. This generates a large amount of debris that is then directed from the Drywell into the Suppression Chamber. As the Low Pressure ECCS Pumps start, plugging of the respective pump suction strainers begins to occur. "C" RHR Pump Flow (only pump injecting to the RPV) decreases from 10000 GPM to 3000 GPM.

At approximately 12:15, the "C" RHR pump will trip due to an overcurrent condition, as a result of continued pump cavitation due to low suction pressure. Pump motor amps, which initially decreased when suction strainer plugging started, have begun to experience significant fluctuations over the past few minutes, as the pump becomes air bound. The pump shaft heats up and begins to bind, resulting in a pump trip on overcurrent.

Between 12:15 and 12:30, the Emergency Operations Facility (EOF) will be activated. Emergency Coordinator duties will be transferred from the EDO to the Emergency Response Manager (ERM).

By 12:16, with only the "A" CRD Pump and Fire Water available for injection to the Reactor, Reactor Water Level decreases to below the Top of the Active Fuel (TAF). Fuel Damage will begin to occur at this time.

Between 12:30 and 12:45, Reactor Water Level will continue to slowly decrease. DAPA is increasing from 124 R/HR to 211 R/HR. The Emergency Coordinator may declare a General Emergency, based on his judgement that the potential exists for a Loss of Primary Containment Integrity.

At 13:15, the Control Room receives indication that Area Radiation Levels in the Reactor Building are increasing. FRVS Effluent quickly exceeds the release limit. Drywell Pressure is decreasing at a greater rate than previously observed.

The breach of Primary Containment is due to the failure of the Drywell Atmospheric Gaseous Radioactivity sample line on Elevation 162' of the Reactor Building. The failure has occurred due to a previous failure of the heat trace associated with the piping. The buildup of moisture has resulted in corrosive environment. When the LOCA occurred in the Drywell, the pressure surge significantly weakens a number of piping welds. In addition, OSC personnel who are working to close the upstream manual valve (1-SK-V004) have used excessive force in the attempt to close the valve. This causes an already weakened weld joint to fail. This failure allows the Drywell atmosphere to communicate directly with the Reactor Building.

A radiological release to the atmosphere has commenced through the FRVS Vent.

Monitored Release Path : RPV --> "B" RECIRC SUCTION PIPING --
> DRYWELL --> RX BLDG --> FRVS VENT

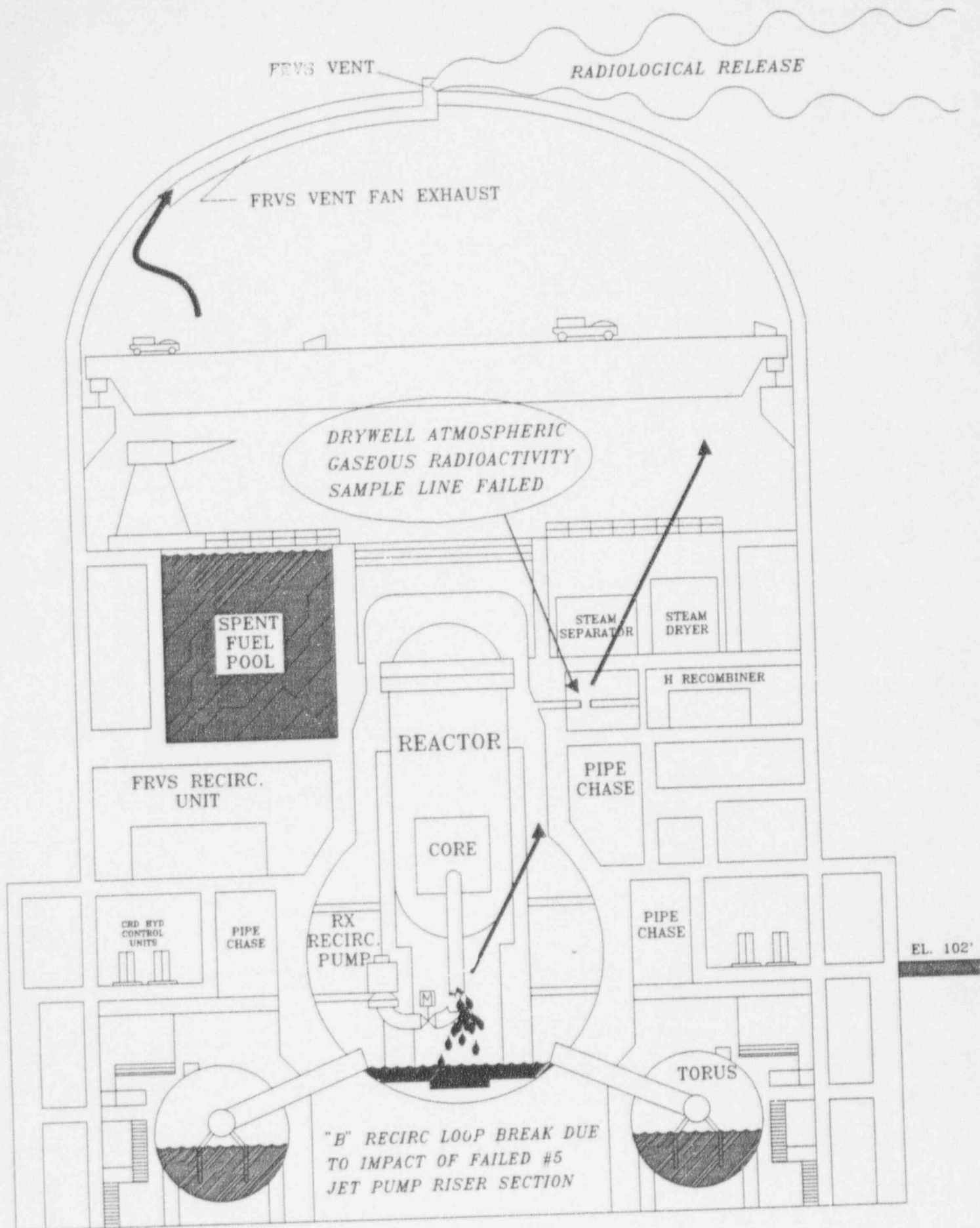
- * GENERAL EMERGENCY should be declared by the Emergency Response Manager (ERM) based on ECG Section 1E, (Loss of Coolant Accident with Failure of ECCS systems to perform, or with potential Containment Failure) or ECG Section 6A/B/C, (Fission Product Boundary Failure).

At 13:46, the "C" RHR Pump will be available for a restart. The effects of Suction Strainer plugging will be minimal at this time.

At 14:11, "B" EDG repairs will be completed. The "B" Vital Bus will be reenergized. With power available to the "B" Vital Bus, the "B" RHR Pump will be restarted.

At 14:49, an OSC team will complete successful repair of the failed Bailey Logic Card for the 1SKHV-5018, allowing the valve to fully close, thereby stopping the release of fission products into the Reactor Building.

At about 15:30, Emergency Conditions have stabilized. The release into the Reactor Building has ceased and the FRVS Vent Release Rate is decreasing. Although a General Emergency should be maintained at this time, the drill may be terminated by the HEAD REFEREE (with concurrence of the Lead NRC Inspector). Exercise termination requires that all major drill objectives have been achieved and the ERM is satisfied that stable conditions exist.



ARTIFICIAL ISLAND ANNUAL EXERCISE (H94-06)
SIMPLIFIED DIAGRAM OF RELEASE PATH

ARTIFICIAL ISLAND EMERGENCY PREPAREDNESS
 MAJOR EVENTS TIMELINE
 DRILL NUMBER: H94-06

REAL TIME	DRILL TIME	MESSAGE	EVENT	RECEIVER	EXPECTED ACTION
08:00	00:00	01	INITIAL CONDITIONS - BRIEFING FOR ON SHIFT DRILL PLAYERS.	HOPE CREEK SHIFT PERSONNEL	<ol style="list-style-type: none"> 1. LEAD REFEREE WILL HOLD AN INITIAL CONDITIONS BRIEFING FOR ALL DRILL PLAYERS. 2. ENSURE KEY PLAYERS AND REFEREES ARE AVAILABLE TO START THE DRILL.
08:20	00:20	02	DRILL PAGE ANNOUNCEMENT FOR BOTH SALEM AND HOPE CREEK.	SNSS (HOPE CREEK)	<ol style="list-style-type: none"> 1. HOPE CREEK CONTROL ROOM IS AWARE OF THE DRILL. 2. DRILL CONTROLLERS ARE READY TO START THE DRILL.
08:33	00:33	03D	DARK BOARD MESSAGE FOR THE LOSS OF 10-B-130 UNIT SUBSTATION DUE TO A FIRE.	CONTROL ROOM STAFF	<ol style="list-style-type: none"> 1. CREW RECOGNIZES THAT 10-B-130 HAS BEEN LOST AND STABILIZES PLANT. 2. CREW RECOGNIZES THE PRESENCE OF A FIRE, REFERS TO FIRE RESPONSE MANUAL AND DISPATCHES THE FIRE BRIGADE. 3. NSS RECOGNIZES LOSS OF THE "B" FEEDWATER HEATER STRING AND REFERS TO OP-AB.ZZ-0118, LOSS OF FEEDWATER HEATERS AND OP-AB.ZZ-0204, POSITIVE REACTIVITY ADDITION.
08:33	00:33	04	THE 10-B-130 UNIT SUBSTATION FIRE HAS RESULTED IN AN OVERHEAD ALARM BEING RECEIVED IN THE MAIN CONTROL ROOM. THIS MESSAGE CONTAINS THE ASSOCIATED FIRE COMPUTER ALARM POINT THAT MUST BE ISSUED TO CONTROL ROOM SHIFT PERSONNEL WHEN THE OVERHEAD ALARM IS RECEIVED.	CONTROL ROOM STAFF	<ol style="list-style-type: none"> 1. CREW RECOGNIZES THAT A FIRE HAS STARTED IN THE TURBINE BUILDING, ELEVATION 120'. 2. SNSS CONTACTS FIRE PROTECTION TO RESPOND. 3. NSS REFERS TO PREFIRE PLAN FRH-11-452 (TURBINE BUILDING, ELEVATION 120')

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 DRILL NUMBER: H94-06

REAL TIME	DRILL TIME	MESSAGE	EVENT	RECEIVER	EXPECTED ACTION
08:33	00:33	06D	DARK BOARD MESSAGE FOR THE LOSS OF 10-B-130 UNIT SUBSTATION DUE TO A FIRE.	CONTROL ROOM STAFF	<ol style="list-style-type: none"> 1. CREW RECOGNIZES THAT 10-B-130 HAS BEEN LOST AND STABILIZES PLANT. 2. CREW RECOGNIZES THE PRESENCE OF A FIRE, REFERS TO FIRE RESPONSE MANUAL AND DISPATCHES THE FIRE BRIGADE. 3. NSS RECOGNIZES LOSS OF THE "B" FEEDWATER HEATER STRING AND REFERS TO OP-AB.ZZ-0118, LOSS OF FEEDWATER HEATERS AND OP-AB.ZZ-0204, POSITIVE REACTIVITY ADDITION.
08:36	00:36	05	THE 10-B-130 UNIT SUBSTATION, LOCATED ON ELEVATION 120' OF THE TURBINE BUILDING IS ON FIRE. SMOKE IS FILLING THE ELECTRICAL MEZZANINE AREA.	EQUIPMENT OPERATOR	<ol style="list-style-type: none"> 1. THE EQUIPMENT OPERATOR ACKNOWLEDGES THE PRESENCE OF A FIRE ON THE 10-B-130 UNIT SUBSTATION. 2. EQUIPMENT OPERATOR VERIFIES THAT THE UNIT SUBSTATION IS DEENERGIZED PRIOR TO ATTEMPTING ANY FIRE FIGHTING ACTIVITIES. 3. EQUIPMENT OPERATOR MAY OBTAIN PORTABLE CO2 FIRE EXTINGUISHERS TO COMBAT THE FIRE. 4. EQUIPMENT OPERATOR AWAITS ARRIVAL OF THE FIRE BRIGADE.
08:36	00:36	05C	CONTINGENCY MESSAGE TO DISPATCH AN EQUIPMENT OPERATOR AND THE FIRE BRIGADE REGARDING THE ONGOING FIRE ON THE 10-B-130 UNIT SUBSTATION.	CONTROL ROOM STAFF	<ol style="list-style-type: none"> 1. THE SNSS/NSS REFERS TO THE FIRE PROTECTION ALARM RESPONSE PROCEDURE AND DISPATCHES AN EQUIPMENT OPERATOR AND THE FIRE

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REAL TIME	DRILL TIME	MESSAGE	EVENT	RECEIVER	EXPECTED ACTION
08:38	00:38	06	THE 10-B-130 UNIT SUBSTATION, LOCATED ON ELEVATION 120' OF THE TURBINE BUILDING IS ON FIRE. SMOKE IS FILLING THE ELECTRICAL MEZZANINE AREA.	FIRE BRIGADE TEAM LEADER	BRIGADE TO RESPOND. 1. THE FIRE BRIGADE ACKNOWLEDGES THE PRESENCE OF A FIRE ON THE 10-B-130 UNIT SUBSTATION ONLY. 2. FIRE BRIGADE LEADER VERIFIES THAT THE UNIT SUBSTATION IS DEENERGIZED PRIOR TO COMMENCING FIRE FIGHTING ACTIVITIES. 3. FIRE BRIGADE MEMBERS OBTAIN PORTABLE CO2 FIRE EXTINGUISHERS TO COMBAT THE FIRE.
08:39	00:39	06C	CONTINGENCY MESSAGE TO DISPATCH AN EQUIPMENT OPERATOR TO THE "B" FEEDWATER HEATER CONTROL PANEL.	CONTROL ROOM STAFF	1. THE CREW DISPATCHES AN EQUIPMENT OPERATOR TO THE "B" FEEDWATER HEATER CONTROL PANEL.
08:40	00:40	07	THE "B" FEEDWATER STRING HAS TRIPPED AS A RESULT OF A LOSS OF POWER TO THE "B" FEEDWATER HEATER CONTROL PANEL (1B-C-102) DUE TO THE LOSS OF 10-B-130 UNIT SUBSTATION.	EQUIPMENT OPERATOR	1. THE EQUIPMENT OPERATOR ACKNOWLEDGES THE INDICATIONS AT THE "B" FEEDWATER HEATER CONTROL PANEL AND NOTIFIES THE CONTROL ROOM CREW.
08:41	00:41	07C	CONTINGENCY MESSAGE FROM PREVENTING THE SNSS/NSS FROM DIRECTING A REACTOR SCRAM.	SNSS/NSS	1. THE SNSS/NSS DOES NOT SCRAM THE REACTOR. 2. THE NSS ORDERS CONTROL RODS BE INSERTED PER THE STUFF SHEET TO CLEAR THE LPRM UPSCALE ALARMS.
08:42	00:42	08	THE "A" TURBINE BUILDING CHILLED WATER CIRC WATER PUMP (1A-P-161) HAS TRIPPED	EQUIPMENT OPERATOR	1. THE OPERATOR DISPATCHED TO THE CHECK OUT THE STATUS OF THE TURBINE

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REAL TIME	DRILL TIME	MESSAGE	EVENT	RECEIVER	EXPECTED ACTION
			ON LOW FLOW DUE TO THE LOSS OF POWER FROM 10-B-130 UNIT SUBSTATION.		BUILDING CHILLED WATER SYSTEM ACKNOWLEDGES THAT THE "A" CHILLED WATER CIRC WATER PUMP HAS TRIPPED. 2. THE OPERATOR PROVIDES THE INFORMATION TO THE CONTROL ROOM (SIMULATOR) USING DID PHONE EXTENSION 3339.
08:42	00:42	08C	CONTINGENCY MESSAGE FOR THE FIRE BRIGADE LEADER TO CONTACT THE CONTROL ROOM TO HAVE 125 VDC CONTROL POWER REMOVED FROM THE 10-B-130 UNIT SUBSTATION.	FIRE BRIGADE TEAM LEADER	1. THE FIRE BRIGADE TEAM LEADER REQUEST THE CONTROL ROOM TO DISPATCH AN OPERATOR TO REMOVE 125 VDC CONTROL POWER FROM THE 10-B-130 UNIT SUBSTATION.
08:45	00:45	09	125 VDC CONTROL POWER TO THE 10-B-130 UNIT SUBSTATION HAS BEEN DEENERGIZED BY OPENING BREAKER #4 IN THE 1C-D-318 DISTRIBUTION PANEL AND BREAKER #6 IN THE 10-D-318 DISTRIBUTION PANEL.	EQUIPMENT OPERATOR	1. THE EQUIPMENT OPERATOR CORRECTLY SIMULATES OPENING THE 125VDC CONTROL POWER BREAKERS TO THE 10-B-130 UNIT SUBSTATION AND NOTIFIES THE MAIN CONTROL ROOM.
08:45	00:45	09C	CONTINGENCY MESSAGE TO CONTACT THE SHIFT CHEMISTRY TECHNICIAN TO OBTAIN A REACTOR COOLANT SAMPLE FOLLOWING A 15% CHANGE IN REACTOR POWER.	CONTROL ROOM STAFF	1. THE CREW CONTACTS THE SHIFT CHEMISTRY TECHNICIAN TO OBTAIN THE REQUIRED REACTOR COOLANT SAMPLE IN ACCORDANCE WITH TECH SPEC REQUIREMENTS.
08:45	00:45	09D	DARK BOARD MESSAGE FOR WHEN 125 VDC CONTROL POWER IS REMOVED FROM THE 10-B-130 UNIT SUBSTATION.	CONTROL ROOM STAFF	1. THE CREW RECOGNIZES THAT THE EQUIPMENT OPERATOR HAS SUCCESSFULLY REMOVED 125 VDC CONTROL POWER FROM THE 10-B-130 UNIT SUBSTATION. 2. THE SNSS/NSS NOTIFIES THE FIRE BRIGADE TEAM LEADER THAT 125 VDC CONTROL POWER HAS BEEN REMOVED FROM

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REAL TIME	DRILL TIME	MESSAGE	EVENT	RECEIVER	EXPECTED ACTION
					THE UNIT SUBSTATION.
08:50	00:50	10	THE "A" REACTOR RECIRC PUMP MG SET VENT FAN (1A-V-107) HAS TRIPPED ON LOW FLOW DUE TO THE LOSS OF POWER FROM 10-B-130 UNIT SUBSTATION.	EQUIPMENT OPERATOR	<ol style="list-style-type: none"> 1. THE OPERATOR DISPATCHED TO THE 10-C-184 PANEL ACKNOWLEDGES THAT THE "A" REACTOR RECIRC PUMP MG SET VENT FAN IS TRIPPED AND THAT THE "B" VENT HAS STARTED. 2. THE OPERATOR PROVIDES THE INFORMATION TO THE CONTROL ROOM (SIMULATOR) USING DID PHONE EXTENSION 3339.
08:54	00:54	10C	CONTINGENCY MESSAGE TO DISPATCH AN EQUIPMENT OPERATOR TO MONITOR REACTOR RECIRC PUMP MG SET LUBE OIL TEMPERATURES FOLLOWING THE POWER REDUCTION.	CONTROL ROOM STAFF	<ol style="list-style-type: none"> 1. CREW DISPATCHES AN AVAILABLE EQUIPMENT OPERATOR TO MONITOR REACTOR RECIRC PUMP MG SET LUBE OIL TEMPERATURES.
08:55	00:55	11	10-B-130 UNIT SUBSTATION FIRE IS SUCCESSFULLY EXTINGUISHED BY THE FIRE BRIGADE.	FIRE BRIGADE TEAM LEADER	<ol style="list-style-type: none"> 1. THE FIRE BRIGADE ACKNOWLEDGES THAT THE FIRE IS EXTINGUISHED. 2. FIRE BRIGADE COMMENCES ACTIONS TO BEGIN CLEARING SMOKE FROM THE AREA.
08:59	00:59	11C	CONTINGENCY MESSAGE TO DECLARE AT UNUSUAL EVENT.	SNSS	<ol style="list-style-type: none"> 1. SNSS SHOULD REFER TO ECG SECTION 14.A AND DECLARE AN UNUSUAL EVENT. 2. SNSS IMPLEMENTS APPROPRIATE ECG ATTACHMENTS AND EPIPS.
09:00	01:00	12	SOME VALVES ASSOCIATED WITH THE STEAM SEAL EVAPORATOR HAVE LOST POWER DUE TO THE LOSS OF 10-B-130.	EQUIPMENT OPERATOR	<ol style="list-style-type: none"> 1. THE OPERATOR DISPATCHED TO THE STEAM SEAL EVAPORATOR PANEL ACKNOWLEDGES THAT LOCAL INDICATIONS ARE NORMAL AND THE STEAM SEAL EVAPORATOR IS FUNCTIONING PROPERLY.

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					2. THE OPERATOR PROVIDES THE INFORMATION TO THE CONTROL ROOM (SIMULATOR) USING DID PHONE EXTENSION 3339.
09:00	01:00	12C	CONTINGENCY MESSAGE TO CONTACT THE REACTOR ENGINEER TO CHECK THERMAL LIMITS AND PROVIDE FURTHER GUIDANCE ON REACTIVITY MANIPULATIONS.	NSS	1. NSS CONTACTS THE REACTOR ENGINEER TO REVIEW THERMAL LIMITS AND PROVIDE GUIDANCE ON FURTHER REACTIVITY MANIPULATIONS.
09:00	01:00	13	MESSAGE FOR EQUIPMENT OPERATOR DISPATCHED TO CHECK THE STATUS OF THE SERVICE AIR COMPRESSORS.	EQUIPMENT OPERATOR	1. THE EQUIPMENT OPERATOR ACKNOWLEDGES THE STATUS OF THE SERVICE AIR COMPRESSORS AND NOTIFIES THE CONTROL ROOM.
09:01	01:01	13C	CONTINGENCY MESSAGE TO PREVENT THE SNSS FROM IMPLEMENTING ASSEMBLY / ACCOUNTABILITY AT THIS TIME.	SNSS	1. SNSS DOES NOT IMPLEMENT ASSEMBLY/ ACCOUNTABILITY AT THIS TIME.
09:01	01:01	13D	DARK BOARD MESSAGE FOR THE #5 JET PUMP RISER SECTION FAILURE.	CONTROL ROOM STAFF	1. CREW RECOGNIZES THAT INDICATED FLOW THROUGH THE #5 JET PUMP HAS DECREASED 2. CREW RECOGNIZES THE POSSIBLE PRESENCE OF A LOOSE PART IN THE REACTOR VESSEL DUE TO RECEIPT OF THE LOOSE PARTS MONITOR OVERHEAD ALARM. 3. CREW DISPATCHES AN EQUIPMENT OPERATOR TO VALIDATE THE LOOSE PARTS MONITOR ALARM. 4. NSS DIRECTS THE DAILY JET PUMP SURV (OP-ST.BB-001) BE PERFORMED TO ASSESS THE OPERABILITY OF THE #5 JET PUMP.

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REAL TIME	DRILL TIME	MESSAGE	EVENT	RECEIVER	EXPECTED ACTION
09:02	01:02	14	"A" AND "B" REACTOR RECIRC MG SET LUBE OIL TEMPERATURES.	EQUIPMENT OPERATOR	<ol style="list-style-type: none"> 1. EQUIPMENT OPERATOR MONITORS REACTOR RECIRC PUMP MG SET LUBE OIL TEMPERATURES. 2. EQUIPMENT OPERATOR NOTIFIES THE CONTROL ROOM.
09:06	01:06	14C	CONTINGENCY MESSAGE TO DISPATCH AN EQUIPMENT OPERATOR TO THE UPPER RELAY ROOM TO VALIDATE THE LOOSE PARTS MONITOR ALARM.	CONTROL ROOM STAFF	<ol style="list-style-type: none"> 1. CREW REFERS TO OP-SO.SC-0001, LOOSE PARTS MONITORING SYSTEM OPERATION AND DISPATCHES AN EQUIPMENT OPERATOR TO VALIDATE THE ALARM IN ACCORDANCE WITH THE PROCEDURE.
09:08	01:08	15C	CONTINGENCY MESSAGE TO PERFORM THE DAILY JET PUMP SURVEILLANCE TO DETERMINE THE OPERABILITY OF THE #5 JET PUMP.	CONTROL ROOM STAFF	<ol style="list-style-type: none"> 1. CREW PERFORMS OP-ST.BB-0001, DAILY JET PUMP SURVEILLANCE, IN ORDER TO DETERMINE THE OPERABILITY OF THE #5 JET PUMP. 2. CREW DETERMINES THAT THE #5 JET PUMP IS INOPERABLE. 3. WSS REFERS TO TECH SPEC 3.4.1.2 AND COMMENCES A REACTOR SHUTDOWN.
09:09	01:09	15D	DARK BOARD MESSAGE FOR START OF THE "C" TURBINE BUILDING CHILLER.	CONTROL ROOM STAFF	<ol style="list-style-type: none"> 1. THE CONTROL ROOM STAFF ACKNOWLEDGES THAT THE "C" TURBINE BUILDING CHILLER HAS STARTED AND IS OPERATING SATISFACTORILY.
09:10	01:10	16	VALIDATION OF THE LOOSE PARTS MONITOR ALARM. 3 CHANNELS ARE FOUND TO BE IN ALARM.	EQUIPMENT OPERATOR	<ol style="list-style-type: none"> 1. EQUIPMENT OPERATOR PROPERLY IMPLEMENTS THE VALIDATION PROCEDURE FOR THE LOOSE PARTS ALARM AND NOTIFIES THE CONTROL ROOM (SIMULATOR) OF HIS FINDINGS.

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REAL TIME	DRILL TIME	MESSAGE	EVENT	RECEIVER	EXPECTED ACTION
09:15	01:15	16C	CONTINGENCY MESSAGE TO CONTACT THE SYSTEM ENGINEER FOR THE LOOSE PARTS MONITOR SYSTEM TO ENSURE CORRECT ALARM VALIDATION.	CONTROL ROOM STAFF	1. CREW CONTACTS THE SYSTEM ENGINEER FOR THE LOOSE PARTS MONITORING SYSTEM TO ENSURE CORRECT VALIDATION OF THE ALARM.
09:16	01:16	17	THE NSS HAS DIRECTED THE CONTROL ROOM OPERATORS TO PERFORM OP-ST.BB-0001, JET PUMP OPERABILITY SURVEILLANCE. AN EQUIPMENT OPERATOR IS DISPATCHED TO THE LOWER RELAY ROOM TO OBTAIN INDICATION OF DIFFERENTIAL PRESSURE FOR EACH OF THE 20 JET PUMPS.	EQUIPMENT OPERATOR	1. THE EQUIPMENT OPERATOR RECORDS THE JET PUMP DIFFERENTIAL PRESSURE DATA PROVIDED BY THE REFEREE IN THE PROCEDURE. 2. THE OPERATOR CONTACTS THE CONTROL ROOM AND PROVIDES THE INFORMATION TO THE CREW.
09:17	01:17	17C	CONTINGENCY MESSAGE TO PREVENT MANUAL SCRAM OF THE REACTOR.	SNSS/NSS	1. THE SNSS DOES NOT SCRAM THE REACTOR AND COMMENCES A CONTROLLED REACTOR SHUTDOWN WITH REACTOR POWER REDUCTION NOT EXCEEDING 15%/HOUR.
09:17	01:17	18	WITH THE 10-B-130 UNIT SUBSTATION FIRE EXTINGUISHED FOR THE PAST 20 MINUTES, THE FIRE BRIGADE HAS BEEN ABLE TO CLEAR MOST OF THE SMOKE FROM THE AREA SO THAT DAMAGE ASSESSMENT CAN COMMENCE.	FIRE BRIGADE TEAM LEADER	1. THE FIRE BRIGADE ACKNOWLEDGE THAT MOST OF THE SMOKE IS CLEARED.
09:22	01:22	18C	CONTINGENCY MESSAGE TO DISPATCH THE SHIFT ELECTRICIAN TO PERFORM A DAMAGE ASSESSMENT OF THE 10-B-130 UNIT SUBSTATION.	SNSS	1. THE SNSS DISPATCHES THE SHIFT ELECTRICIAN TO PERFORM DAMAGE ASSESSMENT ON 10-B-130 UNIT SUBSTATION.
09:23	01:23	19	REACTOR THERMAL LIMITS P1 EVALUATION	REACTOR ENGINEER	1. REACTOR ENGINEER SUCCESSFULLY OBTAINS

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 MAJOR EVENTS TIMELINE
 DRILL NUMBER: H94-06

REAL TIME	DRILL TIME	MESSAGE	EVENT	RECEIVER	EXPECTED ACTION
			DATA FOR REACTOR ENGINEER.		<ol style="list-style-type: none"> 1. A P1 AND REVIEW THERMAL LIMITS AND THEN CONTACTS THE CONTROL ROOM (SIMULATOR) WITH THE RESULTS. 2. THE REACTOR ENGINEER PROVIDES REACTIVITY CONTROL GUIDANCE TO THE CREW.
09:30	01:30	19C	CONTINGENCY MESSAGE FOR THE SNSS/WSS TO DIRECT THE INITIATION OF A REACTOR SHUTDOWN IN ACCORDANCE WITH TECH SPEC 3.4.1.2 DUE TO A FAILURE OF THE #5 JET PUMP.	SNSS/WSS	<ol style="list-style-type: none"> 1. THE SNSS/WSS REFERS TO TECH SPEC 3.4.1.2 AND DIRECTS THE REACTOR SHUTDOWN. 2. THE SNSS/WSS NOTIFIES THE OPS MANAGER AND LOAD DISPATCHER OF THE IMPENDING SHUTDOWN. (THESE INTERFACES WILL BE ROLE PLAYED BY A SIMULATOR REFEREE)
09:30	01:30	19D	DARK BOARD MESSAGE FOR THE #6C FEEDWATER HEATER TUBE LEAK RESULTING IN A HIGH LEVEL IN THE #6C FEEDWATER HEATER.	CONTROL ROOM STAFF	<ol style="list-style-type: none"> 1. CREW RECOGNIZES THE HIGH LEVEL CONDITION IN THE #6C FEEDWATER HEATER AND ATTEMPTS TO ISOLATE THE FEEDWATER HEATER TO PREVENT WATER INDUCTION INTO THE MAIN TURBINE. 2. WSS REFERS TO OP-AB.22-0118, LOSS OF FEEDWATER HEATERS.
09:30	01:30	20	VALIDATION OF THE LOOSE PARTS MONITOR ALARM. 3 CHANNELS ARE FOUND TO BE IN ALARM.	I&C SYSTEM ENGINEER	<ol style="list-style-type: none"> 1. SYSTEM ENGINEER PROPERLY VALIDATES LOOSE PARTS MONITOR ALARM AND NOTIFIES THE SNSS.
09:32	01:32	20D	DARK BOARD MESSAGE FOR FAILURE OF THE #6C FEEDWATER HEATER CONDENSATE INLET TO CLOSE ON DEMAND, AS THE MOTOR BREAKER TRIPS ON THERMAL OVERLOAD.	CONTROL ROOM CREW	<ol style="list-style-type: none"> 1. THE CREW ACKNOWLEDGES THAT THE #6C FEEDWATER HEATER CONDENSATE INLET VALVE MOTOR HAS TRIPPED ON THERMAL OVERLOAD AND DISPATCHES

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REAL TIME	DRILL TIME	MESSAGE	EVENT	RECEIVER	EXPECTED ACTION
					AN OPERATOR TO INVESTIGATE AND ATTEMPT TO CLOSE THE VALVE MANUALLY.
09:33	01:33	21	ATTEMPT TO MANUALLY CLOSE THE #6B FEEDWATER HEATER CONDENSATE OUTLET VALVE IS NOT SUCCESSFUL, AS A SIGNIFICANT AMOUNT OF RESISTANCE IS ENCOUNTERED WHILE THE EQUIPMENT OPERATOR ATTEMPTS TO MANUAL CLOSE THE VALVE.	EQUIPMENT OPERATOR	1. EQUIPMENT OPERATOR ATTEMPTS TO MANUALLY CLOSE THE #6B FEEDWATER HEATER CONDENSATE OUTLET VALVE.
09:33	01:33	21C	CONTINGENCY MESSAGE TO PREVENT MANUAL SCRAM OF THE REACTOR.	SNSS/NSS	1. THE SNSS DOES NOT SCRAM THE REACTOR AND COMMENCES A CONTROLLED REACTOR SHUTDOWN WITH REACTOR POWER REDUCTION NOT EXCEEDING 15%/HOUR.
09:37	01:37	22	DAMAGE ASSESSMENT MESSAGE FOR 10-B-130.	SHIFT ELECTRICIAN	1. SHIFT ELECTRICIAN SHOULD REPORT THE DAMAGE TO THE SNSS (EC) WITH AN ESTIMATE OF TIME TO REPAIR AND REQUEST DIRECTION ON WHETHER OR NOT TO PROCEED WITH REPAIRS. (AT THIS TIME, NORMAL WORK PROCEDURES ARE TO BE FOLLOWED.
09:37	01:37	22C	CONTINGENCY MESSAGE TO DISPATCH AN EQUIPMENT OPERATOR TO THE "C" FEEDWATER HEATER CONTROL PANEL.	CONTROL ROOM STAFF	1. THE CREW DISPATCHES AN EQUIPMENT OPERATOR TO THE "C" FEEDWATER HEATER CONTROL PANEL.
09:40	01:40	23	MESSAGE FOR SUCCESSFUL HOOKUP OF THE TEMPORARY AIR COMPRESSOR.	MAINTENANCE TEAM	1. MAINTENANCE TEAM ACKNOWLEDGES THAT THE TEMPORARY AIR COMPRESSOR HAS BEEN HOOKED UP AND INFORMS THE CONTROL ROOM (SIMULATOR).

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REAL TIME	DRILL TIME	MESSAGE	EVENT	RECEIVER	EXPECTED ACTION
09:40	01:40	23C	CONTINGENCY MESSAGE TO ISOLATE CONDENSATE FLOW TO THE #6C FEEDWATER HEATER.	CONTROL ROOM STAFF	1. CREW ATTEMPTS TO REMOTELY ISOLATE CONDENSATE TO THE #6C FEEDWATER HEATER. THE MOV WILL TRIP ON THERMAL OVERLOAD WHILE STROKING CLOSED. MANUAL OPERATION IS REQUIRED.
09:41	01:41	23D	DARK BOARD MESSAGE FOR INCREASING MAIN TURBINE VIBRATIONS.	CONTROL ROOM STAFF	1. CREW RECOGNIZES THAT MAIN TURBINE VIBRATIONS ARE INCREASING. 2. CREW REFERS TO MAIN TURBINE OPERATING PROCEDURE, OP-SO.AC-001 FOR GUIDANCE REGARDING THE INCREASED VIBRATION CONDITION.
09:42	01:42	24	ATTEMPT TO MANUALLY CLOSE THE #6C FEEDWATER HEATER CONDENSATE INLET VALVE IS NOT SUCCESSFUL, AS A SIGNIFICANT AMOUNT OF RESISTANCE IS ENCOUNTERED WHILE THE EQUIPMENT OPERATOR ATTEMPTS TO MANUAL CLOSE THE VALVE.	EQUIPMENT OPERATOR	1. EQUIPMENT OPERATOR ATTEMPTS TO MANUALLY CLOSE THE #6C FEEDWATER HEATER CONDENSATE INLET VALVE. 2. THE EQUIPMENT OPERATOR ACKNOWLEDGES THAT A SIGNIFICANT AMOUNT OF RESISTANCE IS ENCOUNTERED WHEN ATTEMPTING TO CLOSE THE VALVE.
09:43	01:43	24C	CONTINGENCY MESSAGE TO PREVENT MANUAL SCRAM OF THE REACTOR.	SNSS/WSS	1. THE SNSS DOES NOT SCRAM THE REACTOR AND CONTINUES THE CONTROLLED REACTOR SHUTDOWN WITH REACTOR POWER REDUCTION NOT EXCEEDING 15%/HOUR.
09:44	01:44	25	INSPECTION OF #6C FEEDWATER HEATER CONDENSATE INLET VALVE MOTOR BREAKER.	SHIFT ELECTRICIAN	1. SHIFT ELECTRICIAN INSPECTS THE MOTOR BREAKER FOR THE #6C FEEDWATER HEATER CONDENSATE INLET VALVE.

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REAL TIME	DRILL TIME	MESSAGE	EVENT	RECEIVER	EXPECTED ACTION
09:45	01:45	26	ATTEMPT TO MANUALLY CLOSE THE #6C FEEDWATER HEATER EXTRACTION STEAM ISOLATION VALVE IS NOT POSSIBLE DUE TO THE INACCESSABILITY OF THE VALVE.	EQUIPMENT OPERATOR	1. EQUIPMENT OPERATOR ATTEMPTS TO MANUALLY CLOSE THE #6C FEEDWATER HEATER EXTRACTION STEAM ISOLATION VALVE.
09:47	01:47	27D	A TURBINE TRIP HAS OCCURRED DUE TO LOW BEARING OIL PRESSURE. THE REACTOR HAS SCRAMMED. ALL CONTROL RODS HAVE FULLY INSERTED INTO THE REACTOR.	CONTROL ROOM STAFF	1. NSS ENTERS EOP-101, RPV CONTROL AND ALSO MONITORS KEY CTMT. PARAMETERS. 2. NCO'S PERFORM POST SCRAM ACTIONS, USE RFP FOR LEVEL CONTROL AND TURBINE BYPASS VALVES FOR PRESSURE CONTROL. 3. SNSS SHOULD REFER TO ECG.
09:47	01:47	28D	A TURBINE TRIP HAS OCCURRED DUE TO LOW BEARING OIL PRESSURE. THE REACTOR HAS SCRAMMED. ALL CONTROL RODS HAVE FULLY INSERTED INTO THE REACTOR.	CONTROL ROOM STAFF	1. NSS ENTERS EOP-101, RPV CONTROL AND ALSO MONITORS KEY CTMT. PARAMETERS. 2. NCO'S PERFORM POST SCRAM ACTIONS, USE RFP FOR LEVEL CONTROL AND TURBINE BYPASS VALVES FOR PRESSURE CONTROL. 3. SNSS SHOULD REFER TO ECG.
09:48	01:48	29D	DARK BOARD MESSAGE FOR LOSS OF THE 13.8 KV RING BUS SECTION 2, ALONG WITH A FAILURE OF THE ALTERNATE FEEDER FOR THE 10-A-402, "B" 4160 VAC VITAL BUS TO CLOSE ONTO THE BUS.	CONTROL ROOM STAFF	1. THE CREW RECOGNIZES THE FAST TRANSFER OF LOADS FROM THE "B" SIDE STATION SERVICE TRANSFORMERS TO THE "A" SIDE STATION SERVICE TRANSFORMER. 2. THE CREW RECOGNIZES THE LOSS OF THE "B" 4160 VAC VITAL BUS. 3. THE CREW ATTEMPTS TO MANUALLY START THE "B" EDG FROM THE CONTROL ROOM.
09:48	01:48	30D	DARK BOARD MESSAGE FOR LOSS OF THE 13.8 KV RING BUS SECTION 2, ALONG WITH A FAILURE OF THE ALTERNATE FEEDER FOR	CONTROL ROOM STAFF	1. THE CREW RECOGNIZES THE FAST TRANSFER OF LOADS FROM THE "B" SIDE STATION SERVICE TRANSFORMERS TO THE "A" SIDE

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			THE 10-A-402, "B" 4160 VAC VITAL BUS TO CLOSE ONTO THE BUS.		STATION SERVICE TRANSFORMER. 2. THE CREW RECOGNIZES THE LOSS OF THE "B" 4160 VAC VITAL BUS. 3. THE CREW ATTEMPTS TO MANUALLY START THE "B" EDG FROM THE CONTROL ROOM.
09:48	01:48	31	WHILE ATTEMPTING TO MANUALLY CLOSE THE #6C FEEDWATER HEATER CONDENSATE INLET VALVE, THE OPERATOR OBSERVES TURBINE BLADING PENETRATING THE EAST WALL OF THE TURBINE BUILDING.	EQUIPMENT OPERATOR	1. EQUIPMENT OPERATOR PROVIDES INFORMATION TO THE SNSS.
09:49	01:49	31D	A TURBINE TRIP HAS OCCURRED DUE TO LOW BEARING OIL PRESSURE. THE SUBSEQUENT VIBRATION DUE TO WATER IMPINGEMENT ON THE TURBINE BLADING CAUSES A FAILURE OF THE MAIN CONDENSER ALONG WITH A RUPTURE OF THE PRIMARY CONDENSATE PUMP SUCTION HEADER.	CONTROL ROOM STAFF	1. NSS ENTERS EOP-101, RPV CONTROL AND ALSO MONITORS KEY CTMT. PARAMETERS. 2. NCO'S CONTROL REACTOR WATER LEVEL USING HPCI AND OR RCIC. SRVS ARE USED FOR PRESSURE CONTROL.
09:49	01:49	32D	A TURBINE TRIP HAS OCCURRED DUE TO LOW BEARING OIL PRESSURE. THE SUBSEQUENT VIBRATION DUE TO WATER IMPINGEMENT ON THE TURBINE BLADING CAUSES A FAILURE OF THE MAIN CONDENSER ALONG WITH A RUPTURE OF THE PRIMARY CONDENSATE PUMP SUCTION HEADER.	CONTROL ROOM STAFF	1. NSS ENTERS EOP-101, RPV CONTROL AND ALSO MONITORS KEY CTMT. PARAMETERS. 2. NCO'S CONTROL REACTOR WATER LEVEL USING HPCI AND OR RCIC. SRVS ARE USED FOR PRESSURE CONTROL.
09:50	01:50	33	SECURITY HAS JUST NOTIFIED THE SNSS THAT	MGM SECURITY SUPERVISOR	1. SNSS DIRECTS NCO TO MAKE PAGE

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09:51	01:51	330	2 RUSTY OBJECTS WERE OBSERVED PENETRATING THE EAST WALL OF THE HOPE CREEK TURBINE BUILDING AND HAVE LANDED IN THE HOPE CREEK SWITCHYARD.	CONTROL ROOM STAFF	ANNOUNCEMENT REGARDING OBJECTS. 2. SNSS DISPATCHES EG TO DETERMINE EXTENT OF DAMAGE. 3. DECLARE AN ALERT PER EGG SECTION 13.E, TURBINE ROTATING COMPONENT FAILURE WITH CASING PENETRATION.
09:51	01:51	330	DARK BOARD MESSAGE FOR RESTORATION OF POWER TO THE "B" 4160 VAC VITAL BUS THROUGH THE "B" EMERGENCY DIESEL GENERATOR.	CONTROL ROOM STAFF	1. THE CREW RECOGNIZES THAT THE "B" EDG SUCCESSFULLY STARTS AND LOADS ONTO THE "B" 4160 VAC VITAL BUS. 2. THE CREW VERIFIES SUCCESSFUL STARTING OF "B" VITAL BUS LOADS VIA TPE LOP SEQUENCER.
09:55	01:55	34	THE FAILURE OF THE MAIN TURBINE WITH SUBSEQUENT TURBINE BLADING PENETRATION THROUGH THE MAIN TURBINE CASING HAS RESULTED IN THE INITIATION OF SEVERAL SMALL FIRES THROUGHOUT THE TURBINE BUILDING.	CONTROL ROOM STAFF	1. CONTROL ROOM CREW RECOGNIZES THE RECEIPT OF SEVERAL FIRE ALARM COMPUTER POINTS THROUGHOUT THE TURBINE BUILDING. 2. SNSS CONTACTS FIRE PROTECTION TO RESPOND. 3. NSTA REFERS TO PREFIRE PLAN.
09:56	01:56	35	THE FAILURE OF THE MAIN TURBINE WITH SUBSEQUENT TURBINE BLADING PENETRATION THROUGH THE MAIN TURBINE CASING HAS RESULTED IN THE INITIATION OF SEVERAL SMALL FIRES THROUGHOUT THE TURBINE BUILDING.	CONTROL ROOM STAFF	1. CONTROL ROOM CREW RECOGNIZES THE RECEIPT OF SEVERAL FIRE ALARM COMPUTER POINTS THROUGHOUT THE TURBINE BUILDING. 2. SNSS CONTACTS FIRE PROTECTION TO RESPOND. 3. NSTA REFERS TO PREFIRE PLAN.
09:58	01:58	35C	CONTINGENCY MESSAGE TO PERFORM DAMAGE	CONTROL ROOM CREW	1. THE CREW DISPATCHES AN EQUIPMENT

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			ASSESSMENT IN THE TURBINE BUILDING.		OPERATOR TO PERFORM DAMAGE ASSESSMENT IN THE TURBINE BUILDING.
09:59	01:59	36C	CONTINGENCY MESSAGE TO PERFORM DAMAGE ASSESSMENT IN THE SWITCHYARD.	CONTROL ROOM CREW	1. THE CREW DISPATCHES AN EQUIPMENT OPERATOR TO PERFORM DAMAGE ASSESSMENT IN THE HOPE CREK SWITCHYARD.
09:59	01:59	37C	CONTINGENCY MESSAGE TO DETERMINE THE REASON FOR THE LOSS OF THE "B" VITAL BUS.	CONTROL ROOM CREW	1. THE CREW DISPATCHES AN EQUIPMENT OPERATOR TO THE "B" VITAL BUS SWITCHGEAR TO INVESTIGATE THE REASON FOR THE FAST TRANSFER FAILURE.
10:04	02:04	38	THE MAIN TURBINE FAILURE HAS RESULTED IN 2 TURBINE BLADES PENETRATING THE TURBINE CASING AND EAST WALL OF THE TURBINE BUILDING. THE BLADES IMPACT 13.8 KV BUS SECTIONS 2 AND 8, RESULTING IN A LOSS OF THE "B" SIDE STATION SERVICE TRANSFORMERS, AND FAST TRANSFER TO THE "A" SIDE.	EQUIPMENT OPERATOR	1. SNSS REFERS TO ECG FOR EVENT DECLARATION AFTER RECEIVING A COMPLETE DESCRIPTION OF THE DAMAGE THAT HAS OCCURRED IN THE SWITCHYARD. 2. SNSS OBTAINS ADDITIONAL INFORMATION FROM EQUIPMENT OPERATORS DISPATCHED TO DETERMINE THE EXTENT OF DAMAGE TO THE PLANT.
10:04	02:04	39	THE MAIN TURBINE FAILURE HAS RESULTED IN 2 TURBINE BLADES PENETRATING THE TURBINE CASING AND EAST WALL OF THE TURBINE BUILDING. THERE IS DAMAGE TO THE MAIN CONDENSER AND OTHER COMPONENTS IN THE TURBINE BUILDING.	EQUIPMENT/FIRE PROT. OPERATOR	1. SNSS REFERS TO ECG FOR EVENT DECLARATION AFTER RECEIVING A COMPLETE DESCRIPTION OF THE DAMAGE THAT HAS OCCURRED IN THE TURBINE BLDG 2. SNSS OBTAINS ADDITIONAL INFORMATION FROM EQUIPMENT OPERATORS DISPATCHED TO THE SWITCHYARD TO DETERMINE THE EXTENT OF DAMAGE TO THE PLANT.

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10:04	02:04	39C	CONTINGENCY MESSAGE FOR FIRE BRIGADE TO RESPOND TO SMALL FIRES IN THE TURBINE BUILDING.	CONTROL ROOM CREW	1. THE CREW DISPATCHES THE FIRE BRIGADE TO RESPOND TO THE FIRES IN THE TURBINE BUILDING.
10:05	02:05	40	THE MAIN TURBINE FAILURE HAS RESULTED IN 2 TURBINE BLADES PENETRATING THE TURBINE CASING AND EAST WALL OF THE TURBINE BUILDING. THERE IS DAMAGE TO THE MAIN CONDENSER AND OTHER COMPONENTS IN THE TURBINE BUILDING.	EQUIPMENT/FIRE PROT. OPERATORS	1. SNSS REFERS TO ECG FOR EVENT DECLARATION AFTER RECEIVING A COMPLETE DESCRIPTION OF THE DAMAGE THAT HAS OCCURRED IN THE TURBINE BLDG 2. SNSS OBTAINS ADDITIONAL INFORMATION FROM EQUIPMENT OPERATORS DISPATCHED TO THE SWITCHYARD TO DETERMINE THE EXTENT OF DAMAGE TO THE PLANT.
10:05	02:05	41	THE MAIN TURBINE FAILURE HAS RESULTED IN 2 TURBINE BLADES PENETRATING THE TURBINE CASING AND EAST WALL OF THE TURBINE BUILDING. THERE IS DAMAGE TO THE MAIN CONDENSER AND OTHER COMPONENTS IN THE TURBINE BUILDING.	EQUIPMENT/FIRE PROT. OPERATORS	1. SNSS REFERS TO ECG FOR EVENT DECLARATION AFTER RECEIVING A COMPLETE DESCRIPTION OF THE DAMAGE THAT HAS OCCURRED IN THE TURBINE BLDG 2. SNSS OBTAINS ADDITIONAL INFORMATION FROM EQUIPMENT OPERATORS DISPATCHED TO THE SWITCHYARD TO DETERMINE THE EXTENT OF DAMAGE TO THE PLANT.
10:05	02:05	42	THE MAIN TURBINE FAILURE HAS RESULTED IN 2 TURBINE BLADES PENETRATING THE TURBINE CASING AND EAST WALL OF THE TURBINE BUILDING. THERE IS DAMAGE TO THE MAIN CONDENSER AND OTHER COMPONENTS IN THE TURBINE BUILDING.	EQUIPMENT/FIRE PROT. OPERATORS	1. SNSS REFERS TO ECG FOR EVENT DECLARATION AFTER RECEIVING A COMPLETE DESCRIPTION OF THE DAMAGE THAT HAS OCCURRED IN THE TURBINE BLDG 2. SNSS OBTAINS ADDITIONAL INFORMATION FROM EQUIPMENT OPERATORS DISPATCHED TO THE SWITCHYARD TO DETERMINE THE EXTENT OF DAMAGE TO THE PLANT.

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10:07	02:07	43	FAILURE OF THE ALTERNATE FEEDER BREAKER TO CLOSE ONTO THE "B" VITAL BUS.	SHIFT ELECTRICIAN	1. SHIFT ELECTRICIAN ACKNOWLEDGES THAT THE NORMAL AND ALTERNATE FEEDER BREAKER FOR THE "B" VITAL BUS ARE TRIPPED.
10:10	02:10	43C	CONTINGENCY MESSAGE TO DISPATCH AN EQUIPMENT OPERATOR TO SECURE THE TURBINE GENERATOR AND RFPT DC OIL PUMPS FOLLOWING FAILURE OF THE MAIN TURBINE.	CONTROL ROOM STAFF	1. CONTROL ROOM CREW DISPATCHES AN EQUIPMENT OPERATOR TO OPEN THE BREAKERS FOR THE DC OIL PUMPS LOCATED IN THE TURBINE BUILDING.
10:14	02:14	44	OPERATOR SECURES EMERGENCY DC OIL PUMPS BY OPENING THE RESPECTIVE MOTOR BREAKERS	EQUIPMENT OPERATOR	1. EQUIPMENT OPERATOR NOTIFIES THE OSC THAT THE DC OIL PUMP MOTOR BREAKERS HAVE BEEN OPENED.
10:15	02:15	44C	CONTINGENCY MESSAGE TO DECLARE AN ALERT DUE TO TURBINE ROTATING COMPONENT FAILURE WITH CASING PENETRATION.	SNSS	1. SNSS SHOULD REFER TO ECG SECTION 13.E AND DECLARE AN ALERT. 2. TSC AND OSC ACTIVATION PROCESS BEGINS.
10:20	02:20	45C	CONTINGENCY MESSAGE NOT TO IMPLEMENT ACCOUNTABILITY AT THIS TIME.	SNSS	1. SNSS DOES NOT IMPLEMENT ACCOUNTABILITY AT THIS TIME.
10:22	02:22	45D	THE "B" EMERGENCY DIESEL HAS TRIPPED AS THE RESULT OF A LARGE LEAK IN THE LUBE OIL SUCTION PIPING.	CONTROL ROOM STAFF	1. SNSS SHOULD DIRECT THE OSC TO RESPOND TO THE "B" EDG. 2. CR STAFF CONTINUE TO FOLLOW EOPs AND MONITOR CONTROL BOARDS. 3. NCO's RESPOND TO ALARMS AND EVALUATE ALL LOADS THAT HAVE BEEN LOST.

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10:25	02:25	46	INITIAL INVESTIGATIONS INDICATE THAT THE "B" EDG TRIPPED DUE TO A LOW LUBE OIL CONDITION.	OSC TEAM LEADER	<ol style="list-style-type: none"> OSC TEAM LEADER REPORTS THE PROBABLE CAUSE OF THE EDG TRIP TO THE OSC. OSC INFORMS SNSS OF REASON FOR TRIP. SNSS DIRECTS OSC TO INITIATE REPAIR AND CLEANUP EFFORTS.
10:28	02:28	47	FAILURE OF THE "B" EDG LUBE OIL SUPPLY LINE, RESULTING IN A TRIP OF THE "B" EDG.	OSC TEAM LEADER	<ol style="list-style-type: none"> EQUIPMENT OPERATOR ACKNOWLEDGES THAT THE "B" EDG IS TRIPPED AND THAT THE LUBE OIL SUPPLY LINE IS CRACKED. EQUIPMENT OPERATOR REPORTS THE CAUSE OF THE TRIP TO THE OSC/SNSS.
10:30	02:30	48	FIRE BRIGADE COMPLETES FIRE FIGHTING ACTIVITIES IN THE TURBINE BUILDING.	FIRE BRIGADE TEAM LEADER	<ol style="list-style-type: none"> FIRE BRIGADE TEAM LEADER ACKNOWLEDGES THAT ALL FIRES IN THE TURBINE BUILDING HAVE BEEN EXTINGUISHED. NOTIFY THE OSC OF THE CONDITION. ESTABLISH A REFLASH WATCH (SIMULATED)
10:51	02:51	480	DUE TO AN INSTRUMENT LINE LEAK IN THE SOUTH PIPE CHASE, THE MOTOR FOR THE "D" LPCI INJECTION VALVE HAS DEVELOPED A SHORT TO GROUND, THAT CAUSES MOTOR BREAKER 52-242052 TO TRIP FREE.	CONTROL ROOM CREW	<ol style="list-style-type: none"> CREW RECOGNIZES THAT MOTIVE POWER HAS BEEN LOST TO THE "D" LPCI INJECTION VALVE. SNSS CONTACTS THE OSC TO DISPATCH A TEAM TO CHECK THE "D" LPCI INJECTION VALVE MOTOR BREAKER.
10:56	02:56	49C	CONTINGENCY MESSAGE TO CHECK THE CAUSE OF THE "D" LPCI INJECTION VALVE BREAKER TRIP.	CONTROL ROOM CREW	<ol style="list-style-type: none"> SNSS CONTACTS THE OSC TO DISPATCH A TEAM TO THE "D" LPCI INJECTION VALVE MOTOR BREAKER.
11:00	03:00	50	THE OSC TEAM HAS SUCCESSFULLY COMPLETED REPAIRS TO THE 10-B-130.	OSC TEAM	<ol style="list-style-type: none"> THE OSC TEAM ACKNOWLEDGES THAT THE 10-B-130 HAS BEEN SUCCESSFULLY

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					<ul style="list-style-type: none"> REPAIRED AND IS READY TO BE PLACED IN SERVICE. 2. THE OSC TEAM LEADER CONTACTS THE OSCC AND PROVIDES THE INFORMATION.
11:02	03:02	50D	DARK BOARD MESSAGE FOR "B" REACTOR VESSEL FUEL ZONE LEVEL INSTRUMENTATION VARIABLE LEG EXCESS FLOW CHECK VALVE CLOSURE DUE TO INSTRUMENT LINE LEAK RATE EXCEEDING 5 GPM.	CONTROL ROOM STAFF	<ul style="list-style-type: none"> 1. CONTROL ROOM STAFF RECOGNIZES ALARM FOR CLOSURE OF AN EXCESS FLOW CHECK VALVE. 2. SNSS CONTACTS THE OSCC TO DISPATCH A TEAM TO THE 1BC204 PANEL TO DETERMINE WHICH EXCESS FLOW CHECK VALVE HAS CLOSED. 3. NSTA AND NCO COORDINATED EFFORTS TO DETERMINE INSTRUMENTATION EFFECTED BY CLOSURE OF THE EXCESS FLOW CHECK VALVE.
11:04	03:04	51	THE "D" LPCI INJECTION VALVE MOTOR BREAKER IS TRIPPED DUE TO AN SHORT TO GROUND CONDITION AT THE MOTOR. THE BREAKER CAN NOT BE RESET.	OSC TEAM	<ul style="list-style-type: none"> 1. OSC TEAM ACKNOWLEDGES THAT THE "D" LPCI INJECTION VALVE MOTOR BREAKER IS TRIPPED AND WILL NOT RESET. 2. OSC TEAM REPORTS THE FINDINGS TO THE OSC COORDINATOR.
11:08	03:08	52C	CONTINGENCY MESSAGE TO DISPATCH AN OPERATOR TO EXCESS FLOW CHECK VALVE PANEL 1BC204.	SNSS	<ul style="list-style-type: none"> 1. SNSS DIRECTS OSCC TO DISPATCH AN OSC TEAM TO EXCESS FLOW CHECK VALVE PANEL 1BC204. 2. NSTA REVIEWS P&IDS TO DETERMINE INSTRUMENTATION EFFECTED BY THE CLOSURE OF EXCESS FLOW CHECK VALVE 1BBXV-3734B.

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11:15	03:15	53	VERIFICATION THAT EXCESS FLOW CHECK VALVE 188XV-3734B IS CLOSED.	OSC TEAM	1. THE OPERATOR ACKNOWLEDGES THAT EXCESS FLOW CHECK VALVE 188XV-3734B IS CLOSED AND INFORMS THE OSCC.
11:20	03:20	54	FOLLOWING A LEAK INTO THE SOUTH PIPE CHASE, A HARSH ENVIRONMENT EXISTS. THE SOUTH PIPE CHASE IS STEAM FILLED AND HIGHLY CONTAMINATED.	OSC TEAM	1. THE OSC TEAM ACKNOWLEDGES THE CONDITIONS IN THE SOUTH PIPE CHASE AND INFORMS THE OSCC. 2. THE TEAM DOES NOT ATTEMPT TO ENTER THE SOUTH PIPE CHASE AT THIS TIME. 3. THE NSTA SHOULD REQUEST ASSISTANCE FROM THE TSC ENGINEERING STAFF IN ATTEMPTING TO IDENTIFY POTENTIAL CORRELATIONS BETWEEN THE STEAM LEAK IN THE SOUTH PIPE CHASE AND THE OVLD/PMR FAILURE CONDITION ON THE "D" LPCI INJECTION VALVE.
11:33	03:33	55D	DARK BOARD MESSAGE FOR THE #5 JET PUMP RISER SECTION AS IT BECOMES DISLODGED FROM ITS RESTING PLACE AND GETS DRAWN INTO THE "B" REACTOR RECIRC PUMP SUCTION PIPING.	CONTROL ROOM STAFF	1. SNSS RECOGNIZES THE POSSIBLE PRESENCE OF A LOOSE PART IN THE REACTOR VESSEL DUE TO A REFLASH OF THE LOOSE PARTS MONITOR OVERHEAD ALARM AND CONTACTS THE OSC TO DISPATCH A TEAM.
11:35	03:35	56D	"B" REACTOR RECIRC PUMP SUCTION PIPING HAS BEEN BREACHED DUE TO IMPACT WITH A LOOSE PART FROM THE FAILED #5 JET PUMP.	CONTROL ROOM STAFF	1. MSS ENTERS EOP 101 AND 102 FOR RPV CONTROL AND CONTAINMENT CONTROL. 2. SNSS NOTIFIES THE EDO AND RECOMMENDS APPROPRIATE ESCALATION OF THE EMERGENCY CLASSIFICATION. 3. MCOS VERIFY PROPER RESPONSE OF ECCS AND NOTIFY THE MSS OF ANY

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					MALFUNCTIONS. 4. NSS ASSESSES AVAILABLE INJECTION SOURCES.
11:35	03:35	57D	"B" REACTOR RECIRC PUMP SUCTION PIPING HAS BEEN BREACHED DUE TO IMPACT WITH A LOOSE PART FROM THE FAILED #5 JET PUMP.	CONTROL ROOM STAFF	1. NSS ENTERS EOP 101 AND 102 FOR RPV CONTROL AND CONTAINMENT CONTROL. 2. SNSS NOTIFIES THE EDO AND RECOMMENDS APPROPRIATE ESCALATION OF THE EMERGENCY CLASSIFICATION. 3. NCOS VERIFY PROPER RESPONSE OF ECCS AND NOTIFY THE NSS OF ANY MALFUNCTIONS. 4. NSS ASSESSES AVAILABLE INJECTION SOURCES.
11:35	03:35	58D	DARK BOARD MESSAGE FOR TRIP OF THE "A" RHR PUMP DUE TO MECHANICAL BINDING AS A PIECE OF THE PUMP IMPELLAR HAS BROKEN OFF AND HAS BECOME JAMMED BETWEEN THE IMPELLAR AND THE PUMP CASING.	CONTROL ROOM STAFF	1. THE CONTROL ROOM RECOGNIZES THAT THE "A" RHR HAS TRIPPED AND IS NOT AVAILABLE TO INJECT TO THE VESSEL IN THE LPCI MODE. 2. THE SNSS DIRECTS THE OSCC TO DISPATCH A TEAM TO INVESTIGATE.
11:42	03:42	59C	CONTINGENCY MESSAGE FOR THE SNSS TO DIRECT THE OSCC TO DISPATCH A TEAM TO INVESTIGATE THE CAUSE OF THE TRIP OF THE "A" RHR PUMP.	SNSS	1. THE SNSS DIRECTS THE OSCC TO DISPATCH A TEAM TO INVESTIGATE THE "A" RHR PUMP TRIP.
11:45	03:45	59D	DARK BOARD MESSAGE FOR COMMENCEMENT OF PLUGGING OF THE "C" RHR PUMP SUCTION STRAINER.	CONTROL ROOM CREW	1. CONTROL CREW RECOGNIZES THAT THE "C" RHR PUMP SUCTION STRAINER IS BEGINNING TO PLUG. 2. THE SNSS DIRECTS THE OSCC TO DISPATCH

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					A TEAM TO IMPLEMENT OP-AB.22-0155, DEGRADED ECCS PERFORMANCE.
11:47	03:47	60	THE "A" RHR PUMP MOTOR BREAKER HAS TRIPPED ON OVERCURRENT, DUE TO MECHANICAL BINDING, AS A PIECE OF THE PUMP IMPELLAR HAS BROKEN OFF AND HAS BECOME LODGED BETWEEN THE IMPELLAR AND THE PUMP CASING.	OSC TEAM	1. OSC TEAM ACKNOWLEDGES THE STATUS OF THE "A" RHR PUMP MOTOR BREAKER AND INFORMS THE OSC.
11:49	03:49	60C	CONTINGENCY MESSAGE TO IMPLEMENT DEGRADED ECCS PERFORMANCE ABNORMAL PROCEDURE.	SNSS	1. AS PRACTICAL, RHR PUMPS CAN BE REMOVED FROM SERVICE FOR BACKWASHING OF THE ASSOCIATED SUCTION STRAINER.
11:50	03:50	61D	DARK BOARD MESSAGE FOR ATTEMPTED CLOSURE OF 1SKHV-5018.	CONTROL ROOM CREW	1. CONTROL ROOM CREW ACKNOWLEDGES THAT 1SKHV-5018 FAILS TO CLOSE FROM THE CONTROL ROOM. 2. SNSS NOTIFIES THE TSC OF THE CONDITION AND REQUEST ENGINEERS DEVELOP A TROUBLESHOOTING PLAN.
11:50	03:50	62	OBSERVATION OF STATUS OF THE DRYWELL GASEOUS ATMOSPHERIC SAMPLE SYSTEM.	OSC TEAM	1. IF THE SNSS RECOGNIZES THE FAILURE OF THE PRIMARY CONTAINMENT ISOLATION VALVE TO CLOSE (1SKHV-5018), THEN HE SHOULD DIRECT THE OSC TO DISPATCH A TEAM TO RESPOND.
11:55	03:55	63C	CONTINGENCY TO DECLARE A SITE AREA EMERGENCY.	EDO / SNSS	1. DECLARE A SITE AREA EMERGENCY. 2. IMPLEMENT ECG ATTACHMENT 3. 3. IMPLEMENT EPIP 103H.

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					4. IMPLEMENT ACCOUNTABILITY (LIMITED)
11:55	03:55	64D	DARK BOARD MESSAGE FOR PLUGGING OF THE "C" RHR PUMP SUCTION STRAINER.	CONTROL ROOM CREW	<ol style="list-style-type: none"> CONTROL CREW RECOGNIZES THAT THE "C" RHR PUMP SUCTION STRAINER IS PLUGGING. THE SNSS DIRECTS THE OSCC TO DISPATCH A TEAM TO IMPLEMENT OP-AB.ZZ-0155, DEGRADED ECCS PERFORMANCE
11:56	03:56	65	"C" RHR PUMP SUCTION PRESSURE IS BELOW THE NORMAL OPERATING VALUE DUE TO THE PLUGGING OF THE ASSOCIATED SUCTION STRAINER.	OSC TEAM MEMBERS	<ol style="list-style-type: none"> OSC TEAM DETERMINE THE SUCTION PRESSURE FOR THE "C" RHR PUMP.
12:00	04:00	66	DUE TO A FAILURE OF DRYWELL GASEOUS ATMOSPHERIC SAMPLE INBOARD SUPPLY VALVE 1SKHV-5018 TO COMPLETELY ISOLATE ON THE LOCA LEVEL 1 SIGNAL, MANUAL OPERATION IS REQUIRED.	OSC TEAM	<ol style="list-style-type: none"> IF THE CREW RECOGNIZES THE FAILURE OF THE PRIMARY CONTAINMENT ISOLATION VALVE TO CLOSE, THEN AN OSC TEAM SHOULD BE DISPATCHED TO INVESTIGATE.
12:10	04:10	67C	CONTINGENCY MESSAGE TO DISPATCH A TEAM TO INVESTIGATE THE FAILURE OF 1SKHV-5018	CONTROL ROOM CREW	<ol style="list-style-type: none"> SNSS CONTACTS THE OSCC TO DISPATCH A TEAM.
12:15	04:15	68D	DARK BOARD MESSAGE FOR TRIP OF THE "C" RHR PUMP DUE TO COMPLETE PLUGGING OF THE ECCS SUCTION STRAINER AS A RESULT OF CONTINUOUS OPERATION FOR 40 MINUTES.	CONTROL ROOM STAFF	<ol style="list-style-type: none"> THE CONTROL ROOM RECOGNIZES THAT THE "C" RHR HAS TRIPPED AND IS NOT AVAILABLE TO INJECT TO THE VESSEL IN THE LPCI MODE. THE SNSS DIRECTS THE OSCC TO DISPATCH A TEAM TO INVESTIGATE.
12:20	04:20	69C	CONTINGENCY MESSAGE FOR THE SNSS TO	SNSS	<ol style="list-style-type: none"> THE SNSS DIRECTS THE OSCC TO

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 DRILL NUMBER: H94-06

REAL TIME	DRILL TIME	MESSAGE	EVENT	RECEIVER	EXPECTED ACTION
			DIRECT THE OSCC TO DISPATCH A TEAM TO INVESTIGATE THE CAUSE OF THE TRIP OF THE "C" RHR PUMP.		DISPATCH A TEAM TO INVESTIGATE THE "C" RHR PUMP TRIP.
12:23	04:23	70	THE "C" RHR PUMP MOTOR BREAKER HAS TRIPPED ON OVERCURRENT, AS A RESULT OF CONTINUED PUMP OPERATION WITH A PLUGGED SUCTION STRAINER. PUMP MOTOR CURRENT BEGAN FLUCTUATING WILDLY, RESULTING IN THE TRIP.	OSC TEAM	1. OSC TEAM ACKNOWLEDGES THE STATUS OF THE "C" RHR PUMP MOTOR BREAKER AND INFORMS THE OSC.
12:45	04:45	71	REFEREE MESSAGE FOR GENERAL EMERGENCY DECLARATION.	DRILL REFEREES	AT APPROXIMATELY 12:45, THE DAPA MONITORS WILL EXCEED 200 R/HR, WHICH IS INDICATION OF A LOSS OF THE FUEL CLAD BARRIER. BASED ON EMERGENCY COORDINATOR JUDGEMENT, A GENERAL EMERGENCY COULD BE DECLARED AT THIS TIME. IF A GENERAL EMERGENCY IS DECLARED, THE EXPECTED PAR IS AS FOLLOWS: EVACUATE ALL SECTORS 0 - 5 MILES
12:45	04:45	72C	CONTINGENCY MESSAGE TO OBTAIN A PASS SAMPLE.	CHEMISTRY SUPERVISOR - TSC	1. THE CHEMISTRY SUPERVISOR IN THE TSC REQUESTS A PASS SAMPLE BE TAKEN.
12:50	04:50	73	OSC TEAM IS HAVING SOME SUCCESS CLOSING MANUAL ISOLATION VALVE 1-SK-V004.	OSC TEAM	1. THE OSC TEAM WORKS AT CLOSING THE MANUAL ISOLATION VALVE, 1-SK-V004.
13:00	05:00	74	A BAILEY CARD ASSOCIATED WITH 1SKHV-5018 HAS FAILED AND REQUIRES REPLACEMENT.	OSC TEAM	1. OSC TEAM NOTIFIES THE OSCC AND ATTEMPTS TO FIND A REPLACEMENT CARD.

ARTIFICIAL ISLAND EMERGENCY PREPAREDNESS
 MAJOR EVENTS TIMELINE
 DRILL NUMBER: H94-06

REAL TIME	DRILL TIME	MESSAGE	EVENT	RECEIVER	EXPECTED ACTION
13:15	05:15	74D	RADIOACTIVE RELEASE OCCURS - AIRBORNE CONTAMINATION SPREADS THROUGHOUT RX BLDG. AND IS RELEASED TO ENVIRONMENT VIA FRVS VENT. LOCAL AREA RAD MONITORS AND FRVS VENT EFFLUENT ALARMS OCCUR.	CONTROL ROOM STAFF	<ol style="list-style-type: none"> 1. CONTINUE EFFORTS TO DETERMINE AND LOCATE THE SOURCE OF THE LINE BREAK. 2. SNSS INFORM EDO OF INCREASED RAD LEVEL AND INDICATION OF FRVS RELEASE 3. INFORM OSC OF RAD CONCERNS IN REACTOR BLDG. 4. NSS ENTERS EOP-103 (REACTOR BUILDING CONTROL) AND EOP-104 (RADIOACTIVE RELEASE CONTROL) 5. NCO ENTERS ABNORMAL RELEASES OF GASEOUS RADIOACTIVITY (OP-AB.22-126)
13:15	05:15	75	OSC TEAM ACTIONS INADVERTENTLY RESULT IN INITIATION OF A RADIOLOGICAL RELEASE.	OSC TEAM	<ol style="list-style-type: none"> 1. THE OSC TEAM NOTIFIES THE OSCC OF THE EVENTS AND IMMEDIATELY EVACUATES THE AREA AND THE REACTOR BUILDING.
13:30	05:30	76	THIS MESSAGE PROVIDES THE RESULTS OF THE PASS SAMPLE TAKEN AT 12:45.	CHEMISTRY SUPERVISOR - TSC	<ol style="list-style-type: none"> 1. PROVIDE THE RAC AND FUELS ENGINEER WITH THE PASS RESULTS.
13:30	05:30	77C	CONTINGENCY MESSAGE FOR THE RAC TO DIRECT THE IN-PLANT RAD PRO SUPV. TO TAKE AN FRVS EFFLUENT SAMPLE.	RAC (RAD ASSESSMENT COORD.)	<ol style="list-style-type: none"> 1. RAC DIRECTS IN-PLANT RAD PRO SUPV. TO TAKE FRVS EFFLUENT SAMPLE. 2. RAD PRO TECH. SAMPLES AND ANALYZES FRVS EFFLUENT.
13:35	05:35	78C	CONTINGENCY MESSAGE TO DECLARE A GENERAL EMERGENCY BASED ON DEGRADATION OF AT LEAST TWO FISSION PRODUCT BARRIERS WITH POTENTIAL FOR THE THIRD (FUEL CLAD).	ERM	<ol style="list-style-type: none"> 1. DECLARE A GENERAL EMERGENCY. 2. IMPLEMENT ATTACHMENT 4. 3. IMPLEMENT EPIP 104H.(EPIP 401, APP.B) 4. DEVELOPMENT OF A PAR. AS A MINIMUM;

ARTIFICIAL ISLAND EMERGENCY PREPAREDNESS
 MAJOR EVENTS TIMELINE
 DRILL NUMBER: H94-06

REAL TIME	DRILL TIME	MESSAGE	EVENT	RECEIVER	EXPECTED ACTION
					SECTORS ----- EVACUATE ALL 0-5 MILES EVACUATE W-WNW-NW 5-10 MILES SHELTER ALL REMAINING 5-10 MILES SECTORS
14:11	06:11	79	"B" EDG REPAIRS ARE COMPLETE AND IT IS READY AND AVAILABLE FOR RESTART.	OSC "B" EDG REPAIR TEAM	1. OSC TEAM TO NOTIFY THE OSCC OF JOB COMPLETION. 2. OSCC TO INFORM SNSS THAT "B" EDG IS REPAIRED AND READY FOR START. 3. CR CREW TO START "B" EDG.
14:15	06:15	80	THIS MESSAGE PROVIDES THE RESULTS OF THE FRVS SAMPLE TAKEN AT 13:30.	RP - INPLANT SUPERVISOR	1. NOTIFY THE RAC IN THE TSC OF THE RESULTS.
14:49	06:49	81	THE OSC TEAM HAS SUCCESSFULLY REPLACED THE FAILED BAILEY LOGIC CARD ASSOCIATED WITH 1SKHV-501B.	OSC TEAM	1. THE OSC TEAM INFORMS THE OSCC THAT REPAIRS ARE COMPLETED.
14:49	06:49	010	DARK BOARD MESSAGE FOR CLOSURE OF 1SKHV-501B.	CONTROL ROOM CREW	1. CONTROL ROOM CREW RECOGNIZES THAT THE 1SKHV-501B IS CLOSED.
15:00	07:00	82	THIS MESSAGE PROVIDES THE RESULTS OF THE PASS SAMPLE TAKEN AT 12:45.	CHEMISTRY TECH	1. CHEM TECH DISCUSSES RESULTS WITH THE CONTROL POINT CHEMISTRY SUPERVISOR.
15:30	07:30	83	DRILL TERMINATION PAGE ANNOUNCEMENT.	SNSS	1. AFTER THE SNSS, EDO AND ERM AGREE THE PLANT IS STABLE AND THE PRIMARY LEAK IS ISOLATED (OR THE REACTOR IS DEPRESSURIZED), HEAD REFEREE WILL TERMINATE DRILL.

ARTIFICIAL ISLAND EMERGENCY PREPAREDNESS
MAJOR EVENTS TIMELINE
DRILL NUMBER: H9A-06

REAL TIME	DRILL TIME	MESSAGE	EVENT	RECEIVER	EXPECTED ACTION
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2. DRILL CONTROLLER WILL ENSURE NETS AND RADIO COMMUNICATIONS ARE RESTORED TO READY CONDITIONS.
3. NCO AT H.C. MAKES PAGE ANNOUNCEMENT.

SECTION 5.3

ARTIFICIAL ISLAND
ANNUAL EXERCISE 1994

MAJOR OBSERVABLE ONSITE EVENTS

NOTE: All references to CR response are actions observable in the Hope Creek Simulator at the Nuclear Training Center.

07:45 thru 08:30

- o Shift personnel pre-drill briefing and review of initial conditions, both on-site and in the HC Simulator.
- o Review of player instructions (drillsmanship and safety concerns, extent of play are covered)
- o Referees post initial data displays in the Simulator and other ERFs where appropriate.
- o Referees are stationed at key locations to control player activities and response to early scenario events.
- o CR Staff and shift personnel onsite are in position, on watch.

08:30 thru 09:25

- o Exercise begins.
- o CR response to loss of 480 VAC Unit Substation due to an electrical fault and subsequent fire.
- o CR response to a loss of Feedwater Heater string caused by deenergization of a control panel.
- o Site Protection (Fire Brigade) response to combat the USS fire event.
- o **Unusual Event** declaration and notifications from the HC Simulator.
- o CR response to indications of a Recirculation Jet Pump Riser failure and loose parts alarm in the Reactor.

09:25 thru 10:30

- o CR response to a Feedwater Heater high level condition with failure to isolate remotely. NEO will be directed to take local action to isolate.
- o CR response to Main Turbine Vibrations as water from the flooded feedwater heater impinges on the turbine blading.
- o CR response to Main Turbine Trip with rotating turbine blading failure and casing penetration causing loss of condenser vacuum and MSIV closure. Rx Scram is automatic and successful.
- o CR response to a complete loss of feedwater and condensate from a piping rupture at the Primary Condensate Pump suction.
- o NEO dispatched to the Turbine Building for damage assessment.
- o CR response and Fire Brigade dispatch to combat fires and control damage in the Turbine Bldg.
- o CR response to loss of 13.8 KV Bus Sections 2 & 8 with failure of fast transfer of "B" 4160 VAC Vital Bus.

09:25 thru 10:30 (cont'd)

- o CR response to failure of "B" EDG to start and continued loss of "B" Vital 4160 Bus.
- o **Alert** declaration and notifications from the HC Simulator.
- o Emergency Response Organization (ERO) callout and activation of onsite emergency facilities (TSC, OSC, and Control Point). Assembly of predesignated drill players only.
- o EOF and ENC begin staffing and facility setup in preparation for activation if needed.
- o ERF access control is established by Security.

10:30 thru 12:00

- o CR response to indications of a small Reactor Coolant leak outside Primary Containment in the South Pipe Chase from a cracked instrumentation line. The excess flow check valve will close to automatically isolate the leak.
- o Emergency Coordinator (EC) turnover from SNSS to EDO, TSC activation.
- o CR response to a large break LOCA as "B" Recirc Pump Suction piping fails completely due to the impact of a loose part of the failed Jet Pump.
- o **Site Area Emergency** declaration and notifications from the TSC.
- o Limited Accountability is performed (Hope Creek drill players only).
- o OSC response team to investigate the failure of "D" LPCI Injection Valve (motor short circuit).
- o CR response to a failure of the Drywell Atmospheric Gaseous Radioactivity Monitoring Inboard Isolation Valves to close (electrically deenergized)
- o OSC response team to restore "A" RHR Pump which has tripped on overcurrent.
- o OSC response team to attempt manual closure of the failed open Drywell isolation valve.
- o CR and TSC technical support response to indications of ECCS Suction Strainer plugging in the Suppression Pool.
- o NRC Region I Incident Response Team arrives onsite and at the EOF to demonstrate co-location objectives.

12:00 thru 13:15

- o Emergency Coordinator (EC) turnover from EDO to the ERM, EOF activation and ENC activation.
- o CR response to losses of both available ECCS pumps and OSC response teams dispatched to troubleshoot and restore operability.
- o Fuel Damage indications are observed as RPV Water Level decreases below TAF.
- o Possible General Emergency declaration and PAR development based on EC judgment from the EOF.

13:15 thru 14:00

- o Primary Containment is breached by the sudden failure of the Drywell Atmospheric Gaseous Radioactivity Monitoring Sample Line downstream of the failed open Drywell inboard isolation valve.
- o Radiological Release to the environment begins through the Rx Bldg. FRVS Vent path.
- o **General Emergency** declaration, if not done previously, PAR selection or upgrade, and notifications from the EOF.
- o Onsite and offsite field monitoring teams begin tracking and sampling the plume.

14:00 thru 15:30

- o CR response to the restoration of power to "B" 4160 VAC Bus when OSC repairs to "B" EDG are completed.
- o OSC team repairs the failed power supply to the stuck open Drywell Atmospheric Gaseous Radioactivity Monitoring Inboard Isolation Valve which is closed, restoring Primary Containment.
- o Radiological release rates decrease at the FRVS Vent.
- o Head Referee will terminate the exercise with the concurrence of the NRC and FEMA Evaluation Team Leaders when the exercise objectives have been demonstrated.

15:30 thru 16:30

- o ERFs are restored to pre-exercise conditions.
- o Facility critiques for players, referees and observers.
- o Offsite Field Monitoring Teams return for debriefing and critiques.

SECTION 5.4
ARTIFICIAL ISLAND
ANNUAL EXERCISE 1994

ONSITE ACTUAL VS. SIMULATED EVENTS

- | | | |
|-----|--|---|
| 1. | Callout of Emergency Response Personnel | Actual (Pagers Plant PA and Manual Callout) |
| 2. | Activation of ERFs | Actual |
| 3. | PASS Sampling and Analysis | * Actual |
| 4. | Emergency Notification | Actual |
| 5. | Radiation Protection Measures & Dose Assessment | * Actual (Offsite Monitors will not wear PCs) |
| 6. | Personnel Monitoring | Actual |
| 7. | Inplant, Onsite, Offsite Monitoring | Actual |
| 8. | Non-essential Personnel Assembly & Site Evacuation | Simulated |
| 9. | Owner Controlled Area Siren Activation | Simulated |
| 10. | Accountability | Actual (Limited to drill players only) |
| 11. | Access Control (TSC, EOF, & ENC) | Actual |
| 12. | Main Guard House Access Control | Simulated |
| 13. | Core Damage Estimation | Actual |

*NOTE: Demonstrating proficiency in donning SCBAs need only be performed once. After initial demonstration, the players will not wear facepieces while in the field.

SECTION 5.5

HOPE CREEK GRADED EXERCISE (H94-06) RADIOLOGICAL ASSUMPTIONS/CALCULATIONS

Public Service Electric and Gas designed a radiological transport program for HCGS to be used in developing scenarios for emergency drills. The calculations and tables of specific information used by this program can be found in the PSE&G HCGS Emergency Preparedness Software - Module A Technical Basis Manual (HCGSEPTBM). The radiological assumptions used by this program are as follows:

5.5.1.1 Reactor Core and Clad Failure Inventory

The design basis core inventory assumes a 1000 day run time at 3485 associated corrosion and activation product inventories have been adjusted where applicable using the data and information from the HC Core Damage Assessment Procedure (HCCDAP). The core inventory used in this program are displayed in Table 2-1 of the HCGSEPTBM. The clad failure inventory was calculated using the HCCDAP and are also displayed in Table 2-1 of the HCGSEPTBM.

5.5.1.2 Reactor Coolant System (RCS)

The Power Correction Factor uses the power operation history to determine the effective full power days on the reactor core. A correction factor for each isotope which is used in calculating the actual core inventory available for release is produced by this calculation. See Section 3.1.1 of the HCGSEPTBM for the calculations.

The RCS Inventory is calculated based on the power operating history, the fuel damage postulated, the reactor core inventory, and then are decayed corrected for the time since reactor trip. See section 3.1.2 of the HCGSEPTBM for the calculations.

The RCS Concentration is converted to $\mu\text{Ci/cc}$, volume corrected for temperature and pressure, and then combined to yield RCS concentration for the fuel damage postulated. See Section 3.1.3 of the HCGSEPTBM for the calculations.

5.5.1.3 Main Steam (MS)

The MS isotopic activities are calculating using partition factors that are derived from the design basis accident analysis tables in Hope Creek FSAR Chapter 15. See Section 3.2 of the HCGSEPTBM for the MS calculations and Table 2-2 for the MS partition factors also in the HCGSEPTBM.

5.5.1.4 Torus Water Concentrations

Torus water is maintained at a baseline concentration until a reactor trip or accident occurs. Steam may be discharged into the Torus during a reactor trip. The calculations used for this are found in Section 3.3.1 of the HCGSEPTBM. The Torus is used to depressurize the Drywell and RCS during accident situations. The calculations used for this are in Section 3.3.2 of the HCGSEPTBM.

5.5.1.5 Reactor Feedwater (RF)

RF calculations are derived from the source term shielding tables located in Chapter 12 of the Hope Creek FSAR, which are based on partitions of the MS concentrations. The calculations used for this as well as the partition factors are in Section 3.4 and Table 2-3 of the HCGSEPTBM.

5.5.1.6 Drywell Atmosphere - Normal (D/WA-N)
RCS leakage is partitioned to the atmosphere using the information and data in Chapters 6 and 15 of the Hope Creek FSAR. The D/WA-N is corrected for temperature and pressure. The source term used in this calculation uses the RCS leak rate. The calculation and partition factors are in Section 3.5.1 and Tables 2-4 and 2-5 of the HCGSEPTBM.

5.5.1.7 Reactor Building Atmosphere - Normal (RBA-N)
The D/W leakage into the Reactor Building is a pressure dependent calculation. The RBA-N concentration is reduced if the FRVS recirculation filters are in service. The data and parameters used in these calculations come from the Hope Creek FSAR Chapters 6 and 15. See Section 3.6.1 and Table 2-7 of the HCGSEPTBM for the calculations and FRVS Recirc Filter Factors.

5.5.1.8 Service/Radwaste Building Atmosphere - Normal (S/RWA-N)
The data and parameters used in the calculation come from the Hope Creek FSAR Chapters 6, 12, and 15. This calculation uses the system and component leakage in the S/RW building as the source term. See Section 3.8.1 of the HCGSEPTBM for the calculations.

5.5.1.9 Radiation Monitoring System (RMS)
The ARM's use both atmosphere concentrations and component radiation shine as the source terms for the monitor response calculations. Monitor response factors and shield factors are calculated values using isotopic mix, source location, source size, source geometry, and monitor response to combined sources. The data and parameters used in the calculations come from the Hope Creek FSAR Chapter 15, the Hope Creek RMS Manual, and the most current floor plan and equipment layout drawings of Hope Creek. See Sections

The Duct Monitors use atmosphere concentrations, pre-filter or post filter, whichever is applicable, component radiation shine, and atmosphere radiation shine for the monitor response calculation values which use isotopic mix, source location, source size, source geometry, and monitor response to combined sources. The data and parameters used in the calculations come from Chapter 15 of the Hope Creek FSAR, Hope Creek RMS Manual, and the most current floor plan and equipment layout drawings of Hope Creek. See Sections 3.9.2.1 through 3.9.2.18 of the HCGSEPTBM for the calculations.

The Effluent Monitors use effluent stream concentrations, component radiation shine, and atmosphere radiation shine for the monitor response calculations. Monitor response factors and shield factors are calculated values which use isotopic mix, source location, source size, source geometry, effluent stream activity, and monitor response to combined sources. The data and parameters used in the calculations are from chapter 15 of the Hope Creek FSAR, the Hope Creek RMS Manual, and the most current floor plan and equipment HCGSEPTBM for the calculations.

The Process Monitors use system concentrations, component radiation shine, and atmosphere radiation shine for the monitor response calculations. Monitor response factors and shield factors are calculated values which use isotopic mix, source location, source size, source geometry, system stream activity, and monitor response to combined sources. The data and parameters used in the calculations come from Chapter 15 of the Hope Creek FSAR, The Hope Creek RMS Manual, and the most current floor plan and equipment layout the calculations.

5.5.1.10 Sample and Dose Rate Calculations
The Sample and Dose rate calculations use the system effluent stream and/or atmosphere concentrations as the source term. The sample geometry, distance, counting instrument, and isotopic mix are the parameters used in HCGSEPTBM for the calculations.

5.5.1.11 Plume Data

The Emergency Preparedness Scenario Generator (EPSG) - Module B Plume Program, is designed to generate offsite dose assessment scenario data for HCGS. The software utilizes an A+ atmospheric dispersion model in all X/Q calculations. Dose assessment calculations are performed utilizing the information and data from the HCGS EPSG - Module A, Version 3.1 (11/89). The guidance and equations utilized in the software come from the following references:

U.S. Nuclear Regulatory Commission, Reg. Guide 1.145 (2/83) "Atmospheric Dispersion Module for Potential Accident Consequence Assessments at Nuclear Power Plants".

D. Bruce Turner, "Workbook for Atmospheric Dispersion Estimates", Environmental Protection Agency, Office of Air Programs Research, Triangle Park, N.C. Rev. 1970.

NUREG/CR-3365 "Report to the NRC on Guidance for Preparing Scenarios for Emergency Preparedness Exercises at Nuclear Generating Stations; March 1986.

Section 3.0 of the Technical Basis Manual, HCGS EPSG - Module B, contains the actual equations utilized in the software.

Additional guidance for the data generated for this exercise came from:

EPA 400-R-92-001, Manual Of Protective Action Guides And Protective Actions For Nuclear Incidents

PLG's Meteorological Incident Dose Assessment System (MIDAS) dose assessment computer program.

5.5.2.0 Specific Radiological Assumptions for the Hope Creek Graded Exercise are as follows:

5.5.2.1 Reactor Building Atmosphere - Large Break Loss Of Coolant Accident (RX.BLDG-LBLOCA)

The Rx. Bldg. Atmosphere Concentration is determined by two separate calculations. The source term utilized for these calculations is a 1.0 ft.² pipe break. The first equation uses the break flow rate for the first four minutes. The second equation uses the make up flow rate for the remaining time. RCS activity is partitioned to the atmosphere using the information and data in the Hope Creek FSAR Chapters 6 and 15. The Rx. Bldg. atmosphere data is corrected for temperature and pressure. The calculations used as well as the partition factors are in Section 3.6.2, Tables 2-4 and 2-7 of the HCGSEPTBM.

5.5.2.2 Accident Type and Description:

09:47 (Real Time) 01:47 (Drill Time) The Main Turbine will be tripped and the Reactor will be Scrammed a high vibration condition on the Main Turbine. One minute after this blades will penetrate the Main Turbine casing. This leads to Main Condenser vacuum degradation and the destruction of the Primary Condensate Pump suction header.

11:35 (Real Time) 03:35 (Drill Time) The "B" Reactor Recirc Pump Suction Piping will experience an unisolable failure. This will also lead to the uncovering of active fuel causing 80% clad damage and 50% fuel melt.

13:15 (Real Time) 05:15 (Drill Time) A radiological release to the atmosphere via the FRVS will occur. The release will be monitored and filtered.

15:00 (Real Time) 07:00 (Drill Time) The radiological release will be isolated and FRVS will show a trending downward from this point until the termination of the exercise.

Section 5.6

COMPARISON OF SCENARIO EVENTS VERSUS INDUSTRY EVENTS

<u>Scenario Event</u>	<u>Industry Event</u>
Jet Pump Riser Failure	Grand Gulf 1 Jet Pump Failure on 9-13-93, (OE-6285).
Feedwater Heater High Level	Calvert Cliffs Rx Trip due to High level on 6-11-93.
Ring Bus Damage, 13.8 KV	Hope Creek Pothead Failure on 5-13-93, (LER# 93-003-00).
Main Turbine High Vibrations & Failure.	Susquehanna 1 Loss of 2 Buckets on 7-12-93, (OE-6205).
	Fermi 2 Turbine Failure with casing penetration on 12-25-93, (SEN107).
	Salem 2 Overspeed Turbine Failure with casing penetration on 11-9-91, (AIT 50-311/91-81).
"B" Vital Bus 4160 Breaker Failure	St. Lucie Breaker Failure on 4-18-90, (OE-4020).
	Shearon Harris Loss of Vital Bus on 5-23-93, (OE-5986).
ECCS Pump Suction Strainer Fouling.	Perry Inspection Findings on 5-22-93, (OE-6023).
	Barsbeck 2 (Sweden) findings on 7-28-92.

SECTION 6.0
ARTIFICIAL ISLAND
ANNUAL EXERCISE 1994
MESSAGE FORMS

NOTES:

1. The messages contained in this section are for Referee/Evaluator information only. The messages that are handed out to the players during the exercise will be on **YELLOW** paper and will not include **REFEREE NOTES** or **EXPECTED ACTIONS**.
2. The page numbers in this section correspond to the message number which are generally in **chronological order** as they will be issued. (Occasionally messages are issued simultaneously at different locations)
3. **Section 5.2, Scenario Timeline**, may be used as an index for all message forms contained in this section. Some message numbers are not used (skipped) due to revisions of the scenario. Refer to Section 5.2 as a list of effective pages for this section.
4. Special codes/message designators.

C - Contingency Message. Issued as needed to maintain the overall scenario timeline or to ensure a specific planned activity is performed for the purpose of demonstrating an objective.

NOTE: Some Contingency Messages are planned primarily to coordinate the dispatch of site personnel by the Control Room Staff from the Simulator in a way that maximizes availability of a limited number of OSC Referees. (Scenario control)

Event Classification Contingency Messages should not be handed out without the **Head Referee's** permission.

If a Contingency Message is issued, the facility **Lead Referee** will note the reason and ensure the **NRC Evaluator** is aware of its purpose as soon as practical after it is issued.

D - Dark Board Message. May not be issued unless needed to support Simulator indications and annunciators. Should be issued if Simulation is **FROZEN** or unavailable at time of exercise. Information contained in MESSAGE section conveys in abbreviated form what the player would have seen or heard if the Simulator were fully operational.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 01
TO : HOPE CREEK SHIFT PERSONNEL
FROM : HEAD REFEREE/SIMULATOR REFEREE
LOCATION : HOPE CREEK TSC / HC SIMULATOR

REAL TIME : 08:00
DRILL TIME : 00:00

MESSAGE :

THE ATTACHED INFORMATION ARE THE INITIAL CONDITIONS FOR THE DRILL.
THEY ARE FOR YOUR REFERENCE NOW AND AS NEEDED DURING THE DRILL.

WE WILL REVIEW THEM AT THIS TIME AND IF THERE ARE ANY QUESTIONS,
PLEASE ASK FOR CLARIFICATIONS.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

1. PROVIDE A REVIEW OF THE INITIAL CONDITIONS.
2. ENSURE THAT ALL PARTICIPANTS ARE IDENTIFIED.
3. REVIEW SIGNIFICANT PLAYER INSTRUCTIONS, SCOPE, AND OBJECTIVES OF TODAY'S DRILL AS NEEDED.

EXPECTED ACTIONS :

1. LEAD REFEREE WILL HOLD AN INITIAL CONDITIONS BRIEFING FOR ALL DRILL PLAYERS.
2. ENSURE KEY PLAYERS AND REFEREES ARE AVAILABLE TO START THE DRILL.

ARTIFICIAL ISLAND
ANNUAL GRADED EXERCISE
OCTOBER 25, 1994

INITIAL CONDITIONS:

Salem 1 is currently at 100% power.

Salem 2 is currently at 85% Power, with power ascension in progress following repairs to the #21 Main Feed Pump.

Hope Creek is at 95% Power, End of Life (EOL) Core, with a coastdown in progress. The unit has been on line for the past 9 months.

All Major Equipment is Operable with the following exceptions:

- "B" CRD Pump (1B-P-207) is Cleared and Tagged to replace the pump motor, which failed during the night shift. Repairs are expected to be completed on the day shift tomorrow.
- "A" Core Spray Loop is Cleared and Tagged for a scheduled preventative maintenance outage. Tech Spec LCO 3.5.1 was entered at 0607 yesterday morning, October 24. Work is in progress and should be completed by the end of swing shift tomorrow.
- "C" SACS Pump (1C-P-210) is Cleared and Tagged to replace its Motor Breaker. Tech Spec LCO 3.7.1.1 was entered at 0543 this morning. Work is expected to be completed by swing shift today.

Reactor Coolant System (RCS) chemical sample analysis indicates several fuel pins are leaking, causing a minor increase in Reactor Coolant Activity. The leakage started one month ago and the Nuclear Fuels Group estimates approximately 0.01% clad defects currently. The leaking fuel pins are suspected to be manufacturing imperfections and will be replaced during the upcoming Refuel Outage. RCS activity is still well below Tech Spec Limits.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 02
TO : SNSS (HOPE CREEK)
FROM : CONTROL ROOM DRILL CONTROLLER
LOCATION : CONTROL ROOM (HOPE CREEK)

REAL TIME : 08:20
DRILL TIME : 00:20

MESSAGE :
Please make the following page announcement:

"ATTENTION ALL PERSONNEL. ATTENTION ALL PERSONNEL",
"AN EMERGENCY PLAN DRILL WILL BE HELD TODAY AT HOPE CREEK
COMMENCING AT 08:30."
"ONLY DESIGNATED DRILL PARTICIPANTS ARE REQUIRED TO RESPOND
TO DRILL MESSAGES AND ANNOUNCEMENTS. ALL OTHER PERSONNEL SHALL
CONTINUE WITH THEIR NORMAL WORK FUNCTIONS."
"THIS IS A DRILL. THIS IS A DRILL."

Please repeat message one time.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

1. PROVIDE THIS MESSAGE TO THE SNSS.
2. CONTACT THE LEAD REFEREE AT THE HOPE CREEK TSC TO ESTABLISH
CONTROLLER PHONE NUMBERS TO BE USED THROUGHOUT THE DRILL
& SYNCHRONIZE WATCHES. CONFIRM NO OPERATIONAL PROBLEMS THAT
WOULD POSTPONE THE START OF THE DRILL.
3. INFORM THE SNSS THAT A PASS SAMPLE WILL BE TAKEN DURING THE DRILL
FROM THE RHR SYSTEM.

EXPECTED ACTIONS :

1. HOPE CREEK CONTROL ROOM IS AWARE
OF THE DRILL.
2. DRILL CONTROLLERS ARE READY TO START
THE DRILL.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 03D
TO : CONTROL ROOM STAFF
FROM : SIMULATOR REFEREE
LOCATION : SIMULATOR (HOPE CREEK)

REAL TIME : 08:33
DRILL TIME : 00:33

MESSAGE :
YOU HAVE JUST RECEIVED THE FOLLOWING ALARMS:

USS FEEDER BRKR TRBL	(OVERHEAD E3-F3)
4.16 KV FDR TO USS XFMR BRKR MALF	(OVERHEAD E3-F2)
FIRE PROT PANEL 10C671	(OVERHEAD A2-A5)
FEEDWATER HEATER TRIP	(OVERHEAD A7-E2)
FEEDWATER HEATER PNL 1A/B/C C102	(OVERHEAD A7-F2)
REACTOR RECIRC A TROUBLE	(OVERHEAD C1-D4)
TURBINE SEALING STM TROUBLE	(OVERHEAD C8-F4)
CHILLED WTR SYSTEM TROUBLE	(OVERHEAD E5-F1)
STA SERVICE TRANSFORMER 1AX502 TRBL	(OVERHEAD E3-A1)
STA SERVICE TRANSFORMER 1BX502 TRBL	(OVERHEAD E3-A4)
STA SERVICE TRANSFORMER 1AX501 TRBL	(OVERHEAD E3-B1)
STA SERVICE TRANSFORMER 1BX501 TRBL	(OVERHEAD E3-B4)
TURB BLDG HVAC PANEL TROUBLE	(OVERHEAD E5-F5)

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

1. MESSAGE FOR DARK BOARD CONTROL ONLY.
2. ENSURE NCO RESPONDS TO ALARMS APPROPRIATELY.
3. THIS IS TIME CRITICAL TO THE SCENARIO TIMELINE.
4. LOSS OF THE 10-B-130 UNIT SUBSTATION IS A PREREQUISITE CONDITION FOR THE MAIN TURBINE FAILURE THAT OCCURS AT 09:47.

EXPECTED ACTIONS :

1. CREW RECOGNIZES THAT 10-B-130 HAS BEEN LOST AND STABILIZES PLANT.
2. CREW RECOGNIZES THE PRESENCE OF A FIRE, REFERS TO FIRE RESPONSE MANUAL AND DISPATCHES THE FIRE BRIGADE.
3. NSS RECOGNIZES LOSS OF THE "B" FEEDWATER HEATER STRING AND REFERS TO OP-AB.ZZ-0118, LOSS OF FEEDWATER HEATERS AND OP-AB.ZZ-0204, POSITIVE REACTIVITY ADDITION.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 04
TO : CONTROL ROOM STAFF
FROM : SIMULATOR REFEREE
LOCATION : SIMULATOR (HOPE CREEK)

REAL TIME : 08:33
DRILL TIME : 00:33

MESSAGE :
YOU HAVE JUST RECEIVED THE FOLLOWING FIRE ALARM AT 08:33 :
"1B26, FIRE TURBINE BLDG, ELEV 120', ELECTRICAL EQUIPMENT
MEZZ AREA, ROOM 1401".

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

- (REFER TO SUPPLEMENTAL SCENARIO #7.01)
1. ISSUE THIS MESSAGE AFTER THE CONTROL ROOM STAFF RECEIVES OVERHEAD ALARM A2-A5, "FIRE PROT PANEL 10C671 TROUBLE"
 2. THIS IS TIME CRITICAL TO THE SCENARIO TIMELINE.

EXPECTED ACTIONS :

1. CREW RECOGNIZES THAT A FIRE HAS STARTED IN THE TURBINE BUILDING, ELEVATION 120'.
2. SNSS CONTACTS FIRE PROTECTION TO RESPOND.
3. NSS REFERS TO PREFIRE PLAN FRH-II-452 (TURBINE BUILDING, ELEVATION 120')
4. SNSS NOTIFIES RAD PRO AND SECURITY TO SUPPORT SITE PROTECTION.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 04D
TO : CONTROL ROOM STAFF
FROM : SIMULATOR REFEREE
LOCATION : SIMULATOR (HOPE CREEK)

REAL TIME : 08:33
DRILL TIME : 00:33

MESSAGE :
YOU HAVE JUST RECEIVED THE FOLLOWING ALARMS AND INDICATIONS:

ALARMS:
CHW PUMP A MALFUNCTION (CRIDS POINT D5608)
FW HTR TRAIN B RCP BC102 TROUBLE (CRIDS POINT D2575)
FEEDWATER HEATER B2E104 LEVEL (CRIDS POINT D2988)
FEEDWATER HEATER B1E103 LEVEL (CRIDS POINT D2991)
FEEDWATER HEATER BE106 LEVEL (CRIDS POINT D2997)
FEEDWATER HEATER B3E103 LEVEL (CRIDS POINT D2994)
TB M-G SET HVAC RCP OC184 (CRIDS POINT D3610)

INDICATIONS:
"B" FEEDWATER HEATER STRING HAS TRIPPED.
THE GREEN "TRIP" LIGHT FOR THE 10-B-130 IS FLASHING.
AUDIBLE ALARM FROM FIRE PROTECTION PANEL 10C671.
LOSS OF POWER TO SEVERAL FWH ISOLATION VLVS (SEE LOAD LIST)

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

1. MESSAGE FOR DARK BOARD CONTROL ONLY.
2. ENSURE NCO RESPONDS TO ALARMS APPROPRIATELY.
3. THIS IS TIME CRITICAL TO THE SCENARIO TIMELINE.
4. LOSS OF THE 10-B-130 UNIT SUBSTATION IS A PREREQUISITE CONDITION FOR THE MAIN TURBINE FAILURE THAT OCCURS AT 09:47.

EXPECTED ACTIONS :

1. CREW RECOGNIZES THAT 10-B-130 HAS BEEN LOST AND STABILIZES PLANT.
2. CREW RECOGNIZES THE PRESENCE OF A FIRE, REFERS TO FIRE RESPONSE MANUAL AND DISPATCHES THE FIRE BRIGADE.
3. NSS RECOGNIZES LOSS OF THE "B" FEEDWATER HEATER STRING AND REFERS TO OP-AB.ZZ-0118, LOSS OF FEEDWATER HEATERS AND OP-AB.ZZ-0204, POSITIVE REACTIVITY ADDITION.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 05
TO : EQUIPMENT OPERATOR
FROM : IN PLANT REFEREE
LOCATION : TURBINE BUILDING, ELEVATION 120'

REAL TIME : 08:36
DRILL TIME : 00:36

MESSAGE :

IN THE TURBINE BUILDING, YOU OBSERVE THAT VARIOUS LIGHTS ARE OUT.

TURBINE BUILDING, ELEVATION 120', ELECTRICAL SWITCHGEAR AREA
IS FILLED WITH SMOKE.

UNIT SUBSTATION 10-B-130 IS ON FIRE

AN ORANGE GLOW IS VISIBLE AT FLOOR LEVEL OF THE UNIT SUBSTATION.

THE FIRE IS CONFINED TO THE UNIT SUBSTATION AND IS NOT SPREADING
TO OTHER PLANT EQUIPMENT.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

(REFER TO SUPPLEMENTAL SCENARIO #7.01)

1. ISSUE THIS MESSAGE WHEN THE EQUIPMENT OPERATOR ARRIVES AT THE FIRE.
2. ENSURE THE OPERATOR UNDERSTANDS THAT SOME LIGHTING HAS BEEN LOST.
3. ENSURE THAT THE EQUIPMENT OPERATOR UNDERSTANDS THAT THE FIRE IS LIMITED ONLY TO THE 10-B-130 UNIT SUBSTATION.
4. ENSURE THE EQUIPMENT OPERATOR NOTIFIES THE CONTROL ROOM (SIMULATOR) OF THE STATUS OF 10-B-130.
5. USE DID PHONE EXTENSION 3339 OR RADIO TO CONTACT THE CONTROL ROOM.

EXPECTED ACTIONS :

1. THE EQUIPMENT OPERATOR ACKNOWLEDGES THE PRESENCE OF A FIRE ON THE 10-B-130 UNIT SUBSTATION.
2. EQUIPMENT OPERATOR VERIFIES THAT THE UNIT SUBSTATION IS DEENERGIZED PRIOR TO ATTEMPTING ANY FIRE FIGHTING ACTIVITIES.
3. EQUIPMENT OPERATOR MAY OBTAIN PORTABLE CO2 FIRE EXTINGUISHERS TO COMBAT THE FIRE.
4. EQUIPMENT OPERATOR AWAITS ARRIVAL OF THE FIRE BRIGADE.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 05C
TO : CONTROL ROOM STAFF
FROM : SIMULATOR REFEREE
LOCATION : SIMULATOR (HOPE CREEK)

REAL TIME : 08:36
DRILL TIME : 00:36

MESSAGE : THIS IS A CONTINGENCY MESSAGE:

YOU SHOULD DISPATCH AN EQUIPMENT OPERATOR AND/OR THE FIRE
BRIGADE TO RESPOND TO THE FIRE ALARM.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

(REFER TO SUPPLEMENTAL SCENARIO #7.01)

1. DELIVER THIS MESSAGE ONLY IF IT APPEARS LIKELY THAT THE SNSS/NSS IS NOT GOING TO DISPATCH AN EQUIPMENT OPERATOR OR NOTIFY THE FIRE BRIGADE REGARDING THE FIRE ON THE 10-B-130 UNIT SUBSTATION.
2. THIS IS CRITICAL TO THE DRILL TIMELINE.

EXPECTED ACTIONS :

1. THE SNSS/NSS REFERS TO THE FIRE PROTECTION ALARM RESPONSE PROCEDURE AND DISPATCHES AN EQUIPMENT OPERATOR AND THE FIRE BRIGADE TO RESPOND.

6.05C

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 06
TO : FIRE BRIGADE TEAM LEADER
FROM : IN PLANT REFEREE
LOCATION : TURBINE BUILDING, ELEVATION 120'

REAL TIME : 08:38
DRILL TIME : 00:38

MESSAGE :

IN THE TURBINE BUILDING, YOU OBSERVE THAT VARIOUS LIGHTS ARE OUT.

TURBINE BUILDING, ELEVATION 120', ELECTRICAL SWITCHGEAR AREA
IS FILLED WITH SMOKE.

UNIT SUBSTATION 10-B-130 IS ON FIRE

AN ORANGE GLOW IS VISIBLE AT FLOOR LEVEL OF THE UNIT SUBSTATION.

THE FIRE IS CONFINED TO THE UNIT SUBSTATION AND IS NOT SPREADING
TO OTHER PLANT EQUIPMENT.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

(REFER TO SUPPLEMENTAL SCENARIO #7.01)

1. ISSUE THIS MESSAGE WHEN FIRE BRIGADE ARRIVES AT THE FIRE.
2. ENSURE PLAYERS UNDERSTAND THAT SOME LIGHTING HAS BEEN LOST.
3. ENSURE THAT THE FIRE BRIGADE UNDERSTANDS THAT THE FIRE IS LIMITED ONLY TO THE 10-B-130 UNIT SUBSTATION.
4. ENSURE THE FIRE BRIGADE DEMONSTRATES APPROPRIATE FIRE FIGHTING TECHNIQUES AND RADIOLOGICAL CONCERNS.
5. USE DID PHONE EXTENSION 3339 OR RADIO TO CONTACT THE CONTROL ROOM.

EXPECTED ACTIONS :

1. THE FIRE BRIGADE ACKNOWLEDGES THE PRESENCE OF A FIRE ON THE 10-B-130 UNIT SUBSTATION ONLY.
2. FIRE BRIGADE LEADER VERIFIES THAT THE UNIT SUBSTATION IS DEENERGIZED PRIOR TO COMMENCING FIRE FIGHTING ACTIVITIES.
3. FIRE BRIGADE MEMBERS OBTAIN PORTABLE CO2 FIRE EXTINGUISHERS TO COMBAT THE FIRE.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 06C
TO : CONTROL ROOM STAFF
FROM : SIMULATOR REFEREE
LOCATION : SIMULATOR (HOPE CREEK)

REAL TIME : 08:39
DRILL TIME : 00:39

MESSAGE : THIS IS A CONTINGENCY MESSAGE:

YOU SHOULD DISPATCH AN EQUIPMENT OPERATOR TO THE "B" FEEDWATER HEATER CONTROL PANEL, 1B-C-102, TO INVESTIGATE THE LOSS OF THE "B" FEEDWATER HEATER STRING.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

(REFER TO SUPPLEMENTAL SCENARIO #7.01)

1. DELIVER THIS MESSAGE ONLY IF IT APPEARS LIKELY THAT THE SNSS/NSS IS NOT GOING TO DISPATCH AN EQUIPMENT OPERATOR TO THE "B" FEEDWATER HEATER CONTROL PANEL.

EXPECTED ACTIONS :

1. THE CREW DISPATCHES AN EQUIPMENT OPERATOR TO THE "B" FEEDWATER HEATER CONTROL PANEL.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 07 REAL TIME : 08:40
TO : EQUIPMENT OPERATOR DRILL TIME : 00:40
FROM : IN PLANT REFEREE
LOCATION : TURBINE BUILDING, ELEVATION 81'

MESSAGE :
IN THE TURBINE BUILDING, YOU OBSERVE THAT VARIOUS LIGHTS ARE OUT.
AT THE "B" FEEDWATER HEATER CONTROL PANEL (1B-C-102), YOU OBSERVE THE
FOLLOWING ALARMS AND INDICATIONS:

ALARMS:

INSTRUMENT MODULE LOSS OF POWER (ALARM 1-2)
POWER SUPPLY FAILURE (ALARM 1-3)
24 VAC LOSS OF POWER TO REPEAT RELAYS (ALARM 2-3)

INDICATIONS:

"B" FEEDWATER HEATER LEVELS DO NOT APPEAR TO BE CHANGING.
ALL PANEL INDICATIONS APPEAR TO BE DEENERGIZED.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

- (REFER TO SUPPLEMENTAL SCENARIO #7.01)
1. ISSUE THIS MESSAGE TO THE EQUIPMENT OPERATOR AFTER ARRIVING AT THE CONTROL PANEL AND SURVEYING THE INDICATIONS.
 2. USE DID PHONE EXTENSION 3339 OR RADIO TO CONTACT THE CONTROL ROOM (SIMULATOR).
 3. ALL VERBAL COMMUNICATIONS MUST START WITH "THIS IS A DRILL".
 4. ENSURE THE OPERATOR UNDERSTANDS THAT SOME LIGHTING HAS BEEN LOST.

EXPECTED ACTIONS :

1. THE EQUIPMENT OPERATOR ACKNOWLEDGES THE INDICATIONS AT THE "B" FEEDWATER HEATER CONTROL PANEL AND NOTIFIES THE CONTROL ROOM CREW.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 07C
TO : SNSS/NSS
FROM : SIMULATOR REFEREE
LOCATION : SIMULATOR (HOPE CREEK)

REAL TIME : 08:41
DRILL TIME : 00:41

MESSAGE :

THIS IS A CONTINGENCY MESSAGE.

FOR SCENARIO CONTROL, DO NOT SCRAM THE REACTOR AT THIS TIME.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

1. DELIVER THIS MESSAGE ONLY IF IT APPEARS LIKELY THAT THE SNSS/NSS IS ABOUT TO ORDER A MANUAL SCRAM OF THE UNIT.
2. THE INITIAL POSITIVE REACTIVITY TRANSIENT FROM THE LOSS OF THE "B" FEEDWATER HEATER STRING CAUSES LPRM UPSCALE ALARMS TO ILLUMINATE ON THE FULL CORE DISPLAY.
3. THIS IS CRITICAL TO THE DRILL TIMELINE.
4. THE STUFF SHEET IS USED TO INSERT CONTROL RODS.

EXPECTED ACTIONS :

1. THE SNSS/NSS DOES NOT SCRAM THE REACTOR.
2. THE NSS ORDERS CONTROL RODS BE INSERTED PER THE STUFF SHEET TO CLEAR THE LPRM UPSCALE ALARMS.

6.07C

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 08 REAL TIME : 08:42
TO : EQUIPMENT OPERATOR DRILL TIME : 00:42
FROM : IN PLANT REFEREE
LOCATION : TURBINE BUILDING, ELEVATION 171'

MESSAGE :
IN THE TURBINE BUILDING, YOU OBSERVE THAT VARIOUS LIGHTS ARE OUT.
AT THE "A" TURBINE BUILDING CHILLED WATER CIRC WATER PUMP REMOTE
PANEL (10-C-152), YOU OBSERVE THE FOLLOWING ALARM:

CHILLED WATER CIRC PUMP AP161 DISCH HI/LO FLOW FAHL-9487A2
FAHL-9487A2 (ALARM C-1)

AT THE "A" TURBINE BUILDING CHILLED WATER CIRC WATER PUMP (1A-P-161),
YOU OBSERVE THE FOLLOWING:

THE "A" CIRC WATER PUMP IS NOT RUNNING.

AT THE "B" TURBINE BUILDING CHILLER (1B-K-111), YOU OBSERVE THAT THE
CHILLER IS NOT RUNNING.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

(REFER TO SUPPLEMENTAL SCENARIO #7.01)

1. ISSUE THIS MESSAGE WHEN THE OPERATOR ARRIVES AT THE 10-C-152
PANEL, LOCATED ON ELEVATION 171' OF THE TURBINE BUILDING.
2. ENSURE THAT THE OPERATOR UNDERSTANDS THAT THE "A" TURBINE BUILDING
CHILLED WATER CIRC WATER PUMP HAS TRIPPED.
3. USE DID PHONE EXTENSION 3339 TO CONTACT CONTROL ROOM (SIMULATOR).
4. ALL VERBAL COMMUNICATIONS MUST START WITH "THIS IS A DRILL".
5. ENSURE OPERATOR UNDERSTANDS THAT SOME LIGHTING IS EXTINGUISHED.

EXPECTED ACTIONS :

1. THE OPERATOR DISPATCHED TO THE
CHECK OUT THE STATUS OF THE TURBINE
BUILDING CHILLED WATER SYSTEM
ACKNOWLEDGES THAT THE "A" CHILLED
WATER CIRC WATER PUMP HAS TRIPPED.
2. THE OPERATOR PROVIDES THE INFORMATION
TO THE CONTROL ROOM (SIMULATOR)
USING DID PHONE EXTENSION 3339.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 08C
TO : FIRE BRIGADE TEAM LEADER
FROM : IN PLANT REFEREE
LOCATION : TURBINE BUILDING, ELEVATION 120'

REAL TIME : 08:42
DRILL TIME : 00:42

MESSAGE : THIS IS A CONTINGENCY MESSAGE

YOU SHOULD REQUEST THE CONTROL ROOM TO ENSURE THAT THE 10-B-130
UNIT SUBSTATION IS DEENERGIZED, WITH ALL CONTROL POWER REMOVED.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

(REFER TO SUPPLEMENTAL SCENARIO #7.01)

1. ISSUE THIS MESSAGE ONLY IF THE FIRE BRIGADE TEAM LEADER AND
EQUIPMENT OPERATOR DO NOT REALIZE THAT THE 125 VDC CONTROL POWER
IS STILL AVAILABLE TO THE 10-B-130.
2. FIRE FIGHTING EFFORTS SHOULD NOT COMMENCE UNTIL CONTROL POWER HAS
BEEN REMOVED FROM THE UNIT SUBSTATION.

EXPECTED ACTIONS :

1. THE FIRE BRIGADE TEAM LEADER
REQUEST THE CONTROL ROOM TO DISPATCH
AN OPERATOR TO REMOVE 125 VDC
CONTROL POWER FROM THE 10-B-130 UNIT
SUBSTATION.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 09 REAL TIME : 08:45
TO : EQUIPMENT OPERATOR DRILL TIME : 00:45
FROM : IN PLANT REFEREE
LOCATION : TURBINE BUILDING, ELEVATION 123'

MESSAGE :

AT NON 1E 125 VDC DISTRIBUTION PANEL 1C-D-318, YOU HAVE
SUCCESSFULLY OPENED BREAKER #4, NORMAL 125 VDC CONTROL POWER
TO 10-B-130 UNIT SUBSTATION.

AT NON 1E 125 VDC DISTRIBUTION PANEL 1D-D-318, YOU HAVE
SUCCESSFULLY OPENED BREAKER #6, ALTERNATE 125 VDC CONTROL
POWER TO 10-B-130 UNIT SUBSTATION.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

- (REFER TO SUPPLEMENTAL SCENARIO #7.01)
1. ISSUE THIS MESSAGE WHEN THE EQUIPMENT OPERATOR HAS CORRECTLY
SIMULATED OPENING BREAKER #4 IN 1C-D-318 AND BREAKER #6 IN 1D-D-318
 2. DO NOT OPEN EITHER DISTRIBUTION PANEL (SIMULATE).
 3. ENSURE THE EQUIPMENT OPERATOR PROMPTLY PROVIDES THE INFORMATION TO
THE CONTROL ROOM USING DID PHONE EXTENSION 3339.
 4. ALL VERBAL COMMUNICATIONS MUST START WITH "THIS IS A DRILL".

EXPECTED ACTIONS :

1. THE EQUIPMENT OPERATOR CORRECTLY
SIMULATES OPENING THE 125VDC CONTROL
POWER BREAKERS TO THE 10-B-130
UNIT SUBSTATION AND NOTIFIES THE
MAIN CONTROL ROOM.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 09C
TO : CONTROL ROOM STAFF
FROM : SIMULATOR REFEREE
LOCATION : SIMULATOR (HOPE CREEK)

REAL TIME : 08:45
DRILL TIME : 00:45

MESSAGE : THIS IS A CONTINGENCY MESSAGE:

YOU SHOULD NOTIFY THE SHIFT CHEMISTRY TECHNICIAN TO OBTAIN
A REACTOR COOLANT SAMPLE AS REQUIRED BY TECH SPEC 3.4.5.C
FOLLOWING A REACTOR POWER CHANGE OF GREATER THAN 15 % IN ONE
HOUR.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

1. DELIVER THIS MESSAGE ONLY IF IT APPEARS LIKELY THAT THE SNSS/NSS IS NOT GOING TO CONTACT THE SHIFT CHEMISTRY TECHNICIAN TO REQUEST A REACTOR COOLANT SAMPLE BE TAKEN.
2. THIS MESSAGE IS NOT TIME CRITICAL TO THE DRILL TIMELINE.

EXPECTED ACTIONS :

1. THE CREW CONTACTS THE SHIFT CHEMISTRY TECHNICIAN TO OBTAIN THE REQUIRED REACTOR COOLANT SAMPLE IN ACCORDANCE WITH TECH SPEC REQUIREMENTS.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 09D
TO : CONTROL ROOM STAFF
FROM : SIMULATOR REFEREE
LOCATION : SIMUALTOR (HOPE CREEK)

REAL TIME : 08:45
DRILL TIME : 00:45

MESSAGE :
YOU HAVE JUST RECEIVED THE FOLLOWING INDICATIONS:

THE FLASHING "GREEN" TRIP LIGHT ON THE BEZEL FOR THE 10-B-130
UNIT SUBSTATION EXTINGUISHES.
THE AMBER INOP LIGHT ON THE BEZEL FOR THE 10-B-130 UNIT SUBSTATION
ILLUMINATES.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

- (REFER TO SUPPLEMENTAL SCENARIO #7.01)
1. MESSAGE FOR DARK BOARD CONTROL ONLY.
2. ENSURE NCO RESPONDS TO ALARMS APPROPRIATELY.

EXPECTED ACTIONS :

1. THE CREW RECOGNIZES THAT THE EQUIPMENT OPERATOR HAS SUCCESSFULLY REMOVED 125 VDC CONTROL POWER FROM THE 10-B-130 UNIT SUBSTATION.
2. THE SNSS/NSS NOTIFIES THE FIRE BRIGADE TEAM LEADER THAT 125 VDC CONTROL POWER HAS BEEN REMOVED FROM THE UNIT SUBSTATION.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 10
TO : EQUIPMENT OPERATOR
FROM : IN PLANT REFEREE
LOCATION : TURBINE BUILDING, ELEVATION 171', PANEL 10-C-184

REAL TIME : 08:50
DRILL TIME : 00:50

MESSAGE :
IN THE TURBINE BUILDING, YOU OBSERVE THAT VARIOUS LIGHTS ARE OUT.
AT PANEL 10-C-184, REACTOR RECIRC PUMP MG SET HVAC CONTROL PANEL,
YOU OBSERVE THE FOLLOWING ALARMS AND INDICATIONS:

ALARMS:
TURB. BLDG. MG V FAN 1AV107 LOW FLOW (ALARM 1-1)

INDICATIONS:

"A" REACTOR RECIRC PUMP MG SET VENT FAN (1A-V-107) IS TRIPPED.
"B" REACTOR RECIRC PUMP MG SET VENT FAN (1B-V-107) IS RUNNING.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

- (REFER TO SUPPLEMENTAL SCENARIO #7.01)
1. ISSUE THIS MESSAGE WHEN THE OPERATOR ARRIVES AT THE 10-C-184 PANEL, LOCATED ON ELEVATION 171' OF THE TURBINE BUILDING.
 2. ENSURE THAT THE OPERATOR UNDERSTANDS THAT THE "B" REACTOR RECIRC MG SET VENT FAN HAS STARTED AND IS RUNNING SATISFACTORILY.
 3. USE DID PHONE EXTENSION 3339 TO CONTACT CONTROL ROOM (SIMULATOR).
 4. ALL VERBAL COMMUNICATIONS MUST START WITH "THIS IS A DRILL".
 5. ENSURE OPERATOR UNDERSTANDS THAT SOME LIGHTING IS EXTINGUISHED.

EXPECTED ACTIONS :

1. THE OPERATOR DISPATCHED TO THE 10-C-184 PANEL ACKNOWLEDGES THAT THE "A" REACTOR RECIRC PUMP MG SET VENT FAN IS TRIPPED AND THAT THE "B" VENT HAS STARTED.
2. THE OPERATOR PROVIDES THE INFORMATION TO THE CONTROL ROOM (SIMULATOR) USING DID PHONE EXTENSION 3339.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 10C
TO : CONTROL ROOM STAFF
FROM : SIMULATOR REFEREE
LOCATION : SIMULATOR (HOPE CREEK)

REAL TIME : 08:54
DRILL TIME : 00:54

MESSAGE :

THIS IS A CONTINGENCY MESSAGE:

YOU SHOULD DISPATCH AN EQUIPMENT OPERATOR TO MONITOR REACTOR
RECIRC PUMP MG SET LUBE OIL TEMPERATURE FOLLOWING THE POWER
DECREASE.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

(REFER TO SUPPLEMENTAL SCENARIO #7.01)

1. ISSUE THIS MESSAGE AS NEEDED.
2. DUE TO OTHER EVENT CURRENTLY IN PROGRESS, THE TIMING OF ISSUANCE OF THIS CONTINGENCY MESSAGE IS NOT CRITICAL TO THE SCENARIO TIMELINE, AND WILL BE ISSUED ACCORDINGLY.

EXPECTED ACTIONS :

1. CREW DISPATCHES AN AVAILABLE EQUIPMENT OPERATOR TO MONITOR REACTOR RECIRC PUMP MG SET LUBE OIL TEMPERATURES.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 11
TO : FIRE BRIGADE TEAM LEADER
FROM : IN PLANT REFEREE
LOCATION : TURBINE BUILDING, ELEVATION 120'

REAL TIME : 08:55
DRILL TIME : 00:55

MESSAGE :

"THIS IS A DRILL, THIS IS A DRILL"

THE FIRE ON 10-B-130, UNIT SUBSTATION IS SUCCESSFULLY
EXTINGUISHED.

SMOKE REMAINS IN THE AREA.

PAINT ON THE OUTSIDE OF THE UNIT SUBSTATION IS BEGINNING TO
BLISTER AND PEEL.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

(REFER TO SUPPLEMENTAL SCENARIO #7.01)

1. ISSUE THIS MESSAGE TO THE FIRE BRIGADE LEADER AT 08:55
2. ENSURE THE FIRE BRIGADE NOTIFIES THE CONTROL ROOM THAT THE FIRE IS EXTINGUISHED.
3. ENSURE THAT THE FIRE BRIGADE COMMENCES ACTIONS TO REMOVE SMOKE FROM THE AREA.
4. USE DID PHONE EXTENSION 3339 OR RADIO TO CONTACT THE CONTROL ROOM (SIMULATOR).

EXPECTED ACTIONS :

1. THE FIRE BRIGADE ACKNOWLEDGES THAT THE FIRE IS EXTINGUISHED.
2. FIRE BRIGADE COMMENCES ACTIONS TO BEGIN CLEARING SMOKE FROM THE AREA.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 11C
TO : SNSS
FROM : LEAD SIMULATOR REFEREE
LOCATION : SIMULATOR (HOPE CREEK)

REAL TIME : 08:59
DRILL TIME : 00:59

MESSAGE :

THIS IS A CONTINGENCY MESSAGE:

YOU SHOULD DECLARE AN UNUSUAL EVENT IN ACCORDANCE WITH ECG SECTION 14.A, FIRE WITHIN A PERMANENT PLANT STRUCTURE LASTING GREATER THAN 10 MINUTES.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

(REFER TO SUPPLEMENTAL SCENARIO #7.01)

1. ISSUE THIS MESSAGE AS NEEDED TO MAINTAIN THE SCENARIO TIMELINE.
2. BE PREPARED TO PROVIDE MARKED UP COPIES OF ATTACHMENTS AND EPIPS FOR DRILL USE.
3. THIS MESSAGE MAY BE USED BETWEEN 0855 AND 0905 HOURS.
4. CONFER WITH THE HEAD REFEREE PRIOR TO ISSUING THIS MESSAGE.
5. ENSURE MET DATA DISPLAY IS UPDATED, BE PREPARED TO ROLE PLAY SRPT WITH SSCL.

EXPECTED ACTIONS :

1. SNSS SHOULD REFER TO ECG SECTION 14.A AND DECLARE AN UNUSUAL EVENT.
2. SNSS IMPLEMENTS APPROPRIATE ECG ATTACHMENTS AND EPIPS.

6.11C

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 12 REAL TIME : 09:00
TO : EQUIPMENT OPERATOR DRILL TIME : 01:00
FROM : IN PLANT REFEREE
LOCATION : TURBINE BUILDING, ELEVATION 137', SSE PANEL

MESSAGE :
IN THE TURBINE BUILDING, YOU OBSERVE THAT VARIOUS LIGHTS ARE OUT.
AT THE STEAM SEAL EVAPORATOR, ALL INDICATIONS APPEAR NORMAL.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

(REFER TO SUPPLEMENTAL SCENARIO #7.01)

1. ISSUE THIS MESSAGE WHEN THE OPERATOR ARRIVES AT THE STEAM SEAL EVAPORATOR PANEL, LOCATED ON ELEVATION 137' OF THE TURBINE BUILDING
2. ENSURE THAT THE OPERATOR UNDERSTANDS THAT SOME LIGHTING IS EXTINGUISHED.
3. USE DID PHONE EXTENSION 3339 TO CONTACT CONTROL ROOM (SIMULATOR).
4. ALL VERBAL COMMUNICATIONS MUST START WITH "THIS IS A DRILL".

EXPECTED ACTIONS :

1. THE OPERATOR DISPATCHED TO THE STEAM SEAL EVAPORATOR PANEL ACKNOWLEDGES THAT LOCAL INDICATIONS ARE NORMAL AND THE STEAM SEAL EVAPORATOR IS FUNCTIONING PROPERLY.
2. THE OPERATOR PROVIDES THE INFORMATION TO THE CONTROL ROOM (SIMULATOR) USING DID PHONE EXTENSION 3339.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 12C
TO : NSS
FROM : SIMULATOR REFEREE
LOCATION : SIMULATOR (HOPE CREEK)

REAL TIME : 09:00
DRILL TIME : 01:00

MESSAGE :

THIS IS A CONTINGENCY MESSAGE:

YOU SHOULD CONTACT THE REACTOR ENGINEER TO OBTAIN
FURTHER GUIDANCE FOR REACTIVITY MANIPULATION AND CHECK THERMAL
LIMITS FOLLOWING THE MAJOR LOSS OF FEEDWATER HEATING.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

(REFER TO SUPPLEMENTAL SCENARIO #7.01)

1. ISSUE THIS MESSAGE AS NEEDED TO MAINTAIN THE SCENARIO TIMELINE.
2. THIS IS NOT CRITICAL TO THE DRILL TIMELINE.
3. HAVE REFEREE STATIONED WITH RX ENGINEER FOR THIS EVENT.

EXPECTED ACTIONS :

1. NSS CONTACTS THE REACTOR ENGINEER TO
REVIEW THERMAL LIMITS AND PROVIDE
GUIDANCE ON FURTHER REACTIVITY
MANIPULATIONS.

6.12C

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 13
TO : EQUIPMENT OPERATOR
FROM : IN PLANT REFEREE
LOCATION : TURBINE BUILDING, ELEVATION 120, SA CMPR

REAL TIME : 09:00
DRILL TIME : 01:00

MESSAGE :

AT THE 10-K-107, UNIT 1 SERVICE AIR COMPRESSOR, YOU OBSERVE THAT THE COMPRESSOR HAS TRIPPED.

AT THE 00-K-107, COMMON SERVICE AIR COMPRESSOR, YOU OBSERVE THAT THE COMPRESSOR IS RUNNING.

AT THE 1A-F-104, EMERGENCY INSTRUMENT AIR DRYER, YOU OBSERVE THAT THE DRYER PACKAGE HAS STARTED.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

1. THE LOSS OF THE 10-B-130 UNIT SUBSTATION RESULTS IN A LOSS OF THE 10-K-107 SERVICE AIR COMPRESSOR.
2. ISSUE THIS MESSAGE AFTER THE EQUIPMENT OPERATOR HAS ARRIVED AT THE SERVICE AIR COMPRESSORS IN THE TURBINE BUILDING, ELEVATION 120'
3. THE STATUS MAY CHANGE DUE TO ACTIONS TAKEN BY CONTROL ROOM OPERATORS. INFORMATION WILL BE PROVIDED TO THE INPLANT REFEREE FROM THE LEAD OSC REFEREE.
4. THIS IS NOT CRITICAL TO THE DRILL TIMELINE.

EXPECTED ACTIONS :

1. THE EQUIPMENT OPERATOR ACKNOWLEDGES THE STATUS OF THE SERVICE AIR COMPRESSORS AND NOTIFIES THE CONTROL ROOM.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 13C
TO : SNSS
FROM : LEAD SIMULATOR REFEREE
LOCATION : SIMULATOR (HOPE CREEK)

REAL TIME : 09:01
DRILL TIME : 01:01

MESSAGE :

THIS IS A CONTINGENCY MESSAGE:

FOR SCENARIO CONTROL, DO NOT IMPLEMENT ASSEMBLY/ACCOUNTABILITY AT THIS TIME.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

(REFER TO SUPPLEMENTAL SCENARIO #7.01)

1. ISSUE THIS MESSAGE AS NEEDED TO MAINTAIN THE SCENARIO TIMELINE.
2. THIS IS CRITICAL TO THE DRILL TIMELINE.
3. THE SNSS MAY DECIDE TO ACTIVATE THE OSC PRIOR TO THE ALERT BASED ON HIS JUDGEMENT.

EXPECTED ACTIONS :

1. SNSS DOES NOT IMPLEMENT ASSEMBLY/ACCOUNTABILITY AT THIS TIME.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 13D
TO : CONTROL ROOM STAFF
FROM : SIMULATOR REFEREE
LOCATION : SIMULATOR (HOPE CREEK)

REAL TIME : 09:01
DRILL TIME : 01:01

MESSAGE :
YOU HAVE JUST RECEIVED THE FOLLOWING ALARMS AND INDICATIONS:

ALARMS:

RPV LEVEL 7 (OVERHEAD A7-B5)
RPV LOOSE PARTS MON PNL 10-C-675 (OVERHEAD C6-A5)
RPV LPM IMPACT VIB LVL (CRIDS POINT D5457)

INDICATIONS:

#5 JET PUMP FLOW DECREASES.
"B" RECIRC LOOP TOTAL JET PUMP FLOW DECREASES.
REACTOR POWER DECREASES.
REACTOR WATER LEVEL INCREASES.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

- (REFER TO SUPPLEMENTAL SCENARIO #7.03)
1. MESSAGE FOR DARK BOARD CONTROL ONLY.
2. ENSURE NCO RESPONDS TO ALARMS APPROPRIATELY.

EXPECTED ACTIONS :

1. CREW RECOGNIZES THAT INDICATED FLOW THROUGH THE #5 JET PUMP HAS DECREASED
2. CREW RECOGNIZES THE POSSIBLE PRESENCE OF A LOOSE PART IN THE REACTOR VESSEL DUE TO RECEIPT OF THE LOOSE PARTS MONITOR OVERHEAD ALARM.
3. CREW DISPATCHES AN EQUIPMENT OPERATOR TO VALIDATE THE LOOSE PARTS MONITOR ALARM.
4. NSS DIRECTS THE DAILY JET PUMP SURV (OP-ST.BB-001) BE PERFORMED TO ASSESS THE OPERABILITY OF THE #5 JET PUMP.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 14 REAL TIME : 09:02
TO : EQUIPMENT OPERATOR DRILL TIME : 01:02
FROM : IN PLANT REFEREE
LOCATION : TURBINE BUILDING, ELEVATION 137'

MESSAGE :

IN THE "A" REACTOR RECIRC PUMP MG SET ROOM, "A" REACTOR RECIRC PUMP MG SET LUBE OIL TEMPERATURE IS INDICATING 118 DEGREES F ON 1BBTI-8290A.

IN THE "B" REACTOR RECIRC PUMP MG SET ROOM, "B" REACTOR RECIRC PUMP MG SET LUBE OIL TEMPERATURE IS INDICATING 116 DEGREES F ON 1BBTI-8290B.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

(REFER TO SUPPLEMENTAL SCENARIO #7.01)

1. ISSUE THIS MESSAGE AS THE OPERATOR CHECKS LUBE OIL TEMPERATURES.
2. REACTOR RECIRC SYSTEM OPERATING PROCEDURE, OP-SO.BB-0002, REQUIRES LUBE OIL TEMPERATURE TO BE MAINTAINED BETWEEN 110 & 130 DEGREES F.
3. USE DID PHONE EXTENSION 3339 OR RADIO TO CONTACT THE CONTROL ROOM (SIMULATOR).
4. ALL VERBAL COMMUNICATIONS MUST START WITH "THIS IS A DRILL".

EXPECTED ACTIONS :

1. EQUIPMENT OPERATOR MONITORS REACTOR RECIRC PUMP MG SET LUBE OIL TEMPERATURES.
2. EQUIPMENT OPERATOR NOTIFIES THE CONTROL ROOM.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 14C
TO : CONTROL ROOM STAFF
FROM : SIMULATOR REFEREE
LOCATION : SIMULATOR (HOPE CREEK)

REAL TIME : 09:06
DRILL TIME : 01:06

MESSAGE : THIS IS A CONTINGENCY MESSAGE

YOU SHOULD DISPATCH AN EQUIPMENT OPERATOR TO THE LOOSE PARTS
MONITOR PANEL (10-C-675), LOCATED IN THE UPPER RELAY ROOM TO
VALIDATE THE LOOSE PARTS ALARM IN ACCORDANCE WITH THE
LOOSE PARTS MONITORING SYSTEM OPERATING PROCEDURE,
OP-SO.SC-0001.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

(REFER TO SUPPLEMENTAL SCENARIO #7.03)

1. DELIVER THIS MESSAGE ONLY IF IT APPEARS UNLIKELY THAT THE CREW IS
GOING TO DISPATCH AN EQUIPMENT OPERATOR TO VALIDATE THE LOOSE
PARTS MONITOR ALARM.

EXPECTED ACTIONS :

1. CREW REFERS TO OP-SO.SC-0001, LOOSE
PARTS MONITORING SYSTEM OPERATION
AND DISPATCHES AN EQUIPMENT OPERATOR
TO VALIDATE THE ALARM IN ACCORDANCE
WITH THE PROCEDURE.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 15C
TO : CONTROL ROOM STAFF
FROM : SIMULATOR REFEREE
LOCATION : SIMULATOR (HOPE CREEK)

REAL TIME : 09:08
DRILL TIME : 01:08

MESSAGE : THIS IS A CONTINGENCY MESSAGE

YOU SHOULD PERFORM THE DAILY JET PUMP SURVEILLANCE,
OP-ST.BB-0001 TO DETERMINE THE OPERABILITY OF THE #5 JET PUMP.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

(REFER TO SUPPLEMENTAL SCENARIO #7.03)

1. DELIVER THIS MESSAGE ONLY IF IT APPEARS LIKELY THAT THE CREW IS NOT GOING TO PERFORM THE DAILY JET PUMP SURVEILLANCE TO DETERMINE THE OPERABILITY OF THE #5 JET PUMP.

EXPECTED ACTIONS :

1. CREW PERFORMS OP-ST.BB-0001, DAILY JET PUMP SURVEILLANCE, IN ORDER TO DETERMINE THE OPERABILITY OF THE #5 JET PUMP.
2. CREW DETERMINES THAT THE #5 JET PUMP IS INOPERABLE.
3. NSS REFERS TO TECH SPEC 3.4.1.2 AND COMMENCES A REACTOR SHUTDOWN.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 15D
TO : CONTROL ROOM STAFF
FROM : SIMULATOR REFEREE
LOCATION : SIMULATOR (HOPE CREEK)

REAL TIME : 09:09
DRILL TIME : 01:09

MESSAGE :
YOU HAVE RECEIVED THE FOLLOWING INDICATIONS:

THE "C" TURBINE BUILDING CHILLER (1C-K-111) HAS STARTED
AND APPEARS TO BE OPERATING SATISFACTORILY.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

1. MESSAGE FOR DARK BOARD CONTROL ONLY.
2. ENSURE NCO RESPONDS TO ALARMS APPROPRIATELY.

EXPECTED ACTIONS :

1. THE CONTROL ROOM STAFF ACKNOWLEDGES
THAT THE "C" TURBINE BUILDING
CHILLER HAS STARTED AND IS OPERATING
SATISFACTORILY.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 16 REAL TIME : 09:10
TO : EQUIPMENT OPERATOR DRILL TIME : 01:10
FROM : IN PLANT REFEREE
LOCATION : AUXILIARY BUILDING, UPPER RELAY ROOM, 10-C-675

MESSAGE :
AT THE LOOSE PARTS MONITOR PANEL (10-C-675), LOCATED IN THE UPPER RELAY ROOM, YOU OBSERVE THE FOLLOWING INDICATIONS:

CHANNEL 5, INLET RECIRC LINE VIBRATION AND LOOSE PART LEDS ARE ILLUMINATED.

CHANNEL 6, INLET RECIRC LINE VIBRATION AND LOOSE PART LEDS ARE ILLUMINATED.

CHANNEL 12, RECIRC PUMP 1BP210 VIBRATION LED IS ILLUMINATED.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

- (REFER TO SUPPLEMENTAL SCENARIO #7.03)
1. ISSUE THIS MESSAGE AS THF EQUIPMENT OPERATOR IMPLEMENTS SECTION 5.2 OF OP-SO.SC-0001, VALIDATING LOOSE PARTS MONITORING SYSTEM ALARMS.
 2. ENSURE THE EQUIPMENT OPERATOR PROVIDES THE INFORMATION TO THE CONTROL ROOM (SIMULATOR).
 3. USE DID PHONE EXTENSION 3339 TO CONTACT THE SIMULATOR(CONTROL ROOM)

EXPECTED ACTIONS :

1. EQUIPMENT OPERATOR PROPERLY IMPLEMENTS THE VALIDATION PROCEDURE FOR THE LOOSE PARTS ALARM AND NOTIFIES THE CONTROL ROOM (SIMULATOR) OF HIS FINDINGS.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 16C
TO : CONTROL ROOM STAFF
FROM : SIMULATOR REFEREE
LOCATION : SIMULATOR (HOPE CREEK)

REAL TIME : 09:15
DRILL TIME : 01:15

MESSAGE : THIS IS A CONTINGENCY MESSAGE

YOU SHOULD CONTACT THE SYSTEM ENGINEER, JOHN HAWRYLAK,
TO ASSURE APPROPRIATE ALARM VALIDATION, AS REQUIRED BY THE
THE LOOSE PARTS MONITOR OVERHEAD ALARM RESPONSE PROCEDURE.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

(REFER TO SUPPLEMENTAL SCENARIO #7.03)

1. DELIVER THIS MESSAGE ONLY IF IT APPEARS UNLIKELY THAT THE CREW IS GOING TO CONTACT THE SYSTEM ENGINEER IN ACCORDANCE WITH THE ALARM RESPONSE PROCEDURE.
2. THE ACTUAL SYSTEM ENGINEER WHO HAS RESPONSIBILITY FOR THE LOOSE PARTS MONITOR SYSTEM IS NOT PARTICIPATING IN THE DRILL. THE I&C ENGINEER IN THE TSC WILL ASSUME THIS RESPONSIBILITY FOR THE DURATION OF THE DRILL.

EXPECTED ACTIONS :

1. CREW CONTACTS THE SYSTEM ENGINEER FOR THE LOOSE PARTS MONITORING SYSTEM TO ENSURE CORRECT VALIDATION OF THE ALARM.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 17
TO : EQUIPMENT OPERATOR
FROM : IN PLANT REFEREE
LOCATION : CONTROL BUILDING, LOWER RELAY ROOM

REAL TIME : 09:16
DRILL TIME : 01:16

MESSAGE :
IN THE LOWER RELAY ROOM, AT THE JET PUMP DIFFERENTIAL PRESSURE INDICATORS, YOU OBSERVE THE FOLLOWING:

JET PUMP #	DP	JET PUMP #	DP
1	24	11	27
2	26	12	23
3	25	13	24
4	23	14	28
5	6	15	25
6	27	16	24
7	25	17	27
8	28	18	25
9	25	19	26
10	24	20	24

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

(REFER TO SUPPLEMENTAL SCENARIO #7.03)

1. ISSUE THIS MESSAGE AFTER THE EQUIPMENT OPERATOR HAS REACHED THE JET PUMP DIFFERENTIAL PRESSURE PANEL IN THE LOWER RELAY ROOM AND HAS SIMULATED RECORDING THE DATA.
2. ENSURE THE OPERATOR HAS A COPY OF OP-ST.BB-0001, JET PUMP OPERABILITY SURVEILLANCE.
3. USE DID PHONE EXTENSION 3339 TO CONTACT CONTROL ROOM (SIMULATOR).
4. ALL VERBAL COMMUNICATIONS MUST START WITH "THIS IS A DRILL".

EXPECTED ACTIONS :

1. THE EQUIPMENT OPERATOR RECORDS THE JET PUMP DIFFERENTIAL PRESSURE DATA PROVIDED BY THE REFEREE IN THE PROCEDURE.
2. THE OPERATOR CONTACTS THE CONTROL ROOM AND PROVIDES THE INFORMATION TO THE CREW.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 17C
TO : SNSS/NSS
FROM : SIMULATOR REFEREE
LOCATION : SIMULATOR (HOPE CREEK)

REAL TIME : 09:17
DRILL TIME : 01:17

MESSAGE : THIS IS A CONTINGENCY MESSAGE

FOR SCENARIO CONTROL, DO NOT SCRAM THE REACTOR AT THIS TIME.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

(REFER TO SUPPLEMENTAL SCENARIO #7.03)

1. BE PREPARED TO ISSUE MESSAGE AS NECESSARY.
2. DELIVER THIS MESSAGE ONLY IF IT APPEARS LIKELY THAT THE SNSS IS ABOUT TO ORDER A MANUAL SCRAM OF THE UNIT.
3. ONCE THE #5 JET PUMP HAS BEEN DETERMINED TO BE INOPERABLE, THE SNSS/NSS ENTERS TECH SPEC 3.4.1.2 (JET PUMP OPERABILITY) AND PROCEED TO PLACE THE REACTOR IN HOT SHUTDOWN WITHIN THE NEXT 12 HOURS. POWER DECREASE WILL BE LIMITED TO < 15%/HOUR.

EXPECTED ACTIONS :

1. THE SNSS DOES NOT SCRAM THE REACTOR AND COMMENCES A CONTROLLED REACTOR SHUTDOWN WITH REACTOR POWER REDUCTION NOT EXCEEDING 15%/HOUR.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 18
TO : FIRE BRIGADE TEAM LEADER
FROM : IN PLANT REFEREE
LOCATION : TURBINE BUILDING, ELEVATION 120'
MESSAGE :

REAL TIME : 09:17
DRILL TIME : 01:17

"THIS IS A DRILL, THIS IS A DRILL"

THE MAJORITY OF THE SMOKE FROM THE 10-B-130 UNIT SUBSTATION HAS BEEN CLEARED SO THAT OTHER PERSONNEL MAY SAFELY ENTER THE AREA.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

1. ISSUE THIS MESSAGE TO THE FIRE BRIGADE LEADER AT 09:17.
2. ENSURE THE FIRE BRIGADE NOTIFIES THE CONTROL ROOM THAT MOST OF THE SMOKE HAS BEEN CLEARED.
3. USE DID PHONE EXTENSION 3339 OR RADIO TO CONTACT THE CONTROL ROOM (SIMULATOR).

EXPECTED ACTIONS :

1. THE FIRE BRIGADE ACKNOWLEDGE THAT MOST OF THE SMOKE IS CLEARED.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 18C
TO : SNSF
FROM : SIMULATOR REFEREE
LOCATION : SIMULATOR (HOPE CREEK)

REAL TIME : 09:22
DRILL TIME : 01:22

MESSAGE :

THIS IS A CONTINGENCY MESSAGE

YOU SHOULD DIRECT THE SHIFT ELECTRICIAN TO ASSESS
THE DAMAGE TO 10-B-130 UNIT SUBSTATION.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

(REFER TO SUPPLEMENTAL SCENARIO #7.02)

1. ISSUE THIS MESSAGE AS NEEDED TO HAVE THE SNSS DISPATCH THE SHIFT ELECTRICIAN TO 10-B-130 TO PERFORM DAMAGE ASSESSMENT.

EXPECTED ACTIONS :

1. THE SNSS DISPATCHES THE SHIFT ELECTRICIAN TO PERFORM DAMAGE ASSESSMENT ON 10-B-130 UNIT SUBSTATION.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 19
TO : REACTOR ENGINEER
FROM : TSC REFEREE
LOCATION : HOPE CREEK CONTROL ROOM

REAL TIME : 09:23
DRILL TIME : 01:23

MESSAGE :

AFTER CONTACTING THE CONTROL ROOM CREW (SIMULATOR) AND OBTAINING
A P1 EDIT OF CURRENT THERMAL LIMITS, YOU OBSERVE THE FOLLOWING:

CMFCP = 0.823
CMFLPD = 0.867
CMAPR = 0.805

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

(REFER TO SUPPLEMENTAL SCENARIO #7.01)

1. ISSUE THIS MESSAGE AFTER THE REACTOR ENGINEER HAS SIMULATED OBTAINING A P1.
2. CMFCP = CORE MAXIMUM FRACTION OF LIMITING CRITICAL POWER RATIO
CMFLPD = CORE MAXIMUM FRACTION OF LIMITING POWER DENSITY
CMAPR = CORE MAXIMUM AVERAGE PLANAR RATIO
3. USE DID PHONE EXTENSION 3339 TO CONTACT CONTROL ROOM (SIMULATOR).
4. ALL VERBAL COMMUNICATIONS MUST START WITH "THIS IS A DRILL".

EXPECTED ACTIONS :

1. REACTOR ENGINEER SUCCESSFULLY OBTAINS A P1 AND REVIEW THERMAL LIMITS AND THEN CONTACTS THE CONTROL ROOM (SIMULATOR) WITH THE RESULTS.
2. THE REACTOR ENGINEER PROVIDES REACTIVITY CONTROL GUIDANCE TO THE CREW.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 19C
TO : SNSS/NSS
FROM : SIMULATOR REFEREE
LOCATION : SIMULATOR (HOPE CREEK)

REAL TIME : 09:30
DRILL TIME : 01:30

MESSAGE :

YOU SHOULD COMMENCE A REACTOR SHUTDOWN IN ACCORDANCE WITH
TECHNICAL SPECIFICATION 3.4.1.2, JET PUMP OPERABILITY

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

- (REFER TO SUPPLEMENTAL SCENARIO #7.03)
1. ISSUE THIS MESSAGE ONLY IF IT APPEARS LIKELY THAT THE SNSS/NSS IS NOT GOING TO COMMENCE A REACTOR SHUTDOWN IN ACCORDANCE WITH TECH SPEC 3.4.1.2, JET PUMP OPERABILITY.
 2. THIS IS NOT CRITICAL TO THE DRILL TIMELINE.

EXPECTED ACTIONS :

1. THE SNSS/NSS REFERS TO TECH SPEC 3.4.1.2 AND DIRECTS THE REACTOR SHUTDOWN.
2. THE SNSS/NSS NOTIFIES THE OPS MANAGER AND LOAD DISPATCHER OF THE IMPENDING SHUTDOWN. (THESE INTERFACES WILL BE ROLE PLAYED BY A SIMULATOR REFEREE)

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 19D
TO : CONTROL ROOM STAFF
FROM : SIMULATOR REFEREE
LOCATION : SIMULATOR (HOPE CREEK)

REAL TIME : 09:30
DRILL TIME : 01:30

MESSAGE :
YOU HAVE JUST RECEIVED THE FOLLOWING ALARMS AND INDICATIONS:

ALARMS:
FEEDWATER HEATER TRIP (OVERHEAD A7-E2)
FEEDWATER HEATER PNL 1A/B/C C102 (OVERHEAD A7-F2)
FWH 6C BLEEDER TRIP VALVE NCLOSED (CRIDS POINT D2790)

INDICATIONS:
REACTOR POWER BEGINS TO INCREASE.
INDICATED LEVEL IN THE #6C FEEDWATER HEATER ON 10-C-650 IS INCREASING.
#6C FWH BLEEDER TRIP VALVE INDICATES TRIPPED.
THE #6C FEEDWATER HEATER EXTRACTION STEAM ISOLATION VALVE HAS NO INDICATION.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

- (REFER TO SUPPLEMENTAL SCENARIO #7.04)
1. MESSAGE FOR DARK BOARD CONTROL ONLY.
 2. LEAK STARTS AT 09:28, AND THE HIGH LEVEL ALARM COMES IN AT 09:30.
 3. DUE TO A LOSS OF 10-B-130, THERE IS CURRENTLY NO POWER AVAILABLE TO THE #6C FEEDWATER HEATER EXTRACTION STEAM ISOLATION VALVE. AS SUCH, THE VALVE DOES NOT CLOSE FOLLOWING THE HIGH LEVEL IN THE HEATER AND CONDENSATE BEGINS TO FILL THE EXTRACTION STEAM LINE.

EXPECTED ACTIONS :

1. CREW RECOGNIZES THE HIGH LEVEL CONDITION IN THE #6C FEEDWATER HEATER AND ATTEMPTS TO ISOLATE THE FEEDWATER HEATER TO PREVENT WATER INDUCTION INTO THE MAIN TURBINE.
2. NSS REFERS TO OP-AB.ZZ-0118, LOSS OF FEEDWATER HEATERS.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 20
TO : I&C SYSTEM ENGINEER
FROM : TSC REFEREE
LOCATION : AUXILIARY BUILDING, UPPER RELAY ROOM, 10-C-675

REAL TIME : 09:30
DRILL TIME : 01:30

MESSAGE :
AT THE LOOSE PARTS MONITOR PANEL (10-C-675), LOCATED IN THE UPPER RELAY ROOM, YOU OBSERVE THE FOLLOWING INDICATIONS:

CHANNEL 5, INLET RECIRC LINE VIBRATION AND LOOSE PART LEDS ARE ILLUMINATED.

CHANNEL 6, INLET RECIRC LINE VIBRATION AND LOOSE PART LEDS ARE ILLUMINATED.

CHANNEL 12, RECIRC PUMP 1BP210 VIBRATION LED IS ILLUMINATED

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

(REFER TO SUPPLEMENTAL SCENARIO #7.03)

1. ISSUE THIS MESSAGE AS THE SYSTEM ENGINEER VALIDATES THE LOOSE PARTS MONITORING SYSTEM ALARM.
2. USE DID PHONE EXTENSION 3339 TO CONTACT THE SIMULATOR (CONTROL ROOM)
3. ALL VERBAL COMMUNICATIONS MUST START WITH "THIS IS A DRILL".

EXPECTED ACTIONS :

1. SYSTEM ENGINEER PROPERLY VALIDATES LOOSE PARTS MONITOR ALARM AND NOTIFIES THE SNSS.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 20D
TO : CONTROL ROOM CREW
FROM : SIMULATOR REFEREE
LOCATION : SIMULATOR (HOPE CREEK)

REAL TIME : 09:32
DRILL TIME : 01:32

MESSAGE :
YOU HAVE JUST RECEIVED THE FOLLOWING INDICATION AFTER DEPRESSING THE
CLOSED PUSHBUTTON FOR THE 1AEHV-1768C, #6C FEEDWATER HEATER CONDENSATE
INLET VALVE:

BOTH THE OPEN AND CLOSED LIGHTS REMAIN ILLUMINATED FOR
APPROXIMATELY THREE SECONDS, WHEN BOTH LIGHTS EXTINGUISH.
LEVEL IN THE #6C FEEDWATER HEATER CONTINUES TO INCREASE.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

- (REFER TO SUPPLEMENTAL SCENARIO #7.01)
1. MESSAGE FOR DARK BOARD CONTROL ONLY.
 2. ENSURE NCO RESPONDS TO ALARMS APPROPRIATELY.
 3. FAILURE OF THE #6C FEEDWATER HEATER CONDENSATE INLET VALVE TO
CLOSE RESULTS IN AN UNISOLABLE TUBE LEAK IN THE #6C FEEDWATER
HEATER THAT WILL RESULTS IN WATER INTRUSION IN THE MAIN TURBINE
AND SUBSEQUENT TURBINE BLADE IMPINGEMENT.

EXPECTED ACTIONS :

1. THE CREW ACKNOWLEDGES THAT THE
#6C FEEDWATER HEATER CONDENSATE
INLET VALVE MOTOR HAS TRIPPED
ON THERMAL OVERLOAD AND DISPATCHES
AN OPERATOR TO INVESTIGATE AND
ATTEMPT TO CLOSE THE VALVE MANUALLY.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 21
TO : EQUIPMENT OPERATOR
FROM : IN PLANT REFEREE
LOCATION : TURBINE BUILDING, ELEVATION 155'

REAL TIME : 09:33
DRILL TIME : 01:33

MESSAGE :

UPON ENTERING THE TURBINE BUILDING, A LARGE PORTION OF THE LIGHTING IS NOT ILLUMINATED.

AT THE #6B FEEDWATER HEATER CONDENSATE OUTLET VALVE, YOU OBSERVE THE FOLLOWING:

WHEN DEPRESSED, THE MOTOR OPERATED VALVE DECLUTCH LEVER SUCCESSFULLY DISENGAGES THE MOTOR AND ENGAGES THE HANDWHEEL.

WHEN AN ATTEMPT IS MADE TO MANUALLY CLOSE THE VALVE, THE HANDWHEEL AND STEM BOTH TURN VERY SLOWLY IN THE CLOSED DIRECTION.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

(REFER TO SUPPLEMENTAL SCENARIO #7.01)

1. ISSUE THIS MESSAGE TO THE EQUIPMENT OPERATOR DISPATCHED TO MANUALLY CLOSE THE #6B FEEDWATER HEATER CONDENSATE OUTLET VALVE DUE TO A LOSS OF MOTIVE POWER TO THE MOTOR OPERATOR.
2. THIS ACTIONS IS NOT SUCCESSFUL.
3. IT IS NOT CRITICAL TO THE SCENARIO TIMELINE FOR THE CONTROL ROOM STAFF TO DISPATCH AN OPERATOR TO MANUALLY ISOLATE THE "B" FEEDWATER HEATER STRING.

EXPECTED ACTIONS :

1. EQUIPMENT OPERATOR ATTEMPTS TO MANUALLY CLOSE THE #6B FEEDWATER HEATER CONDENSATE OUTLET VALVE.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 21C
TO : SNSS/NSS
FROM : SIMULATOR REFEREE
LOCATION : SIMULATOR (HOPE CREEK)

REAL TIME : 09:33
DRILL TIME : 01:33

MESSAGE : THIS IS A CONTINGENCY MESSAGE

FOR SCENARIO CONTROL, DO NOT SCRAM THE REACTOR AT THIS TIME.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

(REFER TO SUPPLEMENTAL SCENARIO #7.04)

1. BE PREPARED TO ISSUE MESSAGE AS NECESSARY.
2. DELIVER THIS MESSAGE ONLY IF IT APPEARS LIKELY THAT THE SNSS IS ABOUT TO ORDER A MANUAL SCRAM OF THE UNIT.
3. CREW SHOULD CONTINUE WITH THE CONTROLLED PLANT SHUTDOWN.

EXPECTED ACTIONS :

1. THE SNSS DOES NOT SCRAM THE REACTOR AND COMMENCES A CONTROLLED REACTOR SHUTDOWN WITH REACTOR POWER REDUCTION NOT EXCEEDING 15%/HOUR.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 22
TO : SHIFT ELECTRICIAN
FROM : IN PLANT REFEREE
LOCATION : TURBINE BUILDING, ELEVATION 120'

REAL TIME : 09:37
DRILL TIME : 01:37

MESSAGE :

AT 10-B-130 UNIT SUBSTATION, YOU OBSERVE THE FOLLOWING:
PAINT ON THE OUTSIDE OF THE UNIT SUBSTATION IS BLISTERING AND
PEELING.
WIRING DAMAGE IS CLEARLY VISIBLE.
INSULATION IS CRACKED AND CHARRED.

"THIS IS A DRILL, THIS IS A DRILL"

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

- (REFER TO SUPPLEMENTAL SCENARIO #7.02)
1. ISSUE THIS MESSAGE AFTER THE SHIFT ELECTRICIAN HAS SIMULATED PERFORMANCE OF A THOROUGH DAMAGE ASSESSMENT OF 10-B-130.
 2. USE DID PHONE EXTENSION 3339 TO CONTACT CONTROL ROOM (SIMULATOR)
 3. LOSS OF 10-B-130 CAUSES A LIMITED LOSS OF LIGHTING IN THE TURBINE BUILDING.

EXPECTED ACTIONS :

1. SHIFT ELECTRICIAN SHOULD REPORT THE DAMAGE TO THE SNSS (EC) WITH AN ESTIMATE OF TIME TO REPAIR AND REQUEST DIRECTION ON WHETHER OR NOT TO PROCEED WITH REPAIRS. (AT THIS TIME, NORMAL WORK PROCEDURES ARE TO BE FOLLOWED.)

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 22C
TO : CONTROL ROOM STAFF
FROM : SIMULATOR REFEREE
LOCATION : SIMULATOR (HOPE CREEK)

REAL TIME : 09:37
DRILL TIME : 01:37

MESSAGE : THIS IS A CONTINGENCY MESSAGE:

YOU SHOULD DISPATCH AN EQUIPMENT OPERATOR TO THE "C" FEEDWATER HEATER CONTROL PANEL, 1C-C-102, TO INVESTIGATE THE HIGH LEVEL IN THE #6C FEEDWATER HEATER.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

(REFER TO SUPPLEMENTAL SCENARIO #7.04)

1. DELIVER THIS MESSAGE ONLY IF IT APPEARS LIKELY THAT THE SNSS/NSS IS NOT GOING TO DISPATCH AN EQUIPMENT OPERATOR TO THE "C" FEEDWATER HEATER CONTROL PANEL.

EXPECTED ACTIONS :

1. THE CREW DISPATCHES AN EQUIPMENT OPERATOR TO THE "C" FEEDWATER HEATER CONTROL PANEL.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 23
TO : MAINTENANCE TEAM
FROM : INPLANT REFEREE
LOCATION : TURBINE BUILDING, ELEVATION 120'

REAL TIME : 09:40
DRILL TIME : 01:40

MESSAGE :

YOU HAVE SUCCESSFULLY HOOKED UP THE TEMPORARY AIR COMPRESSOR.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

1. ISSUE THIS MESSAGE ONLY IF A MAINTENANCE TEAM IS DISPATCHED BY THE SNSS/NSS TO HOOKUP THE TEMPORARY AIR COMPRESSOR, AS A RESULT OF COMPRESSOR PROBLEMS ENCOUNTERED WHEN THE 10-B-130 UNIT SUBSTATION WAS LOST.
2. THIS IS NOT CRITICAL TO THE SCENARIO TIMELINE.

EXPECTED ACTIONS :

1. MAINTENANCE TEAM ACKNOWLEDGES THAT THE TEMPORARY AIR COMPRESSOR HAS BEEN HOOKED UP AND INFORMS THE CONTROL ROOM (SIMULATOR).

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 23C
TO : CONTROL ROOM STAFF
FROM : SIMULATOR REFEREE
LOCATION : SIMULATOR (HOPE CREEK)

REAL TIME : 09:40
DRILL TIME : 01:40

MESSAGE : THIS IS A CONTINGENCY MESSAGE

YOU SHOULD ATTEMPT TO ISOLATE CONDENSATE TO THE #6C FEEDWATER HEATER BY CLOSING THE CONDENSATE INLET VALVE 1AEHV-1768C.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

- (REFER TO SUPPLEMENTAL SCENARIO #7.04)
1. ISSUE THIS MESSAGE AS NECESSARY TO MAINTAIN THE SCENARIO TIMELINE.
 2. ATTEMPTS TO REMOTELY CLOSE THE CONDENSATE INLET VALVE WILL BE UNSUCCESSFUL, AS THE VALVE MOTOR BREAKER TRIPS ON A THERMAL OVERLOAD CONDITION.
 3. MANUAL CLOSURE OF THE VALVE IS REQUIRED.
 4. VALVE IS LOCATED IN THE TURBINE BUILDING, ELEVATION 155', ABOVE THE #6C FEEDWATER HEATER ROOM.

EXPECTED ACTIONS :

1. CREW ATTEMPTS TO REMOTELY ISOLATE CONDENSATE TO THE #6C FEEDWATER HEATER. THE MOV WILL TRIP ON THERMAL OVERLOAD WHILE STROKING CLOSED. MANUAL OPERATION IS REQUIRED.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 23D
TO : CONTROL ROOM STAFF
FROM : SIMULATOR REFEREE
LOCATION : SIMULATOR (HOPE CREEK)

REAL TIME : 09:41
DRILL TIME : 01:41

MESSAGE :
YOU HAVE JUST RECEIVED THE FOLLOWING INDICATIONS:

VIBRATION LEVELS ON MAIN TURBINE BEARINGS #3 AND #4 HAVE
BEGUN TO INCREASE AT A RATE OF APPROXIMATELY 0.5 MILS/MIN.

VIBRATION LEVELS ON THE OTHER MAIN TURBINE BEARINGS IS ALSO
INCREASING, BUT AT A SLOWER RATE.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

1. MESSAGE FOR DARK BOARD CONTROL ONLY.
2. ENSURE NCO RESPOND TO ALARMS APPROPRIATELY.
3. MAIN TURBINE VIBRATIONS ARE INCREASING AT THIS TIME DUE TO WATER INDUCTION INTO THE MAIN TURBINE CAUSED BY THE HIGH WATER LEVEL IN THE #6C FEEDWATER HEATER. DUE TO INABILITY TO ISOLATE THE HEATER AND SUBSEQUENT FAILURE OF THE ASSOCIATED BLEEDER TRIP VALVE, WATER IS BACKING UP INTO THE TURBINE AND IS IMPINGING ON THE BLADES

EXPECTED ACTIONS :

1. CREW RECOGNIZES THAT MAIN TURBINE VIBRATIONS ARE INCREASING.
2. CREW REFERS TO MAIN TURBINE OPERATING PROCEDURE, OP-SO.AC-001 FOR GUIDANCE REGARDING THE INCREASED VIBRATION CONDITION.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 24
TO : EQUIPMENT OPERATOR
FROM : IN PLANT REFEREE
LOCATION : TURBINE BUILDING, ELEVATION 155'

REAL TIME : 09:42
DRILL TIME : 01:42

MESSAGE :

UPON ENTERING THE TURBINE BUILDING, A LARGE PORTION OF THE LIGHTING IS NOT ILLUMINATED.

AT THE #6C FEEDWATER HEATER CONDENSATE INLET VALVE, YOU OBSERVE THE FOLLOWING:

WHEN DEPRESSED, THE MOTOR OPERATED VALVE DECLUTCH LEVER SUCCESSFULLY DISENGAGES THE MOTOR AND ENGAGES THE HANDWHEEL.

WHEN AN ATTEMPT IS MADE TO MANUALLY CLOSE THE VALVE, THE HANDWHEEL AND STEM BOTH TURN VERY SLOWLY IN THE CLOSED DIRECTION.

A SIGNIFICANT AMOUNT OF RESISTANCE IS ENCOUNTERED.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

(REFER TO SUPPLEMENTAL SCENARIO #7.04)

1. ISSUE THIS MESSAGE TO THE EQUIPMENT OPERATOR DISPATCHED TO MANUALLY CLOSE THE #6C FEEDWATER HEATER CONDENSATE INLET VALVE AS THE OPERATOR SIMULATES THE PROCESS OF CLOSING THE VALVE MANUALLY.
2. IT IS CRITICAL TO THE DRILL TIMELINE THAT MANUAL CLOSURE IS NOT SUCCESSFUL PRIOR TO THE MAIN TURBINE BLADING FAILURE.

EXPECTED ACTIONS :

1. EQUIPMENT OPERATOR ATTEMPTS TO MANUALLY CLOSE THE #6C FEEDWATER HEATER CONDENSATE INLET VALVE.
2. THE EQUIPMENT OPERATOR ACKNOWLEDGES THAT A SIGNIFICANT AMOUNT OF RESISTANCE IS ENCOUNTERED WHEN ATTEMPTING TO CLOSE THE VALVE.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 24C
TO : SNSS/NSS
FROM : SIMULATOR REFEREE
LOCATION : SIMULATOR (HOPE CREEK)

REAL TIME : 09:43
DRILL TIME : 01:43

MESSAGE : THIS IS A CONTINGENCY MESSAGE

FOR SCENARIO CONTROL, DO NOT SCRAM THE REACTOR AT THIS TIME.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

(REFER TO SUPPLEMENTAL SCENARIO #7.04)

1. BE PREPARED TO ISSUE MESSAGE AS NECESSARY.
2. DELIVER THIS MESSAGE ONLY IF IT APPEARS LIKELY THAT THE SNSS IS ABOUT TO ORDER A MANUAL SCRAM OF THE UNIT.
3. CREW SHOULD CONTINUE WITH THE CONTROLLED PLANT SHUTDOWN.

EXPECTED ACTIONS :

1. THE SNSS DOES NOT SCRAM THE REACTOR AND CONTINUES THE CONTROLLED REACTOR SHUTDOWN WITH REACTOR POWER REDUCTION NOT EXCEEDING 15%/HOUR.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 25
TO : SHIFT ELECTRICIAN
FROM : IN PLANT REFEREE
LOCATION : TURBINE BUILDING, ELEVATION 171'

REAL TIME : 09:44
DRILL TIME : 01:44

MESSAGE :

UPON ENTERING THE TURBINE BUILDING, SOME LIGHTS ARE EXTINGUISHED.
AT BREAKER 52-143074, YOU OBSERVE THE FOLLOWING:
THE BREAKER IS TRIPPED ON THERMAL OVERLOAD.
THE CLOSED CONTACTOR IS EXTREMELY HOT.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

(REFER TO SUPPLEMENTAL SCENARIO #7.04)

1. ISSUE THIS MESSAGE TO THE SHIFT ELECTRICIAN ONLY WHEN HE REACHES THE 10-B-143 MOTOR CONTROL CENTER AND IDENTIFIES THE CORRECT BREAKER.
2. IT IS CRITICAL TO THE DRILL TIMELINE THAT CLOSURE OF THE VALVE IS NOT SUCCESSFUL PRIOR TO THE MAIN TURBINE BLADING FAILURE.

EXPECTED ACTIONS :

1. SHIFT ELECTRICIAN INSPECTS THE MOTOR BREAKER FOR THE #6C FEEDWATER HEATER CONDENSATE INLET VALVE.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 26 REAL TIME : 09:45
TO : EQUIPMENT OPERATOR DRILL TIME : 01:45
FROM : IN PLANT REFEREE
LOCATION : TURBINE BUILDING, ELEVATION 102' CONDENSER BAY

MESSAGE :

UPON ENTERING THE CONDENSER BAY, SOME LIGHTING IS EXTINGUISHED.

AT THE #6C FEEDWATER HEATER EXTRACTION STEAM ISOLATION VALVE,
YOU OBSERVE THE FOLLOWING:

ATTEMPTS TO REACH PROVES TO BE DIFFICULT AS THE RAILING UNDER
THE VALVE IS EXTREMELY SLIPPERY, SUCH THAT THE VALVE CAN NOT BE
REACHED BY STANDING ON THE RAILING.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

(REFER TO SUPPLEMENTAL SCENARIO #7.04)

1. ISSUE THIS MESSAGE TO THE EQUIPMENT OPERATOR DISPATCHED TO
MANUALLY CLOSE THE #6C FEEDWATER HEATER EXTRACTION STEAM ISOLATION
VALVE, AS THE OPERATOR SIMULATES ATTEMPTS TO REACH THE VALVE BY
STANDING ON RAILING BELOW THE VALVE.
2. IT IS CRITICAL TO THE DRILL TIMELINE THAT MANUAL CLOSURE IS NOT
SUCCESSFUL PRIOR TO THE MAIN TURBINE BLADING FAILURE.

EXPECTED ACTIONS :

1. EQUIPMENT OPERATOR ATTEMPTS TO
MANUALLY CLOSE THE #6C FEEDWATER
HEATER EXTRACTION STEAM ISOLATION
VALVE.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 27D
TO : CONTROL ROOM STAFF
FROM : SIMULATOR REFEREE
LOCATION : SIMULATOR (HOPE CREEK)

REAL TIME : 09:47
DRILL TIME : 01:47

MESSAGE :

YOU HAVE JUST RECEIVED THE FOLLOWING ALARMS AND INDICATIONS:

ALARMS:

REACTOR SCRAM TRIP LOGIC B1	(OVERHEAD C3-A4)
REACTOR SCRAM TRIP LOGIC B2	(OVERHEAD C3-A5)
REACTOR SCRAM TRIP LOGIC A1	(OVERHEAD C3-A2)
REACTOR SCRAM TRIP LOGIC A2	(OVERHEAD C3-A3)
APRM DOWNSCALE	(OVERHEAD C3-D4)
LPRM DOWNSCALE	(OVERHEAD C3-E5)
RPV WATER LEVEL LO	(OVERHEAD C5-A4)
TCV FAST CLOSE & MSV TRIP BYP	(OVERHEAD C5-C2)
CRD SCRAM DISCH VOL LVL HI	(OVERHEAD C5-B4)
MAIN STOP VALVE CLOSURE	(OVERHEAD C5-B2)

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

1. THIS MESSAGE FOR DARK BOARD DRILL CONTROL ONLY.
2. ALARMS AND INDICATIONS ARE NECESSARILY LIMITED TO KEY ITEMS.
3. THE INCREASED MAIN TURBINE VIBRATION CONDITION HAS RESULTED IN A FAILURE OF THE MAIN TURBINE BEARING OIL HEADER, CAUSING A LOW BEARING HEADER OIL PRESSURE TRIP.
4. THE INCREASED VIBRATION CONDITION IS DUE TO WATER INDUCTION INTO THE MAIN TURBINE FROM THE #6C FEEDWATER HEATER.

EXPECTED ACTIONS :

1. NSS ENTERS EOP-101, RPV CONTROL AND ALSO MONITORS KEY CTMT. PARAMETERS.
2. NCO'S PERFORM POST SCRAM ACTIONS, USE RFP FOR LEVEL CONTROL AND TURBINE BYPASS VALVES FOR PRESSURE CONTROL.
3. SNSS SHOULD REFER TO ECG.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 28D
TO : CONTROL ROOM STAFF
FROM : SIMULATOR REFEREE
LOCATION : SIMULATOR (HOPE CREEK)

REAL TIME : 09:47
DRILL TIME : 01:47

MESSAGE :

YOU HAVE JUST RECEIVED THE FOLLOWING ALARMS AND INDICATIONS:

ALARMS:

RPV PRESSURE HI	(OVERHEAD C5-A5)
ROD DRIFT	(OVERHEAD C6-E3)
CRD SCRAM DISCH VOL NOT DRAINED	(OVERHEAD C6-E4)
CRD SYSTEM TROUBLE	(OVERHEAD C6-F2)
UNIT PROT LOCKOUT RELAY TRIP	(OVERHEAD E1-A5)
MAIN TRANSFORMER TROUBLE	(OVERHEAD E1-A4)
TURBINE GENERATOR TRIP	(OVERHEAD D3-A5)
TURBINE GENERATOR VIBRATION	(OVERHEAD D3-C5)
RPV LEVEL 4	(OVERHEAD A7-C5)
RPV LEVEL 3	(OVERHEAD A7-D5)
EHC UNIT PANEL 10C363	(OVERHEAD D3-D5)

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

1. THIS MESSAGE FOR DARK BOARD DRILL CONTROL ONLY.
2. ALARMS AND INDICATIONS ARE NECESSARILY LIMITED TO KEY ITEMS.
3. THE INCREASED MAIN TURBINE VIBRATION CONDITION HAS RESULTED IN A FAILURE OF THE MAIN TURBINE BEARING OIL HEADER, CAUSING A LOW BEARING HEADER OIL PRESSURE TRIP.
4. THE INCREASED VIBRATION CONDITION IS DUE TO WATER INDUCTION INTO THE MAIN TURBINE FROM THE #6C FEEDWATER HEATER.

EXPECTED ACTIONS :

1. NSS ENTERS EOP-101, RPV CONTROL AND ALSO MONITORS KEY CTMT. PARAMETERS.
2. NCO'S PERFORM POST SCRAM ACTIONS, USE RFP FOR LEVEL CONTROL AND TURBINE BYPASS VALVES FOR PRESSURE CONTROL.
3. SNSS SHOULD REFER TO ECG.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 29D
TO : CONTROL ROOM STAFF
FROM : SIMULATOR REFEREE
LOCATION : SIMULATOR (HOPE CREEK)

REAL TIME : 09:48
DRILL TIME : 01:48

MESSAGE :
YOU HAVE JUST RECEIVED THE FOLLOWING ALARMS:

SACS LOOP B TROUBLE	(OVERHEAD A1-E5)
SACS/TACS LOOP PRESS LO	(OVERHEAD A1-B4)
SSWS INTAKE B TROUBLE	(OVERHEAD A1-B3)
SSWS PANEL A/B/C/D C516	(OVERHEAD A1-D2)
RADIATION MONITORING ALARM/TRBL	(OVERHEAD C6-C1)
BOP SAFETY SYS OUT OF SVCE	(OVERHEAD D1-A4)
CONTAINMENT ISOLATION VALVE O/PF	(OVERHEAD D1-B3)
4.16 KV SYS INCOMING BRKR MALF	(OVERHEAD E3-E2)
USS FEEDER BRKR TRBL	(OVERHEAD E3-E3)
4.16 KV FDR TO USS XFMR BRKR MALF	(OVERHEAD E3-F2)
13.8 KV BUS LOCKOUT RELAY TRIP	(OVERHEAD E3-A2)
STA SERVICE TRANSFORMER 1BX502 TRBL	(OVERHEAD E3-A4)
STA SERVICE TRANSFORMER 1BX501 TRBL	(OVERHEAD E3-B4)

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

1. MESSAGE FOR DARK BOARD CONTROL ONLY.
2. THE TURBINE BLADING EJECTED INTO THE HOPE CREEK SWITCHYARD HAS DAMAGED 13.8 KV RING BUS SECTION 2 AND 8, RESULTING IN A FAST TRANSFER OF LOADS NORMALLY POWERED BY THE "B" SIDE STATION SERVICE TRANSFORMERS TO THE "A" SIDE STATION SERVICE TRANSFORMER.
3. DUE TO A FAILURE OF THE "B" 4160 VAC VITAL BUS ALTERNATE FEEDER BREAKER, THE "B" VITAL BUS DEENERGIZES.

EXPECTED ACTIONS :

1. THE CREW RECOGNIZES THE FAST TRANSFER OF LOADS FROM THE "B" SIDE STATION SERVICE TRANSFORMERS TO THE "A" SIDE STATION SERVICE TRANSFORMER.
2. THE CREW RECOGNIZES THE LOSS OF THE "B" 4160 VAC VITAL BUS.
3. THE CREW ATTEMPTS TO MANUALLY START THE "B" EDG FROM THE CONTROL ROOM.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 30D
TO : CONTROL ROOM STAFF
FROM : SIMULATOR REFEREE
LOCATION : SIMULATOR (HOPE CREEK)

REAL TIME : 09:48
DRILL TIME : 01:48

MESSAGE :
YOU HAVE JUST RECEIVED THE FOLLOWING ALARMS AND INDICATIONS:

ALARMS: STA SERVICE TRANSFORMER 1BX503 TRBL (OVERHEAD E3-C4)
STA SERVICE TRANSFORMER 1DX501 TRBL (OVERHEAD E3-D1)
250 VDC SYSTEM TROUBLE (OVERHEAD D3-E2)
125 VDC SYSTEM TROUBLE (OVERHEAD D3-F2)
120 VAC UPS TROUBLE (OVERHEAD D3-E3)
24 VDC SYSTEM TROUBLE (OVERHEAD D3-F3)

INDICATIONS:

"B" SERVICE WATER PUMP TRIPS
"B" SACS PUMP TRIPS
"B" RHR IS UNAVAILABLE DUE TO BUS LOCKOUT
"B" CORE SPRAY PUMP IS UNAVAILABLE DUE TO BUS LOCKOUT
"B" SLC PUMP IS UNAVAILABLE
"B" RACS PUMP IS UNAVAILABLE
"B" & "F" FRVS RECIRC FANS ARE UNAVAILABLE

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

1. MESSAGE FOR DARK BOARD CONTROL ONLY.
2. THE TURBINE BLADING EJECTED INTO THE HOPE CREEK SWITCHYARD HAS DAMAGED 13.8 KV RING BUS SECTION 2 AND 8, RESULTING IN A FAST TRANSFER OF LOADS NORMALLY POWERED BY THE "B" SIDE STATION SERVICE TRANSFORMERS TO THE "A" SIDE STATION SERVICE TRANSFORMER.
3. DUE TO A FAILURE OF THE "B" 4160 VAC VITAL BUS ALTERNATE FEEDER BREAKER, THE "B" VITAL BUS DEENERGIZES.

EXPECTED ACTIONS :

1. THE CREW RECOGNIZES THE FAST TRANSFER OF LOADS FROM THE "B" SIDE STATION SERVICE TRANSFORMERS TO THE "A" SIDE STATION SERVICE TRANSFORMER.
2. THE CREW RECOGNIZES THE LOSS OF THE "B" 4160 VAC VITAL BUS.
3. THE CREW ATTEMPTS TO MANUALLY START THE "B" EDG FROM THE CONTROL ROOM.

6.30D

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 31
TO : EQUIPMENT OPERATOR
FROM : IN PLANT REFEREE
LOCATION : TURBINE BUILDING, ELEVATION 155'

REAL TIME : 09:48
DRILL TIME : 01:48

MESSAGE :

YOU HAVE JUST OBSERVED THE FOLLOWING:

- 1) A LOUD BANG COMING FROM THE MAIN TURBINE ENCLOSURE.
- 2) AS YOU LOOK EAST, YOU SEE TWO OBJECTS PENETRATING THE EAST WALL OF THE TURBINE BUILDING.
- 3) OVERALL MAIN TURBINE NOISE HAS INCREASED SIGNIFICANTLY.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

- (REFER TO SUPPLEMENTAL SCENARIO #7.06)
1. ISSUE THIS MESSAGE TO THE EQUIPMENT OPERATOR DISPATCHED TO MANUALLY CLOSE THE #6C FEEDWATER HEATER CONDENSATE INLET VALVE.
 2. IT IS CRITICAL TO THE DRILL TIMELINE THAT THE OPERATOR RECEIVE THIS INFORMATION AND THAT THE INFORMATION IS PROVIDED TO THE SNSS AT THE SIMULATOR.

EXPECTED ACTIONS :

1. EQUIPMENT OPERATOR PROVIDES INFORMATION TO THE SNSS.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 31D
TO : CONTROL ROOM STAFF
FROM : SIMULATOR REFEREE
LOCATION : SIMULATOR (HOPE CREEK)

REAL TIME : 09:49
DRILL TIME : 01:49

MESSAGE :

YOU HAVE JUST RECEIVED THE FOLLOWING ALARMS AND INDICATIONS:

ALARMS:

MAIN CONDENSER A VACUUM LO	(OVERHEAD A6-E1)
MAIN CONDENSER B VACUUM LO	(OVERHEAD A6-E2)
MAIN CONDENSER C VACUUM LO	(OVERHEAD A6-E3)
CONDENSATE TRAIN A TROUBLE	(OVERHEAD A6-F1)
CONDENSATE TRAIN B TROUBLE	(OVERHEAD A6-F2)
CONDENSATE TRAIN C TROUBLE	(OVERHEAD A6-F3)
CNDS RECIRC CAPACITY EXCEEDED	(OVERHEAD A6-F4)
RFP TURBINE TRIP	(OVERHEAD B3-E1)
RPV LEVEL 4	(OVERHEAD A7-C5)
RPV LEVEL 3	(OVERHEAD C5-D5)

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

1. THIS MESSAGE FOR DARK BOARD DRILL CONTROL ONLY.
2. ALARMS AND INDICATIONS ARE NECESSARILY LIMITED TO KEY ITEMS.
3. THE INCREASED MAIN TURBINE VIBRATION CONDITION HAS RESULTED IN A FAILURE OF THE MAIN CONDENSER ALONG WITH THE PRIMARY CONDENSATE PUMP SUCTION HEADER.
4. ENSURE NCO RESPONDS TO ALARMS APPROPRIATELY.

EXPECTED ACTIONS :

1. NSS ENTERS EOP-101, RPV CONTROL AND ALSO MONITORS KEY CTMT. PARAMETERS.
2. NCO'S CONTROL REACTOR WATER LEVEL USING HPCI AND OR RCIC. SRVS ARE USED FOR PRESSURE CONTROL.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 32D
TO : CONTROL ROOM STAFF
FROM : SIMULATOR REFEREE
LOCATION : SIMULATOR (HOPE CREEK)

REAL TIME : 09:49
DRILL TIME : 01:49

MESSAGE :

YOU HAVE JUST RECEIVED THE FOLLOWING ALARMS AND INDICATIONS:

ALARMS:

SRV LO LO SET ARMED (OVERHEAD C1-E5)
ADS/SAFETY RELIEF VALVE NOT CLOSED (OVERHEAD C1-A3)

INDICATIONS :

REACTOR PRESSURE IS INCREASING.
MAIN CONDENSER VACUUM IS RAPIDLY DEGRADING.
MAIN CONDENSER DRIP TRAY CONDUCTIVITY IS INCREASING RAPIDLY.
CDI IS INCREASING RAPIDLY.
MAIN GENERATOR HYDROGEN PRESSURE IS DECREASING RAPIDLY.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

1. THIS MESSAGE FOR DARK BOARD DRILL CONTROL ONLY.
2. ALARMS AND INDICATIONS ARE NECESSARILY LIMITED TO KEY ITEMS.
3. THE INCREASED MAIN TURBINE VIBRATION CONDITION HAS RESULTED IN A FAILURE OF THE MAIN CONDENSER ALONG WITH THE PRIMARY CONDENSATE PUMP SUCTION HEADER.
4. ENSURE NCO RESPONDS TO ALARMS APPROPRIATELY.

EXPECTED ACTIONS :

1. NSS ENTERS EOP-101, RPV CONTROL AND ALSO MONITORS KEY CTMT. PARAMETERS.
2. NCO'S CONTROL REACTOR WATER LEVEL USING HPCI AND OR RCIC. SRVS ARE USED FOR PRESSURE CONTROL.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 33
TO : MGH SECURITY SUPERVISOR
FROM : SECURITY PATROL
LOCATION : SIMULATOR (HOPE CREEK)

REAL TIME : 09:50
DRILL TIME : 01:50

MESSAGE :

YOU ARE CURRENTLY ON SECURITY PATROL ON THE EAST SIDE OF THE HOPE CREEK TURBINE BUILDING WHEN YOU OBSERVE THE FOLLOWING:

YOU HEAR A LOUD BANG AND LOOK UP TOWARDS THE TURBINE BLDG AND SEE TWO RUST COLORED OBJECTS THAT HAVE JUST PENETRATED THE EAST WALL OF THE HOPE CREEK TURBINE BUILDING, LAND IN THE HOPE CREEK SWITCHYARD. IT LOOKS LIKE SOME LINES WERE HIT.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

(REFER TO SUPPLEMENTAL SCENARIO #7.05)

1. HAVE SECURITY CALL THE CONTROL ROOM (SIMULATOR) ON DID PHONE EXTENSION 3339.
2. THE RUST COLORED OBJECTS ARE 2 PIECES OF MAIN TURBINE BLADING THAT HAVE PENETRATED THE TURBINE CASING AND THEN THE EAST WALL OF THE TURBINE BUILDING AND HAVE IMPACTED IN THE HOPE CREEK SWITCHYARD.
3. THERE IS NO EXPLOSION FROM THE IMPACT.

EXPECTED ACTIONS :

1. SNSS DIRECTS NCO TO MAKE PAGE ANNOUNCEMENT REGARDING OBJECTS.
2. SNSS DISPATCHES EO TO DETERMINE EXTENT OF DAMAGE.
3. DECLARE AN ALERT PER ECG SECTION 13.E, TURBINE ROTATING COMPONENT FAILURE WITH CASING PENETRATION.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 33D
TO : CONTROL ROOM STAFF
FROM : SIMULATOR REFEREE
LOCATION : SIMULATOR (HOPE CREEK)

REAL TIME : 09:51
DRILL TIME : 01:51

MESSAGE :
YOU HAVE JUST RECEIVED THE FOLLOWING INDICATIONS:

- "B" EDG IS RUNNING.
- "B" EDG OUTPUT BREAKER IS CLOSED ONTO THE "B" VITAL BUS.
- "B" SERVICE WATER PUMP IS RUNNING.
- "B" RACS PUMP IS RUNNING.
- "B" SACS PUMP IS RUNNING.

IN ADDITION,

- "B" RHR IS AVAILABLE.
- "B" CORE SPRAY PUMP IS AVAILABLE.
- "B" SLC PUMP IS AVAILABLE.
- "B" & "F" FRVS RECIRC FANS ARE AVAILABLE.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

1. MESSAGE FOR DARK BOARD CONTROL ONLY.
2. FOLLOWING THE LOSS OF THE "B" SIDE STATION SERVICE TRANSFORMERS AND FAILURE OF THE "B" 4160 VAC ALTERNATE FEEDER BREAKER, THE "B" 4160 VAC VITAL BUS DEENERGIZED.
3. STARTING OF THE "B" EDG AND CLOSURE OF THE ASSOCIATED OUTPUT BREAKER RESULTS IN RESTORATION OF THE BUS AND ITS ASSOCIATED LOADS.

EXPECTED ACTIONS :

1. THE CREW RECOGNIZES THAT THE "B" EDG SUCCESSFULLY STARTS AND LOADS ONTO THE "B" 4160 VAC VITAL BUS.
2. THE CREW VERIFIES SUCCESSFUL STARTING OF "B" VITAL BUS LOADS VIA THE LOP SEQUENCER.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 34
TO : CONTROL ROOM STAFF
FROM : SIMULATOR REFEREE
LOCATION : SIMULATOR (HOPE CREEK)

REAL TIME : 09:55
DRILL TIME : 01:55

MESSAGE :
YOU HAVE JUST RECEIVED THE FOLLOWING COMPUTER POINTS ON 10C671:

- 1B02 "FIRE TURBINE BLDG EL. 137'"
MAIN GEN EXCITER CO2 SYS
- 1B03 "ACTN TURBINE BLDG EL. 137'"
MAIN GEN EXCITER CO2 SYS
- 1G10 ELECTRIC FIRE PUMP RUNNING.
- 1G13 DIESEL FIRE PUMP RUNNING.
- 1A56 "FIRE TURBINE BLDG EL. 137'"
TURBINE BLDG SOUTH WATER SPRAY SYS. 1D8
- 1A57 "ACTN TURBINE BLDG EL. 137'"
TURBINE BLDG SOUTH WATER SPRAY SYS. 1D8

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

1. ISSUE THIS MESSAGE AFTER THE CONTROL ROOM STAFF RECEIVES OVERHEAD ALARM A2-A5, FIRE PROT PANEL 10C671 TROUBLE"
2. THIS IS TIME CRITICAL TO THE SCENARIO TIMELINE.

EXPECTED ACTIONS :

1. CONTROL ROOM CREW RECOGNIZES THE RECEIPT OF SEVERAL FIRE ALARM COMPUTER POINTS THROUGHOUT THE TURBINE BUILDING.
2. SNSS CONTACTS FIRE PROTECTION TO RESPOND.
3. NSTA REFERS TO PREFIRE PLAN.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 35
TO : CONTROL ROOM STAFF
FROM : SIMULATOR REFEREE
LOCATION : SIMULATOR (HOPE CREEK)

REAL TIME : 09:56
DRILL TIME : 01:56

MESSAGE :
YOU HAVE JUST RECEIVED THE FOLLOWING COMPUTER POINTS ON 10C671:

1A50 "FIRE TURBINE BLDG EL. 102'"
H2 SEAL OIL UNIT WATER SPRAY SYS. 1D7
1A51 "ACTN TURBINE BLDG EL. 102'"
H2 SEAL OIL UNIT WATER SPRAY SYS. 1D7

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

1. ISSUE THIS MESSAGE AFTER THE CONTROL ROOM STAFF RECEIVES OVERHEAD ALARM A2-A5, FIRE PROT PANEL 10C671 TROUBLE"
2. THIS IS TIME CRITICAL TO THE SCENARIO TIMELINE.

EXPECTED ACTIONS :

1. CONTROL ROOM CREW RECOGNIZES THE RECEIPT OF SEVERAL FIRE ALARM COMPUTER POINTS THROUGHOUT THE TURBINE BUILDING.
2. SNSS CONTACTS FIRE PROTECTION TO RESPOND.
3. NSTA REFERS TO PREFIRE PLAN.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 35C
TO : CONTROL ROOM CREW
FROM : SIMULATOR REFEREE
LOCATION : SIMULATOR (HOPE CREEK)

REAL TIME : 09:58
DRILL TIME : 01:58

MESSAGE : THIS IS A CONTINGENCY MESSAGE

YOU SHOULD DISPATCH AN EQUIPMENT OPERATOR TO SURVEY THE
TURBINE BUILDING.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

(REFER TO SUPPLEMENTAL SCENARIO #7.06)

1. ISSUE THIS MESSAGE AS NECESSARY TO MAINTAIN THE SCENARIO TIMELINE.
2. IN ORDER TO MAINTAIN SCENARIO CONTROL, IT IS IMPORTANT THAT DAMAGE ASSESSMENT INFORMATION BE PROVIDED TO THE SNSS.

EXPECTED ACTIONS :

1. THE CREW DISPATCHES AN EQUIPMENT OPERATOR TO PERFORM DAMAGE ASSESSMENT IN THE TURBINE BUILDING.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 36C
TO : CONTROL ROOM CREW
FROM : SIMULATOR REFEREE
LOCATION : SIMULATOR (HOPE CREEK)

REAL TIME : 09:59
DRILL TIME : 01:59

MESSAGE : THIS IS A CONTINGENCY MESSAGE

YOU SHOULD DISPATCH AN EQUIPMENT OPERATOR TO SURVEY THE
HOPE CREEK SWITCHYARD.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

(REFER TO SUPPLEMENTAL SCENARIO #7.05)

1. ISSUE THIS MESSAGE AS NECESSARY TO MAINTAIN THE SCENARIO TIMELINE.
2. IN ORDER TO MAINTAIN SCENARIO CONTROL, IT IS IMPORTANT THAT DAMAGE ASSESSMENT INFORMATION BE PROVIDED TO THE SNSS.

EXPECTED ACTIONS :

1. THE CREW DISPATCHES AN EQUIPMENT OPERATOR TO PERFORM DAMAGE ASSESSMENT IN THE HOPE CREK SWITCHYARD.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 37C
TO : CONTROL ROOM CREW
FROM : SIMULATOR REFEREE
LOCATION : SIMULATOR (HOPE CREEK)

REAL TIME : 09:59
DRILL TIME : 01:59

MESSAGE : THIS IS A CONTINGENCY MESSAGE

YOU SHOULD DISPATCH AN EQUIPMENT OPERATOR TO DETERMINE WHY
THE "B" VITAL BUS DID NOT SUCCESSFULLY FAST TRANSFER WHEN
THE "B" SIDE STATION SERVICE TRANSFORMER WERE LOST.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

- (REFER TO SUPPLEMENTAL SCENARIO #7.07)
1. ISSUE THIS MESSAGE AS NECESSARY TO MAINTAIN THE SCENARIO TIMELINE.
 2. IN ORDER TO MAINTAIN SCENARIO CONTROL, IT IS IMPORTANT THAT THE CAUSE FOR FAILURE OF THE "B" VITAL BUS BE IDENTIFIED.

EXPECTED ACTIONS :

1. THE CREW DISPATCHES AN EQUIPMENT OPERATOR TO THE "B" VITAL BUS SWITCHGEAR TO INVESTIGATE THE REASON FOR THE FAST TRANSFER FAILURE.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 38
TO : EQUIPMENT OPERATOR
FROM : IN PLANT REFEREE
LOCATION : HOPE CREEK SWITCHYARD

REAL TIME : 10:04
DRILL TIME : 02:04

MESSAGE :
YOU HAVE JUST OBSERVED THE FOLLOWING:

1. ONE 13.8 KV POTHEAD, LOCATED ON THE 1BX501 TRANSFORMER FEEDER IS DAMAGED. A RUST COLORED PIECE OF METAL IS PERTRUDING FROM THE POTHEAD. A SECOND PIECE OF METAL HAS APPARENTLY DAMAGED 13.8 KV BUS SECTION 8 AND IS LAYING ON THE GROUND.
3. THERE ARE NO FIRES PRESENT.
4. THERE APPEARS TO BE 2 HOLES IN THE EAST WALL OF THE HOPE CREEK TURBINE BUILDING.
5. THE FOLLOWING 13.8 KV RING BUS BREAKERS HAVE TRIPPED OPEN: BS 1-2 AND BS 9-0.
6. THERE DOES NOT APPEAR TO BE ANY OTHER VISIBLE DAMAGE TO PLANT STRUCTURE FROM THE HOPE CREEK SWITCHYARD.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

(REFER TO SUPPLEMENTAL SCENARIOS #7.05)

1. ENSURE EO REPORTS THE CONDITIONS TO THE CONTROL ROOM (SIMULATOR).
2. ENSURE EO REPORTS THAT THERE APPEAR TO BE TWO HOLES IN THE EAST WALL OF THE TURBINE BUILDING.
3. BE PREPARED TO PROVIDE ADDITIONAL INFORMATION AS NECESSARY FROM THE SUPPLEMENTAL SCENARIO.

EXPECTED ACTIONS :

1. SNSS REFERS TO ECG FOR EVENT DECLARATION AFTER RECEIVING A COMPLETE DESCRIPTION OF THE DAMAGE THAT HAS OCCURRED IN THE SWITCHYARD.
2. SNSS OBTAINS ADDITIONAL INFORMATION FROM EQUIPMENT OPERATORS DISPATCHED TO DETERMINE THE EXTENT OF DAMAGE TO THE PLANT.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 39 REAL TIME : 10:04
TO : EQUIPMENT/FIRE PROT. OPERATOR DRILL TIME : 02:04
FROM : OSC TEAM REFEREE
LOCATION : VARIOUS LOCATION IN TURBINE BUILDING

MESSAGE :
YOU HAVE JUST OBSERVED THE FOLLOWING:

ON ELEVATION 137' (AT FRONT STANDARD)

1. THERE IS LIMITED LIGHTING IN THE AREA.
2. MAIN TURBINE BEARING OIL PRESSURE INDICATES 0 PSIG.
3. NOISE LEVEL FROM MAIN TURBINE ENCLOSURE IS HIGHER THAN NORMAL.
4. THERE ARE NO FIRES PRESENT OR SMOKE IN THIS AREA.

ON ELEVATION 137' (AT THE GENERATOR END)

1. YOU OBSERVE A 2 FOOT SECTION OF TWISTED UP TURBINE BLADING ON THE FLOOR IN FRONT OF "B" FEED PUMP TURBINE ROOM.
2. THERE IS LIMITED LIGHTING IN THE AREA.
3. THERE DOES NOT APPEAR TO BE ANY SIGNIFICANT DAMAGE TO THE MAIN GENERATOR.
4. THERE ARE SEVERAL SMALL FIRES BURNING AROUND THE GENERATOR.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

(REFER TO SUPPLEMENTAL SCENARIOS #7.06)

1. ISSUE THE APPROPRIATE INFORMATION TO THE EQUIPMENT OPERATOR AS HE MOVES THROUGH THE AREA DESCRIBED.
2. ENSURE THE EQUIPMENT OPERATOR PROVIDES INFO TO THE SNSS.
3. BE PREPARED TO PROVIDE ADDITIONAL INFORMATION AS NECESSARY FROM THE SUPPLEMENTAL SCENARIO.

EXPECTED ACTIONS :

1. SNSS REFERS TO ECG FOR EVENT DECLARATION AFTER RECEIVING A COMPLETE DESCRIPTION OF THE DAMAGE THAT HAS OCCURRED IN THE TURBINE BLDG
2. SNSS OBTAINS ADDITIONAL INFORMATION FROM EQUIPMENT OPERATORS DISPATCHED TO THE SWITCHYARD TO DETERMINE THE EXTENT OF DAMAGE TO THE PLANT.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 39C
TO : CONTROL ROOM CREW
FROM : SIMULATOR REFEREE
LOCATION : SIMULATOR (HOPE CREEK)

REAL TIME : 10:04
DRILL TIME : 02:04

MESSAGE : THIS IS A CONTINGENCY MESSAGE

YOU SHOULD DISPATCH THE FIRE BRIGADE TO RESPOND TO FIRES
IN THE TURBINE BUILDING.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

- (REFER TO SUPPLEMENTAL SCENARIO #7.06)
1. ISSUE THIS MESSAGE AS NECESSARY TO MAINTAIN THE SCENARIO TIMELINE.
 2. IN ORDER TO MAINTAIN SCENARIO CONTROL, IT IS IMPORTANT THAT THE FIRE BRIGADE RESPONDS AND EXTINGUISHES ALL FIRES BY 10:30.

EXPECTED ACTIONS :

1. THE CREW DISPATCHES THE FIRE BRIGADE TO RESPOND TO THE FIRES IN THE TURBINE BUILDING.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 40 REAL TIME : 10:05
TO : EQUIPMENT/FIRE PROT. OPERATORS DRILL TIME : 02:05
FROM : IN PLANT REFEREE
LOCATION : VARIOUS LOCATION IN TURBINE BUILDING

MESSAGE :
YOU HAVE JUST OBSERVED THE FOLLOWING:

ON ELEVATION 137' (ALONG THE EAST WALL)

1. THERE IS LIMITED LIGHTING IN THE AREA.
2. THERE APPEARS TO BE A COUPLE OF HOLES ABOUT 25 FEET UP THE WALL
3. NOISE LEVEL FORM MAIN TURBINE ENCLOSURE IS HIGHER THAN NORMAL.
4. THERE ARE NO FIRES PRESENT OR SMOKE IN THIS AREA.

ON ELEVATION 102' (GENERATOR AUXILIARIES AREA)

1. THERE IS LIMITED LIGHTING IN THE AREA.
2. THE FLOOR IS SLIPPERY. THERE APPEARS TO BE OIL ON THE FLOOR.
3. THERE ARE SEVERAL FIRES BURNING IN THE OVERHEAD AREA.
4. FIRES ARE BURNING IN THE VICINITY OF THE H2 SEAL OIL SKID.
5. THE EMERGENCY H2 SEAL OIL PUMP IS RUNNING.
6. SOME DEBRIS HAS FALLEN INTO AREA.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

(REFER TO SUPPLEMENTAL SCENARIOS #7.06)

1. ISSUE THE APPROPRIATE INFORMATION TO THE EQUIPMENT OPERATOR AS HE MOVES THROUGH THE AREA DESCRIBED.
2. ENSURE THE EQUIPMENT OPERATOR PROVIDES INFO TO THE SNSS.
3. BE PREPARED TO PROVIDE ADDITIONAL INFORMATION AS NECESSARY FROM THE SUPPLEMENTAL SCENARIO.

EXPECTED ACTIONS :

1. SNSS REFERS TO ECG FOR EVENT DECLARATION AFTER RECEIVING A COMPLETE DESCRIPTION OF THE DAMAGE THAT HAS OCCURRED IN THE TURBINE BLDG
2. SNSS OBTAINS ADDITIONAL INFORMATION FROM EQUIPMENT OPERATORS DISPATCHED TO THE SWITCHYARD TO DETERMINE THE EXTENT OF DAMAGE TO THE PLANT.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 41 REAL TIME : 10:05
TO : EQUIPMENT/FIRE PROT. OPERATORS DRILL TIME : 02:05
FROM : IN PLANT REFEREE
LOCATION : VARIOUS LOCATION IN TURBINE BUILDING

MESSAGE :
YOU HAVE JUST OBSERVED THE FOLLOWING:

ON ELEVATION 102' (COMMON AREA)

1. THERE IS LIMITED LIGHTING IN THE AREA.
2. YOU HEAR NOISE COMING FROM THE CONDENSER BAY AREA.
3. EMERGENCY BEARING OIL PUMP IS RUNNING.
4. THERE ARE NO FIRES PRESENT OR SMOKE IN THIS AREA.

ON ELEVATION 77' (NORTH END)

1. THERE IS LIMITED LIGHTING IN THE AREA.
2. THERE ARE NO FIRES IN THE AREA
3. SIGNIFICANT NOISE APPEARS TO BE COMING FROM THE CONDENSER BAY.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

(REFER TO SUPPLEMENTAL SCENARIOS #7.06)

1. ISSUE THE APPROPRIATE INFORMATION TO THE EQUIPMENT OPERATOR AS HE MOVES THROUGH THE AREA DESCRIBED.
2. ENSURE THE EQUIPMENT OPERATOR PROVIDES INFO TO THE SNSS.
3. BE PREPARED TO PROVIDE ADDITIONAL INFORMATION AS NECESSARY FROM THE SUPPLEMENTAL SCENARIO.

EXPECTED ACTIONS :

1. SNSS REFERS TO ECG FOR EVENT DECLARATION AFTER RECEIVING A COMPLETE DESCRIPTION OF THE DAMAGE THAT HAS OCCURRED IN THE TURBINE BLDG
2. SNSS OBTAINS ADDITIONAL INFORMATION FROM EQUIPMENT OPERATORS DISPATCHED TO THE SWITCHYARD TO DETERMINE THE EXTENT OF DAMAGE TO THE PLANT.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 42
TO : EQUIPMENT/FIRE PROT. OPERATORS
FROM : IN PLANT REFEREE
LOCATION : VARIOUS LOCATION IN TURBINE BUILDING

REAL TIME : 10:05
DRILL TIME : 02:05

MESSAGE :
YOU HAVE JUST OBSERVED THE FOLLOWING:

ON ELEVATION 77' (SOUTH END)

1. THERE IS LIMITED LIGHTING IN THE AREA.
2. THERE ARE NO FIRES IN THE AREA.
3. THERE IS AN AUDIBLE SOUND OF WATER FLOWING AT THE DOOR LEADING TO THE PRIMARY CONDENSATE PUMP UNIT COOLERS.
4. SIGNIFICANT NOISE APPEARS TO BE COMING FROM THE CONDENSER BAY.
5. THE PRIMARY CONDENSATE PUMP AREA IS FLOODED.
6. THE PRIMARY CONDENSATE PUMPS ARE UNDER WATER. THERE APPEARS TO BE A FILM OF OIL ON TOP OF THE WATER.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

- (REFER TO SUPPLEMENTAL SCENARIOS #7.06)
1. ISSUE THE APPROPRIATE INFORMATION TO THE EQUIPMENT OPERATOR AS HE MOVES THROUGH THE AREA DESCRIBED.
 2. ENSURE THE EQUIPMENT OPERATOR PROVIDES INFO TO THE SNSS.
 3. BE PREPARED TO PROVIDE ADDITIONAL INFORMATION AS NECESSARY FROM THE SUPPLEMENTAL SCENARIO.

EXPECTED ACTIONS :

1. SNSS REFERS TO ECG FOR EVENT DECLARATION AFTER RECEIVING A COMPLETE DESCRIPTION OF THE DAMAGE THAT HAS OCCURRED IN THE TURBINE BLDG
2. SNSS OBTAINS ADDITIONAL INFORMATION FROM EQUIPMENT OPERATORS DISPATCHED TO THE SWITCHYARD TO DETERMINE THE EXTENT OF DAMAGE TO THE PLANT.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 43
TO : SHIFT ELECTRICIAN
FROM : IN PLANT REFEREE
LOCATION : AUXILIARY BUILDING, ELEVATION 130'

REAL TIME : 10:07
DRILL TIME : 02:07

MESSAGE :

IN THE "B" VITAL BUS SWITCHGEAR ROOM, YOU OBSERVE THE FOLLOWING:
THE NORMAL AND ALTERNATE FEEDERS FOR THE "B" 4160 VAC VITAL
BUS ARE TRIPPED.
THE "B" CHANNEL LOP SEQUENCER HAS INITIATED.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

(REFER TO SUPPLEMENTAL SCENARIO #7.07)

1. ISSUE THIS MESSAGE TO THE SHIFT ELECTRICIAN AS HE EVALUATES THE CURRENT STATUS OF THE "B" VITAL BUS.
2. ENSURE THAT INDICATIONS ARE REPORTED TO THE OSCC/SNSS.

EXPECTED ACTIONS :

1. SHIFT ELECTRICIAN ACKNOWLEDGES THAT THE NORMAL AND ALTERNATE FEEDER BREAKER FOR THE "B" VITAL BUS ARE TRIPPED.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 43C
TO : CONTROL ROOM STAFF
FROM : SIMULATOR REFEREE
LOCATION : SIMULATOR (HOPE CREEK)

REAL TIME : 10:10
DRILL TIME : 02:10

MESSAGE :

THIS IS A CONTINGENCY MESSAGE

YOU SHOULD DISPATCH AN EQUIPMENT OPERATOR TO SECURE THE
FOLLOWING 250 VDC OIL PUMPS:

TURBINE GENERATOR EMERGENCY SEAL OIL PUMP (ESOP)
TURBINE GENERATOR EMERGENCY BEARING OIL PUMP (EBOP)
"A" RFPT EMERGENCY DC OIL PUMP
"B" RFPT EMERGENCY DC OIL PUMP
"C" RFPT EMERGENCY DC OIL PUMP

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

(REFER TO SUPPLEMENTAL SCENARIO #7.06)

1. ISSUE THIS MESSAGE ONLY IF APPEARS UNLIKELY THAT THE CONTROL ROOM STAFF IS GOING TO DISPATCH AN OPERATOR TO SECURE THE DC OIL PUMPS.
2. THIS IS NOT CRITICAL TO THE SCENARIO TIMELINE.

EXPECTED ACTIONS :

1. CONTROL ROOM CREW DISPATCHES AN EQUIPMENT OPERATOR TO OPEN THE BREAKERS FOR THE DC OIL PUMPS LOCATED IN THE TURBINE BUILDING.

6.43C

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 44
TO : EQUIPMENT OPERATOR
FROM : OSC REFEREE
LOCATION : TURBINE BUILDING, ELEVATION 102'

REAL TIME : 10:14
DRILL TIME : 02:14

MESSAGE :

AT THE 250 VDC NON 1E SWITCHGEAR 10D170, YOU HAVE SUCCESSFULLY
OPENED THE FOLLOWING DC MOTOR BREAKERS:

72-17013 TURBINE GENERATOR EMERGENCY SEAL OIL PUMP (ESOP)
72-17014 TURBINE GENERATOR EMERGENCY BEARING OIL PUMP (EBOP)
72-17021 "A" RFPT EMERGENCY OIL PUMP
72-17022 "B" RFPT EMERGENCY OIL PUMP
72-17023 "C" RFPT EMERGENCY OIL PUMP

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :
(REFER TO SUPPLEMENTAL SCENARIO #7.06)

1. ISSUE THIS MESSAGE WHEN THE EQUIPMENT OPERATOR REACHES THE 250 VDC SWITCHGEAR 10D170, LOCATED ON TURBINE BUILDING ELEVATION 102', AT THE NORTH END OF THE BUILDING AND SIMULATES OPENING EACH BREAKER.
2. ENSURE ALL VERBAL COMMUNICATIONS START WITH "THIS IS A DRILL"
3. THIS ACTIVITY IS NOT TIME CRITICAL.

EXPECTED ACTIONS :

1. EQUIPMENT OPERATOR NOTIFIES THE OSC THAT THE DC OIL PUMP MOTOR BREAKERS HAVE BEEN OPENED.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 44C
TO : SNSS
FROM : LEAD SIMULATOR REFEREE
LOCATION : SIMULATOR (HOPE CREEK)

REAL TIME : 10:15
DRILL TIME : 02:15

MESSAGE : THIS IS A CONTINGENCY MESSAGE:

YOU SHOULD DECLARE AN ALERT IN ACCORDANCE WITH ECG SECTION 13.E,
TURBINE ROTATING COMPONENT FAILURE WITH CASING PENETRATION.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

1. ISSUE THIS MESSAGE AS NEEDED TO MAINTAIN SCENARIO TIMELINE.
2. BE PREPARED TO PROVIDE MARKED UP COPIES OF ATTACHMENTS AND EPIPS FOR DRILL USE.
3. CONFER WITH THE HEAD REFEREE PRIOR TO ISSUING THIS MESSAGE.
4. THE SNSS MAY TAKE AN EXTREMELY CONSERVATIVE APPROACH TO EVENT DECLARATION AND ATTEMPT TO DECLARE A SITE AREA EMERGENCY PER ECG SECTION 13.G.

EXPECTED ACTIONS :

1. SNSS SHOULD REFER TO ECG SECTION 13.E AND DECLARE AN ALERT.
2. TSC AND OSC ACTIVATION PROCESS BEGINS.

6.44C

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 45C
TO : SNSS
FROM : LEAD SIMULATOR REFEREE
LOCATION : SIMULATOR (HOPE CREEK)

REAL TIME : 10:20
DRILL TIME : 02:20

MESSAGE : THIS IS A CONTINGENCY MESSAGE:
FOR SCENARIO CONTROL, DO NOT IMPLEMENT ACCOUNTABILITY AT THIS TIME.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

1. ISSUE THIS MESSAGE AS NEEDED TO MAINTAIN SCENARIO TIMELINE.
2. THIS IS CRITICAL TO THE DRILL TIMELINE.

EXPECTED ACTIONS :

1. SNSS DOES NOT IMPLEMENT ACCOUNTABILITY AT THIS TIME.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 45D
TO : CONTROL ROOM STAFF
FROM : SIMULATOR REFEREE
LOCATION : SIMULATOR (HOPE CREEK)

REAL TIME : 10:22
DRILL TIME : 02:22

MESSAGE :

YOU HAVE JUST RECEIVED THE FOLLOWING ALARMS AND INDICATIONS:

ALARMS:

DIESEL ENG PNL A/B/C/D C422	(OVERHEAD E4-A3)
RHR LOGIC B OUT OF SERVICE	(OVERHEAD A7-A1)
RHR LOOP B TROUBLE	(OVERHEAD A7-B1)
120VAC UPS TROUBLE	(OVERHEAD D3-E3)
125VDC SYSTEM TROUBLE	(OVERHEAD D3-F2)
DIESEL GENERATOR BRKR MALF	(OVERHEAD E4-A1)
DIESEL ENG PNL A/B/C/D C423	(OVERHEAD E4-A2)
CHILLER A/BK403 PNL A/BC 487	(OVERHEAD E5-C1)
SLC SQUIB VLV LOSS OF CONTINUITY	(OVERHEAD C1-C1)

INDICATIONS:

EDG "B" BKR OPEN LIGHT FLASHING
EDG "B" STOP LIGHT FLASHING

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

(REFER TO SUPPLEMENTAL SCENARIO # 7.08)

1. THIS MESSAGE FOR DARK BOARD DRILL CONTROL ONLY.
2. EDG "B" CANNOT BE RESTARTED FROM THE CONTROL ROOM.
3. ALSO LOST AT THIS TIME IS THE "B" SACS PUMP, "B" SSWS PUMP, DRYWELL CLR FANS, DG RM RECIRC FANS, "B" RACS PUMP, "B" TSC CHILLER AND THE "B" TSC CIRC WATER PUMP.

EXPECTED ACTIONS :

1. SNSS SHOULD DIRECT THE OSC TO RESPOND TO THE "B" EDG.
2. CR STAFF CONTINUE TO FOLLOW EOPs AND MONITOR CONTROL BOARDS.
3. NCO's RESPOND TO ALARMS AND EVALUATE ALL LOADS THAT HAVE BEEN LOST.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 46
TO : OSC TEAM LEADER
FROM : OSC REFEREE
LOCATION : AUXILIARY BUILDING, ELEVATION 130'

REAL TIME : 10:25
DRILL TIME : 02:25

MESSAGE :
YOU HAVE RECEIVED THE FOLLOWING ALARMS AND INDICATIONS:

REMOTE GENERATOR CONTROL PANEL BC423 ALARMS:
LUBE OIL PRESSURE LOW SHUTDOWN
LUBE OIL PRESSURE LOW PRE-TRIP
LUBE OIL MAKEUP TANK LEVEL LOW
REMOTE GENERATOR CONTROL PANEL BC422 ALARMS:
LOCKOUT RELAYS ACTIVATED

INDICATIONS:
REGULAR LOCKOUT RELAY TRIPPED
BACKUP LOCKOUT RELAY TRIPPED

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

- (REFER TO SUPPLEMENTAL SCENARIO #7.08)
1. ENSURE THAT INDICATIONS ARE REPORTED TO THE OSC/SNSS.
 2. DUE TO THE LOSS OF THE "B" EDG, AND DEGRADED CONDITION OF THE OFFSITE POWER SUPPLY, EDG REPAIRS SHOULD BE GIVEN A HIGH PRIORITY.
 3. IN ORDER FOR THE "B" EDG TO BE RESTARTED, THE GENERATOR LOCKOUT RELAYS AND THE SHUTDOWN RELAY MUST BE RESET.

EXPECTED ACTIONS :

1. OSC TEAM LEADER REPORTS THE PROBABLE CAUSE OF THE EDG TRIP TO THE OSC.
2. OSC INFORMS SNSS OF REASON FOR TRIP.
3. SNSS DIRECTS OSC TO INITIATE REPAIR AND CLEANUP EFFORTS.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 47
TO : OSC TEAM LEADER
FROM : OSC REFEREE
LOCATION : AUXILIARY BUILDING, ELEVATION 102', "B" EDG
REAL TIME : 10:28
DRILL TIME : 02:28

MESSAGE :

IN THE "B" EMERGENCY DIESEL GENERATOR ROOM, YOU OBSERVE THE FOLLOWING:

LUBE OIL IS OBSERVED ON THE FLOOR THROUGHOUT THE DIESEL ROOM.
THE LUBE OIL SUCTION LINE IS CRACKED AT THE CONNECTION TO THE LUBE OIL SUMP.
LUBE OIL IS CONTINUING TO FLOW OUT THE BREAK.

AT THE "B" EDG REMOTE PANEL 1BC423, YOU OBSERVE THE FOLLOWING ALARMS:

LUBE OIL PRESSURE LOW SHUTDOWN (ANNUNCIATOR F3)
LUBE OIL PRESSURE LOW PRE-TRIP (ANNUNCIATOR E3)

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

- (REFER TO SUPPLEMENTAL SCENARIO #7.08)
1. ISSUE THIS MESSAGE TO THE EQUIPMENT OPERATOR AS HE EVALUATES THE CURRENT STATUS OF THE "B" EMERGENCY DIESEL GENERATOR.
 2. ENSURE THAT INDICATIONS ARE REPORTED TO THE OSCC/SNSS.

EXPECTED ACTIONS :

1. EQUIPMENT OPERATOR ACKNOWLEDGES THAT THE "B" EDG IS TRIPPED AND THAT THE LUBE OIL SUPPLY LINE IS CRACKED.
2. EQUIPMENT OPERATOR REPORTS THE CAUSE OF THE TRIP TO THE OSCC/SNSS.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 48
TO : FIRE BRIGADE TEAM LEADER
FROM : OSC REFEREE
LOCATION : TURBINE BUILDING, ELEVATION 137'

REAL TIME : 10:30
DRILL TIME : 02:30

MESSAGE :

YOU HAVE SUCCESSFULLY EXTINGUISHED ALL FIRES BURNING IN THE
TURBINE BUILDING.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

- (REFER TO SUPPLEMENTAL SCENARIO #7.06)
1. DELIVER THIS MESSAGE TO THE FIRE BRIGADE TEAM LEADER AT 10:30.
 2. THIS MESSAGE CONCLUDES FIRE FIGHTING ACTIVITIES IN THE TURBINE BUILDING.

EXPECTED ACTIONS :

1. FIRE BRIGADE TEAM LEADER ACKNOWLEDGES THAT ALL FIRES IN THE TURBINE BUILDING HAVE BEEN EXTINGUISHED.
2. NOTIFY THE OSCC OF THE CONDITION.
3. ESTABLISH A REFLASH WATCH (SIMULATED)

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 48D
TO : CONTROL ROOM CREW
FROM : SIMULATOR REFEREE
LOCATION : SIMULATOR (HOPE CREEK)

REAL TIME : 10:51
DRILL TIME : 02:51

MESSAGE :
YOU HAVE JUST RECEIVED THE FOLLOWING ALARMS AND INDICATIONS:

ALARMS: RHR LOOP D TROUBLE (OVERHEAD A7-B2)
RHR/LPCI INJ HV-F017D OPF (CRIDS POINT D4424)

INDICATIONS:
THE OVERLOAD/POWER FAILURE AMBER LIGHT FOR THE
"D" LPCI INJECTION VALVE IS ILLUMINATED.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

1. MESSAGE FOR DARK BOARD CONTROL ONLY.
2. ENSURE NCO RESPONLS APPROPRIATELY TO ALARMS.
3. THE INSTRUMENT LINE LEAK IN THE SOUTH PIPE CHASE STARTED AT 10:02.
IT HAS CREATED A HARSH ENVIRONMENT IN THE PIPE CHASE, WHICH CREATES
A SHORT TO GROUND ON THE "D" LPCI INJECTION VALVE MOTOR AT 10:51.

EXPECTED ACTIONS :

1. CREW RECOGNIZES THAT MOTIVE POWER
HAS BEEN LOST TO THE "D" LPCI
INJECTION VALVE.
2. SNSS CONTACTS THE OSCC TO DISPATCH
A TEAM TO CHECK THE "D" LPCI
INJECTION VALVE MOTOR BREAKER.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 49C
TO : CONTROL ROOM CREW
FROM : SIMULATOR REFEREE
LOCATION : SIMULATOR (HOPE CREEK)

REAL TIME : 10:56
DRILL TIME : 02:56

MESSAGE : THIS IS A CONTINGENCY MESSAGE
YOU SHOULD CONTACT THE OSCC TO DISPATCH A TEAM TO CHECK THE
"D" LPCI INJECTION VALVE MOTOR BREAKER.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :
(REFER TO SUPPLEMENTAL SCENARIO #7.09)
1. DELIVER THIS MESSAGE ONLY IF IT APPEARS UNLIKELY THAT THE SNSS
IS NOT GOING TO CONTACT THE OSCC TO DISPATCH A TEAM TO DETERMINE
THE REASON WHY THE "D" LPCI INJECTION VALVE MOTOR BREAKER TRIPPED.

EXPECTED ACTIONS :
1. SNSS CONTACTS THE OSCC TO DISPATCH
A TEAM TO THE "D" LPCI INJECTION
VALVE MOTOR BREAKER.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 50
TO : OSC TEAM
FROM : OSC REFEREE
LOCATION : TURBINE BUILDING, ELEVATION 120'

REAL TIME : 11:00
DRILL TIME : 03:00

MESSAGE :

YOU HAVE SUCCESSFULLY COMPLETED REPAIRS TO THE 10-B-130 USS.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

(REFER TO SUPPLEMENTAL SCENARIO #7.02)

1. DELIVER THIS MESSAGE AT 11:00 ONLY IF AN OSC TEAM HAS CONTINUED REPAIR ACTIVITIES ASSOCIATED WITH THE 10-B-130 UNIT SUBSTATION AND DEMONSTRATED APPROPRIATE REPAIR ACTIVITIES.

EXPECTED ACTIONS :

1. THE OSC TEAM ACKNOWLEDGES THAT THE 10-B-130 HAS BEEN SUCCESSFULLY REPAIRED AND IS READY TO BE PLACED IN SERVICE.
2. THE OSC TEAM LEADER CONTACTS THE OSC AND PROVIDES THE INFORMATION.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 50D
TO : CONTROL ROOM STAFF
FROM : SIMULATOR REFEREE
LOCATION : SIMULATOR (HOPE CREEK)

REAL TIME : 11:02
DRILL TIME : 03:02

MESSAGE :
YOU HAVE JUST RECEIVED THE FOLLOWING ALARMS AND INDICATIONS:

ALARMS:

EXCESS FLOW CHECK VALVE CLOSED (OVERHEAD D1-C3)
RCP BC204 EX FL CHK V CH B/W/X (CRIDS POINT D5825)

INDICATIONS:

"B" CHANNEL FUEL ZONE LEVEL INSTRUMENTATION FAILED DOWNSCALE.
#5 JET PUMP FLOW INDICATION FAILED LOW.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

1. MESSAGE FOR DARK BOARD CONTROL ONLY.
2. THE LEAK ON THE "B" CHANNEL FUEL ZONE VARIABLE LEG CAUSES FLOW TO EXCEED 5 GPM, AND THE ASSOCIATED CHECK VALVE GOES CLOSED, CAUSING THE INSTRUMENT TO FAIL DOWNSCALE.
3. ENSURE NCO RESPONDS TO ALARMS APPROPRIATELY.

EXPECTED ACTIONS :

1. CONTROL ROOM STAFF RECOGNIZES ALARM FOR CLOSURE OF AN EXCESS FLOW CHECK VALVE.
2. SNSS CONTACTS THE OSCC TO DISPATCH A TEAM TO THE 1BC204 PANEL TO DETERMINE WHICH EXCESS FLOW CHECK VALVE HAS CLOSED.
3. NSTA AND NCO COORDINATED EFFORTS TO DETERMINE INSTRUMENTATION EFFECTED BY CLOSURE OF THE EXCESS FLOW CHECK VALVE.

6.50D

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 51
TO : OSC TEAM
FROM : OSC REFEREE
LOCATION : REACTOR BUILDING, ELEVATION 77'

REAL TIME : 11:04
DRILL TIME : 03:04

MESSAGE :

AT MOTOR CONTROL CENTER 10-B-242, YOU OBSERVE THE FOLLOWING:
"D" LPCI INJECTION VALVE MOTOR BREAKER (52-242052) IS FOUND
TRIPPED.
ATTEMPTS TO RESET THE BREAKER ARE UNSUCCESSFUL.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

(REFER TO SUPPLEMENTAL SCENARIO #7.09)

1. ISSUE THIS MESSAGE AFTER THE OSC TEAM ARRIVES AT THE 10-B-242 MOTOR CONTROL CENTER.
2. USE DID PHONE EXTENSION 3339 OR RADIO TO CONTACT THE CONTROL ROOM.
3. ALL VERBAL COMMUNICATIONS MUST START WITH "THIS IS A DRILL".

EXPECTED ACTIONS :

1. OSC TEAM ACKNOWLEDGES THAT THE "D" LPCI INJECTION VALVE MOTOR BREAKER IS TRIPPED AND WILL NOT RESET.
2. OSC TEAM REPORTS THE FINDINGS TO THE OSC COORDINATOR.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 52C
TO : SNSS
FROM : SIMULATOR REFEREE
LOCATION : SIMULATOR (HOPE CREEK)

REAL TIME : 11:08
DRILL TIME : 03:08

MESSAGE : THIS IS A CONTINGENCY MESSAGE

DIRECT THE OSCC TO DISPATCH AN OPERATOR TO EXCESS FLOW
CHECK VALVE PANEL 1BC204 TO INVESTIGATE.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

- (REFER TO SUPPLEMENTAL SCENARIO #7.10)
1. ISSUE THIS MESSAGE AS NEEDED TO MAINTAIN SCENARIO TIMELINE.
 2. THE LEAK ON THE "B" CHANNEL FUEL ZONE LEVEL INSTRUMENT VARIABLE LEG IN THE SOUTH PIPE CHASE, HAS RESULTED IN CLOSURE OF EXCESS FLOW CHECK VALVE 1BBXV-3734B, AS LEAKAGE EXCEEDS 5 GPM.

EXPECTED ACTIONS :

1. SNSS DIRECTS OSCC TO DISPATCH AN OSC TEAM TO EXCESS FLOW CHECK VALVE PANEL 1BC204.
2. NSTA REVIEWS P&IDS TO DETERMINE INSTRUMENTATION EFFECTED BY THE CLOSURE OF EXCESS FLOW CHECK VALVE 1BBXV-3734B.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 53
TO : OSC TEAM
FROM : OSC REFEREE
LOCATION : REACTOR BUILDING, ELEVATION 102'

REAL TIME : 11:15
DRILL TIME : 03:15

MESSAGE : "THIS IS A DRILL, THIS IS A DRILL"

AT PANEL 1BC204, YOU OBSERVE THAT EXCESS FLOW CHECK VALVE
1BBXV-3734B IS CLOSED.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

(REFER TO SUPPLEMENTAL SCENARIO #7.10)

1. ISSUE THIS MESSAGE AS THE OPERATOR REACHES THE 1BC204 PANEL.
2. THE LEAK ON THE "B" CHANNEL FUEL ZONE LEVEL INSTRUMENT VARIABLE LEG HAS RESULTED IN THE CLOSURE OF EXCESS FLOW CHECK VALVE 1BBXV-3734B. CLOSURE OF THE VALVE CAUSES "B" CHANNEL FUEL ZONE LEVEL INDICATION TO FAIL DOWNSCALE.
3. ALL VERBAL COMMUNICATIONS MUST START WITH "THIS IS A DRILL".

EXPECTED ACTIONS :

1. THE OPERATOR ACKNOWLEDGES THAT EXCESS FLOW CHECK VALVE 1BBXV-3734B IS CLOSED AND INFORMS THE OSC.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 54
TO : OSC TEAM
FROM : OSC REFEREE
LOCATION : REACTOR BUILDING, ELEVATION 102'

REAL TIME : 11:20
DRILL TIME : 03:20

MESSAGE :

AT THE ENTRANCE TO THE SOUTH PIPE CHASE, YOU OBSERVE THE FOLLOWING:

THE DOOR IS HOT TO THE TOUCH.
UPON OPENING THE DOOR, A LARGE RUSH OF STEAM LEAVES THE PIPE CHASE.
CONTAMINATION LEVELS INSIDE THE PIPE CHASE ARE EXTREMELY HIGH. (SEE SURVEY MAP)

DOOR IS IMMEDIATELY AND SUCCESSFULLY RECLOSED AFTER IT WAS CRACKED OPEN.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

- (REFER TO SUPPLEMENTAL SCENARIO #7.10)
1. ISSUE THIS MESSAGE ONLY IF DRILL PLAYERS RECOGNIZE THE CORRELATION BETWEEN THE LOSS OF POWER TO THE "D" LPCI INJECTION VALVE AND THE CLOSURE OF EXCESS FLOW CHECK VALVE 1BBXV-3734B, AND SUBSEQUENTLY DISPATCH A TEAM TO THE SOUTH PIPE CHASE TO INVESTIGATE.
 2. ALL VERBAL COMMUNICATIONS MUST START WITH "THIS IS A DRILL".

EXPECTED ACTIONS :

1. THE OSC TEAM ACKNOWLEDGES THE CONDITIONS IN THE SOUTH PIPE CHASE AND INFORMS THE OSCC.
2. THE TEAM DOES NOT ATTEMPT TO ENTER THE SOUTH PIPE CHASE AT THIS TIME.
3. THE NSTA SHOULD REQUEST ASSISTANCE FROM THE TSC ENGINEERING STAFF IN ATTEMPTING TO IDENTIFY POTENTIAL CORRELATIONS BETWEEN THE STEAM LEAK IN THE SOUTH PIPE CHASE AND THE OVLD/PWR FAILURE CONDITION ON THE "D" LPCI INJECTION VALVE.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 55D
TO : CONTROL ROOM STAFF
FROM : SIMULATOR REFEREE
LOCATION : SIMULATOR (HOPE CREEK)

REAL TIME : 11:33
DRILL TIME : 03:33

MESSAGE :
YOU HAVE JUST RECEIVED A REFLASH OF THE FOLLOWING ALARMS:

ALARMS:

RPV LOOSE PARTS MON PNL 10-C-675 (OVERHEAD C6-A5)
RPV LPM IMPACT VIB LVL (CRIDS POINT D5457)

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

(REFER TO SUPPLEMENTAL SCENARIO #7.03)

1. MESSAGE FOR DARK BOARD CONTROL ONLY.
2. OPERATORS RESPONDED TO THE LOOSE PARTS MONITOR ALARM PANEL AND INFORM THE SNSS TO CONTACT THE OSCC TO DISPATCH A TEAM TO INVESTIGATE.

EXPECTED ACTIONS :

1. SNSS RECOGNIZES THE POSSIBLE PRESENCE OF A LOOSE PART IN THE REACTOR VESSEL DUE TO A REFLASH OF THE LOOSE PARTS MONITOR OVERHEAD ALARM AND CONTACTS THE OSC TO DISPATCH A TEAM.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 56D
TO : CONTROL ROOM STAFF
FROM : SIMULATOR REFEREE
LOCATION : SIMULATOR (HOPE CREEK)

REAL TIME : 11:35
DRILL TIME : 03:35

MESSAGE :
YOU HAVE JUST RECEIVED THE FOLLOWING ALARMS:

REACTOR SCRAM TRIP LOGIC A1	(OVERHEAD C3-A2)
REACTOR SCRAM TRIP LOGIC A2	(OVERHEAD C3-A3)
REACTOR SCRAM TRIP LOGIC B1	(OVERHEAD C3-A4)
REACTOR SCRAM TRIP LOGIC B2	(OVERHEAD C3-A5)
RPV LEVEL 4	(OVERHEAD A7-C5)
RPV LEVEL 3	(OVERHEAD A7-D5)
RPV LEVEL 2	(OVERHEAD A7-E5)
RPV LEVEL 1	(OVERHEAD A7-F5)
ADS CH B INITIATION PENDING	(OVERHEAD C1-B4)
ADS CH D INITIATION PENDING	(OVERHEAD C1-B5)
DRYWELL PRESSURE HI/HI	(OVERHEAD A7-D4)
DRYWELL PRESSURE HI/LO	(OVERHEAD A7-E4)

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

1. THIS MESSAGE FOR DARK BOARD DRILL CONTROL ONLY.
2. ALARMS AND INDICATIONS ARE LIMITED TO KEY INDICATIONS.
3. ENSURE NCO RESPONDS TO ALARMS APPROPRIATELY.

EXPECTED ACTIONS :

1. NSS ENTERS EOP 101 AND 102 FOR RPV CONTROL AND CONTAINMENT CONTROL.
2. SNSS NOTIFIES THE EDO AND RECOMMENDS APPROPRIATE ESCALATION OF THE EMERGENCY CLASSIFICATION.
3. NCOS VERIFY PROPER RESPONSE OF ECCS AND NOTIFY THE NSS OF ANY MALFUNCTIONS.
4. NSS ASSESSES AVAILABLE INJECTION SOURCES.

6.56D

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 57D
TO : CONTROL ROOM STAFF
FROM : SIMULATOR REFEREE
LOCATION : SIMULATOR (HOPE CREEK)

REAL TIME : 11:35
DRILL TIME : 03:35

MESSAGE :
YOU HAVE JUST RECEIVED THE FOLLOWING ALARMS AND INDICATIONS:

ALARMS:

DRYWELL SUMP LEVEL HI/LO	(OVERHEAD D3-C3)
CORE SPRAY PUMP D AUTO START	(OVERHEAD B3-A4)
RHR PUMP A AUTO START	(OVERHEAD A6-B3)
RHR PUMP C AUTO START	(OVERHEAD A6-B4)
RHR PUMP D AUTO START	(OVERHEAD A7-B4)
RPV WATER LEVEL LO	(OVERHEAD C5-A4)
DRYWELL PRESSURE HI	(OVERHEAD C5-B5)
RADIATION MONITORING ALARM/TRBL	(OVERHEAD C6-A2)
DLD SYSTEM ALARM/TRBL	(OVERHEAD C6-B1)
RADIATION MONITORING ALARM/TRBL	(OVERHEAD C6-C1)

INDICATIONS:
ALL PRIMARY CONTAINMENT ISOLATION VALVES HAVE CLOSED, WITH
THE EXCEPTION OF 1SKHV-5018, WHICH INDICATES DUAL POSITION.

* THIS IS A DRILL ! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

1. THIS MESSAGE FOR DARK BOARD DRILL CONTROL ONLY.
2. ALARMS AND INDICATIONS ARE LIMITED TO KEY INDICATIONS.
3. ENSURE NCO RESPONDS TO ALARMS APPROPRIATELY.

EXPECTED ACTIONS :

1. NSS ENTERS EOP 101 AND 102 FOR
RPV CONTROL AND CONTAINMENT CONTROL.
2. SNSS NOTIFIES THE EDO AND RECOMMENDS
APPROPRIATE ESCALATION OF THE
EMERGENCY CLASSIFICATION.
3. NCOS VERIFY PROPER RESPONSE OF
ECCS AND NOTIFY THE NSS OF ANY
MALFUNCTIONS.
4. NSS ASSESSES AVAILABLE INJECTION
SOURCES.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 58D
TO : CONTROL ROOM STAFF
FROM : SIMULATOR REFEREE
LOCATION : SIMULATOR (HOPE CREEK)

REAL TIME : 11:35
DRILL TIME : 03:35

MESSAGE :
YOU HAVE JUST RECEIVED THE FOLLOWING ALARMS AND INDICATIONS:

ALARMS:

RHR LOGIC A OUT OF SERVICE
RHR PUMP AP202 OUT OF SERVICE

(OVERHEAD A6-A1)
(CRIDS POINT D4505)

INDICATIONS:

THE RED "PUMP A RUNNING" LIGHT IS EXTINGUISHED.
THE GREEN "STOPPED" LIGHT IS ILLUMINATED.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

(REFER TO SUPPLEMENTAL SCENARIO #7.11)

1. THIS MESSAGE FOR DARK BOARD CONTROL ONLY.
2. ENSURE NCO RESPONDS TO ALARMS APPROPRIATELY.
3. THE "A" RHR PUMP WILL MOST LIKELY BE IN TORUS COOLING WHEN THE LARGE BREAK LOCA OCCURS. THE PUMP WILL TRIP AS A PIECE OF THE IMPELLER BREAKS OFF AND BECOMES LODGED BETWEEN THE IMPELLER AND THE PUMP CASING.

EXPECTED ACTIONS :

1. THE CONTROL ROOM RECOGNIZES THAT THE "A" RHR HAS TRIPPED AND IS NOT AVAILABLE TO INJECT TO THE VESSEL IN THE LPCI MODE.
2. THE SNSS DIRECTS THE OSCC TO DISPATCH A TEAM TO INVESTIGATE.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 59C
TO : SNSS
FROM : SIMULATOR REFEREE
LOCATION : SIMULATOR (HOPE CREEK)

REAL TIME : 11:42
DRILL TIME : 03:42

MESSAGE :

THIS IS A CONTINGENCY MESSAGE

YOU SHOULD DIRECT THE OSCC TO DISPATCH A TEAM TO INVESTIGATE
THE CAUSE OF THE TRIP OF THE "A" RHR PUMP.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

(REFER TO SUPPLEMENTAL SCENARIO #7.11)

1. ISSUE THIS MESSAGE ONLY IF IT APPEARS UNLIKELY THAT THE SNSS IS GOING TO DIRECT THE OSCC TO DISPATCH A TEAM TO THE INVESTIGATE THE CAUSE OF THE TRIP OF THE "A" RHR PUMP.
2. THIS IS CRITICAL TO THE SCENARIO TIMELINE.

EXPECTED ACTIONS :

1. THE SNSS DIRECTS THE OSCC TO DISPATCH A TEAM TO INVESTIGATE THE "A" RHR PUMP TRIP.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 59D
TO : CONTROL ROOM CREW
FROM : SIMULATOR REFEREE
LOCATION : SIMULATOR (HOPE CREEK)

REAL TIME : 11:45
DRILL TIME : 03:45

MESSAGE :
YOU HAVE RECEIVED THE FOLLOWING INDICATIONS:

"C" RHR PUMP FLOW, WHICH STARTED AT 10000 GPM IN THE LPCI
MODE, HAS BEGUN TO SLOWLY DECREASE.
"C" LPCI INJECTION VALVE (F017C) INDICATES FULL OPEN.
TORUS TEST RETURN VALVE (F010A) INDICATES FULL CLOSED.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

(REFER TO SUPPLEMENTAL SCENARIO #7.13)

1. MESSAGE FOR DARK BOARD CONTROL ONLY.
2. ENSURE NCO RESPONDS APPROPRIATELY TO ALARMS.
3. AS A RESULT OF THE LOCA INSIDE THE DRYWELL, DEBRIS IS BEING
GENERATED BY THE RPV DEPRESSURATION AND IS BEING CARRIED INTO THE
TORUS, WHERE IT HAS BEGUN TO PLUG THE ECCS SUCTION STRAINERS FOR
THE OPERATING PUMPS.

EXPECTED ACTIONS :

1. CONTROL CREW RECOGNIZES THAT THE
"C" RHR PUMP SUCTION STRAINER IS
BEGINNING TO PLUG.
2. THE SNSS DIRECTS THE OSCC TO DISPATCH
A TEAM TO IMPLEMENT OF-AB.72-0155,
DEGRADED ECCS PERFORMANCE.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 60 REAL TIME : 11:47
TO : OSC TEAM DRILL TIME : 03:47
FROM : OSC REFEREE
LOCATION : AUXILIARY BUILDING, "A" VITAL BUS SWITCHGEAR

MESSAGE :

AT THE "A" RHR PUMP MOTOR BREAKER (52-40106), YOU OBSERVE THE FOLLOWING:

THE BREAKER OVERCURRENT RELAY DEVICE (51) HAS ACTUATED.

ATTEMPTS TO RESET THE DEVICE ARE UNSUCCESSFUL.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

(REFER TO SUPPLEMENTAL SCENARIO #7.11)

1. DELIVER THIS MESSAGE WHEN THE TEAM ARRIVES AT THE MOTOR BREAKER FOR THE "A" RHR PUMP.
2. ATTEMPTS TO RESET THE OVERCURRENT DEVICE ARE UNSUCCESSFUL.

EXPECTED ACTIONS :

1. OSC TEAM ACKNOWLEDGES THE STATUS OF THE "A" RHR PUMP MOTOR BREAKER AND INFORMS THE OSC.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 60C
TO : SNSS
FROM : LEAD SIMULATOR REFEREE
LOCATION : SIMULATOR (HOPE CREEK)

REAL TIME : 11:49
DRILL TIME : 03:49

MESSAGE : THIS IS A CONTINGENCY MESSAGE

YOU SHOULD IMPLEMENT OP-AB.ZZ-0155, DEGRADED ECCS PERFORMANCE
AS NEEDED FOR DEGRADED ECCS PUMP FLOW.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

(REFER TO SUPPLEMENTAL SCENARIO #7.13)

1. DELIVER THIS MESSAGE AS NEEDED.
2. CURRENT AVAILABILTY OF RHR PUMP COUPLED WITH THE RESTORATION OF THE "A" RHR PUMP WILL DETERMINE WHEN THE CREW IS ABLE TO SECURE AN RHR PUMP FOR BACKWASHING PURPOSES, WHILE MAINTAINING ADEQUATE CORE COOLING BY CORE SUBMERGENCE.

EXPECTED ACTIONS :

1. AS PRACTICAL, RHR PUMPS CAN BE REMOVED FROM SERVICE FOR BACKWASHING OF THE ASSOCIATED SUCTION STRAINER.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 61D
TO : CONTROL ROOM CREW
FROM : SIMULATOR REFEREE
LOCATION : SIMULATOR (HOPE CREEK)

REAL TIME : 11:50
DRILL TIME : 03:50

MESSAGE :

WHEN THE CLOSED PUSHBUTTON FOR DRYWELL GASEOUS ATMOSPHERIC SAMPLE VALVE, 1SKHV-5018 IS DEPRESSED, THE VALVE DOES NOT STROKE CLOSED.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

1. MESSAGE FOR DARK BOARD CONTROL ONLY.
2. ENSURE NCO RESPONDS TO ALARMS APPROPRIATELY.
3. ISSUE THIS MESSAGE ONLY IF CONTROL ROOM CREW ATTEMPTS TO CLOSE 1SKHV-5018 FROM THE CONTROL ROOM.
4. THE BAILEY CARD ASSOCIATED WITH THE CONTROLS FOR THIS VALVE HAS FAILED AND REQUIRES REPLACEMENT.

EXPECTED ACTIONS :

1. CONTROL ROOM CREW ACKNOWLEDGES THAT 1SKHV-5018 FAILS TO CLOSE FROM THE CONTROL ROOM.
2. SNSS NOTIFIES THE TSC OF THE CONDITION AND REQUEST ENGINEERS DEVELOP A TROUBLESHOOTING PLAN.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 62
TO : OSC TEAM
FROM : OSC REFEREE
LOCATION : REACTOR BUILDING, ELEVATION 162'

REAL TIME : 11:50
DRILL TIME : 03:50

MESSAGE

WHEN YOU ARRIVE AT THE DRYWELL GASEOUS ATMOSPHERIC SAMPLE SKID,
YOU OBSERVE THE FOLLOWING:

- 1-SK-V004, DW SAMPLE SKID SUPPLY MANUAL ISOLATION VALVE IS OPEN.
- 1-SK-V007, DW SAMPLE SKID RETURN MANUAL ISOLATION VALVE IS OPEN.
- 1SKHV-5018, DW SAMPLE SKID SUPPLY MOV IS PARTIALLY OPEN
- 1SKHV-4953, DW SAMPLE SKID SUPPLY MOV IS CLOSED.
- 1SKHV-4957, DW SAMPLE SKID RETURN MOV IS CLOSED.
- 1SKHV-4981, DW SAMPLE SKID RETURN MOV IS CLOSED.

IN ADDITION, THE SAMPLE PUMP (10-P-270) IS NOT OPERATING.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

(REFER TO SUPPLEMENTAL SCENARIO #7.12)

1. DELIVER THIS MESSAGE ONLY IF THE OSCC DISPATCHES A TEAM TO DETERMINE THE STATUS OF THE SYSTEM.
2. UPON RECEIPT OF THE LOCA LEVEL 1 SIGNAL, THREE OF THE FOUR DRYWELL GASEOUS ATMOSPHERIC SAMPLE VALVES HAVE CLOSED. THE INBOARD SUPPLY VALVE, 1SKHV-5018 IS IN A DUAL POSITION.
3. THE SNSS/OSCC SHOULD MAKE ISOLATION OF THIS PENETRATION A HIGH PRIORITY.

EXPECTED ACTIONS :

1. IF THE SNSS RECOGNIZES THE FAILURE OF THE PRIMARY CONTAINMENT ISOLATION VALVE TO CLOSE (1SKHV-5018), THEN HE SHOULD DIRECT THE OSC TO DISPATCH A TEAM TO RESPOND.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 63C
TO : EDO / SNSS
FROM : LEAD REFEREE
LOCATION : TSC / CONTROL ROOM

REAL TIME : 11:55
DRILL TIME : 03:55

MESSAGE :

THIS IS A CONTINGENCY MESSAGE:

YOU SHOULD DECLARE A SITE AREA EMERGENCY PER ECG SECTION 1.D,
LOSS OF COOLANT ACCIDENT GREATER THAN MAKEUP.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

1. ISSUE THIS MESSAGE ONLY IF THE EDO / SNSS ARE NOT IN THE PROCESS OF CLASSIFYING THE EVENT.
2. CONFER WITH HEAD REFEREE PRIOR TO ISSUING.

EXPECTED ACTIONS :

1. DECLARE A SITE AREA EMERGENCY.
2. IMPLEMENT ECG ATTACHMENT 3.
3. IMPLEMENT EPIP 103H.
4. IMPLEMENT ACCOUNTABILITY (LIMITED)

6.63C

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 64D
TO : CONTROL ROOM CREW
FROM : SIMULATOR REFEREE
LOCATION : SIMULATOR (HOPE CREEK)

REAL TIME : 11:55
DRILL TIME : 03:55

MESSAGE :

YOU HAVE RECEIVED THE FOLLOWING INDICATIONS:

"C" RHR PUMP FLOW IS CURRENTLY 4000 GPM AND DECREASING.
"C" LPCI INJECTION VALVE (F017C) INDICATES FULL OPEN.
TORUS TEST RETURN VALVE (F010A) INDICATES FULL CLOSED.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

(REFER TO SUPPLEMENTAL SCENARIO #7.13)

1. MESSAGE FOR DARK BOARD CONTROL ONLY.
2. ENSURE NCO RESPONDS APPROPRIATELY TO ALARMS.
3. AS A RESULT OF THE LOCA INSIDE THE DRYWELL, DEBRIS IS BEING GENERATED BY THE RPV DEPRESSURATION AND IS BEING CARRIED INTO THE TORUS, WHERE IT HAS BEGUN TO PLUG THE ECCS SUCTION STRAINERS FOR THE OPERATING PUMPS.

EXPECTED ACTIONS :

1. CONTROL CREW RECOGNIZES THAT THE "C" RHR PUMP SUCTION STRAINER IS PLUGGING.
2. THE SNSS DIRECTS THE OSCC TO DISPATCH A TEAM TO IMPLEMENT OP-AB.ZZ-0155, DEGRADED ECCS PERFORMANCE

6.64D

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 65
TO : OSC TEAM MEMBERS
FROM : OSC REFEREE
LOCATION : REACTOR BUILDING, ELEVATION 54'

REAL TIME : 11:56
DRILL TIME : 03:56

MESSAGE :

AT THE "C" RHR PUMP SUCTION LINE PRESSURE INDICATOR,
1BCPI-R002C, "C" RHR PUMP SUCTION PRESSURE IS CURRENTLY
3.2 PSI.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

- (REFER TO SUPPLEMENTAL SCENARIO #7.13)
1. ISSUE THIS MESSAGE ONLY IF A TEAM IS DISPATCHED TO THE PRESSURE INDICATOR TO DETERMINE WHAT "C" RHR PUMP SUCTION PRESSURE IS.
 2. DELIVER THIS MESSAGE AS TEAM MEMBERS READ THE SUCTION PRESSURE INDICATOR.

EXPECTED ACTIONS :

1. OSC TEAM DETERMINE THE SUCTION PRESSURE FOR THE "C" RHR PUMP.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 66
TO : OSC TEAM
FROM : OSC REFEREE
LOCATION : REACTOR BUILDING, ELEVATION 162'

REAL TIME : 12:00
DRILL TIME : 04:00

MESSAGE :

ATTEMPTS TO MANUALLY CLOSE THE 1-SK-V004 ARE UNSUCCESSFUL, DUE TO A BENT STEM.

ATTEMPTS TO MANUALLY CLOSE THE 1-SK-V007 ARE SUCCESSFUL.

ATTEMPTS TO MANUALLY CLOSE THE 1SKHV-5018 ARE UNSUCCESSFUL, AS THE DECLUTCH FAILS TO DECLUTCH THE MOTOR OPERATOR.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

(REFER TO SUPPLEMENTAL SCENARIO #7.12)

1. DELIVER THIS MESSAGE FOR EACH ACTION THAT IS ATTEMPTED. DO NOT PROVIDE THE INFORMATION IF NO ATTEMPT IS MADE.
2. FAILURE OF THE INBOARD SUPPLY ISOLATION VALVE TO FULLY CLOSE ON THE LOCA LEVEL 1 SIGNAL, RESULTS IN THE REQUIREMENT FOR MANUAL CLOSURE.
3. THE SNSS AND OSCC SHOULD PURSUE ISOLATION OF THE PENETRATION AT THIS TIME.
4. THIS IS CRITICAL TO THE SCENARIO TIMELINE.

EXPECTED ACTIONS :

1. IF THE CREW RECOGNIZES THE FAILURE OF THE PRIMARY CONTAINMENT ISOLATION VALVE TO CLOSE, THEN AN OSC TEAM SHOULD BE DISPATCHED TO INVESTIGATE.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 67C
TO : CONTROL ROOM CREW
FROM : SIMULATOR REFEREE
LOCATION : SIMULATOR (HOPE CREEK)

REAL TIME : 12:10
DRILL TIME : 04:10

MESSAGE : THIS IS A CONTINGENCY MESSAGE

YOU SHOULD DIRECT THE OSCC TO DISPATCH A TEAM TO TROUBLESHOOT
THE FAILURE OF 1SKHV-5018 TO CLOSE.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :
(REFER TO SUPPLEMENTAL SCENARIO #7.12)
1. ISSUE THIS MESSAGE ONLY AS NEEDED TO MAINTAIN THE SCENARIO
TIMELINE.

EXPECTED ACTIONS :
1. SNSS CONTACTS THE OSCC TO DISPATCH
A TEAM.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 68D
TO : CONTROL ROOM STAFF
FROM : SIMULATOR REFEREE
LOCATION : SIMULATOR (HOPE CREEK)

REAL TIME : 12:15
DRILL TIME : 04:15

MESSAGE :
YOU HAVE JUST RECEIVED THE FOLLOWING ALARMS AND INDICATIONS:

ALARMS:

RHR LOGIC C OUT OF SERVICE (OVERHEAD A6-A2)
RHR PUMP CP202 OUT OF SERVICE (CRIDS POINT D4507)

INDICATIONS:

THE RED "PUMP A RUNNING" LIGHT IS EXTINGUISHED.
THE GREEN "STOPPED" LIGHT IS ILLUMINATED.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

1. THIS MESSAGE FOR DARK BOARD CONTROL ONLY.
2. ENSURE NCO RESPONDS TO ALARMS APPROPRIATELY.
3. THE "C" RHR PUMP HAS TRIPPED AS A RESULT OF CONTINUED OPERATION WITH A PLUGGED ECCS SUCTION STRAINER.
4. THE TIMING OF THIS MALFUNCTION WILL BE AT THE DIRECTION OF THE LEAD SIMULATOR REFEREE, BASED ON REACTOR WATER LEVEL.

EXPECTED ACTIONS :

1. THE CONTROL ROOM RECOGNIZES THAT THE "C" RHR HAS TRIPPED AND IS NOT AVAILABLE TO INJECT TO THE VESSEL IN THE LPCI MODE.
2. THE SNSS DIRECTS THE OSCC TO DISPATCH A TEAM TO INVESTIGATE.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 69C
TO : SNSS
FROM : SIMULATOR REFEREE
LOCATION : SIMULATOR (HOPE CREEK)

REAL TIME : 12:20
DRILL TIME : 04:20

MESSAGE :

THIS IS A CONTINGENCY MESSAGE

YOU SHOULD DIRECT THE OSCC TO DISPATCH A TEAM TO INVESTIGATE
THE CAUSE OF THE TRIP OF THE "C" RHR PUMP.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

(REFER TO SUPPLEMENTAL SCENARIO #7.14)

1. ISSUE THIS MESSAGE ONLY IF IT APPEARS UNLIKELY THAT THE SNSS IS GOING TO DIRECT THE OSCC TO DISPATCH A TEAM TO THE INVESTIGATE THE CAUSE OF THE TRIP OF THE "C" RHR PUMP.
2. THIS IS CRITICAL TO THE SCENARIO TIMELINE.

EXPECTED ACTIONS :

1. THE SNSS DIRECTS THE OSCC TO DISPATCH A TEAM TO INVESTIGATE THE "C" RHR PUMP TRIP.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 70
TO : OSC TEAM
FROM : OSC REFEREE
LOCATION : AUXILIARY BUILDING, "C" VITAL BUS SWITCHGEAR

REAL TIME : 12:23
DRILL TIME : 04:23

MESSAGE :

AT THE "C" RHR PUMP MOTOR BREAKER (52-40306), YOU OBSERVE THE FOLLOWING:

THE BREAKER OVERCURRENT RELAY DEVICE (51) HAS ACTUATED.

ATTEMPTS TO RESET THE DEVICE ARE UNSUCCESSFUL.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

(REFER TO SUPPLEMENTAL SCENARIO #7.14)

1. DELIVER THIS MESSAGE WHEN THE TEAM ARRIVES AT THE MOTOR BREAKER FOR THE "C" RHR PUMP.
2. ATTEMPTS TO RESET THE OVERCURRENT DEVICE ARE SUCCESSFUL.

EXPECTED ACTIONS :

1. OSC TEAM ACKNOWLEDGES THE STATUS OF THE "C" RHR PUMP MOTOR BREAKER AND INFORMS THE OSC.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 71
TO : DRILL REFEREES
FROM : LEAD REFEREES
LOCATION : SIMULATOR / TSC / EOF

REAL TIME : 12:45
DRILL TIME : 04:45

MESSAGE :

THIS MESSAGE IS FOR REFEREE INFORMATION ONLY.
SEE EXPLANATION BELOW.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :
THIS REFEREE MESSAGE IS BEING PROVIDED TO INCORPORATE WHAT THE
APPROPRIATE PAR WOULD BE IF THE EMERGENCY COORDINATOR DECLARES THE
GENERAL EMERGENCY BASED ON HIS JUDGEMENT THAT THE THIRD FISSION
PRODUCT BOUNDARY HAS FAILED.

EXPECTED ACTIONS :
AT APPROXIMATELY 12:45, THE DAPA
MONITORS WILL EXCEED 200 R/HR, WHICH IS
INDICATION OF A LOSS OF THE FUEL CLAD
BARRIER. BASED ON EMERGENCY COORDINATOR
JUDGEMENT, A GENERAL EMERGENCY COULD BE
DECLARED AT THIS TIME. IF A GENERAL
EMERGENCY IS DECLARED, THE EXPECTED
PAR IS AS FOLLOWS:

EVACUATE ALL SECTORS 0 - 5 MILES

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 72C
TO : CHEMISTRY SUPERVISOR - TSC
FROM : TSC RAD PRO REFEREE
LOCATION : HOPE CREEK TSC

REAL TIME : 12:45
DRILL TIME : 04:45

MESSAGE : THIS IS A CONTINGENCY MESSAGE

YOU SHOULD REQUEST THE CHEMISTRY SUPERVISOR AT THE CONTROL POINT
TO HAVE A PASS SAMPLE TAKEN AT THIS TIME.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

1. ISSUE THIS MESSAGE AS NEEDED TO HAVE THE CHEMISTRY SUPERVISOR IN THE TSC DIRECT THE CHEMISTRY SUPERVISOR AT THE CONTROL POINT TO HAVE A PASS SAMPLE TAKEN.
2. THE PASS SAMPLE WILL BE TAKEN FROM RHR.

EXPECTED ACTIONS :

1. THE CHEMISTRY SUPERVISOR IN THE TSC REQUESTS A PASS SAMPLE BE TAKEN.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 73
TO : OSC TEAM
FROM : OSC REFEREE
LOCATION : REACTOR BUILDING, ELEVATION 162'

REAL TIME : 12:50
DRILL TIME : 04:50

MESSAGE :

ATTEMPTS TO CLOSE THE 1-SK-V004 ARE INITIALLY UNSUCCESSFUL DUE TO THE VALVE STEM BEING BENT.

THE OSC TEAM HAS BEEN ABLE TO STRAIGHTEN THE STEM TO SOME DEGREE, ALLOWING THE STEM TO MOVE. HOWEVER, SIGNIFICANT AMOUNT OF RESISTANCE IS STILL BEING ENCOUNTERED.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

(REFER TO SUPPLEMENTAL SCENARIO #7.12)

1. DELIVER THIS MESSAGE AFTER THE OSC TEAM HAS STRAIGHTENED THE VALVE STEM AND IS NOW TRYING TO CLOSE THE VALVE.
2. THE TEAM WILL SLOWLY BE ABLE TO TURN THE VALVE BUT IT WILL TAKE CONSIDERABLE FORCE TO MOVE THE HANDWHEEL AND THE VALVE WILL AGAIN JAM WHEN IT IS ONLY HALF CLOSED.
3. THIS IS A CRITICAL ACTIVITY. STRESS PLACED ON PIPING WHILE ATTEMPTING TO CLOSE VALVE CONTRIBUTES TO LINE FAILURE AT 1315.

EXPECTED ACTIONS :

1. THE OSC TEAM WORKS AT CLOSING THE MANUAL ISOLATION VALVE, 1-SK-V004.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 74
TO : OSC TEAM
FROM : OSC REFEREE
LOCATION : CONTROL BUILDING

REAL TIME : 13:00
DRILL TIME : 05:00

MESSAGE :

TROUBLESHOOTING THE FAILURE OF THE 1SKHV-5018 TO STROKE FULL
CLOSED, YOU FIND AN ASSOCIATED BAILEY CARD WITH NO OUTPUT
SIGNAL.

*** *****
* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

(REFER TO SUPPLEMENTAL SCENARIO #7.12)

1. ISSUE THIS MESSAGE AFTER THE TEAM HAS CORRECTLY TROUBLESHOT THE PROBLEM, USING THE APPROPRIATE LOGIC PRINTS.
2. AFTER THE OSC TEAM HAS LOCATED A REPLACEMENT BAILEY CARD AND TAKEN ACTION TO REPLACE THE CARD, THEY WILL BE SUCCESSFUL AT 14:49 AND THE VALVE WILL STROKE CLOSED. THIS IS A TIME CRITICAL EVOLUTION SINCE THIS ACTION TERMINATES THE RELEASE OF FISSION PRODUCTS INTO THE REACTOR BUILDING.

EXPECTED ACTIONS :

1. OSC TEAM NOTIFIES THE OSCC AND ATTEMPTS TO FIND A REPLACEMENT CARD.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 74D
TO : CONTROL ROOM STAFF
FROM : SIMULATOR REFEREE
LOCATION : SIMULATOR (HOPE CREEK)

REAL TIME : 13:15
DRILL TIME : 05:15

MESSAGE :
YOU HAVE RECEIVED THE FOLLOWING ALARMS AND INDICATIONS:

ALARMS:	RADIATION MONITORING ALARM/TRBL	(OVERHEAD C6-A2)
	RADIATION MONITORING ALARM/TRBL	(OVERHEAD C6-C1)
	NEW FUEL CRITICALITY RAD HI	(OVERHEAD E6-A4)
	REFUEL FLOOR EXH RAD ALARM/TRBL	(OVERHEAD E6-A3)
	RB EXH RADIATION ALARM/TRBL	(OVERHEAD E6-A5)

INDICATIONS: AUDIBLE RM-11 COMPUTER ALARM

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

1. ENSURE RM11 DISPLAY DATA IS UPDATED AT THIS TIME FOR CONTROL ROOM STAFF REFERENCE.
2. DW ATMOSPHERIC SAMPLE LINE HAS FAILED, AS A REPAIR TEAM ATTEMPTING TO CLOSE THE MANUAL ISOLATION VALVE 1-SK-V004, DAMAGES THE LINE.
3. SNSS SHOULD INFORM THE EDO OF INCREASING RAD LEVELS IN RX. BLDG. AND FRVS VENT EFFLUENT ALARMING.
4. RADIOLOGICAL RELEASE TO THE ENVIRONMENT OCCURS.

EXPECTED ACTIONS :

1. CONTINUE EFFORTS TO DETERMINE AND LOCATE THE SOURCE OF THE LINE BREAK.
2. SNSS INFORM EDO OF INCREASED RAD LEVEL AND INDICATION OF FRVS RELEASE
3. INFORM OSC OF RAD CONCERNS IN REACTOR BLDG.
4. NSS ENTERS EOP-103 (REACTOR BUILDING CONTROL) AND EOP-104 (RADIOACTIVE RELEASE CONTROL)
5. NCO ENTERS ABNORMAL RELEASES OF GASEOUS RADIOACTIVITY (OP-AB.ZZ-126)

6.74D

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 75
TO : OSC TEAM
FROM : OSC REFEREE
LOCATION : REACTOR BUILDING, ELEVATION 162'

REAL TIME : 13:15
DRILL TIME : 05:15

MESSAGE :

AS YOU CONTINUE TO ATTEMPT TO CLOSE 1-SK-V004, YOU OBSERVE THAT THE SAMPLE LINE SHEARS ON A WELDED JOINT BETWEEN THE TWO MOTOR OPERATED VALVES IN THE LINE YOU WERE WORKING ON.

YOUR ALNOR IMMEDIATELY BEGINS TO ALARM.

YOU OBSERVE THE SYMPTOMS OF A LOW PRESSURE STEAM RELEASE FROM THE FAILED LINE.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

(REFER TO SUPPLEMENTAL SCENARIO #7.12)

1. DELIVER THIS MESSAGE AT EXACTLY 13:15. THIS TIME IS CRITICAL TO THE DRILL.
2. THIS ACTIVITY IS CRITICAL TO THE RADIOLOGICAL RELEASE THAT OCCURS AT 13:15, IN THAT IT CAUSES THE FAILURE OF THE SAMPLE LINE.
3. THE FAILURE OF THE SAMPLE LINE IS DUE TO EXCESSIVE FORCE USED BY THE OSC TEAM IN COMBINATION WITH A SAMPLE LINE THAT WAS PREVIOUSLY WEAKENED BY THE DRYWELL PRESSURE SPIKE WHEN THE LOCA OCCURRED.

EXPECTED ACTIONS :

1. THE OSC TEAM NOTIFIES THE OSCC OF THE EVENTS AND IMMEDIATELY EVACUATES THE AREA AND THE REACTOR BUILDING.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 76
TO : CHEMISTRY SUPERVISOR - TSC
FROM : TSC RAD PRO REFEREE
LOCATION : HOPE CREEK TSC

REAL TIME : 13:30
DRILL TIME : 05:30

MESSAGE :
THE FOLLOWING ARE THE RESULTS OF THE PASS SAMPLE OBTAINED AT 12:45.

IODINES		NOBLE GASES	
I-131 =1.52E+4 UCI/ML	KR-85 =6.67E+0 UCI/ML	XE-131M =1.58E+1 UCI/ML	
I-132 =8.83E+3 UCI/ML	KR-87 =2.46E+2 UCI/ML	XE-133 =3.38E+3 UCI/ML	
I-133 =3.09E+4 UCI/ML	KR-88 =8.86E+2 UCI/ML	XE-133M =8.16E+1 UCI/ML	
I-134 =3.12E+3 UCI/ML		XE-135 =2.59E+3 UCI/ML	
I-135 =2.25E+4 UCI/ML		TOTAL NOBLE GASES = 7.21E+3 UCI/ML	
TOTAL IODINE = 8.06 E+4 UCI/ML			
PARTICULATES			
MO-99 =2.92E+4 UCI/ML	TE-129 =8.74E+2 UCI/ML	BA-140 =2.82E+4 UCI/ML	
RB-88 =9.83E+0 UCI/ML	TE-132 =2.07E+4 UCI/ML	LA-140 =2.85E+4 UCI/ML	
SR-89 =1.47E+4 UCI/ML	CS-134 =1.72E+3 UCI/ML	LA-142 =1.03E+4 UCI/ML	
SR-90 =3.48E+3 UCI/ML	CS-137 =4.94E+3 UCI/ML	CE-144 =1.01E+4 UCI/ML	
	TOTAL PARTICULATES = 1.49 E+5 UCI/ML		

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

1. THIS INFORMATION IS BEING PROVIDED TO THE CHEMISTRY SUPERVISOR IN THE TSC FOR DRILL PURPOSES BEFORE ACTUAL SAMPLE RESULT ARE COMPLETED. THE TEAM ANALYZING THE PASS SAMPLE SHOULD CONTINUE WITH THAT ACTIVITY UNTIL COMPLETED.

EXPECTED ACTIONS :

1. PROVIDE THE RAC AND FUELS ENGINEER WITH THE PASS RESULTS.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 77C
TO : RAC (RAD ASSESSMENT COORD.)
FROM : TSC RAD PRO REFEREE
LOCATION : HOPE CREEK TSC

REAL TIME : 13:30
DRILL TIME : 05:30

MESSAGE :

THIS IS A CONTINGENCY MESSAGE:

DIRECT THE RAD PRO IN-PLANT SUPERVISOR TO TAKE AN FRVS EFFLUENT SAMPLE

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

1. ISSUE AS NECESSARY TO ALLOW ENOUGH TIME FOR THE RAD PRO TECHNICIAN TO PULL A REAL FRVS SAMPLE AND PERFORM AN ANALYSIS OF THE SAMPLE.
2. THIS IS CRITICAL TO THE DRILL TIMELINE.

EXPECTED ACTIONS :

1. RAC DIRECTS IN-PLANT RAD PRO SUPV. TO TAKE FRVS EFFLUENT SAMPLE.
2. RAD PRO TECH. SAMPLES AND ANALYZES FRVS EFFLUENT.

6.77C

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 78C
TO : ERM
FROM : EOF LEAD REFEREE
LOCATION : EOF

REAL TIME : 13:35
DRILL TIME : 05:35

MESSAGE :

THIS IS A CONTINGENCY MESSAGE:

YOU SHOULD DECLARE A GENERAL EMERGENCY IN ACCORDANCE WITH ECG SECTION 6A + 6B + 6C, LOSS OF FUEL CLAD INTEGRITY AND LOSS OF RPV INTEGRITY AND LOSS OF PRIMARY CONTAINMENT, OR ECG SECTION 1E, LOSS OF COOLANT ACCIDENT WITH FAILURE OF ECCS SYSTEMS TO PERFORM.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

1. DO NOT ISSUE THIS MESSAGE WITHOUT HEAD REFEREE PERMISSION.
2. ISSUE THIS MESSAGE ONLY IF THE SNSS, EDO AND ERM ARE NOT IN THE PROCESS OF CLASSIFYING THE EVENT.
3. EOF REFEREE MUST CONFER WITH THE HEAD REF BEFORE ISSUING THIS MESSAGE.

EXPECTED ACTIONS :

1. DECLARE A GENERAL EMERGENCY.
2. IMPLEMENT ATTACHMENT 4.
3. IMPLEMENT EPIP 104H. (EPIP 401, APP.B)
4. DEVELOPMENT OF A PAR.
AS A MINIMUM;

	SECTORS	DISTANCE
EVACUATE	ALL	0-5 MILES
EVACUATE	W-WNW-NW	5-10 MILES
SHELTER	ALL REMAINING SECTORS	5-10 MILES

6.78C

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 79
TO : OSC "B" EDG REPAIR TEAM
FROM : OSC REFEREE
LOCATION : AUXILIARY BUILDING, ELEVATION 102'

REAL TIME : 14:11
DRILL TIME : 06:11

MESSAGE :

THE REPAIRS ON "B" EDG LUBE OIL SUCTION HEADER ARE COMPLETE. YOU HAVE ALSO FILLED THE LUBE OIL TANK AND SUMP. YOU ARE STANDING BY FOR A EDG START TO ENSURE THERE ARE NO PROBLEMS.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

(REFER TO SUPPLEMENTAL SCENARIO #7.08)

1. THIS RESTORATION CAN NOT BE SUCCESSFUL UNTIL 14:18.
2. INFORM LEAD SIMULATOR REFEREE WHEN OSCC IS GOING TO CONTACT SNSS CONCERNING THIS REPAIR ACTIVITY.

EXPECTED ACTIONS :

1. OSC TEAM TO NOTIFY THE OSCC OF JOB COMPLETION.
2. OSCC TO INFORM SNSS THAT "B" EDG IS REPAIRED AND READY FOR START.
3. CR CREW TO START "B" EDG.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 80
TO : RP - INPLANT SUPERVISOR
FROM : CP REFEREE
LOCATION : CONTROL POINT

REAL TIME : 14:15
DRILL TIME : 06:15

MESSAGE :
THE FOLLOWING ARE THE RESULTS OF THE FRVS SAMPLE OBTAINED AT 13:30.
FRVS ISOTOPIC VALUES

IODINES		NOBLE GASES			
I-131	=8.20E-3 UCI/CC	KR-85	=5.71E-2 UCI/CC	XE-131M	=9.90E-2 UCI/CC
I-132	=3.34E-3 UCI/CC	KR-87	=4.40E-1 UCI/CC	XE-133	=2.67E+1 UCI/CC
I-133	=2.43E-2 UCI/CC	KR-88	=5.91E+0 UCI/CC	XE-133M	=6.50E-1 UCI/CC
I-134	=8.17E-4 UCI/CC			XE-135	=1.30E+1 UCI/CC
I-135	=9.89E-3 UCI/CC			TOTAL NOBLE GASES = 4.52 E+01 UCI/CC	
TOTAL IODINE = 4.65 E-02 UCI/CC					
PARTICULATES					
MO-99	=2.01E-3 UCI/CC	TE-129	=3.11E-5 UCI/CC	BA-140	=2.07E-3 UCI/CC
RB-88	=7.41E-8 UCI/CC	TE-132	=8.81E-4 UCI/CC	LA-140	=2.07E-3 UCI/CC
SR-89	=6.60E-4 UCI/CC	CS-134	=7.54E-5 UCI/CC	LA-142	=3.78E-4 UCI/CC
SR-90	=2.32E-4 UCI/CC	CS-137	=2.88E-5 UCI/CC	CE-144	=5.19E-4 UCI/CC
		TOTAL PARTICULATES = 8.96 E-3 UCI/CC			

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

EXPECTED ACTIONS :
1. NOTIFY THE RAC IN THE TSC OF THE RESULTS.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 81
TO : OSC TEAM
FROM : OSC REFEREE
LOCATION : CONTROL BUILDING

REAL TIME : 14:49
DRILL TIME : 06:49

MESSAGE :

YOU HAVE SUCCESSFULLY REPLACED THE FAILED BAILEY LOGIC CARD
ASSOCIATED WITH THE DRYWELL GASEOUS ATMOSPHERIC SAMPLE
INBOARD SUPPLY ISOLATION VALVE, 1SKHV-5018.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

(REFER TO SUPPLEMENTAL SCENARIO #7.12)

1. IT IS CRITICAL TO THE DRILL TIMELINE THAT THIS MESSAGE IS ISSUED AT EXACTLY 14:49.
2. ENSURE THAT THE OSC TEAM INFORMS THE OSC THAT REPAIRS ARE COMPLETE.

EXPECTED ACTIONS :

1. THE OSC TEAM INFORMS THE OSC THAT REPAIRS ARE COMPLETED.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 81D
TO : CONTROL ROOM CREW
FROM : SIMULATOR REFEREE
LOCATION : SIMULATOR (HOPE CREEK)

REAL TIME : 14:49
DRILL TIME : 06:49

MESSAGE :
YOU HAVE OBSERVED THE FOLLOWING INDICATIONS:

1SKHV-5018, DRYWELL GASEOUS ATMOSPHERIC SAMPLE VALVE INDICATES
CLOSED.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :
(REFER TO SUPPLEMENTAL SCENARIO #7.12)
1. MESSAGE FOR DARK BOARD CONTROL ONLY.
2. ENSURE NCO RESPONDS TO ALARMS APPROPRIATELY.

EXPECTED ACTIONS :
1. CONTROL ROOM CREW RECOGNIZES THAT THE
1SKHV-5018 IS CLOSED.

6.81D

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 82
TO : CHEMISTRY TECH
FROM : CP REFEREE
LOCATION : HOPE CREEK CHEMISTRY LAB

REAL TIME : 15:00
DRILL TIME : 07:00

MESSAGE :
THE FOLLOWING ARE THE RESULTS OF THE PASS SAMPLE OBTAINED AT 12:45.

IODINES		NOBLE GASES	
I-131 =1.52E+4 UCI/ML	KR-85 =6.67E+0 UCI/ML	XE-131M =1.58E+1 UCI/ML	
I-132 =8.83E+3 UCI/ML	KR-87 =2.46E+2 UCI/ML	XE-133 =3.38E+3 UCI/ML	
I-133 =3.09E+4 UCI/ML	KR-88 =8.86E+2 UCI/ML	XE-133M =8.16E+1 UCI/ML	
I-134 =3.12E+3 UCI/ML		XE-135 =2.59E+3 UCI/ML	
I-135 =2.25E+4 UCI/ML			
TOTAL IODINE = 8.06 E+4 UCI/ML		TOTAL NOBLE GASES = 7.21E+3 UCI/ML	
PARTICULATES			
MO-99 =2.92E+4 UCI/ML	TE-129 =8.74E+2 UCI/ML	BA-140 =2.82E+4 UCI/ML	
RB-88 =9.83E+0 UCI/ML	TE-132 =2.07E+4 UCI/ML	LA-140 =2.85E+4 UCI/ML	
SR-89 =1.47E+4 UCI/ML	CS-134 =1.72E+3 UCI/ML	LA-142 =1.03E+4 UCI/ML	
SR-90 =3.48E+3 UCI/ML	CS-137 =4.94E+3 UCI/ML	CE-144 =1.01E+4 UCI/ML	
	TOTAL PARTICULATES = 1.49 E+5 UCI/ML		

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

- REFEREE NOTES :
1. DO NOT PROVIDE THIS INFORMATION TO THE CHEMISTRY TECHNICIAN UNTIL ANALYSIS OF THE PASS SAMPLE TAKEN AT 12:45 IS COMPLETED.
 2. IT IS IMPORTANT TO UNDERSTAND THAT THESE SAMPLE RESULTS WERE PROVIDED TO THE CHEMISTRY SUPERVISOR IN THE TSC AT 13:30 FOR DRILL PURPOSES.

- EXPECTED ACTIONS :
1. CHEM TECH DISCUSSES RESULTS WITH THE CONTROL POINT CHEMISTRY SUPERVISOR.

ARTIFICIAL ISLAND
EMERGENCY PREPAREDNESS MESSAGE FORM

MESSAGE #: 83
TO : SNSS
FROM : CONTROL ROOM DRILL CONTROLLER
LOCATION : HOPE CREEK CONTROL ROOM

REAL TIME : 15:30
DRILL TIME : 07:30

MESSAGE :

Please make the following page announcement:

"ATTENTION ALL PERSONNEL. ATTENTION ALL PERSONNEL."
"TODAYS EMERGENCY PLAN DRILL HAS BEEN TERMINATED."

Please repeat message one time.

* THIS IS A DRILL !!! *
* DO NOT INITIATE ACTIONS AFFECTING NORMAL PLANT OPERATIONS !!! *

REFEREE NOTES :

1. PROVIDE THIS MESSAGE TO THE DUTY SNSS ONLY WHEN AUTHORIZED BY THE HEAD REFEREE. (TIME ABOVE IS APPROXIMATE)
2. ENSURE THAT THE CONTROL ROOM NETS PHONE LINES AND THE STATION RADIO ARE RETURNED TO NORMAL AFTER THE DRILL IS TERMINATED.
3. PROVIDE ANY COMMENTS CONCERNING THE DRILL TO THE HEAD REFEREE IN THE TSC AFTER ENSURING CR COMMUNICATION SYSTEMS ARE RESTORED.

EXPECTED ACTIONS :

1. AFTER THE SNSS, EDO AND ERM AGREE THE PLANT IS STABLE AND THE PRIMARY LEAK IS ISOLATED (OR THE REACTOR IS DEPRESSURIZED), HEAD REFEREE WILL TERMINATE DRILL.
2. DRILL CONTROLLER WILL ENSURE NETS AND RADIO COMMUNICATIONS ARE RESTORED TO READY CONDITIONS.
3. NCO AT H.C. MAKES PAGE ANNOUNCEMENT.

SECTION 7.0

HOPE CREEK GRADED EXERCISE (H94-06)
SUPPLEMENTAL SCENARIOS

SCENARIO #		TIME BEGIN/END	SUCCESS ?	RESP DEPT
* 7.01	10-B-130 USS FIRE	08:33/09:30	YES	NSP
* 7.02	10-B-130 USS REPAIRS	08:55/11:00	YES	ELECT
* 7.03	LOOSE PARTS MONITOR ALARM	09:01/09:20	YES	OPS
* 7.04	MANUAL ISOLATION OF THE #6C FEEDWATER HEATER	09:28/10:00	NO	OPS/ MAINT
* 7.05	13.8 KV SWITCHYARD DAMAGE ASSESSMENT AND REPAIR	09:48/15:30	NO	OPS/ RELAY
* 7.06	TURBINE BUILDING FIRE FIGHTING AND DAMAGE ASSESSMENT	09:49/10:30	YES	NSP/ OPS
* 7.07	"B" 4160 VAC VITAL BUS ALT FEEDER BREAKER REPAIR	09:49/14:18	YES	ELECT
7.08	"B" EDG LUBE OIL SUCTION LINE REPAIR	10:22/14:11	YES	MAINT
7.09	"D" LPCI INJECTION VALVE MOTOR MALFUNCTION	10:51/15:30	NO	ELECT
7.10	FUEL ZONE VARIABLE LEG LEAK WITH EFCV CLOSURE	11:02/11:35	NO	I&C
7.11	"A" RHR PUMP REPAIRS	11:35/15:30	YES	MAINT
7.12	ISOLATION OF THE DRYWELL ATMOSPHERIC SAMPLE LINE	11:35/14:49	YES	OPS/ ELECT
7.13	RHR PUMP SUCTION STRAINER BACKWASH	11:45/15:30	YES	OPS/ MAINT
7.14	"C" RHR PUMP TRIP	12:15/13:46	NO	ELECT
7.15	LINEUP OF ALTERNATE RPV INJECTION SOURCES	12:20/15:30	YES	OPS

* SCENARIO STARTS PRIOR TO OSC ACTIVATION

1994 Graded Exercise (H94-06) Supplemental Scenario Timeline

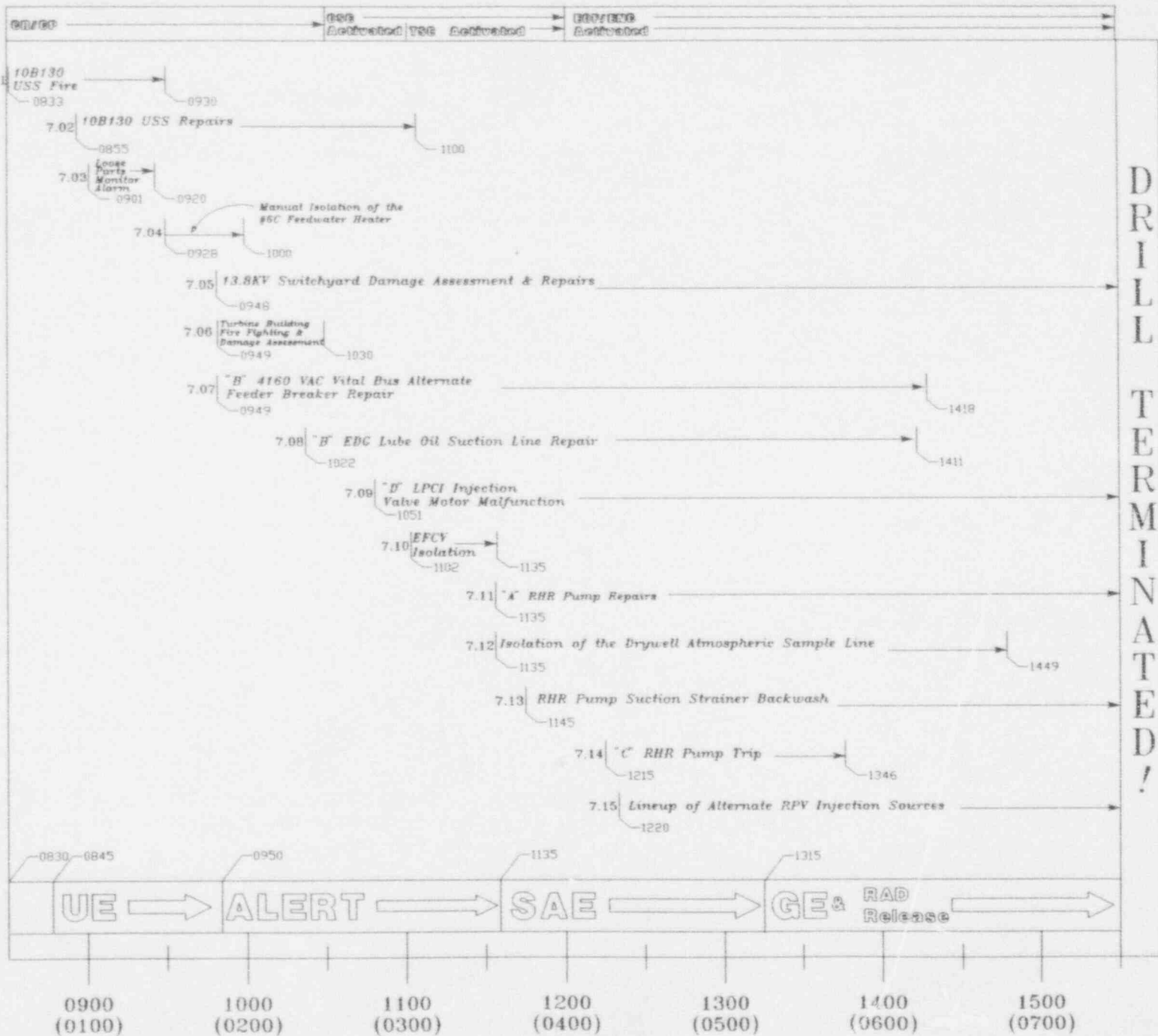
V.0.0.2

MAJOR EVENTS

DRILL TERMINATED!

EVENT CLASSIFICATION

TIME:



ARTIFICIAL ISLAND
ANNUAL EXERCISE 1994

OSC REFEREE SUPPLEMENTAL GUIDELINES

PRIOR TO OSC ACTIVATION:

Prior to the ALERT, a number of individuals and teams will be dispatched by the Control Room Staff from the Simulator.

Until the OSC is activated, your function is to serve as **Inplant Referees** for the purpose of controlling the player responses and providing messages and indications in the plant.

These activities are not to be evaluated as OSC activities UNTIL the OSCC assumes responsibility for them, since they fall outside the scope of drill objectives for OSC participation. (These activities are to be evaluated as part of Control Room Command and Control)

Some of these activities will be picked up by the OSC at the time of activation (10:30 A.M. or earlier) and the following will be demonstrated;

1. OSCC receives a turnover of authority and responsibility to control the teams in the field from the **SNSS**, establishes contact, begins tracking their locations and providing support, as needed.

NOTE: Teams and individuals in plant responding to the directions of the Control Room are expected to heed the Radiation Alert Alarm and announcement concerning Assembly by immediately contacting the Control Room for an update and directions to either continue or return for Assembly.

2. In this scenario, individuals and teams in progress when the OSC activates should remain in the field at Assembly or Accountability and the OSC should update them on changing conditions or revised objectives if necessary.
3. OSC Referee evaluation of team activities begins with the turnover and activation of the OSC.
4. Turnover objectives:
 - a) Teams establish contact with the OSC Point of Contact (POC) and receive a briefing on plant conditions and either return to work or are recalled to the OSC, as necessary.
 - b) ALL DISPATCHED TEAMS AND INDIVIDUALS are being tracked by the OSC.
 - c) Teams complete their activities and return to the OSC for de-briefing and subsequent dispatch on new tasks from the OSC.

STANDARD OSC TEAM OBJECTIVES:

For each team that is dispatched, the OSC Staff should demonstrate the following:

1. Thorough briefing. (Refer to Appendix 5, EPIP 202H)
2. Radiological support provided is adequate to protect team members from anticipated hazards, as needed. That is, Rad Tech and survey meter taking the lead, checking with the referee periodically for dose rates.
3. Team arrives at the right destination in a timely manner and is properly equipped to perform tasks assigned. (keys, procedures, diagrams, tools, proper dosimetry, etc.)
4. Team leader keeps the OSC informed, responds well to changing conditions including a revision to the mission (if needed) based on new information or escalating emergency conditions.
5. OSC Staff supports teams by tracking their location and status. They provide additional resources as needed. (obtain parts, diagrams, engineering expertise, etc.)
6. Thorough de-briefing of mission results and other observations while in the field, radiological dose received, etc.

ALNOR READINGS / DOSE CHART

DOSE RATE -----> DOSE			DOSE RATE -----> DOSE		
<u>mR/hr</u>	<u>per min.</u> <u>mRem</u>	<u>5 min.</u> <u>mRem</u>	<u>R/hr</u>	<u>per min.</u> <u>mRem</u>	<u>5 min.</u> <u>mRem</u>
50	1	5	1	20	100
100	2	10	1.5	30	150
150	3	15	2	33	170
200	3	17	2.5	40	200
250	4	20	3	50	250
300	5	25	4	70	350
400	7	35	5	80	400
500	8	40	6	100	500
600	10	50	7	120	600
700	12	60	8	130	650
800	13	65	9	150	750
900	15	75	10	170	850
Continued in next column			15	300	1,500
			20	330	1,700
			25	400	2,000
			30	500	2,500
			35	600	3,000
			40	700	3,500
			50	800	4,000
			60	1,000	5,000
			100	1,700	8,500
			200	3,300	17,000
			300	5,000	25,000
			400	7,000	35,000
			500	8,000	40,000
			540	9,000	45,000
			<u>R/hr</u>	<u>mR/min</u>	<u>/5min</u>

REFEREES' NOTES:

The table above is for making "quick" approximations of OSC or field team doses received and indicated on their ALNORS, when the player checks its reading.

All readings are intentionally rounded and are within acceptable deviation of calculated values given normal variations in area dose rates, geometry factors, accuracy of dosimetry and approximate times of exposure.

1. You should know the Alarm setting on the player's ALNOR that you are controlling. Give the player an "audible" cue when the ALNOR would have reached alarm status.
2. You should also give audible cues for Friskers, Portal Monitors, and Air Monitoring Systems (AMS) that are encountered in the field. Refer to your Maps.

SUPPLEMENTAL SCENARIO # 7.01

TITLE : 10-B-130 UNIT SUBSTATION FIRE RESPONSE

START TIME : 08:33(00:33)

END TIME : 09:30(01:30)

LOCATION : TURBINE BUILDING, ELEVATION 120'

A. INITIATING CONDITIONS:

THE CONTROL ROOM STAFF RECEIVES INDICATION THAT 10-B-130 480 VAC UNIT SUBSTATION (USS) HAS BEEN LOST. A FIRE ALARM IS RECEIVED ON THE FIRE PROTECTION PANEL 10C671. LOADS ASSOCIATED WITH 10-B-130 ARE LOST, INCLUDING POWER TO THE "B" FEEDWATER HEATER STRING. THE SNSS DIRECTS THE FIRE BRIGADE TO RESPOND.

B. RELATED MESSAGE FORMS: 4,5,6,7,8,8C,9,10,11,12,13,14,18,21,23

C. POSTULATED EVENT:

1) FAILURE MODE (OR CAUSE):

THE FIRE IS CAUSED BY AN ELECTRICAL MALFUNCTION OF THE UNIT SUBSTATION (USS).

THE FLAMES HAVE SLOWLY SPREAD THROUGHOUT THE UNIT SUBSTATION. BOTH LOAD AND SUPPLY SIDE WIRING HAVE BEEN DAMAGED LEADING TO AN ELECTRICAL GROUND FAULT THAT HAS DEENERGIZED THE UNIT SUBSTATION.

2) SYMPTOMS (OR INDICATIONS):

TURBINE BUILDING, ELEVATION 120' MEZZANINE AREA IS FILLED WITH SMOKE. AN ORANGE GLOW IS VISIBLE AT THE FLOOR LEVEL OF THE UNIT SUBSTATION. PAINT ON THE OUTSIDE OF THE UNIT SUBSTATION IS BEGINNING TO BLISTER AND PEELING MAY BE SEEN WHEN THE FIRE IS OUT AND SMOKE HAS CLEARED.

IN ADDITION, LOSS OF 10-B-130 RESULTS IN A LOSS OF LIGHTING IN VARIOUS AREA OF THE TURBINE BUILDING.

SUPPLEMENTAL SCENARIO # 7.01
(CONTINUED)

C. POSTULATED EVENT:

3) RESTORATION GUIDELINES:

FIRE FIGHTING GUIDELINES:

USE OF PORTABLE CO2 FIRE EXTINGUISHERS IS SIMULATED. THE FIRE IS EXTINGUISHED AT 08:55. (TIME CRITICAL). VENTILATION OF THE AREA IS REQUIRED AFTER THE FIRE IS OUT. VENTILATION OF THE AREA IS COMPLETED AT 09:17.

4) SCENARIO CONTROLS:

- A) THE FIRE IS EXTINGUISHED, BUT NOT BEFORE 08:55 (CRITICAL)
- B) THERE ARE NO POSTULATED INJURIES.
- C) THIS FIRE DOES NOT SPREAD TO ANY OTHER EQUIPMENT.
- D) ENSURE THAT THE FIRE BRIGADE LEADER DETERMINES THAT THE UNIT SUBSTATION IS DEENERGIZED.
- E) VENTILATION OF THE AREA IS COMPLETED 09:17.

D. RADIOLOGICAL CONCERNS:

SINCE THE FIRE IS LOCATED WITHIN THE RCA, ENSURE THAT TEAM MEMBERS DEMONSTRATE APPROPRIATE RADIOLOGICAL PRECAUTIONS.

E. ATTACHMENTS:

- 1) 10-B-130 UNIT SUBSTATION LOAD LIST
- 2) 10-L-102 TURBINE BUILDING LIGHTING PANEL LOAD LIST
- 3) POWER SUPPLY TO 10-B-130 UNIT SUBSTATION
- 4) 10-Y-104 120 VAC DISTRIBUTION PANEL LOAD LIST
- 5) 10-Y-106 120 VAC DISTRIBUTION PANEL LOAD LIST
- 6) 10-B-130 125 VDC CONTROL POWER SOURCES
- 7) TURBINE BUILDING, ELEVATION 120' LAYOUT MAP

F. CONTROLLERS SPECIAL NOTES / REFERENCES / OBJECTIVES:

- 1) IT IS CRITICAL TO THE DRILL TIMELINE THAT THE FIRE IS NOT EXTINGUISHED BEFORE 08:55. (FIRE > 10 MINUTES)
- 2) THE FIRE DOES NOT DAMAGE ANY SAFETY RELATED EQUIPMENT AND IS LIMITED TO ONLY THE 10-B-130 UNIT SUBSTATION.
- 3) OSC IS NOT ACTIVATED AT THIS TIME, FIRE BRIGADE MAY RETURN TO THE FIRE HOUSE.

10-B-130 LOADS

52-13011	PNL 10L102
52-13012	PMP, CHILL WTR CIRC 14P151
52-13013	PNL 10B132 PNL 10B132
52-13014	FAN, TGB EXH 13V105
52-13021	PMP, MG-SET L/O 14P120
52-13022	FAN, MG-SET VVT 14V107
52-13023	PNL 10B131 PNL 10B131
52-13024	SPARE
52-13031	PMP, MG-SET L/O 14P120
52-13032	CENTRIFUGE, MTL0 10S129
52-13033	PNL 10B103 PNL 10B133
52-131011	PMP, FLR DRN SUMP 13P165
52-131012	PMP, TGB EQUIP DRN SUMP 10P165
52-131013	PMP, EMER SUMP 10P167
52-131021	MOV AK-HV2691B CNDS DM SUCT
52-131022	MOV AK-HV2691E CNDS DM SUCT
52-131023	PMP, REGEN HI COND SUMP 13P169
52-131024	PMP, SEAL WTR CIRC 13P139
52-131031	MOV AK-HV2701B CNDS DM BYP
52-131032	MOV AK-HV2701E CNDS DM BYP
52-131033	MOV AD-HV2723 CNDS DM FLUSH
52-131034	PMP, COND DM CAUSTIC 13P147
52-131041	MOV AK-HV2702B COND DM DSCH
52-131042	MOV AK-HV2702E COND DM DSCH
52-131043	SPARE
52-131044	PMP, COND DM ACID 13P140
52-131051	RECEPT, TGB 1NTR1031 RECEPT, TGB 1NTR1031
52-131052	PMP, TGB COND RTN 13P137
52-131053	XFMR, M-G SET ALT SUP 1BX432
52-131061	HTR, TGB WTR TK 03E139
52-132021	MOV AC-HV1360C 03E105 M/S DRN
52-132022	MOV AC-HV1361C 03E105 M/S DRN
52-132023	MOV AF-HV1362C FWH 03E105 ISLN
52-132024	MOV CA-HV1370 SSE DRN TK 100
52-132031	MOV AF-HV1363C FWH 01E106 ISLN
52-132032	MOV AF-HV1511C FWH 03E105 DUMP
52-132033	MOV AF-HV1533C FWH 01E103 DRN
52-132034	SPARE
52-132041	MOV AD-HV1600C 03/C4/C5 FWH DT
52-132042	MOV AD-HV1613C FWH 03/C4/C5 IN
52-132043	XFMR 1AX501 ALT PWR SUP XFMR 1AX501 ALT PWR SUP
52-132044	XFMR 1AX502 ALT PWR SUP XFMR 1AX502 ALT PWR SUP
52-132051	MOV 03-HV1968A1 1ST STG SUCT
52-132052	MOV 03-HV1968A2 1ST STG SUCT
52-132053	MOV 03-HV1972C VAC BK/VAC ISO
52-132054	HTR, REPT L/O CONSOLE 10E135
52-132061	MOV 03-HV1973C BK/VAC P IS
52-132062	MOV AD-HV1623 FDWTR HTR BYP
52-132063	MOV 03-HV1968A3 1ST STG SUCT

SUPPLIES POWER TO VARIOUS TURBINE BUILDING LIGHTS

* A" Rx Recirc Pump M-G Set Vent Fan Trips, causing Overhead Alarm E5-F5 to annunciate in the Main Control Room

EXTRACTION STEAM ISOLATION VALVE TO #6C FEEDWATER HEATER LOSES MOTIVE POWER

CONDENSATE OUTLET VALVE FROM THE #5C FEEDWATER HEATER LOSES MOTIVE POWER

10-B-130 LOADS (CONT)

52-132064	CLR, COND COMPT WEST 1FVH113
52-132071	MOV AD-HV1654 SEC COND PMP RYP
52-132072	MOV AD-HV1660 SPE 10E110 INL
52-132073	MOV AD-HV1661 SPE 10E110 DTL
52-132074	PMP, L/O XFR 10P107
52-132081	MOV CG-HV2019 AUX STM FEED
52-132082	MOV EG-HV2562 TURB AU S/O
52-132083	PNL 10Y104
	PNL 10Y104
52-132084	XFMR 13X501 ALT PWR SUP
	XFMR 13X501 ALT PWR SUP
52-132085	XFMR 13X502 ALT PWR SUP
	XFMR 13X502 ALT PWR SUP
52-132091	PNL, COND DEMIN HT TRACE 100135
52-132092	SPARE
52-132093	MOV AD-HV17450 FWH 50 BYP
52-132094	MOV AD-HV17460 FWH 20 BYP
52-132101	PMP, EMER SUMP 20P167
52-132104	SPARE
52-133012	MOV AE-HV17535 FWH BE106 DTL
52-133013	MOV AF-HV15035 FWH BE106 DPN
52-133014	EXTR/DEMIST, REPT 13K105
52-133021	MOV AC-HV17515 REPT B LP STM
52-133022	MOV FW-HV17525 REPT B HI PRES
52-133023	MOV AF-HV15035 FWH BE106 DUMP
52-133024	MOV CA-HV2001 STM SEAL BYP
52-133031	MOV FW-HV17605 HI PRES BLW ST
52-133032	MOV FW-HV17615 HI PRES ABV ST
52-133033	MOV FW-HV17655 REPT B MSTRS MV
52-133034	MOV CA-HV2003 EVAP WTR FEED
52-133041	MOV FW-HV17655 REPT B EXH
52-133042	MOV FW-HV17675 MSTRS RMV BLW
52-133043	WTR, SERV SUP FAN DAVH131
52-133044	MOV CA-HV2007 AUX STM TO SEAL
52-133051	MOV AE-HV17695 REPT B DSCM
52-133052	M/S RM 1512 RAD SHLD DOOR
	M/S RM 1512 RAD SHLD DOOR
52-133053	RECEPT, T35 14TB1453
	RECEPT, T35 14TB1453
52-133054	FAN, L/O STOR RM EXH 18V114
52-133061	MOV FW-HV17725 LO PRES BLW ST
52-133062	MOV AE-HV17825 REPT B RECIRC
52-133063	HOIST, M-3 SET 08H105
	HOIST, M-3 SET 08H105
52-133064	FAN, SERV AREA SUP DAVH131
52-133071	MOV AD-HV17315 REPT B SUCT
52-133072	CHLR, WTR 13K111 ALT
52-133073	HOIST, RFP 14H107
	HOIST, RFP 14H107
52-133074	BLOWER, STEAM PACK EXH 13K103
52-133081	PNL 10Y106
	PNL 10Y106

10Y104 BREAKER #7
 SUPPLIES POWER
 TO "B" FEEDWATER
 HEATER CONTROL
 PANEL

10-B-130 LOADS (CONT)

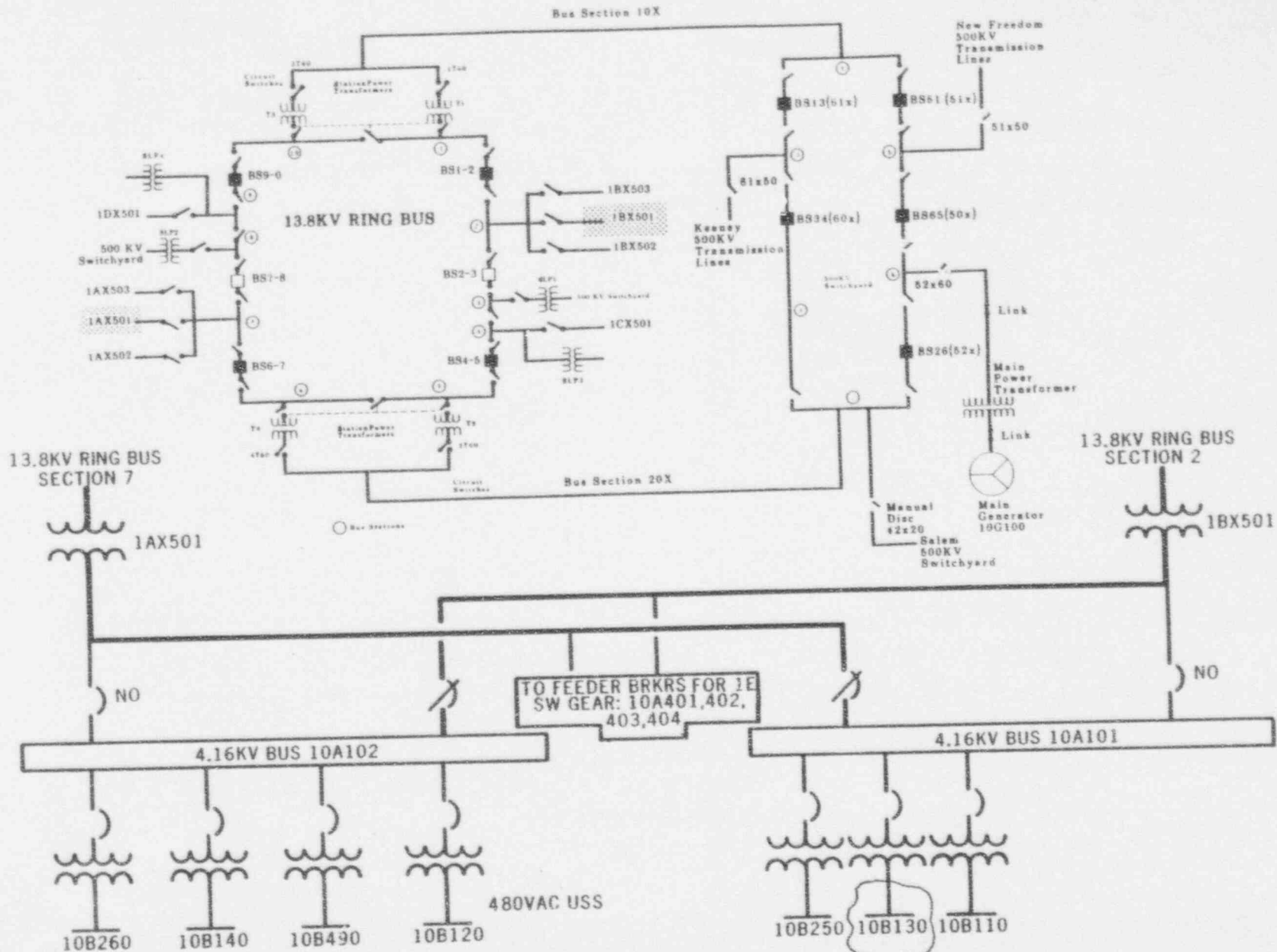
52-133082	MOV FW-HV3714B RFPT B STM DRN
52-133083	MOV FW-HV3717 HP STM HDR DRN
52-133084	MOV AE-HV1768B FWH BE106 INL
52-133091	MOV AC-HV1065 CNT AREA CYDS RT
52-133092	MOV AB-HV1005 COND HTWL SPARGE
52-133093	MOV AE-HV1797B RECIRC LN ISLN
52-133094	HTR, SERV SUP FAN OAVH131
52-133101	HTR, RFPT L/O PURIF 10E137
52-133102	MOV AE-HV1744B FWH BYPASS
52-133103	HOIST, TGB AUX CRANE JOH100
	HOIST, TGB AUX CRANE JOH100
52-133104	CMPSR, RAD PRO BREATHING AIR
	CMPSR, RAD PRO BREATHING AIR
52-133111	HTR, SERV SUP FAN OAVH131
52-133112	HTR, SERV SUP FAN OAVH131
52-133113	HTR, SERV SUP FAN OAVH131
52-133114	HTR, SERV SUP FAN OAVH131

TURBINE BUILDING 10-L-102 (120 VAC)

LIGHTING LOADS

10L102-01	LTG, TB EL 137 (HIGH BAY)
10L102-02	LTG, TB EL 137 (HIGH BAY)
10L102-03	LTG, TB EL 137 (HIGH BAY)
10L102-04	LTG, TB EL 137 (HIGH BAY)
10L102-05	LTG, TB EL 137 (HIGH BAY)
10L102-06	LTG, TB EL 137 (HIGH BAY)
10L102-07	LTG, TB EL 137 M/S & FDWTR HTR
10L102-08	LTG, TB EL 137
10L102-09	LTG, TB EL 137 M/S & FDWTR HTR
10L102-10	LTG, TB EL 137
10L102-11	LTG, TB EL 137 M/S & FDWTR HTR
10L102-12	LTG, TB EL 137
10L102-13	LTG, TB EL 120 & 123 SWGR
10L102-14	LTG, TB EL 171 43V ROOM
10L102-15	LTG, TB EL 120 & 123 SWGR
10L102-16	LTG, TB EL 171 43V ROOM
10L102-17	LTG, TB EL 120 & 123 SWGR
10L102-18	LTG, TB EL 171 ELEC MAINT RM
10L102-19	LTG, TB EL 123 & PIPE CHASE
10L102-20	LTG, TB EL 77
10L102-21	LTG, TB EL 123 & PIPE CHASE
10L102-22	LTG, TB EL 77
10L102-23	LTG, TB EL 123 & PIPE CHASE
10L102-24	LTG, TB EL 77
10L102-25	LTG, STRWELL 11-03
10L102-26	LTG, TB EL 54
10L102-27	LTG, STRWELL 11-03
10L102-28	LTG, TB EL 54
10L102-29	LTG, STRWELL 11-03
10L102-30	LTG, TB EL 54
10L102-31	SPARE
10L102-32	LTG, TB EL 54 & 137
10L102-33	SPARE
10L102-34	LTG, TB EL 54 & 137
10L102-35	SPARE
10L102-36	LTG, TB EL 54 & 137
10L102-37	PVL 10L122
10L102-38	LTG, TB EL 53 & 137
10L102-39	PVL 10L122
10L102-40	LTG, TB EL 54 & 137
10L102-41	PVL 10L122
10L102-42	LTG, TB EL 54 & 137

7.01E



POWER SUPPLY TO 10-B-130

At 08:33, the Control Room Crew will receive indication that Non-Essential 480 VAC Unit Substation (USS) 10-B-130 has been lost. The Unit Substation has overheated and is on fire. The loss of this Unit Substation among other things will cause a Loss of AC Power to various Condensate and Extraction Steam System Valves, that will become significant later in the scenario.

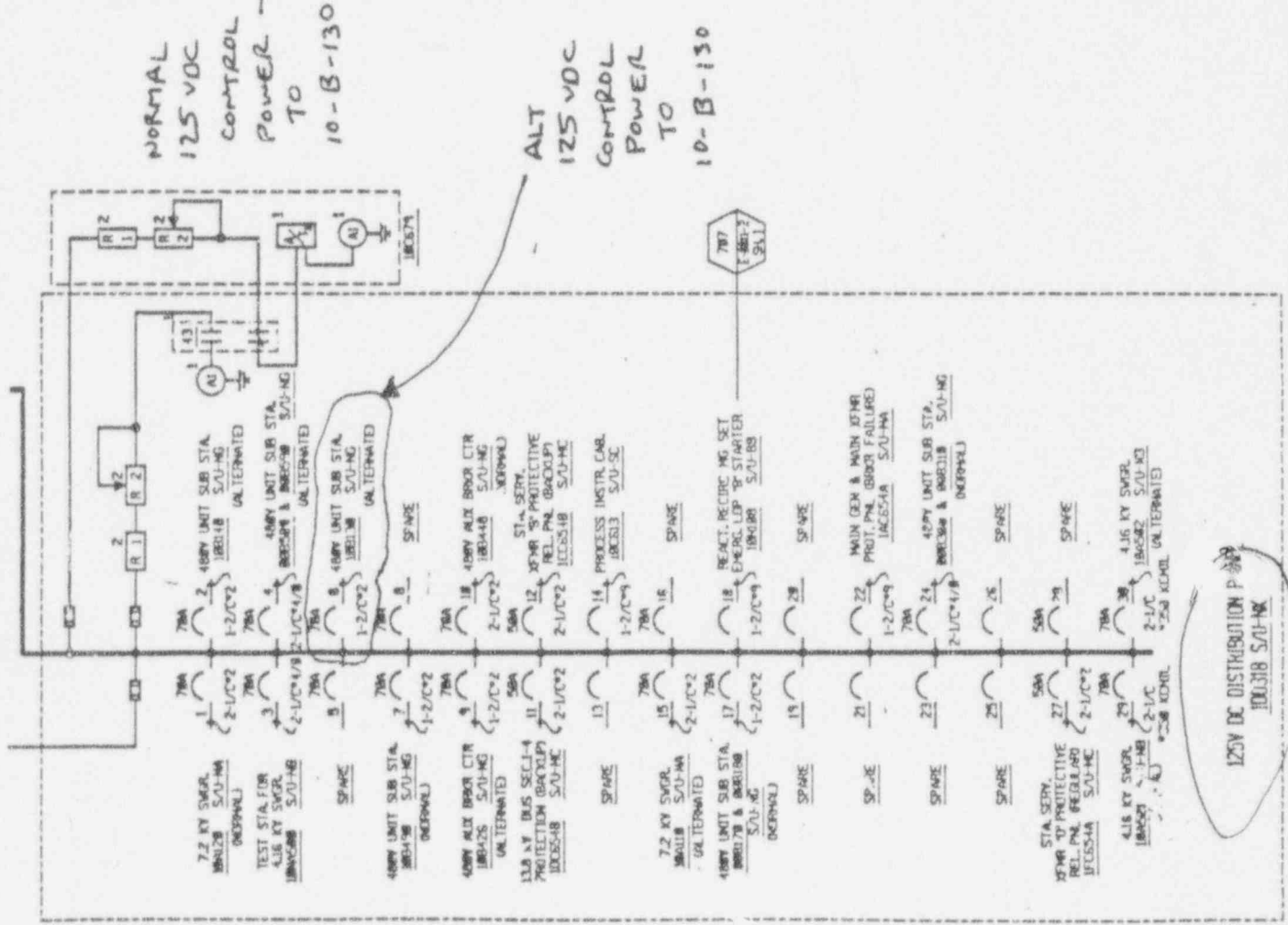
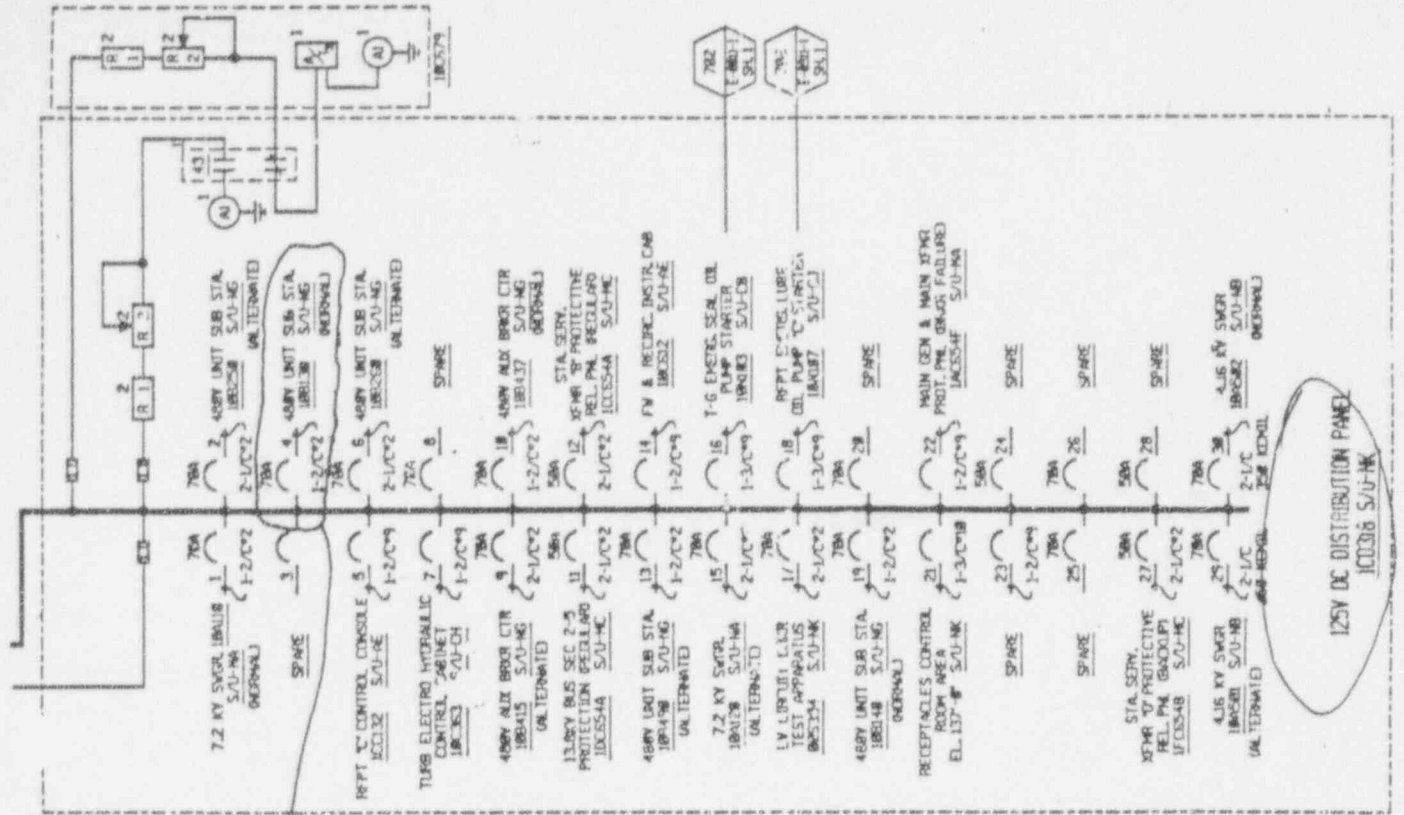
10-Y-104 LOADS (120 VAC)

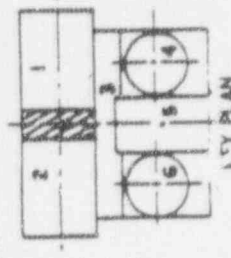
10Y104-01	HTR, SPACE MCC 10B111
10Y104-02	HTR, SPACE MCC 10B123
10Y104-03	HTR, SPACE BUS 10A108
10Y104-04	HTR, 1AVE100 & 1BVE100
10Y104-05	HTR, 10VE105 & 10VE106
10Y104-06	HTR, SPACE BUS 10A119
10Y104-07	PNL, PDWTR TRN B INST 19C102
10Y104-08	SPARE
10Y104-09	HTR, SPACE BATT CHGR 10D143
10Y104-10	PNL, TB CLRS 10C137
10Y104-11	HTR, SPACE SWBD 10D170
10Y104-12	ALARM, CO2 STOR TK REFRIG
10Y104-13	HTR, 1AVE104 & 1BVE104
10Y104-14	HTR, 1LVE100 & 1MVE100
10Y104-15	HTR, 1JVE100 & 1KVE100
10Y104-16	HTR, 1EVE102 & 10VE140
10Y104-17	HTR, SPACE STA SERV XFMR 1AX501
10Y104-18	HTR, 10VE100 & 1BVE101
10Y104-19	HTR, 1AVE159 & 10VE143
10Y104-20	HTR, SPACE STA SERV XFMR 13X501
10Y104-21	HTR, SPACE STA SERV XFMR 1AX502
10Y104-22	HTR, SPACE STA SERV XFMR 13X502
10Y104-23	HTR, SPACE EHC HYD PMP 13P116
10Y104-24	TERM BOX, MN TB LD RSV 1NTB1200
10Y104-25	SPARE
10Y104-26	HTR, SPACE BUS 10A111
10Y104-27	HTR, SPACE BUS 10A109
10Y104-28	HTR, SPACE BUS 10A129

10-Y-106 LOADS (120 VAC)

10Y106-01	1AF104 INST AIR DRYER OUTLET
10Y106-02	PNL, AIR PURIFIER CONT 10C148
10Y106-03	SPARE
10Y106-04	PNL, RFPT LO CONSOLE 10C133
10Y106-05	PNL, RFPT LO CONSOLE 13C133
10Y106-06	SPARE
10Y106-07	PNL, INST AIR STATUS 00C138
10Y106-08	PNL, INST AIR CMPSR 10C190
10Y106-09	HTR, SPACE SUB 10B140
10Y106-10	HTR, 13VE102 & 10VE102
10Y106-11	HTR, SPACE SUB 10B140
10Y106-12	HTR, 1AVE103
10Y106-13	HTR, 1AVE102 & 10VE102
10Y106-14	DEMINS, TACS CONTROL STATION
10Y106-15	SPARE
10Y106-16	HTR, SPACE MCC 10B113
10Y106-17	PNL, RFPT LO CONSOLE 1AC133
10Y106-18	HTR, 12VE103
10Y106-19	PNL, CNDSR C INST 10C104
10Y106-20	HTR, SPACE SWGR 10A104
10Y106-21	HTR, SPACE SWGR 10A103
10Y106-22	HTR, SPACE SWGR 10A104
10Y106-23	HTR, SPACE SWGR 10A103
10Y106-24	HTR, SPACE SWGR 10A104
10Y106-25	HTR, SPACE SWGR 10A103
10Y106-26	HTR, SPACE SWGR 10A102
10Y106-27	SPARE
10Y106-28	HTR, SPACE SWGR 10A102
10Y106-29	SPARE
10Y106-30	HTR, SPACE SWGR 10A102
10Y106-31	SPARE
10Y106-32	SPARE
10Y107-01	SPARE

10-B-130 125 VDC CONTROL POWER SOURCES



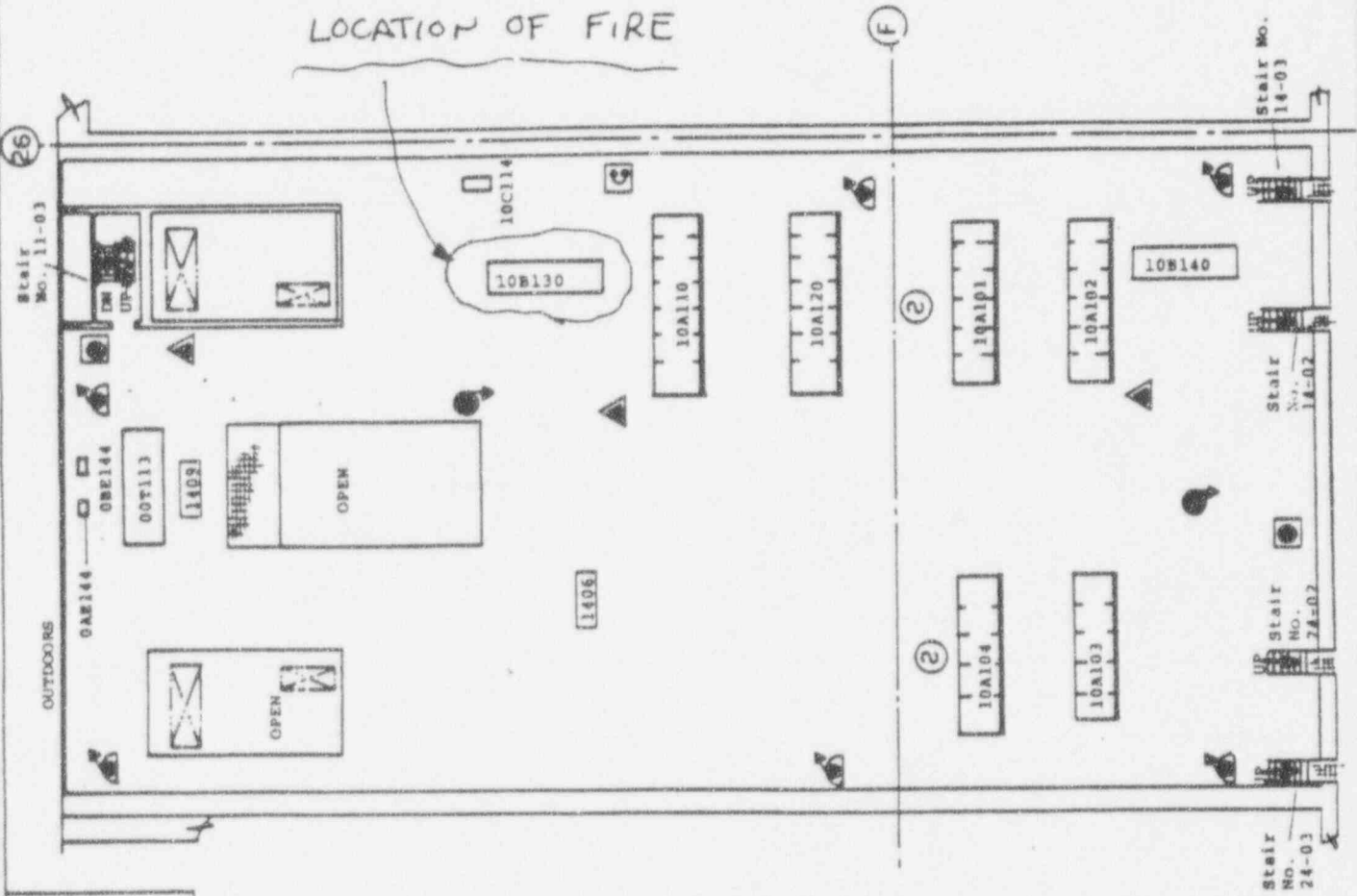


LEGEND

- SAFETY RELATED EQUIPMENT
- HIGH RADIATION AREA
- CONTAMINATED AREA
- MANUAL ALARM STATIONS
- PUBLIC ADDRESS HANDSET
- TELEPHONE
- THERMAL DETECTOR
- SMOKE DETECTOR
- DELUGE SYSTEM
- AUTO-REACTION SPRINKLER
- AUTOMATIC WET PIPE SPRINKLER
- CO₂ AUTOMATIC FIXED SYSTEM
- CO₂ MANUAL FIXED SYSTEM
- HALON 1301 AUTOMATIC FIXED SYSTEM
- DELUGE VALVE
- PORTABLE WATER EXTINGUISHER
- PORTABLE HALON EXTINGUISHER
- PORTABLE CO₂ EXTINGUISHER
- PORTABLE DRY CHEM. EXTINGUISHER
- HOSE STATION CHARGED STANDPIPE
- WATCH FLOOR LEVEL
- WATCH CEILING LEVEL
- LADDER
- WIRE GATE
- CO₂ HOSE REEL
- LOCKED DOOR M - HEALTH PHYSICS
- DELUGE ACTUATION STATION



LOCATION OF FIRE



TURBINE BUILDING
 EL 120'-0"
 FIRE PLAN
 M10-FSE-III-142

TURBINE BUILDING,
 ELEVATION 120'
 ELECTRICAL SWITCHGEAR
 AREA

SUPPLEMENTAL SCENARIO # 7.02

TITLE : 10-B-130 USS REPAIRS

START TIME : 08:55(00:55)

END TIME : 11:00(03:00)

LOCATION : TURBINE BUILDING, ELEVATION 120'

A. INITIATING CONDITIONS:

UNIT SUBSTATION 10-B-130 HAS BEEN DAMAGED BY A FIRE.
THE FIRE IS EXTINGUISHED BY SITE PROTECTION PERSONNEL AT
08:55. SMOKE IS CURRENTLY BEING CLEARED FROM THE AREA.

B. RELATED MESSAGE FORMS: 18C,22,50

C. POSTULATED EVENT:

1) FAILURE MODE (OR CAUSE):

AS THE RESULT OF THE FIRE IN THE 10-B-130 UNIT SUBSTATION
(USS), BOTH LOAD SIDE AND SUPPLY SIDE WIRING HAVE BEEN
DAMAGED, LEADING TO AN ELECTRICAL GROUND FAULT THAT HAS
DEENERGIZED THE UNIT SUBSTATION.

2) SYMPTOMS (OR INDICATIONS):

WHEN THE FIRE IS EXTINGUISHED AND SMOKE CLEARED FROM THE
AREA, THE REPAIR TEAM WILL OBSERVE THE FOLLOWING:
- PAINT ON THE OUTSIDE OF THE UNIT SUBSTATION IS BEGINNING
TO BLISTER AND SOME PEELING MAY BE SEEN.
- WIRING DAMAGE IS CLEARLY VISIBLE.
- INSULATION IS CRACKED AND CHARRED. REPLACEMENT IS
REQUIRED.

SUPPLEMENTAL SCENARIO # 7.02
(CONTINUED)

C. POSTULATED EVENT:

3) RESTORATION GUIDELINES:
UNIT SUBSTATION RESTORATION:

ALL GROUNDS AND SHORT CIRCUITS MUST BE LOCATED AND
CLEARED BY REPLACING THE DAMAGED WIRING OR MAKING
TEMPORARY REPAIRS BY WRAPPING THE BARE SPOTS AND
RECONNECTING LEADS.

4) SCENARIO CONTROLS:

- A) REPAIRS TO THE UNIT SUBSTATION CAN BE SUCCESSFUL AFTER
11:00, PROVIDED OSCC PURSUES REPAIR EFFORTS AND THE TEAM
SATISFACTORILY DEMONSTRATES REQUIRED REPAIRS.
- B) LOSS OF THIS UNIT SUBSTATION WILL RESULT IN THE LOSS OF
POWER TO THE "B" FEEDWATER HEATER STRING, AS WELL AS SOME
CONDENSATE AND EXTRACTION STEAM VALVES.
- C) REPAIRS EFFORT SHALL NOT COMMENCE UNTIL THE FIRE IS
EXTINGUISHED (08:55) AND SMOKE HAS BEEN CLEARED (09:17).

D. RADIOLOGICAL CONCERNS:

TEAM MEMBERS SHALL DEMONSTRATE APPROPRIATE RADIOLOGICAL
PRECAUTIONS WHEN WORKING INSIDE THE RCA.

E. ATTACHMENTS:

- 1) 10-B-130 UNIT SUBSTATION LOAD LIST
- 2) 10-L-102 TURBINE BUILDING LIGHTING PANEL LOAD LIST
- 3) POWER SUPPLY TO 10-B-130 UNIT SUBSTATION
- 4) 10-Y-104 120 VAC DISTRIBUTION PANEL LOAD LIST
- 5) 10-Y-106 120 VAC DISTRIBUTION PANEL LOAD LIST
- 6) 10-B-130 125 VDC CONTROL POWER SOURCES
- 7) TURBINE BUILDING, ELEVATION 120' LAYOUT MAP

F. CONTROLLERS SPECIAL NOTES / REFERENCES / OBJECTIVES:

- 1) IT IS CRITICAL TO THE DRILL TIMELINE THAT REPAIR OF THE
UNIT SUBSTATION NOT BE SUCCESSFUL UNTIL AFTER 11:00,
FOLLOWING THE MAIN TURBINE TRIP AND SUBSEQUENT TURBINE
DAMAGE.
- 2) VENTILATION OF THE AREA IS SUCCESSFUL AT 09:17.

10-B-130 LOADS

52-13011	PNL 10L102
52-13012	PMP, CHILL WTR CIRC 1A1161
52-13013	PNL 10B132 PNL 10B132
52-13014	FAN, TGB EXH 1B1105
52-13021	PMP, MG-SET L/O 1A1P120
52-13022	FAN, MG-SET VNT 1A1V107
52-13023	PNL 10B131 PNL 10B131
52-13024	SPARE
52-13031	PMP, MG-SET L/O 1A1P120
52-13032	CENTRIFUGE, MTL0 10S129
52-13033	PNL 10B133 PNL 10B133
52-131011	PMP, FLR DRN SUMP 1B1165
52-131012	PMP, TGB EQUIP DRN SUMP 1D1165
52-131013	PMP, EMER SUMP 1D1167
52-131021	MOV AK-HV2691B CNDS DM SUCT
52-131022	MOV AK-HV2691E CNDS DM SUCT
52-131023	PMP, REGEN HI CONDCT SJMP 1B1169
52-131024	PMP, SEAL WTR CIRC 1B1138
52-131031	MOV AK-HV2701B CNDS DM BYP
52-131032	MOV AK-HV2701E CNDS DM BYP
52-131033	MOV AD-HV2723 CNDS DM FLUSH
52-131034	PMP, COND DM CAUSTIC 1B1147
52-131041	MOV AK-HV2702B COND DM DSCH
52-131042	MOV AK-HV2702E COND DM DSCH
52-131043	SPARE
52-131044	PMP, COND DM ACID 1B1148
52-131051	RECEPT, TGB INTB1031 RECEPT, TGB INTB1031
52-131052	PMP, TGB COND RTN 1B1137
52-131053	XFMR, M-G SET ALT SUP 1B1432
52-131061	HTR, TGB WTR TK 02E139
52-132021	MOV AC-HV1360C C3E105 M/S DRN
52-132022	MOV AC-HV1361C C3E105 M/S DRN
52-132023	MOV AF-HV1362C FWH C3E105 ISLN
52-132024	MOV CA-HV1370 SSE DRN TK ISO
52-132031	MOV AF-HV1363C FWH C1E106 ISLN
52-132032	MOV AF-HV1511C FWH C3E105 DUMP
52-132033	MOV AF-HV1533C FWH C1E103 DRN
52-132034	SPARE
52-132041	MOV AD-HV1600C C3/C4/C5 FWH DT
52-132042	MOV AD-HV1615C FWH C3/C4/C5 IN
52-132043	XFMR 1AX501 ALT PWR SUP XFMR 1AX501 ALT PWR SUP XFMR 1AX502 ALT PWR SUP XFMR 1AX502 ALT PWR SUP
52-132044	XFMR 1AX501 ALT PWR SUP XFMR 1AX502 ALT PWR SUP XFMR 1AX502 ALT PWR SUP
52-132051	MOV CG-HV1963A1 1ST STG SUCT
52-132052	MOV CG-HV1963A2 1ST STG SUCT
52-132053	MOV CG-HV1972C VAC BK/VAC ISO
52-132054	HTR, REPT L/O CONSOLE 10E135
52-132061	MOV CG-HV1973C BK/VAC P IS
52-132062	MOV AD-HV1623 FDWTR HTR BYP
52-132063	MOV CG-HV1963A3 1ST STG SUCT

SUPPLIES POWER TO VARIOUS TURBINE BUILDING LIGHTS

*A" Rx Recirc Pump M-G Set Vent Fan Trips, causing Overhead Alarm E5-F5 to annunciate in the Main Control Room

EXTRACTION STEAM ISOLATION VALVE TO #6C FEEDWATER HEATER LOSES MOTIVE POWER

CONDENSATE OUTLET VALVE FROM THE #5C FEEDWATER HEATER LOSES MOTIVE POWER

10-B-130 LOADS (CONT)

52-132064 CLR, COND COMPT WEST 1FVH11E
 52-132071 MOV AD-HV1654 SEC COND PMP RYP
 52-132072 MOV AD-HV1660 SPE 10E110 INL
 52-132073 MOV AD-HV1661 SPE 10E110 OTL
 52-132074 PMP, L/O XFR 10P107
 52-132081 MOV CG-HV2019 AUX STM FEED
 52-132082 MOV EG-HV2562 TURB AU S/O
 52-132083 PNL 10Y104
 52-132084 PNL 10Y104
 52-132084 XFMR 1BX501 ALT PWR SUP
 52-132085 XFMR 1BX501 ALT PWR SUP
 52-132085 XFMR 1BX502 ALT PWR SUP
 52-132085 XFMR 1BX502 ALT PWR SUP
 52-132091 PNL, COND DEMIN HT TRACE 10C135
 52-132092 SPARE
 52-132093 MOV AD-HV17450 FWH 50 BYP
 52-132094 MOV AD-HV17460 FWH 20 BYP
 52-132101 PMP, EMER SUMP 20P157
 52-132104 SPARE
 52-133012 MOV AE-HV17533 FWH 3E106 OTL
 52-133013 MOV AF-HV15033 FWH 3E106 DPN
 52-133014 EXTR/DEMIST, RFPT 1BK105
 52-133021 MOV AC-HV17515 RFPT 3 LP STM
 52-133022 MOV FW-HV17523 RFPT 3 HI PRES
 52-133023 MOV AF-HV15032 FWH 3E106 DUMP
 52-133024 MOV CA-HV2001 STM SEAL BYP
 52-133031 MOV FW-HV17603 HI PRES BLW ST
 52-133032 MOV FW-HV17613 HI PRES ABV ST
 52-133033 MOV FW-HV17652 RFPT 3 MSTRS MV
 52-133034 MOV CA-HV2013 EVAP WTR FEED
 52-133041 MOV FW-HV17552 RFPT 3 EXH
 52-133042 MOV FW-HV17673 MSTRS RMV BLW
 52-133043 HTR, SERV SUP FAN DAVH131
 52-133044 MOV CA-HV2057 AUX STA TO SEAL
 52-133051 MOV AE-HV17695 RFPT 3 DSCH
 52-133052 M/S RM 1512 RAD SHLD DOOR
 52-133052 M/S RM 1512 RAD SHLD DOOR
 52-133053 RECEPT, TGS 1NTB1453
 52-133053 RECEPT, TGS 1NTB1453
 52-133054 FAN, L/O STOR RM EXH 1BV114
 52-133061 MOV FW-HV17723 LO PRES BLW ST
 52-133062 MOV AE-HV17323 RFPT 3 RECIRCV
 52-133063 HOIST, M-3 SET DBH105
 52-133063 HOIST, M-3 SET DBH105
 52-133064 FAN, SERV AREA SUP DAVH131
 52-133071 MOV AD-HV17313 RFPT 3 SUCT
 52-133072 CHLR, WTR 1BK111 ALT
 52-133073 HOIST, RFP 1AH107
 52-133073 HOIST, RFP 1AH107
 52-133074 BLOWER, STEAM PACK EXH 1BK103
 52-133081 PNL 10Y106
 52-133081 PNL 10Y106

10Y104 BREAKER #7
 SUPPLIES POWER
 TO "B" FEEDWATER
 HEATER CONTROL
 PANEL

10-B-130 LOADS (CONT)

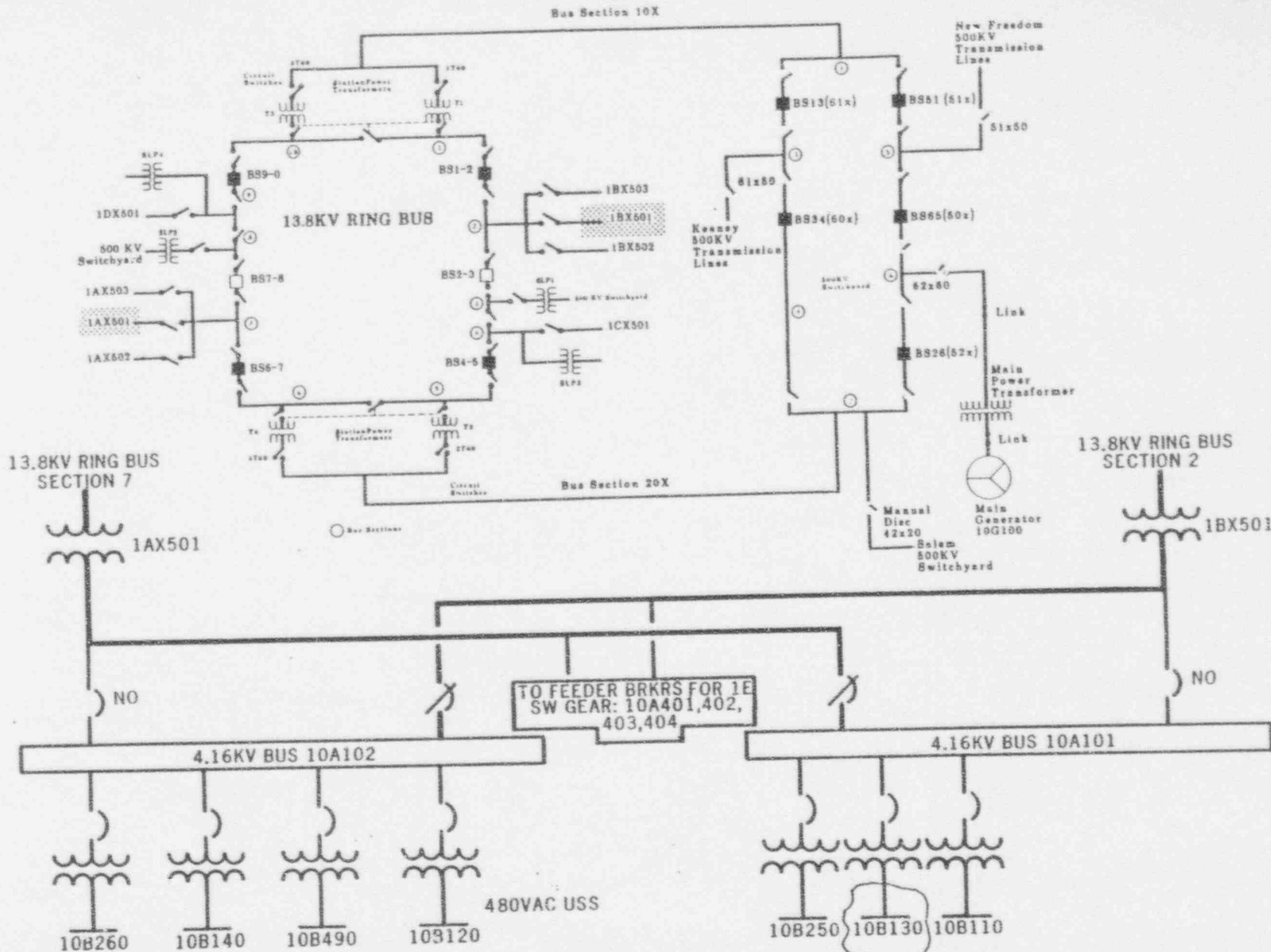
52-133082	MOV FW-HV3714B RPPT B STM DRN
52-133083	MOV FW-HV3719 HP STM HDR DRN
52-133084	MOV AE-HV1768B FWH BE106 INL
52-133091	MOV AC-HV1065 CNT AREA CNDS RT
52-133092	MOV AB-HV1005 COND HTWL SPAGE
52-133093	MOV AE-HV1797B RECIRC LN ISLN
52-133094	HTR,SERV SUP FAN OAVH131
52-133101	HTR,RPPT L/O PURIF 10E137
52-133102	MOV AE-HV1744B FWH BYPASS
52-133103	HOIST,TGB AUX CRANE JOH100
	HOIST,TGB AUX CRANE JOH100
52-133104	CMPSR,RAD PPO BREATHING AIR
	CMPSR,RAD PPO BREATHING AIR
52-133111	HTR,SERV SUP FAN OAVH131
52-133112	HTR,SERV SUP FAN OAVH131
52-133113	HTR,SERV SUP FAN OAVH131
52-133114	HTR,SERV SUP FAN OAVH131

TURBINE BUILDING 10-L-102 (120 VAC)

LIGHTING LOADS

10L102-01	LTG, TB EL 137 (HIGH BAY)
10L102-02	LTG, TB EL 137 (HIGH BAY)
10L102-03	LTG, TB EL 137 (HIGH BAY)
10L102-04	LTG, TB EL 137 (HIGH BAY)
10L102-05	LTG, TB EL 137 (HIGH BAY)
10L102-06	LTG, TB EL 137 (HIGH BAY)
10L102-07	LTG, TB EL 137 M/S & FOWTR HTR
10L102-08	LTG, TB EL 137
10L102-09	LTG, TB EL 137 M/S & FOWTR HTR
10L102-10	LTG, TB EL 137
10L102-11	LTG, TB EL 137 M/S & FOWTR HTR
10L102-12	LTG, TB EL 137
10L102-13	LTG, TB EL 120 & 123 SWGR
10L102-14	LTG, TB EL 171 42V ROOM
10L102-15	LTG, TB EL 120 & 123 SWGR
10L102-16	LTG, TB EL 171 42V ROOM
10L102-17	LTG, TB EL 120 & 123 SWGR
10L102-18	LTG, TB EL 171 ELEC MAINT RM
10L102-19	LTG, TB EL 123 & PIPE CHASE
10L102-20	LTG, TB EL 77
10L102-21	LTG, TB EL 123 & PIPE CHASE
10L102-22	LTG, TB EL 77
10L102-23	LTG, TB EL 123 & PIPE CHASE
10L102-24	LTG, TB EL 77
10L102-25	LTG, STRWELL 11-03
10L102-26	LTG, TB EL 54
10L102-27	LTG, STRWELL 11-03
10L102-28	LTG, TB EL 54
10L102-29	LTG, STRWELL 11-03
10L102-30	LTG, TB EL 54
10L102-31	SPARE
10L102-32	LTG, TB EL 54 & 137
10L102-33	SPARE
10L102-34	LTG, TB EL 54 & 137
10L102-35	SPARE
10L102-36	LTG, TB EL 54 & 137
10L102-37	PNL 10L122
10L102-38	LTG, TB EL 53 & 137
10L102-39	PNL 10L122
10L102-40	LTG, TB EL 54 & 137
10L102-41	PNL 10L122
10L102-42	LTG, TB EL 54 & 137

7.0ZE



POWER SUPPLY TO 10-B-130

At 08:33, the Control Room Crew will receive indication that Non-Essential 480 VAC Unit Substation (USS) 10-B-130 has been lost. The Unit Substation has overheated and is on fire. The loss of this Unit Substation among other things will cause a Loss of AC Power to various Condensate and Extraction Steam System Valves, that will become significant later in the scenario.

10-Y-104 LOADS (120 VAC)

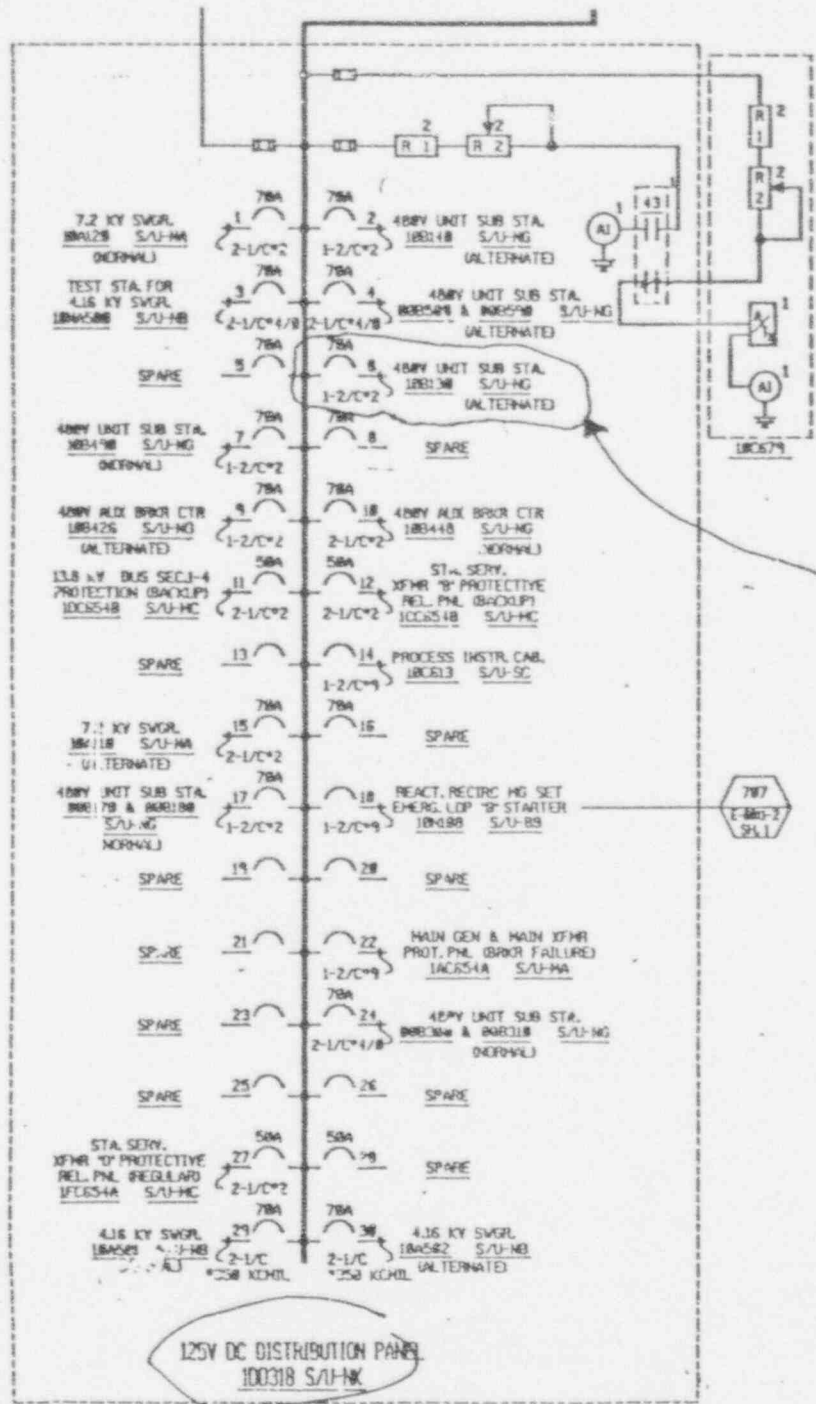
10Y104-01	HTR, SPACE MCC 10B111
10Y104-02	HTR, SPACE MCC 10B123
10Y104-03	HTR, SPACE BUS 10A103
10Y104-04	HTR, 1AVE100 & 1BVE100
10Y104-05	HTR, 10VE105 & 10VE105
10Y104-06	HTR, SPACE BUS 10A119
10Y104-07	PNL, PDWTR TRN & INST 10C102
10Y104-08	SPARE
10Y104-09	HTR, SPACE BATT CHGR 10D143
10Y104-10	PNL, TB CLRS 10C137
10Y104-11	HTR, SPACE SWBD 10D170
10Y104-12	ALARM, CO2 STOR TK REFRIG
10Y104-13	HTR, 1AVE104 & 1BVE104
10Y104-14	HTR, 1LVE100 & 1MVE100
10Y104-15	HTR, 1JVE100 & 1KVE100
10Y104-16	HTR, 1EVE102 & 10VE140
10Y104-17	HTR, SPACE STA SERV XFMR 1AX501
10Y104-18	HTR, 10VE100 & 1BVE101
10Y104-19	HTR, 1AVE139 & 10VE143
10Y104-20	HTR, SPACE STA SERV XFMR 1BX501
10Y104-21	HTR, SPACE STA SERV XFMR 1AX502
10Y104-22	HTR, SPACE STA SERV XFMR 1BX502
10Y104-23	HTR, SPACE EHC HYD PMP 10P116
10Y104-24	TERM BOX, MN TB LO RSV 1NTB1200
10Y104-25	SPARE
10Y104-26	HTR, SPACE BUS 10A111
10Y104-27	HTR, SPACE BUS 10A109
10Y104-28	HTR, SPACE BUS 10A129

10-Y-106 LOADS (120 VAC)

10Y106-01	1AF104 INST AIR DRYER OUTLET
10Y106-02	PNL, AIR PURIFIER CONT 10C142
10Y106-03	SPARE
10Y106-04	PNL, RFPT LO CONSOLE 10C133
10Y106-05	PNL, RFPT LO CONSOLE 13C133
10Y106-06	SPARE
10Y106-07	PNL, INST AIR STATUS 00C133
10Y106-08	PNL, INST AIR CMPSR 10C190
10Y106-09	HTR, SPACE SUB 10B140
10Y106-10	HTR, 13VE102 & 10VE102
10Y106-11	HTR, SPACE SUB 10B140
10Y106-12	HTR, 1AVE103
10Y106-13	HTR, 1AVE102 & 10VE102
10Y106-14	DEMINS, TACS CONTROL STATION
10Y106-15	SPARE
10Y106-16	HTR, SPACE MCC 10B113
10Y106-17	PNL, RFPT LO CONSOLE 1AC133
10Y106-18	HTR, 12VE103
10Y106-19	PNL, CNDSR C INST 10C104
10Y106-20	HTR, SPACE SWGR 10A104
10Y106-21	HTR, SPACE SWGR 10A103
10Y106-22	HTR, SPACE SWGR 10A104
10Y106-23	HTR, SPACE SWGR 10A103
10Y106-24	HTR, SPACE SWGR 10A104
10Y106-25	HTR, SPACE SWGR 10A103
10Y106-26	HTR, SPACE SWGR 10A102
10Y106-27	SPARE
10Y106-28	HTR, SPACE SWGR 10A102
10Y106-29	SPARE
10Y106-30	HTR, SPACE SWGR 10A102
10Y106-31	SPARE
10Y106-32	SPARE
10Y107-01	SPARE

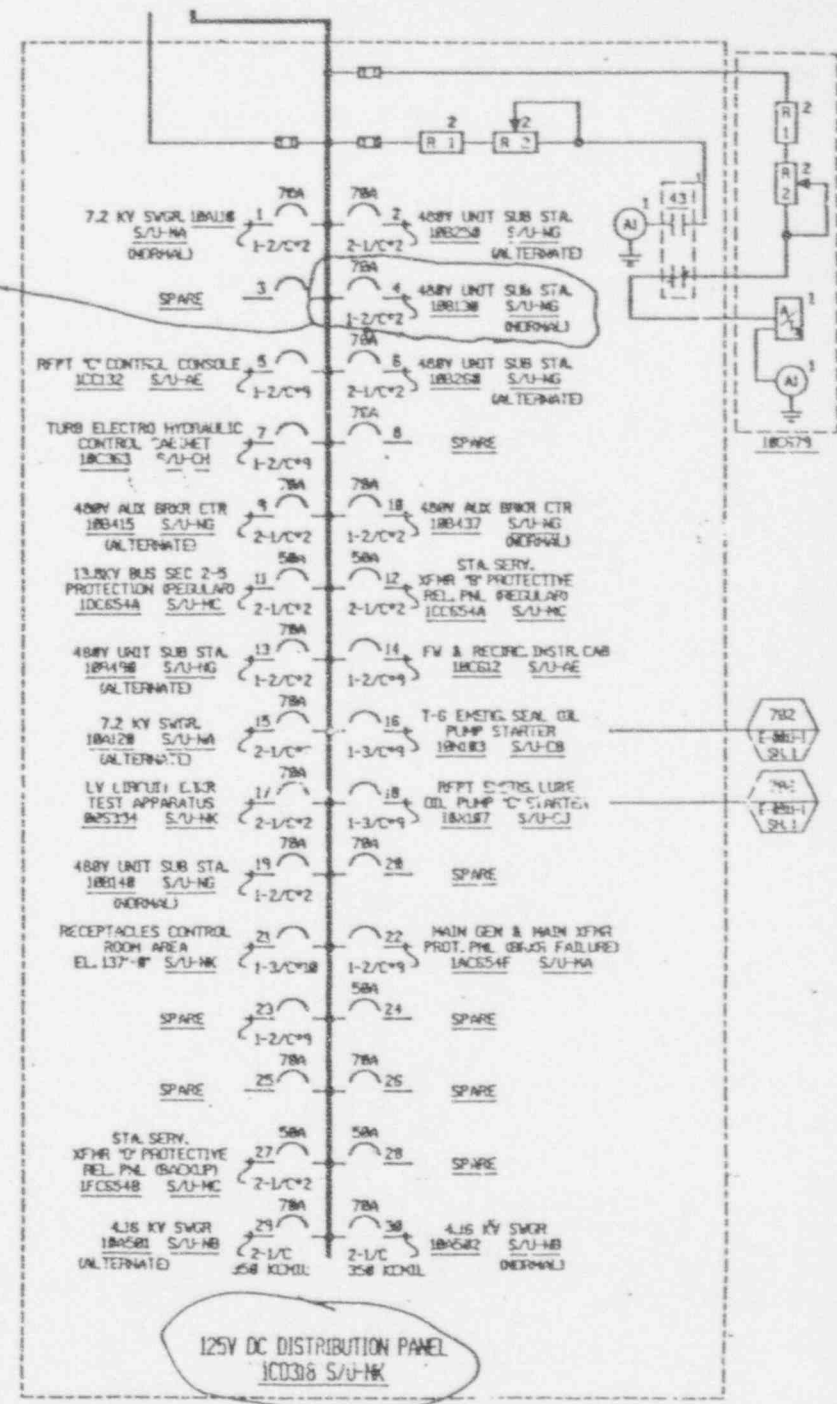
10-B-130 125 VDC CONTROL POWER SOURCES

7.0ZH

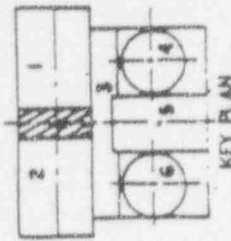


NORMAL 125 VDC CONTROL POWER TO 10-B-130

ALT 125 VDC CONTROL POWER TO 10-B-130



125V DC DISTRIBUTION PANEL 100318 S/U-NK



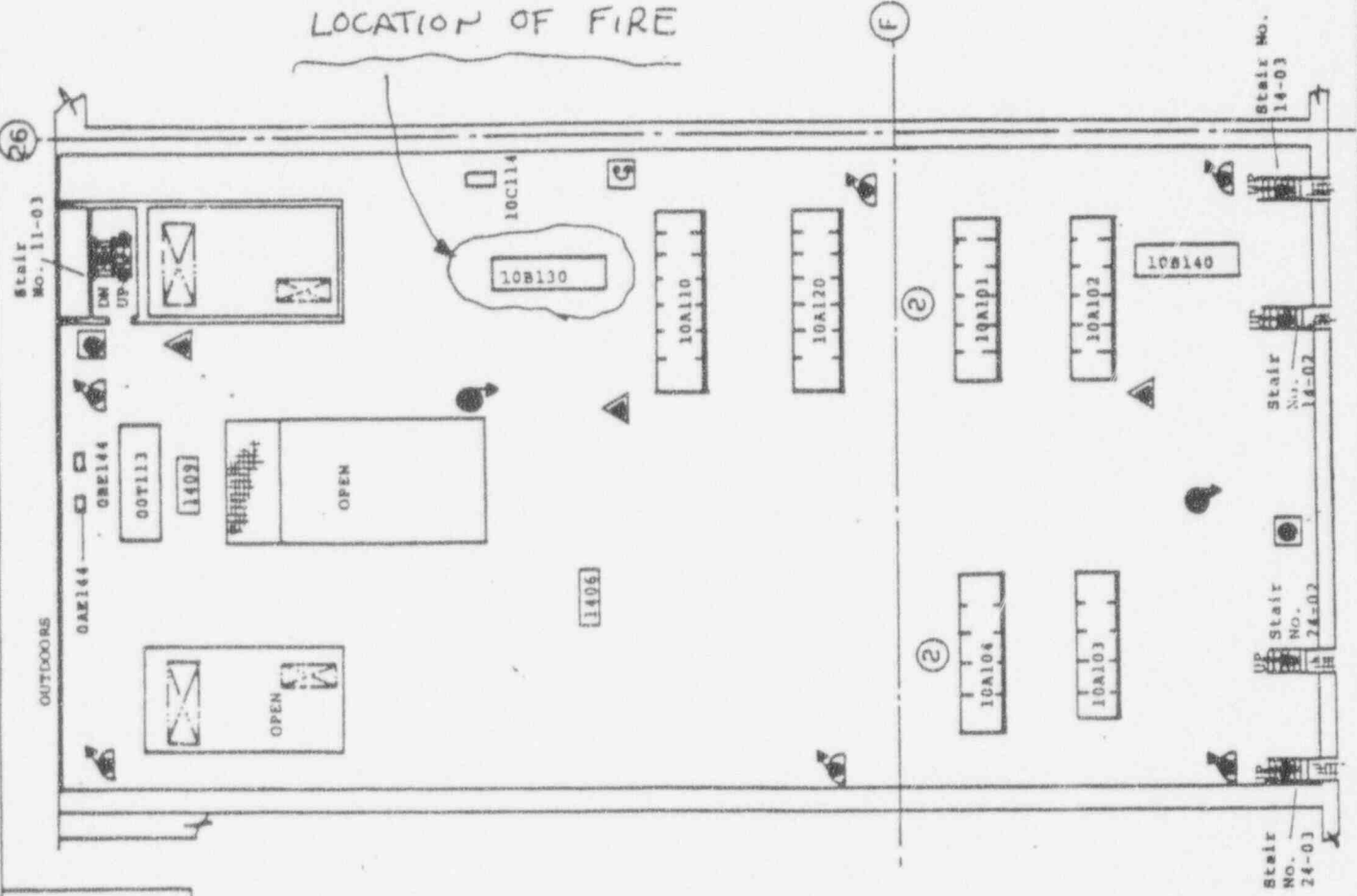
KEY PLAN

LEGEND

- [Symbol] SAFETY RELATED EQUIPMENT
- [Symbol] HIGH RADIATION AREA
- [Symbol] CONTAMINATED AREA
- [Symbol] MANUAL ALARM STATIONS
- [Symbol] PUBLIC ADDRESS HANDSET
- [Symbol] TELEPHONE
- [Symbol] THERMAL DETECTOR
- [Symbol] SMOKE DETECTOR
- [Symbol] DELUGE SYSTEM
- [Symbol] AUTO-PREACTION SPRINKLER
- [Symbol] AUTOMATIC WET PIPE SPRINKLER
- [Symbol] CO₂ AUTOMATIC FIXED SYSTEM
- [Symbol] CO₂ MANUAL FIXED SYSTEM
- [Symbol] HALON 1301 AUTOMATIC FIXED SYSTEM
- [Symbol] DELUGE VALVE
- [Symbol] PORTABLE WATER EXTINGUISHER
- [Symbol] PORTABLE HALON EXTINGUISHER
- [Symbol] PORTABLE CO₂ EXTINGUISHER
- [Symbol] PORTABLE DRY CHEM. EXTINGUISHER
- [Symbol] HOSE STATION CHARGED STAMP
- [Symbol] MATCH FLOOR LEVEL
- [Symbol] MATCH CEILING LEVEL
- [Symbol] LADDER
- [Symbol] WIRE GATE
- [Symbol] CO₂ HOSE REEL
- [Symbol] LOCKED DOOR M = HEALTH PHYSICS
- [Symbol] DELUGE ACTUATION STATION



LOCATION OF FIRE



TURBINE BUILDING
 EL 120'-0"
 PRE-FIRE PLAN
 M10-PMS-III-142

TURBINE BUILDING,
 ELEVATION 120'
 ELECTRICAL SWITCHGEAR
 AREA

7.02I

SUPPLEMENTAL SCENARIO # 7.03

TITLE : LOOSE PARTS MONITOR ALARM

START TIME : 09:01(01:01)

END TIME : 09:20(01:20)

LOCATION : AUXILIARY BUILDING, ELEVATION 163'

A. INITIATING CONDITIONS:

THE CONTROL ROOM WILL RECEIVE OVERHEAD ANNUNCIATOR C6-A5, RPV LOOSE PARTS MONITOR PNL 10C675, ALONG WITH INDICATION OF A RAPID DECREASE IN FLOW IN THE #5 JET PUMP, AS WELL AS A DECREASE IN TOTAL JET PUMP FLOW IN THE "B" REACTOR RECIRC LOOP.

B. RELATED MESSAGE FORMS: 13D,16,17,20,55D

C. POSTULATED EVENT:

1) FAILURE MODE (OR CAUSE):

THE #5 JET PUMP RISER SECTION HAS FAILED. THE ELBOW/MIXER SECTION (RAM'S HEAD ASSEMBLY) SUDDENLY SEPERATES FROM THE TOP OF THE JET PUMP RISER. THE BROKEN PIECE OF THE #5 JET PUMP SUBSEQUENTLY BECOMES WEDGED BETWEEN THE TOPS OF JET PUMPS #4 AND #5.

2) SYMPTOMS (OR INDICATIONS):

IN THE MAIN CONTROL ROOM:

A) #5 JET PUMP FLOW AND REACTOR POWER DECREASE.

B) TOTAL JET PUMP FLOW IN THE "B" RECIRC LOOP DECREASES.

AT PANEL 10C675 IN THE UPPER RELAY ROOM:

"LOOSE PART" LIGHT IS ON FOR THE FOLLOWING CHANNELS:

CHANNELS 5 & 6 (INLET RECIRC LINE)

"VIBRATION" LIGHT IS ON FOR THE FOLLOWING CHANNELS:

CHANNELS 5 & 6, AS WELL AS, CHANNEL 12 (RECIRC PUMP 1BP210).

SUPPLEMENTAL SCENARIO # 7.03
(CONTINUED)

C. POSTULATED EVENT:

3) RESTORATION GUIDELINES:

- A) AN OPERATOR NEEDS TO BE DISPATCHED TO THE LOOSE PARTS MONITOR PANEL (10C675) TO VALIDATE THE ALARM.
- B) CONFIRMATION OF THE FAILURE OF THE #5 JET PUMP WILL REQUIRE A REACTOR SHUTDOWN BE COMMENCED.
- C) THE #5 JET PUMP IS NOT RECOVERABLE.
- D) ATTEMPTS TO RESET THE ALARMS WILL NOT BE SUCCESSFUL.

4) SCENARIO CONTROLS:

- A) WHEN AN OPERATOR IS DISPATCHED TO THE LOOSE PARTS MONITOR PANEL, ENSURE HE VALIDATES THE ALARM IN ACCORDANCE WITH THE SYSTEM OPERATING PROCEDURE.

D. RADIOLOGICAL CONCERNS:
NONE

E. ATTACHMENTS:

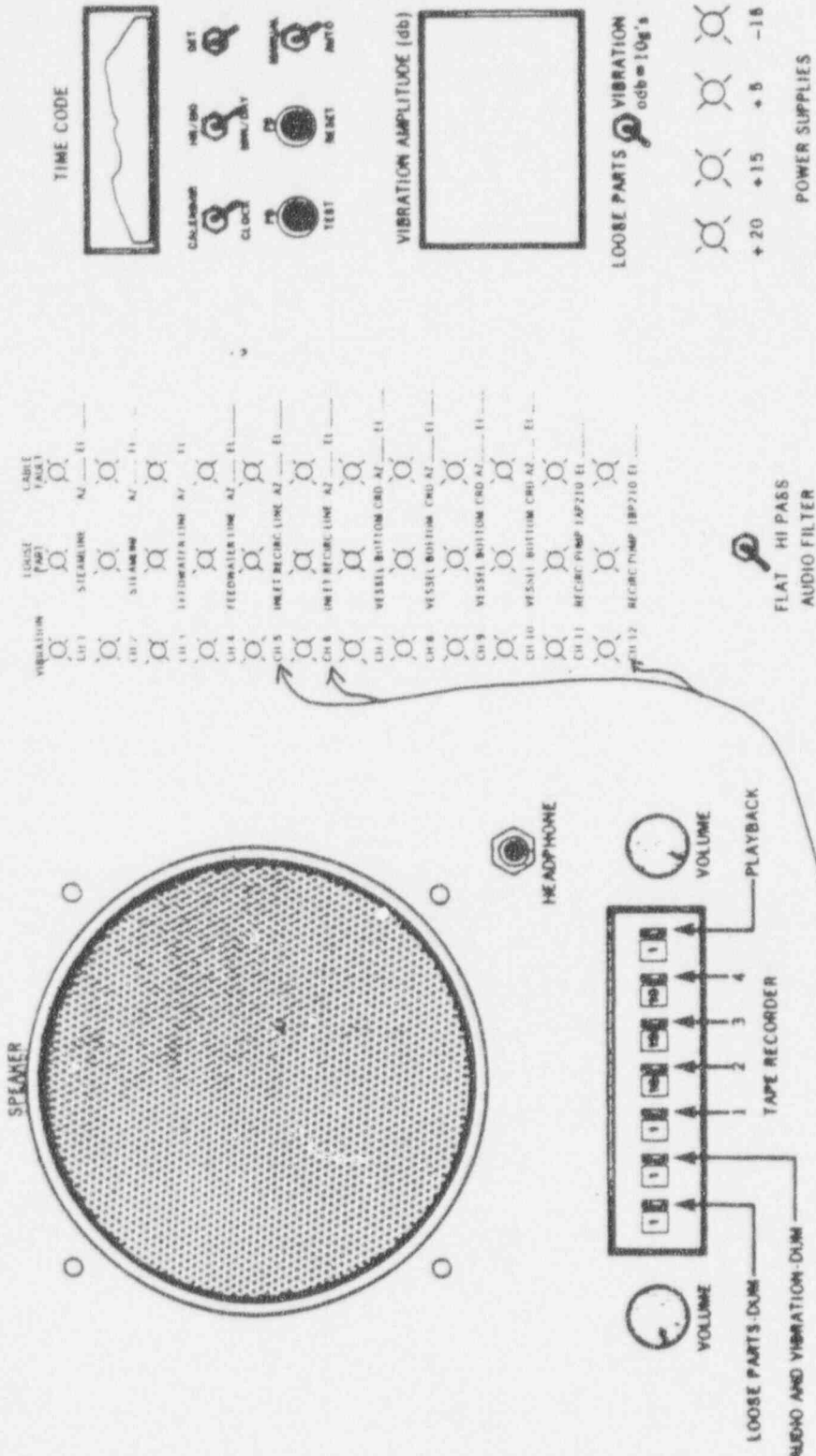
- 1) 10-C-675 LOOSE PARTS MONITOR PANEL
- 2) JET PUMP ASSEMBLY SCHEMATIC
- 3) JET PUMP INSTRUMENTATION SCHEMATIC
- 4) LOOSE PARTS MONITORING SENSOR LOCATIONS
- 5) AUXILIARY BUILDING, ELEVATION 163' LAYOUT MAP

F. CONTROLLERS SPECIAL NOTES / REFERENCES / OBJECTIVES:

- 1) ENSURE THAT AFTER THE INFORMATION HAS BEEN OBTAINED FROM THE LOOSE PARTS MONITOR PANEL, THAT IT IS PROVIDED TO THE CONTROL ROOM CREW AT THE SIMULATOR (X3339).

10-C-675 LOOSE PARTS MONITOR PANEL

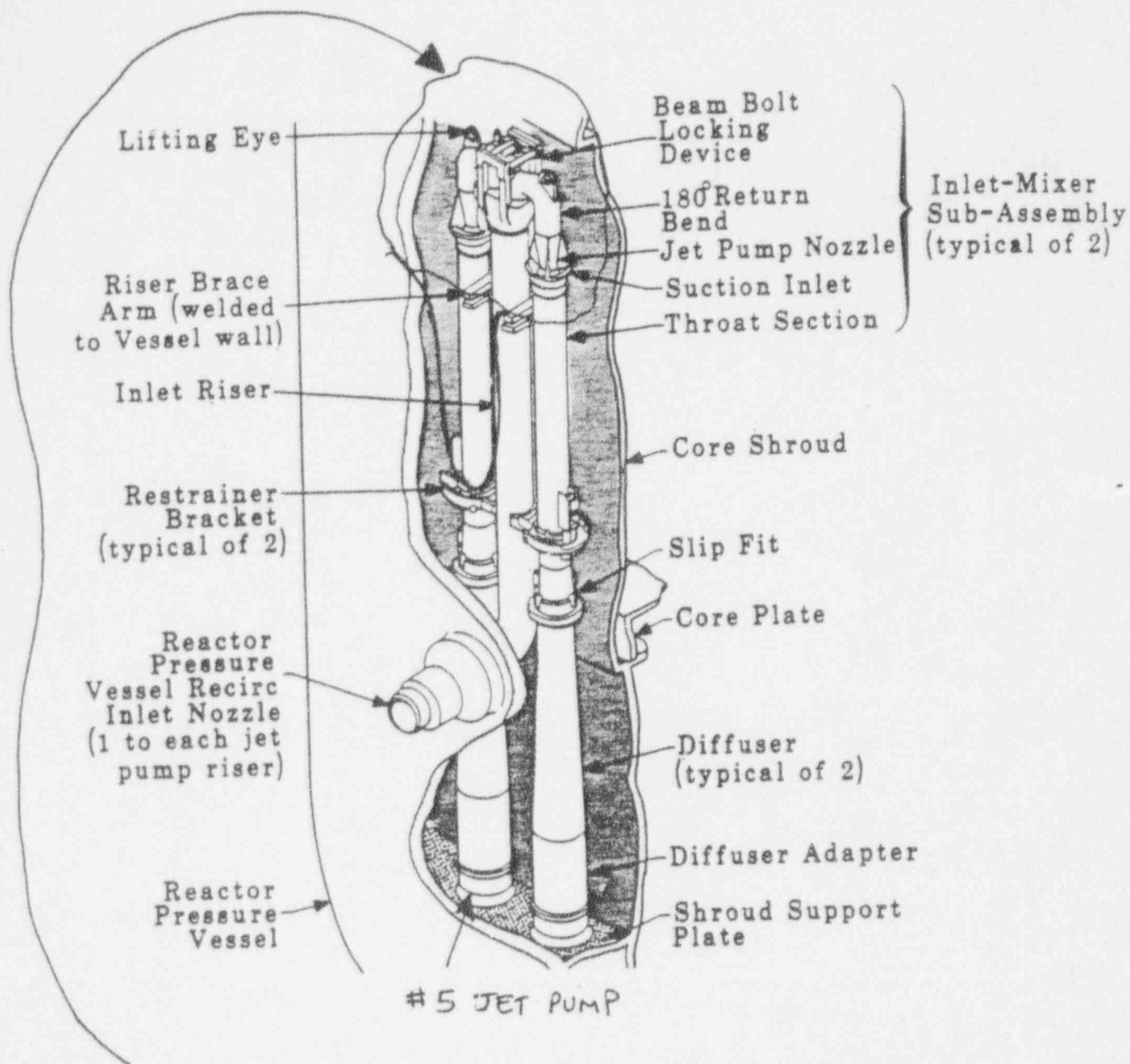
VIBRATION AND LOOSE PARTS MONITOR



CHANNEL 5, INLET RECIRC LINE VIBRATION AND LOOSE PART LEADS ARE ILLUMINATED.
 CHANNEL 6, INLET RECIRC LINE VIBRATION AND LOOSE PART LEADS ARE ILLUMINATED.
 CHANNEL 12, RECIRC PUMP 1BP210 VIBRATION LED IS ILLUMINATED.

At 09:01, the Loose Parts Monitor Overhead Alarm will announce in the Main Control Room. The #5 Jet Pump Riser will fail, as the elbow/mixer section (Ram's Head Assembly) suddenly separates from the top of the Jet Pump riser, resulting in a rapid decrease in flow in the #5 Jet Pump, as well as a decrease in Total Jet Pump Flow in the "B" Reactor Recirc Loop. As Core Flow decreases, a decrease in Reactor Power occurs.

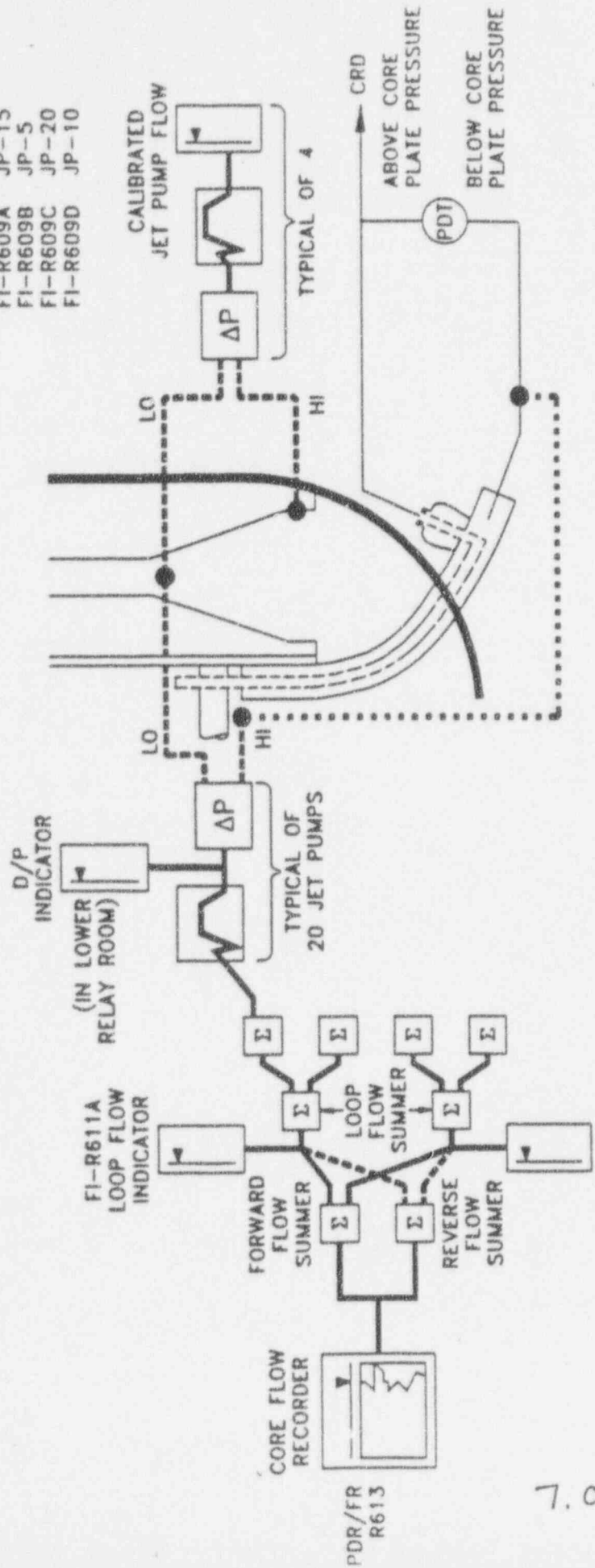
JET PUMP ASSEMBLY



At 09:01, the Loose Parts Monitor Overhead Alarm will annunciate in the Main Control Room. The #5 Jet Pump Riser will fail, as the elbow/mixer section (Ram's Head Assembly) suddenly separates from the top of the Jet Pump riser, resulting in a rapid decrease in flow in the #5 Jet Pump, as well as a decrease in Total Jet Pump Flow in the "B" Reactor Recirc Loop. As Core Flow decreases, a decrease in Reactor Power occurs.

JET PUMP INSTRUMENTATION

- FI-R609A JP-15
- FI-R609B JP-5
- FI-R609C JP-20
- FI-R609D JP-10



7.03C

LOOSE PARTS MONITORING SENSOR LOCATION

<u>ACTIVE SENSOR</u>	<u>INACTIVE</u>	<u>LOCATION</u>
1. BB-VE-7933A	(7933B)	Reactor Vessel - Steam Dryer Level
2. BB-VE-7933C	(7933D)	Reactor Vessel - Steam Dryer Level
3. BB-VE-7934A	(7934B)	Reactor Vessel - Steam Separator Level
4. BB-VE-7934C	(7934D)	Reactor Vessel - Steam Separator Level
5. BB-VE-7935A	(7935B)	Reactor Vessel - Fuel Assembly Level
6. BB-VE-7935C	(7935D)	Reactor Vessel - Fuel Assembly Level
7. BB-VE-7937A	(7937B)	Reactor Vessel - Bottom Head
8. BB-VE-7937C	(7937D)	Reactor Vessel - Bottom Head
9. BB-VE-7937E	(7937F)	Reactor Vessel - Bottom Head
10. BB-VE-7937G	(7937H)	Reactor Vessel - Bottom Head
11. BB-VE-7938A	(7938B)	Recirc Pumps - No. 1 Seal Cavity
12. BB-VE-7938C	(7938D)	Recirc Pumps - No. 1 Seal Cavity

NOTE: See M-42-1 Sheet 1 for Sensor AZIMUTH

SUPPLEMENTAL SCENARIO # 7.04

TITLE : MANUAL ISOLATION OF THE #6C FEEDWATER HEATER
START TIME : 09:28(01:28) END TIME : 10:00(02:00)
LOCATION : TURBINE BUILDING, ELEVATION 155'

A. INITIATING CONDITIONS:

A LARGE TUBE LEAK DEVELOPS IN THE #6C FEEDWATER HEATER. LEVEL IN THE HEATER INCREASES. DUE TO A PREVIOUS LOSS OF 10-B-130, POWER IS LOST TO THE EXTRACTION STEAM ISOLATION VALVE. RECOGNIZING THAT THE HEATER HAS NOT ISOLATED, THE CREW WILL ATTEMPT TO CLOSE THE CONDENSATE INLET VALVE TO THE #6C FWH. THE VALVE FAILS TO REMOTELY CLOSE FROM THE CONTROL ROOM.

B. RELATED MESSAGE FORMS: 19D,24,25,26

C. POSTULATED EVENT:

1) FAILURE MODE (OR CAUSE):

THE #6C FEEDWATER HEATER CONDENSATE INLET VALVE, 1AEHV-1768C DOES NOT CLOSE REMOTELY FROM THE MAIN CONTROL ROOM DUE TO THE MOTOR BREAKER TRIPPING ON THERMAL OVERLOAD.

2) SYMPTOMS (OR INDICATIONS):

AT THE VALVE:

A) THE MOTOR OPERATOR DECLUTCH LEVER DISENGAGES FROM THE MOTOR WHEN ATTEMPTED.

B) THE VALVE HANDWHEEL IS EXTREMELY DIFFICULT TO TURN.

AT THE BREAKER:

A) THE BREAKER IS FOUND IN THE TRIPPED CONDITION.

B) THE CLOSED CONTACTOR IS EXTREMELY HOT.

SUPPLEMENTAL SCENARIO # 7.04
(CONTINUED)

C. POSTULATED EVENT:

- 3) RESTORATION GUIDELINES:
MANUAL OPERATION OF THE VALVE IS REQUIRED TO CLOSE IT.
THE VALVE CAN BE CLOSED, BUT ONLY IF THE EQUIPMENT OPERATOR
CONTINUES ATTEMPTING TO CLOSE THE VALVE FOR 30 MINUTES.

- 4) SCENARIO CONTROLS:
 - A) IT IS CRITICAL TO THE SCENARIO TIMELINE THAT THIS VALVE
NOT BE CLOSED BEFORE 10:00.
 - B) THE EQUIPMENT OPERATOR IS TO BE IN THE TURBINE BUILDING
AT 09:48. IT IS CRITICAL TO PROVIDE THE INDIVIDUAL WITH
THE MESSAGE REGARDING THE TURBINE FAILURE AND BLADING
PENETRATION THAT OCCURS AT THIS TIME.

D. RADIOLOGICAL CONCERNS:

- 1) APPROPRIATE RADIOLOGICAL PRECAUTION SHOULD BE
DEMONSTRATED BY THE EQUIPMENT OPERATOR WHEN MANUALLY
CLOSING THE #6C FEEDWATER HEATER CONDENSATE INLET VALVE.

E. ATTACHMENTS:

- 1) FWH EXTRACTION STEAM SYSTEM SCHEMATIC
- 2) #6C FEEDWATER HEATER CONDENSATE FLOW SCHEMATIC

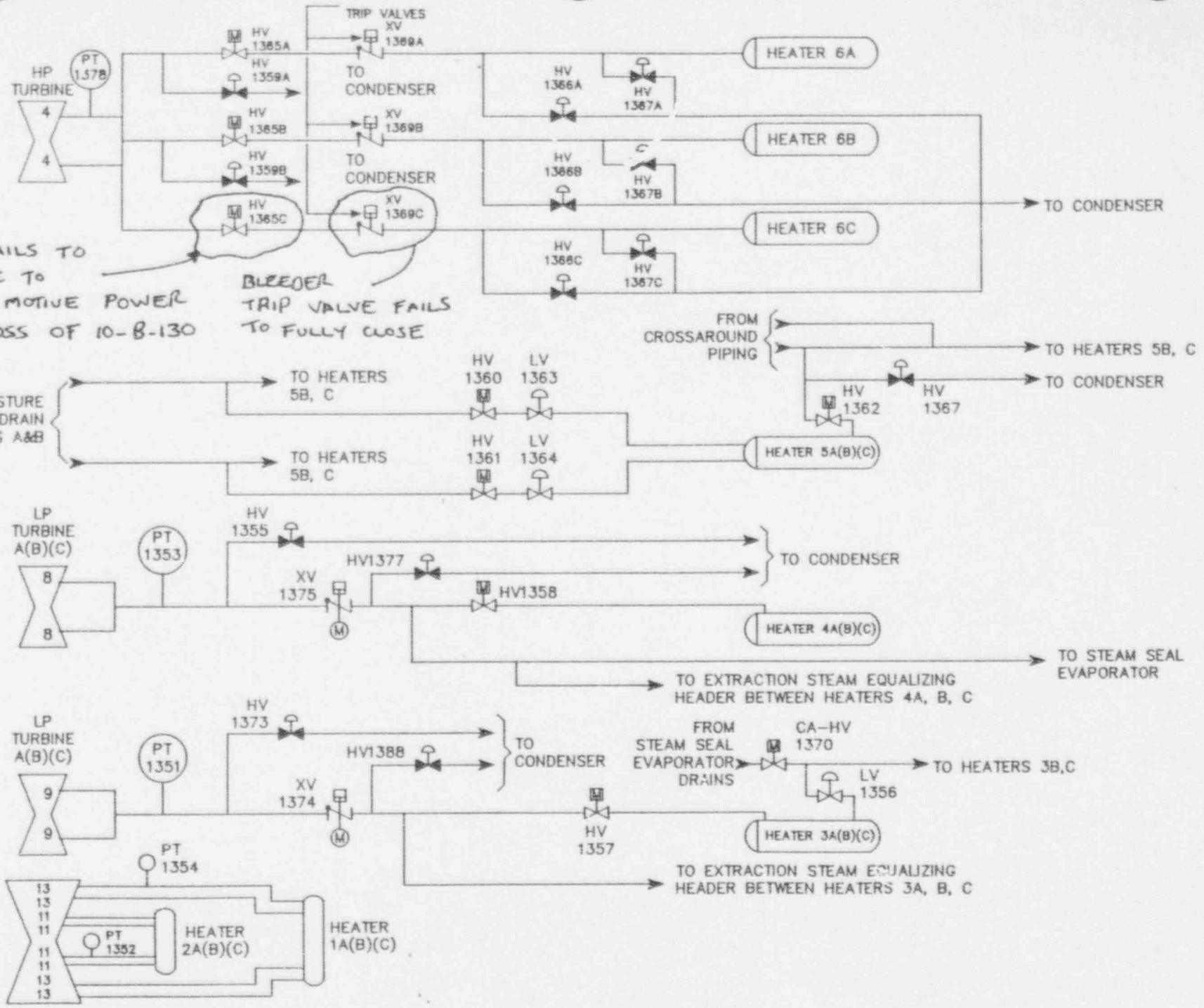
- F. CONTROLLERS SPECIAL NOTES / REFERENCES / OBJECTIVES:
THIS SUPPLEMENTAL SCENARIO IS DESIGNED TO SUPPORT THE
FAILURE OF THE MAIN TURBINE WITH SUBSEQUENT BLADING
PENETRATION OF THE TURBINE CASING, BY ALLOWING WATER FROM
THE #6C FEEDWATER HEATER TO BE DRAWN UP THE EXTRACTION
STEAM LINE AND SUBSEQUENTLY IMPINGE ON THE MAIN TURBINE
BLADING.

FMW EXTRACTION STEAM SYSTEM SCHEMATIC

VALVE FAILS TO CLOSE DUE TO LOSS OF MOTIVE POWER DUE TO LOSS OF 10-B-130

BLEEDER TRIP VALVE FAILS TO FULLY CLOSE

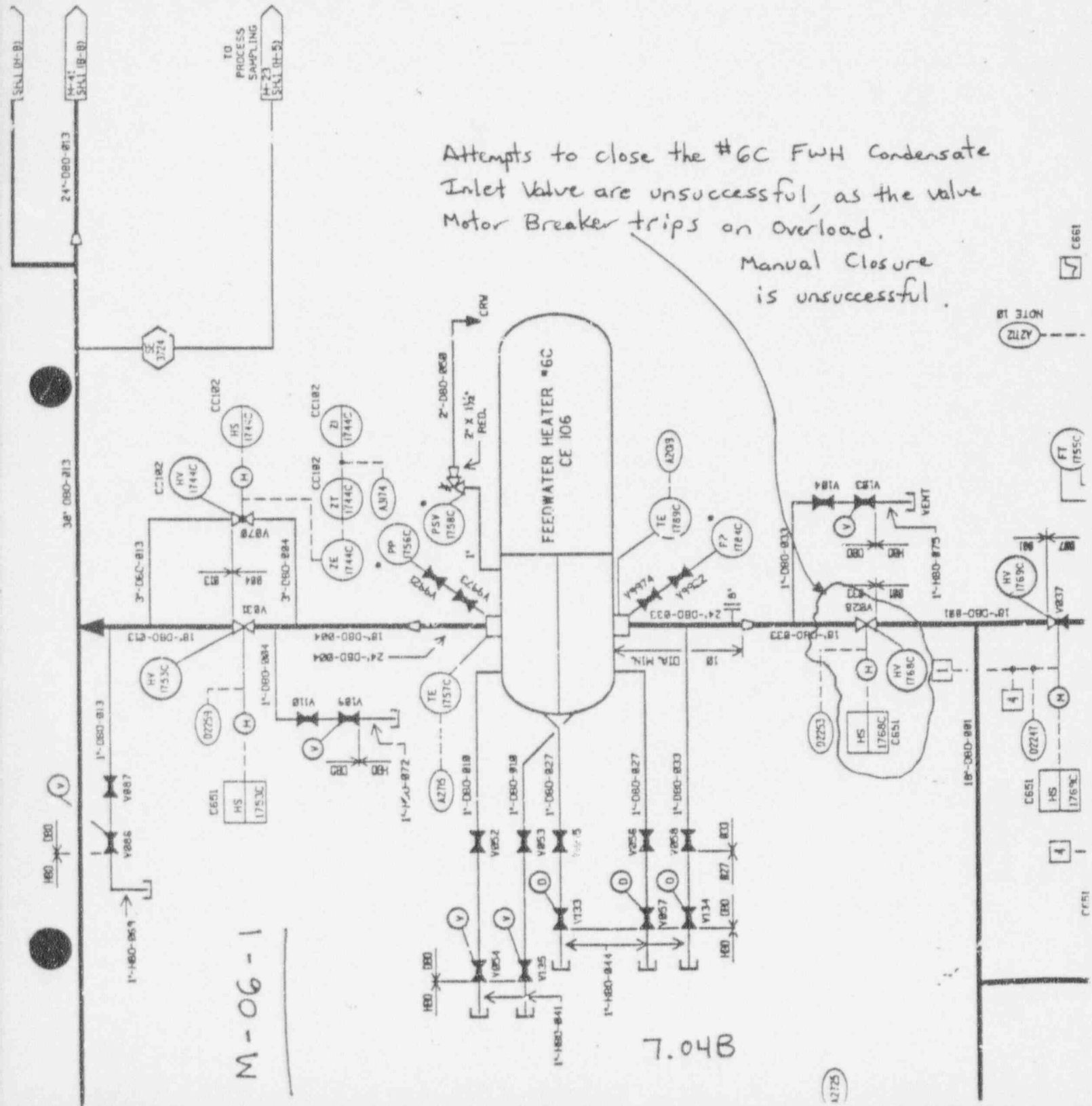
7.04A



#6C FEEDWATER HEATER CONDENSATE FLOW SCHEMATIC

At 09:28, level in the #6C Feedwater Heater (FWH) will begin to increase as the result of a large tube leak. As level in the Heater continues to increase, a Heater Trip signal will be initiated. However, due to the previous loss of power to the extraction and condensate system valves, remote isolation of the #6C FWH is not possible from the Control Room. The NSS will again refer to OP-AB.ZZ-0118, Loss of Feedwater Heaters and dispatch an operator to attempt to locally isolate the #6C FWH.

Attempts to close the #6C FWH Condensate Inlet Valve are unsuccessful, as the valve Motor Breaker trips on overload. Manual closure is unsuccessful.



M-06-1

7.04B

A275

NOTE 18
A272

C661

FT 1755C

C651

C651

SUPPLEMENTAL SCENARIO # 7.05

TITLE : 13.8 KV SWITCHYARD DAMAGE ASSESSMENT AND REPAIRS

START TIME : 09:48(01:48)

END TIME : 15:30(07:30)

LOCATION : HOPE CREEK SWITCHYARD

A. INITIATING CONDITIONS:

THE MAIN TURBINE WILL EXPERIENCE A ROTATING COMPONENT FAILURE. 2 MAIN TURBINE BLADES ARE THROWN INTO THE SWITCHYARD, AFTER PENETRATING THE EAST WALL OF THE TURBINE BUILDING AND THEN IMPACT THE 13.8 KV RING BUS. ONE BLADE WIL' DESTROY 13.8 KV BUS SECTION 2, WHILE ANOTHER DESTROYS 13.8 KV BUS SECTION 8.

B. RELATED MESSAGE FORMS: 33,38

C. POSTULATED EVENT:

1) FAILURE MODE (OR CAUSE):

DUE TO THE LARGE TUBE LEAK IN THE #6C FEEDWATER HEATER AND A SUBSEQUENT INABILITY TO ISOLATE THE FEEDWATER HEATER, WATER INDUCTION IS BEGINNING TO OCCUR (BLEEDER TRIP VALVE IS FAILED OPEN). AS THE WATER ENTERS THE HIGH PRESSURE TURBINE, WATER IMPINGEMENT ON THE MAIN TURBINE BLADING OCCURS, RESULTING IN A HIGH VIBRATION CONDITION AND TURBINE BLADING FAILURE.

2) SYMPTOMS (OR INDICATIONS):

- 1) A SECURITY PATROL WILL OBSERVE THE TURBINE BLADING PENETRATING THE EAST WALL OF THE TURBINE BUILDING AND LANDING IN THE SWITCHYARD.
- 2) THE "B" SIDE STATION SERVICE TRANSFORMERS DEENERGIZE AS 13.8 KV BREAKERS BS 1-2 AND BS 9-0 OPEN.
- 3) 13.8 KV BUS SECTIONS 2 AND 8 ARE DAMAGED.
- 4) ONE 13.8KV POTHEAD ON THE 1BX501 XFMR FEEDER IS DAMAGED AND HAS A PIECE OF METAL PERTRUDING FROM IT.

SUPPLEMENTAL SCENARIO # 7.05
(CONTINUED)

C. POSTULATED EVENT:

3) RESTORATION GUIDELINES:

THE DAMAGED BUS SECTIONS OF THE 13.8 KV YARD ARE NOT RECOVERABLE FOR THE DURATION OF THE EXERCISE.

4) SCENARIO CONTROLS:

- 1) THERE ARE NO INJURIES DUE TO THE TURBINE BLADES.
- 2) THERE IS NO FIRE IN THE SWITCHYARD DUE TO THIS EVENT.
- 3) THE ACTUAL LINE DEPARTMENT WORK WILL BE SIMULATED, BUT THEIR ACTIVITIES SHOULD BE CONTROLLED AND COORDINATED BY THE OSC AND TSC.

D. RADIOLOGICAL CONCERNS:

- 1) TURBINE BLADING IN THE SWITCHYARD WILL HAVE A MAXIMUM READING OF 90 CCPM WHEN/IF SURVEYED.

- 2) SINCE THE PREVAILING WIND DIRECTION IS FROM THE EAST, THE LINE CREWS WORKING IN THE SWITCHYARD SHOULD BE ABLE TO CONTINUE WORKING, AFTER THE RAD PRECAUTIONS HAVE BEEN DEMONSTRATED AFTER THE RAD RELEASE STARTS AT 13:15.

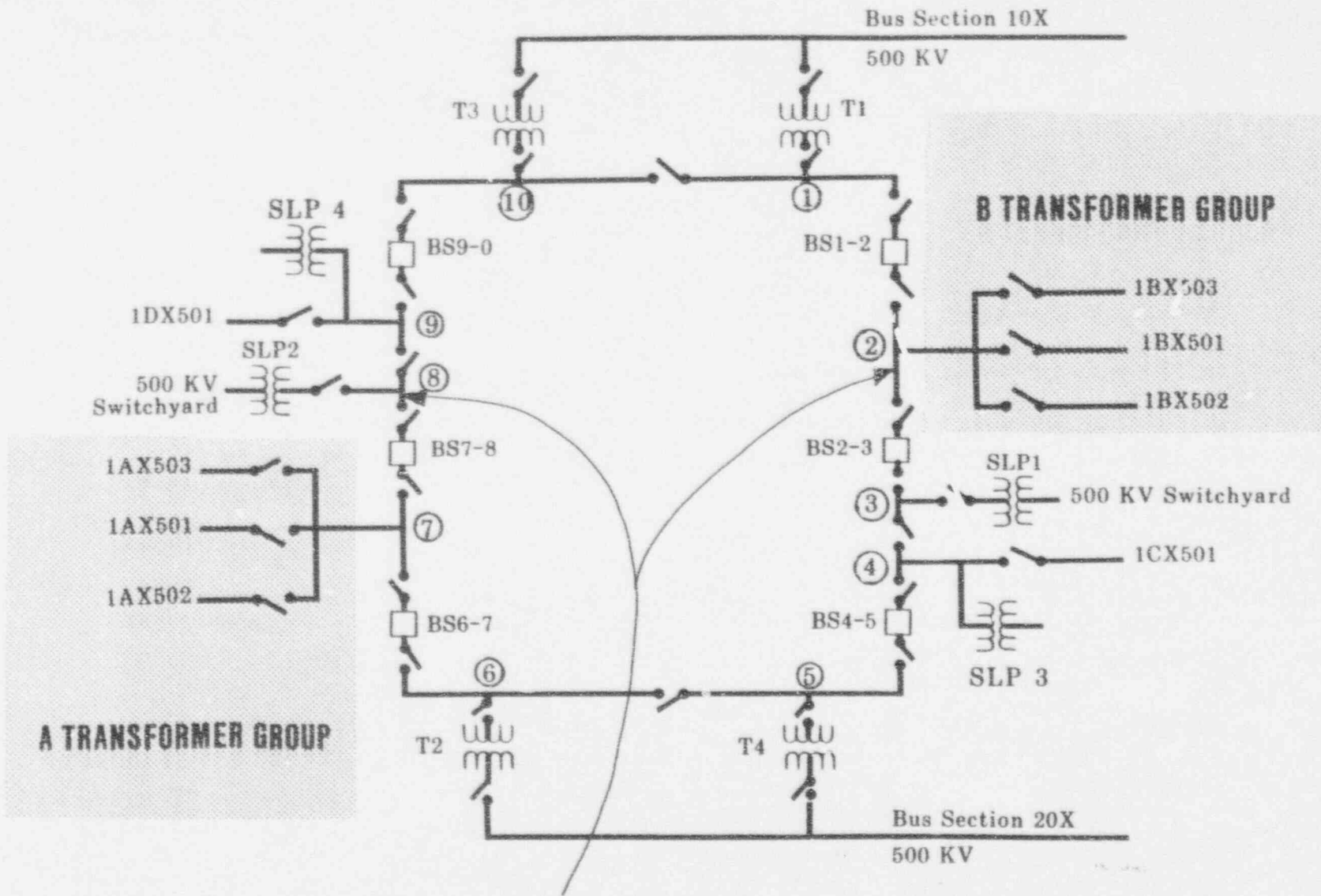
E. ATTACHMENTS:

- 1) HOPE CREEK 13.8 KV RING BUS - SINGLE LINE DIAGRAM
- 2) ONSITE PLUME PATHWAY MAPS (SEE SECTION 9.0)

F. CONTROLLERS SPECIAL NOTES / REFERENCES / OBJECTIVES:

- 1) THIS SCENARIO WILL NOT CAUSE A LOSS OF OFFSITE POWER, AS STATION LOADS, NORMALLY SUPPLIED BY THE "B" SIDE TRANSFORMERS, FAST TRANSFER TO THE "A" SIDE TRANSFORMERS.
- 2) OSC SHOULD ENSURE PROPER SAFETY PRECAUTIONS REGARDING ELECTRICAL HAZARDS ARE TAKEN PRIOR TO MAINTENANCE ACTIVITIES IN THE SWITCHYARD.

7.05A



13.8 KV RING BUS

THE MAIN TURBINE WILL EXPERIENCE A ROTATING COMPONENT FAILURE. 2 MAIN TURBINE BLADES ARE THROWN INTO THE SWITCHYARD, AFTER PENETRATING THE EAST WALL OF THE TURBINE BUILDING AND THEN IMPACT THE 13.8 KV RING BUS. ONE BLADE WILL DESTROY 13.8 KV BUS SECTION 2, WHILE ANOTHER DESTROYS 13.8 KV BUS SECTION 8.

SUPPLEMENTAL SCENARIO # 7.06

TITLE : TURBINE BUILDING FIRE FIGHTING & DAMAGE ASSESSMENT

START TIME : 09:49(01:49)

END TIME : 10:30(02:30)

LOCATION : TURBINE BUILDING,
ELEVATIONS 137', 102' AND 54'

A. INITIATING CONDITIONS:

THE MAIN TURBINE EXPERIENCES ROTATING COMPONENT FAILURE. TWO MAIN TURBINE BLADES ARE THROWN INTO THE SWITCHYARD. THE MAIN CONDENSER SHELL EXPERIENCES FAILURE DUE TO THE INDUCED VIBRATION FROM THE MAIN TURBINE. A MAJORITY OF MAIN CONDENSER TUBES ARE DESTROYED. AS A RESULT OF THE FAILURE, SEVERAL SMALL FIRES IGNITE ON ELEVATION 137 AND ELEV 102', CAUSING ACTUATION OF THE FIRE PROTECTION DELUGE SYSTEM.

B. RELATED MESSAGE FORMS: 31,34,35,39,39C,40,41,42,44,48

C. POSTULATED EVENT:

1) FAILURE MODE (OR CAUSE):

DUE TO THE LARGE TUBE LEAK IN THE #6C FEEDWATER HEATER AND SUBSEQUENT INABILITY TO ISOLATE THE FEEDWATER HEATER, WATER INDUCTION IS BEGINNING TO OCCUR (BLEEDER TRIP VALVE FAILS TO CLOSE). AS WATER ENTERS THE HP TURBINE, IT IMPINGES ON THE MAIN TURBINE BLADING, RESULTING IN A HIGH VIBRATION CONDITION. THIS CAUSES A RUPTURE OF THE TURBINE BEARING OIL SUPPLY LINE, RESULTING IN A TURBINE TRIP AND DAMAGE TO THE "A" LP TURBINE, AS TWO BLADES PENETRATES THE TURBINE CASING.

2) SYMPTOMS (OR INDICATIONS):

- A) LARGE QUANTITIES OF WATER AND OIL ARE RAPIDLY FILLING THE LOWER ELEVATIONS OF THE TURBINE BUILDING. AN OIL FILM IS OBSERVED ON TOP OF THE WATER.
- B) A LARGE HOLE IN THE "A" LOW PRESSURE TURBINE CASING IS OBSERVED IF/WHEN THE TURBINE ENCLOSURE IS ENTERED.
- C) SMOKE IS PRESENT ON ELEVATIONS 137' AND 102'.
- D) SMALL FIRES ARE BURNING ON ELEVATIONS 137' AND 102'.
- E) SOME LIGHTING HAS BEEN LOST ON ELEVATION 102'.

SUPPLEMENTAL SCENARIO # 7.06
(CONTINUED)

C. POSTULATED EVENT:

3) RESTORATION GUIDELINES:

THE TEAM WILL BE SUCCESSFUL IN EVENTUALLY STABILIZING CONDITIONS IN THE TURBINE BUILDING AS FOLLOWS:

- A) FIRES ARE EXTINGUISHED BY 10:30.
- B) OPS PERSONNEL SUCCESSFULLY SECURE ALL TURBINE RELATED OIL PUMPS AND ISOLATE CIRC WATER FROM THE CONDENSER.
- C) SLIPPERY FLOORS DUE TO LUBE OIL REQUIRE CLEANING.

4) SCENARIO CONTROLS:

- A) NO INJURIES OCCUR DUE TO TURBINE BLADES OR OTHER DEBRIS.
- B) THE MAIN GENERATOR REMAINS INTACT. NO HYDROGEN LEAKS.
- C) ACCESS TO ELEVATIONS BELOW 102' IS NOT POSSIBLE (FLOODED)
- D) THE FIRES LOCATED ON ELEVATIONS 137' AND 102' WILL BE SUCCESSFULLY EXTINGUISHED BY 10:30.
- E) NO OFFSITE FIRE FIGHTING ASSISTANCE IS NEEDED.

D. RADIOLOGICAL CONCERNS:

ALL RAD CONDITIONS ARE NORMAL.

E. ATTACHMENTS:

- 1) TURBINE BUILDING, ELEVATION 137' LAYOUT MAP
- 2) TURBINE BUILDING, ELEVATION 102' LAYOUT MAP

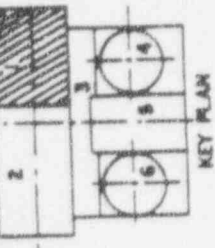
F. CONTROLLERS SPECIAL NOTES / REFERENCES / OBJECTIVES:

- 1) THE MAIN TURBINE BLADING FAILURE WILL RESULT IN THE DECLARATION OF AN ALERT.
- 2) THIS SCENARIO IS DESIGNED FOR DAMAGE CONTROL AND ASSESMENT. DUE TO THE MAGNITUDE OF THE FAILURE, THE ERO WILL NOT HAVE SUFFICIENT TIME TO DEMONSTRATE LONG TERM REPAIRS, HOWEVER ACTIVITIES SHOULD STILL BE DISCUSSED.

NOTE 1: ALL BOXES IN THIS REGION ARE HIGH RADIATION BOXES EXCEPT 1501, 1502, and 1503.

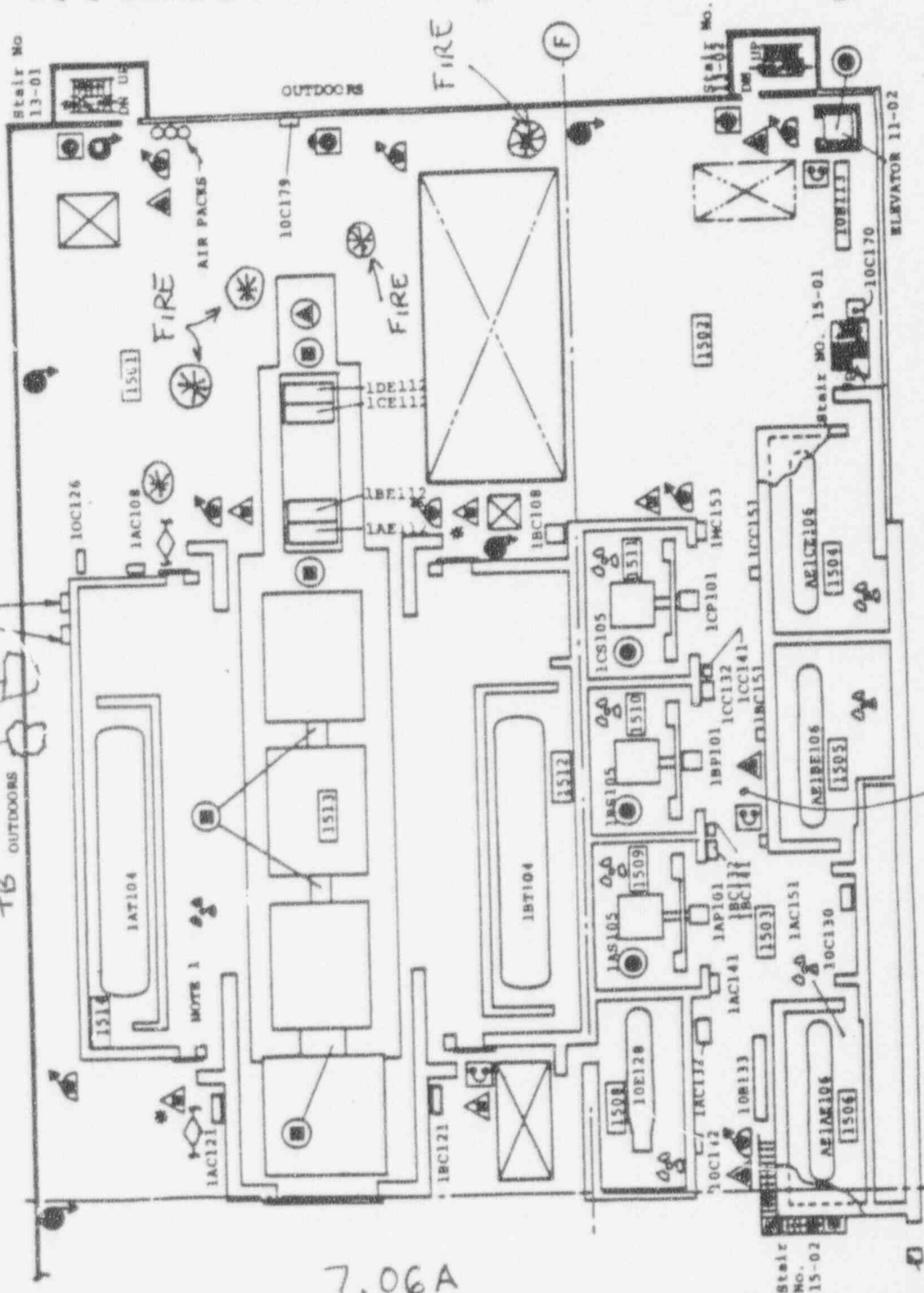
ALL FIRES ARE SMALL AND ARE SUCCESSFULLY EXTINGUISHED AT 10:30!

2 HOLES IN EAST WALL OF TB OUTDOORS



TURBINE BUILDING
 EL 137'-0"
 PRAEFIRE PLAN
 M10-FRM-1111-151 6N.1

1JC1533 } CONTROL PANEL FOR TURB. SERG. & HOUSING
 1KC1533 } DELUGE SYSTEMS



- LEGEND**
- SAFETY RELATED EQUIPMENT
 - HIGH RADIATION AREA
 - CONTAMINATED AREA
 - MANUAL ALARM STATIONS
 - PUBLIC ADDRESS HANDSET
 - TELEPHONE
 - THERMAL DETECTOR
 - SMOKE DETECTOR
 - DELUGE SYSTEM
 - AUTO-PROTECTION SPRINKLER
 - AUTOMATIC WET PIPE SPRINKLER
 - CO₂ AUTOMATIC FIXED SYSTEM
 - CO₂ MANUAL FIXED SYSTEM
 - HALON 1301 AUTOMATIC FIXED SYSTEM
 - DELUGE VALVE
 - PORTABLE WATER EXTINGUISHER
 - PORTABLE HALON EXTINGUISHER
 - PORTABLE CO₂ EXTINGUISHER
 - PORTABLE DRY CHEM. EXTINGUISHER
 - HOSE STATION CHARGED STANDPIPE
 - MATCH FLOOR LEVEL
 - MATCH CEILING LEVEL
 - LADDER
 - WIRE GATE
 - CO₂ HOSE REEL
 - LOCKED DOOR 8 - HEAT/TP PHYSICS
 - DELUGE ACTUATION STATION
 - MOBIL DRY CHEM. EXTINGUISHER
 - CO₂ ACTUATION STATION

2 FOOT SECTION OF TWISTED UP TURBINE BLADING IN FRONT OF "B" RPT ROOM

7.06A

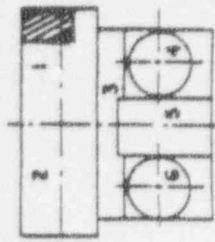
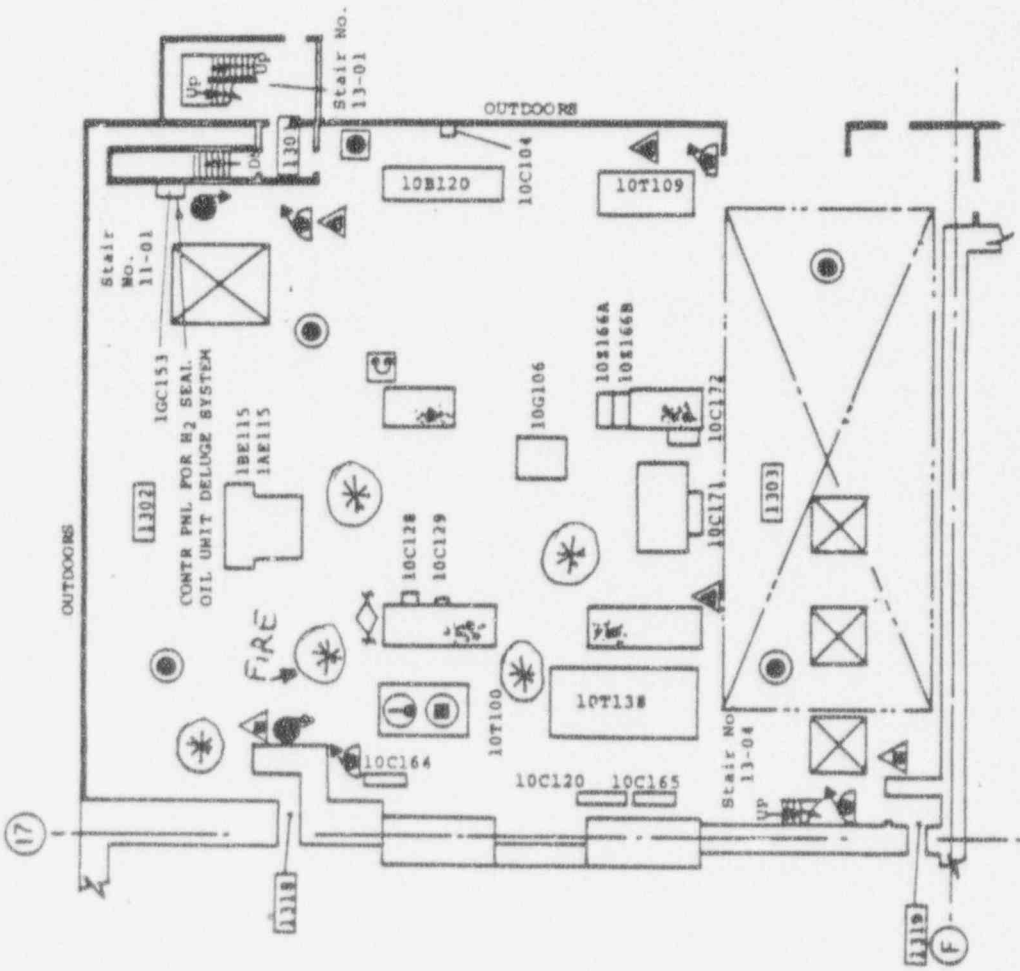
TURBINE BUILDING

EL. 102'-0"

PRELIM PLAN

M10-PAN-111-131

* ALL FIRES ARE SMALL!



KEY PLAN

LEGEND

- SAFETY RELATED EQUIPMENT
- HIGH RADIATION AREA
- CONTAMINATED AREA
- MANUAL ALARM STATIONS
- PUBLIC ADDRESS HANDSET
- TELEPHONE
- THERMAL DETECTOR
- SMOKE DETECTOR
- DELUGE SYSTEM
- AUTO-REACTION SPRINKLER
- AUTOMATIC WET PIPE SPRINKLER
- CO2 AUTOMATIC FIXED SYSTEM
- CO2 MANUAL FIXED SYSTEM
- HALON 1301 AUTOMATIC FIXED SYSTEM
- DELUGE VALVE
- PORTABLE WATER EXTINGUISHER
- PORTABLE HALON EXTINGUISHER
- PORTABLE CO2 EXTINGUISHER
- PORTABLE DRY CHEM. EXTINGUISHER
- HOSE STATION CHARGED STANDPIPE
- HATCH FLOOR LEVEL
- HATCH CEILING LEVEL
- LADDER
- WIRE GATE
- CO2 HOSE REEL
- LOCKED DOOR H - HEALTH PHYSICS
- DELUGE ACTUATION STATION

7.06 B

1) FLOOR IN AREA IS SLIPPERY!
 2) THESE ARE FIRES BURNING IN THE OVERHEAD WHICH ARE SUCCESSFULLY EXTINGUISHED AT 10:30!

SUPPLEMENTAL SCENARIO # 7.07

TITLE : "B" 4160 VAC VITAL BUS ALT FEEDER BREAKER REPAIR
START TIME : 09:49(01:49) END TIME : 14:18(06:18)
LOCATION : DIESEL BUILDING, ELEVATION 130'
"B" VITAL SWITCHGEAR ROOM

A. INITIATING CONDITIONS:

LOSS OF THE "B" SIDE STATION SERVICE TRANSFORMERS DUE TO TURBINE BLADING IMPACTING 13.8 KV BUS SECTIONS 2 AND 8 RESULTS IN A FAST TRANSFER OF ASSOCIATED LOADS TO THE "A" SIDE STATION SERVICE TRANSFORMERS. THE FAST TRANSFER IS SUCCESSFUL WITH THE EXCEPTION OF THE "B" 4160 VAC VITAL BUS, WHICH DOES NOT REMAIN ENERGIZED DUE TO A FAILURE OF THE ALTERNATE FEEDER BREAKER TO CLOSE.

B. RELATED MESSAGE FORMS: 29D,37C,43

C. POSTULATED EVENT:

1) FAILURE MODE (OR CAUSE):

1E 4160 VAC ALTERNATE FEEDER BREAKER 10-A-402-08 FAILS TO CLOSE ON A FAST TRANSFER SIGNAL DUE TO BREAKER FAILURE. THE FAILURE TO CLOSE IS CAUSED BY EXCESSIVE WEAR OF THE BREAKER LATCHING MECHANISM, WHICH HAS CAUSED THE LATCHING MECHANISM TO BREAK, PREVENTING THE BREAKER FROM LATCHING IN THE CLOSED POSITION.

2) SYMPTOMS (OR INDICATIONS):

- 1) THE ALTERNATE FEEDER BREAKER IS TRIPPED LOCALLY.
- 2) "B" 4160 VAC VITAL BUS INDICATES 0 AMPS AND 0 VOLTS UNTIL THE "B" EDG IS STARTED AND LOADS, REENERGIZING THE "B" 4160 VAC VITAL BUS UNTIL 10:22, WHEN IT TRIPS ON LOW LUBE OIL PRESSURE (REFER TO SUPPLEMENTAL SCENARIO #7.08).

SUPPLEMENTAL SCENARIO # 7.07
(CONTINUED)

C. POSTULATED EVENT:

3) RESTORATION GUIDELINES:

- 1) ATTEMPTS TO RACK THE BREAKER TO THE TEST AND/OR DISCONNECT POSITION ARE UNSUCCESSFUL, AS THE BREAKER RACKING MECHANISM FAILS.
- 2) ATTEMPTS TO REWORK THE BREAKER MAY BE ATTEMPTED, BUT WILL BE UNSUCCESSFUL.
- 3) BREAKER REPLACEMENT IS REQUIRED. THIS ACTIVITIES IS NOT SUCCESSFUL UNTIL 14:18, PROVIDED IT IS PURSUED TO COMPLETION BY AN OSC TEAM.

4) SCENARIO CONTROLS:

- A) IT IS CRITICAL TO THE DRILL TIMELINE THAT THE ALTERNATE FEEDER FOR THE "B" VITAL BUS NOT BE REPAIRED BEFORE 14:18
- B) THERE ARE NO INJURIES DURING THE REPAIR EFFORT.
- C) THERE ARE NO FIRLS DURING THE REPAIR EFFORT.
- D) ATTEMPTS TO CROSS TIE THE "B" 4160 VAC VITAL BUS TO ANOTHER VITAL BUS WILL NOT BE SUCCESSFUL UNTIL 14:18.

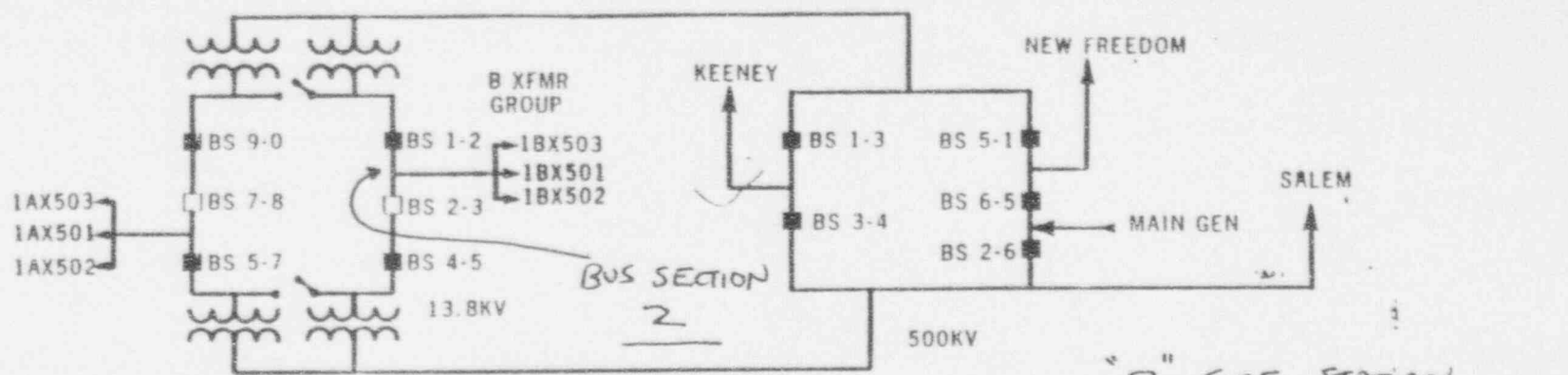
D. RADIOLOGICAL CONCERNS:
NONE

E. ATTACHMENTS:

- 1) 1E AC POWER DISTRIBUTION SCHEMATIC
- 2) 4160 VAC VITAL BUS FEEDER BREAKER POSITIONS
- 3) AUXILIARY BUILDING, ELEVATION 130' LAYOUT MAP

F. CONTROLLERS SPECIAL NOTES / REFERENCES / OBJECTIVES:

- 1) IN ORDER TO SUBSTANTIATE POSTULATED FUEL DAMAGE, IT IS IMPERATIVE THAT THE "B" 4160 VAC VITAL BUS REMAIN DEENERGIZED UNTIL AT LEAST 14:18, TO PREVENT ADDITIONAL INJECTION TO THE REACTOR.



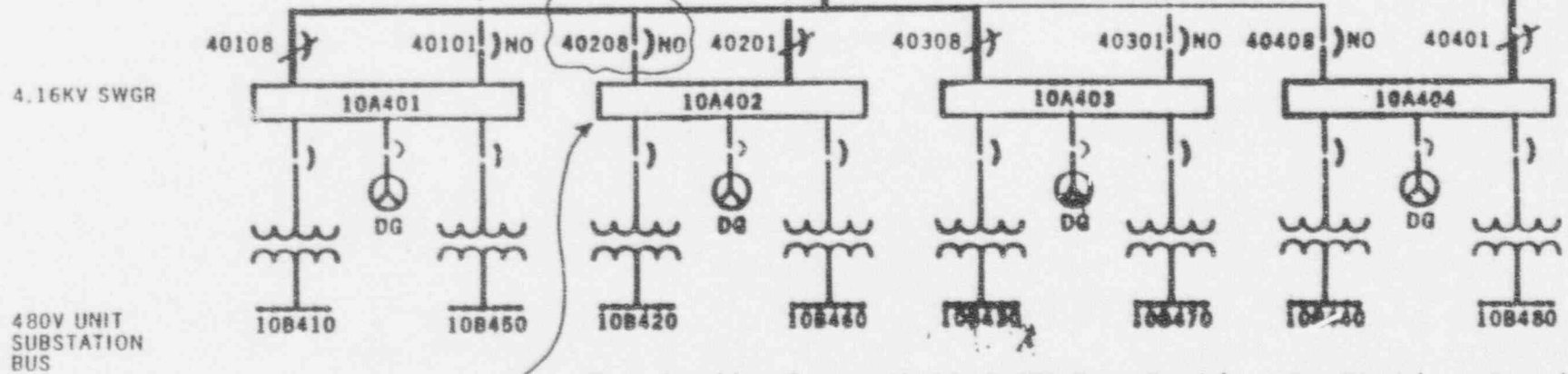
LOADS FAST TRANSFER TO "A" SIDE STATION SERVICE TRANSFORMERS EXCEPT 10A402

"B" SIDE STATION SERVICE TRANSFORMERS LOST DUE TO FAILURE OF 13.8 KV RING BUS SECTION 2

"B" 4160 VAC VITAL BUS ALTERNATE FEEDER BREAKER (40208)

STATION SERVICE XFMR 1AX501

STATION SERVICE XFMR 1BX501



7.07A

"B" 4160 VAC VITAL BUS

Due to the loss of 13.8 KV Bus Section 2, Station Service Transformers 1BX501, 1BX502 and 1BX503 will deenergize, resulting in a fast transfer of the associated loads to the "A" side Station Service Transformers. All loads successfully fast transfer, with the exception of the "B" 4160 VAC Vital Bus (10-A-402). The alternate Feeder Breaker for the "B" Vital Bus fails to close due to a breaker malfunction. As a result, the "B" Emergency Diesel Generator (EDG) will be started and load onto the "B" Vital Bus.

4160 VAC VITAL BUS FEEDER BREAKER
 POSITIONS AFTER LOSS OF
 "B" SIDE STATION SERVICE TRANSFORMERS

HC.OP-SO.PB-0001(Q)

7.37B

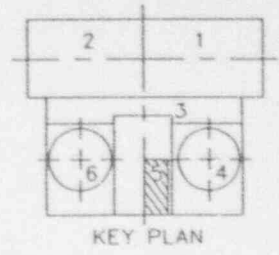
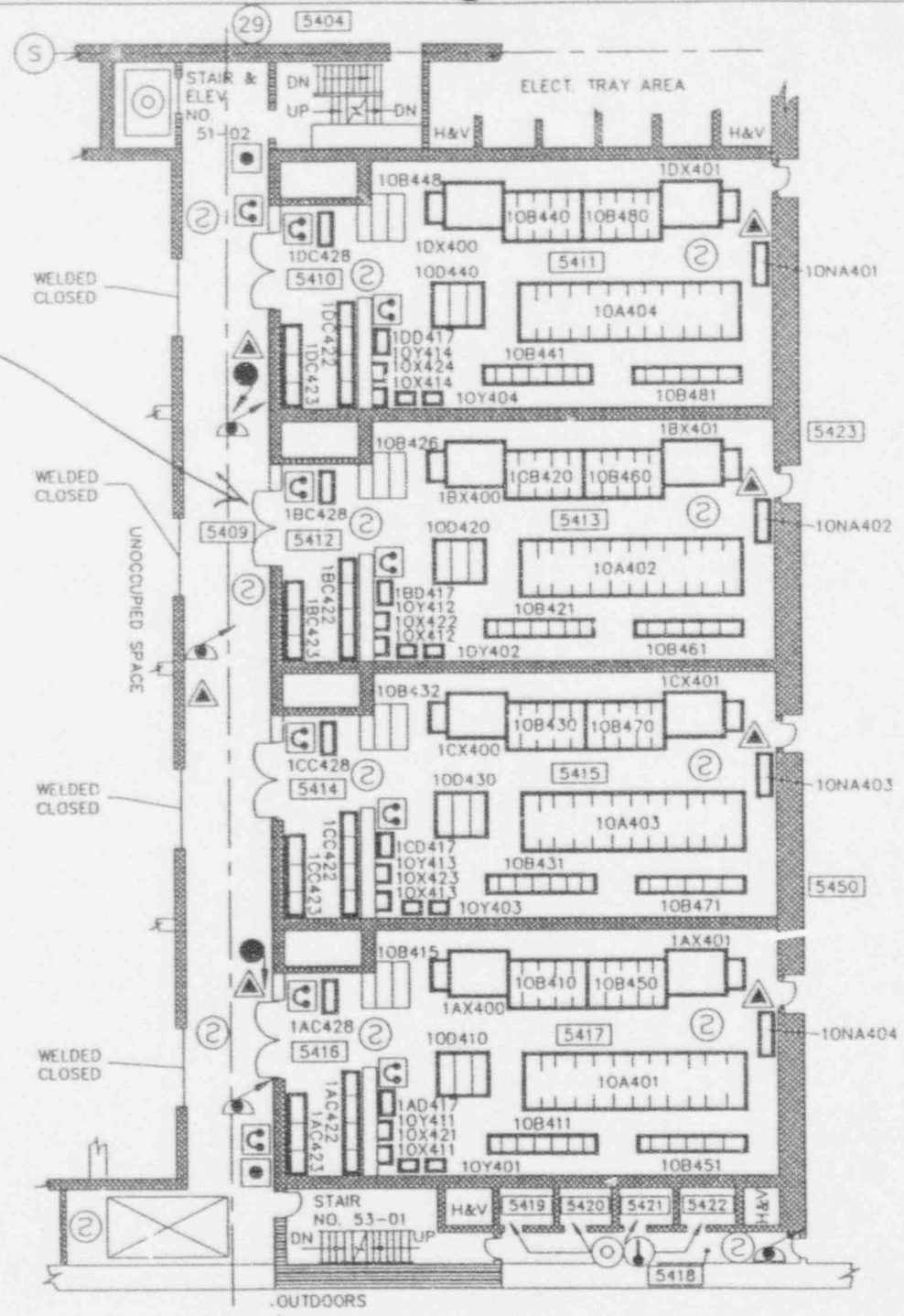
TABLE PB-002
Class 1E 4160V Busses

Bus (Swgr)	Normal FEED BRKR		Alternate FEED BRKR		Diesel Gen Breaker
	Bezel	Breaker	Bezel	Breaker	
A (10A401)	A-15	40108 CLOSED	A-16	40101 OPEN	40107
B (10A402)	B-16	40201 OPEN	B-15	40208 OPEN	40207
C (10A403)	C-15	40308 CLOSED	C-16	40301 OPEN	40307
D (10A404)	D-16	40401 OPEN	D-15	40408 CLOSED	40407

CLASS 1E SWITCHGEAR ROOMS
EL. 130'-0"

"B" 4160 VAC VITAL BUS
SWITCHGEAR ROOM

7.07C



- ### LEGEND
- SAFETY RELATED EQUIPMENT
 - HIGH RADIATION AREA
 - CONTAMINATED AREA
 - MANUAL ALARM STATIONS
 - PUBLIC ADDRESS HANDSET
 - TELEPHONE
 - THERMAL DETECTOR
 - SMOKE DETECTOR
 - SPRINKLER
 - DELUGE SYSTEM
 - AUTO-PREACTION SPRINKLER
 - AUTOMATIC WET PIPE SPRINKLER
 - CO₂ - AUTOMATIC FIXED SYSTEM
 - CO₂ - MANUAL FIXED SYSTEM
 - HALON 1301 AUTOMATIC FIXED SYSTEM
 - HALON 1301 MANUAL FIXED SYSTEM
 - DELUGE VALVE
 - PORTABLE WATER EXTINGUISHER
 - PORTABLE HALON EXTINGUISHER
 - PORTABLE CO₂ EXTINGUISHER
 - PORTABLE DRY CHEM. EXTINGUISHER
 - HOSE STATION CHARGED STANDPIPE
 - HATCH FLOOR LEVEL
 - HATCH CEILING LEVEL
 - LADDER
 - WIRE GATE
 - CO₂ HOSE REEL
 - LOCKED DOOR [S = SECURITY, H = HEALTH PHYSICS]
 - DELUGE ACTUATION STATION
 - CO₂ PUSHBUTTON STATION
- FIRE BARRIER RATINGS
- 1 HR.
 - 2 HR.
 - 3 HR.

SUPPLEMENTAL SCENARIO # 7.08

TITLE : "B" EDG LUBE OIL SUCTION LINE REPAIR

START TIME : 10:22(02:22)

END TIME : 14:11(06:11)

LOCATION : DIESEL BUILDING, ELEVATION 102'
"B" DIESEL BAY

A. INITIATING CONDITIONS:

FOLLOWING A START OF THE "B" EMERGENCY DIESEL GENERATOR, AS THE RESULT OF AN UNDERVOLTAGE CONDITION ON THE "B" 4160 VAC VITAL BUS, THE "B" EDG WILL RUN FOR APPROXIMATELY 33 MINUTES AND THEN TRIPS ON LOW LUBE OIL PRESSURE, DUE TO A BREAK IN THE LUBE OIL SUCTION LINE, BETWEEN THE RESEVOIR AND THE ENGINE DRIVEN LUBE OIL PUMP. THE "B" VITAL BUS WILL REMAIN DEENERGIZED, WITH A LOSS OF POWER TO ALL ASSOCIATED LOADS.

B. RELATED MESSAGE FORMS: 45D,46,47,79

C. POSTULATED EVENT:

1) FAILURE MODE (OR CAUSE):

LOCALIZED CORROSION HAS RESULTED IN A WELD FAILURE ON THE "B" EMERGENCY DIESEL GENERATOR SUCTION LINE, WHERE THE SUCTION LINE CONNECTS TO THE LUBE OIL SUMP. THIS FAILURE RESULT IN A PARTIAL DRAINING OF THE LUBE OIL HEADER, AS WELL AS DRAINING OF THE LUBE OIL SUMP.

2) SYMPTOMS (OR INDICATIONS):

- 1) UPON ENTERING THE "B" EDG ROOM, AN OILY SMELL IS PRESENT.
- 2) LUBE OIL CAN BE OBSERVED UNDER THE GRATING PLATFORM ON BOTH SIDE OF THE DIESEL.
- 3) LUBE OIL MAKEUP TANK LEVEL IS DECREASING.
- 4) LUBE OIL PRESSURE LOW SHUTDOWN ANNUNCIATOR IS LIT AT THE ENGINE CONTROL PANEL ON ELEVATION 130'.
- 5) AT "B" EDG REMOTE PANEL BOTH THE REGULAR AND BACKUP LOCKOUT RELAYS ARE TRIPPED.

SUPPLEMENTAL SCENARIO # 7.08
(CONTINUED)

C. POSTULATED EVENT:

3) RESTORATION GUIDELINES:

- A) MAINTENANCE WILL BE SUCCESSFUL IN REPAIRING THE FAILED LINE, BUT NOT BEFORE 14:11.
- B) ANY REPAIR OF A TEMPORARY NATURE WILL NOT BE SUCCESSFUL (I.E. BAND-IT TYPE MATERIAL), AS THE REPAIR WILL FAIL WHEN THE EDG IS STARTED.
- C) RESTORATION EFFORTS MUST INCLUDE OBTAINING AND REFILLING THE LUBE OIL TANK AND SUMP.
- D) TEAM SHOULD SIMULATE GRATING REMOVAL AND OIL CLEANUP.

4) SCENARIO CONTROLS:

- A) IT IS CRITICAL TO THE DRILL TIMELINE THAT THE "B" EDG IS NOT AVAILABLE PRIOR TO 14:11.
- B) THERE ARE NO INJURIES DURING THE REPAIR EFFORT.
- C) THERE ARE NO FIRES DURING THE REPAIR EFFORT.
- D) ATTEMPTS TO CROSS TIE THE "B" 4160 VAC VITAL BUS TO ANOTHER VITAL BUS WILL NOT BE SUCCESSFUL UNTIL 14:11.

D. RADIOLOGICAL CONCERNS:
NONE

E. ATTACHMENTS:

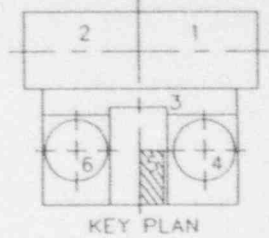
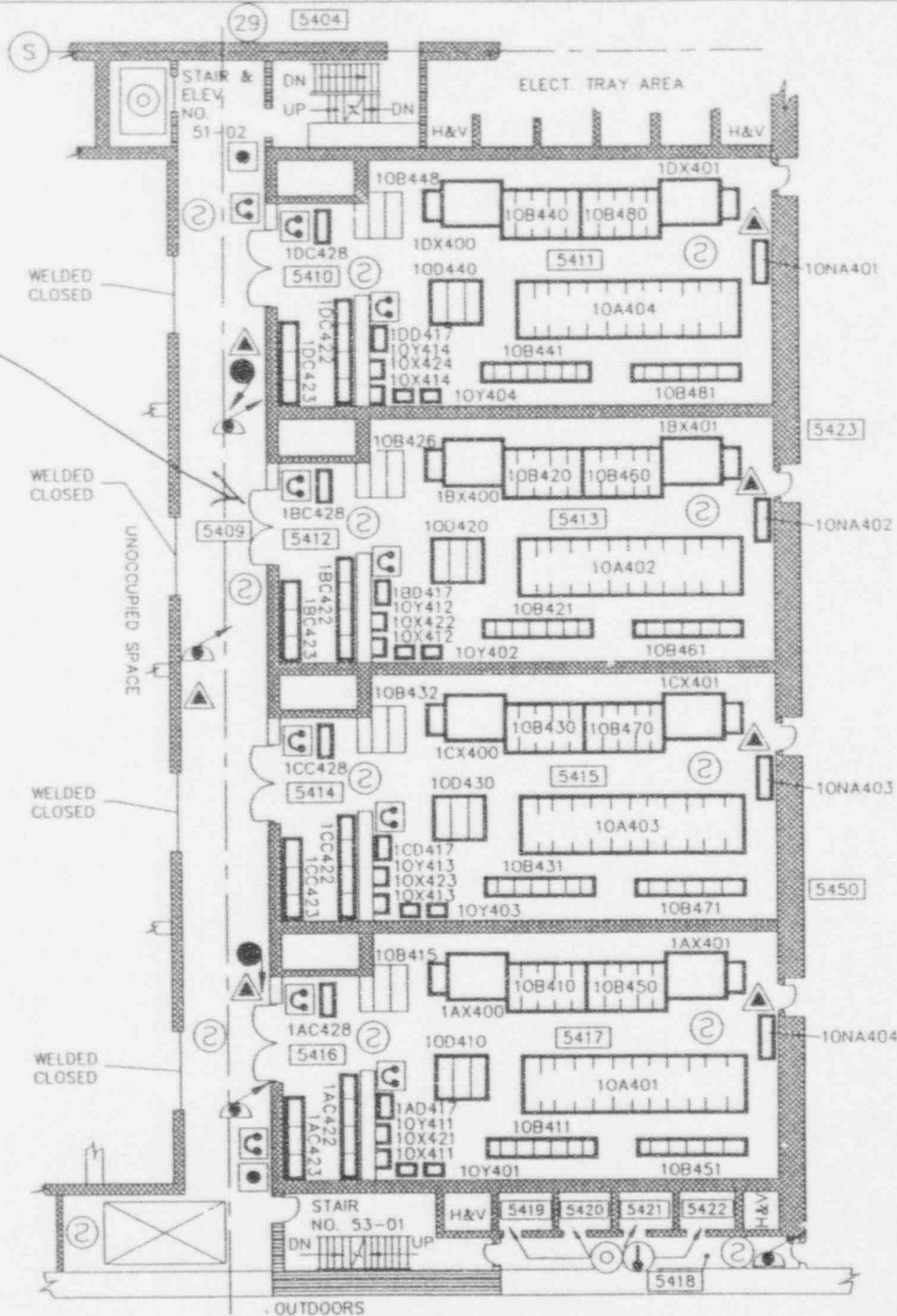
- 1) AUXILIARY BUILDING, ELEVATION 130' LAYOUT MAP
- 2) AUXILIARY BUILDING, ELEVATION 102' LAYOUT MAP
- 3) "B" EDG LUBE OIL SIMPLIFIED DRAWING.

F. CONTROLLERS SPECIAL NOTES / REFERENCES / OBJECTIVES:

- 1) IN ORDER TO SUBSTANTIATE POSTULATED FUEL DAMAGE, IT IS IMPERATIVE THAT THE "B" EDG REMAIN OUT OF SERVICE UNTIL AT LEAST 14:11, TO PREVENT ADDITIONAL INJECTION TO THE REACTOR.

CLASS I E SWITCHGEAR ROOMS
EL 130'-0"

"B" EDGE
SWITCHGEAR ROOMS



LEGEND

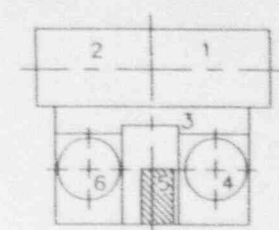
- SAFETY RELATED EQUIPMENT
 - HIGH RADIATION AREA
 - CONTAMINATED AREA
 - MANUAL ALARM STATIONS
 - PUBLIC ADDRESS HANDSET
 - TELEPHONE
 - THERMAL DETECTOR
 - SMOKE DETECTOR
 - SPRINKLER
 - DELUGE SYSTEM
 - AUTO-PREACTION SPRINKLER
 - AUTOMATIC WET PIPE SPRINKLER
 - CO₂-AUTOMATIC FIXED SYSTEM
 - CO₂-MANUAL FIXED SYSTEM
 - HALON 1301 AUTOMATIC FIXED SYSTEM
 - HALON 1301 MANUAL FIXED SYSTEM
 - DELUGE VALVE
 - PORTABLE WATER EXTINGUISHER
 - PORTABLE HALON EXTINGUISHER
 - PORTABLE CO₂ EXTINGUISHER
 - PORTABLE DRY CHEM. EXTINGUISHER
 - HOSE STATION CHARGED STANDPIPE
 - HATCH FLOOR LEVEL
 - HATCH CEILING LEVEL
 - LADDER
 - WIRE DATE
 - CO₂ HOSE REEL
 - LOCKED DOOR [S = SECURITY, H = HEALTH PHYSICS]
 - DELUGE ACTUATION STATION
 - CO₂ PUSHBUTTON STATION
- FIRE BARRIER RATINGS
- | | | | | | |
|--|-------|--|-------|--|-------|
| | 1 HR. | | 2 HR. | | 3 HR. |
|--|-------|--|-------|--|-------|

7.08.3

DIESEL GENERATOR ROOMS
EL 102'-0"

STAIR & ELEV. NO. 51-02

ELECT. TRAY AREA



LEGEND

- SAFETY RELATED EQUIPMENT
- INACTIVE
- HIGH RADIATION AREA
- CONTAMINATED AREA
- MANUAL ALARM STATIONS
- PUBLIC ADDRESS HANDSET
- TELEPHONE
- THERMAL DETECTOR
- SMOKE DETECTOR
- INFRA-RED DETECTOR
- SPRINKLER
- DELUGE SYSTEM
- AUTO-PREACTION SPRINKLER
- AUTOMATIC WET PIPE SPRINKLER
- CO₂-AUTOMATIC FIXED SYSTEM
- CO₂-MANUAL FIXED SYSTEM
- HALON 1301 AUTOMATIC FIXED SYSTEM
- HALON 1301 MANUAL FIXED SYSTEM
- DELUGE VALVE
- PORTABLE WATER EXTINGUISHER
- PORTABLE HALON EXTINGUISHER
- PORTABLE CO₂ EXTINGUISHER
- PORTABLE DRY CHEM. EXTINGUISHER
- HOSE STATION CHARGED STANDPIPE
- HATCH FLOOR LEVEL
- HATCH CEILING LEVEL
- LADDER
- WIRE GATE
- CO₂ HOSE REEL
- LOCKED DOOR { S = SECURITY, H = HEALTH PHYSICS
- DELUGE ACTUATION STATION
- CO₂ PUSHBUTTON STATION

FIRE BARRIER RATINGS
 1 HR
 2 HR
 3 HR

REV. 5

"B" EDGE ROOM

WELDED CLOSED

WELDED CLOSED

WELDED CLOSED

WELDED CLOSED

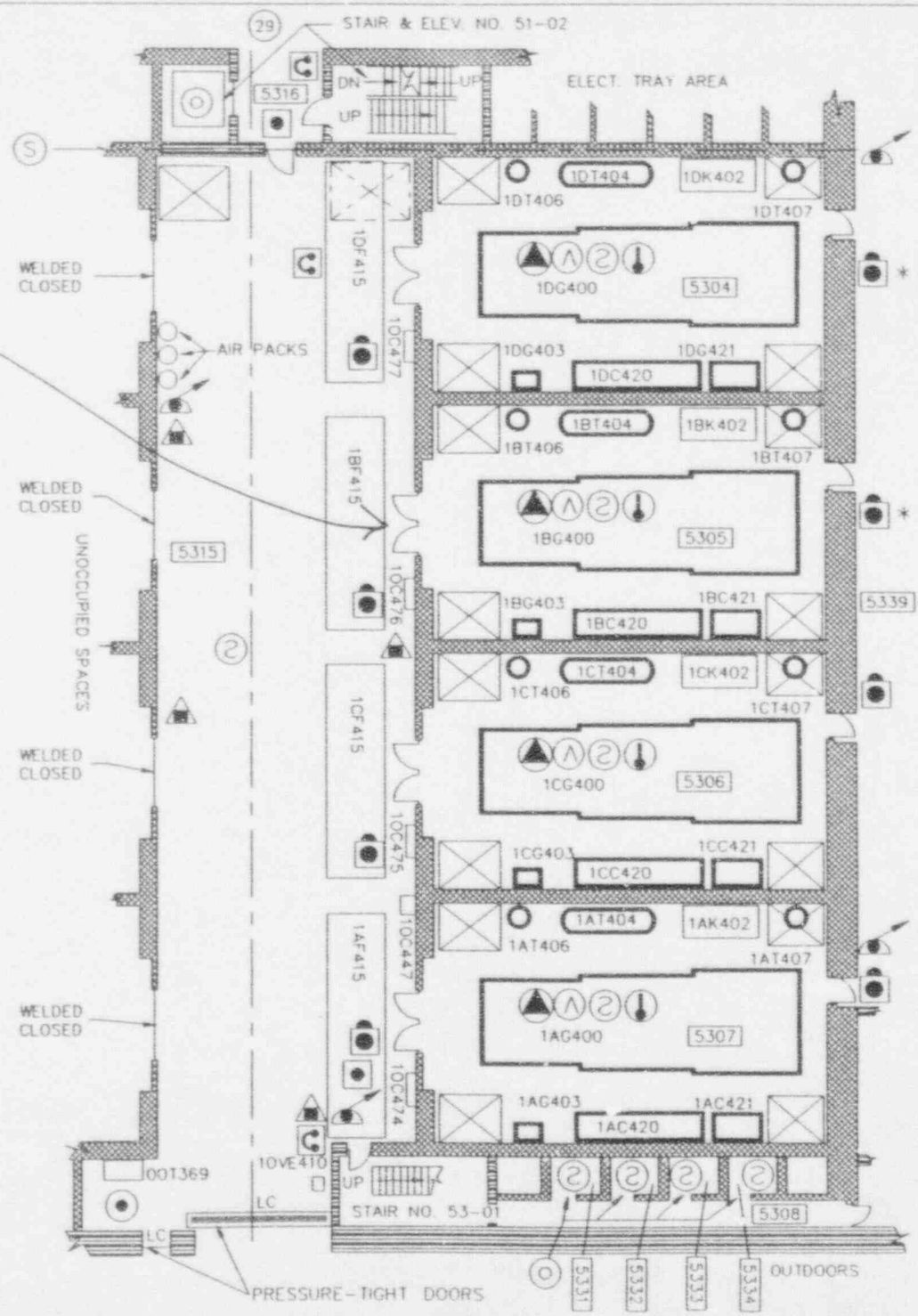
UNOCCUPIED SPACES

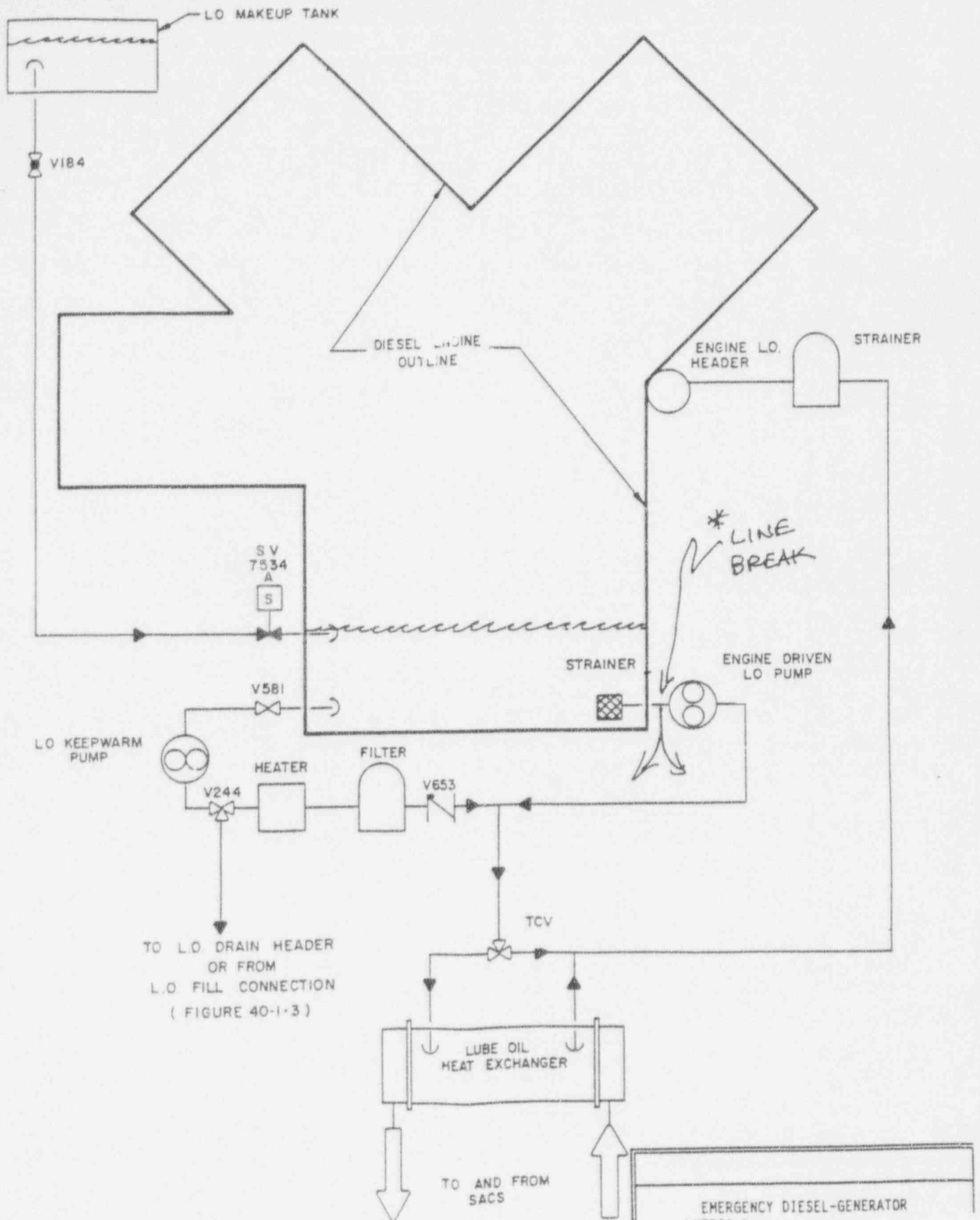
PRESSURE-TIGHT DOORS

STAIR NO. 53-01

OUTDOORS

7.08.4





At 10:22, the "B" Emergency Diesel Generator (EDG) Lube Oil Suction line will develop a large, unisolable leak between the Lube Oil Reservoir and the Engine Driven Lube Oil Pump, resulting in a trip of the "B" EDG.

7.08.5

SUPPLEMENTAL SCENARIO # 7.09

TITLE : "D" LPCI INJECTION VALVE MOTOR MALFUNCTION

START TIME : 10:51(02:51)

END TIME : 15:30(07:30)

LOCATION : RX BUILDING, ELEV. 102' SOUTH PIPE CHASE
RX BUILDING, ELEV. 77' MCC 10-B-242

A. INITIATING CONDITIONS:

FAILURE OF THE #5 JET PUMP HAS GENERATED SEVERAL LOOSE PARTS INSIDE THE REACTOR VESSEL. ONE SMALL PIECE IS IMPACTING THE INSTRUMENT LINE ASSOCIATED WITH THE #5 JET PUMP FLOW AND "B" CHANNEL FUEL ZONE LEVEL INDICATION (VARIABLE LEG) RESULTING IN INDUCED VIBRATIONS AND SUBSEQUENT DEVELOPMENT OF A SMALL LEAK AT 10:02 IN THE INSTRUMENT LINE INSIDE THE SOUTH PIPE CHASE, JUST DOWNSTREAM OF THE EXCESS FLOW CHECK VALVE. THE INITIAL LEAK IS LESS THAN 3 GPM.

B. RELATED MESSAGE FORMS: 48D,49C,51

C. POSTULATED EVENT:

1) FAILURE MODE (OR CAUSE):

THE SMALL LEAK IN THE SOUTH PIPE CHASE, WHICH BEGAN AT 10:02 AND HAS REMAINED UNOBSERVED BY THE CONTROL ROOM CREW (NO ALARM CONDITIONS HAVE YET OCCURRED), HAS CREATED A HARSH STEAM ENVIRONMENT IN THE SOUTH PIPE CHASE, CAUSING THE MOTOR ASSOCIATED WITH THE "D" LPCI INJECTION VALVE TO DEVELOP AN ELECTRICAL SHORT.

2) SYMPTOMS (OR INDICATIONS):

- 1) THE BREAKER ASSOCIATED WITH THE MOTOR OPERATOR FOR THE "D" LPCI INJECTION VALVE (1BCHV-F017D) IS TRIPPED. ATTEMPTS TO RESET THE BREAKER ARE NOT SUCCESSFUL, AS THE BREAKER TRIPS FREE REPEATEDLY. (BREAKER 52-242052)
- 2) WHEN THE TEAM REACHES THE SOUTH PIPE CHASE, THE DOOR IS FOUND TO BE EXTREMELY HOT.
- 3) AN AUDIBLE HISSING CAN BE HEARD WHEN STANDING AT THE DOOR, PRIOR TO 11:02 (LEAK ISOLATION).

SUPPLEMENTAL SCENARIO # 7.09
(CONTINUED)

C. POSTULATED EVENT:

3) RESTORATION GUIDELINES:

- 1) THE "D" LPCI INJECTION VALVE IS NOT RECOVERABLE FOR THE DURATION OF THE EXERCISE, AS THE SOUTH PIPE CHASE HAS BEEN HIGHLY CONTAMINATED BY THE STEAM LEAK.
- 2) MANUAL OPERATION OF OTHER VALVES IN THE SOUTH PIPE CHASE, SPECIFICALLY THE "B" CORE SPRAY INJECTION VALVES AND THE "B" LPCI INJECTION VALVE ARE NOT SUCCESSFUL FOR THE SAME REASON.

4) SCENARIO CONTROLS:

- 1) AT NO TIME WILL THE FAILED VALVE BE RECOVERABLE.
- 2) THE LEAK HAS ALSO EFFECTED OTHER VALVES IN THE SOUTH PIPE CHASE, INCLUDING THE "B" LPCI INJECTION VALVE AND THE "B" CORE SPRAY INJECTION VALVE.

D. RADIOLOGICAL CONCERNS:

- 1) THE SOUTH PIPE CHASE IS HIGHLY CONTAMINATED DUE TO THE PRESENCE OF THE LEAK ON THE INSTRUMENT LINE.

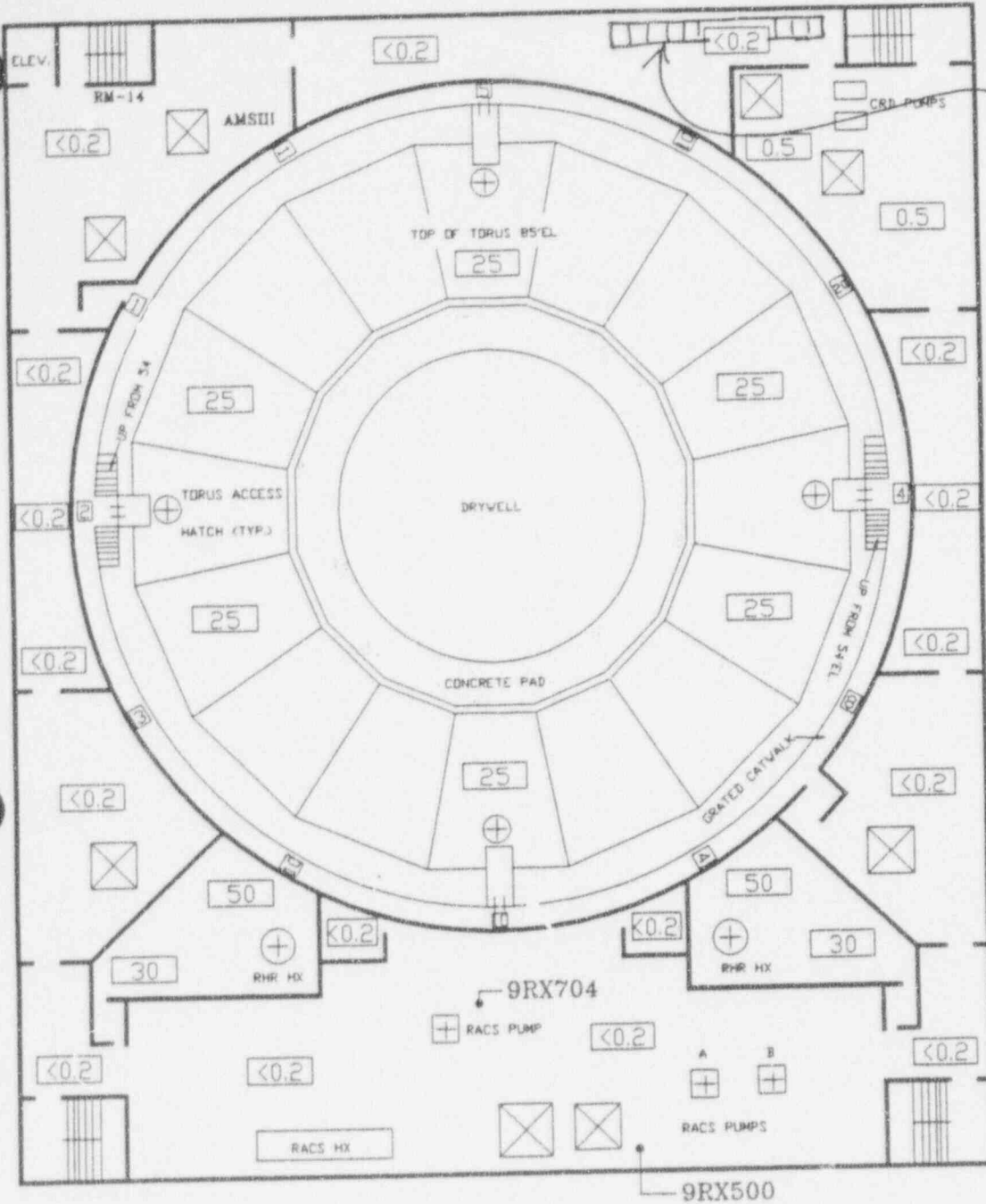
E. ATTACHMENTS:

- 1) REACTOR BUILDING, ELEV. 77', RAD SURVEY MAP (2 PAGES)
- 2) REACTOR BUILDING, ELEV. 102', RAD SURVEY MAP (2 PAGES)

F. CONTROLLERS SPECIAL NOTES / REFERENCES / OBJECTIVES:

- 1) IT IS CRITICAL TO THE DRILL TIMELINE THAT THE "D" LPCI INJECTION VALVE IS NOT OPENED. THE SAME HOLDS TRUE FOR THE "B" LPCI INJECTION VALVE AND "B" CORE SPRAY INJECTION VALVE.

REACTOR BUILDING 77' EL.



MCC 10B242
 "D" LPCI INJECTION
 VALVE
 MOTOR BREAKER
 IS TRIPPED
 WILL NOT RESET
 BREAKER
 52-242052

DATE OF DRILL : OCTOBER 25, 1994

REAL TIME(S) : 0800 - 1219

DRILL TIME(S) : 0000 - 0419

CONTAMINATION LEVELS: N/A

AIR SAMPLE DATA : SEE REACTOR BUILDING
 AIR CONCENTRATIONS
 DATA

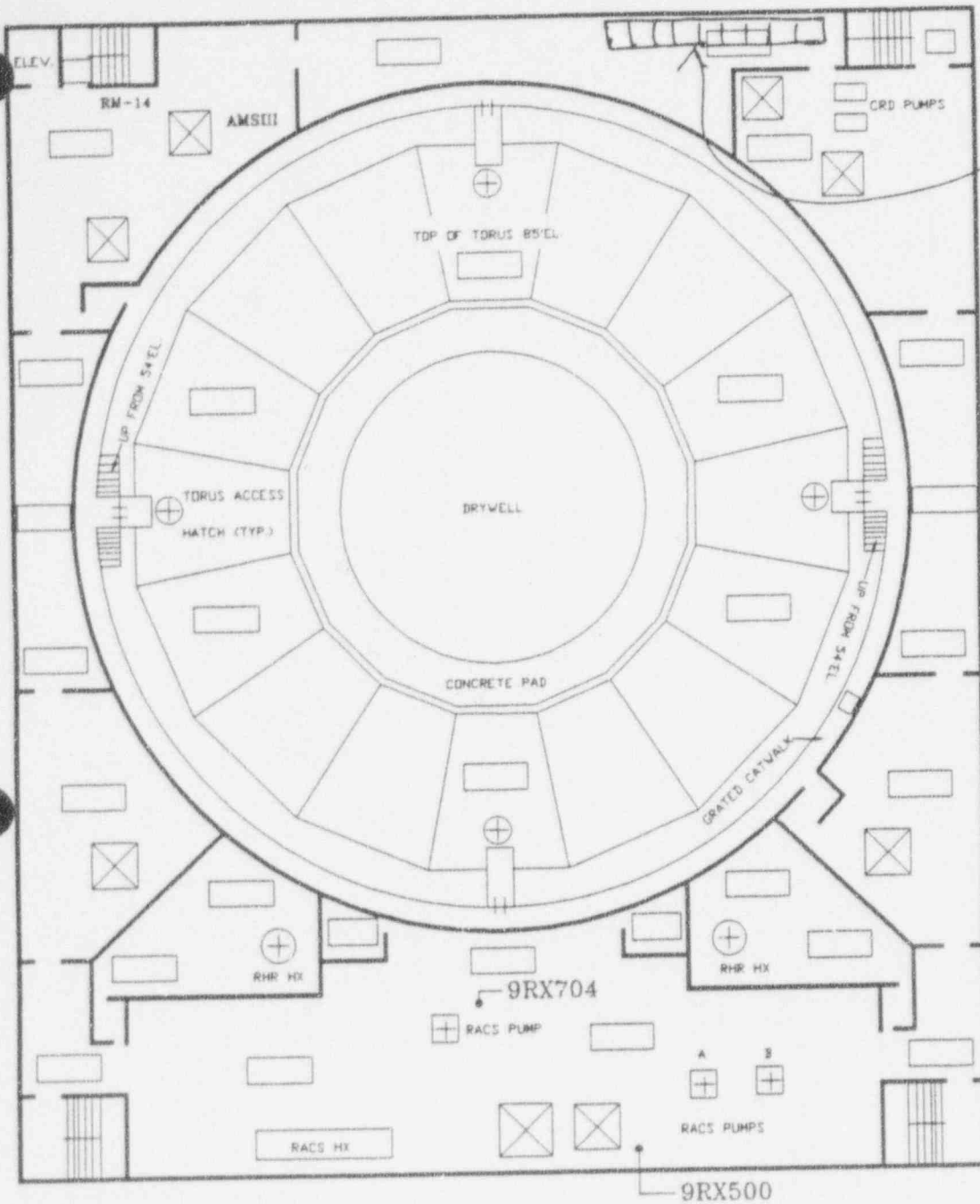
☐ DOSE RATES IN MR/HR UNLESS
 OTHERWISE INDICATED.

AMS DATA: 400 CCPM

7.09.3

REACTOR BUILDING 77' EL.

MCC10B242



REAL TIME	DOSE RATES	CONTAMINATION LEVELS
1220	5.0 mR/hr	N/A
1225	10.0 mR/hr	N/A
1235	28.0 mR/hr	N/A
1245	32.0 mR/hr	N/A
1325	490.0 mR/hr	1.9 mRad/hr
1330	3.8 R/hr	35.0 mRad/hr
1335	540.0 R/hr	2.2 Rad/hr
1500	500.0 R/hr	2.2 Rad/hr
1515	90.0 R/hr	2.2 Rad/hr
1530	48.0 R/hr	2.2 Rad/hr
1545	6.1 R/hr	2.2 Rad/hr
1600	1.2 R/hr	2.2 Rad/hr

DATE OF DRILL : OCTOBER 25, 1994

DOSE RATES : SEE ABOVE

REAL TIME(S) : 1220 - END

DRILL TIME(S) : 0420 - END

AMS DATA: OFFSCALE HIGH ALARMING!

CONTAMINATION LEVELS: SEE ABOVE

AIR SAMPLE DATA : SEE REACTOR BUILDING
AIR CONCENTRATIONS
DATA

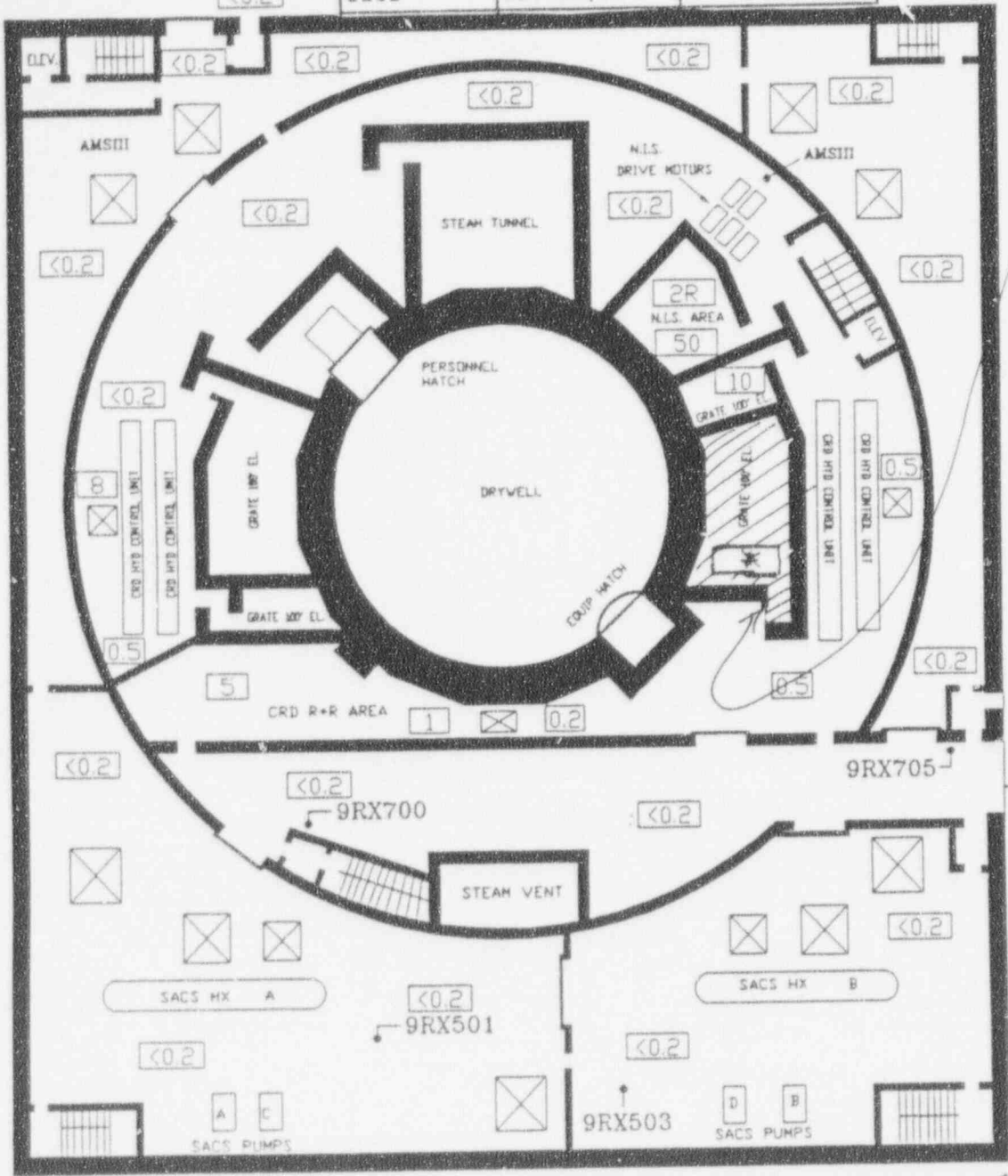
7.09.4

SOUTH PIPE CHASE *

REAL TIME	DOSE RATES	CONTAMINATION LEVELS
0800	10 mR/hr	N/A
1002	20 mR/hr	10,000 CCPM
1051	75 mR/hr	35,000 CCPM
1102	250 mR/hr	1.0 mRad/hr

REACTOR BUILDING
102' EL.

SOUTH PIPE CHASE DOOR (ROOM 4321) STEAM FILLED, DOOR IS HOT TO TOUCH (160°F)



DATE OF DRILL : OCTOBER 25, 1994
 REAL TIME(S) : 0800 - 1324
 DRILL TIME(S) : 0000 - 0524
 CONTAMINATION LEVELS: N/A

☐ DOSE RATES IN MR/HR UNLESS OTHERWISE INDICATED.
 AMS DATA: 400 CCPM

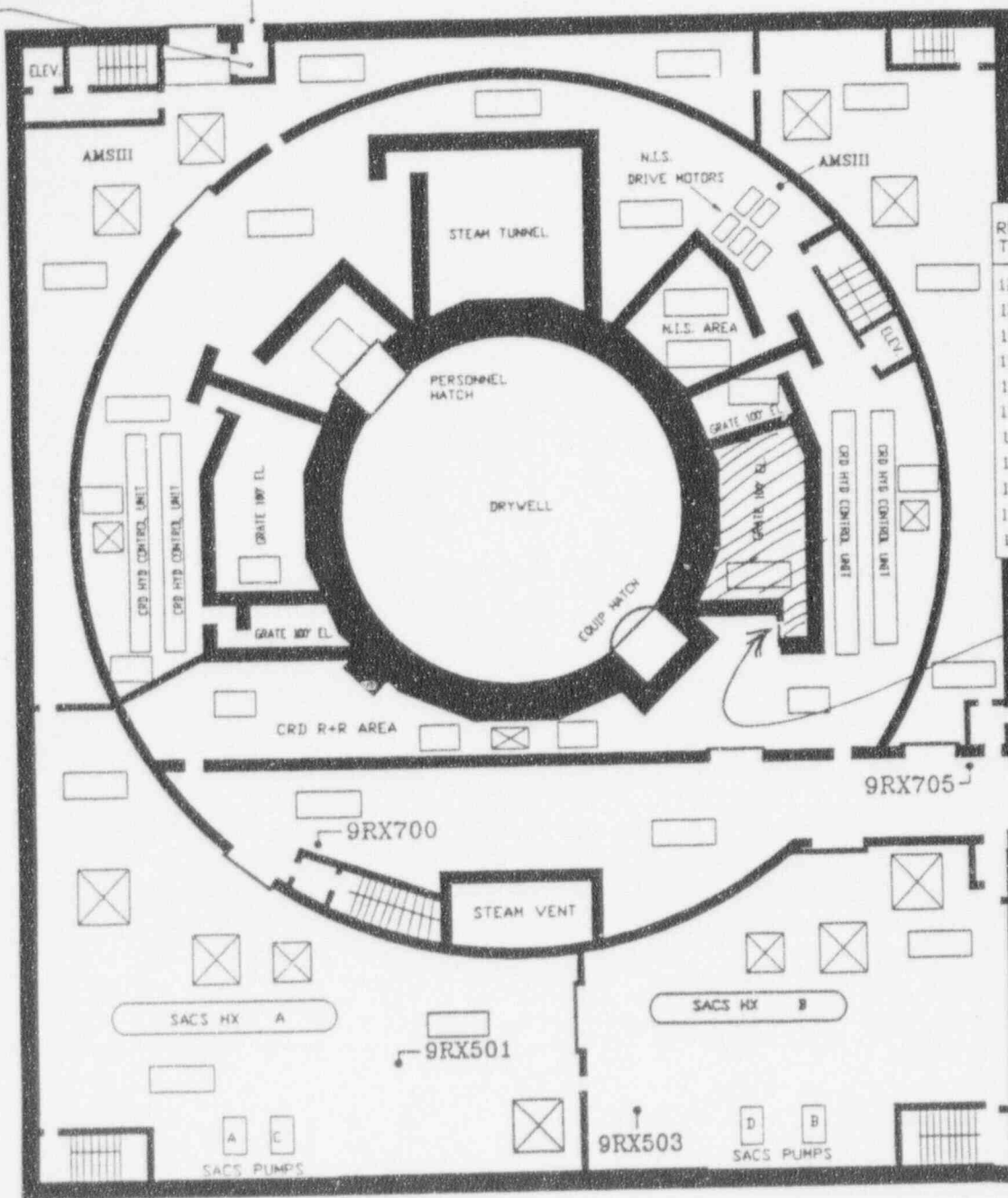
AIR SAMPLE DATA : SEE REACTOR BUILDING AIR CONCENTRATIONS DATA

7.09.5

MULTIPLY GENERAL AREA DOSE RATE DIRECTLY OUTSIDE OF THE HATCH IN THE REACTOR BUILDING BY 0.1 FOR THE DOSE RATE IN THE HATCH.
 MULTIPLY GENERAL AREA DOSE RATE DIRECTLY OUTSIDE OF THE HATCH IN THE REACTOR BUILDING BY 0.01 FOR THE CONTACT DOSE RATE AGAINST THE HATCH.

REACTOR BUILDING 102' EL.

REAL TIME	DOSE RATES	CONTAMINATION LEVELS
1225	0.2 mR/hr	N/A
1250	1.0 mR/hr	N/A
1305	2.0 mR/hr	N/A
1325	546.0 mR/hr	2.2 mRad/hr
1330	8.7 R/hr	34.0 mRAD/hr
1335	540.0 R/hr	2.2 Rad/hr
1500	500.0 R/hr	2.2 RAD/hr
1515	90.0 R/hr	2.2 RAD/hr
1530	48.0 R/hr	2.2 RAD/hr
1545	6.1 R/hr	2.2 RAD/hr
1600	863.0 mR/hr	2.2 RAD/hr



DATE OF DRILL : OCTOBER 25, 1994
 REAL TIME(S) : 1325 - END
 DRILL TIME(S) : 0525 - END
 CONTAMINATION LEVELS: SEE ABOVE

DOSE RATES : SEE ABOVE.
 AMS DATA: OFFSCALE HIGH ALARMING!

AIR SAMPLE DATA : SEE REACTOR BUILDING
 AIR CONCENTRATIONS
 DATA

7.09.6

SUPPLEMENTAL SCENARIO # 7.10

TITLE : FUEL ZONE VARIABLE LEG LEAK WITH EFCV CLOSURE
START TIME : 11:02(03:02) END TIME : 11:35(03:35)
LOCATION : REACTOR BUILDING, ELEVATION 102'

A. INITIATING CONDITIONS:

A SMALL LEAK HAS DEVELOPED ON THE INSTRUMENT LINE ASSOCIATED WITH THE #5 JET PUMP FLOW INDICATION AND THE "B" FUEL ZONE LEVEL INSTRUMENT VARIABLE LEG. THE LEAK STARTED AT 10:02 AND IS DISCHARGING INTO THE SOUTH PIPE CHASE AREA. BY 11:02, THE LEAK RATE HAS EXCEEDED THE 5 GPM SETPOINT FOR THE ASSOCIATED EXCESS FLOW CHECK VALVE (1BBXV-3734B) AND THE EFCV CLOSURES, SUCCESSFULLY ISOLATING THE LEAK.

B. RELATED MESSAGE FORMS: 50D, 52C, 53, 54

C. POSTULATED EVENT:

1) FAILURE MODE (OR CAUSE):

THE LEAK HAS STARTED AS THE RESULT OF OSCILLATORY VIBRATION CAUSED BY A SMALL PIECE OF THE FAILED #5 JET PUMP RAM'S HEAD IMPACTING THE HIGH PRESSURE INSTRUMENT TAP FOR THAT JET PUMP BETWEEN THE CORE SHROUD AND THE REACTOR VESSEL WALL. THE VIBRATIONS HAVE PROPAGATED THROUGH THE INSTRUMENT LINE AND HAS RESULTED IN THE DEVELOPMENT OF A LEAK IN THE SOUTH PIPE CHASE, DOWNSTREAM OF THE EXCESS FLOW CHECK VALVE.

2) SYMPTOMS (OR INDICATIONS):

- 1) IN THE REACTOR BUILDING, AT EXCESS FLOW CHECK VALVE PANEL 1B-C-204:
EFCV 1BBXV-3734B GREEN CLOSED LIGHT IS ILLUMINATED.
EFCV 1BBXV-3734B RED OPEN LIGHT IS EXTINGUISHED.
- 2) IN THE REACTOR BUILDING, AT THE DOOR TO THE SOUTH PIPE CHASE:
THE DOOR IS HOT TO THE TOUCH.
BEFORE 11:02, A HISSING SOUND IS HEARD COMING FROM INSIDE

SUPPLEMENTAL SCENARIO # 7.10
(CONTINUED)

C. POSTULATED EVENT:

3) RESTORATION GUIDELINES:

CONDITIONS IN THE SOUTH PIPE CHASE MAKE ENTRY EXTREMELY DIFFICULT. DUE TO DISCHARGE OF HIGHLY RADIOACTIVE REACTOR COOLANT INTO THE SOUTH PIPE CHASE, CONTAMINATION LEVELS ARE EXTREMELY HIGH. TEMPERATURE IN THE PIPE CHASE ARE APPROXIMATELY 160 DEGREES AND SLOWLY DECREASING. THE INSTRUMENT LINE WILL NOT BE RECOVERABLE FOR THE DURATION OF THE EXERCISE.

4) SCENARIO CONTROLS:

- 1) IT IS CRITICAL TO THE SCENARIO, THAT THE OSC TEAM DISPATCHED REPORT BACK THAT THE EXCESS FLOW CHECK VALVE IS CLOSED, AS INDICATED AT PANEL 1B-C-204.
- 2) SINCE THE LEAK IS LOCATED IN THE SOUTH PIPE CHASE, NO WATER OR OTHER EVIDENCE OF A LEAK IS FOUND AT THE INSTRUMENT RACK.

D. RADIOLOGICAL CONCERNS:

THIS SUPPLEMENTAL SCENARIO WILL CREATE A MAJOR RADIOLOGICAL CONCERN FOR PLANT PERSONNEL. CONTAMINATION LEVELS, WHICH WERE ALREADY PRESENT PRIOR TO THE LEAK HAVE NOW INCREASED SIGNIFICANTLY. ATTEMPTS BY OSC TEAMS TO ENTER THE PIPE CHASE WILL REQUIRE DEMONSTRATION OF ALL APPROPRIATE RADIOLOGICAL AND SAFETY PRECAUTIONS.

E. ATTACHMENTS:

- 1) REACTOR BUILDING SOUTH PIPE CHASE LAYOUT DRAWING.
- 2) #5 JET PUMP FLOW INSTRUMENT LINE SCHEMATIC.

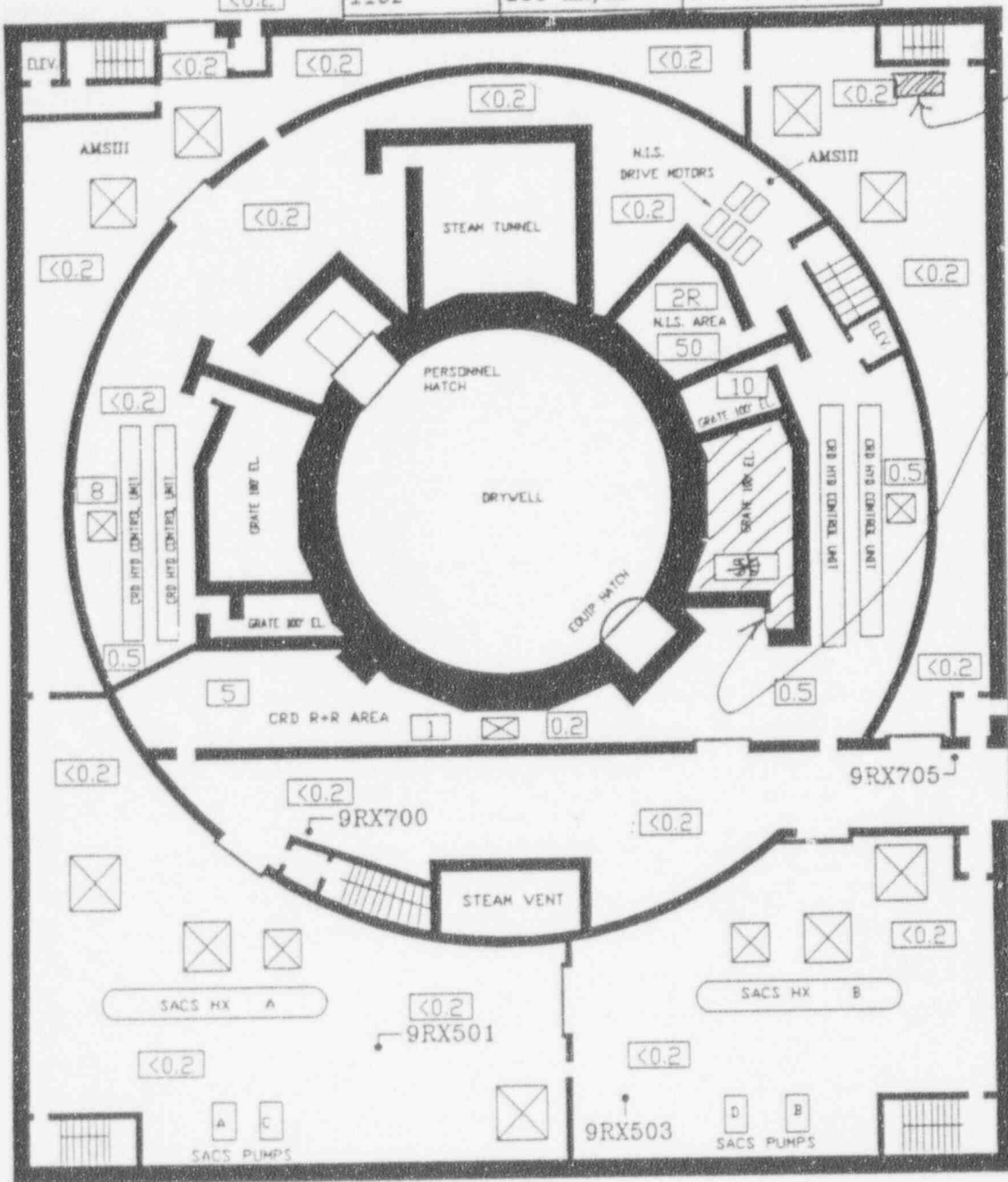
F. CONTROLLERS SPECIAL NOTES / REFERENCES / OBJECTIVES:

- 1) THIS SUPPLEMENTAL SCENARIO IS DESIGNED TO CREATE CONDITIONS IN THE SOUTH PIPE CHASE TO SUBSTANTIATE FAILURE OF THE "D" LPCI INJECTION VALVE MOTOR OPERATOR AND PREVENT MANUAL OPERATION OF THE "B" AND "D" LPCI INJECTION VALVES AND THE "B" CORE SPRAY INJECTION VALVE.

SOUTH PIPE CHASE *

REAL TIME	DOSE RATES	CONTAMINATION LEVELS
0800	10 mR/hr	N/A
1002	20 mR/hr	10,000 CCPM
1051	75 mR/hr	35,000 CCPM
1102	250 mR/hr	1.0 mRad/hr

REACTOR BUILDING
102' EL.



EFCV
PANEL
IBC 204

2 SOUTH
PIPE CHASE
DOOR

CRCA
BOUNDARY

NORTH

DATE OF DRILL : OCTOBER 25, 1994

REAL TIME(S) : 0800 - 1324

DRILL TIME(S) : 0000 - 0524

CONTAMINATION LEVELS: N/A

AIR SAMPLE DATA : SEE REACTOR BUILDING
AIR CONCENTRATIONS
DATA

☐ DOSE RATES IN MR/HR UNLESS
OTHERWISE INDICATED.

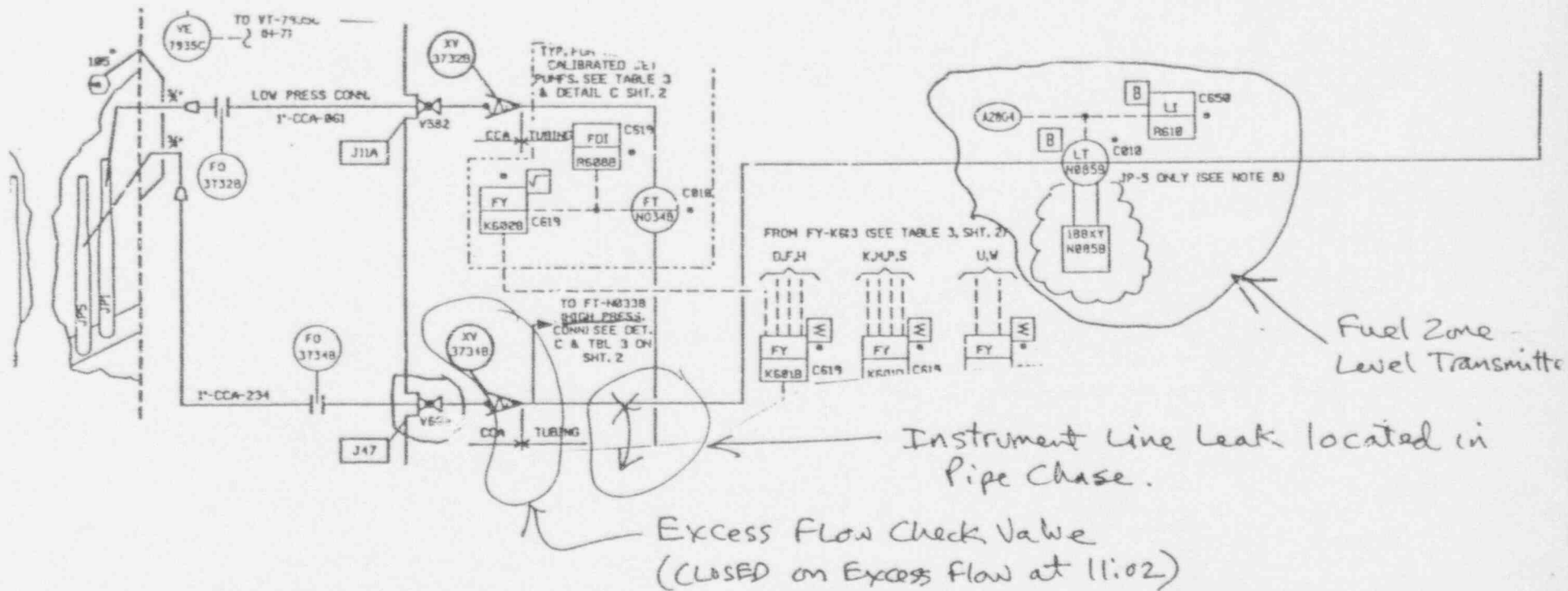
AMS DATA: 400 CCPM

7.10.3

#5 JET PUMP FLOW INSTRUMENT LINE SCHEMATIC

At 10:02, a small leak (less than 3 GPM) will develop just downstream of Instrument Root Valve 1BB-V-600 and associated Excess Flow Check Valve 1BBXV-3734B, which is associated with the #5 Jet Pump Flow Instrumentation, as well as the "B" Channel Fuel Zone Instrument. The Control Room will not receive indication of the leak at this time.

The leak has been caused by a small piece of the #5 Jet Pump beam, which is impacting against the instrument line and is causing oscillatory vibration of the instrument line. The leak is located in the South Pipe Chase, Reactor Building, Elevation 102'.



At 11:02, the leak in the South Pipe Chase will exceed 5 GPM and the Excess Flow Check Valve will close, isolating the leak. Reactor Water Level indication on the "B" Channel Fuel Zone instrument will be lost.

SUPPLEMENTAL SCENARIO # 7.11

TITLE : "A" RHR PUMP REPAIRS

START TIME : 11:35(03:35)

END TIME : 15:30(07:30)

LOCATION : AUXILIARY BUILDING, ELEVATION 130'
REACTOR BUILDING, ELEVATION 54'

A. INITIATING CONDITIONS:

THE LOSS OF COOLANT ACCIDENT (LOCA) THAT OCCURS AT 11:35 RESULTS IN INITIATION OF A LOCA LEVEL 1 SIGNAL. THE "A" RHR PUMP WHICH WAS PLACED IN TORUS COOLING TO SUPPORT CONTAINMENT HEAT REMOVAL REQUIREMENTS FOLLOWING CLOSURE OF THE MSIVS, WILL TRIP APPROXIMATELY 1 MINUTE AFTER THE LOCA SIGNAL IS RECEIVED, RESULTING IN A LOSS OF "A" LPCI INJECTION CAPABILITIES.

B. RELATED MESSAGE FORMS: 58D,59C,60

C. POSTULATED EVENT:

1) FAILURE MODE (OR CAUSE):

THE "A" RHR PUMP TRIPS ON OVERCURRENT AS A PIECE OF THE PUMP IMPELLER BREAKS OFF AND BECOMES LODGED BETWEEN THE IMPELLER AND THE PUMP CASING, RESULTING IN MECHANICAL BINDING.

2) SYMPTOMS (OR INDICATIONS):

- 1) AT THE "A" RHR PUMP MOTOR BREAKER (52-40106), THE "A" RHR PUMP MOTOR BREAKER OVERCURRENT RELAY DEVICE HAS ACTUATED.
- 2) IN THE "A" RHR PUMP ROOM, THE "A" RHR PUMP SHAFT IS EXTREMELY HOT AND CAN NOT BE TURNED. THE PUMP MOTOR IS EXTREMELY HOT. THE ROOM HAS SMELL OF BURNT INSULATION.

SUPPLEMENTAL SCENARIO # 7.11
(CONTINUED)

C. POSTULATED EVENT:

3) RESTORATION GUIDELINES:

- 1) IF AN ATTEMPT IS MADE TO RECLOSE THE MOTOR BREAKER, THE BREAKER IMMEDIATELY TRIPS FREE.
- 2) THE PUMP AND MOTOR MUST BE DISCONNECTED, TO ALLOW FOR EITHER PUMP REPLACEMENT OR REPAIR.

4) SCENARIO CONTROLS:

- A) THE PUMP WILL NOT BE RESTORED SUCCESSFULLY IN THE DRILL DUE TO THE LENGTH OF TIME REQUIRED FOR REPAIR, COMBINED WITH THE DEGRADED RADIOLOGICAL CONDITIONS THAT OCCUR IN THE REACTOR BUILDING AT 13:15.
- B) PLANS AND PREPARATION TO REPAIR THE PUMP SHOULD BE DEVELOPED.

D. RADIOLOGICAL CONCERNS:

- 1) REFER TO ATTACHED RAD SURVEY MAPS.
- 2) BE PREPARED TO PROVIDE DOSE RATES AND ALNOR READINGS.
- 3) DOSE RATE IN THE REACTOR BUILDING INCREASE SUBSTANTIALLY AT 13:15. IF A TEAM IS IN THE REACTOR BUILDING AT THAT TIME, THEY SHOULD PROMPTLY EXIT THE REACTOR BUILDING.

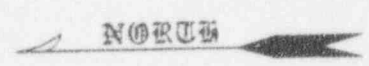
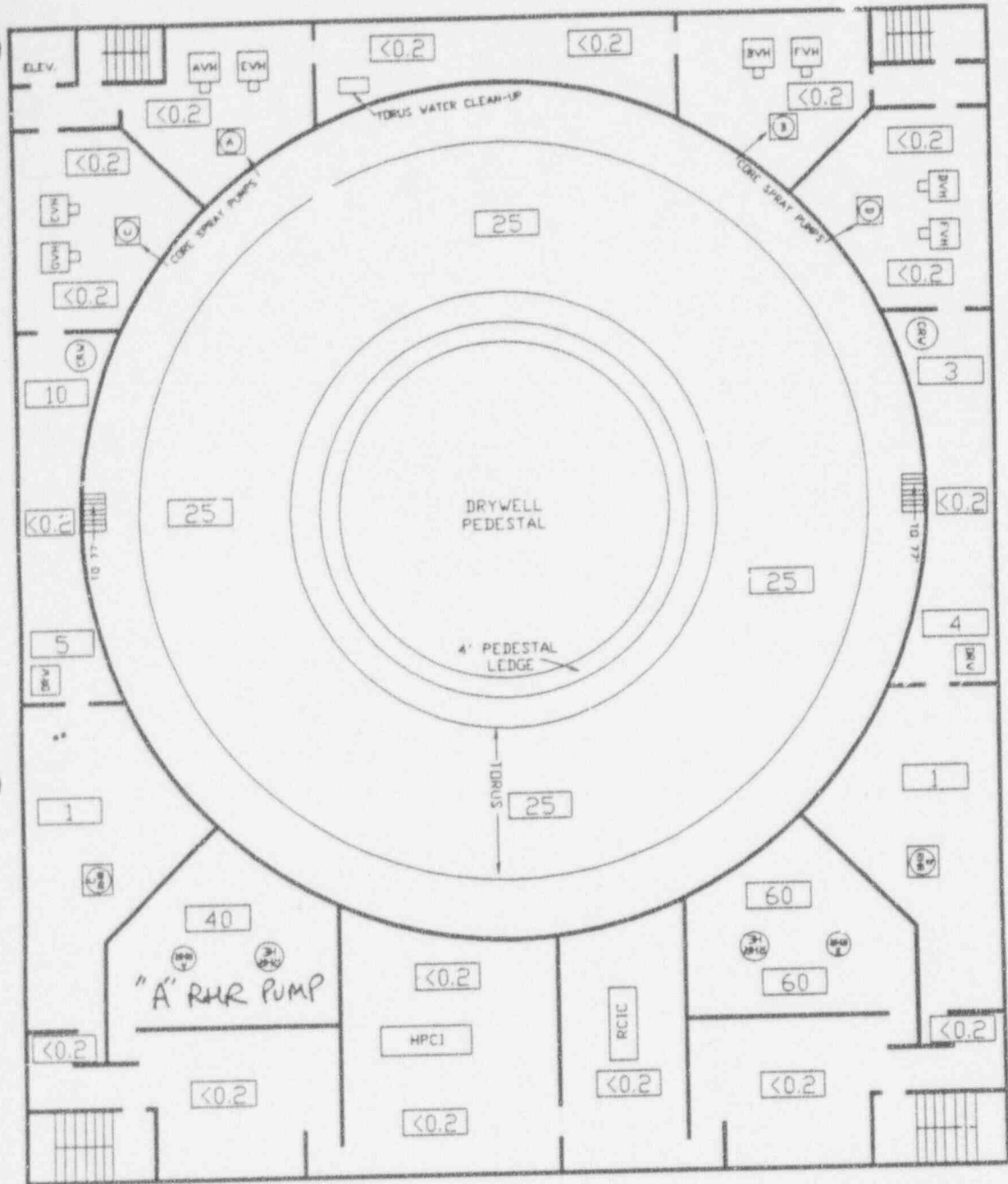
E. ATTACHMENTS:

- 1) REACTOR BUILDING, ELEV. 54', RAD SURVEY MAP (2 PAGES)
- 2) AUXILIARY BUILDING, ELEVATION 130' LAYOUT MAP

F. CONTROLLERS SPECIAL NOTES / REFERENCES / OBJECTIVES:

- 1) THIS SCENARIO IS TIME CRITICAL TO THE DRILL. THE "A" RHR PUMP WILL NOT BE AVAILABLE FOR THE REMAINDER OF THE EXERCISE. LOSS OF THE "A" RHR PUMP RESULTS IN A SIGNIFICANT CHALLENGE TO ADEQUATE CORE COOLING.

REACTOR BUILDING 54' EL.



DATE OF DRILL: OCTOBER 25, 1994

REAL TIME(S) : 0800 - 1219

DRILL TIME(S) : 0000 - 0419

CONTAMINATION LEVELS: N/A

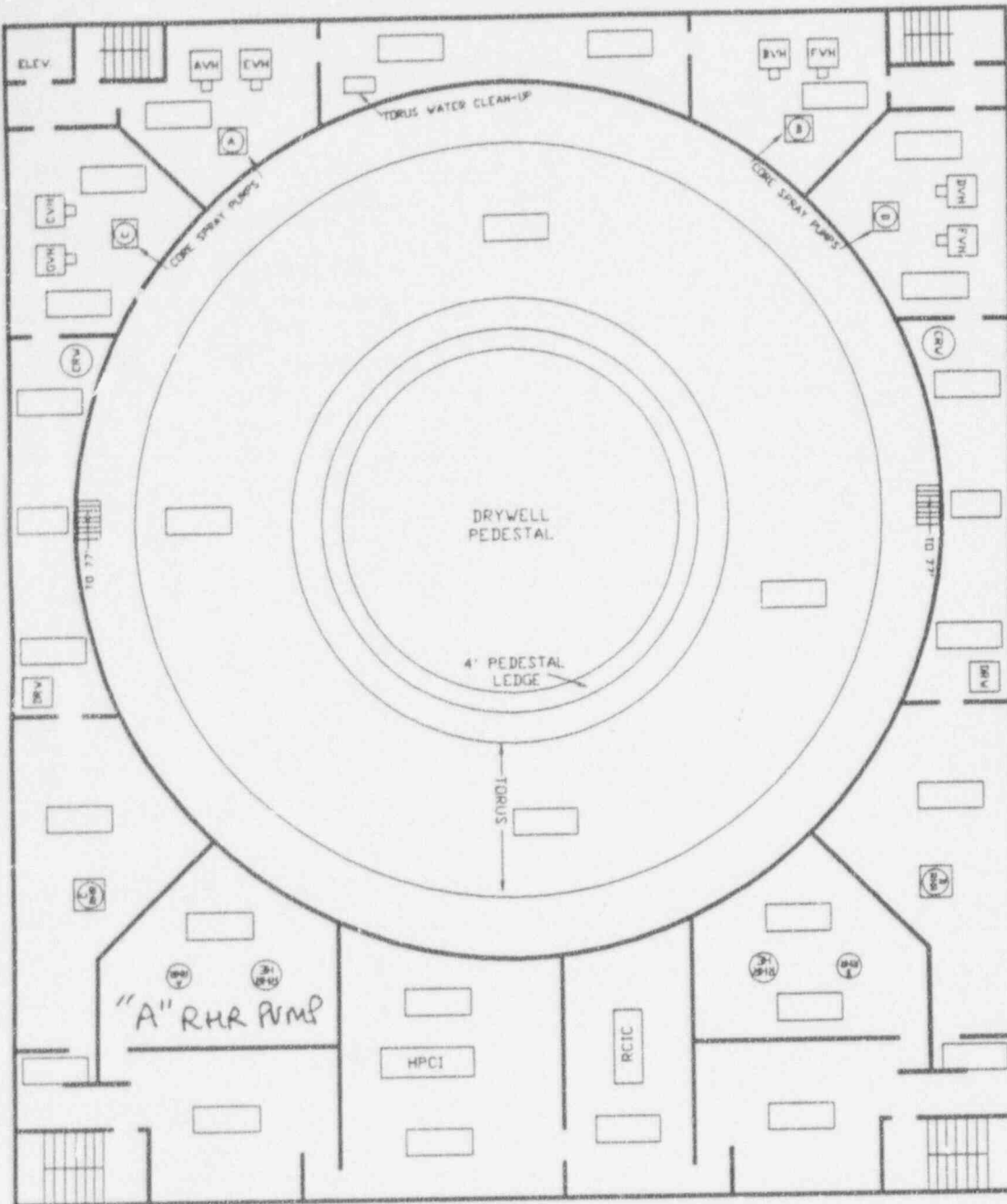
AIR SAMPLE DATA : SEE REACTOR BUILDING
AIR CONCENTRATIONS
DATA

DOSE RATES IN MR/HR UNLESS OTHERWISE INDICATED.

AMS DATA: N/A

7.11.3

REACTOR BUILDING 54' EL.



REAL TIME	DOSE RATES	CONTAMINATION LEVELS
1220	5.0 mR/hr	N/A
1225	10.0 mR/hr	N/A
1235	28.0 mR/hr	N/A
1245	32.0 mR/hr	N/A
1325	490.0 mR/hr	1.9 mRad/hr
1330	8.8 R/hr	35.0 mRad/hr
1335	540.0 R/hr	2.2 Rad/hr
1500	500.0 R/hr	2.2 Rad/hr
1515	90.0 R/hr	2.2 Rad/hr
1530	48.0 R/hr	2.2 Rad/hr
1545	6.1 R/hr	2.2 Rad/hr
1600	1.2 R/hr	2.2 Rad/hr

NORTH

DATE OF DRILL: OCTOBER 25, 1994

DOSE RATES: SEE ABOVE

REAL TIME(S) : 1220 - END

DRILL TIME(S) : 0420 - END

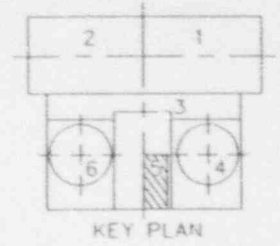
AMS DATA: N/A

CONTAMINATION LEVELS: SEE ABOVE

AIR SAMPLE DATA : SEE REACTOR BUILDING
AIR CONCENTRATIONS
DATA

7.11.4

CLASS IE SWITCHGEAR ROOMS
EL 130'-0"

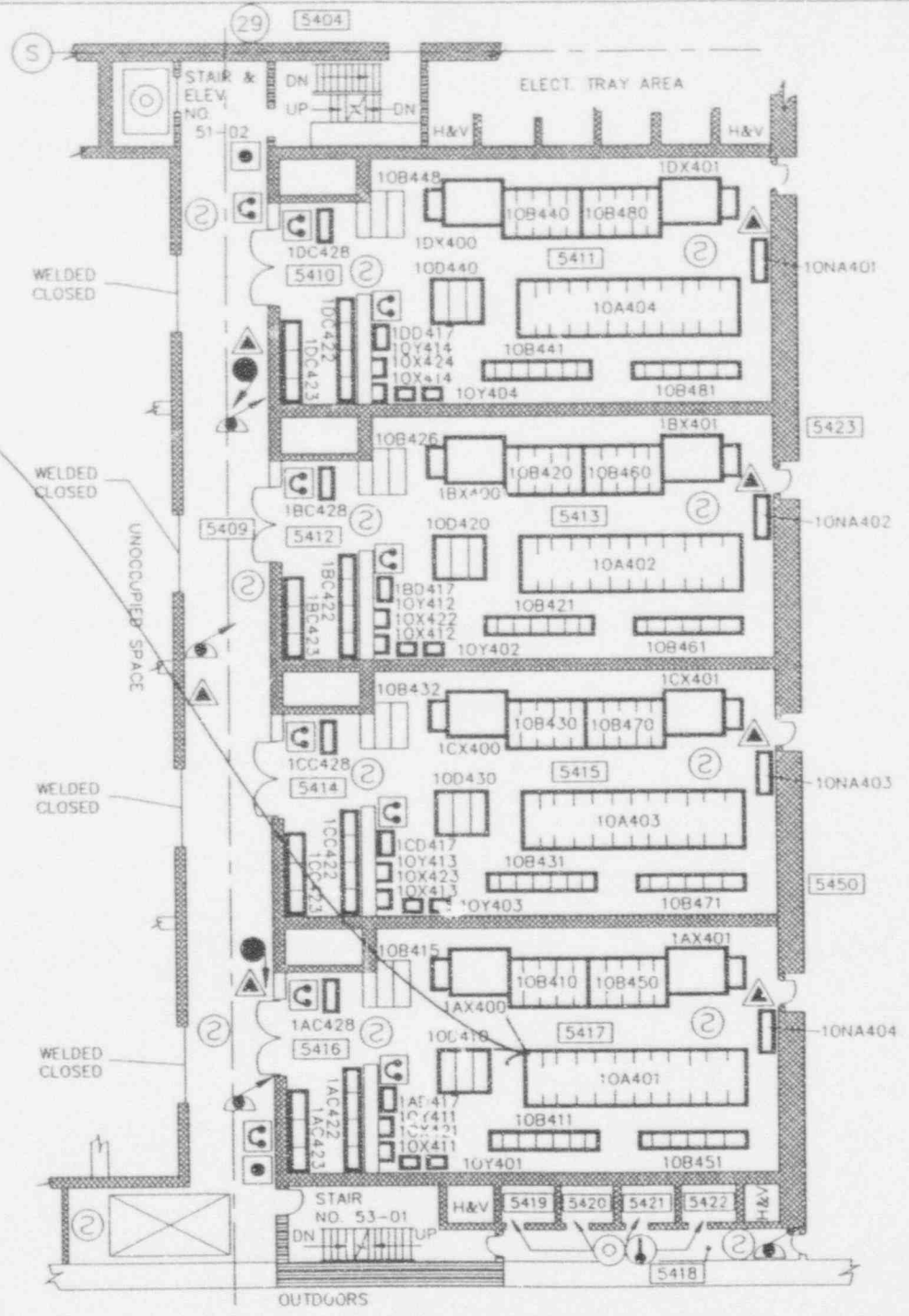


LEGEND

- SAFETY RELATED EQUIPMENT
 - HIGH RADIATION AREA
 - CONTAMINATED AREA
 - MANUAL ALARM STATIONS
 - PUBLIC ADDRESS HANDSET
 - TELEPHONE
 - THERMAL DETECTOR
 - SMOKE DETECTOR
 - SPRINKLER
 - DELUGE SYSTEM
 - AUTO-PREACTION SPRINKLER
 - AUTOMATIC MET PIPE SPRINKLER
 - CO₂-AUTOMATIC FIXED SYSTEM
 - CO₂-MANUAL FIXED SYSTEM
 - HALON 1301 AUTOMATIC FIXED SYSTEM
 - HALON 1301 MANUAL FIXED SYSTEM
 - DELUGE VALVE
 - PORTABLE WATER EXTINGUISHER
 - PORTABLE HALON EXTINGUISHER
 - PORTABLE CO₂ EXTINGUISHER
 - PORTABLE DRY CHEM. EXTINGUISHER
 - HOSE STATION CHARGED STANDPIPE
 - HATCH FLOOR LEVEL
 - HATCH CEILING LEVEL
 - LADDER
 - WRE GATE
 - CO₂ HOSE REEL
 - LOCKED DOOR
 - SECURITY
 - HEALTH PHYSICS
 - DELUGE ACTUATION STATION
 - CO₂ PUSHBUTTON STATION
- FIRE BARRIER RATINGS
- 1 HR.
 - 2 HR.
 - 3 HR.

"A" RHR PUMP
(1A-P-202)
4.16KV Feed Bkr
S2-40106

7.11.5



SUPPLEMENTAL SCENARIO # 7.12

TITLE : ISOLATION OF THE DRYWELL ATMOSPHERIC SAMPLE LINE
START TIME : 11:35(03:35) END TIME : 14:49(06:49)
LOCATION : REACTOR BUILDING, ELEVATION 162'

A. INITIATING CONDITIONS:

UPON RECEIPT INITIATION OF THE LOCA LEVEL 1 SIGNAL, ALL PRIMARY CONTAINMENT ISOLATION VALVES WILL PROPERLY CLOSE WITH THE EXCEPTION OF THE DRYWELL ATMOSPHERIC GASEOUS RADIOACTIVITY MONITORING INBOARD SUPPLY ISOLATION VALVE, 1SKHV-5018, WHICH INDICATES MID POSITION IN THE MAIN CONTROL ROOM.

B. RELATED MESSAGE FORMS: 57D,61D,62,66,67C,73,74,75,81

C. POSTULATED EVENT:

1) FAILURE MODE (OR CAUSE):

THE FAILURE OF A BAILEY CARD ASSOCIATED WITH 1SKHV-5018, RESULT IN THE VALVE FAILING TO FULLY CLOSE ON THE LOCA LEVEL 1 SIGNAL THAT IS GENERATED AT APPROXIMATELY 11:35. ATTEMPTS TO MANUALLY CLOSE THE VALVE FROM THE CONTROL ROOM ARE UNSUCCESSFUL. ATTEMPTS TO ISOLATE THE LINE LOCALLY ARE ALSO UNSUCCESSFUL AT THIS TIME, AND IN FACT HAVE AN ADVERSE EFFECT ON THE INTEGRITY OF THE LINE.

2) SYMPTOMS (OR INDICATIONS):

IN THE REACTOR BUILDING, ELEVATION 162'

1-SK-V004, DW SAMPLE SKID SUPPLY MANUAL ISOL VLV IS OPEN.
UPON INSPECTION, THE VALVE STEM IS OBSERVED TO BE BENT.
1-SK-V007, DW SAMPLE SKID RETURN MANUAL ISOL VLV IS OPEN.
1SKHV-5018, DW SAMPLE SKID SUPPLY MOV IS IN MID POSITION.
1SKHV-4953, DW SAMPLE SKID SUPPLY MOV IS CLOSED.
1SKHV-4957, DW SAMPLE SKID RETURN MOV IS CLOSED.
1SKHV-4981, DW SAMPLE SKID RETURN MOV IS CLOSED.

SUPPLEMENTAL SCENARIO # 7.12
(CONTINUED)

C. POSTULATED EVENT:

3) RESTORATION GUIDELINES:

WHEN THE OSC TEAM ATTEMPTS TO CLOSE THE 1-SK-V004, THE BENT STEM WILL LIMITED THE ABILITY TO CLOSE THE VALVE. TEAM MEMBERS SHOULD CONSIDER STRAIGHTENING THE VALVE STEM. ATTEMPTS TO MANUALLY CLOSE THE 1SKHV-5018 ARE UNSUCCESSFUL AS THE DECLUTCH LEVER FAILS TO DECLUTCH THE MOTOR. 1-SK-V007 CAN BE SUCCESSFULLY CLOSED MANUALLY. BAILEY CARD REPLACEMENT WILL BE SUCCESSFUL AT 14:49, RESULTING IN VALVE CLOSURE.

4) SCENARIO CONTROLS:

- A) IT IS CRITICAL TO THE DRILL TIMELINE, THAT THE 1-SK-V004 MANUAL ISOLATION VALVE NOT BE CLOSED FOR THE DURATION OF THE DRILL. THE TEAM SHOULD CONTINUE EFFORTS TO REPAIR THE BENT STEM SO THE VALVE CAN BE CLOSED. IT IS IMPORTANT TO SIMULATE THAT THE TEAM NEEDS TO USE EXCESSIVE FORCE TO CLOSE THE VALVE.
- B) IT IS ALSO CRITICAL THAT THE 1SKHV-5018 NOT BE MANUALLY OPERATED AT ANY TIME. (DECLUTCH LEVER IS FAILED)

D. RADIOLOGICAL CONCERNS:

THE TEAM WILL BE WORKING IN THE AREA WHERE THE RADIOLOGICAL RELEASE OCCURS AT 13:15. IT IS CRITICAL THAT THE OSC REFEREE WITH THE TEAM AT THE TIME OF THE RELEASE SIMULATES RAPIDLY DEGRADING RADIOLOGICAL CONDITIONS. DOSE RATES WILL APPROACH APPROXIMATELY 10R/HR WITHIN THE NEXT 5 MINUTES. AREA RAD MONITORS WILL GO INTO ALARM. THE TEAM SHOULD QUICKLY EXIT THE AREA AND WILL BE CONTAMINATED.

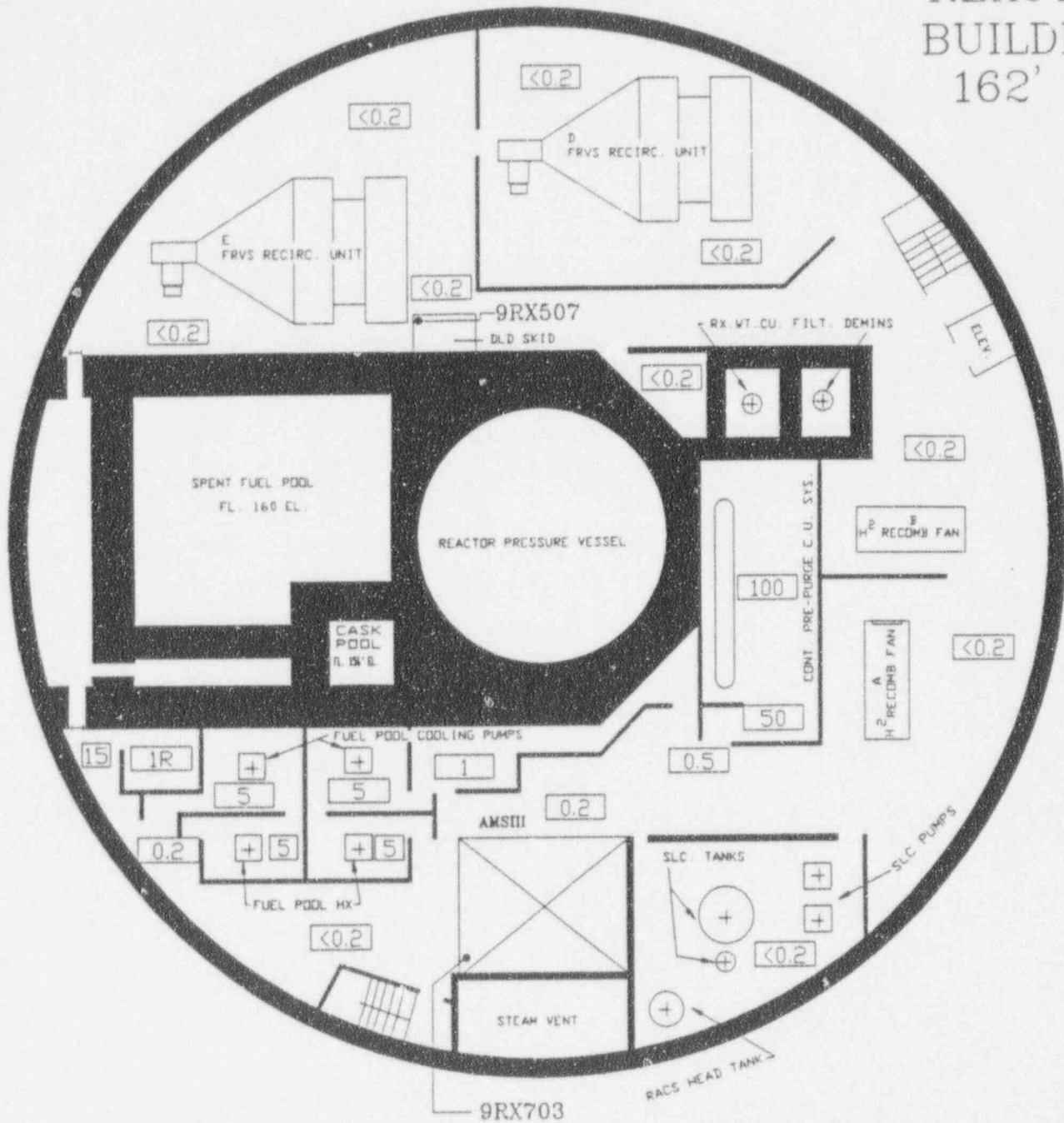
E. ATTACHMENTS:

- 1) REACTOR BUILDING, ELEV 162' RAD SURVEY MAP. (2 PAGES)
- 2) DRYWELL GASEOUS ATMOSPHERIC SAMPLE SYSTEM SCHEMATIC.

F. CONTROLLERS SPECIAL NOTES / REFERENCES / OBJECTIVES:

IT IS CRITICAL THAT THE TEAM IS NOT SUCCESSFUL ISOLATING THE DW GASEOUS ATMOSPHERIC SAMPLE SUPPLY LINE. (THIS IS THE RELEASE PATH). THE BREACH OF THE SAMPLE LINE IS DOWNSTREAM OF THE 1SKHV-5018. THE BREACH WAS THE RESULT OF THE DW PRESSURE SPIKE, DUE TO THE LOCA, COMBINED WITH EXCESSIVE FORCE USED ATTEMPTING TO CLOSE THE MANUAL ISOLATION VALVE.

REACTOR BUILDING 162' EL.



DDATE OF DRILL : OCTOBER 25, 1994

REAL TIME(S) : 0800 - 1224

DRILL TIME(S) : 0000 - 0424

CONTAMINATION LEVELS: N/A

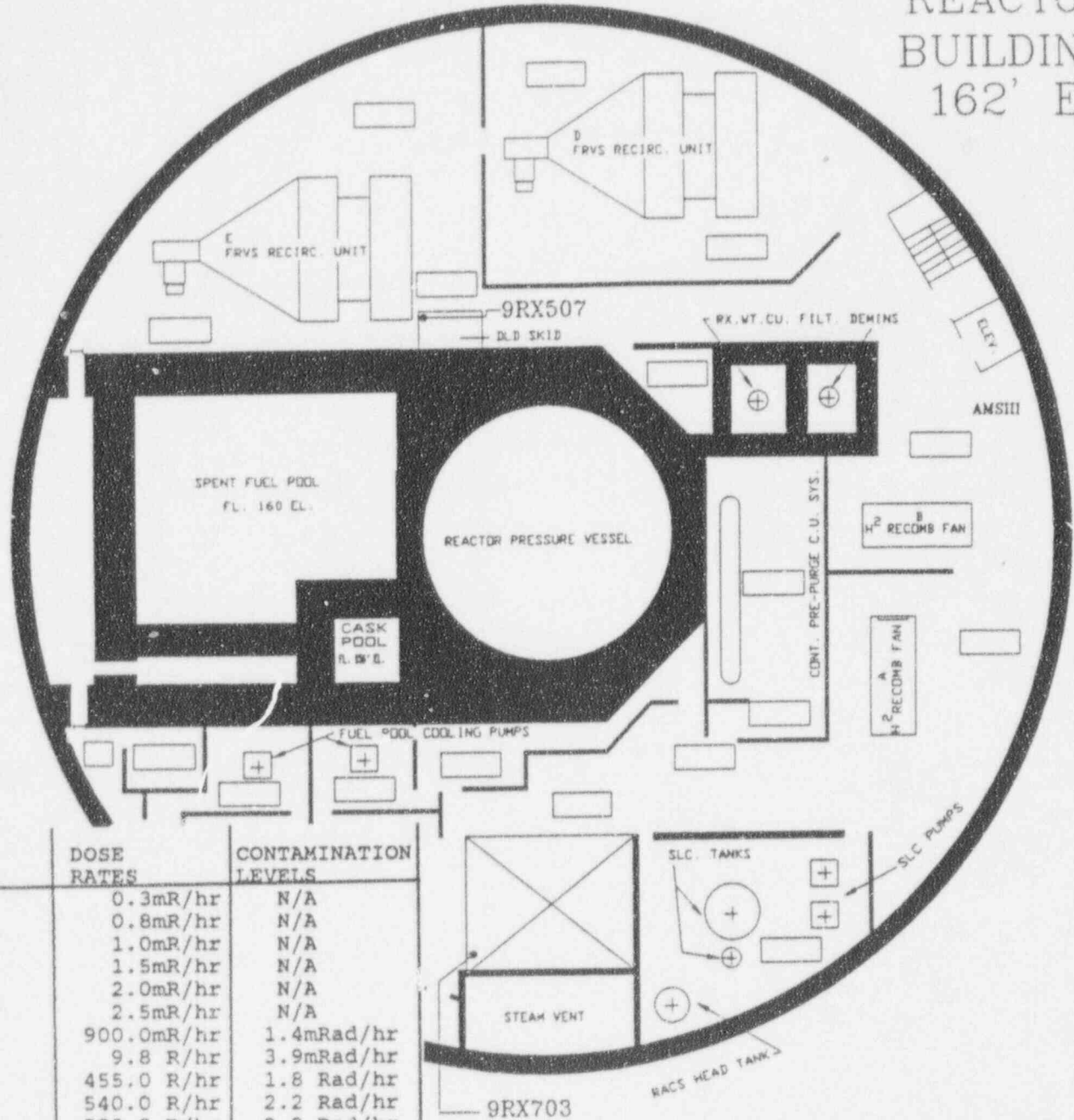
AIR SAMPLE DATA : SEE REACTOR BUILDING
AIR CONCENTRATIONS
DATA

□ DOSE RATES IN MR/HR UNLESS
OTHERWISE INDICATED.

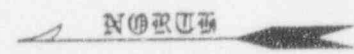
AMS DATA: 400 CCPM

7.12.3

REACTOR BUILDING 162' EL.



REAL TIME	DOSE RATES	CONTAMINATION LEVELS
1225	0.3mR/hr	N/A
1235	0.8mR/hr	N/A
1245	1.0mR/hr	N/A
1250	1.5mR/hr	N/A
1300	2.0mR/hr	N/A
1310	2.5mR/hr	N/A
1315	900.0mR/hr	1.4mRad/hr
1320	9.8 R/hr	3.9mRad/hr
1325	455.0 R/hr	1.8 Rad/hr
1330	540.0 R/hr	2.2 Rad/hr
1500	500.0 R/hr	2.2 Rad/hr
1515	90.0 R/hr	2.2 Rad/hr
1530	48.0 R/hr	2.2 Rad/hr
1545	6.1 R/hr	2.2 Rad/hr
1600	863.0mR/hr	2.2 Rad/hr



DATE OF DRILL : OCTOBER 25, 1994
 REAL TIME(S) : 1225 - END
 DRILL TIME(S) : 0425 - END
 CONTAMINATION LEVELS: SEE ABOVE

DOSE RATES : SEE ABOVE
 AMS DATA: OFFSCALE HIGH ALARMING!

AIR SAMPLE DATA : SEE REACTOR BUILDING
 AIR CONCENTRATIONS
 DATA

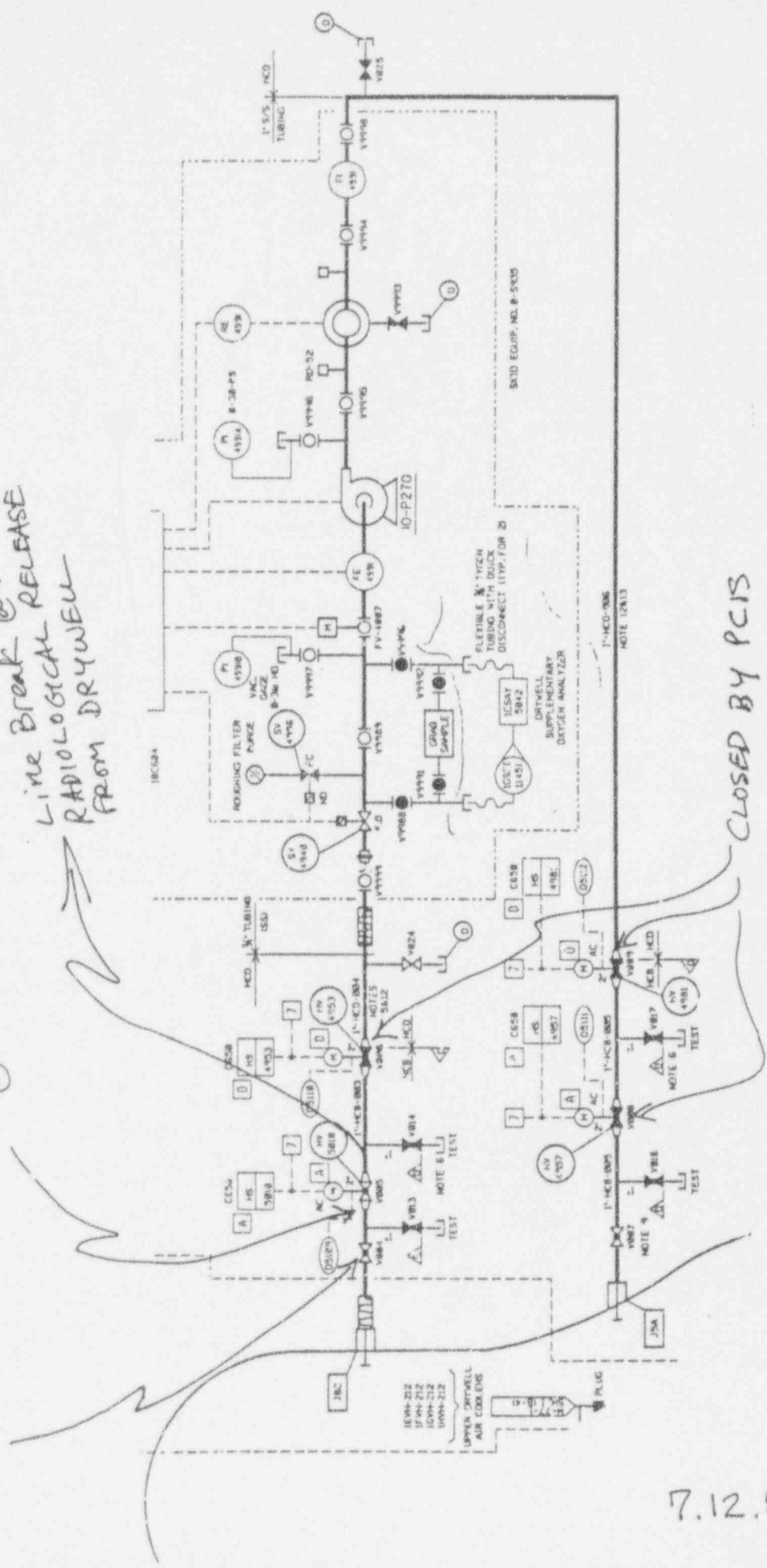
7.12.4

DRYWELL GASEOUS ATMOSPHERIC SAMPLE SYSTEM SCHEMATIC

V004 OPEN WITH BENT STEM (CANNOT BE CLOSED)

HV-5018 OPEN WITH FAILED BAILEY CARD (REPAIRED, VALVE CLOSED) @ 14:49 (06:49)

Line Break @ 13:15 (05:15) RADIOLOGICAL RELEASE FROM DRYWELL



CLOSED BY PCIS

7.12.5

SUPPLEMENTAL SCENARIO # 7.13

TITLE : RHR PUMP SUCTION STRAINER BACKWASH

START TIME : 11:45(03:45)

END TIME : 15:30(07:30)

LOCATION : REACTOR BUILDING, VARIOUS LOCATIONS

A. INITIATING CONDITIONS:

THE CONTROL ROOM CREW RECEIVES INDICATION THAT "C" RHR PUMP FLOW IS DECREASING FROM 10000 GPM TO 3000 GPM. THE NSS WILL REFER TO OP-AB.ZZ-0155, DEGRADED ECCS PERFORMANCE, TO IMPLEMENT CORRECTIVE MEASURES.

NOTE: THIS SUPPLEMENTAL SCENARIO MUST BE CLOSELY COORDINATED WITH #7.14.

B. RELATED MESSAGE FORMS: 59D,60C,65,68D

C. POSTULATED EVENT:

1) FAILURE MODE (OR CAUSE):

THE LOSS OF COOLANT ACCIDENT (LOCA) THAT HAS OCCURRED INSIDE THE DRYWELL, HAS RESULTED IN THE GENERATION OF LARGE AMOUNTS OF DEBRIS (PRIMARILY PIPING INSULATION). THIS DEBRIS IS BEING DISCHARGED FROM THE DRYWELL INTO THE TORUS. THE DEBRIS SUBSEQUENTLY BEGINS TO ACCUMULATE ON THE SUCTION STRAINERS OF THE RUNNING ECCS PUMPS, RESULTING IN DECREASED PUMP FLOW, AND DECREASED PUMP SUCTION PRESSURE.

2) SYMPTOMS (OR INDICATIONS):

A) IN THE REACTOR BUILDING, ELEVATION 54', THE "C" RHR PUMP SUCTION PRESSURE INDICATOR READS 3.2 PSI AND DECREASING.

B) THE "C" RHR PUMP IS LOUDER THAN NORMAL.

C) AT 12:15, THE "C" RHR PUMP WILL TRIP (SEE MESSAGE #68D).

NOTE: THESE INDICATIONS WILL BE SIMILAR FOR ANY ECCS PUMP THAT IS EXPERIENCING THE SUCTION STRAINER PLUGGING PHENOMENA.

SUPPLEMENTAL SCENARIO # 7.13
(CONTINUED)

C. POSTULATED EVENT:

3) RESTORATION GUIDELINES:

- A) THE SNSS WILL DIRECT THE OSCC TO IMPLEMENT OP-AB.ZZ-0155, DEGRADED ECCS PERFORMANCE.
- B) PRIOR TO THE RADIOLOGICAL RELEASE OCCURRING AT 13:15, AN OSC TEAM WILL BE ABLE TO ENTER THE REACTOR BUILDING TO PERFORM ATTACHMENT 4 OF THE PROCEDURE, BACK FLUSHING ECCS SUCTION STRAINERS.

4) SCENARIO CONTROLS:

- 1. THE TIMING OF REMOVAL AND RESTORATION OF RHR PUMPS FOR THE PURPOSE OF BACK WASHING THE SUCTION STRAINER MUST BE CAREFULLY CONTROLLED BY THE LEAD OSC AND SIMULATOR REFEREES.

D. RADIOLOGICAL CONCERNS:

- A) WHEN ENTERING THE REACTOR BUILDING PRIOR TO 13:15, THE TEAM SHOULD DEMONSTRATE APPROPRIATE RADIOLOGICAL PRECAUTIONS.
- B) AFTER THE RELEASE HAS STARTED, ENTRY INTO THE REACTOR BUILDING FOR THE PURPOSE OF BACK WASHING THE SUCTION STRAINERS, WILL NOT BE POSSIBLE DUE TO THE DOSE RATES.
- C) ANY TEAMS IN THE REACTOR BUILDING AT 13:15, WHEN THE RELEASE STARTS, MUST QUICKLY EXIT THE BUILDING.

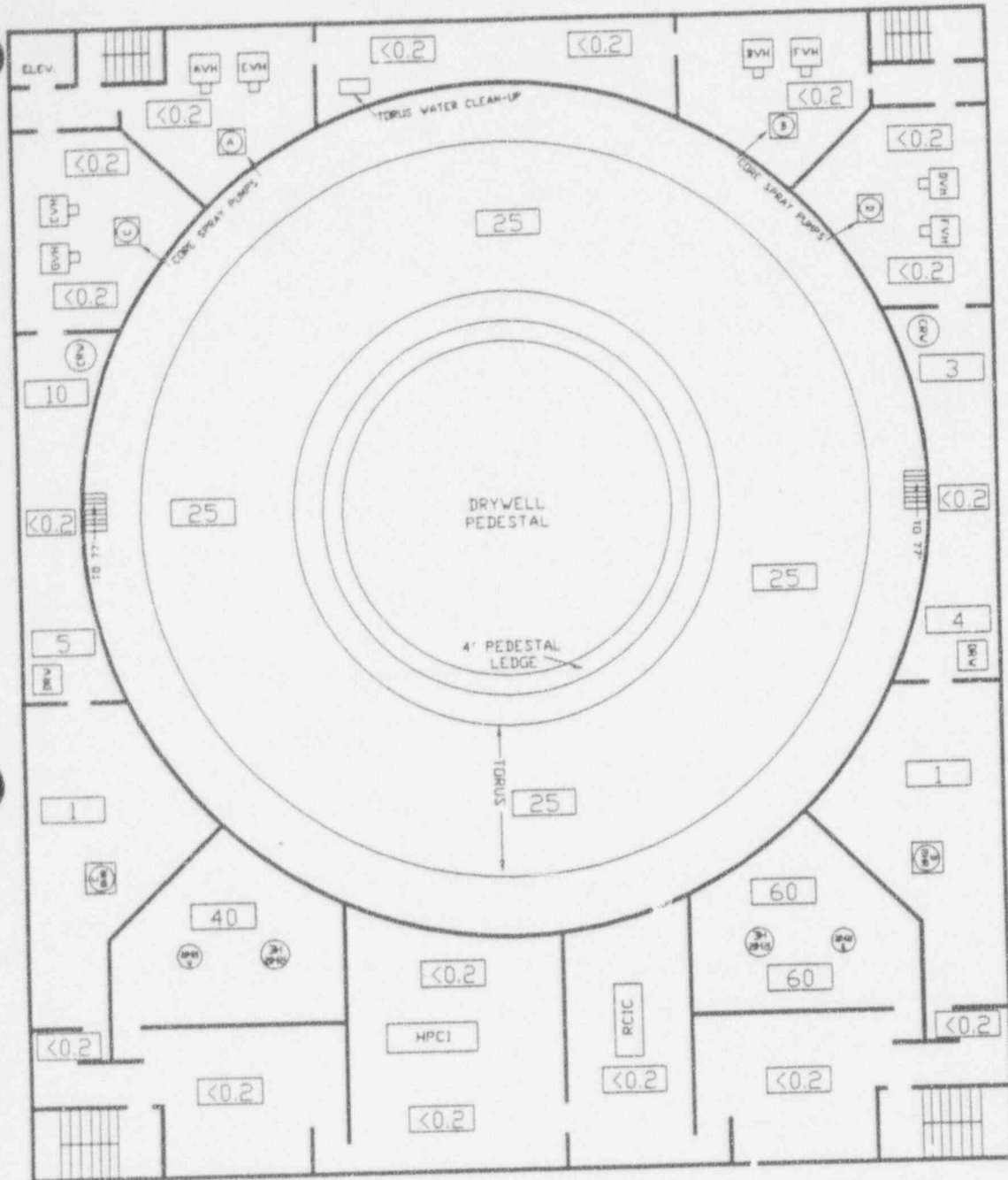
E. ATTACHMENTS:

- 1) REACTOR BUILDING, ELEV 54' RAD SURVEY MAP (2 PAGES)
- 2) REACTOR BUILDING, ELEV 102' RAD SURVEY MAP (2 PAGES)
- 3) RHR SYSTEM SCHEMATIC

F. CONTROLLERS SPECIAL NOTES / REFERENCES / OBJECTIVES:

- 1) THIS SCENARIO ALLOWS THE DRILL PLAYERS TO DEMONSTRATE IMPLEMENTATION OF THE DEGRADED ECCS PERFORMANCE ABNORMAL OPERATING PROCEDURE.
- 2) IT IS IMPORTANT TO UNDERSTAND THAT IF REACTOR WATER LEVEL CAN NOT BE MAINTAINED ABOVE THE TOP OF ACTIVE FUEL, OPERABLE ECCS MUST INJECT TO THE RPV REGARDLESS OF NPSH.

REACTOR BUILDING 54' EL.



DATE OF DRILL: OCTOBER 25, 1994

REAL TIME(S) : 0800 - 1219

DRILL TIME(S) : 0000 - 0419

CONTAMINATION LEVELS: N/A

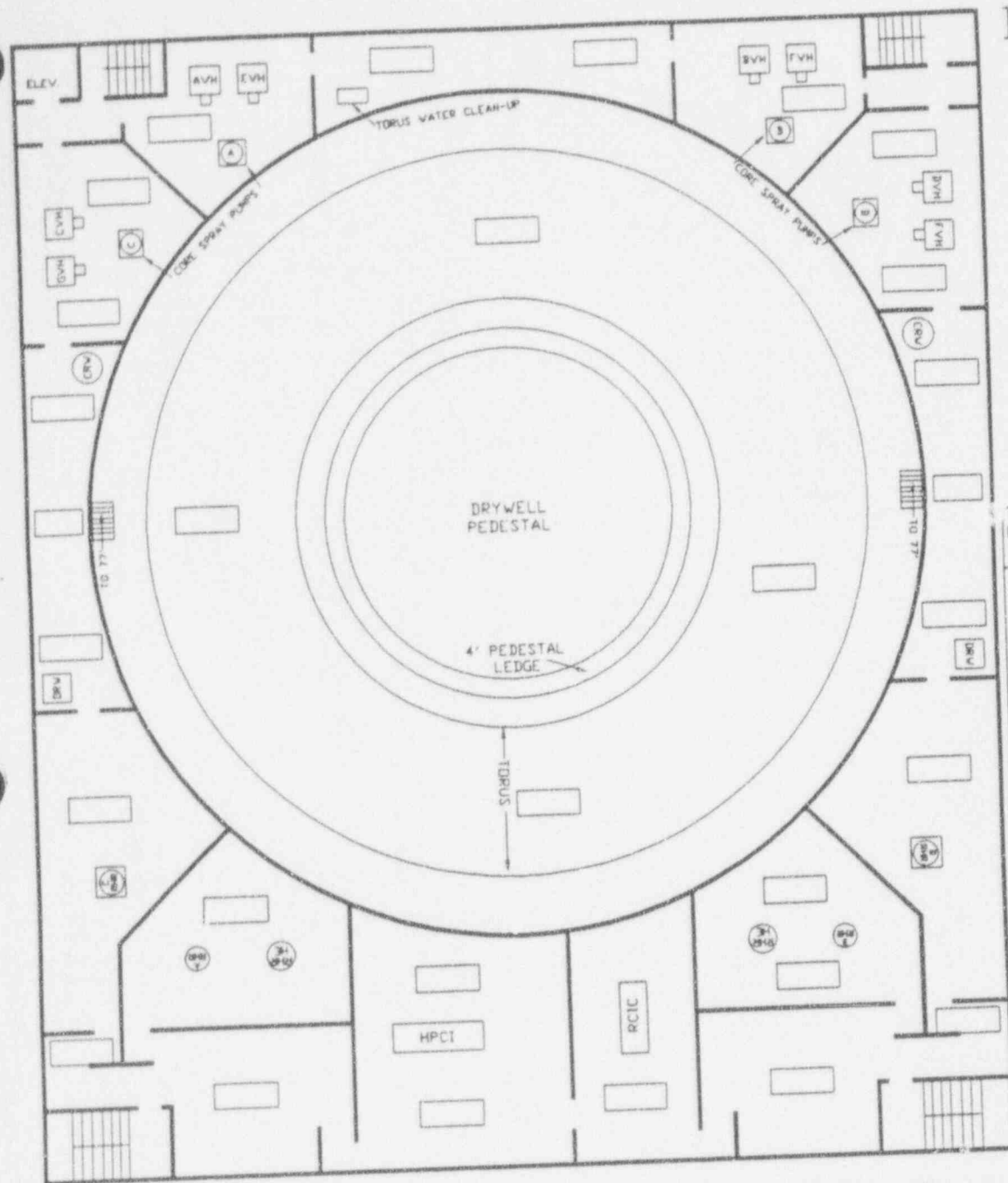
AIR SAMPLE DATA : SEE REACTOR BUILDING
AIR CONCENTRATIONS
DATA

DOSE RATES IN MR/HR UNLESS
OTHERWISE INDICATED.

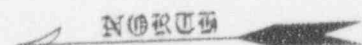
AMS DATA: N/A

7.13.3

REACTOR BUILDING 54' EL.



REAL TIME	DOSE RATES	CONTAMINATION LEVELS
1220	5.0 mR/hr	N/A
1225	10.0 mR/hr	N/A
1235	28.0 mR/hr	N/A
1245	32.0 mR/hr	N/A
1325	490.0 mR/hr	1.9 mRad/hr
1330	8.8 R/hr	35.0 mRad/hr
1335	540.0 R/hr	2.2 Rad/hr
1500	500.0 R/hr	2.2 Rad/hr
1515	90.0 R/hr	2.2 Rad/hr
1530	48.0 R/hr	2.2 Rad/hr
1545	6.1 R/hr	2.2 Rad/hr
1600	1.2 R/hr	2.2 Rad/hr



DATE OF DRILL: OCTOBER 25, 1994

DOSE RATES: SEE ABOVE

REAL TIME(S) : 1220 - END

DRILL TIME(S) : 0420 - END

AMS DATA: N/A

CONTAMINATION LEVELS: SEE ABOVE

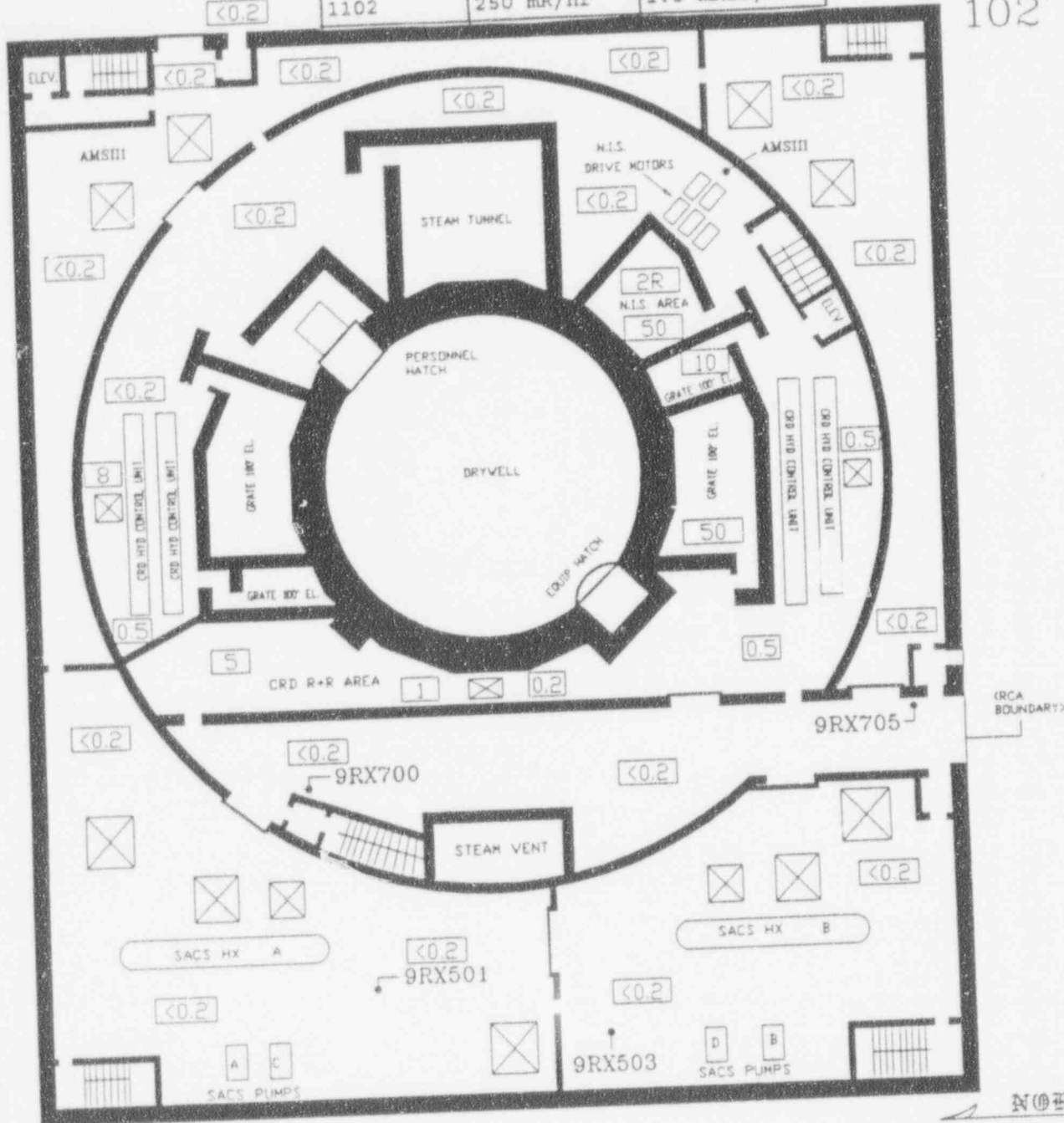
AIR SAMPLE DATA : SEE REACTOR BUILDING
AIR CONCENTRATIONS
DATA

7.13.4

SOUTH PIPE CHASE

REAL TIME	DOSE RATES	CONTAMINATION LEVELS
0800	10 mR/hr	N/A
1002	20 mR/hr	10,000 CCPM
1051	75 mR/hr	35,000 CCPM
1102	250 mR/hr	1.0 mRad/hr

REACTOR BUILDING
102' EL.



DATE OF DRILL : OCTOBER 25, 1994
 REAL TIME(S) : 0800 - 1324
 D'ILL TIME(S) : 0000 - 0524
 CONTAMINATION LEVELS: N/A

☐ DOSE RATES IN MR/HR UNLESS OTHERWISE INDICATED.

AMS DATA: 400 CCPM

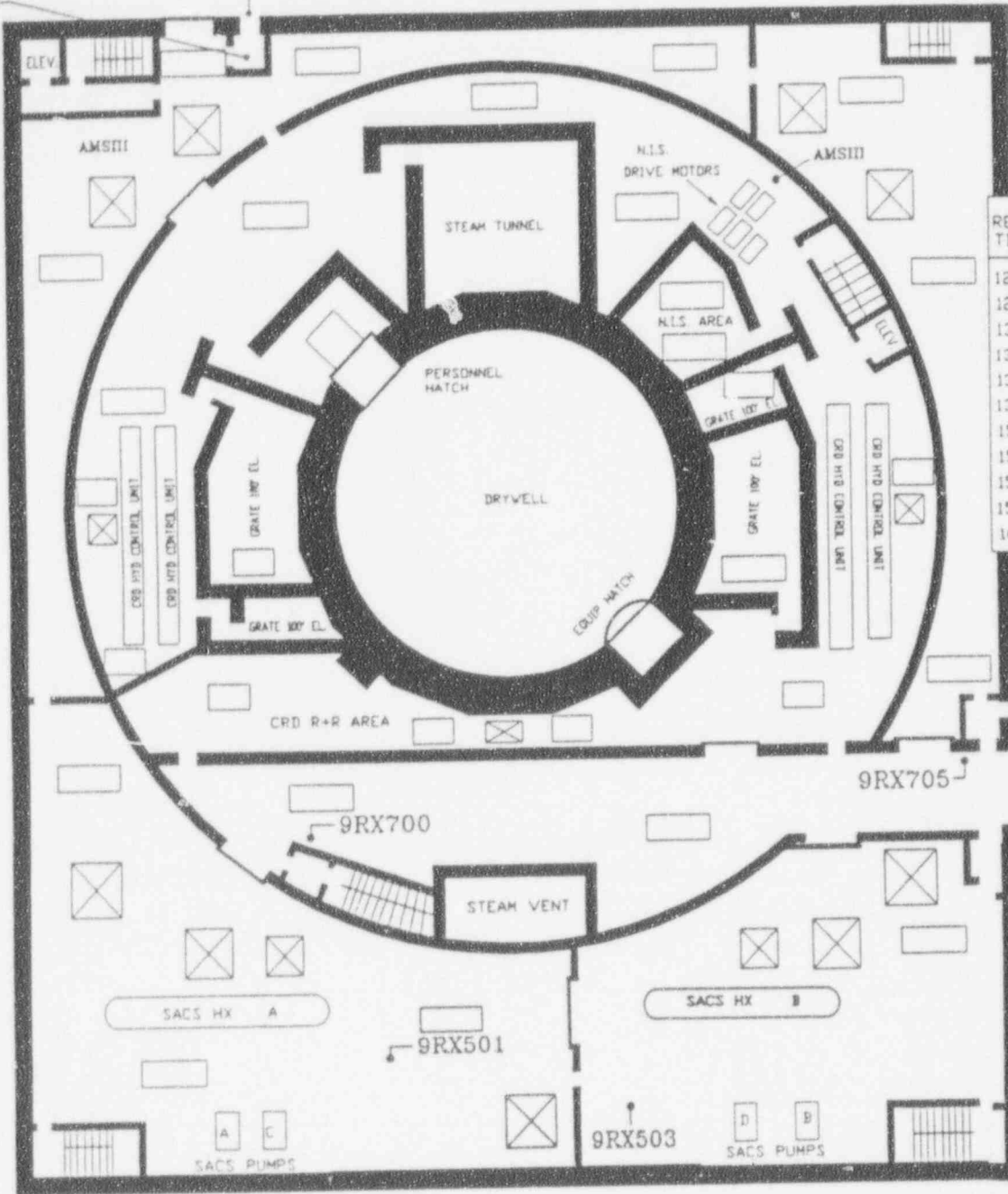
AIR SAMPLE DATA : SEE REACTOR BUILDING
 AIR CONCENTRATIONS
 DATA

7.13.5

MULTIPLY GENERAL AREA DOSE RATE DIRECTLY OUTSIDE OF THE HATCH IN THE REACTOR BUILDING BY 0.1 FOR THE DOSE RATE IN THE HATCH.
 MULTIPLY GENERAL AREA DOSE RATE DIRECTLY OUTSIDE OF THE HATCH IN THE REACTOR BUILDING BY 0.01 FOR THE CONTACT DOSE RATE AGAINST THE HATCH.

REACTOR BUILDING 102' EL.

REAL TIME	DOSE RATES	CONTAMINATION LEVELS
1225	0.2 mR/hr	N/A
1250	1.0 mR/hr	N/A
1305	2.0 mR/hr	N/A
1325	546.0 mR/hr	2.2 mRad/hr
1330	8.7 R/hr	34.0 mRAD/hr
1335	540.0 R/hr	2.2 Rad/hr
1500	500.0 R/hr	2.2 RAD/hr
1515	90.0 R/hr	2.2 RAD/hr
1530	48.0 R/hr	2.2 RAD/hr
1545	6.1 R/hr	2.2 RAD/hr
1600	863.0 mR/hr	2.2 RAD/hr



DATE OF DRILL : OCTOBER 25, 1994

DOSE RATES : SEE ABOVE

REAL TIME(S) : 1325 - END

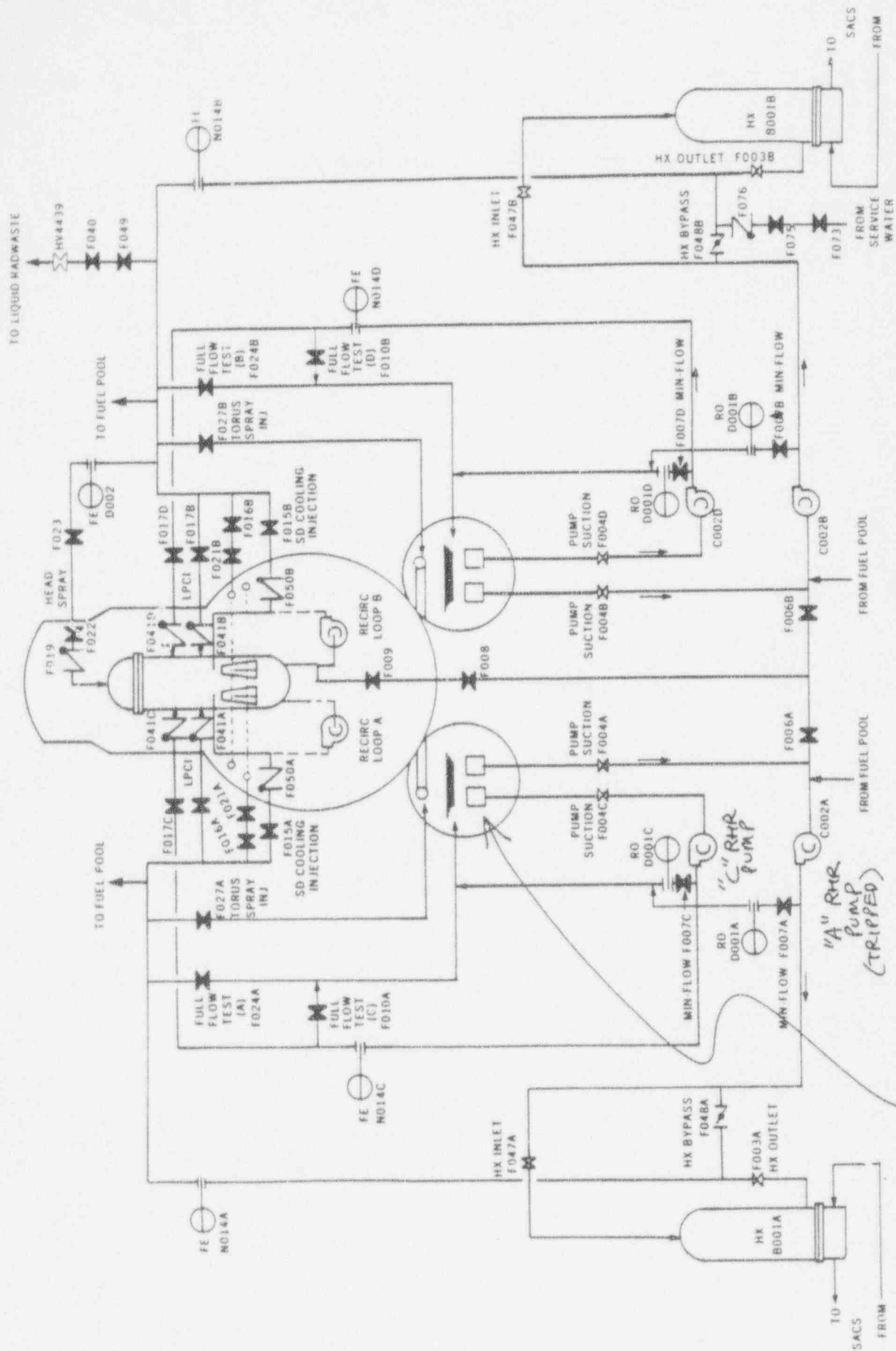
DRILL TIME(S) : 0525 - END

AMS DATA: OFFSCALE HIGH ALARMING!

CONTAMINATION LEVELS: SEE ABOVE

AIR SAMPLE DATA : SEE REACTOR BUILDING
AIR CONCENTRATIONS
DATA

7.13.6



RHR PUMP SUCTION STRAINERS BEING PLUGGED BY DEBRIS

7.13.7

SUPPLEMENTAL SCENARIO # 7.14

TITLE : "C" RHR PUMP TRIPS

START TIME : 12:15(04:15)

END TIME : 13:46(05:46)

LOCATION : REACTOR BUILDING, ELEVATION 54'

A. INITIATING CONDITIONS:

THE "C" RHR PUMP AUTO INITIATED AS A RESULT OF THE LOCA SIGNAL. THE "C" RHR PUMP HAS BEEN INJECTING TO THE REACTOR WITH LOW FLOW DUE TO PLUGGING OF THE PUMP SUCTION STRAINER. THE CONTROL ROOM CREW RECEIVES INDICATION THAT THE "C" RHR PUMP HAS TRIPPED AT APPROXIMATELY 12:15.

NOTE: THE EXACT TIME OF PUMP TRIP WILL BE CONTROLLED BY THE LEAD SIMULTOR REFEREE, BASED ON REACTOR WATER LEVEL.

B. RELATED MESSAGE FORMS: 68D,69C,70

C. POSTULATED EVENT:

1) FAILURE MODE (OR CAUSE):

DUE TO CONTINUED OPERATION UNDER LOW SUCTION PRESSURE CONDITIONS, THE RESPECTIVE PUMP MOTOR HAVE BEGUN TO HEAT UP, RESULTING IN INCREASED MOTOR WINDING TEMPERATURES. THE PUMPS TRIP ON OVERCURRENT.

2) SYMPTOMS (OR INDICATIONS):

- A) IN THE "C" RHR PUMP ROOM, THE PUMP MOTOR IS HOT.
- B) IN THE "C" 4160 VAC VITAL BUS SWITCHGEAR ROOM, THE MOTOR BREAKER FOR THE "C" RHR PUMP IS TRIPPED ON OVERCURRENT.

SUPPLEMENTAL SCENARIO # 7.14
(CONTINUED)

C. POSTULATED EVENT:

3) RESTORATION GUIDELINES:

- A) THE OVERCURRENT DEVICE FOR THE "C" RHR PUMP MOTOR BREAKER CAN BE RESET, IF ATTEMPTED.
- B) THE PUMP CAN BE RETURNED TO SERVICE AFTER WAITING FOR APPROXIMATELY 1.5 HOURS. ANY ATTEMPT TO START THE PUMP PRIOR TO THIS WILL RESULT IN A PUMP TRIP.

4) SCENARIO CONTROLS:

IT IS IMPORTANT TO THE SCENARIO TIMELINE, THAT THE "C" RHR PUMP REMAIN UNAVAILABLE FOR 1.5 HOURS AFTER TRIPPING. THIS WILL ENSURE THAT REACTOR WATER LEVEL REMAINS LOW ENOUGH TO SUBSTANTIATE THE POSTULATED FUEL FAILURE.

THE LEAD SIMULATOR REFEREE WILL DETERMINE THE EXACT TIME FOR PUMP TRIP AND RETURN TO SERVICE, BASED ON REACTOR WATER LEVEL. ACTIVITIES MUST BE CAREFULLY COORDINATED.

D. RADIOLOGICAL CONCERNS:

- 1) THERE ARE NO RADIOLOGICAL CONCERNS IN THE SWITCHGEAR ROOMS.
- 2) IN THE REACTOR BUILDING, PRIOR TO 13:15, ALL APPROPRIATE RADIOLOGICAL PRECAUTIONS SHOULD BE DEMONSTRATED BY ALL TEAMS ENTERING THE BUILDING.
- 3) IN THE REACTOR BUILDING, AT 13:15, ALL TEAMS SHOULD PROMPTLY EVACUATE THE REACTOR BUILDING AS A RADIOLOGICAL RELEASE HAS BEGUN.
- 4) BE PREPARED TO PROVIDE DOSE RATES AND ALNOR READINGS.

E. ATTACHMENTS:

- 1) AUXILIARY BUILDING, ELEVATION 130' LAYOUT MAP.
- 2) REACTOR BUILDING, ELEV 54' RAD SURVEY MAPS (2 PAGES)

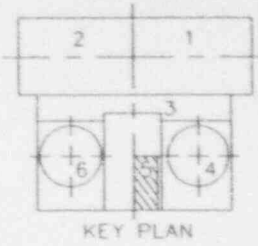
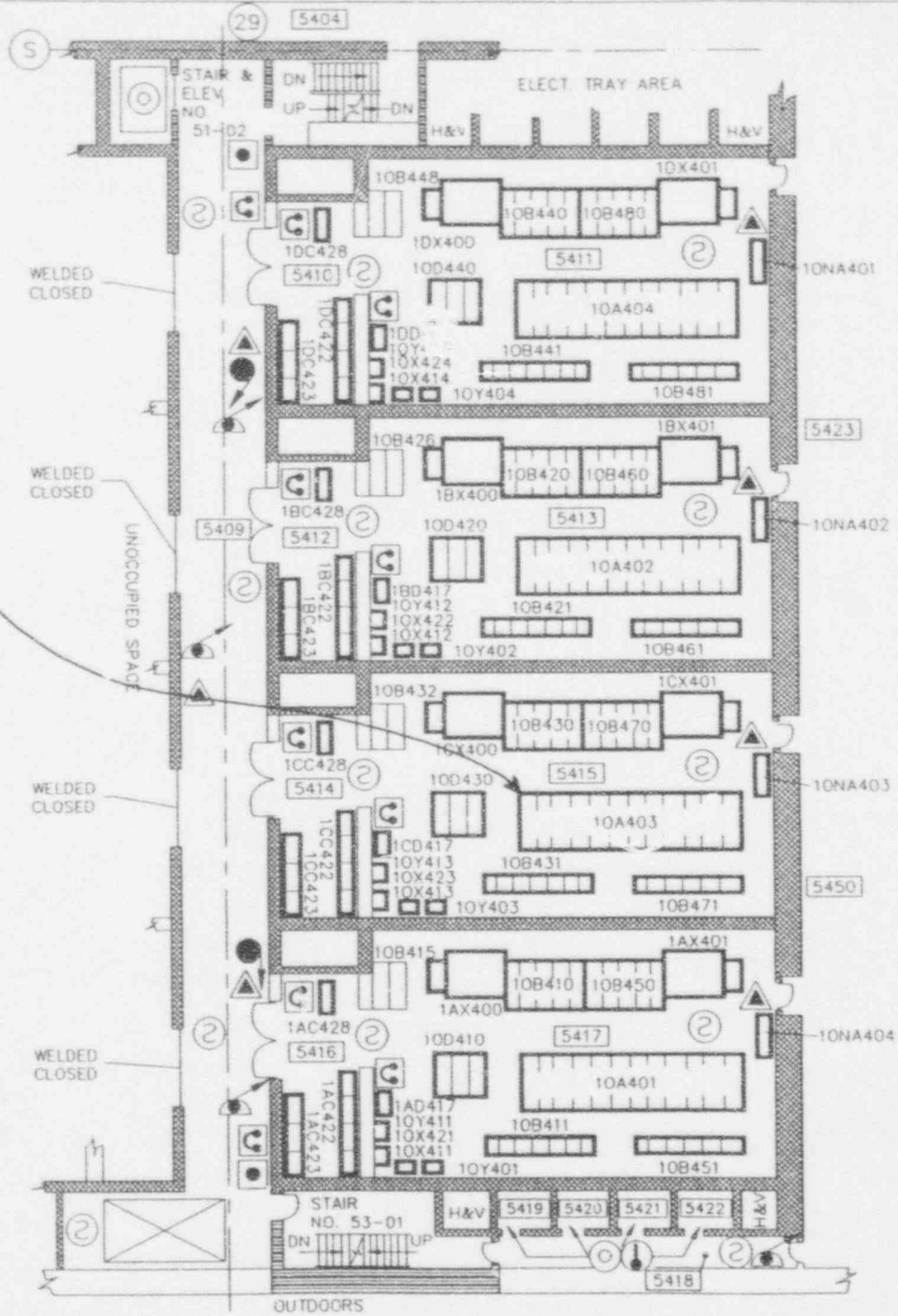
F. CONTROLLERS SPECIAL NOTES / REFERENCES / OBJECTIVES:

THIS SUPPLEMENTAL IS REQUIRED TO ENSURE THAT REACTOR WATER LEVEL CAN BE MAINTAINED BELOW THE TOP OF ACTIVE FUEL FOR A SUFFICIENT TIME TO SUBSTANTIATE THE POSTULATED FUEL DAMAGE.

CLASS 1E SWITCHGEAR ROOMS
EL. 130'-0"

"C" 4160 VAC
VITAL BUS
SWITCHGEAR

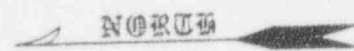
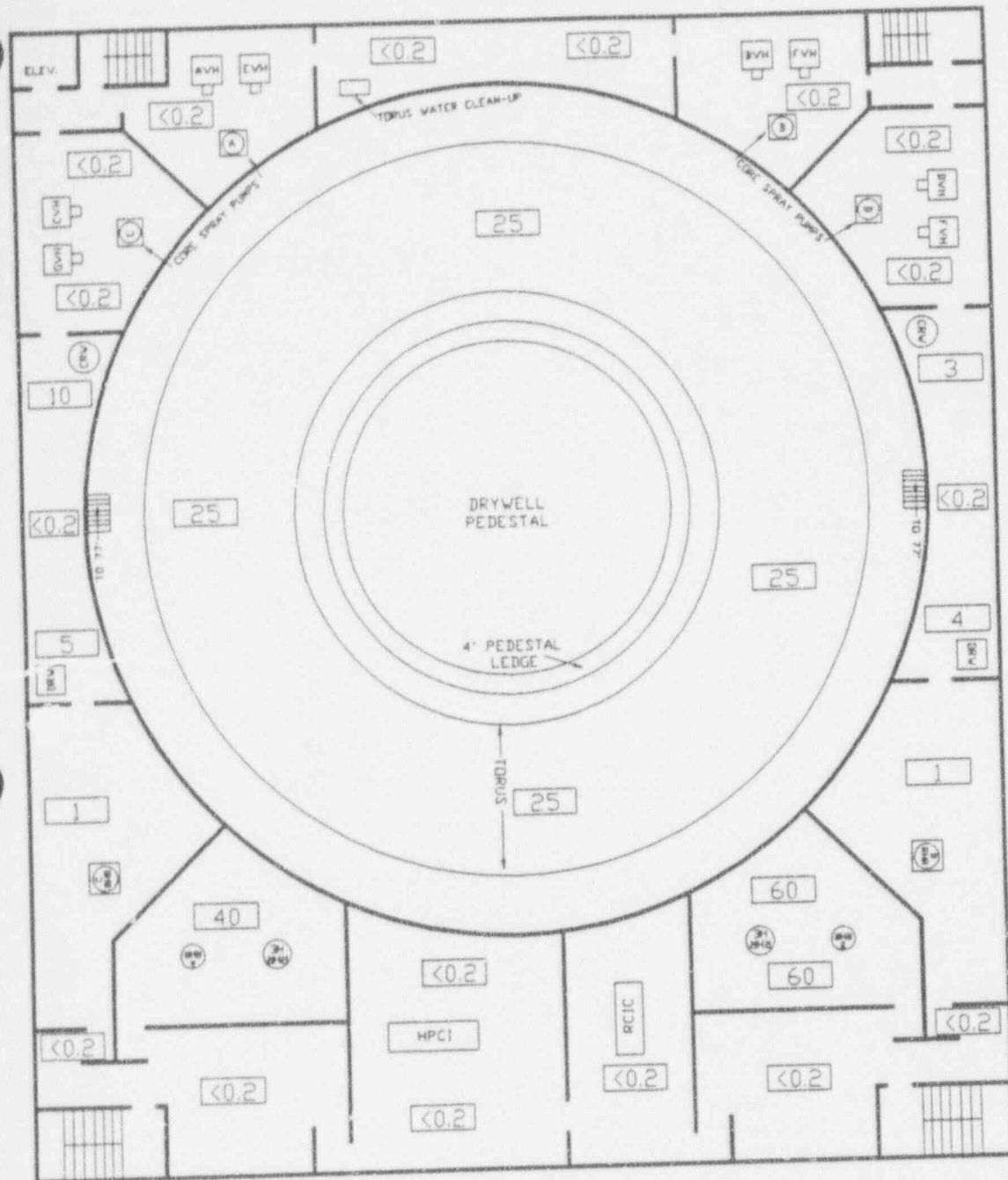
7.14.3



LEGEND

- SAFETY RELATED EQUIPMENT
 - HIGH RADIATION AREA
 - CONTAMINATED AREA
 - MANUAL ALARM STATIONS
 - PUBLIC ADDRESS HANDSET
 - TELEPHONE
 - THERMAL DETECTOR
 - SMOKE DETECTOR
 - SPRINKLER
 - DELUGE SYSTEM
 - AUTO-PREACTION SPRINKLER
 - AUTOMATIC WET PIPE SPRINKLER
 - CO₂-AUTOMATIC FIXED SYSTEM
 - CO₂-MANUAL FIXED SYSTEM
 - HALON 1301 AUTOMATIC FIXED SYSTEM
 - HALON 1301 MANUAL FIXED SYSTEM
 - DELUGE VALVE
 - PORTABLE WATER EXTINGUISHER
 - PORTABLE HALON EXTINGUISHER
 - PORTABLE CO₂ EXTINGUISHER
 - PORTABLE DRY CHEM. EXTINGUISHER
 - HOSE STATION CHARGED STANDPIPE
 - HATCH FLOOR LEVEL
 - HATCH CEILING LEVEL
 - LADDER
 - WIRE GATE
 - CO₂ HOSE REEL
 - LOCKED DOOR { S = SECURITY, H = HEALTH PHYSICS
 - DELUGE ACTUATION STATION
 - CO₂ PUSHBUTTON STATION
- FIRE BARRIER RATINGS
- 1 HR
 - 2 HR
 - 3 HR

REACTOR
BUILDING
54' EL.



DATE OF DRILL: OCTOBER 25, 1994

REAL TIME(S) : 0800 - 1219

DRILL TIME(S) : 0000 - 0419

CONTAMINATION LEVELS: N/A

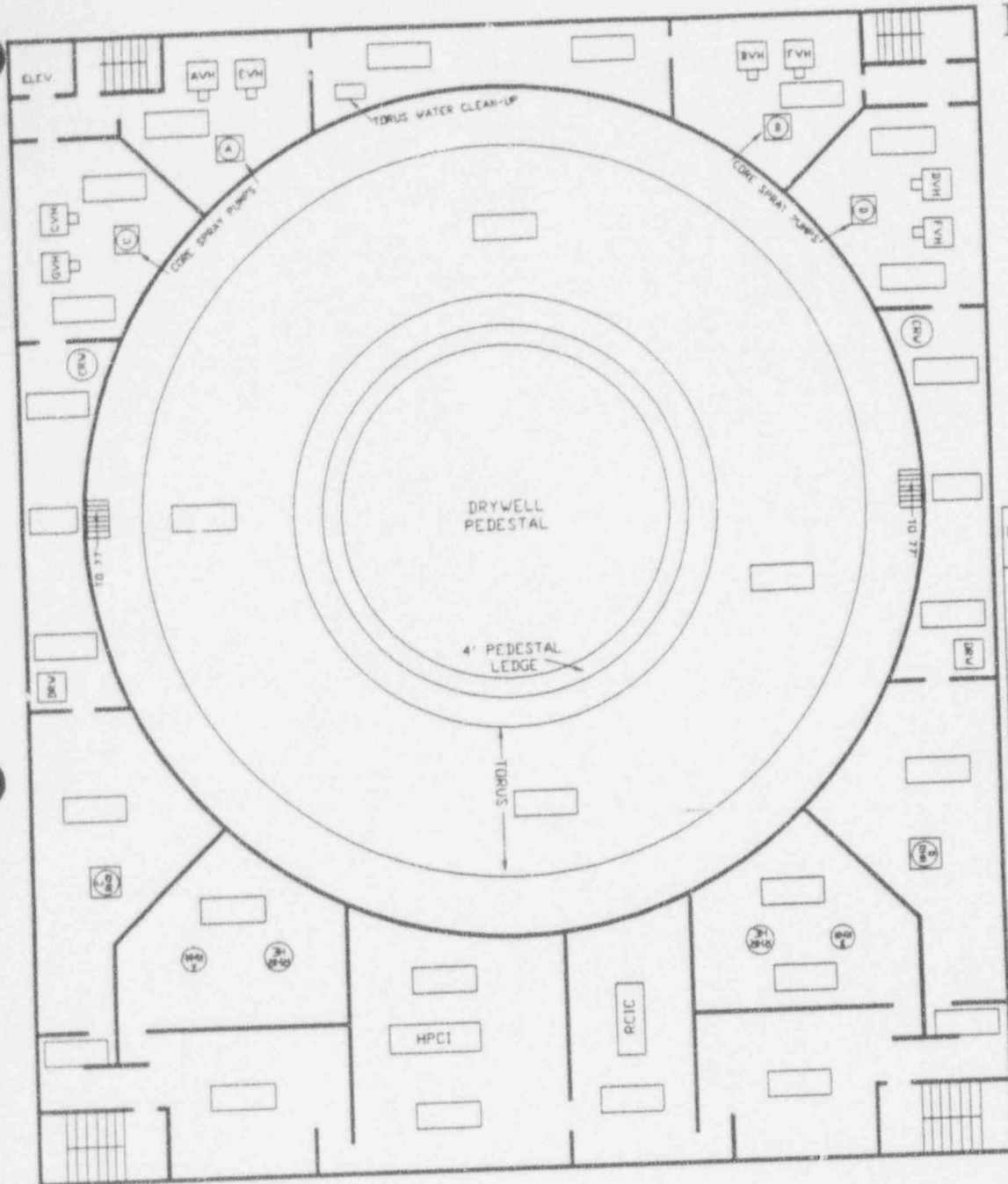
AIR SAMPLE DATA : SEE REACTOR BUILDING
AIR CONCENTRATIONS
DATA

☐ DOSE RATES IN MR/HR UNLESS
OTHERWISE INDICATED.

AMS DATA: N/A

7.14.4

REACTOR BUILDING 54' EL.



REAL TIME	DOSE RATES	CONTAMINATION LEVELS
1220	5.0 mR/hr	N/A
1225	10.0 mR/hr	N/A
1235	28.0 mR/hr	N/A
1245	32.0 mR/hr	N/A
1325	490.0 mR/hr	1.9 mRad/hr
1330	8.8 R/hr	35.0 mRad/hr
1335	540.0 R/hr	2.2 Rad/hr
1500	500.0 R/hr	2.2 Rad/hr
1515	90.0 R/hr	2.2 Rad/hr
1530	48.0 R/hr	2.2 Rad/hr
1545	6.1 R/hr	2.2 Rad/hr
1600	1.2 R/hr	2.2 Rad/hr

DATE OF DRILL: OCTOBER 25, 1994

REAL TIME(S) : 1220 - END

DRILL TIME(S) : 0420 - END

CONTAMINATION LEVELS: SEE ABOVE

AIR SAMPLE DATA : SEE REACTOR BUILDING
AIR CONCENTRATIONS
DATA

DOSE RATES: SEE ABOVE

AMS DATA: N/A

7.14.5

SUPPLEMENTAL SCENARIO # 7.15

TITLE : LINEUP OF ALTERNATE RPV INJECTION SOURCES

START TIME : 12:20(04:20)

END TIME : 15:30(07:30)

LOCATION : RX BLDG, ELEV. 54, 77, & 102
CONTROL & DG BLDG., ELEV. 102

A. INITIATING CONDITIONS:

DUE TO THE PLUGGING OF ECCS SUCTION STRAINERS, ALONG WITH THE UNAVAILABILITY OF THE SEVERAL RHR AND CORE SPRAY PUMPS, THE SNSS/NSS WILL DIRECT THE OSCC TO IMPLEMENT THE LINEUP OF ALTERNATE RPV INJECTION SOURCES, INCLUDING FIRE WATER (EOP-310), SERVICE WATER (EOP-308) AND RCIC USING EOP-321, IN AN ATTEMPT TO MAINTAIN REACTOR WATER LEVEL ABOVE THE TOP OF ACTIVE FUEL.

B. RELATED MESSAGE FORMS:

C. POSTULATED EVENT:

1) FAILURE MODE (OR CAUSE):

DEGRADED ECCS PERFORMANCE FOLLOWING THE LOCA INSIDE THE DRYWELL, ALONG WITH THE UNAVAILABILITY OF OTHER ECCS PUMPS CREATES THE NEED FOR RPV INJECTION WITH ALTERNATE SOURCES.

2) SYMPTOMS (OR INDICATIONS):

- A) ALL STEPS OF THE ABOVE EOPS ARE PERFORMED SUCCESSFULLY WHEN ATTEMPTED BY THE OSC TEAM MEMBERS IN THE FIELD.
- B) THERE ARE NO FAILED COMPONENTS OR UNUSUAL CONDITIONS, WITH THE EXCEPTION OF A HIGH RADIATION CONDITION THAT DEVELOPS IN THE RX BLDG AT 13:15 (SEE SECTION D).

SUPPLEMENTAL SCENARIO # 7.15
(CONTINUED)

C. POSTULATED EVENT:

3) RESTORATION GUIDELINES:

- A) LINEUP AND INJECTION BY AN ALTERNATE SOURCE OF WATER IS PERFORMED IAW THE APPLICABLE EOP.
- B) NCO CONTROLS THE INJECTION INTO THE RPV ONCE THE LINEUP IS COMPLETE.

4) SCENARIO CONTROLS:

- A) EOP STEPS SHALL BE WALKED THROUGH (SIMULATED) BY THE OSC TEAM BY FOLLOWING THE PROCEDURE AND DEMONSTRATING ACCEPTABLE PERFORMANCE CAPABILITY.
- B) ALL STEPS ARE SUCCESSFULLY PERFORMED.
- C) ENSURE THE SIMULATOR CONTROLLER IS NOTIFIED WHEN THE LINEUP IS COMPLETE PRIOR TO INITIATION OF INJECTION.
- D) ENTRY INTO THE RX BLDG AFTER 13:15 WILL REQUIRE AN EMERGENCY DOSE AUTHORIZATION.

D. RADIOLOGICAL CONCERNS:

- 1) EXTREMELY HIGH RADIATION IN ALL AREAS OF THE REACTOR BLDG AFTER 13:15. (REFER TO RAD SURVEY MAPS)

E. ATTACHMENTS:

- 1) RAD SURVEY MAPS OF REACTOR BLDG ELEVATIONS.

F. CONTROLLERS SPECIAL NOTES / REFERENCES / OBJECTIVES:

- 1) VERIFY THAT THE EOP USED IS THE LATEST REVISION AND READILY AVAILABLE TO THE OSC.
- 2) ALL ACTIONS ARE TO BE SIMULATED, BUT TOOLS, PROCEDURES, KEYS, ETC AS NEEDED SHALL BE OBTAINED BY THE TEAM.

SECTION 8.0
ARTIFICIAL ISLAND
ANNUAL EXERCISE 1994
OPERATIONAL DATA

The operational data contained in Section 8.0 was developed using values obtained from a test run on the Hope Creek Simulator. Actual values of plant parameters seen during the exercise will vary dependent upon actions taken by the Operators in the Simulator as the scenario events occur.

Pump start/stop times, flow rates, reactor pressure, specific equipment placed in and out of service and so on will deviate depending on several variables which include both operator judgements and simulator model dynamics.

The data in this section has been used to predict plant status throughout the scenario as a basis for developing consistent radiological data.

The radiological data in Sections 9.0 and 10.0 reflect closely the plant status shown in Section 8.0, but are not the direct product of the Simulator. Rather, another computer model described in Section 5.5 has been used to generate the data displays and tables needed by the referees based on operational parameters in this section.

This operational data serves several purposes during the control of the exercise.

1. Referees in the TSC and EOF may provide interpolated data to a player after the player has demonstrated the ability to obtain the information from actual plant computer systems, displays, etc. normally available in those facilities when simulator data is not available.
2. Simulator referees will continually track the performance of the Simulator against the predicted data as a check on simulation reliability and possible deviation from the scenario that may require referee intervention.
3. If the Simulator must be FROZEN for any reason that is unrecoverable, the data in this section will be used to replace the otherwise live parameters so that the exercise may continue with minimal interruption.

REAL TIME	DRILL TIME	CST LEVEL	CON PRESS	RCIC FLOW	FEED FLOW	RHR A FLOW	LPCI C FLOW	RHR B FLOW	LPCI D FLOW	HPCI FLOW	ES A FLOW	CS B FLOW	SRV OPEN	RX POWER	RX MTR LEVEL	RX PRESS	RX TEMP	RX FLOW	RECIRC FLOW	RECIRC FLOW	TOTAL FLOW
	10:4 GAL		In Hga	GPM	MLB/HR	GPM	GPM	GPM	GPM	GPM	GPM	GPM	NO.	% / cps	INCHES	PSIG	F	10 ⁻³ GPM	10 ⁻³ GPM	10 ⁻³ GPM	MLB/HR
08:30	00:30	41.2	2.2	0	14.1	0	0	0	0	0	0	0	0	95	35	1005	545	42.5	42.5	42.5	100
08:33	00:33	41.2	2.2	0	14.1	0	0	0	0	0	0	0	0	95	35	1005	545	42.5	42.5	42.5	100
08:35	00:35	41.2	2.3	0	12.8	0	0	0	0	0	0	0	0	88	37	985	541	39.4	39.4	39.4	100
08:40	00:40	41.2	2.2	0	9.6	0	0	0	0	0	0	0	0	74	34	960	539	32.7	32.7	32.7	100
08:45	00:45	41.2	2.2	0	9.7	0	0	0	0	0	0	0	0	71	35	960	539	32.5	32.5	32.5	79
08:50	00:50	41.2	2.1	0	9.6	0	0	0	0	0	0	0	0	70	35	960	539	32.5	32.5	32.5	78
08:55	00:55	41.2	2.0	0	9.6	0	0	0	0	0	0	0	0	69	35	960	539	32.5	32.5	32.5	78
09:00	01:00	41.2	1.9	0	9.6	0	0	0	0	0	0	0	0	68	35	960	539	32.5	32.5	32.5	78
09:01	01:01	41.2	1.9	0	9.2	0	0	0	0	0	0	0	0	60	41	960	539	32.5	32.5	32.5	69
09:05	01:05	41.2	1.9	0	9.2	0	0	0	0	0	0	0	0	60	34	952	538	32.5	32.5	32.5	69
09:10	01:10	41.2	1.8	0	8.5	0	0	0	0	0	0	0	0	60	35	950	538	32.5	32.5	32.5	69
09:15	01:15	41.2	1.8	0	8.4	0	0	0	0	0	0	0	0	59	35	950	538	32.5	32.5	32.5	68
09:20	01:20	41.2	1.8	0	8.4	0	0	0	0	0	0	0	0	58	35	950	538	32.5	32.5	32.5	68
09:25	01:25	41.2	1.8	0	8.4	0	0	0	0	0	0	0	0	57	35	950	538	32.5	32.5	32.5	67
09:30	01:30	41.2	1.7	0	8.4	0	0	0	0	0	0	0	0	56	35	946	537	29.4	29.4	29.4	62
09:35	01:35	41.2	1.7	0	8.4	0	0	0	0	0	0	0	0	55	35	943	536	28.8	28.8	28.8	59
09:40	01:40	41.2	1.7	0	8.4	0	0	0	0	0	0	0	0	54	35	938	535	28.8	28.8	28.8	58
09:45	01:45	41.2	1.7	0	8.4	0	0	0	0	0	0	0	0	53	35	935	535	28.8	28.8	28.8	58
09:47	01:47	41.2	1.4	0	8.4	0	0	0	0	0	0	0	0	53	35	935	535	28.8	28.8	28.8	58
09:48	01:48	41.0	2.4	0	3.9	0	0	0	0	0	0	0	0	3E+07 cps	17	975	540	28.8	28.8	28.8	58
09:49	01:49	39.6	5.6	300	0.0	0	0	0	0	0	0	0	0	1E+07 cps	-3	1008	545	28.8	28.8	28.8	58
09:50	01:50	37.2	>8.0	600	0.0	0	0	0	0	0	0	0	2	1E+06 cps	-21	1052	551	28.8	28.8	28.8	58
09:51	01:51	35.4	>8.0	600	0.0	0	0	0	0	0	0	0	1	1E+06 cps	8	1034	549	28.8	28.8	28.8	58
09:52	01:52	34.2	>8.0	600	0.0	0	0	0	0	2500	0	0	1	10000 cps	25	1002	544	28.8	28.8	28.8	58
09:55	01:55	32.1	>8.0	600	0.0	10000	0	0	0	4500	0	0	1	25 cps	29	983	541	28.8	28.8	28.8	58
10:00	02:00	30.2	>8.0	600	0.0	10000	0	0	0	5600	0	0	0	25 cps	32	960	537	28.8	28.8	28.8	58
10:05	02:05	29.5	>8.0	400	0.0	10000	0	0	0	5600	0	0	0	25 cps	38	923	533	28.8	28.8	28.8	58
10:10	02:10	28.6	>8.0	400	0.0	10000	0	0	0	5600	0	0	0	25 cps	35	901	531	28.8	28.8	28.8	58
10:15	02:15	28.2	>8.0	400	0.0	10000	0	0	0	5600	0	0	0	25 cps	43	869	525	28.8	28.8	28.8	58
10:20	02:20	27.5	>8.0	300	0.0	10000	0	0	0	5600	0	0	0	25 cps	39	804	518	28.8	28.8	28.8	58
10:25	02:25	26.7	>8.0	300	0.0	10000	0	0	0	5600	0	0	0	25 cps	33	783	516	28.8	28.8	28.8	58
10:30	02:30	26.4	>8.0	300	0.0	10000	0	0	0	5600	0	0	0	25 cps	31	758	513	28.8	28.8	28.8	58
10:35	02:35	26.2	>8.0	300	0.0	10000	0	0	0	5600	0	0	0	25 cps	34	737	508	28.8	28.8	28.8	58
10:40	02:40	25.3	>8.0	300	0.0	10000	0	0	0	5600	0	0	0	25 cps	37	718	506	28.8	28.8	28.8	58
10:45	02:45	24.4	>8.0	200	0.0	10000	0	0	0	5600	0	0	0	25 cps	33	692	501	28.8	28.8	28.8	58
10:50	02:50	23.7	>8.0	200	0.0	10000	0	0	0	4000	0	0	0	25 cps	35	676	498	28.8	28.8	28.8	58
10:55	02:55	23.6	>8.0	200	0.0	10000	0	0	0	4000	0	0	0	25 cps	32	647	493	28.8	28.8	28.8	58
11:00	03:00	23.5	>8.0	200	0.0	10000	0	0	0	4000	0	0	0	25 cps	37	623	490	28.8	28.8	28.8	58
11:05	03:05	23.3	>8.0	200	0.0	10000	0	0	0	3000	0	0	0	25 cps	35	598	486	28.8	28.8	28.8	58
11:10	03:10	23.2	>8.0	200	0.0	10000	0	0	0	3000	0	0	0	25 cps	36	562	479	28.8	28.8	28.8	58
11:15	03:15	23.2	>8.0	200	0.0	10000	0	0	0	3000	0	0	0	25 cps	34	525	472	28.8	28.8	28.8	58
11:20	03:20	23.1	>8.0	200	0.0	10000	0	0	0	3000	0	0	0	25 cps	33	486	464	28.8	28.8	28.8	58
11:25	03:25	23.0	>8.0	200	0.0	10000	0	0	0	3000	0	0	0	25 cps	32	449	456	28.8	28.8	28.8	58
11:30	03:30	22.9	>8.0	200	0.0	10000	0	0	0	3000	0	0	0	25 cps	36	414	448	28.8	28.8	28.8	58
11:35	03:35	22.8	>8.0	200	0.0	10000	10000	0	0	3000	0	0	0	25 cps	34	382	440	28.8	28.8	28.8	58
11:36	03:36	22.8	>8.0	0	0.0	0	0	0	0	0	0	0	0	25 cps	-14	352	431	28.8	28.8	28.8	58
11:37	03:37	22.8	>8.0	0	0.0	0	0	0	0	0	0	0	0	25 cps	-101	205	382	0.0	0.0	0.0	0
11:38	03:38	22.8	>8.0	0	0.0	0	0	0	0	0	0	0	0	25 cps	-148	114	337	0.0	0.0	0.0	0
11:39	03:39	22.8	>8.0	0	0.0	0	0	0	0	0	0	0	0	25 cps	-196	45	274	0.0	0.0	0.0	0
11:40	03:40	22.8	>8.0	0	0.0	0	0	0	0	0	0	0	0	25 cps	-187	32	253	0.0	0.0	0.0	0
														25 cps	-68	20	228	0.0	0.0	0.0	0

HOPE CREEK ANNUAL EXERCISE (H94-06) OCTOBER 25, 1994

REAL TIME	DRILL TIME	CST LEVEL	CDN PRESS	RCIC FLOW	REC'D FLOW	RHR A FLOW	LPCI C FLOW	RHR B FLOW	LPCI D FLOW	HPCI FLOW	CS A FLOW	CS B FLOW	SRV OPEN	RX POWER	RX WTR LEVEL	RX PRESS	RX TEMP	RECIRC FLOW A	RECIRC FLOW B	TOTAL FLOW
TIME	10 ⁻⁴ GAL	10 ⁻⁴ GAL	in Hga	MLB/HR	MLB/HR	GPM	GPM	GPM	GPM	GPM	GPM	GPM	MO. %	% / cps	INCHES	PSIG	F	10 ⁻³ GPM	10 ⁻³ GPM	MLB/HR
11:45	03:45	22.8	>8.0	0	0.0	0	8500	0	0	0	0	0	0	0	-25	15	213	0.0	0.0	0
11:50	03:50	22.8	>8.0	0	0.0	0	5500	0	0	0	0	0	0	0	-47	10	193	0.0	0.0	0
11:55	03:55	22.8	>8.0	0	0.0	0	3000	0	0	0	0	0	0	0	-60	8	178	0.0	0.0	0
12:00	04:00	22.8	>8.0	0	0.0	0	3000	0	0	0	0	0	0	0	-90	6	169	0.0	0.0	0
12:05	04:05	22.8	>8.0	0	0.0	0	3000	0	0	0	0	0	0	0	-125	4	162	0.0	0.0	0
12:10	04:10	22.8	>8.0	0	0.0	0	3000	0	0	0	0	0	0	0	-181	2	145	0.0	0.0	0
12:15	04:15	22.8	>8.0	0	0.0	0	0	0	0	0	0	0	0	0	-182	2	145	0.0	0.0	0
12:20	04:20	22.8	>8.0	0	0.0	0	0	0	0	0	0	0	0	0	-183	2	145	0.0	0.0	0
12:25	04:25	22.8	>8.0	0	0.0	0	0	0	0	0	0	0	0	0	-184	2	145	0.0	0.0	0
12:30	04:30	22.8	>8.0	0	0.0	0	0	0	0	0	0	0	0	0	-183	2	145	0.0	0.0	0
12:35	04:35	22.8	>8.0	0	0.0	0	0	0	0	0	0	0	0	0	-180	2	145	0.0	0.0	0
12:40	04:40	22.8	>8.0	0	0.0	0	0	0	0	0	0	0	0	0	-183	2	145	0.0	0.0	0
12:45	04:45	22.8	>8.0	0	0.0	0	0	0	0	0	0	0	0	0	-182	2	145	0.0	0.0	0
12:50	04:50	22.8	>8.0	0	0.0	0	0	0	0	0	0	0	0	0	-183	2	145	0.0	0.0	0
12:55	04:55	22.8	>8.0	0	0.0	0	0	0	0	0	0	0	0	0	-181	2	145	0.0	0.0	0
13:00	05:00	22.8	>8.0	0	0.0	0	0	0	0	0	0	0	0	0	-183	2	145	0.0	0.0	0
13:05	05:05	22.8	>8.0	0	0.0	0	0	0	0	0	0	0	0	0	-185	2	145	0.0	0.0	0
13:10	05:10	22.8	>8.0	0	0.0	0	0	0	0	0	0	0	0	0	-184	2	145	0.0	0.0	0
13:15	05:15	22.8	>8.0	0	0.0	0	0	0	0	0	0	0	0	0	-186	2	145	0.0	0.0	0
13:16	05:16	22.8	>8.0	0	0.0	0	0	0	0	0	0	0	0	0	-183	2	145	0.0	0.0	0
13:17	05:17	22.8	>8.0	0	0.0	0	0	0	0	0	0	0	0	0	-180	2	145	0.0	0.0	0
13:18	05:18	22.8	>8.0	0	0.0	0	0	0	0	0	0	0	0	0	-185	2	145	0.0	0.0	0
13:19	05:19	22.8	>8.0	0	0.0	0	0	0	0	0	0	0	0	0	-183	2	145	0.0	0.0	0
13:20	05:20	22.8	>8.0	0	0.0	0	0	0	0	0	0	0	0	0	-185	2	145	0.0	0.0	0
13:25	05:25	22.8	>8.0	0	0.0	0	0	0	0	0	0	0	0	0	-186	2	145	0.0	0.0	0
13:30	05:30	22.8	>8.0	0	0.0	0	0	0	0	0	0	0	0	0	-189	2	145	0.0	0.0	0
13:35	05:35	22.8	>8.0	0	0.0	0	0	0	0	0	0	0	0	0	-185	2	145	0.0	0.0	0
13:40	05:40	22.8	>8.0	0	0.0	0	0	0	0	0	0	0	0	0	-184	2	145	0.0	0.0	0
13:45	05:45	22.8	>8.0	0	0.0	0	0	0	0	0	0	0	0	0	-183	2	145	0.0	0.0	0
13:50	05:50	22.8	>8.0	0	0.0	0	10000	0	0	0	0	0	0	0	-59	2	145	0.0	0.0	0
13:55	05:55	22.8	>8.0	0	0.0	0	10000	0	0	0	0	0	0	0	12	2	145	0.0	0.0	0
14:00	06:00	22.8	>8.0	0	0.0	0	10000	0	0	0	0	0	0	0	47	2	145	0.0	0.0	0
14:05	06:05	22.8	>8.0	0	0.0	0	10000	0	0	0	0	0	0	0	78	2	145	0.0	0.0	0
14:10	06:10	22.8	>8.0	0	0.0	0	10500	0	0	0	0	0	0	0	84	2	145	0.0	0.0	0
14:15	06:15	22.8	>8.0	0	0.0	0	10000	10000	0	0	0	6300	0	0	86	2	145	0.0	0.0	0
14:20	06:20	22.8	>8.0	0	0.0	0	10000	10000	0	0	0	6300	0	0	92	2	145	0.0	0.0	0
14:25	06:25	22.8	>8.0	0	0.0	0	10000	10000	0	0	0	6300	0	0	90	2	145	0.0	0.0	0
14:30	06:30	22.8	>8.0	0	0.0	0	10000	10000	0	0	0	6300	0	0	87	2	145	0.0	0.0	0
14:35	06:35	22.8	>8.0	0	0.0	0	10000	10000	0	0	0	6300	0	0	85	2	145	0.0	0.0	0
14:40	06:40	22.8	>8.0	0	0.0	0	10000	10000	0	0	0	6300	0	0	78	2	145	0.0	0.0	0
14:45	06:45	22.8	>8.0	0	0.0	0	10000	10000	0	0	0	6300	0	0	75	2	145	0.0	0.0	0
14:50	06:50	22.8	>8.0	0	0.0	0	10000	10000	0	0	0	6300	0	0	72	2	145	0.0	0.0	0
14:55	06:55	22.8	>8.0	0	0.0	0	10000	10000	0	0	0	6300	0	0	70	2	145	0.0	0.0	0
15:00	07:00	22.8	>8.0	0	0.0	0	10000	10000	0	0	0	6300	0	0	72	2	145	0.0	0.0	0
15:05	07:05	22.8	>8.0	0	0.0	0	10000	10000	0	0	0	0	0	0	78	2	145	0.0	0.0	0
15:10	07:10	22.8	>8.0	0	0.0	0	10000	10000	0	0	0	0	0	0	67	2	145	0.0	0.0	0
15:15	07:15	22.8	>8.0	0	0.0	0	10000	10000	0	0	0	0	0	0	62	2	145	0.0	0.0	0
15:20	07:20	22.8	>8.0	0	0.0	0	10000	10000	0	0	0	0	0	0	55	2	145	0.0	0.0	0
15:25	07:25	22.8	>8.0	0	0.0	0	10000	10000	0	0	0	0	0	0	51	2	145	0.0	0.0	0

HOPE CREEK ANNUAL EXERCISE (R94-06) OCTOBER 25, 1994

REAL TIME	DRILL TIME	CST LEVEL	CDN PRESS	RCIC FLOW	FEED FLOW	RHR A FLOW	LPCI C FLOW	RHR B FLOW	LPCI D FLOW	HPCI FLOW	CS A FLOW	CS B FLOW	SRV OPEN	RX POWER	RX WTR LEVEL	RX PRESS	RX TEMP	RECIRC FLOW A	RECIRC FLOW B	TOTAL FLOW
		10 ⁻⁴ GAL	in Hg	GPM	MLB/HR	GPM	GPM	GPM	GPM	GPM	GPM	GPM	NO.	% / cps	INCHES	PSIG	F	10 ⁻³ GPM	10 ⁻³ GPM	MLB/HR
15:30	07:30	22.8	>8.0	0	0.0	0	10000	10000	0	0	0	0	0	25 cps	54	2	145	0.0	0.0	0
15:35	07:35	22.8	>8.0	0	0.0	0	10000	10000	0	0	0	0	0	25 cps	57	2	145	0.0	0.0	0
15:40	07:40	22.8	>8.0	0	0.0	0	10000	10000	0	0	0	0	0	25 cps	61	2	145	0.0	0.0	0
15:45	07:45	22.8	>8.0	0	0.0	0	10000	10000	0	0	0	0	0	25 cps	67	2	145	0.0	0.0	0
15:50	07:50	22.8	>8.0	0	0.0	0	10000	10000	0	0	0	0	0	25 cps	65	2	145	0.0	0.0	0
15:55	07:55	22.8	>8.0	0	0.0	0	10000	10000	0	0	0	0	0	25 cps	62	2	145	0.0	0.0	0
16:00	08:00	22.8	>8.0	0	0.0	0	10000	10000	0	0	0	0	0	25 cps	60	2	145	0.0	0.0	0

REAL TIME	DRILL TIME	DW PRESS PSIG	DW TEMP F	DW [H2] %	DW [O2] %	TORUS PRESS PSIG	TORUS AIR TEMP F	TORUS LEVEL INCHES	TORUS WTR TEMP F	RX BLDG PRESS in H2O	OFFSITE POWER AVAIL	EDGs 3 or ?	ECCS ACTUATE ?	DW ISOL ?	CAPABLE OF ?	OFF SITE GAS uCi/sec	OFF SITE IODINE uCi/sec	RBLDG EXH RADIATION uCi/cc	RF EXH RADIATION uCi/cc
08:30	00:30	0.5	102	0	0	0.5	92	76.4	85	-0.25	YES	YES	NO	NO	YES	1.90E+02	1.90E-01	1.00E-06	1.00E-06
08:33	00:33	0.5	102	0	0	0.5	92	76.4	85	-0.25	YES	YES	NO	NO	YES	1.90E+02	1.90E-01	1.00E-06	1.00E-06
08:35	00:35	0.5	102	0	0	0.5	92	76.4	85	-0.25	YES	YES	NO	NO	YES	1.90E+02	1.90E-01	1.00E-06	1.00E-06
08:40	00:40	0.5	102	0	0	0.5	92	76.4	85	-0.25	YES	YES	NO	NO	YES	1.90E+02	1.90E-01	1.00E-06	1.00E-06
08:45	00:45	0.5	102	0	0	0.5	92	76.4	85	-0.25	YES	YES	NO	NO	YES	1.90E+02	1.90E-01	1.00E-06	1.00E-06
08:50	00:50	0.5	102	0	0	0.5	92	76.4	85	-0.25	YES	YES	NO	NO	YES	1.90E+02	1.90E-01	1.00E-06	1.00E-06
08:55	00:55	0.5	102	0	0	0.5	92	76.4	85	-0.25	YES	YES	NO	NO	YES	1.90E+02	1.90E-01	1.00E-06	1.00E-06
09:00	01:00	0.5	102	0	0	0.5	92	76.4	85	-0.25	YES	YES	NO	NO	YES	1.90E+02	1.90E-01	1.00E-06	1.00E-06
09:01	01:01	0.5	102	0	0	0.5	92	76.4	85	-0.25	YES	YES	NO	NO	YES	1.90E+02	1.90E-01	1.00E-06	1.00E-06
09:05	01:05	0.5	102	0	0	0.5	92	76.4	85	-0.25	YES	YES	NO	NO	YES	1.90E+02	1.90E-01	1.00E-06	1.00E-06
09:10	01:10	0.5	102	0	0	0.5	92	76.4	85	-0.25	YES	YES	NO	NO	YES	1.90E+02	1.90E-01	1.00E-06	1.00E-06
09:15	01:15	0.5	102	0	0	0.5	92	76.4	85	-0.25	YES	YES	NO	NO	YES	1.90E+02	1.90E-01	1.00E-06	1.00E-06
09:20	01:20	0.5	102	0	0	0.5	92	76.4	85	-0.25	YES	YES	NO	NO	YES	1.90E+02	1.90E-01	1.00E-06	1.00E-06
09:25	01:25	0.5	102	0	0	0.5	92	76.4	85	-0.25	YES	YES	NO	NO	YES	1.90E+02	1.90E-01	1.00E-06	1.00E-06
09:30	01:30	0.5	102	0	0	0.5	92	76.4	85	-0.25	YES	YES	NO	NO	YES	1.90E+02	1.90E-01	1.00E-06	1.00E-06
09:35	01:35	0.5	102	0	0	0.5	92	76.4	85	-0.25	YES	YES	NO	NO	YES	1.90E+02	1.90E-01	1.00E-06	1.00E-06
09:40	01:40	0.5	102	0	0	0.5	92	76.4	85	-0.25	YES	YES	NO	NO	YES	1.90E+02	1.90E-01	1.00E-06	1.00E-06
09:45	01:45	0.5	102	0	0	0.5	92	76.4	85	-0.25	YES	YES	NO	NO	YES	1.90E+02	1.90E-01	1.00E-06	1.00E-06
09:47	01:47	0.5	102	0	0	0.5	92	76.4	85	-0.25	YES	YES	NO	NO	YES	1.90E+02	1.90E-01	1.00E-06	1.00E-06
09:48	01:48	0.5	102	0	0	0.5	92	76.4	85	-0.25	YES	YES	NO	NO	YES	1.90E+02	1.90E-01	1.00E-06	1.00E-06
09:49	01:49	0.5	102	0	0	0.5	92	76.4	85	-0.25	YES	YES	NO	NO	YES	1.90E+02	1.90E-01	1.00E-06	1.00E-06
09:50	01:50	0.6	103	0	0	0.5	93	76.7	86	-0.25	YES	YES	NO	NO	YES	1.90E+02	1.90E-01	1.00E-06	1.00E-06
09:51	01:51	0.6	105	0	0	0.5	94	77.1	87	-0.25	YES	YES	NO	NO	YES	1.90E+02	1.90E-01	1.00E-06	1.00E-06
09:52	01:52	0.6	106	0	0	0.5	95	77.3	88	-0.25	YES	YES	NO	NO	YES	1.90E+02	1.90E-01	1.00E-06	1.00E-06
09:55	01:55	0.7	108	0	0	0.5	96	77.4	89	-0.25	YES	YES	NO	NO	YES	1.90E+02	1.90E-01	1.00E-06	1.00E-06
10:00	02:00	0.7	111	0	0	0.5	97	77.6	90	-0.25	YES	YES	NO	NO	YES	1.90E+02	1.90E-01	1.00E-06	1.00E-06
10:05	02:05	0.8	114	0	0	0.5	98	77.8	91	-0.25	YES	YES	NO	NO	YES	1.90E+02	1.90E-01	1.00E-06	1.00E-06
10:10	02:10	0.8	115	0	0	0.5	99	78.0	92	-0.25	YES	YES	NO	NO	YES	1.90E+02	1.90E-01	1.00E-06	1.00E-06
10:15	02:15	0.8	116	0	0	0.5	100	78.1	93	-0.25	YES	YES	NO	NO	YES	1.90E+02	1.90E-01	1.00E-06	1.00E-06
10:20	02:20	0.9	117	0	0	0.5	101	78.2	94	-0.25	YES	YES	NO	NO	YES	1.90E+02	1.90E-01	1.00E-06	1.00E-06
10:25	02:25	0.9	118	0	0	0.5	102	78.3	95	-0.25	YES	YES	NO	NO	YES	?? ??	?? ??	1.00E-06	1.00E-06
10:30	02:30	0.9	118	0	0	0.5	103	78.4	96	-0.25	YES	YES	NO	NO	YES	?? ??	?? ??	1.00E-06	1.00E-06
10:35	02:35	0.9	118	0	0	0.5	104	78.5	96	-0.25	YES	YES	NO	NO	YES	?? ??	?? ??	1.00E-06	1.00E-06
10:40	02:40	0.9	118	0	0	0.5	105	78.5	97	-0.25	YES	YES	NO	NO	YES	?? ??	?? ??	1.00E-06	1.00E-06
10:45	02:45	0.9	118	0	0	0.5	106	78.5	98	-0.25	YES	YES	NO	NO	YES	?? ??	?? ??	1.00E-06	1.00E-06
10:50	02:50	0.9	118	0	0	0.5	107	78.5	99	-0.25	YES	YES	NO	NO	YES	?? ??	?? ??	1.00E-06	1.00E-06
10:55	02:55	0.9	118	0	0	0.5	108	78.5	100	-0.25	YES	YES	NO	NO	YES	?? ??	?? ??	1.00E-06	1.00E-06
11:00	03:00	0.9	117	0	0	0.5	110	78.5	102	-0.25	YES	YES	NO	NO	YES	?? ??	?? ??	1.00E-06	1.00E-06
11:05	03:05	0.9	116	0	0	0.5	112	78.5	104	-0.25	YES	YES	NO	NO	YES	?? ??	?? ??	1.00E-06	1.00E-06
11:10	03:10	0.9	116	0	0	0.5	112	78.5	104	-0.25	YES	YES	NO	NO	YES	?? ??	?? ??	1.00E-06	1.00E-06
11:15	03:15	0.9	116	0	0	0.5	112	78.5	104	-0.25	YES	YES	NO	NO	YES	?? ??	?? ??	1.00E-06	1.00E-06
11:20	03:20	0.9	116	0	0	0.5	112	78.5	104	-0.25	YES	YES	NO	NO	YES	?? ??	?? ??	1.00E-06	1.00E-06
11:25	03:25	1.0	116	0	0	0.5	113	78.5	105	-0.25	YES	YES	NO	NO	YES	?? ??	?? ??	1.00E-06	1.00E-06
11:30	03:30	1.0	116	0	0	0.5	114	78.5	106	-0.25	YES	YES	NO	NO	YES	?? ??	?? ??	1.00E-06	1.00E-06
11:35	03:35	12.4	116	0	0	9.7	115	79.2	108	-0.25	YES	YES	YES	YES	YES	?? ??	?? ??	1.00E-06	1.00E-06
11:36	03:36	28.7	249	0	0	24.6	116	80.5	114	-0.25	YES	YES	YES	YES	YES	?? ??	?? ??	1.00E-06	1.00E-06
11:37	03:37	34.7	269	0	0	33.7	129	81.2	121	-0.25	YES	YES	YES	YES	YES	?? ??	?? ??	1.00E-06	1.00E-06
11:38	03:38	25.1	267	0	0	23.2	135	81.5	127	-0.25	YES	YES	YES	YES	YES	?? ??	?? ??	1.00E-06	1.00E-06
11:39	03:39	24.3	267	0	0	21.9	136	82.2	128	-0.25	YES	YES	YES	YES	YES	?? ??	?? ??	1.00E-06	1.00E-06
11:40	03:40	23.2	264	0	0	20.5	137	82.6	129	-0.25	YES	YES	YES	YES	YES	?? ??	?? ??	1.00E-06	1.00E-06

8.4 Rev. 1

HOPE CREEK ANNUAL EXERCISE (H94-06) OCTOBER 25, 1994

REAL TIME	DRILL TIME	DW PRESS PSIG	DW TEMP F	DW [H2] %	DW [O2] %	TORUS PRESS PSIG	TORUS AIR TEMP F	TORUS LEVEL INCHES	TORUS WTR TEMP F	RX BLDG PRESS in H2O	OFFSITE POWER AVAIL	EDGs 3 or > ?	ECCS ACTUATE ?	DW ISOL ?	CAPABLE OF ISOL ?	OFF SITE GAS uCi/sec	OFF SITE IODINE uCi/sec	RBLDG EXH RADIATION uCi/cc	RF EXH RADIATION uCi/cc
11:45	03:45	18.6	261	0	0	17.8	137	82.8	130	-0.25	YES	YES	YES	YES	YES	?? ??	?? ??	1.00E-06	1.00E-06
11:50	03:50	16.9	244	0	0	15.9	139	83.0	132	-0.25	YES	YES	YES	YES	YES	?? ??	?? ??	1.00E-06	1.00E-06
11:55	03:55	14.7	230	0	0	13.8	139	83.1	132	-0.25	YES	YES	YES	YES	YES	?? ??	?? ??	1.00E-06	1.00E-06
12:00	04:00	13.3	222	0	0	12.5	139	83.2	132	-0.25	YES	YES	YES	YES	YES	?? ??	?? ??	1.00E-06	1.00E-06
12:05	04:05	11.8	206	0	0	11.0	139	83.3	132	-0.25	YES	YES	YES	YES	YES	?? ??	?? ??	1.00E-06	1.00E-06
12:10	04:10	10.7	202	0	0	9.8	139	83.4	132	-0.25	YES	YES	YES	YES	YES	?? ??	?? ??	1.00E-06	1.00E-06
12:15	04:15	10.6	200	0	0	9.7	139	83.5	132	-0.25	YES	YES	YES	YES	YES	?? ??	?? ??	1.00E-06	1.00E-06
12:20	04:20	10.6	196	0	0	9.7	138	83.6	131	-0.25	YES	YES	YES	YES	YES	?? ??	?? ??	2.46E-05	2.46E-05
12:25	04:25	10.5	195	0	0	9.7	138	83.7	131	-0.25	YES	YES	YES	YES	YES	?? ??	?? ??	2.54E-05	2.54E-05
12:30	04:30	10.5	194	0	0	9.7	138	83.7	131	-0.25	YES	YES	YES	YES	YFC	?? ??	?? ??	2.63E-05	2.63E-05
12:35	04:35	10.5	195	0	0	9.7	136	83.8	130	-0.25	YES	YES	YES	YES	YES	?? ??	?? ??	7.60E-05	7.60E-05
12:40	04:40	10.5	195	0	0	9.7	136	83.8	130	-0.25	YES	YES	YES	YES	YES	?? ??	?? ??	7.89E-05	7.89E-05
12:45	04:45	10.5	194	0	0	9.7	136	83.9	130	-0.25	YES	YES	YES	YES	YES	?? ??	?? ??	9.72E-05	9.72E-05
12:50	04:50	10.5	195	0.1	0.1	9.7	136	84.1	130	-0.25	YES	YES	YES	YES	YES	?? ??	?? ??	1.00E-04	1.00E-04
12:55	04:55	10.4	196	0.1	0.1	9.6	136	84.3	129	-0.25	YES	YES	YES	YES	YES	?? ??	?? ??	1.00E-04	1.00E-04
13:00	05:00	10.4	195	0.2	0.2	9.6	135	84.5	129	-0.25	YES	YES	YES	YES	YES	?? ??	?? ??	1.00E-04	1.00E-04
13:05	05:05	10.3	195	0.3	0.3	9.6	135	84.6	129	-0.25	YES	YES	YES	YES	YES	?? ??	?? ??	1.00E-04	1.00E-04
13:10	05:10	10.2	195	0.3	0.3	9.6	135	84.8	129	-0.25	YES	YES	YES	YES	YES	?? ??	?? ??	1.00E-04	1.00E-04
13:15	05:15	10.1	194	0.4	0.4	9.6	135	85.0	129	-0.25	YES	YES	YES	NO	NO	?? ??	?? ??	1.00E-02	1.00E-02
13:16	05:16	9.2	196	0.4	0.4	9.4	135	85.2	128	-0.25	YES	YES	YES	NO	NO	?? ??	?? ??	1.00E-02	1.00E-02
13:17	05:17	8.6	197	0.5	0.5	8.9	134	85.4	128	-0.25	YES	YES	YES	NO	NO	?? ??	?? ??	1.00E-02	1.00E-02
13:18	05:18	8.1	194	0.6	0.6	8.3	134	85.4	128	-0.25	YES	YES	YES	NO	NO	?? ??	?? ??	1.00E-02	1.00E-02
13:19	05:19	7.7	194	0.7	0.7	7.9	134	85.4	128	-0.25	YES	YES	YES	NO	NO	?? ??	?? ??	1.00E-02	1.00E-02
13:20	05:20	7.1	193	0.8	0.8	7.4	134	85.6	128	-0.25	YES	YES	YES	NO	NO	?? ??	?? ??	1.00E-02	1.00E-02
13:25	05:25	6.6	193	0.9	0.9	7.0	134	85.8	128	-0.25	YES	YES	YES	NO	NO	?? ??	?? ??	1.00E-02	1.00E-02
13:30	05:30	4.1	192	1.0	1.0	4.4	134	86.1	128	-0.25	YES	YES	YES	NO	NO	?? ??	?? ??	1.00E-02	1.00E-02
13:35	05:35	3.3	191	1.1	1.1	3.5	134	86.2	128	-0.25	YES	YES	YES	NO	NO	?? ??	?? ??	1.00E-02	1.00E-02
13:40	05:40	2.5	190	1.2	1.2	2.7	134	86.2	127	-0.25	YES	YES	YES	NO	NO	?? ??	?? ??	1.00E-02	1.00E-02
13:45	05:45	1.8	190	1.3	1.3	2.0	133	86.2	127	-0.25	YES	YES	YES	NO	NO	?? ??	?? ??	1.00E-02	1.00E-02
13:50	05:50	1.5	190	1.4	1.4	1.8	133	83.4	127	-0.25	YES	YES	YES	NO	NO	?? ??	?? ??	1.00E-02	1.00E-02
13:55	05:55	1.4	190	1.5	1.5	1.6	133	81.9	127	-0.25	YES	YES	YES	NO	NO	?? ??	?? ??	1.00E-02	1.00E-02
14:00	06:00	1.3	190	1.6	1.6	1.4	133	80.5	127	-0.25	YES	YES	YES	NO	NO	?? ??	?? ??	1.00E-02	1.00E-02
14:05	06:05	1.2	187	1.7	1.7	1.4	132	78.5	126	-0.25	YES	YES	YES	NO	NO	?? ??	?? ??	1.00E-02	1.00E-02
14:10	06:10	1.2	184	1.8	1.8	1.3	132	77.8	126	-0.25	YES	YES	YES	NO	NO	?? ??	?? ??	1.00E-02	1.00E-02
14:15	06:15	1.1	181	1.9	1.9	1.2	132	76.6	126	-0.25	YES	YES	YES	NO	NO	1.05E+08	?? ??	1.00E-02	1.00E-02
14:20	06:20	1.1	179	2.0	2.0	1.1	131	75.8	125	-0.25	YES	YES	YES	NO	NO	1.05E+08	?? ??	1.00E-02	1.00E-02
14:25	06:25	1.1	176	2.1	2.1	1.0	131	75.4	125	-0.25	YES	YES	YES	NO	NO	1.04E+08	?? ??	1.00E-02	1.00E-02
14:30	06:30	1.0	172	2.2	2.2	0.9	131	75.0	125	-0.25	YES	YES	YES	NO	NO	1.04E+08	?? ??	1.00E-02	1.00E-02
14:35	06:35	0.9	168	2.2	2.2	0.8	130	74.6	124	-0.25	YES	YES	YES	NO	NO	1.03E+08	?? ??	1.00E-02	1.00E-02
14:40	06:40	0.8	164	2.2	2.2	0.7	130	74.4	124	-0.25	YES	YES	YES	NO	NO	1.02E+08	?? ??	1.00E-02	1.00E-02
14:45	06:45	0.7	161	2.2	2.2	0.7	130	74.5	123	-0.25	YES	YES	YES	NO	NO	1.02E+08	?? ??	1.00E-02	1.00E-02
14:50	06:50	0.6	159	2.2	2.2	0.6	129	74.5	123	-0.25	YES	YES	YES	YES	YES	1.02E+08	?? ??	1.00E-02	1.00E-02
14:55	06:55	0.5	156	2.2	2.2	0.5	129	74.6	122	-0.25	YES	YES	YES	YES	YES	1.01E+08	?? ??	1.00E-02	1.00E-02
15:00	07:00	0.5	153	2.2	2.2	0.5	128	74.7	121	-0.25	YES	YES	YES	YES	YES	1.01E+08	?? ??	1.00E-02	1.00E-02
15:05	07:05	0.5	151	2.2	2.2	0.5	128	74.7	120	-0.25	YES	YES	YES	YES	YES	1.01E+08	?? ??	1.00E-02	1.00E-02
15:10	07:10	0.5	148	2.2	2.2	0.5	127	74.7	119	-0.25	YES	YES	YES	YES	YES	1.01E+08	?? ??	1.00E-02	1.00E-02
15:15	07:15	0.4	145	2.2	2.2	0.4	127	74.7	119	-0.25	YES	YES	YES	YES	YES	8.19E+07	?? ??	1.00E-02	1.00E-02
15:20	07:20	0.3	143	2.1	2.1	0.3	127	74.7	118	-0.25	YES	YES	YES	YES	YES	8.19E+07	?? ??	1.00E-02	1.00E-02
15:25	07:25	0.3	141	2.1	2.1	0.3	126	74.8	118	-0.25	YES	YES	YES	YES	YES	8.19E+07	?? ??	1.00E-02	1.00E-02

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REV. 1

HOPE CREEK ANNUAL EXERCISE (H94-06) OCTOBER 25, 1994

REAL TIME	DRILL TIME	DW PRESS PSIG	DW TEMP F	DW [H2] %	DW [O2] %	TORUS PRESS PSIG	TORUS AIR TEMP F	TORUS LEVEL INCHES	FORUS WTR TEMP F	RX BLDG PRESS in H2O	OFFSITE POWER AVAIL	EDGs 3 or > ?	ECCS ACTIVATE ?	DW ISOL ?	CAPABLE OF ISOL ?	OFF SITE GAS uCi/sec	OFF SITE IODINE uCi/sec	RBLDG EXH RADIATION uCi/cc	RF EXH RADIATION uCi/cc
15:30	07:30	0.3	139	2.1	2.1	0.3	126	74.8	117	-0.25	YES	YES	YES	YES	YES	3.72E+06	?? ??	1.00E-02	1.00E-02
15:35	07:35	0.2	138	2.1	2.1	0.2	126	74.9	117	-0.25	YES	YES	YES	YES	YES	3.72E+06	?? ??	1.00E-02	1.00E-02
15:40	07:40	0.2	138	1.9	1.9	0.2	125	75.0	117	-0.25	YES	YES	YES	YES	YES	3.72E+06	?? ??	1.00E-02	1.00E-02
15:45	07:45	0.2	137	1.8	1.8	0.2	124	75.0	116	-0.25	YES	YES	YES	YES	YES	1.24E+05	?? ??	1.00E-02	1.00E-02
15:50	07:50	0.2	137	1.8	1.8	0.2	124	75.0	116	-0.25	YES	YES	YES	YES	YES	1.24E+05	?? ??	1.00E-02	1.00E-02
15:55	07:55	0.2	137	1.8	1.8	0.2	124	75.0	115	-0.25	YES	YES	YES	YES	YES	1.24E+05	?? ??	1.00E-02	1.00E-02
16:00	08:00	0.2	136	1.7	1.7	0.2	123	75.0	115	-0.25	YES	YES	YES	YES	YES	1.06E+04	?? ??	1.00E-02	1.00E-02

8.6 Rev 1

HOPE CREEK ANNUAL EXERCISE (H94-06) OCTOBER 25, 1994

REAL TIME	DRILL TIME	RX LVL	BUILDING TEMP	SIG EVENTS	COMMENTS	MESS #
08:30	00:30	NHI	NHI	NHI	DRILL BEGINS	
08:33	00:33	NHI	NHI	NHI	LOSS OF 10-B-130 USS	
08:37	00:35	NHI	NHI	NHI	LOSS OF "B" FWH STRING	
08:40	00:40	NHI	NHI	NHI		
08:45	00:45	NHI	NHI	NHI		
08:50	00:50	NHI	NHI	NHI	UNUSUAL EVENT DECLARED	
08:55	00:55	NHI	NHI	NHI		
09:00	01:00	NHI	NHI	NHI		
09:01	01:01	NHI	NHI	NHI	#5 JET PUMP RISER FAILURE	
09:05	01:05	NHI	NHI	NHI		
09:10	01:10	NHI	NHI	NHI		
09:15	01:15	NHI	NHI	NHI		
09:20	01:20	NHI	NHI	NHI		
09:25	01:25	NHI	NHI	NHI		
09:30	01:30	NHI	NHI	NHI	#6C FWH TUBE LEAK	
09:35	01:35	NHI	NHI	NHI		
09:40	01:40	NHI	NHI	NHI		
09:45	01:45	NHI	NHI	NHI	MAIN TURBINE VIB INCREASING	
09:47	01:47	NHI	NHI	NHI	MAIN TURBINE TRIP	
09:48	01:48	NHI	NHI	NHI	LOSS OF "B" SIDE STA SER XFMR	
09:49	01:49	NHI	NHI	NHI	LOSS OF FW/CONDENSATE	
09:50	01:50	NHI	NHI	NHI		
09:51	01:51	NHI	NHI	NHI		
09:52	01:52	NHI	NHI	NHI		
09:55	01:55	NHI	NHI	NHI		
10:00	02:00	NHI	NHI	NHI		
10:05	02:05	NHI	NHI	NHI	ALERT DECLARED	
10:10	02:10	NHI	NHI	NHI		
10:15	02:15	NHI	NHI	NHI		
10:20	02:20	NHI	NHI	NHI		
10:25	02:25	NHI	NHI	NHI		
10:30	02:30	NHI	NHI	NHI	OSC ACTIVATED	
10:35	02:35	NHI	NHI	NHI		
10:40	02:40	NHI	NHI	NHI		
10:45	02:45	NHI	NHI	NHI		
10:50	02:50	NHI	NHI	NHI		
10:55	02:55	NHI	NHI	NHI	"D" LPCI INJ VALVE MALF	
11:00	03:00	NHI	NHI	NHI	TSC ACTIVATED	
11:05	03:05	NHI	NHI	NHI		
11:10	03:10	NHI	NHI	NHI		
11:15	03:15	NHI	NHI	NHI		
11:20	03:20	NHI	NHI	NHI		
11:25	03:25	NHI	NHI	NHI		
11:30	03:30	NHI	NHI	NHI		
11:35	03:35	NHI	NHI	NHI	"B" RECIRC LOOP BREAK	
11:36	03:36	NHI	NHI	NHI	"A" RHR PUMP TRIP	
11:37	03:37	NHI	NHI	NHI		
11:38	03:38	NHI	NHI	NHI		
11:39	03:39	NHI	NHI	NHI		
11:40	03:40	NHI	NHI	NHI	ECCS SUCTION STRAINER PLUGGING	

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HOPE CREEK ANNUAL EXERCISE (H94-06) OCTOBER 25, 1994

REAL TIME	DRILL TIME	RX LVL	BUILDING TEMP	SIG EVENTS	COMMENTS	MESS #
11:45	03:45	NHI	NHI	NHI		
11:50	03:50	NHI	NHI	NHI	SITE AREA EMERGENCY DECLARED	
11:55	03:55	NHI	NHI	NHI		
12:00	04:00	NHI	NHI	NHI		
12:05	04:05	NHI	NHI	NHI		
12:10	04:10	NHI	NHI	NHI		
12:15	04:15	NHI	NHI	NHI	"C" RHR PUMP TRIP	
12:20	04:20	NHI	NHI	NHI	FUEL DAMAGE STARTS	
12:25	04:25	NHI	NHI	NHI		
12:30	04:30	NHI	NHI	NHI		
12:35	04:35	NHI	NHI	NHI		
12:40	04:40	NHI	NHI	NHI		
12:45	04:45	NHI	NHI	NHI	GE (POSSIBLE)	
12:50	04:50	NHI	NHI	NHI		
12:55	04:55	NHI	NHI	NHI		
13:00	05:00	NHI	NHI	NHI		
13:05	05:05	NHI	NHI	NHI		
13:10	05:10	NHI	NHI	NHI		
13:15	05:15	NHI	NHI	NHI	RELEASE STARTS	
13:16	05:16	NHI	NHI	NHI	(CONTAINMENT FAILURE)	
13:17	05:17	NHI	NHI	NHI		
13:18	05:18	NHI	NHI	NHI		
13:19	05:19	NHI	NHI	NHI		
13:20	05:20	NHI	NHI	NHI		
13:25	05:25	NHI	NHI	NHI		
13:30	05:30	NHI	NHI	NHI	GENERAL EMERGENCY	
13:35	05:35	NHI	NHI	NHI		
13:40	05:40	NHI	NHI	NHI		
13:45	05:45	NHI	NHI	NHI		
13:50	05:50	NHI	NHI	NHI		
13:55	05:55	NHI	NHI	NHI		
14:00	06:00	NHI	NHI	NHI		
14:05	06:05	NHI	NHI	NHI		
14:10	06:10	NHI	NHI	NHI		
14:15	06:15	NHI	NHI	NHI		
14:20	06:20	NHI	NHI	NHI	"B" EDG RUNNING	
14:25	06:25	NHI	NHI	NHI		
14:30	06:30	NHI	NHI	NHI		
14:35	06:35	NHI	NHI	NHI		
14:40	06:40	NHI	NHI	NHI		
14:45	06:45	NHI	NHI	NHI		
14:50	06:50	NHI	NHI	NHI	RELEASE TERMINATED	
14:55	06:55	NHI	NHI	NHI		
15:00	07:00	NHI	NHI	NHI		
15:05	07:05	NHI	NHI	NHI		
15:10	07:10	NHI	NHI	NHI		
15:15	07:15	NHI	NHI	NHI		
15:20	07:20	NHI	NHI	NHI		
15:25	07:25	NHI	NHI	NHI		

S.S. Rev. 1

HOPE CREEK ANNUAL EXERCISE (H94-06) OCTOBER 25, 1994

REAL TIME	DRILL TIME	RX LVL	BUILDING TEMP	RAD	SIG EVENTS	COMMENTS	MESS #
15:30	07:30	NHI	NHI	HI			
15:35	07:35	NHI	NHI	HI			
15:40	07:40	NHI	NHI	HI			
15:45	07:45	NHI	NHI	HI			
15:50	07:50	NHI	NHI	HI			
15:55	07:55	NHI	NHI	HI			
16:00	08:00	NHI	NHI	HI	DRILL TERMINATED		

8.9 Rev. 1

SECTION 9.0

HOPE CREEK DRILL

H94-06

ONSITE RADIOLOGICAL AND CHEMISTRY DATA

<u>SECTION</u>	<u>TITLE</u>	<u>PAGE</u>
9.1	<u>SAMPLE ANALYSIS DATA</u>	
	RCS Concentrations (PASS)	9.1.0
	Other Chemistry Sample Data	9.1.6
	Main Steam Concentrations	9.1.7
	Torus Water Concentrations	9.1.12
	Feed Water Concentrations	9.1.17
	Reactor Building Air Concentrations	9.1.22
	Drywell Air Concentrations	9.1.29
	Service/Radwaste Air Concentrations	9.1.35
	FRVS Sample Isotopic Data	9.1.42
9.2	<u>Plant Vent Flow Rates and RMS Data</u>	
	Hope Creek RMS Quick Reference	9.2.0
	RMS Data	9.2.4
	Plant Vent Flow Rates	9.2.19
	Met and Source Term Data	9.2.20
9.3	<u>Onsite Survey Map Index</u>	
	54' el. RX. BLDG.	9.3.1
	77' el. RX. BLDG.	9.3.2
	102' el. RX. BLDG.	9.3.3
	132' el. RX. BLDG.	9.3.4
	145' el. RX. BLDG.	9.3.5
	162' el. RX. BLDG.	9.3.6
	178' el. RX. BLDG.	9.3.7
	201' el. RX. BLDG.	9.3.8
	54' el. S/RW BLDG.	9.3.9
	65'-77' el. S/RW BLDG.	N/A
	75'-87' el. S/RW BLDG.	9.3.11
	102' el. S/RW BLDG.	9.3.12
	124' el. S/RW BLDG.	9.3.13
	137' el. S/RW BLDG.	9.3.14
	153' el. S/RW BLDG.	9.3.15
	54' el. TB. BLDG.	9.3.16
	77' el. TB. BLDG.	9.3.17
	102' el. TB. BLDG.	9.3.18
	120' el. TB. BLDG.	9.3.19
	137' el. TB. BLDG.	9.3.20
	153' el. TB. BLDG.	9.3.21
	171' el. TB. BLDG.	9.3.22
9.4	<u>ONSITE RADIOLOGICAL DATA</u>	
	Onsite Field Survey Map	9.4.0
	Onsite Plume Centerline Data	9.4.1
	Onsite Plume Specific Location Data	9.5.0

Reactor Coolant System Concentrations
 Hope Creek Nuclear Generating Station
 10/25/94

Clock Time	Drill Time	I-131 uCi/cc	I-132 uCi/cc	I-133 uCi/cc	I-134 uCi/cc	I-135 uCi/cc	Total Iodine uCi/cc
08:00	00:00	5.23E-02	7.96E-02	1.17E-01	1.37E-01	1.07E-01	4.93E-01
08:15	00:15	5.23E-02	7.96E-02	1.17E-01	1.37E-01	1.07E-01	4.93E-01
08:30	00:30	5.23E-02	7.96E-02	1.17E-01	1.37E-01	1.07E-01	4.93E-01
08:45	00:45	5.23E-02	7.96E-02	1.17E-01	1.37E-01	1.07E-01	4.93E-01
09:00	01:00	5.23E-02	7.96E-02	1.17E-01	1.37E-01	1.07E-01	4.93E-01
09:15	01:15	5.23E-02	7.96E-02	1.17E-01	1.37E-01	1.07E-01	4.93E-01
09:30	01:30	5.23E-02	7.96E-02	1.17E-01	1.37E-01	1.07E-01	4.93E-01
09:45	01:45	5.23E-02	7.96E-02	1.17E-01	1.37E-01	1.07E-01	4.93E-01
09:50	01:50	5.23E-02	7.84E-02	1.17E-01	1.32E-01	1.06E-01	4.86E-01
10:00	02:00	5.23E-02	7.46E-02	1.16E-01	1.15E-01	1.04E-01	4.63E-01
10:15	02:15	5.22E-02	6.91E-02	1.15E-01	9.45E-02	1.02E-01	4.33E-01
10:30	02:30	5.22E-02	6.41E-02	1.14E-01	7.75E-02	9.92E-02	4.07E-01
10:45	02:45	5.21E-02	5.94E-02	1.13E-01	6.35E-02	9.66E-02	3.85E-01
11:00	03:00	5.21E-02	5.51E-02	1.12E-01	5.21E-02	9.42E-02	3.66E-01
11:15	03:15	5.20E-02	5.10E-02	1.11E-01	4.27E-02	9.18E-02	3.49E-01
11:30	03:30	5.20E-02	4.72E-02	1.11E-01	3.50E-02	8.94E-02	3.34E-01
11:35	03:35	5.20E-02	4.61E-02	1.10E-01	3.27E-02	8.87E-02	3.30E-01
11:40	03:40	5.20E-02	4.50E-02	1.10E-01	3.06E-02	8.79E-02	3.25E-01
11:45	03:45	5.19E-02	4.39E-02	1.10E-01	2.87E-02	8.71E-02	3.21E-01
12:00	04:00	5.19E-02	4.07E-02	1.09E-01	2.35E-02	8.49E-02	3.10E-01
12:15	04:15	5.19E-02	3.77E-02	1.08E-01	1.93E-02	8.28E-02	2.99E-01
12:20	04:20	1.12E+02	7.96E+01	2.33E+02	3.91E+01	1.78E+02	6.42E+02
12:25	04:25	2.63E+02	1.82E+02	5.45E+02	8.58E+01	4.13E+02	1.49E+03
12:30	04:30	3.05E+02	2.05E+02	6.29E+02	9.29E+01	4.74E+02	1.71E+03
12:35	04:35	1.68E+03	1.10E+03	3.45E+03	4.78E+02	2.59E+03	9.29E+03
12:40	04:40	3.05E+03	1.95E+03	6.26E+03	8.14E+02	4.66E+03	1.67E+04
12:45	04:45	4.57E+03	2.86E+03	9.36E+03	1.14E+03	6.93E+03	2.49E+04
13:00	05:00	1.52E+04	8.83E+03	3.09E+04	3.12E+03	2.25E+04	8.06E+04
13:15	05:15	1.52E+04	8.18E+03	3.07E+04	2.56E+03	2.19E+04	7.86E+04
13:30	05:30	1.52E+04	7.58E+03	3.04E+04	2.10E+03	2.14E+04	7.67E+04
13:45	05:45	1.52E+04	7.03E+03	3.02E+04	1.72E+03	2.08E+04	7.49E+04
14:00	06:00	1.52E+04	6.52E+03	2.99E+04	1.41E+03	2.03E+04	7.33E+04
14:15	06:15	1.51E+04	6.04E+03	2.97E+04	1.16E+03	1.98E+04	7.18E+04
14:30	06:30	1.51E+04	5.60E+03	2.94E+04	9.48E+02	1.93E+04	7.04E+04
14:45	06:45	1.51E+04	5.19E+03	2.92E+04	7.77E+02	1.88E+04	6.91E+04
15:00	07:00	1.51E+04	4.81E+03	2.89E+04	6.37E+02	1.83E+04	6.78E+04
15:15	07:15	1.51E+04	4.46E+03	2.87E+04	5.22E+02	1.78E+04	6.66E+04
15:30	07:30	1.51E+04	4.13E+03	2.85E+04	4.28E+02	1.74E+04	6.55E+04
15:45	07:45	1.51E+04	3.83E+03	2.82E+04	3.51E+02	1.69E+04	6.44E+04
16:00	08:00	1.50E+04	3.55E+03	2.80E+04	2.88E+02	1.65E+04	6.34E+04

Reactor Coolant System Concentrations
 Hope Creek Nuclear Generating Station
 10/25/94

Clock Time	Drill Time	DEI uCi/cc	Kr-85 uCi/cc	Kr-87 uCi/cc	Kr-88 uCi/cc	Xe-131m uCi/cc	Xe-133 uCi/cc
08:00	00:00	1.01E-01	4.40E-04	9.45E-02	1.30E-01	1.05E-03	2.00E+00
08:15	00:15	1.01E-01	4.40E-04	9.45E-02	1.30E-01	1.05E-03	2.00E+00
08:30	00:30	1.01E-01	4.40E-04	9.45E-02	1.30E-01	1.05E-03	2.00E+00
08:45	00:45	1.01E-01	4.40E-04	9.45E-02	1.30E-01	1.05E-03	2.00E+00
09:00	01:00	1.01E-01	4.40E-04	9.45E-02	1.30E-01	1.05E-03	2.00E+00
09:15	01:15	1.01E-01	4.40E-04	9.45E-02	1.30E-01	1.05E-03	2.00E+00
09:30	01:30	1.01E-01	4.40E-04	9.45E-02	1.30E-01	1.05E-03	2.00E+00
09:45	01:45	1.01E-01	4.40E-04	9.45E-02	1.30E-01	1.05E-03	2.00E+00
09:50	01:50	1.00E-01	4.40E-04	9.20E-02	1.28E-01	1.05E-03	2.00E+00
10:00	02:00	9.74E-02	4.40E-04	8.40E-02	1.23E-01	1.05E-03	1.99E+00
10:15	02:15	9.41E-02	4.40E-04	7.32E-02	1.16E-01	1.05E-03	1.99E+00
10:30	02:30	9.12E-02	4.40E-04	6.39E-02	1.09E-01	1.05E-03	1.99E+00
10:45	02:45	8.88E-02	4.40E-04	5.57E-02	1.02E-01	1.05E-03	1.99E+00
11:00	03:00	8.66E-02	4.40E-04	4.86E-02	9.61E-02	1.05E-03	1.98E+00
11:15	03:15	8.47E-02	4.40E-04	4.24E-02	9.03E-02	1.05E-03	1.98E+00
11:30	03:30	8.30E-02	4.40E-04	3.70E-02	8.49E-02	1.05E-03	1.98E+00
11:35	03:35	8.25E-02	4.40E-04	3.53E-02	8.31E-02	1.05E-03	1.98E+00
11:40	03:40	8.20E-02	4.40E-04	3.37E-02	8.14E-02	1.05E-03	1.98E+00
11:45	03:45	8.16E-02	4.40E-04	3.22E-02	7.98E-02	1.05E-03	1.98E+00
12:00	04:00	8.03E-02	4.40E-04	2.81E-02	7.50E-02	1.04E-03	1.97E+00
12:15	04:15	7.91E-02	4.40E-04	2.45E-02	7.05E-02	1.04E-03	1.97E+00
12:20	04:20	1.71E+02	9.54E-01	5.08E+01	1.50E+02	2.26E+00	4.27E+03
12:25	04:25	3.98E+02	2.24E+00	1.14E+02	3.44E+02	5.31E+00	1.00E+04
12:30	04:30	4.59E+02	1.33E+00	6.48E+01	2.01E+02	3.16E+00	6.78E+02
12:35	04:35	2.51E+03	7.34E+00	3.40E+02	1.08E+03	1.74E+01	3.73E+03
12:40	04:40	4.55E+03	1.33E+01	5.91E+02	1.93E+03	3.16E+01	6.78E+03
12:45	04:45	6.80E+03	2.00E+01	8.48E+02	2.83E+03	4.74E+01	1.02E+04
13:00	05:00	2.24E+04	6.67E+01	2.46E+03	8.86E+03	1.58E+02	3.38E+04
13:15	05:15	2.22E+04	6.67E+01	2.15E+03	8.33E+03	1.58E+02	3.38E+04
13:30	05:30	2.19E+04	6.67E+01	1.87E+03	7.83E+03	1.58E+02	3.37E+04
13:45	05:45	2.17E+04	6.67E+01	1.63E+03	7.35E+03	1.58E+02	3.37E+04
14:00	06:00	2.16E+04	6.67E+01	1.43E+03	6.91E+03	1.58E+02	3.36E+04
14:15	06:15	2.14E+04	6.67E+01	1.24E+03	6.50E+03	1.57E+02	3.36E+04
14:30	06:30	2.12E+04	6.67E+01	1.08E+03	6.10E+03	1.57E+02	3.36E+04
14:45	06:45	2.10E+04	6.67E+01	9.46E+02	5.74E+03	1.57E+02	3.35E+04
15:00	07:00	2.09E+04	6.67E+01	8.25E+02	5.39E+03	1.57E+02	3.35E+04
15:15	07:15	2.08E+04	6.67E+01	7.20E+02	5.07E+03	1.57E+02	3.34E+04
15:30	07:30	2.06E+04	6.67E+01	6.28E+02	4.76E+03	1.57E+02	3.34E+04
15:45	07:45	2.05E+04	6.67E+01	5.47E+02	4.48E+03	1.57E+02	3.33E+04
16:00	08:00	2.04E+04	6.67E+01	4.77E+02	4.21E+03	1.57E+02	3.33E+04

Reactor Coolant System Concentrations
 Hope Creek Nuclear Generating Station
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Clock Time	Drill Time	Xe-133m uCi/cc	Xe-135 uCi/cc	Total Noble Gas uCi/cc	Rb-88 uCi/cc	Sr-89 uCi/cc	Sr-90 uCi/cc
08:00	00:00	5.61E-03	2.18E-01	2.45E+00	1.88E-01	< LLD	< LLD
08:15	00:15	5.61E-03	2.18E-01	2.45E+00	1.88E-01	< LLD	< LLD
08:30	00:30	5.61E-03	2.18E-01	2.45E+00	1.88E-01	< LLD	< LLD
08:45	00:45	5.61E-03	2.18E-01	2.45E+00	1.88E-01	< LLD	< LLD
09:00	01:00	5.61E-03	2.18E-01	2.45E+00	1.88E-01	< LLD	< LLD
09:15	01:15	5.61E-03	2.18E-01	2.45E+00	1.88E-01	< LLD	< LLD
09:30	01:30	5.61E-03	2.18E-01	2.45E+00	1.88E-01	< LLD	< LLD
09:45	01:45	5.61E-03	2.18E-01	2.45E+00	1.88E-01	< LLD	< LLD
09:50	01:50	5.61E-03	2.18E-01	2.44E+00	1.67E-01	< LLD	< LLD
10:00	02:00	5.60E-03	2.14E-01	2.42E+00	1.13E-01	< LLD	< LLD
10:15	02:15	5.58E-03	2.10E-01	2.40E+00	6.29E-02	< LLD	< LLD
10:30	02:30	5.56E-03	2.06E-01	2.38E+00	3.49E-02	< LLD	< LLD
10:45	02:45	5.54E-03	2.02E-01	2.35E+00	1.94E-02	< LLD	< LLD
11:00	03:00	5.52E-03	1.99E-01	2.33E+00	1.08E-02	< LLD	< LLD
11:15	03:15	5.51E-03	1.95E-01	2.32E+00	6.00E-03	< LLD	< LLD
11:30	03:30	5.49E-03	1.91E-01	2.30E+00	3.33E-03	< LLD	< LLD
11:35	03:35	5.48E-03	1.90E-01	2.29E+00	2.74E-03	< LLD	< LLD
11:40	03:40	5.48E-03	1.89E-01	2.29E+00	2.25E-03	< LLD	< LLD
11:45	03:45	5.47E-03	1.88E-01	2.28E+00	1.85E-03	< LLD	< LLD
12:00	04:00	5.45E-03	1.84E-01	2.27E+00	1.03E-03	< LLD	< LLD
12:15	04:15	5.44E-03	1.81E-01	2.25E+00	5.73E-04	< LLD	< LLD
12:20	04:20	1.18E+01	3.89E+02	4.87E+03	1.02E+00	6.39E-03	1.51E-03
12:25	04:25	2.76E+01	9.07E+02	1.14E+04	1.97E+00	1.50E-02	3.54E-03
12:30	04:30	1.64E+01	5.38E+02	1.50E+03	6.37E-01	2.95E+02	6.96E+01
12:35	04:35	9.02E+01	2.94E+03	8.20E+03	2.88E+00	1.62E+03	3.83E+02
12:40	04:40	1.64E+02	5.31E+03	1.48E+04	4.30E+00	2.95E+03	6.96E+02
12:45	04:45	2.46E+02	7.91E+03	2.21E+04	5.31E+00	4.43E+03	1.04E+03
13:00	05:00	8.16E+02	2.59E+04	7.21E+04	9.83E+00	1.47E+04	3.48E+03
13:15	05:15	8.13E+02	2.54E+04	7.07E+04	5.47E+00	1.47E+04	3.48E+03
13:30	05:30	8.11E+02	2.49E+04	6.94E+04	3.04E+00	1.47E+04	3.48E+03
13:45	05:45	8.08E+02	2.45E+04	6.82E+04	1.69E+00	1.47E+04	3.48E+03
14:00	06:00	8.06E+02	2.40E+04	6.70E+04	9.39E-01	1.47E+04	3.48E+03
14:15	06:15	8.03E+02	2.35E+04	6.59E+04	5.22E-01	1.47E+04	3.48E+03
14:30	06:30	8.00E+02	2.31E+04	6.49E+04	2.90E-01	1.47E+04	3.48E+03
14:45	06:45	7.98E+02	2.27E+04	6.39E+04	1.61E-01	1.47E+04	3.48E+03
15:00	07:00	7.95E+02	2.22E+04	6.29E+04	8.96E-02	1.47E+04	3.48E+03
15:15	07:15	7.93E+02	2.18E+04	6.20E+04	4.98E-02	1.47E+04	3.48E+03
15:30	07:30	7.90E+02	2.14E+04	6.12E+04	2.77E-02	1.47E+04	3.48E+03
15:45	07:45	7.88E+02	2.10E+04	6.04E+04	1.54E-02	1.47E+04	3.48E+03
16:00	08:00	7.85E+02	2.06E+04	5.96E+04	8.55E-03	1.47E+04	3.48E+03

Reactor Coolant System Concentrations
 Hope Creek Nuclear Generating Station
 10/25/94

Clock Time	Drill Time	Mo-99 uCi/cc	Te-129 uCi/cc	Te-132 uCi/cc	Cs-134 uCi/cc	Cs-137 uCi/cc	Ba-140 uCi/cc
08:00	00:00	3.02E-01	1.21E-04	4.26E-04	1.72E-02	4.94E-03	< LLD
08:15	00:15	3.02E-01	1.21E-04	4.26E-04	1.72E-02	4.94E-03	< LLD
08:30	00:30	3.02E-01	1.21E-04	4.26E-04	1.72E-02	4.94E-03	< LLD
08:45	00:45	3.02E-01	1.21E-04	4.26E-04	1.72E-02	4.94E-03	< LLD
09:00	01:00	3.02E-01	1.21E-04	4.26E-04	1.72E-02	4.94E-03	< LLD
09:15	01:15	3.02E-01	1.21E-04	4.26E-04	1.72E-02	4.94E-03	< LLD
09:30	01:30	3.02E-01	1.21E-04	4.26E-04	1.72E-02	4.94E-03	< LLD
09:45	01:45	3.02E-01	1.21E-04	4.26E-04	1.72E-02	4.94E-03	< LLD
09:50	01:50	3.02E-01	1.18E-04	4.26E-04	1.72E-02	4.94E-03	< LLD
10:00	02:00	3.01E-01	1.07E-04	4.25E-04	1.72E-02	4.94E-03	< LLD
10:15	02:15	3.00E-01	9.16E-05	4.24E-04	1.72E-02	4.94E-03	< LLD
10:30	02:30	2.99E-01	7.88E-05	4.23E-04	1.72E-02	4.94E-03	< LLD
10:45	02:45	2.99E-01	6.78E-05	4.22E-04	1.72E-02	4.94E-03	< LLD
11:00	03:00	2.98E-01	5.83E-05	4.21E-04	1.72E-02	4.94E-03	< LLD
11:15	03:15	2.97E-01	5.02E-05	4.20E-04	1.72E-02	4.94E-03	< LLD
11:30	03:30	2.96E-01	4.31E-05	4.19E-04	1.72E-02	4.94E-03	< LLD
11:35	03:35	2.96E-01	4.10E-05	4.19E-04	1.72E-02	4.94E-03	< LLD
11:40	03:40	2.96E-01	3.90E-05	4.19E-04	1.72E-02	4.94E-03	< LLD
11:45	03:45	2.96E-01	3.71E-05	4.19E-04	1.72E-02	4.94E-03	< LLD
12:00	04:00	2.95E-01	3.19E-05	4.18E-04	1.72E-02	4.94E-03	< LLD
12:15	04:15	2.94E-01	2.75E-05	4.17E-04	1.72E-02	4.94E-03	< LLD
12:20	04:20	6.37E+02	5.66E-02	9.02E-01	3.73E+01	1.07E+01	1.22E-02
12:25	04:25	1.49E+03	1.26E-01	2.12E+00	8.76E+01	2.51E+01	2.87E-02
12:30	04:30	5.87E+02	2.36E+01	4.16E+02	3.44E+01	9.88E+00	5.64E+02
12:35	04:35	3.22E+03	1.24E+02	2.29E+03	1.89E+02	5.43E+01	3.10E+03
12:40	04:40	5.86E+03	2.14E+02	4.15E+03	3.44E+02	9.88E+01	5.64E+03
12:45	04:45	8.78E+03	3.05E+02	6.22E+03	5.17E+02	1.48E+02	8.46E+03
13:00	05:00	2.92E+04	8.74E+02	2.07E+04	1.72E+03	4.94E+02	2.82E+04
13:15	05:15	2.91E+04	7.51E+02	2.07E+04	1.72E+03	4.94E+02	2.82E+04
13:30	05:30	2.90E+04	6.46E+02	2.06E+04	1.72E+03	4.94E+02	2.82E+04
13:45	05:45	2.90E+04	5.56E+02	2.06E+04	1.72E+03	4.94E+02	2.81E+04
14:00	06:00	2.89E+04	4.78E+02	2.05E+04	1.72E+03	4.94E+02	2.81E+04
14:15	06:15	2.88E+04	4.11E+02	2.05E+04	1.72E+03	4.94E+02	2.81E+04
14:30	06:30	2.87E+04	3.54E+02	2.04E+04	1.72E+03	4.94E+02	2.81E+04
14:45	06:45	2.87E+04	3.04E+02	2.04E+04	1.72E+03	4.94E+02	2.81E+04
15:00	07:00	2.86E+04	2.62E+02	2.03E+04	1.72E+03	4.94E+02	2.81E+04
15:15	07:15	2.85E+04	2.25E+02	2.03E+04	1.72E+03	4.94E+02	2.80E+04
15:30	07:30	2.84E+04	1.94E+02	2.02E+04	1.72E+03	4.94E+02	2.80E+04
15:45	07:45	2.84E+04	1.67E+02	2.02E+04	1.72E+03	4.94E+02	2.80E+04
16:00	08:00	2.83E+04	1.43E+02	2.02E+04	1.72E+03	4.94E+02	2.80E+04

Reactor Coolant System Concentrations
 Hope Creek Nuclear Generating Station
 10/25/94

Clock Time	Drill Time	La-140 uCi/cc	La-142 uCi/cc	Ce-144 uCi/cc	Total Particulate uCi/cc	Gross Activity uCi/cc
08:00	00:00	6.03E-06	8.73E-06	2.21E-04	5.13E-01	3.45E+00
08:15	00:15	6.03E-06	8.73E-06	2.21E-04	5.13E-01	3.45E+00
08:30	00:30	6.03E-06	8.73E-06	2.21E-04	5.13E-01	3.45E+00
08:45	00:45	6.03E-06	8.73E-06	2.21E-04	5.13E-01	3.45E+00
09:00	01:00	6.03E-06	8.73E-06	2.21E-04	5.13E-01	3.45E+00
09:15	01:15	6.03E-06	8.73E-06	2.21E-04	5.13E-01	3.45E+00
09:30	01:30	6.03E-06	8.73E-06	2.21E-04	5.13E-01	3.45E+00
09:45	01:45	6.03E-06	8.73E-06	2.21E-04	5.13E-01	3.45E+00
09:50	01:50	6.03E-06	8.54E-06	2.21E-04	4.92E-01	3.42E+00
10:00	02:00	6.01E-06	7.92E-06	2.21E-04	4.37E-01	3.32E+00
10:15	02:15	5.99E-06	7.08E-06	2.21E-04	3.86E-01	3.22E+00
10:30	02:30	5.96E-06	6.32E-06	2.21E-04	3.57E-01	3.14E+00
10:45	02:45	5.93E-06	5.65E-06	2.21E-04	3.41E-01	3.08E+00
11:00	03:00	5.91E-06	5.05E-06	2.21E-04	3.32E-01	3.03E+00
11:15	03:15	5.88E-06	4.51E-06	2.21E-04	3.26E-01	2.99E+00
11:30	03:30	5.86E-06	4.03E-06	2.21E-04	3.23E-01	2.96E+00
11:35	03:35	5.85E-06	3.88E-06	2.21E-04	3.22E-01	2.94E+00
11:40	03:40	5.84E-06	3.74E-06	2.21E-04	3.21E-01	2.93E+00
11:45	03:45	5.83E-06	3.60E-06	2.21E-04	3.20E-01	2.92E+00
12:00	04:00	5.81E-06	3.22E-06	2.21E-04	3.19E-01	2.90E+00
12:15	04:15	5.78E-06	2.88E-06	2.21E-04	3.17E-01	2.87E+00
12:20	04:20	1.25E-02	6.01E-03	4.78E-01	6.87E+02	6.20E+03
12:25	04:25	2.93E-02	1.36E-02	1.12E+00	1.61E+03	1.45E+04
12:30	04:30	5.76E+02	2.57E+02	2.21E+02	3.05E+03	6.26E+03
12:35	04:35	3.16E+03	1.36E+03	1.21E+03	1.67E+04	3.42E+04
12:40	04:40	5.74E+03	2.39E+03	2.21E+03	3.03E+04	6.18E+04
12:45	04:45	8.60E+03	3.45E+03	3.31E+03	4.53E+04	9.22E+04
13:00	05:00	2.85E+04	1.03E+04	1.10E+04	1.49E+05	3.02E+05
13:15	05:15	2.84E+04	9.17E+03	1.10E+04	1.48E+05	2.97E+05
13:30	05:30	2.83E+04	8.20E+03	1.10E+04	1.46E+05	2.92E+05
13:45	05:45	2.82E+04	7.33E+03	1.10E+04	1.45E+05	2.88E+05
14:00	06:00	2.81E+04	6.55E+03	1.10E+04	1.44E+05	2.84E+05
14:15	06:15	2.79E+04	5.85E+03	1.10E+04	1.43E+05	2.81E+05
14:30	06:30	2.78E+04	5.23E+03	1.10E+04	1.42E+05	2.77E+05
14:45	06:45	2.77E+04	4.67E+03	1.10E+04	1.41E+05	2.74E+05
15:00	07:00	2.76E+04	4.17E+03	1.10E+04	1.40E+05	2.71E+05
15:15	07:15	2.75E+04	3.73E+03	1.10E+04	1.40E+05	2.68E+05
15:30	07:30	2.73E+04	3.33E+03	1.10E+04	1.39E+05	2.66E+05
15:45	07:45	2.72E+04	2.98E+03	1.10E+04	1.38E+05	2.63E+05
16:00	08:00	2.71E+04	2.66E+03	1.10E+04	1.38E+05	2.61E+05

Reactor Coolant System Pass Sample Data
 Hope Creek Nuclear Generating Station
 10/25/94

Clock Time	Drill Time	Undiluted Sample @ Contact mR/hr	Undiluted Sample @ 1 Foot mR/hr	Diluted Sample @ Contact mR/hr	Diluted Sample @ 1 Foot mR/hr
08:00	00:00	9.66E-01	< 0.2	< 0.2	< 0.2
08:15	00:15	9.66E-01	< 0.2	< 0.2	< 0.2
08:30	00:30	9.66E-01	< 0.2	< 0.2	< 0.2
08:45	00:45	9.66E-01	< 0.2	< 0.2	< 0.2
09:00	01:00	9.66E-01	< 0.2	< 0.2	< 0.2
09:15	01:15	9.66E-01	< 0.2	< 0.2	< 0.2
09:30	01:30	9.66E-01	< 0.2	< 0.2	< 0.2
09:45	01:45	9.66E-01	< 0.2	< 0.2	< 0.2
09:47	01:47	9.66E-01	< 0.2	< 0.2	< 0.2
09:50	01:50	9.57E-01	< 0.2	< 0.2	< 0.2
10:00	02:00	9.30E-01	< 0.2	< 0.2	< 0.2
10:15	02:15	9.01E-01	< 0.2	< 0.2	< 0.2
10:30	02:30	8.79E-01	< 0.2	< 0.2	< 0.2
10:45	02:45	8.62E-01	< 0.2	< 0.2	< 0.2
11:00	03:00	8.49E-01	< 0.2	< 0.2	< 0.2
11:15	03:15	8.37E-01	< 0.2	< 0.2	< 0.2
11:30	03:30	8.27E-01	< 0.2	< 0.2	< 0.2
11:35	03:35	8.24E-01	< 0.2	< 0.2	< 0.2
11:40	03:40	8.21E-01	< 0.2	< 0.2	< 0.2
1:45	03:45	8.19E-01	< 0.2	< 0.2	< 0.2
2:00	04:00	8.11E-01	< 0.2	< 0.2	< 0.2
12:15	04:15	8.03E-01	< 0.2	< 0.2	< 0.2
12:20	04:20	1.74E+03	3.01E+00	1.74E+01	< 0.2
12:25	04:25	4.06E+03	7.05E+00	4.06E+01	< 0.2
12:30	04:30	1.75E+03	3.04E+00	1.75E+01	< 0.2
12:35	04:35	9.58E+03	1.66E+01	9.58E+01	< 0.2
12:40	04:40	1.73E+04	3.01E+01	1.73E+02	3.01E-01
12:45	04:45	2.58E+04	4.48E+01	2.58E+02	4.48E-01
12:50	04:50	8.55E+04	1.48E+02	8.55E+02	1.48E+00
12:55	04:55	8.50E+04	1.48E+02	8.50E+02	1.48E+00
13:00	05:00	8.45E+04	1.47E+02	8.45E+02	1.47E+00
13:05	05:05	8.40E+04	1.46E+02	8.40E+02	1.46E+00
13:10	05:10	8.36E+04	1.45E+02	8.36E+02	1.45E+00
13:15	05:15	8.31E+04	1.44E+02	8.31E+02	1.44E+00
13:20	05:20	8.27E+04	1.44E+02	8.27E+02	1.44E+00
13:25	05:25	8.23E+04	1.43E+02	8.23E+02	1.43E+00
13:30	05:30	8.19E+04	1.42E+02	8.19E+02	1.42E+00
13:35	05:35	8.15E+04	1.41E+02	8.15E+02	1.41E+00
13:40	05:40	8.11E+04	1.41E+02	8.11E+02	1.41E+00
13:45	05:45	8.07E+04	1.40E+02	8.07E+02	1.40E+00
14:00	06:00	7.96E+04	1.38E+02	7.96E+02	1.38E+00
14:15	06:15	7.86E+04	1.36E+02	7.86E+02	1.36E+00
14:30	06:30	7.76E+04	1.35E+02	7.76E+02	1.35E+00
14:45	06:45	7.68E+04	1.33E+02	7.68E+02	1.33E+00
15:00	07:00	7.59E+04	1.32E+02	7.59E+02	1.32E+00
15:15	07:15	7.51E+04	1.30E+02	7.51E+02	1.30E+00
15:30	07:30	7.44E+04	1.29E+02	7.44E+02	1.29E+00
15:45	07:45	7.37E+04	1.28E+02	7.37E+02	1.28E+00
16:00	08:00	7.30E+04	1.27E+02	7.30E+02	1.27E+00

Chemistry Data
 Hope Creek Nuclear Generating Station
 09/08/94

Clock Time	Drill Time	Chlorides PPB	Conductivity uS/cm	Dissolved O ₂ PPB	PH S.U.	Silica PPM	Zinc PPB
08:00	00:00	0.76	0.080	< 5	6.8	0.10	0.10
08:15	00:15	0.76	0.080	< 5	6.8	0.10	0.10
08:30	00:30	0.76	0.080	< 5	6.8	0.10	0.10
08:45	00:45	0.76	0.080	< 5	6.8	0.10	0.10
09:00	01:00	0.76	0.080	< 5	6.8	0.10	0.10
09:15	01:15	0.76	0.080	< 5	6.8	0.10	0.10
09:30	01:30	0.76	0.080	< 5	6.8	0.10	0.10
09:45	01:45	0.76	0.080	< 5	6.8	0.10	0.10
10:00	02:00	0.76	0.080	< 5	6.8	0.10	0.12
10:15	02:15	0.78	0.082	< 5	6.8	0.11	0.13
10:30	02:30	0.79	0.083	< 5	6.8	0.11	0.15
10:45	02:45	0.81	0.085	< 5	6.8	0.11	0.16
11:00	03:00	0.82	0.086	< 5	6.9	0.11	0.16
11:15	03:15	0.84	0.088	< 5	6.9	0.12	0.18
11:30	03:30	0.85	0.089	< 5	6.9	0.12	0.19
11:45	03:45	4.24	0.120	< 5	6.9	0.13	0.19
12:00	04:00	9.87	0.170	< 5	6.9	0.15	0.18
12:15	04:15	15.50	0.220	< 5	6.9	0.18	0.17
12:30	04:30	21.14	0.270	< 5	6.9	0.20	0.16
12:45	04:45	26.77	0.320	< 5	6.9	0.22	0.15
13:00	05:00	32.40	0.370	< 5	6.9	0.24	0.14
13:15	05:15	38.03	0.420	< 5	6.9	0.26	0.13
13:30	05:30	43.67	0.470	< 5	6.9	0.28	0.11
13:45	05:45	49.30	0.520	< 5	6.9	0.31	0.10
14:00	06:00	54.93	0.570	< 5	7.0	0.33	0.09
14:15	06:15	60.56	0.620	< 5	7.0	0.35	0.08
14:30	06:30	66.20	0.670	< 5	7.0	0.37	0.07
14:45	06:45	71.83	0.720	< 5	7.0	0.39	0.06
15:00	07:00	77.46	0.770	< 5	7.0	0.41	0.05
15:15	07:15	83.09	0.820	< 5	7.0	0.44	0.03
15:30	07:30	88.73	0.870	< 5	7.0	0.46	0.02
15:45	07:45	94.36	0.920	< 5	7.0	0.48	0.01
16:00	08:00	99.99	0.970	< 5	7.0	0.50	0.00

Main Steam Concentrations
 Hope Creek Nuclear Generating Station
 10/25/94

Clock Time	Drill Time	I-131 uCi/cc	I-132 uCi/cc	I-133 uCi/cc	I-134 uCi/cc	I-135 uCi/cc	Total Iodine uCi/cc
08:00	00:00	1.05E-03	1.59E-03	2.34E-03	2.74E-03	2.14E-03	9.86E-03
08:15	00:15	1.05E-03	1.59E-03	2.34E-03	2.74E-03	2.14E-03	9.86E-03
08:30	00:30	1.05E-03	1.59E-03	2.34E-03	2.74E-03	2.14E-03	9.86E-03
08:45	00:45	1.05E-03	1.59E-03	2.34E-03	2.74E-03	2.14E-03	9.86E-03
09:00	01:00	1.05E-03	1.59E-03	2.34E-03	2.74E-03	2.14E-03	9.86E-03
09:15	01:15	1.05E-03	1.59E-03	2.34E-03	2.74E-03	2.14E-03	9.86E-03
09:30	01:30	1.05E-03	1.59E-03	2.34E-03	2.74E-03	2.14E-03	9.86E-03
09:45	01:45	1.05E-03	1.59E-03	2.34E-03	2.74E-03	2.14E-03	9.86E-03
09:50	01:50	< LLD	< LLD	< LLD	< LLD	< LLD	N/A
10:00	02:00	< LLD	< LLD	< LLD	< LLD	< LLD	N/A
10:15	02:15	< LLD	< LLD	< LLD	< LLD	< LLD	N/A
10:30	02:30	< LLD	< LLD	< LLD	< LLD	< LLD	N/A
10:45	02:45	< LLD	< LLD	< LLD	< LLD	< LLD	N/A
11:00	03:00	< LLD	< LLD	< LLD	< LLD	< LLD	N/A
11:15	03:15	< LLD	< LLD	< LLD	< LLD	< LLD	N/A
11:30	03:30	< LLD	< LLD	< LLD	< LLD	< LLD	N/A
11:35	03:35	< LLD	< LLD	< LLD	< LLD	< LLD	N/A
11:40	03:40	< LLD	< LLD	< LLD	< LLD	< LLD	N/A
11:45	03:45	< LLD	< LLD	< LLD	< LLD	< LLD	N/A
12:00	04:00	< LLD	< LLD	< LLD	< LLD	< LLD	N/A
12:15	04:15	< LLD	< LLD	< LLD	< LLD	< LLD	N/A
12:20	04:20	< LLD	< LLD	< LLD	< LLD	< LLD	N/A
12:25	04:25	< LLD	< LLD	< LLD	< LLD	< LLD	N/A
12:30	04:30	< LLD	< LLD	< LLD	< LLD	< LLD	N/A
12:35	04:35	< LLD	< LLD	< LLD	< LLD	< LLD	N/A
12:40	04:40	< LLD	< LLD	< LLD	< LLD	< LLD	N/A
12:45	04:45	< LLD	< LLD	< LLD	< LLD	< LLD	N/A
13:00	05:00	< LLD	< LLD	< LLD	< LLD	< LLD	N/A
13:15	05:15	< LLD	< LLD	< LLD	< LLD	< LLD	N/A
13:30	05:30	< LLD	< LLD	< LLD	< LLD	< LLD	N/A
13:45	05:45	< LLD	< LLD	< LLD	< LLD	< LLD	N/A
14:00	06:00	< LLD	< LLD	< LLD	< LLD	< LLD	N/A
14:15	06:15	< LLD	< LLD	< LLD	< LLD	< LLD	N/A
14:30	06:30	< LLD	< LLD	< LLD	< LLD	< LLD	N/A
14:45	06:45	< LLD	< LLD	< LLD	< LLD	< LLD	N/A
15:00	07:00	< LLD	< LLD	< LLD	< LLD	< LLD	N/A
15:15	07:15	< LLD	< LLD	< LLD	< LLD	< LLD	N/A
15:30	07:30	< LLD	< LLD	< LLD	< LLD	< LLD	N/A
15:45	07:45	< LLD	< LLD	< LLD	< LLD	< LLD	N/A
16:00	08:00	< LLD	< LLD	< LLD	< LLD	< LLD	N/A

Main Steam Concentrations
 Hope Creek Nuclear Generating Station
 10/25/94

Clock Time	Drill Time	DEI uCi/cc	Kr-85 uCi/cc	Kr-87 uCi/cc	Kr-88 uCi/cc	Xe-131m uCi/cc	Xe-133 uCi/cc
08:00	00:00	2.02E-03	4.36E-04	9.36E-02	1.29E-01	1.04E-03	1.98E+00
08:15	00:15	2.02E-03	4.36E-04	9.36E-02	1.29E-01	1.04E-03	1.98E+00
08:30	00:30	2.02E-03	4.36E-04	9.36E-02	1.29E-01	1.04E-03	1.98E+00
08:45	00:45	2.02E-03	4.36E-04	9.36E-02	1.29E-01	1.04E-03	1.98E+00
09:00	01:00	2.02E-03	4.36E-04	9.36E-02	1.29E-01	1.04E-03	1.98E+00
09:15	01:15	2.02E-03	4.36E-04	9.36E-02	1.29E-01	1.04E-03	1.98E+00
09:30	01:30	2.02E-03	4.36E-04	9.36E-02	1.29E-01	1.04E-03	1.98E+00
09:45	01:45	2.02E-03	4.36E-04	9.36E-02	1.29E-01	1.04E-03	1.98E+00
09:50	01:50	N/A	< LLD	< LLD	< LLD	< LLD	< LLD
10:00	02:00	N/A	< LLD	< LLD	< LLD	< LLD	< LLD
10:15	02:15	N/A	< LLD	< LLD	< LLD	< LLD	< LLD
10:30	02:30	N/A	< LLD	< LLD	< LLD	< LLD	< LLD
10:45	02:45	N/A	< LLD	< LLD	< LLD	< LLD	< LLD
11:00	03:00	N/A	< LLD	< LLD	< LLD	< LLD	< LLD
11:15	03:15	N/A	< LLD	< LLD	< LLD	< LLD	< LLD
11:30	03:30	N/A	< LLD	< LLD	< LLD	< LLD	< LLD
11:35	03:35	N/A	< LLD	< LLD	< LLD	< LLD	< LLD
11:40	03:40	N/A	< LLD	< LLD	< LLD	< LLD	< LLD
11:45	03:45	N/A	< LLD	< LLD	< LLD	< LLD	< LLD
12:00	04:00	N/A	< LLD	< LLD	< LLD	< LLD	< LLD
12:15	04:15	N/A	< LLD	< LLD	< LLD	< LLD	< LLD
12:20	04:20	N/A	< LLD	< LLD	< LLD	< LLD	< LLD
12:25	04:25	N/A	< LLD	< LLD	< LLD	< LLD	< LLD
12:30	04:30	N/A	< LLD	< LLD	< LLD	< LLD	< LLD
12:35	04:35	N/A	< LLD	< LLD	< LLD	< LLD	< LLD
12:40	04:40	N/A	< LLD	< LLD	< LLD	< LLD	< LLD
12:45	04:45	N/A	< LLD	< LLD	< LLD	< LLD	< LLD
13:00	05:00	N/A	< LLD	< LLD	< LLD	< LLD	< LLD
13:15	05:15	N/A	< LLD	< LLD	< LLD	< LLD	< LLD
13:30	05:30	N/A	< LLD	< LLD	< LLD	< LLD	< LLD
13:45	05:45	N/A	< LLD	< LLD	< LLD	< LLD	< LLD
14:00	06:00	N/A	< LLD	< LLD	< LLD	< LLD	< LLD
14:15	06:15	N/A	< LLD	< LLD	< LLD	< LLD	< LLD
14:30	06:30	N/A	< LLD	< LLD	< LLD	< LLD	< LLD
14:45	06:45	N/A	< LLD	< LLD	< LLD	< LLD	< LLD
15:00	07:00	N/A	< LLD	< LLD	< LLD	< LLD	< LLD
15:15	07:15	N/A	< LLD	< LLD	< LLD	< LLD	< LLD
15:30	07:30	N/A	< LLD	< LLD	< LLD	< LLD	< LLD
15:45	07:45	N/A	< LLD	< LLD	< LLD	< LLD	< LLD
16:00	08:00	N/A	< LLD	< LLD	< LLD	< LLD	< LLD

Main Steam Concentrations
 Hope Creek Nuclear Generating Station
 10/25/94

Clock Time	Drill Time	Xe-133m uCi/cc	Xe-135 uCi/cc	Total Noble Gas uCi/cc	Rb-88 uCi/cc	Sr-89 uCi/cc	Sr-90 uCi/cc
08:00	00:00	5.55E-03	2.16E-01	2.42E+00	1.88E-04	< LLD	< LLD
08:15	00:15	5.55E-03	2.16E-01	2.42E+00	1.88E-04	< LLD	< LLD
08:30	00:30	5.55E-03	2.16E-01	2.42E+00	1.88E-04	< LLD	< LLD
08:45	00:45	5.55E-03	2.16E-01	2.42E+00	1.88E-04	< LLD	< LLD
09:00	01:00	5.55E-03	2.16E-01	2.42E+00	1.88E-04	< LLD	< LLD
09:15	01:15	5.55E-03	2.16E-01	2.42E+00	1.88E-04	< LLD	< LLD
09:30	01:30	5.55E-03	2.16E-01	2.42E+00	1.88E-04	< LLD	< LLD
09:45	01:45	5.55E-03	2.16E-01	2.42E+00	1.88E-04	< LLD	< LLD
09:50	01:50	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
10:00	02:00	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
10:15	02:15	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
10:30	02:30	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
10:45	02:45	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
11:00	03:00	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
11:15	03:15	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
11:30	03:30	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
11:35	03:35	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
11:40	03:40	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
11:45	03:45	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
12:00	04:00	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
12:15	04:15	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
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12:30	04:30	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
12:35	04:35	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
12:40	04:40	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
12:45	04:45	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
13:00	05:00	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
13:15	05:15	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
13:30	05:30	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
13:45	05:45	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
14:00	06:00	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
14:15	06:15	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
14:30	06:30	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
14:45	06:45	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
15:00	07:00	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
15:15	07:15	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
15:30	07:30	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
15:45	07:45	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
16:00	08:00	< LLD	< LLD	N/A	< LLD	< LLD	< LLD

Main Steam Concentrations
 Hope Creek Nuclear Generating Station
 10/25/94

Clock Drill		Mo-99	Te-129	Te-132	Cs-134	Cs-137	Ba-140
Time	Time	uCi/cc	uCi/cc	uCi/cc	uCi/cc	uCi/cc	uCi/cc
08:00	00:00	3.02E-04	< LLD	< LLD	1.72E-05	4.94E-06	< LLD
08:15	00:15	3.02E-04	< LLD	< LLD	1.72E-05	4.94E-06	< LLD
08:30	00:30	3.02E-04	< LLD	< LLD	1.72E-05	4.94E-06	< LLD
08:45	00:45	3.02E-04	< LLD	< LLD	1.72E-05	4.94E-06	< LLD
09:00	01:00	3.02E-04	< LLD	< LLD	1.72E-05	4.94E-06	< LLD
09:15	01:15	3.02E-04	< LLD	< LLD	1.72E-05	4.94E-06	< LLD
09:30	01:30	3.02E-04	< LLD	< LLD	1.72E-05	4.94E-06	< LLD
09:45	01:45	3.02E-04	< LLD	< LLD	1.72E-05	4.94E-06	< LLD
09:50	01:50	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
10:00	02:00	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
10:15	02:15	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
10:30	02:30	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
10:45	02:45	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
11:00	03:00	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
11:15	03:15	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
11:30	03:30	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
11:35	03:35	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
11:40	03:40	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
11:45	03:45	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
12:00	04:00	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
12:15	04:15	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
12:20	04:20	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
12:25	04:25	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
12:30	04:30	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
12:35	04:35	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
12:40	04:40	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
12:45	04:45	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
13:00	05:00	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
13:15	05:15	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
13:30	05:30	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
13:45	05:45	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
14:00	06:00	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
14:15	06:15	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
14:30	06:30	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
14:45	06:45	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
15:00	07:00	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
15:15	07:15	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
15:30	07:30	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
15:45	07:45	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
16:00	08:00	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD

Main Steam Concentrations
 Hope Creek Nuclear Generating Station
 10/25/94

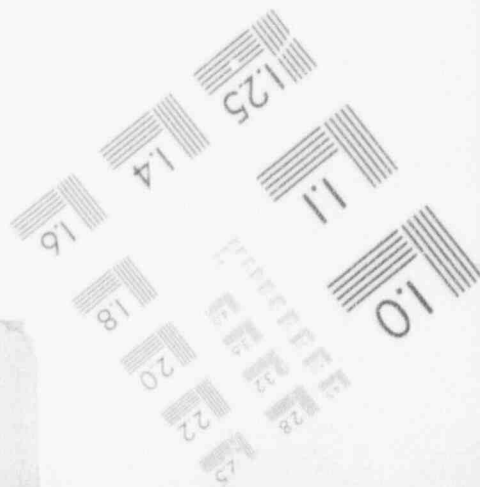
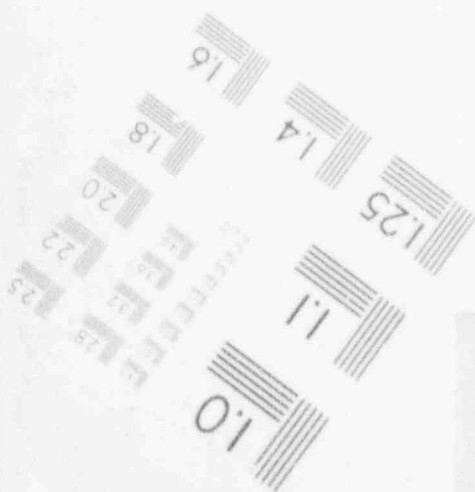
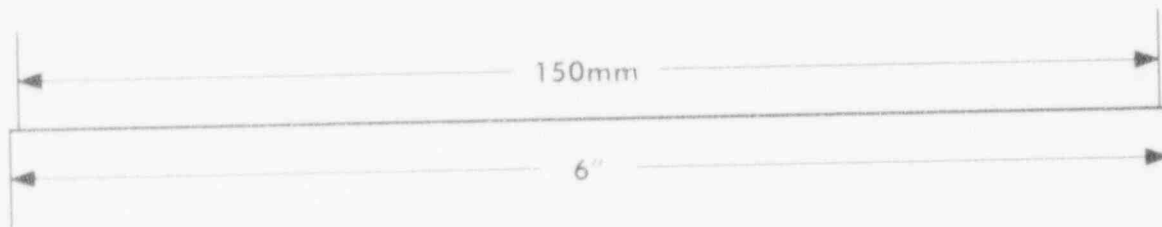
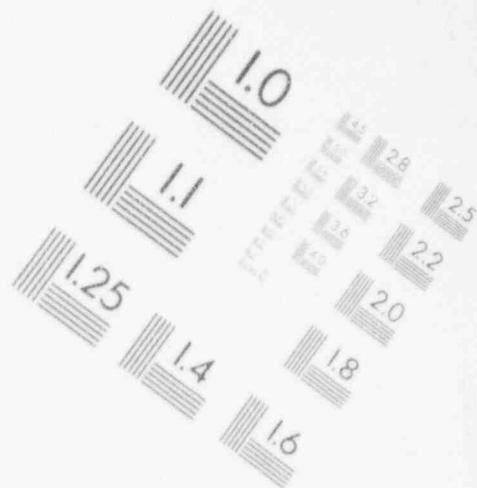
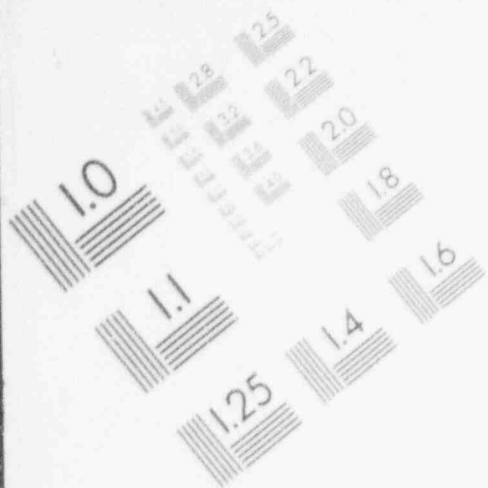
Clock Time	Drill Time	La-140 uCi/cc	La-142 uCi/cc	Ce-144 uCi/cc	Total Particulate uCi/cc	Gross Activity uCi/cc
08:00	00:00	< LLD	< LLD	< LLD	5.13E-04	2.43E+00
08:15	00:15	< LLD	< LLD	< LLD	5.13E-04	2.43E+00
08:30	00:30	< LLD	< LLD	< LLD	5.13E-04	2.43E+00
08:45	00:45	< LLD	< LLD	< LLD	5.13E-04	2.43E+00
09:00	01:00	< LLD	< LLD	< LLD	5.13E-04	2.43E+00
09:15	01:15	< LLD	< LLD	< LLD	5.13E-04	2.43E+00
09:30	01:30	< LLD	< LLD	< LLD	5.13E-04	2.43E+00
09:45	01:45	< LLD	< LLD	< LLD	5.13E-04	2.43E+00
09:50	01:50	< LLD	< LLD	< LLD	N/A	N/A
10:00	02:00	< LLD	< LLD	< LLD	N/A	N/A
10:15	02:15	< LLD	< LLD	< LLD	N/A	N/A
10:30	02:30	< LLD	< LLD	< LLD	N/A	N/A
10:45	02:45	< LLD	< LLD	< LLD	N/A	N/A
11:00	03:00	< LLD	< LLD	< LLD	N/A	N/A
11:15	03:15	< LLD	< LLD	< LLD	N/A	N/A
11:30	03:30	< LLD	< LLD	< LLD	N/A	N/A
11:35	03:35	< LLD	< LLD	< LLD	N/A	N/A
11:40	03:40	< LLD	< LLD	< LLD	N/A	N/A
11:45	03:45	< LLD	< LLD	< LLD	N/A	N/A
12:00	04:00	< LLD	< LLD	< LLD	N/A	N/A
12:15	04:15	< LLD	< LLD	< LLD	N/A	N/A
12:20	04:20	< LLD	< LLD	< LLD	N/A	N/A
12:25	04:25	< LLD	< LLD	< LLD	N/A	N/A
12:30	04:30	< LLD	< LLD	< LLD	N/A	N/A
12:35	04:35	< LLD	< LLD	< LLD	N/A	N/A
12:40	04:40	< LLD	< LLD	< LLD	N/A	N/A
12:45	04:45	< LLD	< LLD	< LLD	N/A	N/A
13:00	05:00	< LLD	< LLD	< LLD	N/A	N/A
13:15	05:15	< LLD	< LLD	< LLD	N/A	N/A
13:30	05:30	< LLD	< LLD	< LLD	N/A	N/A
13:45	05:45	< LLD	< LLD	< LLD	N/A	N/A
14:00	06:00	< LLD	< LLD	< LLD	N/A	N/A
14:15	06:15	< LLD	< LLD	< LLD	N/A	N/A
14:30	06:30	< LLD	< LLD	< LLD	N/A	N/A
14:45	06:45	< LLD	< LLD	< LLD	N/A	N/A
15:00	07:00	< LLD	< LLD	< LLD	N/A	N/A
15:15	07:15	< LLD	< LLD	< LLD	N/A	N/A
15:30	07:30	< LLD	< LLD	< LLD	N/A	N/A
15:45	07:45	< LLD	< LLD	< LLD	N/A	N/A
16:00	08:00	< LLD	< LLD	< LLD	N/A	N/A

Torus Water Concentrations
 Hope Creek Nuclear Generating Station
 10/25/94

Clock Time	Drill Time	I-131 uCi/cc	I-132 uCi/cc	I-133 uCi/cc	I-134 uCi/cc	I-135 uCi/cc	Total Iodine uCi/cc
08:00	00:00	5.23E-05	7.96E-05	1.17E-04	1.37E-04	1.07E-04	4.93E-04
08:15	00:15	5.23E-05	7.96E-05	1.17E-04	1.37E-04	1.07E-04	4.93E-04
08:30	00:30	5.23E-05	7.96E-05	1.17E-04	1.37E-04	1.07E-04	4.93E-04
08:45	00:45	5.23E-05	7.96E-05	1.17E-04	1.37E-04	1.07E-04	4.93E-04
09:00	01:00	5.23E-05	7.96E-05	1.17E-04	1.37E-04	1.07E-04	4.93E-04
09:15	01:15	5.23E-05	7.96E-05	1.17E-04	1.37E-04	1.07E-04	4.93E-04
09:30	01:30	5.23E-05	7.96E-05	1.17E-04	1.37E-04	1.07E-04	4.93E-04
09:45	01:45	5.23E-05	7.96E-05	1.17E-04	1.37E-04	1.07E-04	4.93E-04
09:50	01:50	1.32E-04	2.00E-04	2.95E-04	3.45E-04	2.69E-04	1.24E-03
10:00	02:00	1.32E-04	2.00E-04	2.95E-04	3.45E-04	2.69E-04	1.24E-03
10:15	02:15	1.32E-04	2.00E-04	2.95E-04	3.45E-04	2.69E-04	1.24E-03
10:30	02:30	1.32E-04	2.00E-04	2.95E-04	3.45E-04	2.69E-04	1.24E-03
10:45	02:45	1.32E-04	2.00E-04	2.95E-04	3.45E-04	2.69E-04	1.24E-03
11:00	03:00	1.32E-04	2.00E-04	2.95E-04	3.45E-04	2.69E-04	1.24E-03
11:15	03:15	1.32E-04	2.00E-04	2.95E-04	3.45E-04	2.69E-04	1.24E-03
11:30	03:30	1.32E-04	2.00E-04	2.95E-04	3.45E-04	2.69E-04	1.24E-03
11:35	03:35	1.32E-04	2.00E-04	2.95E-04	3.45E-04	2.69E-04	1.24E-03
11:40	03:40	1.32E-04	2.00E-04	2.95E-04	3.45E-04	2.69E-04	1.24E-03
11:45	03:45	1.32E-04	2.00E-04	2.95E-04	3.45E-04	2.69E-04	1.24E-03
12:00	04:00	1.32E-04	2.00E-04	2.95E-04	3.45E-04	2.69E-04	1.24E-03
12:15	04:15	1.32E-04	2.00E-04	2.95E-04	3.45E-04	2.69E-04	1.24E-03
12:20	04:20	1.32E-04	2.01E-04	2.95E-04	3.45E-04	2.69E-04	1.24E-03
12:25	04:25	1.32E-04	2.01E-04	2.95E-04	3.45E-04	2.69E-04	1.24E-03
12:30	04:30	1.32E-04	2.01E-04	2.95E-04	3.45E-04	2.69E-04	1.24E-03
12:35	04:35	1.32E-04	2.01E-04	2.96E-04	3.45E-04	2.70E-04	1.24E-03
12:40	04:40	1.32E-04	2.01E-04	2.96E-04	3.45E-04	2.70E-04	1.25E-03
12:45	04:45	1.32E-04	2.01E-04	2.97E-04	3.45E-04	2.71E-04	1.25E-03
12:45	04:45	1.33E-04	2.01E-04	2.97E-04	3.45E-04	2.71E-04	1.25E-03
13:00	05:00	1.36E-04	2.03E-04	3.03E-04	3.46E-04	2.75E-04	1.26E-03
13:15	05:15	1.36E-04	2.03E-04	3.03E-04	3.46E-04	2.75E-04	1.26E-03
13:30	05:30	1.36E-04	2.02E-04	3.03E-04	3.45E-04	2.75E-04	1.26E-03
13:45	05:45	1.36E-04	2.02E-04	3.02E-04	3.45E-04	2.74E-04	1.26E-03
14:00	06:00	1.36E-04	2.02E-04	3.02E-04	3.45E-04	2.74E-04	1.26E-03
14:15	06:15	1.36E-04	2.02E-04	3.02E-04	3.45E-04	2.74E-04	1.26E-03
14:30	06:30	1.36E-04	2.02E-04	3.02E-04	3.45E-04	2.74E-04	1.26E-03
14:45	06:45	1.36E-04	2.02E-04	3.02E-04	3.45E-04	2.74E-04	1.26E-03
15:00	07:00	1.36E-04	2.02E-04	3.02E-04	3.45E-04	2.74E-04	1.26E-03
15:15	07:15	1.36E-04	2.02E-04	3.02E-04	3.45E-04	2.74E-04	1.26E-03
15:30	07:30	1.36E-04	2.02E-04	3.02E-04	3.45E-04	2.74E-04	1.26E-03
15:45	07:45	1.36E-04	2.01E-04	3.02E-04	3.45E-04	2.73E-04	1.26E-03
16:00	08:00	1.36E-04	2.01E-04	3.02E-04	3.45E-04	2.73E-04	1.26E-03

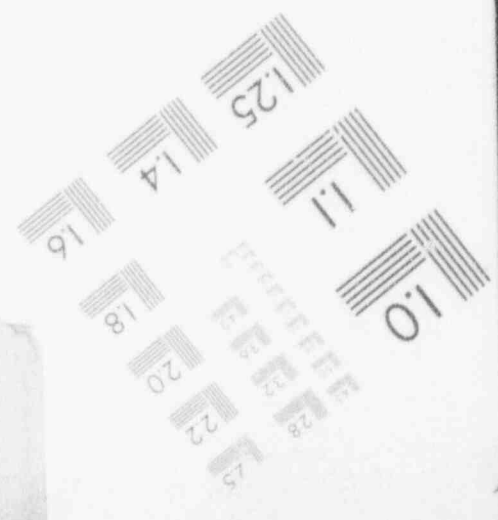
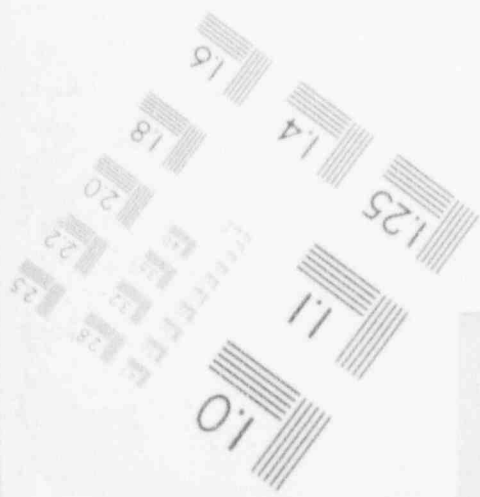
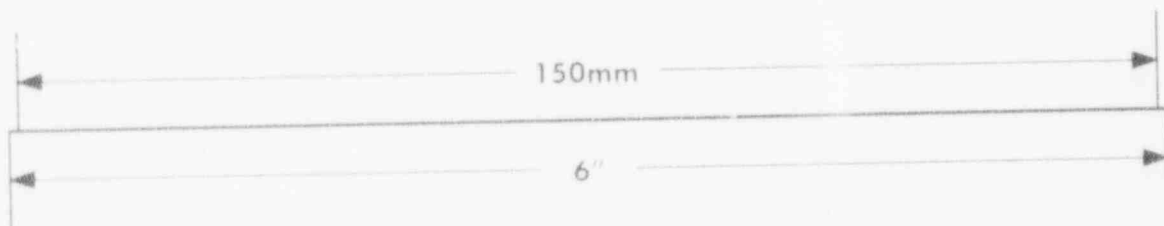
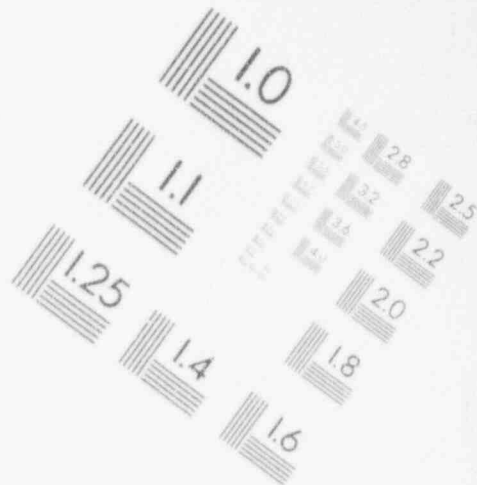
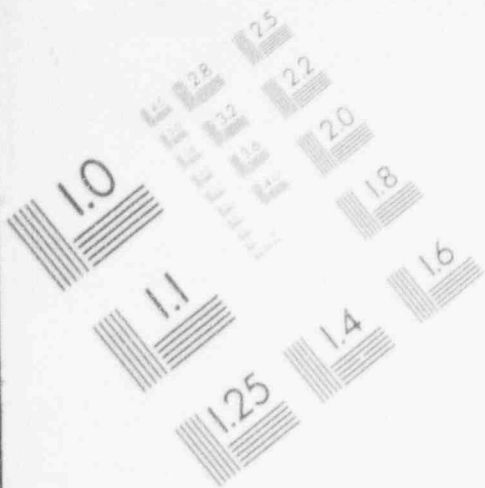
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IMAGE EVALUATION TEST TARGET (MT-3)



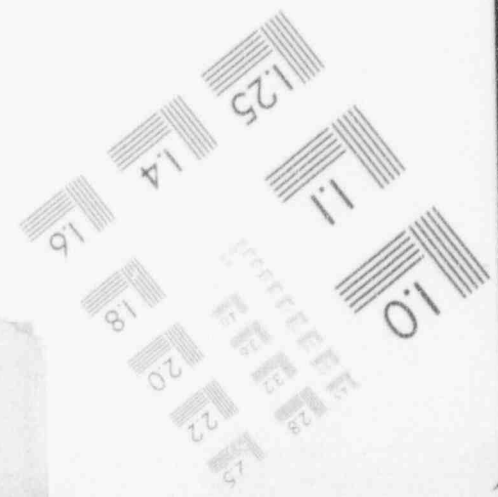
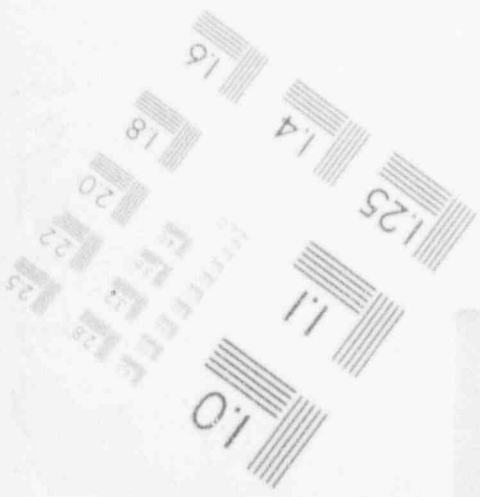
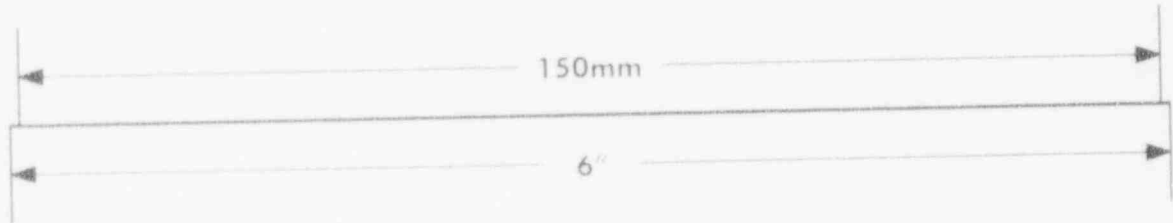
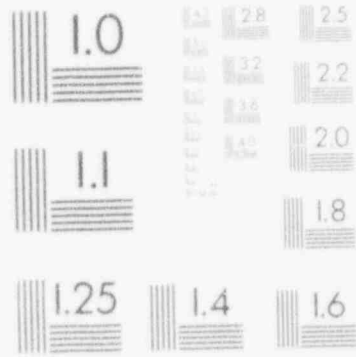
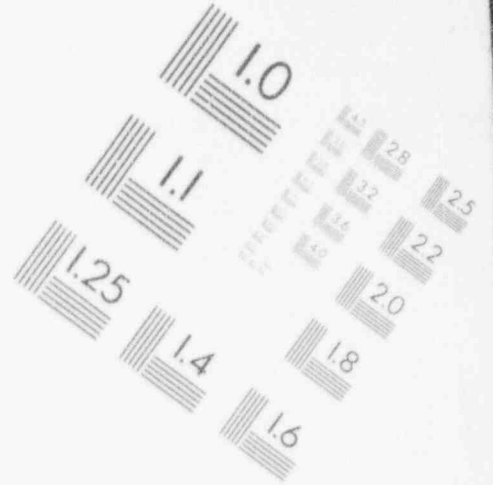
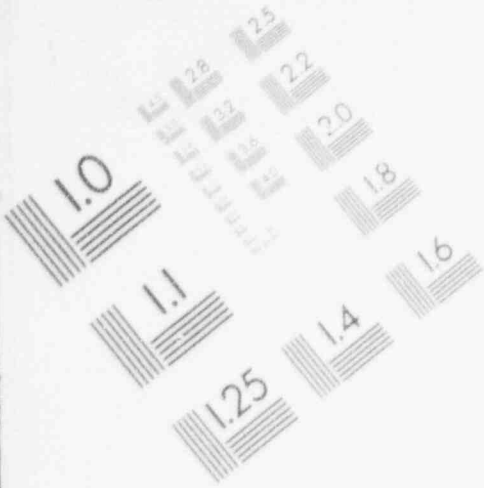
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IMAGE EVALUATION TEST TARGET (MT-3)



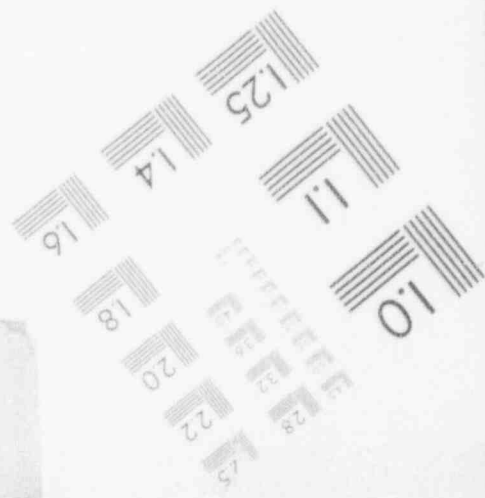
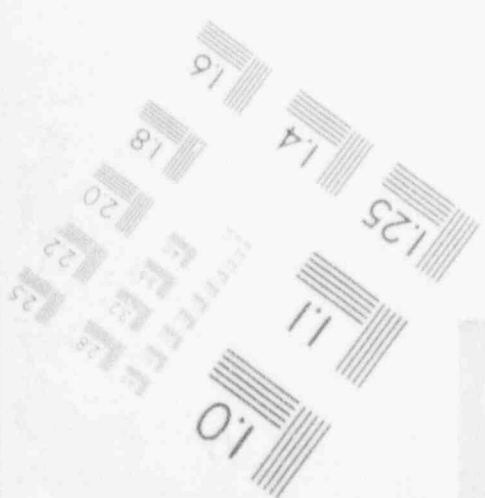
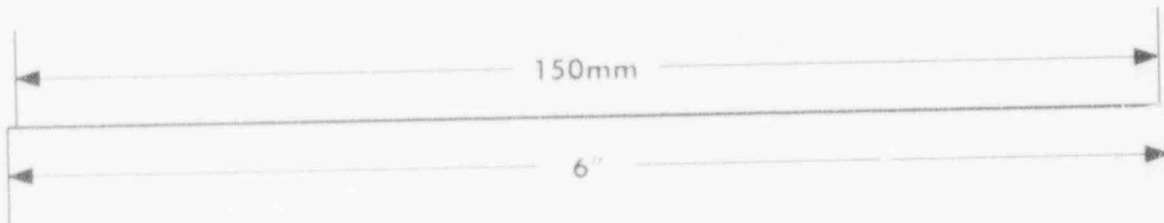
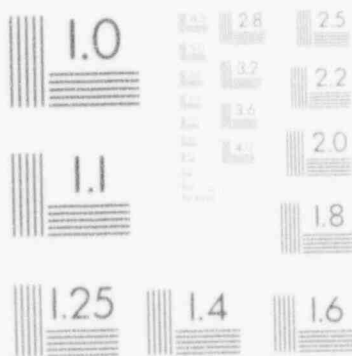
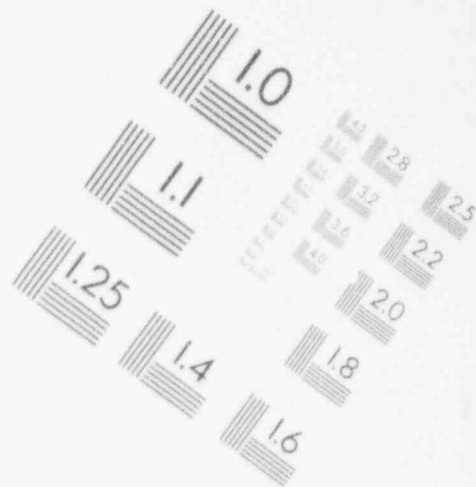
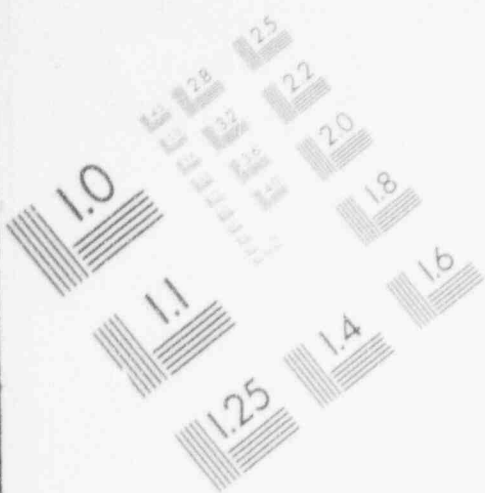
1

IMAGE EVALUATION TEST TARGET (MT-3)



1

IMAGE EVALUATION TEST TARGET (MT-3)



Torus Water Concentrations
 Hope Creek Nuclear Generating Station
 10/25/94

Clock Time	Drill Time	DEI uCi/cc	Kr-85 uCi/cc	Kr-87 uCi/cc	Kr-88 uCi/cc	Xe-131m uCi/cc	Xe-133 uCi/cc
08:00	00:00	1.01E-04	< LLD	9.45E-05	1.30E-04	< LLD	2.00E-03
08:15	00:15	1.01E-04	< LLD	9.45E-05	1.30E-04	< LLD	2.00E-03
08:30	00:30	1.01E-04	< LLD	9.45E-05	1.30E-04	< LLD	2.00E-03
08:45	00:45	1.01E-04	< LLD	9.45E-05	1.30E-04	< LLD	2.00E-03
09:00	01:00	1.01E-04	< LLD	9.45E-05	1.30E-04	< LLD	2.00E-03
09:15	01:15	1.01E-04	< LLD	9.45E-05	1.30E-04	< LLD	2.00E-03
09:30	01:30	1.01E-04	< LLD	9.45E-05	1.30E-04	< LLD	2.00E-03
09:45	01:45	1.01E-04	< LLD	9.45E-05	1.30E-04	< LLD	2.00E-03
09:50	01:50	2.54E-04	< LLD	7.20E-03	9.90E-03	8.00E-05	1.52E-01
10:00	02:00	2.54E-04	< LLD	7.20E-03	9.90E-03	8.00E-05	1.52E-01
10:15	02:15	2.54E-04	< LLD	7.20E-03	9.90E-03	8.00E-05	1.52E-01
10:30	02:30	2.54E-04	< LLD	7.20E-03	9.90E-03	8.00E-05	1.52E-01
10:45	02:45	2.54E-04	< LLD	7.20E-03	9.90E-03	8.00E-05	1.52E-01
11:00	03:00	2.54E-04	< LLD	7.20E-03	9.90E-03	8.00E-05	1.52E-01
11:15	03:15	2.54E-04	< LLD	7.20E-03	9.90E-03	8.00E-05	1.52E-01
11:30	03:30	2.54E-04	< LLD	7.20E-03	9.90E-03	8.00E-05	1.52E-01
11:35	03:35	2.54E-04	< LLD	7.20E-03	9.90E-03	8.00E-05	1.52E-01
11:40	03:40	2.54E-04	< LLD	7.20E-03	9.90E-03	8.00E-05	1.52E-01
11:45	03:45	2.54E-04	< LLD	7.20E-03	9.90E-03	8.00E-05	1.52E-01
12:00	04:00	2.54E-04	< LLD	7.20E-03	9.90E-03	8.00E-05	1.52E-01
12:15	04:15	2.54E-04	< LLD	7.20E-03	9.90E-03	8.00E-05	1.52E-01
12:20	04:20	2.54E-04	< LLD	7.20E-03	9.90E-03	8.00E-05	1.52E-01
12:25	04:25	2.54E-04	< LLD	7.20E-03	9.90E-03	8.00E-05	1.52E-01
12:30	04:30	2.54E-04	< LLD	7.20E-03	9.90E-03	8.00E-05	1.52E-01
12:35	04:35	2.54E-04	< LLD	7.20E-03	9.90E-03	8.00E-05	1.52E-01
12:40	04:40	2.55E-04	< LLD	7.20E-03	9.90E-03	8.00E-05	1.52E-01
12:45	04:45	2.55E-04	< LLD	7.20E-03	9.90E-03	8.00E-05	1.52E-01
13:00	05:00	2.59E-04	< LLD	7.20E-03	9.90E-03	8.00E-05	1.52E-01
13:15	05:15	2.59E-04	< LLD	7.20E-03	9.90E-03	8.00E-05	1.52E-01
13:30	05:30	2.59E-04	< LLD	7.20E-03	9.90E-03	8.00E-05	1.52E-01
13:45	05:45	2.59E-04	< LLD	7.20E-03	9.90E-03	8.00E-05	1.52E-01
14:00	06:00	2.59E-04	< LLD	7.20E-03	9.90E-03	8.00E-05	1.52E-01
14:15	06:15	2.59E-04	< LLD	7.20E-03	9.90E-03	8.00E-05	1.52E-01
14:30	06:30	2.59E-04	< LLD	7.20E-03	9.90E-03	8.00E-05	1.52E-01
14:45	06:45	2.59E-04	< LLD	7.20E-03	9.90E-03	8.00E-05	1.52E-01
15:00	07:00	2.59E-04	< LLD	7.20E-03	9.90E-03	8.00E-05	1.52E-01
15:15	07:15	2.59E-04	< LLD	7.20E-03	9.90E-03	8.00E-05	1.52E-01
15:30	07:30	2.59E-04	< LLD	7.20E-03	9.90E-03	8.00E-05	1.52E-01
15:45	07:45	2.59E-04	< LLD	7.20E-03	9.90E-03	8.00E-05	1.52E-01
16:00	08:00	2.59E-04	< LLD	7.20E-03	9.90E-03	8.00E-05	1.52E-01

Torus Water Concentrations
 Hope Creek Nuclear Generating Station
 10/25/94

Clock Time	Drill Time	Xe-133m uCi/cc	Xe-135 uCi/cc	Total Noble Gas uCi/cc	Rb-88 uCi/cc	Sr-89 uCi/cc	Sr-90 uCi/cc
08:00	00:00	5.61E-06	2.18E-04	2.45E-03	1.88E-04	< LLD	< LLD
08:15	00:15	5.61E-06	2.18E-04	2.45E-03	1.88E-04	< LLD	< LLD
08:30	00:30	5.61E-06	2.18E-04	2.45E-03	1.88E-04	< LLD	< LLD
08:45	00:45	5.61E-06	2.18E-04	2.45E-03	1.88E-04	< LLD	< LLD
09:00	01:00	5.61E-06	2.18E-04	2.45E-03	1.88E-04	< LLD	< LLD
09:15	01:15	5.61E-06	2.18E-04	2.45E-03	1.88E-04	< LLD	< LLD
09:30	01:30	5.61E-06	2.18E-04	2.45E-03	1.88E-04	< LLD	< LLD
09:45	01:45	5.61E-06	2.18E-04	2.45E-03	1.88E-04	< LLD	< LLD
09:50	01:50	4.27E-04	1.66E-02	1.86E-01	2.02E-04	< LLD	< LLD
10:00	02:00	4.27E-04	1.66E-02	1.86E-01	2.02E-04	< LLD	< LLD
10:15	02:15	4.27E-04	1.66E-02	1.86E-01	2.02E-04	< LLD	< LLD
10:30	02:30	4.27E-04	1.66E-02	1.86E-01	2.02E-04	< LLD	< LLD
10:45	02:45	4.27E-04	1.66E-02	1.86E-01	2.02E-04	< LLD	< LLD
11:00	03:00	4.27E-04	1.66E-02	1.86E-01	2.02E-04	< LLD	< LLD
11:15	03:15	4.27E-04	1.66E-02	1.86E-01	2.02E-04	< LLD	< LLD
11:30	03:30	4.27E-04	1.66E-02	1.86E-01	2.02E-04	< LLD	< LLD
11:35	03:35	4.27E-04	1.66E-02	1.86E-01	2.02E-04	< LLD	< LLD
11:40	03:40	4.27E-04	1.66E-02	1.86E-01	2.02E-04	< LLD	< LLD
11:45	03:45	4.27E-04	1.66E-02	1.86E-01	2.02E-04	< LLD	< LLD
12:00	04:00	4.27E-04	1.66E-02	1.86E-01	2.02E-04	< LLD	< LLD
12:15	04:15	4.27E-04	1.66E-02	1.86E-01	2.02E-04	< LLD	< LLD
12:20	04:20	4.27E-04	1.66E-02	1.86E-01	2.02E-04	< LLD	< LLD
12:25	04:25	4.27E-04	1.66E-02	1.86E-01	2.02E-04	< LLD	< LLD
12:30	04:30	4.27E-04	1.66E-02	1.86E-01	2.02E-04	< LLD	< LLD
12:35	04:35	4.27E-04	1.66E-02	1.86E-01	2.02E-04	< LLD	< LLD
12:40	04:40	4.27E-04	1.66E-02	1.86E-01	2.02E-04	< LLD	< LLD
12:45	04:45	4.27E-04	1.66E-02	1.86E-01	2.02E-04	< LLD	< LLD
13:00	05:00	4.27E-04	1.66E-02	1.86E-01	2.02E-04	< LLD	< LLD
13:15	05:15	4.27E-04	1.66E-02	1.86E-01	2.02E-04	< LLD	< LLD
13:30	05:30	4.27E-04	1.66E-02	1.86E-01	2.02E-04	< LLD	< LLD
13:45	05:45	4.27E-04	1.66E-02	1.86E-01	2.02E-04	< LLD	< LLD
14:00	06:00	4.27E-04	1.66E-02	1.86E-01	2.02E-04	< LLD	< LLD
14:15	06:15	4.27E-04	1.66E-02	1.86E-01	2.02E-04	< LLD	< LLD
14:30	06:30	4.27E-04	1.66E-02	1.86E-01	2.02E-04	< LLD	< LLD
14:45	06:45	4.27E-04	1.66E-02	1.86E-01	2.02E-04	< LLD	< LLD
15:00	07:00	4.27E-04	1.66E-02	1.86E-01	2.02E-04	< LLD	< LLD
15:15	07:15	4.27E-04	1.66E-02	1.86E-01	2.02E-04	< LLD	< LLD
15:30	07:30	4.27E-04	1.66E-02	1.86E-01	2.02E-04	< LLD	< LLD
15:45	07:45	4.27E-04	1.66E-02	1.86E-01	2.02E-04	< LLD	< LLD
16:00	08:00	4.27E-04	1.66E-02	1.86E-01	2.02E-04	< LLD	< LLD

Torus Water Concentrations
 Hope Creek Nuclear Generating Station
 10/25/94

Clock Time	Drill Time	Mo-99 uCi/cc	Te-129 uCi/cc	Te-132 uCi/cc	Cs-134 uCi/cc	Cs-137 uCi/cc	Ba-140 uCi/cc
08:00	00:00	3.02E-04	< LLD	< LLD	6.88E-06	1.84E-06	< LLD
08:15	00:15	3.02E-04	< LLD	< LLD	6.88E-06	1.84E-06	< LLD
08:30	00:30	3.02E-04	< LLD	< LLD	6.88E-06	1.84E-06	< LLD
08:45	00:45	3.02E-04	< LLD	< LLD	6.88E-06	1.84E-06	< LLD
09:00	01:00	3.02E-04	< LLD	< LLD	6.88E-06	1.84E-06	< LLD
09:15	01:15	3.02E-04	< LLD	< LLD	6.88E-06	1.84E-06	< LLD
09:30	01:30	3.02E-04	< LLD	< LLD	6.88E-06	1.84E-06	< LLD
09:45	01:45	3.02E-04	< LLD	< LLD	6.88E-06	1.84E-06	< LLD
09:50	01:50	3.25E-04	< LLD	< LLD	8.19E-06	2.21E-06	< LLD
10:00	02:00	3.25E-04	< LLD	< LLD	8.19E-06	2.21E-06	< LLD
10:15	02:15	3.25E-04	< LLD	< LLD	8.19E-06	2.21E-06	< LLD
10:30	02:30	3.25E-04	< LLD	< LLD	8.19E-06	2.21E-06	< LLD
10:45	02:45	3.25E-04	< LLD	< LLD	8.19E-06	2.21E-06	< LLD
11:00	03:00	3.25E-04	< LLD	< LLD	8.19E-06	2.21E-06	< LLD
11:15	03:15	3.25E-04	< LLD	< LLD	8.19E-06	2.21E-06	< LLD
11:30	03:30	3.25E-04	< LLD	< LLD	8.19E-06	2.21E-06	< LLD
11:35	03:35	3.25E-04	< LLD	< LLD	8.19E-06	2.21E-06	< LLD
11:40	03:40	3.25E-04	< LLD	< LLD	8.19E-06	2.21E-06	< LLD
11:45	03:45	3.25E-04	< LLD	< LLD	8.19E-06	2.21E-06	< LLD
12:00	04:00	3.25E-04	< LLD	< LLD	8.19E-06	2.21E-06	< LLD
12:15	04:15	3.25E-04	< LLD	< LLD	8.19E-06	2.21E-06	< LLD
12:20	04:20	3.25E-04	< LLD	< LLD	8.20E-06	2.22E-06	< LLD
12:25	04:25	3.25E-04	< LLD	< LLD	8.21E-06	2.22E-06	< LLD
12:30	04:30	3.25E-04	< LLD	< LLD	8.20E-06	2.22E-06	< LLD
12:35	04:35	3.26E-04	< LLD	< LLD	8.24E-06	2.23E-06	< LLD
12:40	04:40	3.26E-04	< LLD	< LLD	8.28E-06	2.24E-06	< LLD
12:45	04:45	3.27E-04	< LLD	2.06E-06	8.32E-06	2.25E-06	< LLD
13:00	05:00	3.32E-04	< LLD	5.79E-06	8.63E-06	2.34E-06	7.27E-06
13:15	05:15	3.32E-04	< LLD	5.78E-06	8.63E-06	2.34E-06	7.27E-06
13:30	05:30	3.32E-04	< LLD	5.77E-06	8.63E-06	2.34E-06	7.26E-06
13:45	05:45	3.32E-04	< LLD	5.76E-06	8.63E-06	2.34E-06	7.26E-06
14:00	06:00	3.32E-04	< LLD	5.75E-06	8.63E-06	2.34E-06	7.26E-06
14:15	06:15	3.32E-04	< LLD	5.73E-06	8.63E-06	2.34E-06	7.25E-06
14:30	06:30	3.32E-04	< LLD	5.72E-06	8.63E-06	2.34E-06	7.25E-06
14:45	06:45	3.32E-04	< LLD	5.71E-06	8.63E-06	2.34E-06	7.24E-06
15:00	07:00	3.32E-04	< LLD	5.70E-06	8.63E-06	2.34E-06	7.24E-06
15:15	07:15	3.32E-04	< LLD	5.69E-06	8.63E-06	2.34E-06	7.24E-06
15:30	07:30	3.32E-04	< LLD	5.68E-06	8.63E-06	2.34E-06	7.23E-06
15:45	07:45	3.32E-04	< LLD	5.66E-06	8.63E-06	2.34E-06	7.23E-06
16:00	08:00	3.32E-04	< LLD	5.65E-06	8.63E-06	2.34E-06	7.22E-06

Torus Water Concentrations
 Hope Creek Nuclear Generating Station
 10/25/94

Clock Time	Drill Time	La-140 uCi/cc	La-142 uCi/cc	Ce-144 uCi/cc	Total Particulate uCi/cc	Gross Activity uCi/cc
08:00	00:00	< LLD	< LLD	< LLD	4.99E-04	3.44E-03
08:15	00:15	< LLD	< LLD	< LLD	4.99E-04	3.44E-03
08:30	00:30	< LLD	< LLD	< LLD	4.99E-04	3.44E-03
08:45	00:45	< LLD	< LLD	< LLD	4.99E-04	3.44E-03
09:00	01:00	< LLD	< LLD	< LLD	4.99E-04	3.44E-03
09:15	01:15	< LLD	< LLD	< LLD	4.99E-04	3.44E-03
09:30	01:30	< LLD	< LLD	< LLD	4.99E-04	3.44E-03
09:45	01:45	< LLD	< LLD	< LLD	4.99E-04	3.44E-03
09:50	01:50	< LLD	< LLD	< LLD	5.38E-04	1.88E-01
10:00	02:00	< LLD	< LLD	< LLD	5.38E-04	1.88E-01
10:15	02:15	< LLD	< LLD	< LLD	5.38E-04	1.88E-01
10:30	02:30	< LLD	< LLD	< LLD	5.38E-04	1.88E-01
10:45	02:45	< LLD	< LLD	< LLD	5.38E-04	1.88E-01
11:00	03:00	< LLD	< LLD	< LLD	5.38E-04	1.88E-01
11:15	03:15	< LLD	< LLD	< LLD	5.38E-04	1.88E-01
11:30	03:30	< LLD	< LLD	< LLD	5.38E-04	1.88E-01
11:35	03:35	< LLD	< LLD	< LLD	5.38E-04	1.88E-01
11:40	03:40	< LLD	< LLD	< LLD	5.38E-04	1.88E-01
11:45	03:45	< LLD	< LLD	< LLD	5.38E-04	1.88E-01
12:00	04:00	< LLD	< LLD	< LLD	5.38E-04	1.88E-01
12:15	04:15	< LLD	< LLD	< LLD	5.38E-04	1.88E-01
12:20	04:20	< LLD	< LLD	< LLD	5.38E-04	1.88E-01
12:25	04:25	< LLD	< LLD	< LLD	5.39E-04	1.88E-01
12:30	04:30	< LLD	< LLD	< LLD	5.39E-04	1.88E-01
12:35	04:35	< LLD	< LLD	< LLD	5.43E-04	1.88E-01
12:40	04:40	< LLD	< LLD	< LLD	5.46E-04	1.88E-01
12:45	04:45	< LLD	< LLD	< LLD	5.50E-04	1.88E-01
13:00	05:00	7.36E-06	2.66E-06	< LLD	5.77E-04	1.88E-01
13:15	05:15	7.33E-06	2.37E-06	< LLD	5.76E-04	1.88E-01
13:30	05:30	7.30E-06	2.12E-06	< LLD	5.76E-04	1.88E-01
13:45	05:45	7.27E-06	< LLD	< LLD	5.76E-04	1.88E-01
14:00	06:00	7.24E-06	< LLD	< LLD	5.75E-04	1.88E-01
14:15	06:15	7.21E-06	< LLD	< LLD	5.75E-04	1.88E-01
14:30	06:30	7.18E-06	< LLD	< LLD	5.75E-04	1.88E-01
14:45	06:45	7.15E-06	< LLD	< LLD	5.75E-04	1.88E-01
15:00	07:00	7.11E-06	< LLD	< LLD	5.74E-04	1.88E-01
15:15	07:15	7.08E-06	< LLD	< LLD	5.74E-04	1.88E-01
15:30	07:30	7.05E-06	< LLD	< LLD	5.74E-04	1.88E-01
15:45	07:45	7.02E-06	< LLD	< LLD	5.74E-04	1.88E-01
16:00	08:00	6.99E-06	< LLD	< LLD	5.74E-04	1.88E-01

Feed Water Concentrations
 Hope Creek Nuclear Generating Station
 10/25/94

Clock Time	Drill Time	I-131 uCi/cc	I-132 uCi/cc	I-133 uCi/cc	I-134 uCi/cc	I-135 uCi/cc	Total Iodine uCi/cc
08:00	00:00	1.03E-03	1.56E-03	2.29E-03	2.68E-03	2.09E-03	9.66E-03
08:15	00:15	1.03E-03	1.56E-03	2.29E-03	2.68E-03	2.09E-03	9.66E-03
08:30	00:30	1.03E-03	1.56E-03	2.29E-03	2.68E-03	2.09E-03	9.66E-03
08:45	00:45	1.03E-03	1.56E-03	2.29E-03	2.68E-03	2.09E-03	9.66E-03
09:00	01:00	1.03E-03	1.56E-03	2.29E-03	2.68E-03	2.09E-03	9.66E-03
09:15	01:15	1.03E-03	1.56E-03	2.29E-03	2.68E-03	2.09E-03	9.66E-03
09:30	01:30	1.03E-03	1.56E-03	2.29E-03	2.68E-03	2.09E-03	9.66E-03
09:45	01:45	1.03E-03	1.56E-03	2.29E-03	2.68E-03	2.09E-03	9.66E-03
09:50	01:50	1.03E-03	1.56E-03	2.29E-03	2.68E-03	2.09E-03	9.66E-03
10:00	02:00	1.03E-03	1.56E-03	2.29E-03	2.68E-03	2.09E-03	9.66E-03
10:15	02:15	1.03E-03	1.56E-03	2.29E-03	2.68E-03	2.09E-03	9.66E-03
10:30	02:30	1.03E-03	1.56E-03	2.29E-03	2.68E-03	2.09E-03	9.66E-03
10:45	02:45	1.03E-03	1.56E-03	2.29E-03	2.68E-03	2.09E-03	9.66E-03
11:00	03:00	1.03E-03	1.56E-03	2.29E-03	2.68E-03	2.09E-03	9.66E-03
11:15	03:15	1.03E-03	1.56E-03	2.29E-03	2.68E-03	2.09E-03	9.66E-03
11:30	03:30	1.03E-03	1.56E-03	2.29E-03	2.68E-03	2.09E-03	9.66E-03
11:35	03:35	1.03E-03	1.56E-03	2.29E-03	2.68E-03	2.09E-03	9.66E-03
11:40	03:40	1.03E-03	1.56E-03	2.29E-03	2.68E-03	2.09E-03	9.66E-03
11:45	03:45	1.03E-03	1.56E-03	2.29E-03	2.68E-03	2.09E-03	9.66E-03
12:00	04:00	1.03E-03	1.56E-03	2.29E-03	2.68E-03	2.09E-03	9.66E-03
12:15	04:15	1.03E-03	1.56E-03	2.29E-03	2.68E-03	2.09E-03	9.66E-03
12:20	04:20	1.03E-03	1.56E-03	2.29E-03	2.68E-03	2.09E-03	9.66E-03
12:25	04:25	1.03E-03	1.56E-03	2.29E-03	2.68E-03	2.09E-03	9.66E-03
12:30	04:30	1.03E-03	1.56E-03	2.29E-03	2.68E-03	2.09E-03	9.66E-03
12:35	04:35	1.03E-03	1.56E-03	2.29E-03	2.68E-03	2.09E-03	9.66E-03
12:40	04:40	1.03E-03	1.56E-03	2.29E-03	2.68E-03	2.09E-03	9.66E-03
12:45	04:45	1.03E-03	1.56E-03	2.29E-03	2.68E-03	2.09E-03	9.66E-03
13:00	05:00	1.03E-03	1.56E-03	2.29E-03	2.68E-03	2.09E-03	9.66E-03
13:15	05:15	1.03E-03	1.56E-03	2.29E-03	2.68E-03	2.09E-03	9.66E-03
13:30	05:30	1.03E-03	1.56E-03	2.29E-03	2.68E-03	2.09E-03	9.66E-03
13:45	05:45	1.03E-03	1.56E-03	2.29E-03	2.68E-03	2.09E-03	9.66E-03
14:00	06:00	1.03E-03	1.56E-03	2.29E-03	2.68E-03	2.09E-03	9.66E-03
14:15	06:15	1.03E-03	1.56E-03	2.29E-03	2.68E-03	2.09E-03	9.66E-03
14:30	06:30	1.03E-03	1.56E-03	2.29E-03	2.68E-03	2.09E-03	9.66E-03
14:45	06:45	1.03E-03	1.56E-03	2.29E-03	2.68E-03	2.09E-03	9.66E-03
15:00	07:00	1.03E-03	1.56E-03	2.29E-03	2.68E-03	2.09E-03	9.66E-03
15:15	07:15	1.03E-03	1.56E-03	2.29E-03	2.68E-03	2.09E-03	9.66E-03
15:30	07:30	1.03E-03	1.56E-03	2.29E-03	2.68E-03	2.09E-03	9.66E-03
15:45	07:45	1.03E-03	1.56E-03	2.29E-03	2.68E-03	2.09E-03	9.66E-03
16:00	08:00	1.03E-03	1.56E-03	2.29E-03	2.68E-03	2.09E-03	9.66E-03

Feed Water Concentrations
 Hope Creek Nuclear Generating Station
 10/25/94

Clock Time	Drill Time	DEI uCi/cc	Kr-85 uCi/cc	Kr-87 uCi/cc	Kr-88 uCi/cc	Xe-131m uCi/cc	Xe-133 uCi/cc
08:00	00:00	1.98E-03	< LLD	9.36E-05	1.29E-04	< LLD	1.98E-03
08:15	00:15	1.98E-03	< LLD	9.36E-05	1.29E-04	< LLD	1.98E-03
08:30	00:30	1.98E-03	< LLD	9.36E-05	1.29E-04	< LLD	1.98E-03
08:45	00:45	1.98E-03	< LLD	9.36E-05	1.29E-04	< LLD	1.98E-03
09:00	01:00	1.98E-03	< LLD	9.36E-05	1.29E-04	< LLD	1.98E-03
09:15	01:15	1.98E-03	< LLD	9.36E-05	1.29E-04	< LLD	1.98E-03
09:30	01:30	1.98E-03	< LLD	9.36E-05	1.29E-04	< LLD	1.98E-03
09:45	01:45	1.98E-03	< LLD	9.36E-05	1.29E-04	< LLD	1.98E-03
09:50	01:50	1.98E-03	< LLD	9.36E-05	1.29E-04	< LLD	1.98E-03
10:00	02:00	1.98E-03	< LLD	9.36E-05	1.29E-04	< LLD	1.98E-03
10:15	02:15	1.98E-03	< LLD	9.36E-05	1.29E-04	< LLD	1.98E-03
10:30	02:30	1.98E-03	< LLD	9.36E-05	1.29E-04	< LLD	1.98E-03
10:45	02:45	1.98E-03	< LLD	9.36E-05	1.29E-04	< LLD	1.98E-03
11:00	03:00	1.98E-03	< LLD	9.36E-05	1.29E-04	< LLD	1.98E-03
11:15	03:15	1.98E-03	< LLD	9.36E-05	1.29E-04	< LLD	1.98E-03
11:30	03:30	1.98E-03	< LLD	9.36E-05	1.29E-04	< LLD	1.98E-03
11:35	03:35	1.98E-03	< LLD	9.36E-05	1.29E-04	< LLD	1.98E-03
11:40	03:40	1.98E-03	< LLD	9.36E-05	1.29E-04	< LLD	1.98E-03
11:45	03:45	1.98E-03	< LLD	9.36E-05	1.29E-04	< LLD	1.98E-03
12:00	04:00	1.98E-03	< LLD	9.36E-05	1.29E-04	< LLD	1.98E-03
12:15	04:15	1.98E-03	< LLD	9.36E-05	1.29E-04	< LLD	1.98E-03
12:20	04:20	1.98E-03	< LLD	9.36E-05	1.29E-04	< LLD	1.98E-03
12:25	04:25	1.98E-03	< LLD	9.36E-05	1.29E-04	< LLD	1.98E-03
12:30	04:30	1.98E-03	< LLD	9.36E-05	1.29E-04	< LLD	1.98E-03
12:35	04:35	1.98E-03	< LLD	9.36E-05	1.29E-04	< LLD	1.98E-03
12:40	04:40	1.98E-03	< LLD	9.36E-05	1.29E-04	< LLD	1.98E-03
12:45	04:45	1.98E-03	< LLD	9.36E-05	1.29E-04	< LLD	1.98E-03
13:00	05:00	1.98E-03	< LLD	9.36E-05	1.29E-04	< LLD	1.98E-03
13:15	05:15	1.98E-03	< LLD	9.36E-05	1.29E-04	< LLD	1.98E-03
13:30	05:30	1.98E-03	< LLD	9.36E-05	1.29E-04	< LLD	1.98E-03
13:45	05:45	1.98E-03	< LLD	9.36E-05	1.29E-04	< LLD	1.98E-03
14:00	06:00	1.98E-03	< LLD	9.36E-05	1.29E-04	< LLD	1.98E-03
14:15	06:15	1.98E-03	< LLD	9.36E-05	1.29E-04	< LLD	1.98E-03
14:30	06:30	1.98E-03	< LLD	9.36E-05	1.29E-04	< LLD	1.98E-03
14:45	06:45	1.98E-03	< LLD	9.36E-05	1.29E-04	< LLD	1.98E-03
15:00	07:00	1.98E-03	< LLD	9.36E-05	1.29E-04	< LLD	1.98E-03
15:15	07:15	1.98E-03	< LLD	9.36E-05	1.29E-04	< LLD	1.98E-03
15:30	07:30	1.98E-03	< LLD	9.36E-05	1.29E-04	< LLD	1.98E-03
15:45	07:45	1.98E-03	< LLD	9.36E-05	1.29E-04	< LLD	1.98E-03
16:00	08:00	1.98E-03	< LLD	9.36E-05	1.29E-04	< LLD	1.98E-03

Feed Water Concentrations
 Hope Creek Nuclear Generating Station
 10/25/94

Clock Time	Drill Time	Xe-133m uCi/cc	Xe-135 uCi/cc	Total Noble Gas uCi/cc	Rb-88 uCi/cc	Sr-89 uCi/cc	Sr-90 uCi/cc
08:00	00:00	5.55E-06	2.16E-04	2.42E-03	1.86E-04	< LLD	< LLD
08:15	00:15	5.55E-06	2.16E-04	2.42E-03	1.86E-04	< LLD	< LLD
08:30	00:30	5.55E-06	2.16E-04	2.42E-03	1.86E-04	< LLD	< LLD
08:45	00:45	5.55E-06	2.16E-04	2.42E-03	1.86E-04	< LLD	< LLD
09:00	01:00	5.55E-06	2.16E-04	2.42E-03	1.86E-04	< LLD	< LLD
09:15	01:15	5.55E-06	2.16E-04	2.42E-03	1.86E-04	< LLD	< LLD
09:30	01:30	5.55E-06	2.16E-04	2.42E-03	1.86E-04	< LLD	< LLD
09:45	01:45	5.55E-06	2.16E-04	2.42E-03	1.86E-04	< LLD	< LLD
09:50	01:50	5.55E-06	2.16E-04	2.42E-03	1.86E-04	< LLD	< LLD
10:00	02:00	5.55E-06	2.16E-04	2.42E-03	1.86E-04	< LLD	< LLD
10:15	02:15	5.55E-06	2.16E-04	2.42E-03	1.86E-04	< LLD	< LLD
10:30	02:30	5.55E-06	2.16E-04	2.42E-03	1.86E-04	< LLD	< LLD
10:45	02:45	5.55E-06	2.16E-04	2.42E-03	1.86E-04	< LLD	< LLD
11:00	03:00	5.55E-06	2.16E-04	2.42E-03	1.86E-04	< LLD	< LLD
11:15	03:15	5.55E-06	2.16E-04	2.42E-03	1.86E-04	< LLD	< LLD
11:30	03:30	5.55E-06	2.16E-04	2.42E-03	1.86E-04	< LLD	< LLD
11:35	03:35	5.55E-06	2.16E-04	2.42E-03	1.86E-04	< LLD	< LLD
11:40	03:40	5.55E-06	2.16E-04	2.42E-03	1.86E-04	< LLD	< LLD
11:45	03:45	5.55E-06	2.16E-04	2.42E-03	1.86E-04	< LLD	< LLD
12:00	04:00	5.55E-06	2.16E-04	2.42E-03	1.86E-04	< LLD	< LLD
12:15	04:15	5.55E-06	2.16E-04	2.42E-03	1.86E-04	< LLD	< LLD
12:20	04:20	5.55E-06	2.16E-04	2.42E-03	1.86E-04	< LLD	< LLD
12:25	04:25	5.55E-06	2.16E-04	2.42E-03	1.86E-04	< LLD	< LLD
12:30	04:30	5.55E-06	2.16E-04	2.42E-03	1.86E-04	< LLD	< LLD
12:35	04:35	5.55E-06	2.16E-04	2.42E-03	1.86E-04	< LLD	< LLD
12:40	04:40	5.55E-06	2.16E-04	2.42E-03	1.86E-04	< LLD	< LLD
12:45	04:45	5.55E-06	2.16E-04	2.42E-03	1.86E-04	< LLD	< LLD
13:00	05:00	5.55E-06	2.16E-04	2.42E-03	1.86E-04	< LLD	< LLD
13:15	05:15	5.55E-06	2.16E-04	2.42E-03	1.86E-04	< LLD	< LLD
13:30	05:30	5.55E-06	2.16E-04	2.42E-03	1.86E-04	< LLD	< LLD
13:45	05:45	5.55E-06	2.16E-04	2.42E-03	1.86E-04	< LLD	< LLD
14:00	06:00	5.55E-06	2.16E-04	2.42E-03	1.86E-04	< LLD	< LLD
14:15	06:15	5.55E-06	2.16E-04	2.42E-03	1.86E-04	< LLD	< LLD
14:30	06:30	5.55E-06	2.16E-04	2.42E-03	1.86E-04	< LLD	< LLD
14:45	06:45	5.55E-06	2.16E-04	2.42E-03	1.86E-04	< LLD	< LLD
15:00	07:00	5.55E-06	2.16E-04	2.42E-03	1.86E-04	< LLD	< LLD
15:15	07:15	5.55E-06	2.16E-04	2.42E-03	1.86E-04	< LLD	< LLD
15:30	07:30	5.55E-06	2.16E-04	2.42E-03	1.86E-04	< LLD	< LLD
15:45	07:45	5.55E-06	2.16E-04	2.42E-03	1.86E-04	< LLD	< LLD
16:00	08:00	5.55E-06	2.16E-04	2.42E-03	1.86E-04	< LLD	< LLD

Feed Water Concentrations
 Hope Creek Nuclear Generating Station
 10/25/94

Clock Time	Drill Time	Mo-99 uCi/cc	Te-129 uCi/cc	Te-132 uCi/cc	Cs-134 uCi/cc	Cs-137 uCi/cc	Ba-140 uCi/cc
08:00	00:00	2.99E-04	< LLD	< LLD	1.71E-05	4.89E-06	< LLD
08:15	00:15	2.99E-04	< LLD	< LLD	1.71E-05	4.89E-06	< LLD
08:30	00:30	2.99E-04	< LLD	< LLD	1.71E-05	4.89E-06	< LLD
08:45	00:45	2.99E-04	< LLD	< LLD	1.71E-05	4.89E-06	< LLD
09:00	01:00	2.99E-04	< LLD	< LLD	1.71E-05	4.89E-06	< LLD
09:15	01:15	2.99E-04	< LLD	< LLD	1.71E-05	4.89E-06	< LLD
09:30	01:30	2.99E-04	< LLD	< LLD	1.71E-05	4.89E-06	< LLD
09:45	01:45	2.99E-04	< LLD	< LLD	1.71E-05	4.89E-06	< LLD
09:50	01:50	2.99E-04	< LLD	< LLD	1.71E-05	4.89E-06	< LLD
10:00	02:00	2.99E-04	< LLD	< LLD	1.71E-05	4.89E-06	< LLD
10:15	02:15	2.99E-04	< LLD	< LLD	1.71E-05	4.89E-06	< LLD
10:30	02:30	2.99E-04	< LLD	< LLD	1.71E-05	4.89E-06	< LLD
10:45	02:45	2.99E-04	< LLD	< LLD	1.71E-05	4.89E-06	< LLD
11:00	03:00	2.99E-04	< LLD	< LLD	1.71E-05	4.89E-06	< LLD
11:15	03:15	2.99E-04	< LLD	< LLD	1.71E-05	4.89E-06	< LLD
11:30	03:30	2.99E-04	< LLD	< LLD	1.71E-05	4.89E-06	< LLD
11:35	03:35	2.99E-04	< LLD	< LLD	1.71E-05	4.89E-06	< LLD
11:40	03:40	2.99E-04	< LLD	< LLD	1.71E-05	4.89E-06	< LLD
11:45	03:45	2.99E-04	< LLD	< LLD	1.71E-05	4.89E-06	< LLD
12:00	04:00	2.99E-04	< LLD	< LLD	1.71E-05	4.89E-06	< LLD
12:15	04:15	2.99E-04	< LLD	< LLD	1.71E-05	4.89E-06	< LLD
12:20	04:20	2.99E-04	< LLD	< LLD	1.71E-05	4.89E-06	< LLD
12:25	04:25	2.99E-04	< LLD	< LLD	1.71E-05	4.89E-06	< LLD
12:30	04:30	2.99E-04	< LLD	< LLD	1.71E-05	4.89E-06	< LLD
12:35	04:35	2.99E-04	< LLD	< LLD	1.71E-05	4.89E-06	< LLD
12:40	04:40	2.99E-04	< LLD	< LLD	1.71E-05	4.89E-06	< LLD
12:45	04:45	2.99E-04	< LLD	< LLD	1.71E-05	4.89E-06	< LLD
13:00	05:00	2.99E-04	< LLD	< LLD	1.71E-05	4.89E-06	< LLD
13:15	05:15	2.99E-04	< LLD	< LLD	1.71E-05	4.89E-06	< LLD
13:30	05:30	2.99E-04	< LLD	< LLD	1.71E-05	4.89E-06	< LLD
13:45	05:45	2.99E-04	< LLD	< LLD	1.71E-05	4.89E-06	< LLD
14:00	06:00	2.99E-04	< LLD	< LLD	1.71E-05	4.89E-06	< LLD
14:15	06:15	2.99E-04	< LLD	< LLD	1.71E-05	4.89E-06	< LLD
14:30	06:30	2.99E-04	< LLD	< LLD	1.71E-05	4.89E-06	< LLD
14:45	06:45	2.99E-04	< LLD	< LLD	1.71E-05	4.89E-06	< LLD
15:00	07:00	2.99E-04	< LLD	< LLD	1.71E-05	4.89E-06	< LLD
15:15	07:15	2.99E-04	< LLD	< LLD	1.71E-05	4.89E-06	< LLD
15:30	07:30	2.99E-04	< LLD	< LLD	1.71E-05	4.89E-06	< LLD
15:45	07:45	2.99E-04	< LLD	< LLD	1.71E-05	4.89E-06	< LLD
16:00	08:00	2.99E-04	< LLD	< LLD	1.71E-05	4.89E-06	< LLD

Feed Water Concentrations
 Hope Creek Nuclear Generating Station
 10/25/94

Clock Time	Drill Time	La-140 uCi/cc	La-142 uCi/cc	Ce-144 uCi/cc	Total Particulate uCi/cc	Gross Activity uCi/cc
08:00	00:00	< LLD	< LLD	< LLD	5.08E-04	1.26E-02
08:15	00:15	< LLD	< LLD	< LLD	5.08E-04	1.26E-02
08:30	00:30	< LLD	< LLD	< LLD	5.08E-04	1.26E-02
08:45	00:45	< LLD	< LLD	< LLD	5.08E-04	1.26E-02
09:00	01:00	< LLD	< LLD	< LLD	5.08E-04	1.26E-02
09:15	01:15	< LLD	< LLD	< LLD	5.08E-04	1.26E-02
09:30	01:30	< LLD	< LLD	< LLD	5.08E-04	1.26E-02
09:45	01:45	< LLD	< LLD	< LLD	5.08E-04	1.26E-02
09:50	01:50	< LLD	< LLD	< LLD	5.08E-04	1.26E-02
10:00	02:00	< LLD	< LLD	< LLD	5.08E-04	1.26E-02
10:15	02:15	< LLD	< LLD	< LLD	5.08E-04	1.26E-02
10:30	02:30	< LLD	< LLD	< LLD	5.08E-04	1.26E-02
10:45	02:45	< LLD	< LLD	< LLD	5.08E-04	1.26E-02
11:00	03:00	< LLD	< LLD	< LLD	5.08E-04	1.26E-02
11:15	03:15	< LLD	< LLD	< LLD	5.08E-04	1.26E-02
11:30	03:30	< LLD	< LLD	< LLD	5.08E-04	1.26E-02
11:35	03:35	< LLD	< LLD	< LLD	5.08E-04	1.26E-02
11:40	03:40	< LLD	< LLD	< LLD	5.08E-04	1.26E-02
11:45	03:45	< LLD	< LLD	< LLD	5.08E-04	1.26E-02
12:00	04:00	< LLD	< LLD	< LLD	5.08E-04	1.26E-02
12:15	04:15	< LLD	< LLD	< LLD	5.08E-04	1.26E-02
12:20	04:20	< LLD	< LLD	< LLD	5.08E-04	1.26E-02
12:25	04:25	< LLD	< LLD	< LLD	5.08E-04	1.26E-02
12:30	04:30	< LLD	< LLD	< LLD	5.08E-04	1.26E-02
12:35	04:35	< LLD	< LLD	< LLD	5.08E-04	1.26E-02
12:40	04:40	< LLD	< LLD	< LLD	5.08E-04	1.26E-02
12:45	04:45	< LLD	< LLD	< LLD	5.08E-04	1.26E-02
13:00	05:00	< LLD	< LLD	< LLD	5.08E-04	1.26E-02
13:15	05:15	< LLD	< LLD	< LLD	5.08E-04	1.26E-02
13:30	05:30	< LLD	< LLD	< LLD	5.08E-04	1.26E-02
13:45	05:45	< LLD	< LLD	< LLD	5.08E-04	1.26E-02
14:00	06:00	< LLD	< LLD	< LLD	5.08E-04	1.26E-02
14:15	06:15	< LLD	< LLD	< LLD	5.08E-04	1.26E-02
14:30	06:30	< LLD	< LLD	< LLD	5.08E-04	1.26E-02
14:45	06:45	< LLD	< LLD	< LLD	5.08E-04	1.26E-02
15:00	07:00	< LLD	< LLD	< LLD	5.08E-04	1.26E-02
15:15	07:15	< LLD	< LLD	< LLD	5.08E-04	1.26E-02
15:30	07:30	< LLD	< LLD	< LLD	5.08E-04	1.26E-02
15:45	07:45	< LLD	< LLD	< LLD	5.08E-04	1.26E-02
16:00	08:00	< LLD	< LLD	< LLD	5.08E-04	1.26E-02

Reactor Building Air Concentrations
 Hope Creek Nuclear Generating Station
 10/25/94

Clock Time	Drill Time	I-131 uCi/cc	I-132 uCi/cc	I-133 uCi/cc	I-134 uCi/cc	I-135 uCi/cc	Total Iodine uCi/cc
08:00	00:00	< LLD	< LLD	< LLD	< LLD	< LLD	N/A
08:15	00:15	< LLD	< LLD	< LLD	< LLD	< LLD	N/A
08:30	00:30	< LLD	< LLD	< LLD	< LLD	< LLD	N/A
08:45	00:45	< LLD	< LLD	< LLD	< LLD	< LLD	N/A
09:00	01:00	< LLD	< LLD	< LLD	< LLD	< LLD	N/A
09:15	01:15	< LLD	< LLD	< LLD	< LLD	< LLD	N/A
09:30	01:30	< LLD	< LLD	< LLD	< LLD	< LLD	N/A
09:45	01:45	< LLD	< LLD	< LLD	< LLD	< LLD	N/A
09:47	01:47	< LLD	< LLD	< LLD	< LLD	< LLD	N/A
09:50	01:50	< LLD	< LLD	< LLD	< LLD	< LLD	N/A
10:00	02:00	< LLD	< LLD	< LLD	< LLD	< LLD	N/A
10:15	02:15	< LLD	< LLD	< LLD	< LLD	< LLD	N/A
10:30	02:30	< LLD	< LLD	< LLD	< LLD	< LLD	N/A
10:45	02:45	< LLD	< LLD	< LLD	< LLD	< LLD	N/A
11:00	03:00	< LLD	< LLD	< LLD	< LLD	< LLD	N/A
11:15	03:15	< LLD	< LLD	< LLD	< LLD	< LLD	N/A
11:30	03:30	< LLD	< LLD	< LLD	< LLD	< LLD	N/A
11:35	03:35	< LLD	< LLD	< LLD	< LLD	9.74E-15	3.62E-14
11:40	03:40	1.10E-13	9.50E-14	2.32E-13	< LLD	1.86E-13	6.87E-13
11:45	03:45	1.10E-13	9.26E-14	2.31E-13	< LLD	1.84E-13	6.78E-13
12:00	04:00	1.10E-13	8.58E-14	2.30E-13	< LLD	1.79E-13	6.54E-13
12:15	04:15	1.09E-13	7.95E-14	2.28E-13	< LLD	1.75E-13	6.32E-13
12:20	04:20	2.37E-10	1.68E-10	4.92E-10	8.25E-11	3.75E-10	1.35E-09
12:25	04:25	5.56E-10	3.84E-10	1.15E-09	1.81E-10	8.73E-10	3.15E-09
12:30	04:30	6.43E-10	4.34E-10	1.33E-09	1.96E-10	1.00E-09	3.60E-09
12:35	04:35	1.32E-08	8.66E-09	2.71E-08	3.76E-09	2.03E-08	7.30E-08
12:40	04:40	2.39E-08	1.53E-08	4.91E-08	6.39E-09	3.66E-08	1.31E-07
12:45	04:45	3.59E-08	2.24E-08	7.35E-08	8.98E-09	5.45E-08	1.95E-07
12:50	04:50	1.20E-07	7.29E-08	2.44E-07	2.80E-08	1.80E-07	6.45E-07
12:55	04:55	1.20E-07	7.11E-08	2.44E-07	2.62E-08	1.78E-07	6.39E-07
13:00	05:00	1.19E-07	6.93E-08	2.43E-07	2.45E-08	1.77E-07	6.33E-07
13:05	05:05	1.19E-07	6.76E-08	2.42E-07	2.30E-08	1.75E-07	6.28E-07
13:10	05:10	1.19E-07	6.59E-08	2.42E-07	2.15E-08	1.74E-07	6.22E-07
13:15	05:15	1.19E-07	6.46E-08	2.41E-07	2.04E-08	1.73E-07	6.18E-07
13:20	05:20	1.44E+00	7.57E-01	2.90E+00	2.27E-01	2.07E+00	7.40E+00
13:25	05:25	1.44E+00	7.39E-01	2.90E+00	2.13E-01	2.05E+00	7.34E+00
13:30	05:30	1.44E+00	7.20E-01	2.89E+00	1.99E-01	2.03E+00	7.28E+00
13:35	05:35	1.44E+00	7.02E-01	2.88E+00	1.86E-01	2.01E+00	7.22E+00
13:40	05:40	1.44E+00	6.85E-01	2.87E+00	1.74E-01	2.00E+00	7.17E+00
13:45	05:45	1.44E+00	6.68E-01	2.86E+00	1.63E-01	1.98E+00	7.11E+00
14:00	06:00	1.44E+00	6.19E-01	2.84E+00	1.34E-01	1.93E+00	6.96E+00
14:15	06:15	1.44E+00	5.74E-01	2.82E+00	1.10E-01	1.88E+00	6.82E+00
14:30	06:30	1.44E+00	5.32E-01	2.79E+00	9.00E-02	1.83E+00	6.68E+00
14:45	06:45	1.44E+00	4.93E-01	2.77E+00	7.37E-02	1.78E+00	6.56E+00
15:00	07:00	1.43E+00	4.57E-01	2.75E+00	6.05E-02	1.74E+00	6.44E+00
15:15	07:15	1.18E+00	3.50E-01	2.25E+00	4.10E-02	1.40E+00	5.23E+00
15:30	07:30	5.45E-01	1.49E-01	1.03E+00	1.55E-02	6.28E-01	2.37E+00
15:45	07:45	1.85E-02	4.70E-03	3.46E-02	4.30E-04	2.08E-02	7.89E-02
16:00	08:00	2.64E-04	6.23E-05	4.91E-04	5.05E-06	2.90E-04	1.11E-03

Reactor Building Air Concentrations
 Hope Creek Nuclear Generating Station
 10/25/94

Clock Time	Drill Time	DEI uCi/cc	Kr-85 uCi/cc	Kr-87 uCi/cc	Kr-88 uCi/cc	Xe-131m uCi/cc	Xe-133 uCi/cc
08:00	00:00	N/A	< LLD	< LLD	< LLD	< LLD	< LLD
08:15	00:15	N/A	< LLD	< LLD	< LLD	< LLD	< LLD
08:30	00:30	N/A	< LLD	< LLD	< LLD	< LLD	< LLD
08:45	00:45	N/A	< LLD	< LLD	< LLD	< LLD	< LLD
09:00	01:00	N/A	< LLD	< LLD	< LLD	< LLD	< LLD
09:15	01:15	N/A	< LLD	< LLD	< LLD	< LLD	< LLD
09:30	01:30	N/A	< LLD	< LLD	< LLD	< LLD	< LLD
09:45	01:45	N/A	< LLD	< LLD	< LLD	< LLD	< LLD
09:47	01:47	N/A	< LLD	< LLD	< LLD	< LLD	< LLD
09:50	01:50	N/A	< LLD	< LLD	< LLD	< LLD	< LLD
10:00	02:00	N/A	< LLD	< LLD	< LLD	< LLD	< LLD
10:15	02:15	N/A	< LLD	< LLD	< LLD	< LLD	< LLD
10:30	02:30	N/A	< LLD	< LLD	< LLD	< LLD	< LLD
10:45	02:45	N/A	< LLD	< LLD	< LLD	< LLD	< LLD
11:00	03:00	N/A	< LLD	< LLD	< LLD	< LLD	< LLD
11:15	03:15	N/A	< LLD	< LLD	< LLD	< LLD	< LLD
11:30	03:30	N/A	< LLD	< LLD	< LLD	< LLD	< LLD
11:35	03:35	9.06E-15	< LLD	< LLD	< LLD	< LLD	< LLD
11:40	03:40	1.73E-13	< LLD	< LLD	< LLD	< LLD	< LLD
11:45	03:45	1.72E-13	< LLD	< LLD	< LLD	< LLD	< LLD
12:00	04:00	1.69E-13	< LLD	< LLD	< LLD	< LLD	< LLD
12:15	04:15	1.67E-13	< LLD	< LLD	< LLD	< LLD	< LLD
12:20	04:20	3.60E-10	< LLD	< LLD	< LLD	< LLD	< LLD
12:25	04:25	8.41E-10	< LLD	< LLD	< LLD	< LLD	< LLD
12:30	04:30	9.69E-10	< LLD	< LLD	< LLD	< LLD	< LLD
12:35	04:35	1.97E-08	< LLD	< LLD	< LLD	< LLD	< LLD
12:40	04:40	3.57E-08	< LLD	< LLD	1.20E-06	< LLD	< LLD
12:45	04:45	5.34E-08	< LLD	< LLD	1.76E-06	< LLD	< LLD
12:50	04:50	1.77E-07	< LLD	1.68E-06	5.75E-06	< LLD	2.11E-05
12:55	04:55	1.77E-07	< LLD	1.60E-06	5.63E-06	< LLD	2.11E-05
13:00	05:00	1.76E-07	< LLD	1.53E-06	5.51E-06	< LLD	2.10E-05
13:05	05:05	1.75E-07	< LLD	1.46E-06	5.40E-06	< LLD	2.10E-05
13:10	05:10	1.75E-07	< LLD	1.40E-06	5.29E-06	< LLD	2.10E-05
13:15	05:15	1.74E-07	< LLD	1.35E-06	5.20E-06	< LLD	2.10E-05
13:20	05:20	2.10E+00	2.51E-02	7.72E-01	3.07E+00	5.93E-02	1.27E+01
13:25	05:25	2.09E+00	2.51E-02	7.38E-01	3.00E+00	5.93E-02	1.27E+01
13:30	05:30	2.08E+00	2.51E-02	7.05E-01	2.94E+00	5.93E-02	1.27E+01
13:35	05:35	2.08E+00	2.51E-02	6.73E-01	2.88E+00	5.93E-02	1.27E+01
13:40	05:40	2.07E+00	2.51E-02	6.43E-01	2.82E+00	5.93E-02	1.27E+01
13:45	05:45	2.06E+00	2.51E-02	6.15E-01	2.77E+00	5.93E-02	1.27E+01
14:00	06:00	2.05E+00	2.51E-02	5.36E-01	2.60E+00	5.92E-02	1.26E+01
14:15	06:15	2.03E+00	2.51E-02	4.68E-01	2.44E+00	5.92E-02	1.26E+01
14:30	06:30	2.01E+00	2.51E-02	4.08E-01	2.30E+00	5.92E-02	1.26E+01
14:45	06:45	2.00E+00	2.51E-02	3.56E-01	2.16E+00	5.91E-02	1.26E+01
15:00	07:00	1.98E+00	2.51E-02	3.10E-01	2.03E+00	5.91E-02	1.26E+01
15:15	07:15	1.63E+00	2.07E-02	2.24E-01	1.57E+00	4.88E-02	1.04E+01
15:30	07:30	7.45E-01	9.55E-03	8.98E-02	6.81E-01	2.25E-02	4.77E+00
15:45	07:45	2.51E-02	3.24E-04	2.66E-03	2.17E-02	7.61E-04	1.62E-01
16:00	08:00	3.57E-04	< LLD	3.33E-05	2.93E-04	1.09E-05	2.32E-03

Reactor Building Air Concentrations
 Hope Creek Nuclear Generating Station
 10/25/94

Clock Time	Drill Time	Xe-133m uCi/cc	Xe-135 uCi/cc	Total Noble Gas uCi/cc	Rb-88 uCi/cc	Sr-89 uCi/cc	Sr-90 uCi/cc
08:00	00:00	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
08:15	00:15	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
08:30	00:30	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
08:45	00:45	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
09:00	01:00	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
09:15	01:15	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
09:30	01:30	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
09:45	01:45	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
09:47	01:47	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
09:50	01:50	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
10:00	02:00	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
10:15	02:15	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
10:30	02:30	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
10:45	02:45	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
11:00	03:00	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
11:15	03:15	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
11:30	03:30	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
11:35	03:35	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
11:40	03:40	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
11:45	03:45	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
12:00	04:00	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
12:15	04:15	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
12:20	04:20	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
12:25	04:25	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
12:30	04:30	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
12:35	04:35	< LLD	1.83E-06	5.10E-06	1.81E-13	1.02E-10	2.41E-11
12:40	04:40	< LLD	3.30E-06	9.21E-06	2.70E-13	1.85E-10	4.37E-11
12:45	04:45	< LLD	4.92E-06	1.37E-05	3.34E-13	2.78E-10	6.56E-11
12:50	04:50	5.09E-07	1.63E-05	4.54E-05	9.14E-13	9.27E-10	2.19E-10
12:55	04:55	5.08E-07	1.62E-05	4.51E-05	7.52E-13	9.27E-10	2.19E-10
13:00	05:00	5.08E-07	1.61E-05	4.48E-05	6.18E-13	9.27E-10	2.19E-10
13:05	05:05	5.07E-07	1.60E-05	4.45E-05	5.08E-13	9.27E-10	2.19E-10
13:10	05:10	5.06E-07	1.59E-05	4.43E-05	4.18E-13	9.27E-10	2.19E-10
13:15	05:15	5.07E-07	1.58E-05	4.40E-05	3.57E-13	9.27E-10	2.19E-10
13:20	05:20	3.05E-01	9.49E+00	2.64E+01	1.71E-05	5.60E-02	1.32E-02
13:25	05:25	3.05E-01	9.43E+00	2.62E+01	1.40E-05	5.60E-02	1.32E-02
13:30	05:30	3.05E-01	9.37E+00	2.61E+01	1.15E-05	5.60E-02	1.32E-02
13:35	05:35	3.04E-01	9.31E+00	2.59E+01	9.49E-06	5.60E-02	1.32E-02
13:40	05:40	3.04E-01	9.25E+00	2.58E+01	7.80E-06	5.60E-02	1.32E-02
13:45	05:45	3.04E-01	9.19E+00	2.56E+01	6.41E-06	5.60E-02	1.32E-02
14:00	06:00	3.03E-01	9.02E+00	2.52E+01	3.56E-06	5.60E-02	1.32E-02
14:15	06:15	3.02E-01	8.85E+00	2.48E+01	1.98E-06	5.60E-02	1.32E-02
14:30	06:30	3.01E-01	8.69E+00	2.44E+01	1.10E-06	5.60E-02	1.32E-02
14:45	06:45	3.00E-01	8.52E+00	2.40E+01	6.12E-07	5.60E-02	1.32E-02
15:00	07:00	2.99E-01	8.36E+00	2.37E+01	3.40E-07	5.59E-02	1.32E-02
15:15	07:15	2.46E-01	6.78E+00	1.93E+01	1.56E-07	4.62E-02	1.09E-02
15:30	07:30	1.13E-01	3.06E+00	8.76E+00	4.00E-08	2.13E-02	5.03E-03
15:45	07:45	3.82E-03	1.02E-01	2.93E-01	7.54E-10	7.22E-04	1.71E-04
16:00	08:00	5.47E-05	1.44E-03	4.15E-03	6.00E-12	1.03E-05	2.44E-06

Reactor Building Air Concentrations
 Hope Creek Nuclear Generating Station
 10/25/94

Clock Time	Drill Time	Mo-99 uCi/cc	Te-129 uCi/cc	Te-132 uCi/cc	Cs-134 uCi/cc	Cs-137 uCi/cc	Ba-140 uCi/cc
08:00	00:00	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
08:15	00:15	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
08:30	00:30	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
08:45	00:45	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
09:00	01:00	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
09:15	01:15	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
09:30	01:30	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
09:45	01:45	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
09:47	01:47	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
09:50	01:50	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
10:00	02:00	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
10:15	02:15	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
10:30	02:30	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
10:45	02:45	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
11:00	03:00	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
11:15	03:15	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
11:30	03:30	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
11:35	03:35	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
11:40	03:40	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
11:45	03:45	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
12:00	04:00	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
12:15	04:15	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
12:20	04:20	1.08E-11	< LLD	< LLD	6.30E-13	1.81E-13	< LLD
12:25	04:25	2.52E-11	< LLD	3.57E-14	1.48E-12	4.24E-13	< LLD
12:30	04:30	9.91E-12	3.99E-13	7.02E-12	5.82E-13	1.67E-13	9.53E-12
12:35	04:35	2.03E-10	7.76E-12	1.44E-10	1.19E-11	3.41E-12	1.95E-10
12:40	04:40	3.68E-10	1.34E-11	2.61E-10	2.16E-11	6.21E-12	3.55E-10
12:45	04:45	5.51E-10	1.91E-11	3.91E-10	3.25E-11	9.31E-12	5.32E-10
12:50	04:50	1.84E-09	6.07E-11	1.30E-09	1.08E-10	3.10E-11	1.77E-09
12:55	04:55	1.84E-09	5.77E-11	1.30E-09	1.08E-10	3.10E-11	1.77E-09
13:00	05:00	1.83E-09	5.49E-11	1.30E-09	1.08E-10	3.10E-11	1.77E-09
13:05	05:05	1.83E-09	5.22E-11	1.30E-09	1.08E-10	3.10E-11	1.77E-09
13:10	05:10	1.83E-09	4.97E-11	1.30E-09	1.08E-10	3.10E-11	1.77E-09
13:15	05:15	1.83E-09	4.77E-11	1.30E-09	1.08E-10	3.10E-11	1.77E-09
13:20	05:20	1.10E-01	2.71E-03	7.84E-02	6.54E-03	1.88E-03	1.07E-01
13:25	05:25	1.10E-01	2.58E-03	7.83E-02	6.54E-03	1.88E-03	1.07E-01
13:30	05:30	1.10E-01	2.45E-03	7.83E-02	6.54E-03	1.88E-03	1.07E-01
13:35	05:35	1.10E-01	2.33E-03	7.82E-02	6.54E-03	1.88E-03	1.07E-01
13:40	05:40	1.10E-01	2.22E-03	7.81E-02	6.54E-03	1.88E-03	1.07E-01
13:45	05:45	1.10E-01	2.11E-03	7.81E-02	6.54E-03	1.88E-03	1.07E-01
14:00	06:00	1.10E-01	1.82E-03	7.79E-02	6.54E-03	1.88E-03	1.07E-01
14:15	06:15	1.09E-01	1.56E-03	7.77E-02	6.54E-03	1.88E-03	1.07E-01
14:30	06:30	1.09E-01	1.34E-03	7.76E-02	6.54E-03	1.88E-03	1.07E-01
14:45	06:45	1.09E-01	1.16E-03	7.74E-02	6.54E-03	1.88E-03	1.07E-01
15:00	07:00	1.09E-01	9.94E-04	7.72E-02	6.54E-03	1.88E-03	1.07E-01
15:15	07:15	8.95E-02	7.07E-04	6.37E-02	5.41E-03	1.55E-03	8.80E-02
15:30	07:30	4.11E-02	2.80E-04	2.93E-02	2.49E-03	7.14E-04	4.05E-02
15:45	07:45	1.39E-03	8.17E-06	9.90E-04	8.44E-05	2.42E-05	1.37E-03
16:00	08:00	1.98E-05	1.01E-07	1.41E-05	1.21E-06	3.47E-07	1.97E-05

Reactor Building Air Concentrations
 Hope Creek Nuclear Generating Station
 10/25/94

Clock Time	Drill Time	La-140 uCi/cc	La-142 uCi/cc	Ce-144 uCi/cc	Total Particulate uCi/cc	Gross Activity uCi/cc
08:00	00:00	< LLD	< LLD	< LLD	N/A	N/A
08:15	00:15	< LLD	< LLD	< LLD	N/A	N/A
08:30	00:30	< LLD	< LLD	< LLD	N/A	N/A
08:45	00:45	< LLD	< LLD	< LLD	N/A	N/A
09:00	01:00	< LLD	< LLD	< LLD	N/A	N/A
09:15	01:15	< LLD	< LLD	< LLD	N/A	N/A
09:30	01:30	< LLD	< LLD	< LLD	N/A	N/A
09:45	01:45	< LLD	< LLD	< LLD	N/A	N/A
09:47	01:47	< LLD	< LLD	< LLD	N/A	N/A
09:50	01:50	< LLD	< LLD	< LLD	N/A	N/A
10:00	02:00	< LLD	< LLD	< LLD	N/A	N/A
10:15	02:15	< LLD	< LLD	< LLD	N/A	N/A
10:30	02:30	< LLD	< LLD	< LLD	N/A	N/A
10:45	02:45	< LLD	< LLD	< LLD	N/A	N/A
11:00	03:00	< LLD	< LLD	< LLD	N/A	N/A
11:15	03:15	< LLD	< LLD	< LLD	N/A	N/A
11:30	03:30	< LLD	< LLD	< LLD	N/A	N/A
11:35	03:35	< LLD	< LLD	< LLD	N/A	2.00E-11
11:40	03:40	< LLD	< LLD	< LLD	N/A	3.83E-10
11:45	03:45	< LLD	< LLD	< LLD	N/A	3.82E-10
12:00	04:00	< LLD	< LLD	< LLD	N/A	3.80E-10
12:15	04:15	< LLD	< LLD	< LLD	N/A	3.77E-10
12:20	04:20	< LLD	< LLD	< LLD	1.15E-11	8.16E-07
12:25	04:25	< LLD	< LLD	< LLD	2.72E-11	1.91E-06
12:30	04:30	9.72E-12	4.34E-12	3.73E-12	5.16E-11	2.55E-07
12:35	04:35	1.99E-10	8.56E-11	7.62E-11	1.05E-09	5.18E-06
12:40	04:40	3.61E-10	1.50E-10	1.39E-10	1.90E-09	9.35E-06
12:45	04:45	5.40E-10	2.17E-10	2.08E-10	2.84E-09	1.39E-05
12:50	04:50	1.80E-09	6.95E-10	6.93E-10	9.45E-09	4.61E-05
12:55	04:55	1.80E-09	6.70E-10	6.93E-10	9.41E-09	4.58E-05
13:00	05:00	1.79E-09	6.45E-10	6.93E-10	9.38E-09	4.55E-05
13:05	05:05	1.79E-09	6.21E-10	6.93E-10	9.35E-09	4.52E-05
13:10	05:10	1.79E-09	5.99E-10	6.93E-10	9.31E-09	4.49E-05
13:15	05:15	1.79E-09	5.81E-10	6.93E-10	9.29E-09	3.46E+01
13:20	05:20	1.08E-01	3.36E-02	4.19E-02	5.59E-01	3.44E+01
13:25	05:25	1.08E-01	3.23E-02	4.19E-02	5.58E-01	3.41E+01
13:30	05:30	1.07E-01	3.11E-02	4.19E-02	5.56E-01	3.39E+01
13:35	05:35	1.07E-01	3.00E-02	4.19E-02	5.54E-01	3.37E+01
13:40	05:40	1.07E-01	2.89E-02	4.19E-02	5.54E-01	3.37E+01
13:45	05:45	1.07E-01	2.78E-02	4.19E-02	5.51E-01	3.33E+01
14:00	06:00	1.07E-01	2.49E-02	4.19E-02	5.47E-01	3.27E+01
14:15	06:15	1.06E-01	2.22E-02	4.19E-02	5.43E-01	3.21E+01
14:30	06:30	1.06E-01	1.99E-02	4.19E-02	5.40E-01	3.16E+01
14:45	06:45	1.05E-01	1.77E-02	4.19E-02	5.36E-01	3.11E+01
15:00	07:00	1.05E-01	1.59E-02	4.19E-02	5.33E-01	3.06E+01
15:15	07:15	8.62E-02	1.17E-02	3.46E-02	4.39E-01	2.49E+01
15:30	07:30	3.95E-02	4.82E-03	1.59E-02	2.01E-01	1.13E+01
15:45	07:45	1.33E-03	1.46E-04	5.40E-04	6.78E-03	3.79E-01
16:00	08:00	1.90E-05	1.87E-06	7.74E-06	9.67E-05	5.36E-03

Reactor Building Air Sample Data
 Hope Creek Nuclear Generating Station
 10/25/94

Clock Time	Drill Time	Charcoal Cartridge @ Contact mR/hr	Charcoal Cartridge @ 1 Foot mR/hr	Charcoal Cartridge CCPM	Filter Paper CCPM	Marinelli Cartridge @ Contact mR/hr	Marinelli Cartridge @ 1 Foot mR/hr
08:00	00:00	< 0.2	< 0.2	< 100	< 100	< 0.2	< 0.2
08:15	00:15	< 0.2	< 0.2	< 100	< 100	< 0.2	< 0.2
08:30	00:30	< 0.2	< 0.2	< 100	< 100	< 0.2	< 0.2
08:45	00:45	< 0.2	< 0.2	< 100	< 100	< 0.2	< 0.2
09:00	01:00	< 0.2	< 0.2	< 100	< 100	< 0.2	< 0.2
09:15	01:15	< 0.2	< 0.2	< 100	< 100	< 0.2	< 0.2
09:30	01:30	< 0.2	< 0.2	< 100	< 100	< 0.2	< 0.2
09:45	01:45	< 0.2	< 0.2	< 100	< 100	< 0.2	< 0.2
09:47	01:47	< 0.2	< 0.2	< 100	< 100	< 0.2	< 0.2
09:50	01:50	< 0.2	< 0.2	< 100	< 100	< 0.2	< 0.2
10:00	02:00	< 0.2	< 0.2	< 100	< 100	< 0.2	< 0.2
10:15	02:15	< 0.2	< 0.2	< 100	< 100	< 0.2	< 0.2
10:30	02:30	< 0.2	< 0.2	< 100	< 100	< 0.2	< 0.2
10:45	02:45	< 0.2	< 0.2	< 100	< 100	< 0.2	< 0.2
11:00	03:00	< 0.2	< 0.2	< 100	< 100	< 0.2	< 0.2
11:15	03:15	< 0.2	< 0.2	< 100	< 100	< 0.2	< 0.2
11:30	03:30	< 0.2	< 0.2	< 100	< 100	< 0.2	< 0.2
11:35	03:35	< 0.2	< 0.2	< 100	< 100	< 0.2	< 0.2
11:40	03:40	< 0.2	< 0.2	< 100	< 100	< 0.2	< 0.2
11:45	03:45	< 0.2	< 0.2	< 100	< 100	< 0.2	< 0.2
12:00	04:00	< 0.2	< 0.2	< 100	< 100	< 0.2	< 0.2
12:15	04:15	< 0.2	< 0.2	< 100	< 100	< 0.2	< 0.2
12:20	04:20	< 0.2	< 0.2	< 100	< 100	< 0.2	< 0.2
12:25	04:25	< 0.2	< 0.2	< 100	< 100	< 0.2	< 0.2
12:30	04:30	< 0.2	< 0.2	< 100	< 100	< 0.2	< 0.2
12:35	04:35	< 0.2	< 0.2	2.29E+02	1.65E+02	< 0.2	< 0.2
12:40	04:40	< 0.2	< 0.2	4.13E+02	2.99E+02	< 0.2	< 0.2
12:45	04:45	< 0.2	< 0.2	6.13E+02	4.47E+02	< 0.2	< 0.2
12:50	04:50	6.57E-01	< 0.2	2.02E+03	1.48E+03	< 0.2	< 0.2
12:55	04:55	6.51E-01	< 0.2	2.01E+03	1.48E+03	< 0.2	< 0.2
13:00	05:00	6.46E-01	< 0.2	1.99E+03	1.47E+03	< 0.2	< 0.2
13:05	05:05	6.40E-01	< 0.2	1.97E+03	1.47E+03	< 0.2	< 0.2
13:10	05:10	6.34E-01	< 0.2	1.95E+03	1.46E+03	< 0.2	< 0.2
13:15	05:15	6.30E-01	< 0.2	1.94E+03	1.46E+03	< 0.2	< 0.2
13:20	05:20	7.54E+06	1.31E+04	2.32E+10	8.79E+10	1.01E+05	1.76E+02
13:25	05:25	7.48E+06	1.30E+04	2.30E+10	8.77E+10	1.00E+05	1.74E+02
13:30	05:30	7.42E+06	1.29E+04	2.29E+10	8.74E+10	9.96E+04	1.73E+02
13:35	05:35	7.36E+06	1.28E+04	2.27E+10	8.72E+10	9.88E+04	1.72E+02
13:40	05:40	7.31E+06	1.27E+04	2.25E+10	8.69E+10	9.81E+04	1.70E+02
13:45	05:45	7.25E+06	1.26E+04	2.23E+10	8.67E+10	9.73E+04	1.69E+02
14:00	06:00	7.10E+06	1.23E+04	2.19E+10	8.60E+10	9.52E+04	1.65E+02
14:15	06:15	6.95E+06	1.21E+04	2.14E+10	8.54E+10	9.33E+04	1.62E+02
14:30	06:30	6.81E+06	1.18E+04	2.10E+10	8.48E+10	9.14E+04	1.59E+02
14:45	06:45	6.68E+06	1.16E+04	2.06E+10	8.43E+10	8.97E+04	1.56E+02
15:00	07:00	6.56E+06	1.14E+04	2.02E+10	8.38E+10	8.81E+04	1.53E+02
15:15	07:15	5.33E+06	9.25E+03	1.64E+10	6.89E+10	7.15E+04	1.24E+02
15:30	07:30	2.41E+06	4.19E+03	7.43E+09	3.16E+10	3.24E+04	5.62E+01
15:45	07:45	8.05E+04	1.40E+02	2.48E+08	1.07E+09	1.08E+03	1.87E+00
16:00	08:00	1.13E+03	1.97E+00	3.49E+06	1.52E+07	1.52E+01	< 0.2

Reactor Building Air Sample Data
 Hope Creek Nuclear Generating Station
 10/25/94

Clock Time	Drill Time	Marinelli Cartridge CCPM	Marinelli Fltr Paper CCPM	J-Bomb @ Contact mR/hr	J-Bomb @ 1 Foot mR/hr
08:00	00:00	< 100	< 100	< 0.2	< 0.2
08:15	00:15	< 100	< 100	< 0.2	< 0.2
08:30	00:30	< 100	< 100	< 0.2	< 0.2
08:45	00:45	< 100	< 100	< 0.2	< 0.2
09:00	01:00	< 100	< 100	< 0.2	< 0.2
09:15	01:15	< 100	< 100	< 0.2	< 0.2
09:30	01:30	< 100	< 100	< 0.2	< 0.2
09:45	01:45	< 100	< 100	< 0.2	< 0.2
09:47	01:47	< 100	< 100	< 0.2	< 0.2
09:50	01:50	< 100	< 100	< 0.2	< 0.2
10:00	02:00	< 100	< 100	< 0.2	< 0.2
10:15	02:15	< 100	< 100	< 0.2	< 0.2
10:30	02:30	< 100	< 100	< 0.2	< 0.2
10:45	02:45	< 100	< 100	< 0.2	< 0.2
11:00	03:00	< 100	< 100	< 0.2	< 0.2
11:15	03:15	< 100	< 100	< 0.2	< 0.2
11:30	03:30	< 100	< 100	< 0.2	< 0.2
11:35	03:35	< 100	< 100	< 0.2	< 0.2
11:40	03:40	< 100	< 100	< 0.2	< 0.2
11:45	03:45	< 100	< 100	< 0.2	< 0.2
12:00	04:00	< 100	< 100	< 0.2	< 0.2
12:15	04:15	< 100	< 100	< 0.2	< 0.2
12:20	04:20	< 100	< 100	< 0.2	< 0.2
12:25	04:25	< 100	< 100	< 0.2	< 0.2
12:30	04:30	< 100	< 100	< 0.2	< 0.2
12:35	04:35	< 100	< 100	< 0.2	< 0.2
12:40	04:40	< 100	< 100	< 0.2	< 0.2
12:45	04:45	< 100	< 100	< 0.2	< 0.2
12:50	04:50	3.06E+02	< 100	< 0.2	< 0.2
12:55	04:55	3.03E+02	< 100	< 0.2	< 0.2
13:00	05:00	3.00E+02	< 100	< 0.2	< 0.2
13:05	05:05	2.98E+02	< 100	< 0.2	< 0.2
13:10	05:10	2.95E+02	< 100	< 0.2	< 0.2
13:15	05:15	2.93E+02	< 100	< 0.2	< 0.2
13:20	05:20	3.51E+09	1.18E+09	1.52E+03	2.64E+01
13:25	05:25	3.48E+09	1.18E+09	1.51E+03	2.62E+01
13:30	05:30	3.45E+09	1.17E+09	1.50E+03	2.61E+01
13:35	05:35	3.43E+09	1.17E+09	1.49E+03	2.59E+01
13:40	05:40	3.40E+09	1.17E+09	1.48E+03	2.58E+01
13:45	05:45	3.38E+09	1.16E+09	1.48E+03	2.56E+01
14:00	06:00	3.30E+09	1.15E+09	1.45E+03	2.52E+01
14:15	06:15	3.23E+09	1.15E+09	1.43E+03	2.48E+01
14:30	06:30	3.17E+09	1.14E+09	1.40E+03	2.44E+01
14:45	06:45	3.11E+09	1.13E+09	1.38E+03	2.40E+01
15:00	07:00	3.05E+09	1.12E+09	1.36E+03	2.37E+01
15:15	07:15	2.48E+09	9.25E+08	1.11E+03	1.93E+01
15:30	07:30	1.12E+09	4.24E+08	5.04E+02	8.76E+00
15:45	07:45	3.75E+07	1.43E+07	1.69E+01	2.93E-01
16:00	08:00	5.28E+05	2.04E+05	2.39E-01	< 0.2

Drywell Air Concentrations
 Hope Creek Nuclear Generating Station
 10/25/94

Clock Time	Drill Time	I-131 uCi/cc	I-132 uCi/cc	I-133 uCi/cc	I-134 uCi/cc	I-135 uCi/cc	Total Iodine uCi/cc
08:00	00:00	1.06E-09	1.62E-09	2.37E-09	2.78E-09	2.17E-09	1.00E-08
08:15	00:15	1.06E-09	1.62E-09	2.37E-09	2.78E-09	2.17E-09	1.00E-08
08:30	00:30	1.06E-09	1.62E-09	2.37E-09	2.78E-09	2.17E-09	1.00E-08
08:45	00:45	1.06E-09	1.62E-09	2.37E-09	2.78E-09	2.17E-09	1.00E-08
09:00	01:00	1.06E-09	1.62E-09	2.37E-09	2.78E-09	2.17E-09	1.00E-08
09:15	01:15	1.06E-09	1.62E-09	2.37E-09	2.78E-09	2.17E-09	1.00E-08
09:30	01:30	1.06E-09	1.62E-09	2.37E-09	2.78E-09	2.17E-09	1.00E-08
09:45	01:45	1.06E-09	1.62E-09	2.37E-09	2.78E-09	2.17E-09	1.00E-08
09:50	01:50	1.06E-09	1.59E-09	2.37E-09	2.67E-09	2.16E-09	9.85E-09
10:00	02:00	1.06E-09	1.51E-09	2.36E-09	2.34E-09	2.12E-09	9.39E-09
10:15	02:15	1.06E-09	1.40E-09	2.34E-09	1.92E-09	2.06E-09	8.78E-09
10:30	02:30	1.06E-09	1.30E-09	2.32E-09	1.57E-09	2.01E-09	8.26E-09
10:45	02:45	1.06E-09	1.20E-09	2.30E-09	1.29E-09	1.96E-09	7.81E-09
11:00	03:00	1.06E-09	1.12E-09	2.28E-09	1.06E-09	1.91E-09	7.42E-09
11:15	03:15	1.06E-09	1.04E-09	2.26E-09	8.66E-10	1.86E-09	7.08E-09
11:30	03:30	1.05E-09	9.60E-10	2.24E-09	7.10E-10	1.81E-09	6.78E-09
11:35	03:35	1.91E-04	1.69E-04	4.04E-04	1.20E-04	3.25E-04	1.21E-03
11:40	03:40	3.66E-03	3.17E-03	7.75E-03	2.16E-03	6.20E-03	2.29E-02
11:45	03:45	3.66E-03	3.09E-03	7.73E-03	2.02E-03	6.14E-03	2.26E-02
12:00	04:00	3.66E-03	2.87E-03	7.66E-03	1.66E-03	5.99E-03	2.18E-02
12:15	04:15	3.65E-03	2.66E-03	7.60E-03	1.36E-03	5.83E-03	2.11E-02
12:20	04:20	7.92E+00	5.61E+00	1.64E+01	2.75E+00	1.25E+01	4.52E+01
12:25	04:25	1.86E+01	1.28E+01	3.84E+01	6.05E+00	2.91E+01	1.05E+02
12:30	04:30	2.15E+01	1.45E+01	4.43E+01	6.55E+00	3.34E+01	1.20E+02
12:35	04:35	3.17E+01	2.09E+01	6.53E+01	9.06E+00	4.90E+01	1.76E+02
12:40	04:40	5.77E+01	3.70E+01	1.18E+02	1.54E+01	8.83E+01	3.17E+02
12:45	04:45	8.65E+01	5.41E+01	1.77E+02	2.16E+01	1.31E+02	4.71E+02
13:00	05:00	2.88E+02	1.67E+02	5.86E+02	5.91E+01	4.27E+02	1.53E+03
13:15	05:15	2.88E+02	1.55E+02	5.81E+02	4.85E+01	4.16E+02	1.49E+03
13:30	05:30	2.88E+02	1.44E+02	5.76E+02	3.97E+01	4.05E+02	1.45E+03
13:45	05:45	2.87E+02	1.33E+02	5.71E+02	3.26E+01	3.95E+02	1.42E+03
14:00	06:00	2.87E+02	1.23E+02	5.67E+02	2.67E+01	3.85E+02	1.39E+03
14:15	06:15	2.87E+02	1.14E+02	5.62E+02	2.19E+01	3.75E+02	1.36E+03
14:30	06:30	2.87E+02	1.06E+02	5.57E+02	1.79E+01	3.65E+02	1.33E+03
14:45	06:45	2.86E+02	9.83E+01	5.53E+02	1.47E+01	3.56E+02	1.31E+03
15:00	07:00	2.86E+02	9.11E+01	5.48E+02	1.21E+01	3.47E+02	1.28E+03
15:15	07:15	4.12E+02	1.22E+02	7.83E+02	1.42E+01	4.87E+02	1.82E+03
15:30	07:30	7.34E+02	2.01E+02	1.39E+03	2.08E+01	8.47E+02	3.19E+03
15:45	07:45	1.02E+03	2.59E+02	1.91E+03	2.37E+01	1.14E+03	4.35E+03
16:00	08:00	1.05E+03	2.49E+02	1.96E+03	2.01E+01	1.16E+03	4.44E+03

Drywell Air Concentrations
 Hope Creek Nuclear Generating Station
 10/25/94

Clock Time	Drill Time	DEI uCi/cc	Kr-85 uCi/cc	Kr-87 uCi/cc	Kr-88 uCi/cc	Xe-131m uCi/cc	Xe-133 uCi/cc
08:00	00:00	2.04E-09	< LLD	< LLD	< LLD	< LLD	< LLD
08:15	00:15	2.04E-09	< LLD	< LLD	< LLD	< LLD	< LLD
08:30	00:30	2.04E-09	< LLD	< LLD	< LLD	< LLD	< LLD
08:45	00:45	2.04E-09	< LLD	< LLD	< LLD	< LLD	< LLD
09:00	01:00	2.04E-09	< LLD	< LLD	< LLD	< LLD	< LLD
09:15	01:15	2.04E-09	< LLD	< LLD	< LLD	< LLD	< LLD
09:30	01:30	2.04E-09	< LLD	< LLD	< LLD	< LLD	< LLD
09:45	01:45	2.04E-09	< LLD	< LLD	< LLD	< LLD	< LLD
09:50	01:50	2.03E-09	< LLD	< LLD	< LLD	< LLD	< LLD
10:00	02:00	1.98E-09	< LLD	< LLD	< LLD	< LLD	< LLD
10:15	02:15	1.91E-09	< LLD	< LLD	< LLD	< LLD	< LLD
10:30	02:30	1.85E-09	< LLD	< LLD	< LLD	< LLD	< LLD
10:45	02:45	1.80E-09	< LLD	< LLD	< LLD	< LLD	< LLD
11:00	03:00	1.76E-09	< LLD	< LLD	< LLD	< LLD	< LLD
11:15	03:15	1.72E-09	< LLD	< LLD	< LLD	< LLD	< LLD
11:30	03:30	1.68E-09	< LLD	< LLD	< LLD	< LLD	< LLD
11:35	03:35	3.03E-04	< LLD	5.13E-04	1.21E-03	1.52E-05	2.87E-02
11:40	03:40	5.78E-03	1.23E-04	9.42E-03	2.27E-02	2.92E-04	5.52E-01
11:45	03:45	5.75E-03	1.23E-04	9.00E-03	2.23E-02	2.92E-04	5.51E-01
12:00	04:00	5.66E-03	1.23E-04	7.85E-03	2.09E-02	2.92E-04	5.51E-01
12:15	04:15	5.57E-03	1.23E-04	6.84E-03	1.97E-02	2.91E-04	5.50E-01
12:20	04:20	1.20E+01	2.66E-01	1.42E+01	4.17E+01	6.31E-01	1.19E+03
12:25	04:25	2.81E+01	6.25E-01	3.18E+01	9.59E+01	1.48E+00	2.79E+03
12:30	04:30	3.23E+01	3.73E-01	1.81E+01	5.60E+01	8.83E-01	1.89E+02
12:35	04:35	4.76E+01	5.51E-01	2.55E+01	8.11E+01	1.30E+00	2.80E+02
12:40	04:40	8.62E+01	1.00E+00	4.44E+01	1.44E+02	2.37E+00	5.08E+02
12:45	04:45	1.29E+02	1.50E+00	6.36E+01	2.12E+02	3.56E+00	7.62E+02
13:00	05:00	4.24E+02	5.01E+00	1.85E+02	6.65E+02	1.18E+01	2.54E+03
13:15	05:15	4.20E+02	5.01E+00	1.61E+02	6.25E+02	1.18E+01	2.53E+03
13:30	05:30	4.16E+02	5.01E+00	1.41E+02	5.87E+02	1.18E+01	2.53E+03
13:45	05:45	4.12E+02	5.01E+00	1.23E+02	5.52E+02	1.18E+01	2.53E+03
14:00	06:00	4.08E+02	5.01E+00	1.07E+02	5.18E+02	1.18E+01	2.52E+03
14:15	06:15	4.05E+02	5.01E+00	9.33E+01	4.87E+02	1.18E+01	2.52E+03
14:30	06:30	4.02E+02	5.01E+00	8.14E+01	4.58E+02	1.18E+01	2.52E+03
14:45	06:45	3.99E+02	5.01E+00	7.10E+01	4.30E+02	1.18E+01	2.51E+03
15:00	07:00	3.96E+02	5.01E+00	6.19E+01	4.04E+02	1.18E+01	2.51E+03
15:15	07:15	5.66E+02	7.21E+00	7.77E+01	5.47E+02	1.70E+01	3.61E+03
15:30	07:30	1.00E+03	1.29E+01	1.21E+02	9.19E+02	3.03E+01	6.44E+03
15:45	07:45	1.38E+03	1.79E+01	1.46E+02	1.20E+03	4.20E+01	8.91E+03
16:00	08:00	1.43E+03	1.85E+01	1.32E+02	1.17E+03	4.35E+01	9.23E+03

Drywell Air Concentrations
 Hope Creek Nuclear Generating Station
 10/25/94

Clock Time	Drill Time	Xe-133m uCi/cc	Xe-135 uCi/cc	Total Noble Gas uCi/cc	Rb-88 uCi/cc	Sr-89 uCi/cc	Sr-90 uCi/cc
08:00	00:00	< LLD	< LLD	N/A	1.53E-10	< LLD	< LLD
08:15	00:15	< LLD	< LLD	N/A	1.53E-10	< LLD	< LLD
08:30	00:30	< LLD	< LLD	N/A	1.53E-10	< LLD	< LLD
08:45	00:45	< LLD	< LLD	N/A	1.53E-10	< LLD	< LLD
09:00	01:00	< LLD	< LLD	N/A	1.53E-10	< LLD	< LLD
09:15	01:15	< LLD	< LLD	N/A	1.53E-10	< LLD	< LLD
09:30	01:30	< LLD	< LLD	N/A	1.53E-10	< LLD	< LLD
09:45	01:45	< LLD	< LLD	N/A	1.36E-10	< LLD	< LLD
09:50	01:50	< LLD	< LLD	N/A	9.17E-11	< LLD	< LLD
10:00	02:00	< LLD	< LLD	N/A	5.10E-11	< LLD	< LLD
10:15	02:15	< LLD	< LLD	N/A	2.83E-11	< LLD	< LLD
10:30	02:30	< LLD	< LLD	N/A	1.58E-11	< LLD	< LLD
10:45	02:45	< LLD	< LLD	N/A	8.76E-12	< LLD	< LLD
11:00	03:00	< LLD	< LLD	N/A	4.87E-12	< LLD	< LLD
11:15	03:15	< LLD	< LLD	N/A	2.71E-12	< LLD	< LLD
11:30	03:30	< LLD	< LLD	N/A	4.02E-07	4.33E-10	1.02E-10
11:35	03:35	7.96E-05	2.76E-03	3.33E-02	6.36E-06	8.32E-09	1.96E-09
11:40	03:40	1.53E-03	5.27E-02	6.38E-01	5.23E-06	8.32E-09	1.96E-09
11:45	03:45	1.53E-03	5.24E-02	6.37E-01	2.90E-06	8.32E-09	1.96E-09
12:00	04:00	1.52E-03	5.14E-02	6.33E-01	1.61E-06	8.32E-09	1.96E-09
12:15	04:15	1.52E-03	5.05E-02	6.29E-01	2.88E-03	1.80E-05	4.25E-06
12:20	04:20	3.28E+00	1.09E+02	1.36E+03	5.55E-03	4.23E-05	9.97E-06
12:25	04:25	7.70E+00	2.53E+02	3.18E+03	1.79E-03	8.32E-01	1.96E-01
12:30	04:30	4.58E+00	1.50E+02	4.19E+02	2.18E-03	1.23E+00	2.90E-01
12:35	04:35	6.77E+00	2.20E+02	6.15E+02	3.26E-03	2.24E+00	5.27E-01
12:40	04:40	1.23E+01	3.98E+02	1.11E+03	4.02E-03	3.35E+00	7.91E-01
12:45	04:45	1.84E+01	5.93E+02	1.65E+03	7.45E-03	1.12E+01	2.64E+00
13:00	05:00	6.12E+01	1.94E+03	5.41E+03	4.14E-03	1.12E+01	2.64E+00
13:15	05:15	6.10E+01	1.90E+03	5.30E+03	2.30E-03	1.12E+01	2.64E+00
13:30	05:30	6.08E+01	1.87E+03	5.20E+03	1.28E-03	1.12E+01	2.64E+00
13:45	05:45	6.06E+01	1.83E+03	5.11E+03	7.11E-04	1.12E+01	2.64E+00
14:00	06:00	6.04E+01	1.80E+03	5.03E+03	3.95E-04	1.12E+01	2.64E+00
14:15	06:15	6.02E+01	1.77E+03	4.94E+03	2.20E-04	1.12E+01	2.64E+00
14:30	06:30	6.00E+01	1.73E+03	4.87E+03	1.22E-04	1.12E+01	2.64E+00
14:45	06:45	5.98E+01	1.70E+03	4.79E+03	6.79E-05	1.12E+01	2.64E+00
15:00	07:00	5.97E+01	1.67E+03	4.72E+03	5.43E-05	1.61E+01	3.80E+00
15:15	07:15	8.56E+01	2.36E+03	6.70E+03	5.39E-05	2.87E+01	6.78E+00
15:30	07:30	1.52E+02	4.13E+03	1.18E+04	4.16E-05	3.98E+01	9.40E+00
15:45	07:45	2.11E+02	5.62E+03	1.61E+04	2.39E-05	4.12E+01	9.74E+00
16:00	08:00	2.18E+02	5.72E+03	1.65E+04			

Drywell Air Concentrations
 Hope Creek Nuclear Generating Station
 10/25/94

Clock Time	Drill Time	Mo-99 uCi/cc	Te-129 uCi/cc	Te-132 uCi/cc	Cs-134 uCi/cc	Cs-137 uCi/cc	Ba-140 uCi/cc
08:00	00:00	2.45E-10	9.85E-14	3.46E-13	1.40E-11	4.01E-12	< LLD
08:15	00:15	2.45E-10	9.85E-14	3.46E-13	1.40E-11	4.01E-12	< LLD
08:30	00:30	2.45E-10	9.85E-14	3.46E-13	1.40E-11	4.01E-12	< LLD
08:45	00:45	2.45E-10	9.85E-14	3.46E-13	1.40E-11	4.01E-12	< LLD
09:00	01:00	2.45E-10	9.85E-14	3.46E-13	1.40E-11	4.01E-12	< LLD
09:15	01:15	2.45E-10	9.85E-14	3.46E-13	1.40E-11	4.01E-12	< LLD
09:30	01:30	2.45E-10	9.85E-14	3.46E-13	1.40E-11	4.01E-12	< LLD
09:45	01:45	2.45E-10	9.85E-14	3.46E-13	1.40E-11	4.01E-12	< LLD
09:50	01:50	2.45E-10	9.56E-14	3.45E-13	1.40E-11	4.01E-12	< LLD
10:00	02:00	2.44E-10	8.64E-14	3.45E-13	1.40E-11	4.01E-12	< LLD
10:15	02:15	2.44E-10	7.43E-14	3.44E-13	1.40E-11	4.01E-12	< LLD
10:30	02:30	2.43E-10	6.39E-14	3.43E-13	1.40E-11	4.01E-12	< LLD
10:45	02:45	2.42E-10	5.50E-14	3.43E-13	1.40E-11	4.01E-12	< LLD
11:00	03:00	2.42E-10	4.73E-14	3.42E-13	1.40E-11	4.01E-12	< LLD
11:15	03:15	2.41E-10	4.07E-14	3.41E-13	1.40E-11	4.01E-12	< LLD
11:30	03:30	2.40E-10	3.50E-14	3.40E-13	1.40E-11	4.01E-12	< LLD
11:35	03:35	4.34E-05	6.02E-09	6.15E-08	2.53E-06	7.24E-07	8.30E-10
11:40	03:40	8.34E-04	1.10E-07	1.18E-06	4.86E-05	1.39E-05	1.59E-08
11:45	03:45	8.33E-04	1.05E-07	1.18E-06	4.86E-05	1.39E-05	1.59E-08
12:00	04:00	8.31E-04	9.00E-08	1.18E-06	4.86E-05	1.39E-05	1.59E-08
12:15	04:15	8.29E-04	7.74E-08	1.17E-06	4.86E-05	1.39E-05	1.59E-08
12:20	04:20	1.79E+00	1.60E-04	2.54E-03	1.05E-01	3.02E-02	3.45E-05
12:25	04:25	4.21E+00	3.56E-04	5.96E-03	2.47E-01	7.08E-02	8.09E-05
12:30	04:30	1.65E+00	6.66E-02	1.17E+00	9.71E-02	2.79E-02	1.59E+00
12:35	04:35	2.44E+00	9.36E-02	1.73E+00	1.44E-01	4.12E-02	2.35E+00
12:40	04:40	4.44E+00	1.62E-01	3.15E+00	2.61E-01	7.48E-02	4.27E+00
12:45	04:45	6.65E+00	2.31E-01	4.71E+00	3.92E-01	1.12E-01	6.41E+00
13:00	05:00	2.21E+01	6.62E-01	1.57E+01	1.31E+00	3.74E-01	2.14E+01
13:15	05:15	2.20E+01	5.69E-01	1.56E+01	1.31E+00	3.74E-01	2.13E+01
13:30	05:30	2.20E+01	4.90E-01	1.56E+01	1.30E+00	3.74E-01	2.13E+01
13:45	05:45	2.19E+01	4.21E-01	1.56E+01	1.30E+00	3.74E-01	2.13E+01
14:00	06:00	2.19E+01	3.62E-01	1.55E+01	1.30E+00	3.74E-01	2.13E+01
14:15	06:15	2.18E+01	3.12E-01	1.55E+01	1.30E+00	3.74E-01	2.13E+01
14:30	06:30	2.18E+01	2.68E-01	1.55E+01	1.30E+00	3.74E-01	2.13E+01
14:45	06:45	2.17E+01	2.31E-01	1.54E+01	1.30E+00	3.74E-01	2.13E+01
15:00	07:00	2.17E+01	1.98E-01	1.54E+01	1.30E+00	3.74E-01	2.13E+01
15:15	07:15	3.11E+01	2.46E-01	2.21E+01	1.88E+00	5.39E-01	3.06E+01
15:30	07:30	5.54E+01	3.77E-01	3.94E+01	3.36E+00	9.62E-01	5.46E+01
15:45	07:45	7.66E+01	4.50E-01	5.46E+01	4.65E+00	1.33E+00	7.57E+01
16:00	08:00	7.92E+01	4.01E-01	5.64E+01	4.82E+00	1.38E+00	7.84E+01

Drywell Air Concentrations
 Hope Creek Nuclear Generating Station
 10/25/94

Clock Time	Drill Time	La-140 uCi/cc	La-142 uCi/cc	Ce-144 uCi/cc	Total Particulate uCi/cc	Gross Activity uCi/cc
08:00	00:00	< LLD	< LLD	1.79E-13	4.16E-10	2.07E-07
08:15	00:15	< LLD	< LLD	1.79E-13	4.16E-10	2.07E-07
08:30	00:30	< LLD	< LLD	1.79E-13	4.16E-10	2.07E-07
08:45	00:45	< LLD	< LLD	1.79E-13	4.16E-10	2.07E-07
09:00	01:00	< LLD	< LLD	1.79E-13	4.16E-10	2.07E-07
09:15	01:15	< LLD	< LLD	1.79E-13	4.16E-10	2.07E-07
09:30	01:30	< LLD	< LLD	1.79E-13	4.16E-10	2.07E-07
09:45	01:45	< LLD	< LLD	1.79E-13	4.16E-10	2.07E-07
09:50	01:50	< LLD	< LLD	1.79E-13	3.99E-10	2.06E-07
10:00	02:00	< LLD	< LLD	1.79E-13	3.55E-10	2.04E-07
10:15	02:15	< LLD	< LLD	1.79E-13	3.13E-10	2.02E-07
10:30	02:30	< LLD	< LLD	1.79E-13	2.90E-10	1.99E-07
10:45	02:45	< LLD	< LLD	1.79E-13	2.77E-10	1.97E-07
11:00	03:00	< LLD	< LLD	1.79E-13	2.69E-10	1.95E-07
11:15	03:15	< LLD	< LLD	1.79E-13	2.65E-10	1.93E-07
11:30	03:30	< LLD	< LLD	1.79E-13	2.62E-10	1.92E-07
11:35	03:35	8.58E-10	5.70E-10	3.24E-08	4.72E-05	3.45E-02
11:40	03:40	1.65E-08	1.05E-08	6.22E-07	9.05E-04	6.62E-01
11:45	03:45	1.64E-08	1.02E-08	6.22E-07	9.03E-04	6.61E-01
12:00	04:00	1.64E-08	9.08E-09	6.22E-07	8.99E-04	6.55E-01
12:15	04:15	1.63E-08	8.11E-09	6.22E-07	8.95E-04	6.51E-01
12:20	04:20	3.53E-05	1.69E-05	1.35E-03	1.94E+00	1.41E+03
12:25	04:25	8.26E-05	3.83E-05	3.16E-03	4.54E+00	3.29E+03
12:30	04:30	1.62E+00	7.25E-01	6.22E-01	8.61E+00	5.48E+02
12:35	04:35	2.40E+00	1.03E+00	9.19E-01	1.27E+01	8.04E+02
12:40	04:40	4.35E+00	1.81E+00	1.67E+00	2.29E+01	1.45E+03
12:45	04:45	6.52E+00	2.61E+00	2.51E+00	3.43E+01	2.16E+03
13:00	05:00	2.16E+01	7.78E+00	8.36E+00	1.13E+02	7.05E+03
13:15	05:15	2.15E+01	6.95E+00	8.36E+00	1.12E+02	6.90E+03
13:30	05:30	2.14E+01	6.21E+00	8.36E+00	1.11E+02	6.77E+03
13:45	05:45	2.13E+01	5.55E+00	8.36E+00	1.10E+02	6.64E+03
14:00	06:00	2.13E+01	4.96E+00	8.35E+00	1.09E+02	6.52E+03
14:15	06:15	2.12E+01	4.43E+00	8.35E+00	1.08E+02	6.41E+03
14:30	06:30	2.11E+01	3.96E+00	8.35E+00	1.08E+02	6.31E+03
14:45	06:45	2.10E+01	3.54E+00	8.35E+00	1.07E+02	6.21E+03
15:00	07:00	2.09E+01	3.16E+00	8.35E+00	1.06E+02	6.11E+03
15:15	07:15	3.00E+01	4.07E+00	1.20E+01	1.52E+02	8.67E+03
15:30	07:30	5.33E+01	6.49E+00	2.15E+01	2.71E+02	1.53E+04
15:45	07:45	7.35E+01	8.05E+00	2.98E+01	3.74E+02	2.09E+04
16:00	08:00	7.59E+01	7.45E+00	3.09E+01	3.86E+02	2.13E+04

Drywell Atmosphere Pass Sample Data
 Hope Creek Nuclear Generating Station
 10/25/94

Clock Time	Drill Time	Undiluted Sample @ Contact mR/hr	Undiluted Sample @ 1 Foot mR/hr
08:00	00:00	< 0.2	< 0.2
08:15	00:15	< 0.2	< 0.2
08:30	00:30	< 0.2	< 0.2
08:45	00:45	< 0.2	< 0.2
09:00	01:00	< 0.2	< 0.2
09:15	01:15	< 0.2	< 0.2
09:30	01:30	< 0.2	< 0.2
09:45	01:45	< 0.2	< 0.2
09:47	01:47	< 0.2	< 0.2
09:50	01:50	< 0.2	< 0.2
10:00	02:00	< 0.2	< 0.2
10:15	02:15	< 0.2	< 0.2
10:30	02:30	< 0.2	< 0.2
10:45	02:45	< 0.2	< 0.2
11:00	03:00	< 0.2	< 0.2
11:15	03:15	< 0.2	< 0.2
11:30	03:30	< 0.2	< 0.2
11:35	03:35	7.71E-01	< 0.2
11:40	03:40	1.48E+01	< 0.2
11:45	03:45	1.47E+01	< 0.2
12:00	04:00	1.46E+01	< 0.2
12:15	04:15	1.45E+01	< 0.2
12:20	04:20	3.14E+04	5.45E+01
12:25	04:25	7.35E+04	1.28E+02
12:30	04:30	1.22E+04	2.12E+01
12:35	04:35	1.79E+04	3.11E+01
12:40	04:40	3.24E+04	5.62E+01
12:45	04:45	4.82E+04	8.37E+01
12:50	04:50	1.59E+05	2.77E+02
12:55	04:55	1.58E+05	2.75E+02
13:00	05:00	1.57E+05	2.73E+02
13:05	05:05	1.56E+05	2.71E+02
13:10	05:10	1.55E+05	2.69E+02
13:15	05:15	1.54E+05	2.67E+02
13:20	05:20	1.53E+05	2.66E+02
13:25	05:25	1.52E+05	2.64E+02
13:30	05:30	1.51E+05	2.62E+02
13:35	05:35	1.50E+05	2.61E+02
13:40	05:40	1.49E+05	2.59E+02
13:45	05:45	1.48E+05	2.57E+02
14:00	06:00	1.46E+05	2.53E+02
14:15	06:15	1.43E+05	2.48E+02
14:30	06:30	1.41E+05	2.44E+02
14:45	06:45	1.38E+05	2.40E+02
15:00	07:00	1.36E+05	2.37E+02
15:15	07:15	1.93E+05	3.36E+02
15:30	07:30	3.41E+05	5.91E+02
15:45	07:45	4.66E+05	8.09E+02
16:00	08:00	4.76E+05	8.27E+02

Service / Radwaste Building Air Concentrations
 Hope Creek Nuclear Generating Station
 10/25/94

Clock Time	Drill Time	I-131 uCi/cc	I-132 uCi/cc	I-133 uCi/cc	I-134 uCi/cc	I-135 uCi/cc	Total Iodine uCi/cc
08:00	00:00	< LLD	< LLD	< LLD	< LLD	1.33E-15	6.13E-15
08:15	00:15	< LLD	< LLD	< LLD	< LLD	1.33E-15	6.13E-15
08:30	00:30	< LLD	< LLD	< LLD	< LLD	1.33E-15	6.13E-15
08:45	00:45	< LLD	< LLD	< LLD	< LLD	1.33E-15	6.13E-15
09:00	01:00	< LLD	< LLD	< LLD	< LLD	1.33E-15	6.13E-15
09:15	01:15	< LLD	< LLD	< LLD	< LLD	1.33E-15	6.13E-15
09:30	01:30	< LLD	< LLD	< LLD	< LLD	1.33E-15	6.13E-15
09:45	01:45	< LLD	< LLD	< LLD	< LLD	1.32E-15	6.04E-15
09:50	01:50	< LLD	< LLD	< LLD	< LLD	1.30E-15	5.76E-15
10:00	02:00	< LLD	< LLD	< LLD	< LLD	1.27E-15	5.39E-15
10:15	02:15	< LLD	< LLD	< LLD	< LLD	1.23E-15	5.07E-15
10:30	02:30	< LLD	< LLD	< LLD	< LLD	1.20E-15	4.79E-15
10:45	02:45	< LLD	< LLD	< LLD	< LLD	< LLD	N/A
11:00	03:00	< LLD	< LLD	< LLD	< LLD	< LLD	N/A
11:15	03:15	< LLD	< LLD	< LLD	< LLD	< LLD	N/A
11:30	03:30	< LLD	< LLD	< LLD	< LLD	< LLD	N/A
11:35	03:35	< LLD	< LLD	< LLD	< LLD	< LLD	N/A
11:40	03:40	< LLD	< LLD	< LLD	< LLD	< LLD	N/A
11:45	03:45	< LLD	< LLD	< LLD	< LLD	< LLD	N/A
12:00	04:00	< LLD	< LLD	< LLD	< LLD	< LLD	N/A
12:15	04:15	< LLD	< LLD	< LLD	< LLD	< LLD	N/A
12:20	04:20	1.40E-12	9.91E-13	2.90E-12	4.86E-13	2.21E-12	7.99E-12
12:25	04:25	3.28E-12	2.27E-12	6.78E-12	1.07E-12	5.14E-12	1.85E-11
12:30	04:30	3.79E-12	2.56E-12	7.83E-12	1.16E-12	5.90E-12	2.12E-11
12:35	04:35	2.09E-11	1.37E-11	4.29E-11	5.95E-12	3.22E-11	1.16E-10
12:40	04:40	3.79E-11	2.43E-11	7.78E-11	1.01E-11	5.80E-11	2.08E-10
12:45	04:45	5.68E-11	3.55E-11	1.16E-10	1.42E-11	8.63E-11	3.09E-10
13:00	05:00	1.89E-10	1.10E-10	3.85E-10	3.89E-11	2.80E-10	1.00E-09
13:15	05:15	1.89E-10	1.02E-10	3.82E-10	3.19E-11	2.73E-10	9.78E-10
13:30	05:30	1.89E-10	9.44E-11	3.79E-10	2.61E-11	2.66E-10	9.54E-10
13:45	05:45	1.89E-10	8.75E-11	3.75E-10	2.14E-11	2.59E-10	9.32E-10
14:00	06:00	1.89E-10	8.11E-11	3.72E-10	1.75E-11	2.53E-10	9.12E-10
14:15	06:15	1.88E-10	7.52E-11	3.69E-10	1.44E-11	2.46E-10	8.93E-10
14:30	06:30	1.88E-10	6.97E-11	3.66E-10	1.18E-11	2.40E-10	8.76E-10
14:45	06:45	1.88E-10	6.46E-11	3.63E-10	9.67E-12	2.34E-10	8.59E-10
15:00	07:00	1.88E-10	5.99E-11	3.60E-10	7.92E-12	2.28E-10	8.44E-10
15:15	07:15	1.88E-10	5.55E-11	3.57E-10	6.49E-12	2.22E-10	8.29E-10
15:30	07:30	1.88E-10	5.14E-11	3.54E-10	5.32E-12	2.16E-10	8.15E-10
15:45	07:45	1.87E-10	4.77E-11	3.51E-10	4.36E-12	2.11E-10	8.02E-10
16:00	08:00	1.87E-10	4.42E-11	3.48E-10	3.58E-12	2.05E-10	7.89E-10

Service / Radwaste Building Air Concentrations
 Hope Creek Nuclear Generating Station
 10/25/94

Clock Time	Drill Time	DEI uCi/cc	Kr-85 uCi/cc	Kr-87 uCi/cc	Kr-88 uCi/cc	Xe-131m uCi/cc	Xe-133 uCi/cc
08:00	00:00	1.25E-15	< LLD	< LLD	< LLD	< LLD	< LLD
08:15	00:15	1.25E-15	< LLD	< LLD	< LLD	< LLD	< LLD
08:30	00:30	1.25E-15	< LLD	< LLD	< LLD	< LLD	< LLD
08:45	00:45	1.25E-15	< LLD	< LLD	< LLD	< LLD	< LLD
09:00	01:00	1.25E-15	< LLD	< LLD	< LLD	< LLD	< LLD
09:15	01:15	1.25E-15	< LLD	< LLD	< LLD	< LLD	< LLD
09:30	01:30	1.25E-15	< LLD	< LLD	< LLD	< LLD	< LLD
09:45	01:45	1.25E-15	< LLD	< LLD	< LLD	< LLD	< LLD
09:50	01:50	1.24E-15	< LLD	< LLD	< LLD	< LLD	< LLD
10:00	02:00	1.21E-15	< LLD	< LLD	< LLD	< LLD	< LLD
10:15	02:15	1.17E-15	< LLD	< LLD	< LLD	< LLD	< LLD
10:30	02:30	1.14E-15	< LLD	< LLD	< LLD	< LLD	< LLD
10:45	02:45	1.10E-15	< LLD	< LLD	< LLD	< LLD	< LLD
11:00	03:00	N/A	< LLD	< LLD	< LLD	< LLD	< LLD
11:15	03:15	N/A	< LLD	< LLD	< LLD	< LLD	< LLD
11:30	03:30	N/A	< LLD	< LLD	< LLD	< LLD	< LLD
11:35	03:35	N/A	< LLD	< LLD	< LLD	< LLD	< LLD
11:40	03:40	N/A	< LLD	< LLD	< LLD	< LLD	< LLD
11:45	03:45	N/A	< LLD	< LLD	< LLD	< LLD	< LLD
12:00	04:00	N/A	< LLD	< LLD	< LLD	< LLD	< LLD
12:15	04:15	N/A	< LLD	< LLD	< LLD	< LLD	< LLD
12:20	04:20	2.12E-12	< LLD	< LLD	< LLD	< LLD	< LLD
12:25	04:25	4.96E-12	< LLD	< LLD	< LLD	< LLD	< LLD
12:30	04:30	5.71E-12	< LLD	< LLD	< LLD	< LLD	< LLD
12:35	04:35	3.13E-11	< LLD	< LLD	< LLD	< LLD	< LLD
12:40	04:40	5.66E-11	< LLD	< LLD	< LLD	< LLD	< LLD
12:45	04:45	8.46E-11	< LLD	< LLD	< LLD	< LLD	< LLD
13:00	05:00	2.79E-10	< LLD	< LLD	< LLD	< LLD	< LLD
13:15	05:15	2.76E-10	< LLD	< LLD	< LLD	< LLD	< LLD
13:30	05:30	2.73E-10	< LLD	< LLD	< LLD	< LLD	< LLD
13:45	05:45	2.71E-10	< LLD	< LLD	< LLD	< LLD	< LLD
14:00	06:00	2.68E-10	< LLD	< LLD	< LLD	< LLD	< LLD
14:15	06:15	2.66E-10	< LLD	< LLD	< LLD	< LLD	< LLD
14:30	06:30	2.64E-10	< LLD	< LLD	< LLD	< LLD	< LLD
14:45	06:45	2.62E-10	< LLD	< LLD	< LLD	< LLD	< LLD
15:00	07:00	2.60E-10	< LLD	< LLD	< LLD	< LLD	< LLD
15:15	07:15	2.58E-10	< LLD	< LLD	< LLD	< LLD	< LLD
15:30	07:30	2.57E-10	< LLD	< LLD	< LLD	< LLD	< LLD
15:45	07:45	2.55E-10	< LLD	< LLD	< LLD	< LLD	< LLD
16:00	08:00	2.53E-10	< LLD	< LLD	< LLD	< LLD	< LLD

Service / Radwaste Building Air Concentrations
 Hope Creek Nuclear Generating Station
 10/25/94

Clock Time	Drill Time	Xe-133m uCi/cc	Xe-135 uCi/cc	Total Noble Gas uCi/cc	Rb-88 uCi/cc	Sr-89 uCi/cc	Sr-90 uCi/cc
08:00	00:00	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
08:15	00:15	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
08:30	00:30	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
08:45	00:45	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
09:00	01:00	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
09:15	01:15	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
09:30	01:30	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
09:45	01:45	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
09:50	01:50	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
10:00	02:00	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
10:15	02:15	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
10:30	02:30	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
10:45	02:45	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
11:00	03:00	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
11:15	03:15	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
11:30	03:30	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
11:35	03:35	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
11:40	03:40	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
11:45	03:45	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
12:00	04:00	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
12:15	04:15	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
12:20	04:20	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
12:25	04:25	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
12:30	04:30	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
12:35	04:35	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
12:40	04:40	< LLD	< LLD	N/A	< LLD	< LLD	2.16E-12
12:45	04:45	< LLD	< LLD	N/A	< LLD	1.38E-11	3.25E-12
13:00	05:00	< LLD	< LLD	N/A	< LLD	4.59E-11	1.08E-11
13:15	05:15	< LLD	< LLD	N/A	< LLD	4.59E-11	1.08E-11
13:30	05:30	< LLD	< LLD	N/A	< LLD	4.59E-11	1.08E-11
13:45	05:45	< LLD	< LLD	N/A	< LLD	4.59E-11	1.08E-11
14:00	06:00	< LLD	< LLD	N/A	< LLD	4.59E-11	1.08E-11
14:15	06:15	< LLD	< LLD	N/A	< LLD	4.58E-11	1.08E-11
14:30	06:30	< LLD	< LLD	N/A	< LLD	4.58E-11	1.08E-11
14:45	06:45	< LLD	< LLD	N/A	< LLD	4.58E-11	1.08E-11
15:00	07:00	< LLD	< LLD	N/A	< LLD	4.58E-11	1.08E-11
15:15	07:15	< LLD	< LLD	N/A	< LLD	4.58E-11	1.08E-11
15:30	07:30	< LLD	< LLD	N/A	< LLD	4.58E-11	1.08E-11
15:45	07:45	< LLD	< LLD	N/A	< LLD	4.58E-11	1.08E-11
16:00	08:00	< LLD	< LLD	N/A	< LLD	4.58E-11	1.08E-11

Service / Radwaste Building Air Concentrations
 Hope Creek Nuclear Generating Station
 10/25/94

Clock Drill Time Time	Mo-99 uCi/cc	Te-129 uCi/cc	Te-132 uCi/cc	Cs-134 uCi/cc	Cs-137 uCi/cc	Ba-140 uCi/cc
08:00 00:00	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
08:15 00:15	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
08:30 00:30	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
08:45 00:45	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
09:00 01:00	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
09:15 01:15	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
09:30 01:30	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
09:45 01:45	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
09:50 01:50	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
10:00 02:00	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
10:15 02:15	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
10:30 02:30	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
10:45 02:45	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
11:00 03:00	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
11:15 03:15	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
11:30 03:30	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
11:35 03:35	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
11:40 03:40	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
11:45 03:45	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
12:00 04:00	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
12:15 04:15	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
12:20 04:20	1.98E-12	< LLD	< LLD	1.16E-13	< LLD	< LLD
12:25 04:25	4.64E-12	< LLD	< LLD	2.72E-13	7.81E-14	< LLD
12:30 04:30	1.82E-12	7.35E-14	1.29E-12	1.07E-13	< LLD	1.76E-12
12:35 04:35	1.00E-11	3.84E-13	7.11E-12	5.89E-13	1.69E-13	9.66E-12
12:40 04:40	1.82E-11	6.64E-13	1.29E-11	1.07E-12	3.07E-13	1.76E-11
12:45 04:45	2.73E-11	9.48E-13	1.94E-11	1.61E-12	4.61E-13	2.63E-11
13:00 05:00	9.08E-11	2.72E-12	6.44E-11	5.36E-12	1.54E-12	8.77E-11
13:15 05:15	9.05E-11	2.34E-12	6.42E-11	5.36E-12	1.54E-12	8.76E-11
13:30 05:30	9.03E-11	2.01E-12	6.41E-11	5.36E-12	1.54E-12	8.76E-11
13:45 05:45	9.01E-11	1.73E-12	6.40E-11	5.36E-12	1.54E-12	8.75E-11
14:00 06:00	8.98E-11	1.49E-12	6.38E-11	5.36E-12	1.54E-12	8.75E-11
14:15 06:15	8.96E-11	1.28E-12	6.37E-11	5.36E-12	1.54E-12	8.74E-11
14:30 06:30	8.94E-11	1.10E-12	6.35E-11	5.36E-12	1.54E-12	8.74E-11
14:45 06:45	8.91E-11	9.47E-13	6.34E-11	5.36E-12	1.54E-12	8.73E-11
15:00 07:00	8.89E-11	8.14E-13	6.32E-11	5.36E-12	1.54E-12	8.73E-11
15:15 07:15	8.87E-11	7.00E-13	6.31E-11	5.36E-12	1.54E-12	8.72E-11
15:30 07:30	8.84E-11	6.02E-13	6.30E-11	5.36E-12	1.54E-12	8.72E-11
15:45 07:45	8.82E-11	5.18E-13	6.28E-11	5.36E-12	1.54E-12	8.72E-11
16:00 08:00	8.80E-11	4.46E-13	6.27E-11	5.36E-12	1.54E-12	8.71E-11

Service / Radwaste Building Air Concentrations
 Hope Creek Nuclear Generating Station
 10/25/94

Clock Time	Drill Time	La-140 uCi/cc	La-142 uCi/cc	Ce-144 uCi/cc	Total Particulate uCi/cc	Gross Activity uCi/cc
08:00	00:00	< LLD	< LLD	< LLD	N/A	7.61E-13
08:15	00:15	< LLD	< LLD	< LLD	N/A	7.61E-13
08:30	00:30	< LLD	< LLD	< LLD	N/A	7.61E-13
08:45	00:45	< LLD	< LLD	< LLD	N/A	7.61E-13
09:00	01:00	< LLD	< LLD	< LLD	N/A	7.61E-13
09:15	01:15	< LLD	< LLD	< LLD	N/A	7.61E-13
09:30	01:30	< LLD	< LLD	< LLD	N/A	7.61E-13
09:45	01:45	< LLD	< LLD	< LLD	N/A	7.59E-13
09:50	01:50	< LLD	< LLD	< LLD	N/A	7.53E-13
10:00	02:00	< LLD	< LLD	< LLD	N/A	7.45E-13
10:15	02:15	< LLD	< LLD	< LLD	N/A	7.38E-13
10:30	02:30	< LLD	< LLD	< LLD	N/A	7.31E-13
10:45	02:45	< LLD	< LLD	< LLD	N/A	N/A
11:00	03:00	< LLD	< LLD	< LLD	N/A	N/A
11:15	03:15	< LLD	< LLD	< LLD	N/A	N/A
11:30	03:30	< LLD	< LLD	< LLD	N/A	N/A
11:35	03:35	< LLD	< LLD	< LLD	N/A	N/A
11:40	03:40	< LLD	< LLD	< LLD	N/A	N/A
11:45	03:45	< LLD	< LLD	< LLD	N/A	N/A
12:00	04:00	< LLD	< LLD	< LLD	N/A	N/A
12:15	04:15	< LLD	< LLD	< LLD	N/A	N/A
12:20	04:20	< LLD	< LLD	< LLD	2.14E-12	1.51E-09
12:25	04:25	< LLD	< LLD	< LLD	5.01E-12	3.54E-09
12:30	04:30	1.79E-12	8.00E-13	6.86E-13	9.50E-12	4.93E-10
12:35	04:35	9.84E-12	4.24E-12	3.77E-12	5.20E-11	2.69E-09
12:40	04:40	1.79E-11	7.42E-12	6.86E-12	9.42E-11	4.86E-09
12:45	04:45	2.68E-11	1.07E-11	1.03E-11	1.41E-10	7.24E-09
13:00	05:00	8.88E-11	3.19E-11	3.43E-11	4.64E-10	2.37E-08
13:15	05:15	8.84E-11	2.85E-11	3.43E-11	4.60E-10	2.32E-08
13:30	05:30	8.80E-11	2.55E-11	3.43E-11	4.55E-10	2.28E-08
13:45	05:45	8.77E-11	2.28E-11	3.43E-11	4.52E-10	2.24E-08
14:00	06:00	8.73E-11	2.04E-11	3.43E-11	4.48E-10	2.20E-08
14:15	06:15	8.69E-11	1.82E-11	3.43E-11	4.45E-10	2.16E-08
14:30	06:30	8.65E-11	1.63E-11	3.43E-11	4.42E-10	2.13E-08
14:45	06:45	8.62E-11	1.45E-11	3.43E-11	4.39E-10	2.10E-08
15:00	07:00	8.58E-11	1.30E-11	3.43E-11	4.37E-10	2.07E-08
15:15	07:15	8.54E-11	1.16E-11	3.43E-11	4.35E-10	2.04E-08
15:30	07:30	8.51E-11	1.04E-11	3.43E-11	4.32E-10	2.01E-08
15:45	07:45	8.47E-11	9.27E-12	3.43E-11	4.30E-10	1.98E-08
16:00	08:00	8.43E-11	8.28E-12	3.43E-11	4.29E-10	1.96E-08

Service / Radwaste Building Air Sample Data
 Hope Creek Nuclear Generating Station
 10/25/94

Clock Time	Drill Time	Charcoal Cartridge @ Contact mR/hr	Charcoal Cartridge @ 1 Foot mR/hr	Charcoal Cartridge CCPM	Filter Paper CCPM	Marinelli Cartridge @ Contact mR/hr	Marinelli Cartridge @ 1 Foot mR/hr
08:00	00:00	< 0.2	< 0.2	< 100	< 100	< 0.2	< 0.2
08:15	00:15	< 0.2	< 0.2	< 100	< 100	< 0.2	< 0.2
08:30	00:30	< 0.2	< 0.2	< 100	< 100	< 0.2	< 0.2
08:45	00:45	< 0.2	< 0.2	< 100	< 100	< 0.2	< 0.2
09:00	01:00	< 0.2	< 0.2	< 100	< 100	< 0.2	< 0.2
09:15	01:15	< 0.2	< 0.2	< 100	< 100	< 0.2	< 0.2
09:30	01:30	< 0.2	< 0.2	< 100	< 100	< 0.2	< 0.2
09:45	01:45	< 0.2	< 0.2	< 100	< 100	< 0.2	< 0.2
09:47	01:47	< 0.2	< 0.2	< 100	< 100	< 0.2	< 0.2
09:50	01:50	< 0.2	< 0.2	< 100	< 100	< 0.2	< 0.2
10:00	02:00	< 0.2	< 0.2	< 100	< 100	< 0.2	< 0.2
10:15	02:15	< 0.2	< 0.2	< 100	< 100	< 0.2	< 0.2
10:30	02:30	< 0.2	< 0.2	< 100	< 100	< 0.2	< 0.2
10:45	02:45	< 0.2	< 0.2	< 100	< 100	< 0.2	< 0.2
11:00	03:00	< 0.2	< 0.2	< 100	< 100	< 0.2	< 0.2
11:15	03:15	< 0.2	< 0.2	< 100	< 100	< 0.2	< 0.2
11:30	03:30	< 0.2	< 0.2	< 100	< 100	< 0.2	< 0.2
11:35	03:35	< 0.2	< 0.2	< 100	< 100	< 0.2	< 0.2
11:40	03:40	< 0.2	< 0.2	< 100	< 100	< 0.2	< 0.2
11:45	03:45	< 0.2	< 0.2	< 100	< 100	< 0.2	< 0.2
12:00	04:00	< 0.2	< 0.2	< 100	< 100	< 0.2	< 0.2
12:15	04:15	< 0.2	< 0.2	< 100	< 100	< 0.2	< 0.2
12:20	04:20	< 0.2	< 0.2	< 100	< 100	< 0.2	< 0.2
12:25	04:25	< 0.2	< 0.2	< 100	< 100	< 0.2	< 0.2
12:30	04:30	< 0.2	< 0.2	< 100	< 100	< 0.2	< 0.2
12:35	04:35	< 0.2	< 0.2	< 100	< 100	< 0.2	< 0.2
12:40	04:40	< 0.2	< 0.2	< 100	< 100	< 0.2	< 0.2
12:45	04:45	< 0.2	< 0.2	< 100	< 100	< 0.2	< 0.2
12:50	04:50	< 0.2	< 0.2	< 100	< 100	< 0.2	< 0.2
12:55	04:55	< 0.2	< 0.2	< 100	< 100	< 0.2	< 0.2
13:00	05:00	< 0.2	< 0.2	< 100	< 100	< 0.2	< 0.2
13:05	05:05	< 0.2	< 0.2	< 100	< 100	< 0.2	< 0.2
13:10	05:10	< 0.2	< 0.2	< 100	< 100	< 0.2	< 0.2
13:15	05:15	< 0.2	< 0.2	< 100	< 100	< 0.2	< 0.2
13:20	05:20	< 0.2	< 0.2	< 100	< 100	< 0.2	< 0.2
13:25	05:25	< 0.2	< 0.2	< 100	< 100	< 0.2	< 0.2
13:30	05:30	< 0.2	< 0.2	< 100	< 100	< 0.2	< 0.2
13:35	05:35	< 0.2	< 0.2	< 100	< 100	< 0.2	< 0.2
13:40	05:40	< 0.2	< 0.2	< 100	< 100	< 0.2	< 0.2
13:45	05:45	< 0.2	< 0.2	< 100	< 100	< 0.2	< 0.2
14:00	06:00	< 0.2	< 0.2	< 100	< 100	< 0.2	< 0.2
14:15	06:15	< 0.2	< 0.2	< 100	< 100	< 0.2	< 0.2
14:30	06:30	< 0.2	< 0.2	< 100	< 100	< 0.2	< 0.2
14:45	06:45	< 0.2	< 0.2	< 100	< 100	< 0.2	< 0.2
15:00	07:00	< 0.2	< 0.2	< 100	< 100	< 0.2	< 0.2
15:15	07:15	< 0.2	< 0.2	< 100	< 100	< 0.2	< 0.2
15:30	07:30	< 0.2	< 0.2	< 100	< 100	< 0.2	< 0.2
15:45	07:45	< 0.2	< 0.2	< 100	< 100	< 0.2	< 0.2
16:00	08:00	< 0.2	< 0.2	< 100	< 100	< 0.2	< 0.2

Service / Radwaste Building Air Sample Data
 Hope Creek Nuclear Generating Station
 10/25/94

Clock Time	Drill Time	Marinelli Cartridge CCPM	Marinelli Fltr Paper CCPM	J-Bomb @ Contact mR/hr	J-Bomb @ 1 Foot mR/hr
08:00	00:00	< 100	< 100	< 0.2	< 0.2
08:15	00:15	< 100	< 100	< 0.2	< 0.2
08:30	00:30	< 100	< 100	< 0.2	< 0.2
08:45	00:45	< 100	< 100	< 0.2	< 0.2
09:00	01:00	< 100	< 100	< 0.2	< 0.2
09:15	01:15	< 100	< 100	< 0.2	< 0.2
09:30	01:30	< 100	< 100	< 0.2	< 0.2
09:45	01:45	< 100	< 100	< 0.2	< 0.2
09:47	01:47	< 100	< 100	< 0.2	< 0.2
09:50	01:50	< 100	< 100	< 0.2	< 0.2
10:00	02:00	< 100	< 100	< 0.2	< 0.2
10:15	02:15	< 100	< 100	< 0.2	< 0.2
10:30	02:30	< 100	< 100	< 0.2	< 0.2
10:45	02:45	< 100	< 100	< 0.2	< 0.2
11:00	03:00	< 100	< 100	< 0.2	< 0.2
11:15	03:15	< 100	< 100	< 0.2	< 0.2
11:30	03:30	< 100	< 100	< 0.2	< 0.2
11:35	03:35	< 100	< 100	< 0.2	< 0.2
11:40	03:40	< 100	< 100	< 0.2	< 0.2
11:45	03:45	< 100	< 100	< 0.2	< 0.2
12:00	04:00	< 100	< 100	< 0.2	< 0.2
12:15	04:15	< 100	< 100	< 0.2	< 0.2
12:20	04:20	< 100	< 100	< 0.2	< 0.2
12:25	04:25	< 100	< 100	< 0.2	< 0.2
12:30	04:30	< 100	< 100	< 0.2	< 0.2
12:35	04:35	< 100	< 100	< 0.2	< 0.2
12:40	04:40	< 100	< 100	< 0.2	< 0.2
12:45	04:45	< 100	< 100	< 0.2	< 0.2
12:50	04:50	< 100	< 100	< 0.2	< 0.2
12:55	04:55	< 100	< 100	< 0.2	< 0.2
13:00	05:00	< 100	< 100	< 0.2	< 0.2
13:05	05:05	< 100	< 100	< 0.2	< 0.2
13:10	05:10	< 100	< 100	< 0.2	< 0.2
13:15	05:15	< 100	< 100	< 0.2	< 0.2
13:20	05:20	< 100	< 100	< 0.2	< 0.2
13:25	05:25	< 100	< 100	< 0.2	< 0.2
13:30	05:30	< 100	< 100	< 0.2	< 0.2
13:35	05:35	< 100	< 100	< 0.2	< 0.2
13:40	05:40	< 100	< 100	< 0.2	< 0.2
13:45	05:45	< 100	< 100	< 0.2	< 0.2
14:00	06:00	< 100	< 100	< 0.2	< 0.2
14:15	06:15	< 100	< 100	< 0.2	< 0.2
14:30	06:30	< 100	< 100	< 0.2	< 0.2
14:45	06:45	< 100	< 100	< 0.2	< 0.2
15:00	07:00	< 100	< 100	< 0.2	< 0.2
15:15	07:15	< 100	< 100	< 0.2	< 0.2
15:30	07:30	< 100	< 100	< 0.2	< 0.2
15:45	07:45	< 100	< 100	< 0.2	< 0.2
16:00	08:00	< 100	< 100	< 0.2	< 0.2

FRVS Sample Isotopic Data
 Hope Creek Nuclear Generating Station
 10/25/94

Clock Time	Drill Time	I-131 uCi/cc	I-132 uCi/cc	I-133 uCi/cc	I-134 uCi/cc	I-135 uCi/cc	Total Iodine uCi/cc
08:00	00:00	< LLD	< LLD	< LLD	< LLD	< LLD	N/A
08:15	00:15	< LLD	< LLD	< LLD	< LLD	< LLD	N/A
08:30	00:30	< LLD	< LLD	< LLD	< LLD	< LLD	N/A
08:45	00:45	< LLD	< LLD	< LLD	< LLD	< LLD	N/A
09:00	01:00	< LLD	< LLD	< LLD	< LLD	< LLD	N/A
09:15	01:15	< LLD	< LLD	< LLD	< LLD	< LLD	N/A
09:30	01:30	< LLD	< LLD	< LLD	< LLD	< LLD	N/A
09:45	01:45	< LLD	< LLD	< LLD	< LLD	< LLD	N/A
10:00	02:00	< LLD	< LLD	< LLD	< LLD	< LLD	N/A
10:15	02:15	< LLD	< LLD	< LLD	< LLD	< LLD	N/A
10:30	02:30	< LLD	< LLD	< LLD	< LLD	< LLD	N/A
10:45	02:45	< LLD	< LLD	< LLD	< LLD	< LLD	N/A
11:00	03:00	< LLD	< LLD	< LLD	< LLD	< LLD	N/A
11:15	03:15	< LLD	< LLD	< LLD	< LLD	< LLD	N/A
11:30	03:30	< LLD	< LLD	< LLD	< LLD	< LLD	N/A
11:45	03:45	< LLD	< LLD	< LLD	< LLD	9.20E-15	3.39E-14
12:00	04:00	< LLD	< LLD	< LLD	< LLD	8.96E-15	3.27E-14
12:15	04:15	< LLD	< LLD	< LLD	< LLD	8.73E-15	3.16E-14
12:30	04:30	3.22E-11	2.17E-11	6.64E-11	9.81E-12	5.01E-11	1.80E-10
12:45	04:45	1.79E-09	1.12E-09	3.67E-09	4.49E-10	2.72E-09	9.76E-09
13:00	05:00	5.97E-09	3.47E-09	1.21E-08	1.23E-09	8.85E-09	3.17E-08
13:15	05:15	8.20E-03	3.34E-03	2.43E-02	8.17E-04	9.89E-03	4.65E-02
13:30	05:30	8.20E-03	3.34E-03	2.43E-02	8.17E-04	9.89E-03	4.65E-02
13:45	05:45	8.20E-03	3.34E-03	2.43E-02	8.17E-04	9.89E-03	4.65E-02
14:00	06:00	8.20E-03	3.34E-03	2.43E-02	8.17E-04	9.89E-03	4.65E-02
14:15	06:15	8.20E-03	3.34E-03	2.43E-02	8.17E-04	9.89E-03	4.65E-02
14:30	06:30	8.20E-03	3.34E-03	2.43E-02	8.17E-04	9.89E-03	4.65E-02
14:45	06:45	8.20E-03	3.34E-03	2.43E-02	8.17E-04	9.89E-03	4.65E-02
15:00	07:00	8.20E-03	3.34E-03	2.43E-02	8.17E-04	9.89E-03	4.65E-02
15:15	07:15	8.20E-03	3.34E-03	2.43E-02	8.17E-04	9.89E-03	4.65E-02
15:30	07:30	8.20E-03	3.34E-03	2.43E-02	8.17E-04	9.89E-03	4.65E-02
15:45	07:45	8.20E-03	3.34E-03	2.43E-02	8.17E-04	9.89E-03	4.65E-02
16:00	08:00	8.20E-03	3.34E-03	2.43E-02	8.17E-04	9.89E-03	4.65E-02

FRVS Sample Isotopic Data
 Hope Creek Nuclear Generating Station
 10/25/94

Clock Time	Drill Time	DEI uCi/cc	Kr-85 uCi/cc	Kr-87 uCi/cc	Kr-88 uCi/cc	Xe-131m uCi/cc	Xe-133 uCi/cc
08:00	00:00	N/A	< LLD	< LLD	< LLD	< LLD	< LLD
08:15	00:15	N/A	< LLD	< LLD	< LLD	< LLD	< LLD
08:30	00:30	N/A	< LLD	< LLD	< LLD	< LLD	< LLD
08:45	00:45	N/A	< LLD	< LLD	< LLD	< LLD	< LLD
09:00	01:00	N/A	< LLD	< LLD	< LLD	< LLD	< LLD
09:15	01:15	N/A	< LLD	< LLD	< LLD	< LLD	< LLD
09:30	01:30	N/A	< LLD	< LLD	< LLD	< LLD	< LLD
09:45	01:45	N/A	< LLD	< LLD	< LLD	< LLD	< LLD
10:00	02:00	N/A	< LLD	< LLD	< LLD	< LLD	< LLD
10:15	02:15	N/A	< LLD	< LLD	< LLD	< LLD	< LLD
10:30	02:30	N/A	< LLD	< LLD	< LLD	< LLD	< LLD
10:45	02:45	N/A	< LLD	< LLD	< LLD	< LLD	< LLD
11:00	03:00	N/A	< LLD	< LLD	< LLD	< LLD	< LLD
11:15	03:15	N/A	< LLD	< LLD	< LLD	< LLD	< LLD
11:30	03:30	N/A	< LLD	< LLD	< LLD	< LLD	< LLD
11:45	03:45	8.61E-15	< LLD	< LLD	< LLD	< LLD	< LLD
12:00	04:00	8.47E-15	< LLD	< LLD	< LLD	< LLD	< LLD
12:15	04:15	8.35E-15	< LLD	< LLD	< LLD	< LLD	< LLD
12:30	04:30	4.84E-11	< LLD	< LLD	< LLD	< LLD	< LLD
12:45	04:45	2.67E-09	< LLD	< LLD	1.76E-06	< LLD	< LLD
13:00	05:00	8.80E-09	< LLD	1.53E-06	5.51E-06	< LLD	2.10E-05
13:15	05:15	2.23E-02	5.71E-02	4.40E-01	5.91E+00	9.90E-02	2.67E+01
13:30	05:30	2.23E-02	5.71E-02	4.40E-01	5.91E+00	9.90E-02	2.67E+01
13:45	05:45	2.23E-02	5.71E-02	4.40E-01	5.91E+00	9.90E-02	2.67E+01
14:00	06:00	2.23E-02	5.71E-02	4.40E-01	5.91E+00	9.90E-02	2.67E+01
14:15	06:15	2.23E-02	5.71E-02	4.40E-01	5.91E+00	9.90E-02	2.67E+01
14:30	06:30	2.23E-02	5.71E-02	4.40E-01	5.91E+00	9.90E-02	2.67E+01
14:45	06:45	2.23E-02	5.71E-02	4.40E-01	5.91E+00	9.90E-02	2.67E+01
15:00	07:00	2.23E-02	5.71E-02	4.40E-01	5.91E+00	9.90E-02	2.67E+01
15:15	07:15	2.23E-02	5.71E-02	4.40E-01	5.91E+00	9.90E-02	2.67E+01
15:30	07:30	2.23E-02	5.71E-02	4.40E-01	5.91E+00	9.90E-02	2.67E+01
15:45	07:45	2.23E-02	5.71E-02	4.40E-01	5.91E+00	9.90E-02	2.67E+01
16:00	08:00	2.23E-02	5.71E-02	4.40E-01	5.91E+00	9.90E-02	2.67E+01

FRVS Sample Isotopic Data
 Hope Creek Nuclear Generating Station
 10/25/94

Clock Time	Drill Time	Xe-133m uCi/cc	Xe-135 uCi/cc	Total Noble Gas uCi/cc	Rb-88 uCi/cc	Sr-89 uCi/cc	Sr-90 uCi/cc
08:00	00:00	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
08:15	00:15	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
08:30	00:30	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
08:45	00:45	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
09:00	01:00	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
09:15	01:15	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
09:30	01:30	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
09:45	01:45	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
10:00	02:00	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
10:15	02:15	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
10:30	02:30	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
10:45	02:45	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
11:00	03:00	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
11:15	03:15	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
11:30	03:30	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
11:45	03:45	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
12:00	04:00	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
12:15	04:15	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
12:30	04:30	< LLD	< LLD	N/A	< LLD	< LLD	< LLD
12:45	04:45	< LLD	4.92E-06	1.37E-05	< LLD	< LLD	< LLD
13:00	05:00	5.08E-07	1.61E-05	4.48E-05	< LLD	< LLD	2.19E-12
13:15	05:15	6.50E-01	1.30E+01	4.52E+01	7.41E-08	6.60E-04	2.32E-04
13:30	05:30	6.50E-01	1.30E+01	4.52E+01	7.41E-08	6.60E-04	2.32E-04
13:45	05:45	6.50E-01	1.30E+01	4.52E+01	7.41E-08	6.60E-04	2.32E-04
14:00	06:00	6.50E-01	1.30E+01	4.52E+01	7.41E-08	6.60E-04	2.32E-04
14:15	06:15	6.50E-01	1.30E+01	4.52E+01	7.41E-08	6.60E-04	2.32E-04
14:30	06:30	6.50E-01	1.30E+01	4.52E+01	7.41E-08	6.60E-04	2.32E-04
14:45	06:45	6.50E-01	1.30E+01	4.52E+01	7.41E-08	6.60E-04	2.32E-04
15:00	07:00	6.50E-01	1.30E+01	4.52E+01	7.41E-08	6.60E-04	2.32E-04
15:15	07:15	6.50E-01	1.30E+01	4.52E+01	7.41E-08	6.60E-04	2.32E-04
15:30	07:30	6.50E-01	1.30E+01	4.52E+01	7.41E-08	6.60E-04	2.32E-04
15:45	07:45	6.50E-01	1.30E+01	4.52E+01	7.41E-08	6.60E-04	2.32E-04
16:00	08:00	6.50E-01	1.30E+01	4.52E+01	7.41E-08	6.60E-04	2.32E-04

FRVS Sample Isotopic Data
 Hope Creek Nuclear Generating Station
 10/25/94

Clock Time	Drill Time	Mo-99 uCi/cc	Te-129 uCi/cc	Te-132 uCi/cc	Cs-134 uCi/cc	Cs-137 uCi/cc	Ba-140 uCi/cc
08:00	00:00	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
08:15	00:15	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
08:30	00:30	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
08:45	00:45	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
09:00	01:00	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
09:15	01:15	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
09:30	01:30	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
09:45	01:45	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
10:00	02:00	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
10:15	02:15	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
10:30	02:30	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
10:45	02:45	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
11:00	03:00	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
11:15	03:15	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
11:30	03:30	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
11:45	03:45	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
12:00	04:00	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
12:15	04:15	< LLD	< LLD	< LLD	< LLD	< LLD	< LLD
12:30	04:30	9.91E-14	< LLD	7.02E-14	< LLD	< LLD	< LLD
12:45	04:45	5.51E-12	1.91E-13	3.91E-12	3.25E-13	9.31E-14	5.32E-12
13:00	05:00	1.83E-11	5.49E-13	1.30E-11	1.08E-12	3.10E-13	1.77E-11
13:15	05:15	2.01E-03	3.11E-05	8.81E-04	7.54E-05	2.88E-05	2.07E-03
13:30	05:30	2.01E-03	3.11E-05	8.81E-04	7.54E-05	2.88E-05	2.07E-03
13:45	05:45	2.01E-03	3.11E-05	8.81E-04	7.54E-05	2.88E-05	2.07E-03
14:00	06:00	2.01E-03	3.11E-05	8.81E-04	7.54E-05	2.88E-05	2.07E-03
14:15	06:15	2.01E-03	3.11E-05	8.81E-04	7.54E-05	2.88E-05	2.07E-03
14:30	06:30	2.01E-03	3.11E-05	8.81E-04	7.54E-05	2.88E-05	2.07E-03
14:45	06:45	2.01E-03	3.11E-05	8.81E-04	7.54E-05	2.88E-05	2.07E-03
15:00	07:00	2.01E-03	3.11E-05	8.81E-04	7.54E-05	2.88E-05	2.07E-03
15:15	07:15	2.01E-03	3.11E-05	8.81E-04	7.54E-05	2.88E-05	2.07E-03
15:30	07:30	2.01E-03	3.11E-05	8.81E-04	7.54E-05	2.88E-05	2.07E-03
15:45	07:45	2.01E-03	3.11E-05	8.81E-04	7.54E-05	2.88E-05	2.07E-03
16:00	08:00	2.01E-03	3.11E-05	8.81E-04	7.54E-05	2.88E-05	2.07E-03

FRVS Sample Isotopic Data
 Hope Creek Nuclear Generating Station
 10/25/94

Clock Time	Drill Time	La-140 uCi/cc	La-142 uCi/cc	Ce-144 uCi/cc	Total Particulate uCi/cc	Gross Activity uCi/cc
08:00	00:00	< LLD	< LLD	< LLD	N/A	N/A
08:15	00:15	< LLD	< LLD	< LLD	N/A	N/A
08:30	00:30	< LLD	< LLD	< LLD	N/A	N/A
08:45	00:45	< LLD	< LLD	< LLD	N/A	N/A
09:00	01:00	< LLD	< LLD	< LLD	N/A	N/A
09:15	01:15	< LLD	< LLD	< LLD	N/A	N/A
09:30	01:30	< LLD	< LLD	< LLD	N/A	N/A
09:45	01:45	< LLD	< LLD	< LLD	N/A	N/A
10:00	02:00	< LLD	< LLD	< LLD	N/A	N/A
10:15	02:15	< LLD	< LLD	< LLD	N/A	N/A
10:30	02:30	< LLD	< LLD	< LLD	N/A	N/A
10:45	02:45	< LLD	< LLD	< LLD	N/A	N/A
11:00	03:00	< LLD	< LLD	< LLD	N/A	N/A
11:15	03:15	< LLD	< LLD	< LLD	N/A	N/A
11:30	03:30	< LLD	< LLD	< LLD	N/A	N/A
11:45	03:45	< LLD	< LLD	< LLD	N/A	3.82E-10
12:00	04:00	< LLD	< LLD	< LLD	N/A	3.79E-10
12:15	04:15	< LLD	< LLD	< LLD	N/A	3.77E-10
12:30	04:30	9.72E-14	4.34E-14	< LLD	5.16E-13	2.51E-07
12:45	04:45	5.40E-12	2.17E-12	2.08E-12	2.84E-11	1.37E-05
13:00	05:00	1.79E-11	6.45E-12	6.93E-12	9.38E-11	4.49E-05
13:15	05:15	2.07E-03	3.78E-04	5.19E-04	8.96E-03	4.53E+01
13:30	05:30	2.07E-03	3.78E-04	5.19E-04	8.96E-03	4.53E+01
13:45	05:45	2.07E-03	3.78E-04	5.19E-04	8.96E-03	4.53E+01
14:00	06:00	2.07E-03	3.78E-04	5.19E-04	8.96E-03	4.53E+01
14:15	06:15	2.07E-03	3.78E-04	5.19E-04	8.96E-03	4.53E+01
14:30	06:30	2.07E-03	3.78E-04	5.19E-04	8.96E-03	4.53E+01
14:45	06:45	2.07E-03	3.78E-04	5.19E-04	8.96E-03	4.53E+01
15:00	07:00	2.07E-03	3.78E-04	5.19E-04	8.96E-03	4.53E+01
15:15	07:15	2.07E-03	3.78E-04	5.19E-04	8.96E-03	4.53E+01
15:30	07:30	2.07E-03	3.78E-04	5.19E-04	8.96E-03	4.53E+01
15:45	07:45	2.07E-03	3.78E-04	5.19E-04	8.96E-03	4.53E+01
16:00	08:00	2.07E-03	3.78E-04	5.19E-04	8.96E-03	4.53E+01

FRVS Air Sample Data
 Hope Creek Nuclear Generating Station
 10/25/94

Clock Time	Drill Time	Charcoal Cartridge @ Contact mR/hr	Charcoal Cartridge @ 1 Foot mR/hr	Charcoal Cartridge CCPM	Noble Gas @ Contact mR/hr	Noble Gas @ 1 Foot mR/hr
08:00	00:00	< 0.2	< 0.2	< 100	< 0.2	< 0.2
08:15	00:15	< 0.2	< 0.2	< 100	< 0.2	< 0.2
08:30	00:30	< 0.2	< 0.2	< 100	< 0.2	< 0.2
08:45	00:45	< 0.2	< 0.2	< 100	< 0.2	< 0.2
09:00	01:00	< 0.2	< 0.2	< 100	< 0.2	< 0.2
09:15	01:15	< 0.2	< 0.2	< 100	< 0.2	< 0.2
09:30	01:30	< 0.2	< 0.2	< 100	< 0.2	< 0.2
09:45	01:45	< 0.2	< 0.2	< 100	< 0.2	< 0.2
10:00	02:00	< 0.2	< 0.2	< 100	< 0.2	< 0.2
10:15	02:15	< 0.2	< 0.2	< 100	< 0.2	< 0.2
10:30	02:30	< 0.2	< 0.2	< 100	< 0.2	< 0.2
10:45	02:45	< 0.2	< 0.2	< 100	< 0.2	< 0.2
11:00	03:00	< 0.2	< 0.2	< 100	< 0.2	< 0.2
11:15	03:15	< 0.2	< 0.2	< 100	< 0.2	< 0.2
11:30	03:30	< 0.2	< 0.2	< 100	< 0.2	< 0.2
11:45	03:45	< 0.2	< 0.2	< 100	< 0.2	< 0.2
12:00	04:00	< 0.2	< 0.2	< 100	< 0.2	< 0.2
12:15	04:15	< 0.2	< 0.2	< 100	< 0.2	< 0.2
12:30	04:30	< 0.2	< 0.2	< 100	< 0.2	< 0.2
12:45	04:45	< 0.2	< 0.2	< 100	< 0.2	< 0.2
13:00	05:00	< 0.2	< 0.2	< 100	< 0.2	< 0.2
13:15	05:15	3.04E+03	5.30E+00	1.17E+08	1.53E+03	2.66E+01
13:30	05:30	3.04E+03	5.30E+00	1.17E+08	1.53E+03	2.66E+01
13:45	05:45	3.04E+03	5.30E+00	1.17E+08	1.53E+03	2.66E+01
14:00	06:00	3.04E+03	5.30E+00	1.17E+08	1.53E+03	2.66E+01
14:15	06:15	3.04E+03	5.30E+00	1.17E+08	1.53E+03	2.66E+01
14:30	06:30	3.04E+03	5.30E+00	1.17E+08	1.53E+03	2.66E+01
14:45	06:45	3.04E+03	5.30E+00	1.17E+08	1.53E+03	2.66E+01
15:00	07:00	3.04E+03	5.30E+00	1.17E+08	1.53E+03	2.66E+01
15:15	07:15	3.04E+03	5.30E+00	1.17E+08	1.53E+03	2.66E+01
15:30	07:30	3.04E+03	5.30E+00	1.17E+08	1.53E+03	2.66E+01
15:45	07:45	3.04E+03	5.30E+00	1.17E+08	1.53E+03	2.66E+01
16:00	08:00	3.04E+03	5.30E+00	1.17E+08	1.53E+03	2.66E+01

RM-11 ID	MONITOR NAME	RME QUICK REFERENCE		RANGE LOW	RANGE HIGH	MONITOR UNITS
		RM-11 GRIDS				
9AX313	DLD EQPT DRN SUMP	1		0.00E+00	5.00E+01	GPM
9AX314	DLD FLR DRN	1		0.00E+00	5.00E+01	GPM
9AX317	DLD CCM LOW	1		1.00E-02	5.20E+00	GPM
9AX318	DLD CCM UP	1		1.00E-02	5.20E+00	GPM
9AX319	DLD SMS	1		0.00E+00	5.00E+01	GPM
9AX320	DLD CCM SUM	1		1.00E-02	5.20E+00	GPM
9AX343	OFFGAS TREATED FLOW	3		0.00E+00	1.00E+03	CFM
9AX351	CTB TEMP	1/4		0.00E+00	1.20E+02	DEG. F
9RX500	RACS	4		1.00E-06	1.00E-02	UCI/CC
9RX501	SACS A	4		1.00E-06	1.00E-02	UCI/CC
9RX503	SACS B	4		1.00E-06	1.00E-02	UCI/CC
9RX505	TBCW	4		1.00E-06	1.00E-02	UCI/CC
9RX506	CTB MEAS. CONC.	1/4		1.00E-06	1.00E-01	UCI/CC
9RX507	DLD RMS	1		1.00E-06	1.00E-02	UCI/CC
9RX508	LIQ. RADWASTE	1/4		1.00E+00	1.00E+07	MR/HR
9RX509	MSL A	1/4		1.00E+00	1.00E+07	MR/HR
9RX510	MSL B	1/4		1.00E+00	1.00E+07	MR/HR
9RX511	MSL C	1/4		1.00E+00	1.00E+07	MR/HR
9RX512	MSL D	1/4		1.00E+00	1.00E+07	MR/HR
9RX513	HSCD	4		1.00E-06	1.00E-02	UCI/CC
9RX514	HSCW	4		1.00E-06	1.00E-02	UCI/CC
9RX580	SPV EFF	1/3		1.00E+00	1.00E+12	UCI/SEC
9RX581	SPV N/G HIGH	1/3		1.00E-01	1.00E+05	UCI/CC
9RX590	NPV EFF	1/3		1.00E+00	1.00E+12	UCI/SEC
9RX591	NPV N/G HIGH	1/3		1.00E-01	1.00E+05	UCI/CC
9RX596	SPV N/G FIG	3		1.00E-06	1.00E-01	UCI/CC
9RX597	NPV N/G FIG	3		1.00E-06	1.00E-01	UCI/CC
9RX598	CTB CALC	1/4		N/A	N/A	CPM
9RX599	CTB EFF	1/4		N/A	N/A	CPM
9RX600	NPV PART	3		1.00E-12	1.00E-06	UCI/CC
9RX601	NPV IODINE	3		1.00E-11	1.00E-05	UCI/CC
9RX602	NPV N/G LOW	1/3		1.00E-06	1.00E-01	UCI/CC
9RX603	NPV N/G MID	1/3		1.00E-03	1.00E+02	UCI/CC
9RX604	SPV PART	3		1.00E-12	1.00E-06	UCI/CC
9RX605	SPV IODINE	3		1.00E-11	1.00E-05	UCI/CC
9RX606	SPV N/G LOW	1/3		1.00E-06	1.00E-01	UCI/CC
9RX607	SPV N/G MID	1/3		1.00E-03	1.00E+02	UCI/CC
9RX610	FRVS N/G MID	1/3		1.00E-03	1.00E+02	UCI/CC
9RX611	FRVS N/G HIGH	1/3		1.00E-01	1.00E+05	UCI/CC
9RX612	NFS A	1/2		1.00E-01	1.00E+04	MR/HR
9RX613	NFS B	1/2		1.00E-01	1.00E+04	MR/HR
9RX614	RX.BLDG.VENT.EXH.	5		1.00E-06	1.00E-02	UCI/CC
9RX615	TB.BLDG.EXH.	5		1.00E-06	1.00E-02	UCI/CC
9RX616	RADW.EXH.SYS.	5		1.00E-06	1.00E-02	UCI/CC
9RX617	GAS.RADW.AREA EXH.	5		1.00E-06	1.00E-02	UCI/CC
9RX618	TB.BLDG.COMP.EXH.	5		1.00E-06	1.00E-02	UCI/CC
9RX619	RADW.AREA EXH.	5		1.00E-06	1.00E-02	UCI/CC
9RX620	TECH.SUP.CTR.	2		1.00E-01	1.00E+04	MR/HR
9RX621	OFFGAS A	3		1.00E+00	1.00E+06	MR/HR
9RX622	OFFGAS B	3		1.00E+00	1.00E+06	MR/HR
9RX625	OFFGAS TREATED A	3		1.00E+01	1.00E+06	CPM
9RX626	OFFGAS TREATED B	3		1.00E+01	1.00E+06	CPM
9RX627	RFE A	1/5		1.00E-06	1.00E-02	UCI/CC
9RX628	RFE B	1/5		1.00E-06	1.00E-02	UCI/CC
9RX629	RFE C	1/5		1.00E-06	1.00E-02	UCI/CC
9RX630	CRV C	1/5		1.00E-06	1.00E-02	UCI/CC
9RX631	CRV C1	1/5		1.00E-06	1.00E-02	UCI/CC
9RX632	RBE A	1/5		1.00E-06	1.00E-02	UCI/CC
9RX633	RBE B	1/5		1.00E-06	1.00E-02	UCI/CC
9RX634	RBE C	1/5		1.00E-06	1.00E-02	UCI/CC

RM-11 ID	MONITOR NAME	RMS QUICK REFERENCE		RANGE HIGH	MONITOR UNITS
		RM-11 GRIDS	RANGE LOW		
9RX635	DAPA A	1	1.00E+00	1.00E+08	R/HR
9RX636	DAPA B	1	1.00E+00	1.00E+08	R/HR
9RX637	CRV D	1/5	1.00E-06	1.00E-02	UCI/CC
9RX638	CRV D1	1/5	1.00E-06	1.00E-02	UCI/CC
9RX640	FRVS N/G LOW	1/3	1.00E-06	1.00E-01	UCI/CC
9RX680	FRVS EFF	1/3	1.00E+00	1.00E+12	UCI/SEC
9RX698	OUTER TIP RM ARM	2	1.00E-01	1.00E+04	MR/HR
9RX699	INNER TIP RM ARM	2	1.00E-01	1.00E+07	MR/HR
9RX700	PERS. AIRL.	2	1.00E-01	1.00E+04	MR/HR
9RX701	MDT. EQPT. HATCH	2	1.00E-01	1.00E+04	MR/HR
9RX702	OPEN EQPT. HATCH 145'	2	1.00E-01	1.00E+04	MR/HR
9RX703	OPEN EQPT. HATCH 162'	2	1.00E-01	1.00E+04	MR/HR
9RX704	SAPEG. INST. RM.	2	1.00E-01	1.00E+04	MR/HR
9RX705	EQPT. AIRLOCK	2	1.00E-01	1.00E+04	MR/HR
9RX706	RCDSE	2	1.00E-01	1.00E+04	MR/HR
9RX707	SPENT FUEL SP	1/2	1.00E-01	1.00E+04	MR/HR
9RX708	RBSS	2	1.00E-01	1.00E+04	MR/HR
9RX709	RADW. DRUM SHIP A	2	1.00E-01	1.00E+04	MR/HR
9RX710	MAIN CR	2	1.00E-01	1.00E+04	MR/HR
9RX711	CHEM. LAB. SPL.	2	1.00E-01	1.00E+04	MR/HR
9RX712	AUX. HATCHWAY	2	1.00E-01	1.00E+04	MR/HR
9RX713	RESTR. MS. 1	2	1.00E-01	1.00E+04	MR/HR
9RX714	RESTR. MS. 2	2	1.00E-01	1.00E+04	MR/HR
9RX715	TECH. SUP. CTR. INLET	5	1.00E-06	1.00E-02	UCI/CC
9RX716	OG VIAL SAMP. STA.	2	1.00E-01	1.00E+04	MR/HR
9RX717	RADW. SAMP. SA.	2	1.00E-01	1.00E+04	MR/HR
9RX720	FRVS LRP	2	1.00E-01	1.00E+04	MR/HR
9RX721	FRVS SKID	2	1.00E-01	1.00E+04	MR/HR
9RX722	LIQ. RADW CR	2	1.00E-01	1.00E+04	MR/HR
9RX723	ORBSS	2	1.00E-01	1.00E+04	MR/HR
9RX724	OFFGAS CR	2	1.00E-01	1.00E+04	MR/HR
9AX833	CHAN A SPTM	1	5.00E+01	2.00E+02	DEG. F
9AX834	CHAN B SPTM AV	1	5.00E+01	2.00E+02	DEG. F
9AX847	CHAN A SPTM TN	1	5.00E+01	2.00E+02	DEG. F
9AX848	CHAN B SPTM TN	1	5.00E+01	2.00E+02	DEG. F

RM-11 ID	MONITOR NAME	RMS QUICK REFERENCE		DETECTOR LOCATION
		ASP ALERT	ASP HIGH	
9RX313	DLD EQPT DRN SUMP	2.12E+01	1 GPM/HR	D/W EQUIP.DRN.SUMP
9RX314	DLD FLR DRN	4.20E+00	RATE OF RISE .973 GPM/HR	D/W FLR.DRN.SUMP
9AX317	DLD CCM LOW	3.00E+00	RATE OF RISE 5.00E+00	D/W,HD.LOW COND.COOLER
9AX318	DLD CCM UP	3.00E+00	5.00E+00	D/W,HD.UPPER COND COOL
9AX319	DLD SMS	2.05E+01	2 GPM/HR	N/A
9AX320	DLD CCM SUM	3.00E+00	RATE OF RISE 5.00E+00	N/A
9AX343	OFFGAS TREATED FLOW	7.00E+01	9.00E+01	54'EL.S/RW(3159)
9AX351	CTB TEMP	8.90E+01	9.60E+01	BLDG.9(NORTHWEST YARD)
9RX500	RACS	4.50E-05	9.00E-05	77'EL.RX.(4209)
9RX501	SACS A	3.00E-05	6.00E-05	102'EL.RX.(4309)
9RX503	SACS B	3.00E-05	6.00E-05	102'EL.RX.(4307)
9RX505	TBCW	7.00E-06	1.40E-05	54'EL.TB.(1101)
9RX506	CTB MEAS.CONC.	VARIOUS	VARIOUS	BLDG.9(NORTHWEST YARD)
9RX507	DLD RMS	2.50E-03	5.00E-03	162'EL.RX.(4614)
9RX508	LIQ.RADW.	VARIOUS	VARIOUS	54'EL.S/RW(3139)
9RX509	MSL A	5.46E+01	1.09E+02	IN FLR.145'EL.(4501)
9RX510	MSL B	4.61E+01	9.21E+01	IN FLR.145'EL.(4501)
9RX511	MSL C	5.06E+01	1.01E+02	IN FLR.145'EL.(4501)
9RX512	MSL D	5.42E+01	1.08E+02	IN FLR.145'EL.(4501)
9RX513	HSCD	3.00E-05	6.00E-05	54'EL.S/RW(3149)
9RX514	HSCW	3.00E-05	6.00E-05	87'EL.S/RW(3201)
9RX580	SPV EFF	1.54E+03	3.08E+03	N/A
9RX581	SPV N/G HIGH	1.00E-01	1.00E+04	153'EL.S/RW(3602)
9RX590	NPV EFF	1.54E+03	3.08E+03	N/A
9RX591	NPV N/G HIGH	4.00E-06	8.00E-06	137'EL.S/RW(3582)
9RX596	GPV N/G PIG	8.40E-06	1.60E-05	153'EL.S/RW(3602)
9RX597	NPV N/G PIG	N/A	N/A	137'EL.S/RW(3582)
9RX598	CTB CALC.	N/A	N/A	N/A
9RX599	CTB EFF.	N/A	N/A	N/A
9RX600	NPV PART.	1.00E-04	1.00E-03	137'EL.S/RW(3582)
9RX601	NPV IODINE	1.00E-06	1.00E-05	137'EL.S/RW(3582)
9RX602	NPV N/G LOW	N/A	N/A	137'EL.S/RW(3582)
9RX603	NPV N/G MID	N/A	N/A	137'EL.S/RW(3582)
9RX604	SPV PART.	1.00E-04	1.00E-03	153'EL.S/RW(3602)
9RX605	SPV IODINE	1.00E-06	1.00E-05	153'EL.S/RW(3602)
9RX606	SPV N/G LOW	N/A	N/A	153'EL.S/RW(3602)
9RX607	SPV N/G MID	N/A	N/A	153'EL.S/RW(3602)
9RX610	FRVS N/G MID	N/A	N/A	153'EL.S/RW(3602)
9RX611	FRVS N/G HIGH	N/A	N/A	201'EL.RX.(4708)
9RX612	NFS A	5.00E+00	5.00E+00	201'EL.RX.(4708)
9RX613	NFS B	5.00E+00	5.00E+00	165'EL.S/RW(3602)
9RX614	RX.BLDG.VENT.EXH.	5.00E-06	1.00E-05	185'EL.TB.(1703)
9RX615	TB.BLDG.EXH.	5.00E-05	7.00E-05	175'EL.S/RW(3703)
9RX616	RADW.EXH.SYS.	6.50E-06	2.00E-05	70'EL.S/RW(3153)
9RX617	GAS.RADW.AREA EXH.	1.10E-05	2.20E-05	175'EL.TB.(1703)
9RX618	TB.BLDG.COMP.EXH.	5.00E-05	7.00E-05	164'EL.S/RW(3608)
9RX619	RADW.AREA EXH.	1.00E-05	3.00E-05	TSC LOWER ELEVATION
9RX620	TECH.SUP.CTR.	1.50E+00	2.50E+00	95'EL.S/RW(3198)
9RX621	OFFGAS A	2.25E+01	2.20E+04	95'EL.S/RW(3198)
9RX622	OFFGAS B	2.25E+01	2.20E+04	54'EL.S/RW(3159)
9RX625	OFFGAS TREATED A	1.00E+04	5.00E+04	54'EL.S/RW(3159)
9RX626	OFFGAS TREATED B	1.00E+04	5.00E+04	201'EL.RX.(4700 NW)
9RX627	RFE A	1.00E-03	2.00E-03	201'EL.RX.(4700 NW)
9RX628	RFE B	1.00E-03	2.00E-03	221'EL.RX.(4700 NW)
9RX629	RFE C	1.00E-03	2.00E-03	

RMS QUICK REFERENCE

RM-11 ID	MONITOR NAME	ASP ALERT	ASP HIGH	DETECTOR LOCATION
9RX630	CRV C	1.00E-05	2.00E-05	153'EL.CDG
9RX631	CRV C1	5.00E-04	1.00E-03	153'EL.CDG
9RX632	RBE A	5.00E-04	1.00E-03	178'EL.RX.(4616)
9RX633	RBE B	5.00E-04	1.00E-03	178'EL.RX.(4616)
9RX634	RBE C	5.00E-04	1.00E-03	189'EL.RX.(4616)
9RX635	DAPA A	1.20E+02	2.00E+02	145'EL.DRYWELL
9RX636	DAPA B	1.20E+02	2.00E+02	145'EL.DRYWELL
9RX637	CRV D	1.00E-05	2.00E-05	153'EL.CDG
9RX638	CRV D1	1.00E-05	2.00E-05	153'EL.CDG
9RX640	FRVS N/G LOW	N/A	N/A	153'EL.S/RW(3602)
9RX680	FRVS EFF.	7.30E+02	1.45E+03	N/A
9RX698	OUTER TIP RM ARM	1.50E+01	1.00E+04	102'EL.RX.
9RX699	INNER TIP RM ARM	4.00E+04	4.00E+04	102'EL.RX.
9RX700	PERS.AIRL.	1.50E+00	2.50E+00	102'EL.RX.(4323)
9RX701	MDT.EQPT.H.	1.50E+00	2.50E+00	132'EL.RX.(4401)
9RX702	OPEN EQPT.H.145	1.50E+00	2.50E+00	145'EL.RX.(4508)
9RX703	OPEN EQPT.H.162	1.50E+00	2.50E+00	162'EL.RX.
9RX704	SAFEG.INST.RM.	1.50E+00	2.50E+00	77'EL.RX.(4209)
9RX705	EQPT.AIRL.	1.50E+00	2.50E+00	102'EL.RX.(4323)
9RX706	RCDSE	1.50E+00	2.50E+00	145'EL.RX.(4504)
9RX707	SPENT FUEL SP	5.00E+00	5.00E+00	201'EL.RX.(4709)
9RX708	RBSS	2.50E+00	5.00E+00	145'EL.RX.(4504)
9RX709	RADW.DRUM SHIP A	6.00E+02	1.00E+03	102'EL.S/RW(3348)
9RX710	MAIN CR	1.50E+00	2.50E+00	137'EL.CONTROL ROOM
9RX711	CHEM.LAB.SPL.RM.	1.50E+00	2.50E+00	124'EL.S/RW(3421)
9RX712	AUX.HATCHWAY	1.50E+00	2.50E+00	87'EL.S/RW(3221)
9RX713	RESTR.MS.1	1.50E+00	2.50E+00	102'EL.S/RW(3309)
9RX714	RESTR.MS.2	1.50E+00	2.50E+00	102'EL.S/RW(3309)
9RX715	TECH.SUP.CTR.INLET	1.00E-05	2.00E-05	162'EL.S/RW
9RX716	OG VIAL SS	1.50E+00	2.50E+00	87'EL.S/RW(3198)
9RX717	RADW.SS	5.00E+00	1.00E+01	54'EL.S/RW(3165)
9RX720	FRVS LRP	1.50E+00	2.50E+00	153'EL.S/RW(3602)
9RX721	FRVS SKID	1.50E+00	2.50E+00	153'EL.S/RW(3601)
9RX722	LIQ.RWCR	1.50E+00	2.50E+00	102'EL.S/RW(3343)
9RX723	ORBSS	1.50E+00	2.50E+00	145'EL.RX.(4504)
9RX724	OFFGAS CR	1.50E+00	2.50E+00	54'EL.S/RW(3165)
9AX833	CHAN.A SPTM.AV.(9.5E+01-1.05E+02)	(1.1E+02-1.2E+02)		TORUS
9AX834	CHAN.B SPTM.AV.(9.5E+01-1.05E+02)	(1.1E+02-1.2E+02)		TORUS
9AX847	CHAN.A SPTM.TN.	N/A		N/A
9AX848	CHAN.B SPTM.TN.	N/A		N/A

RMS - Area Radiation Monitors
 Hope Creek Nuclear Generating Station
 10/25/94

Clock Time	Drill Time	AUX HATCHWAY mR/hr 9RX712	Chemlab Sample mR/hr 9RX711	DAPA-A R/hr 9RX635	DAPA-B R/hr 9RX636	FRVS LRP mR/hr 9RX720	FRVS SKID mR/hr 9RX721
08:00	00:00	1.00E-01	1.00E-01	6.10E+01	2.80E+01	1.00E-01	1.00E-01
08:15	00:15	1.00E-01	1.00E-01	6.10E+01	2.80E+01	1.00E-01	1.00E-01
08:30	00:30	1.00E-01	1.00E-01	6.10E+01	2.80E+01	1.00E-01	1.00E-01
08:45	00:45	1.00E-01	1.00E-01	6.10E+01	2.80E+01	1.00E-01	1.00E-01
09:00	01:00	1.00E-01	1.00E-01	6.10E+01	2.80E+01	1.00E-01	1.00E-01
09:15	01:15	1.00E-01	1.00E-01	6.10E+01	2.80E+01	1.00E-01	1.00E-01
09:30	01:30	1.00E-01	1.00E-01	6.10E+01	2.80E+01	1.00E-01	1.00E-01
09:45	01:45	1.00E-01	1.00E-01	6.10E+01	2.80E+01	1.00E-01	1.00E-01
09:47	01:47	1.00E-01	1.00E-01	3.66E+00	1.22E+00	1.00E-01	1.00E-01
09:50	01:50	1.00E-01	1.00E-01	3.63E+00	1.21E+00	1.00E-01	1.00E-01
10:00	02:00	1.00E-01	1.00E-01	3.53E+00	1.18E+00	1.00E-01	1.00E-01
10:15	02:15	1.00E-01	1.00E-01	3.42E+00	1.14E+00	1.00E-01	1.00E-01
10:30	02:30	1.00E-01	1.00E-01	3.34E+00	1.11E+00	1.00E-01	1.00E-01
10:45	02:45	1.00E-01	1.00E-01	3.27E+00	1.09E+00	1.00E-01	1.00E-01
11:00	03:00	1.00E-01	1.00E-01	3.22E+00	1.07E+00	1.00E-01	1.00E-01
11:15	03:15	1.00E-01	1.00E-01	3.18E+00	1.06E+00	1.00E-01	1.00E-01
11:30	03:30	1.00E-01	1.00E-01	3.14E+00	1.05E+00	1.00E-01	1.00E-01
11:35	03:35	1.00E-01	1.00E-01	3.19E+00	2.00E+00	1.00E-01	1.00E-01
11:40	03:40	1.00E-01	1.00E-01	4.19E+00	3.28E+00	1.00E-01	1.00E-01
11:45	03:45	1.00E-01	1.00E-01	4.17E+00	4.17E+00	1.00E-01	1.00E-01
12:00	04:00	1.00E-01	1.00E-01	4.13E+00	4.13E+00	1.00E-01	1.00E-01
12:15	04:15	1.00E-01	1.00E-01	4.10E+00	4.10E+00	1.00E-01	1.00E-01
12:20	04:20	1.00E-01	1.00E-01	8.86E+01	8.86E+01	1.00E-01	1.00E-01
12:25	04:25	1.00E-01	1.00E-01	9.07E+01	9.07E+01	1.00E-01	1.00E-01
12:30	04:30	1.00E-01	1.00E-01	1.24E+02	1.24E+02	1.00E-01	1.00E-01
12:35	04:35	1.00E-01	1.00E-01	1.77E+02	1.77E+02	1.00E-01	1.00E-01
12:40	04:40	1.00E-01	1.00E-01	1.81E+02	1.81E+02	1.00E-01	1.00E-01
12:45	04:45	1.00E-01	1.00E-01	2.11E+02	2.11E+02	1.00E-01	1.00E-01
12:50	04:50	1.00E-01	1.00E-01	5.36E+02	5.36E+02	1.00E-01	1.00E-01
12:55	04:55	1.00E-01	1.00E-01	8.34E+02	8.34E+02	1.00E-01	1.00E-01
13:00	05:00	1.00E-01	1.00E-01	3.32E+03	3.32E+03	1.00E-01	1.00E-01
13:05	05:05	1.00E-01	1.00E-01	5.30E+03	5.30E+03	1.00E-01	1.00E-01
13:10	05:10	1.00E-01	1.00E-01	9.29E+03	9.29E+03	1.00E-01	1.00E-01
13:15	05:15	1.00E-01	1.00E-01	2.27E+04	2.27E+04	2.79E+00	2.79E+01
13:20	05:20	1.00E-01	1.00E-01	3.25E+05	3.25E+05	2.77E+01	2.77E+02
13:25	05:25	1.00E-01	1.00E-01	3.23E+05	3.23E+05	2.75E+01	2.75E+02
13:30	05:30	1.00E-01	1.00E-01	3.22E+05	3.22E+05	2.74E+01	2.74E+02
13:35	05:35	1.00E-01	1.00E-01	3.20E+05	3.20E+05	2.72E+01	2.72E+02
13:40	05:40	1.00E-01	1.00E-01	3.19E+05	3.19E+05	2.70E+01	2.70E+02
13:45	05:45	1.00E-01	1.00E-01	3.17E+05	3.17E+05	2.69E+01	2.69E+02
14:00	06:00	1.00E-01	1.00E-01	3.13E+05	3.13E+05	2.64E+01	2.64E+02
14:15	06:15	1.00E-01	1.00E-01	3.09E+05	3.09E+05	2.59E+01	2.59E+02
14:30	06:30	1.00E-01	1.00E-01	3.05E+05	3.05E+05	2.55E+01	2.55E+02
14:45	06:45	1.00E-01	1.00E-01	3.01E+05	3.01E+05	2.51E+01	2.51E+02
15:00	07:00	1.00E-01	1.00E-01	2.98E+05	2.98E+05	2.47E+01	2.47E+02
15:15	07:15	1.00E-01	1.00E-01	2.97E+05	2.97E+05	2.01E+01	2.01E+02
15:30	07:30	1.00E-01	1.00E-01	2.96E+05	2.96E+05	9.14E+00	9.13E+01
15:45	07:45	1.00E-01	1.00E-01	2.95E+05	2.95E+05	3.09E-01	3.06E+00
16:00	08:00	1.00E-01	1.00E-01	2.94E+05	2.94E+05	1.10E-01	1.10E+00

RMS - Area Radiation Monitors
 Hope Creek Nuclear Generating Station
 10/25/94

Clock Time	Drill Time	RADWAST CR mR/hr 9RX722	CR-AREA mR/hr 9RX710	Mtr Eqpt Hatch mR/hr 9RX701	NEW FUEL A mR/hr 9RX612	NEW FUEL B mR/hr 9RX613	OFFGAS TRTMT CR mR/hr 9RX724
08:00	00:00	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01
08:15	00:15	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01
08:30	00:30	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01
08:45	00:45	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01
09:00	01:00	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01
09:15	01:15	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01
09:30	01:30	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01
09:45	01:45	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01
09:47	01:47	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01
09:50	01:50	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01
10:00	02:00	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01
10:15	02:15	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01
10:30	02:30	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01
10:45	02:45	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01
11:00	03:00	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01
11:15	03:15	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01
11:30	03:30	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01
11:35	03:35	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01
11:40	03:40	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01
11:45	03:45	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01
12:00	04:00	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01
12:15	04:15	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01
12:20	04:20	1.00E-01	1.00E-01	1.20E-01	1.25E-01	1.25E-01	1.00E-01
12:25	04:25	1.00E-01	1.00E-01	2.28E-01	2.33E-01	2.33E-01	1.00E-01
12:30	04:30	1.00E-01	1.00E-01	3.21E-01	3.26E-01	3.26E-01	1.00E-01
12:35	04:35	1.00E-01	1.00E-01	7.65E-01	7.70E-01	7.70E-01	1.00E-01
12:40	04:40	1.00E-01	1.00E-01	8.23E-01	8.28E-01	8.28E-01	1.00E-01
12:45	04:45	1.00E-01	1.00E-01	9.95E-01	1.01E+00	1.01E+00	1.00E-01
12:50	04:50	1.00E-01	1.00E-01	1.10E+00	1.15E+00	1.15E+00	1.00E-01
12:55	04:55	1.00E-01	1.00E-01	1.12E+00	1.17E+00	1.17E+00	1.00E-01
13:00	05:00	1.00E-01	1.00E-01	1.80E+00	1.86E+00	1.86E+00	1.00E-01
13:05	05:05	1.00E-01	1.00E-01	2.22E+00	2.28E+00	2.28E+00	1.00E-01
13:10	05:10	1.00E-01	1.00E-01	2.34E+00	2.41E+00	2.41E+00	1.00E-01
13:15	05:15	1.00E-01	1.00E-01	2.60E+00	2.70E+00	2.70E+00	1.00E-01
13:20	05:20	1.00E-01	1.00E-01	2.80E+00	3.00E+00	3.00E+00	1.00E-01
13:25	05:25	1.00E-01	1.00E-01	7.66E+02	8.75E+02	8.75E+02	1.00E-01
13:30	05:30	1.00E-01	1.00E-01	1.00E+04	1.00E+04	1.00E+04	1.00E-01
13:35	05:35	1.00E-01	1.00E-01	1.00E+04	1.00E+04	1.00E+04	1.00E-01
13:40	05:40	1.00E-01	1.00E-01	1.00E+04	1.00E+04	1.00E+04	1.00E-01
13:45	05:45	1.00E-01	1.00E-01	1.00E+04	1.00E+04	1.00E+04	1.00E-01
14:00	06:00	1.00E-01	1.00E-01	1.00E+04	1.00E+04	1.00E+04	1.00E-01
14:15	06:15	1.00E-01	1.00E-01	1.00E+04	1.00E+04	1.00E+04	1.00E-01
14:30	06:30	1.00E-01	1.00E-01	1.00E+04	1.00E+04	1.00E+04	1.00E-01
14:45	06:45	1.00E-01	1.00E-01	1.00E+04	1.00E+04	1.00E+04	1.00E-01
15:00	07:00	1.00E-01	1.00E-01	1.00E+04	1.00E+04	1.00E+04	1.00E-01
15:15	07:15	1.00E-01	1.00E-01	1.00E+04	1.00E+04	1.00E+04	1.00E-01
15:30	07:30	1.00E-01	1.00E-01	1.00E+04	1.00E+04	1.00E+04	1.00E-01
15:45	07:45	1.00E-01	1.00E-01	6.10E+03	6.10E+03	6.10E+03	1.00E-01
16:00	08:00	1.00E-01	1.00E-01	8.63E+02	8.63E+02	8.63E+02	1.00E-01

RMS - Area Radiation Monitors
 Hope Creek Nuclear Generating Station
 10/25/94

Clock Time	Drill Time	OFFGAS SAMPLEST mR/hr 9RX716	Open Eqpt Hatch 145' mR/hr 9RX702	Open Eqpt Hatch 162' mR/hr 9RX703	OUTSIDE RXSMPLST mR/hr 9RX723	PERSONEL AIRLOCK mR/hr 9RX700	RWASTE DRUMAREA mR/hr 9RX709
08:00	00:00	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01
08:15	00:15	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01
08:30	00:30	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01
08:45	00:45	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01
09:00	01:00	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01
09:15	01:15	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01
09:30	01:30	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01
09:45	01:45	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01
09:47	01:47	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01
09:50	01:50	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01
10:00	02:00	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01
10:15	02:15	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01
10:30	02:30	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01
10:45	02:45	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01
11:00	03:00	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01
11:15	03:15	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01
11:30	03:30	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01
11:35	03:35	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01
11:40	03:40	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01
11:45	03:45	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01
12:00	04:00	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01
12:15	04:15	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01
12:20	04:20	1.00E-01	1.31E-01	1.37E-01	1.31E-01	1.00E-01	1.00E-01
12:25	04:25	1.00E-01	3.08E-01	3.67E-01	3.08E-01	2.00E-01	1.00E-01
12:30	04:30	1.00E-01	4.00E-01	4.22E-01	4.00E-01	2.00E-01	1.00E-01
12:35	04:35	1.00E-01	8.34E-01	7.70E-01	8.34E-01	2.00E-01	1.00E-01
12:40	04:40	1.00E-01	9.51E-01	8.28E-01	9.51E-01	2.00E-01	1.00E-01
12:45	04:45	1.00E-01	1.01E+00	1.32E+00	1.01E+00	2.00E-01	1.00E-01
12:50	04:50	1.00E-01	1.52E+00	1.67E+00	1.52E+00	1.00E+00	1.00E-01
12:55	04:55	1.00E-01	1.75E+00	1.98E+00	1.76E+00	1.00E+00	1.00E-01
13:00	05:00	1.00E-01	2.21E+00	2.79E+00	2.21E+00	1.00E+00	1.00E-01
13:05	05:05	1.00E-01	2.45E+00	2.89E+00	2.45E+00	2.00E+00	1.00E-01
13:10	05:10	1.00E-01	2.51E+00	2.97E+00	2.51E+00	2.00E+00	1.00E-01
13:15	05:15	1.00E-01	2.80E+00	9.00E+02	2.80E+00	2.00E+00	1.00E-01
13:20	05:20	1.00E-01	8.90E+02	1.00E+04	8.90E+02	2.00E+00	1.00E-01
13:25	05:25	1.00E-01	9.80E+03	1.00E+04	9.80E+03	5.46E+02	1.00E-01
13:30	05:30	1.00E-01	1.00E+04	1.00E+04	1.00E+04	8.70E+03	1.00E-01
13:35	05:35	1.00E-01	1.00E+04	1.00E+04	1.00E+04	1.00E+04	1.00E-01
13:40	05:40	1.00E-01	1.00E+04	1.00E+04	1.00E+04	1.00E+04	1.00E-01
13:45	05:45	1.00E-01	1.00E+04	1.00E+04	1.00E+04	1.00E+04	1.00E-01
14:00	06:00	1.00E-01	1.00E+04	1.00E+04	1.00E+04	1.00E+04	1.00E-01
14:15	06:15	1.00E-01	1.00E+04	1.00E+04	1.00E+04	1.00E+04	1.00E-01
14:30	06:30	1.00E-01	1.00E+04	1.00E+04	1.00E+04	1.00E+04	1.00E-01
14:45	06:45	1.00E-01	1.00E+04	1.00E+04	1.00E+04	1.00E+04	1.00E-01
15:00	07:00	1.00E-01	1.00E+04	1.00E+04	1.00E+04	1.00E+04	1.00E-01
15:15	07:15	1.00E-01	1.00E+04	1.00E+04	1.00E+04	1.00E+04	1.00E-01
15:30	07:30	1.00E-01	1.00E+04	1.00E+04	1.00E+04	1.00E+04	1.00E-01
15:45	07:45	1.00E-01	6.10E+03	6.10E+03	6.10E+03	6.10E+03	1.00E-01
16:00	08:00	1.00E-01	8.63E+02	8.63E+02	8.63E+02	8.63E+02	1.00E-01

RMS - Area Radiation Monitors
 Hope Creek Nuclear Generating Station
 10/25/94

Clock Time	Drill Time	RADWASTE SAMPLEST mR/hr 9RX717	EQPMT AIRLOCK mR/hr 9RX705	RXBLDG SAMPLEST mR/hr 9RX708	RX CLN UP DEMIN SYS mR/hr 9RX706	RstrMach Shop A mR/hr 9RX713	RstrMach Shop B mR/hr 9RX714
08:00	00:00	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01
08:15	00:15	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01
08:30	00:30	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01
08:45	00:45	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01
09:00	01:00	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01
09:15	01:15	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01
09:30	01:30	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01
09:45	01:45	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01
09:47	01:47	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01
09:50	01:50	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01
10:00	02:00	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01
10:15	02:15	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01
10:30	02:30	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01
10:45	02:45	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01
11:00	03:00	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01
11:15	03:15	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01
11:30	03:30	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01
11:35	03:35	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01
11:40	03:40	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01
11:45	03:45	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01
12:00	04:00	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01
12:15	04:15	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01
12:20	04:20	1.00E-01	1.00E-01	1.31E-01	1.31E-01	1.00E-01	1.00E-01
12:25	04:25	1.00E-01	2.00E-01	3.08E-01	3.08E-01	1.00E-01	1.00E-01
12:30	04:30	1.00E-01	2.00E-01	4.00E-01	4.00E-01	1.00E-01	1.00E-01
12:35	04:35	1.00E-01	2.00E-01	8.34E-01	8.34E-01	1.00E-01	1.00E-01
12:40	04:40	1.00E-01	2.00E-01	9.51E-01	9.51E-01	1.00E-01	1.00E-01
12:45	04:45	1.00E-01	2.00E-01	1.01E+00	1.01E+00	1.00E-01	1.00E-01
12:50	04:50	1.00E-01	1.00E+00	1.52E+00	1.52E+00	1.00E-01	1.00E-01
12:55	04:55	1.00E-01	1.00E+00	1.76E+00	1.76E+00	1.00E-01	1.00E-01
13:00	05:00	1.00E-01	1.00E+00	2.21E+00	2.21E+00	1.00E-01	1.00E-01
13:05	05:05	1.00E-01	2.00E+00	2.45E+00	2.45E+00	1.00E-01	1.00E-01
13:10	05:10	1.00E-01	2.00E+00	2.51E+00	2.51E+00	1.00E-01	1.00E-01
13:15	05:15	1.00E-01	2.00E+00	2.80E+00	2.80E+00	1.00E-01	1.00E-01
13:20	05:20	1.00E-01	2.00E+00	8.90E+02	8.90E+02	1.00E-01	1.00E-01
13:25	05:25	1.00E-01	5.46E+02	9.80E+03	9.80E+03	1.00E-01	1.00E-01
13:30	05:30	1.00E-01	8.70E+03	1.00E+04	1.00E+04	1.00E-01	1.00E-01
13:35	05:35	1.00E-01	1.00E+04	1.00E+04	1.00E+04	1.00E-01	1.00E-01
13:40	05:40	1.00E-01	1.00E+04	1.00E+04	1.00E+04	1.00E-01	1.00E-01
13:45	05:45	1.00E-01	1.00E+04	1.00E+04	1.00E+04	1.00E-01	1.00E-01
14:00	06:00	1.00E-01	1.00E+04	1.00E+04	1.00E+04	1.00E-01	1.00E-01
14:15	06:15	1.00E-01	1.00E+04	1.00E+04	1.00E+04	1.00E-01	1.00E-01
14:30	06:30	1.00E-01	1.00E+04	1.00E+04	1.00E+04	1.00E-01	1.00E-01
14:45	06:45	1.00E-01	1.00E+04	1.00E+04	1.00E+04	1.00E-01	1.00E-01
15:00	07:00	1.00E-01	1.00E+04	1.00E+04	1.00E+04	1.00E-01	1.00E-01
15:15	07:15	1.00E-01	1.00E+04	1.00E+04	1.00E+04	1.00E-01	1.00E-01
15:30	07:30	1.00E-01	1.00E+04	1.00E+04	1.00E+04	1.00E-01	1.00E-01
15:45	07:45	1.00E-01	6.10E+03	6.10E+03	6.10E+03	1.00E-01	1.00E-01
16:00	08:00	1.00E-01	8.63E+02	8.63E+02	8.63E+02	1.00E-01	1.00E-01

RMS - Area Radiation Monitors
 Hope Creek Nuclear Generating Station
 10/25/94

Clock Time	Drill Time	SAFEGUARD INST.RM. mR/hr 9RX704	Sp Fuel Pool mR/hr 9RX707	TSC Area mR/hr 9RX620	TIP A mR/hr 9RX698	TIP B mR/hr 9RX699
08:00	00:00	1.00E-01	1.00E-01	1.00E-01	1.00E+00	5.00E+01
08:15	00:15	1.00E-01	1.00E-01	1.00E-01	1.00E+00	5.00E+01
08:30	00:30	1.00E-01	1.00E-01	1.00E-01	1.00E+00	5.00E+01
08:45	00:45	1.00E-01	1.00E-01	1.00E-01	1.00E+00	5.00E+01
09:00	01:00	1.00E-01	1.00E-01	1.00E-01	1.00E+00	5.00E+01
09:15	01:15	1.00E-01	1.00E-01	1.00E-01	1.00E+00	5.00E+01
09:30	01:30	1.00E-01	1.00E-01	1.00E-01	1.00E+00	5.00E+01
09:45	01:45	1.00E-01	1.00E-01	1.00E-01	1.00E+00	5.00E+01
09:47	01:47	1.00E-01	1.00E-01	1.00E-01	1.00E+00	5.00E+01
09:50	01:50	1.00E-01	1.00E-01	1.00E-01	1.00E+00	5.00E+01
10:00	02:00	1.00E-01	1.00E-01	1.00E-01	1.00E+00	5.00E+01
10:15	02:15	1.00E-01	1.00E-01	1.00E-01	1.00E+00	5.00E+01
10:30	02:30	1.00E-01	1.00E-01	1.00E-01	1.00E+00	5.00E+01
10:45	02:45	1.00E-01	1.00E-01	1.00E-01	1.00E+00	5.00E+01
11:00	03:00	1.00E-01	1.00E-01	1.00E-01	1.00E+00	5.00E+01
11:15	03:15	1.00E-01	1.00E-01	1.00E-01	1.00E+00	5.00E+01
11:30	03:30	1.00E-01	1.00E-01	1.00E-01	1.00E+00	5.00E+01
11:35	03:35	1.00E-01	1.00E-01	1.00E-01	1.00E+00	5.00E+01
11:40	03:40	1.00E-01	1.00E-01	1.00E-01	1.00E+00	5.00E+01
11:45	03:45	1.00E-01	1.00E-01	1.00E-01	1.00E+00	5.00E+01
12:00	04:00	1.00E-01	1.00E-01	1.00E-01	1.00E+00	5.00E+01
12:15	04:15	1.00E-01	1.00E-01	1.00E-01	1.00E+00	5.00E+01
12:20	04:20	4.61E+00	1.25E-01	1.00E-01	1.00E+00	5.00E+01
12:25	04:25	9.60E+00	2.33E-01	1.00E-01	1.00E+00	5.00E+01
12:30	04:30	1.01E+01	3.26E-01	1.00E-01	1.00E+00	5.00E+01
12:35	04:35	2.76E+01	7.70E-01	1.00E-01	1.00E+00	5.00E+01
12:40	04:40	2.89E+01	8.28E-01	1.00E-01	1.00E+00	5.00E+01
12:45	04:45	3.18E+01	1.01E+00	1.00E-01	1.00E+00	5.00E+01
12:50	04:50	3.19E+01	1.15E+00	1.00E-01	1.00E+00	5.00E+01
12:55	04:55	3.19E+01	1.17E+00	1.00E-01	1.00E+00	5.00E+01
13:00	05:00	3.20E+01	1.86E+00	1.00E-01	1.00E+00	5.00E+01
13:05	05:05	3.18E+01	2.28E+00	1.00E-01	1.00E+00	5.00E+01
13:10	05:10	3.15E+01	2.41E+00	1.00E-01	1.00E+00	5.00E+01
13:15	05:15	3.15E+01	2.70E+00	1.00E-01	1.00E+00	5.00E+01
13:20	05:20	3.14E+01	3.00E+00	1.00E-01	1.00E+00	5.00E+01
13:25	05:25	4.89E+02	8.75E+02	1.00E-01	5.46E+02	5.46E+02
13:30	05:30	8.34E+03	1.00E+04	1.00E-01	8.73E+03	8.73E+03
13:35	05:35	1.00E+04	1.00E+04	1.53E+00	1.00E+04	5.43E+05
13:40	05:40	1.00E+04	1.00E+04	1.51E+00	1.00E+04	5.39E+05
13:45	05:45	1.00E+04	1.00E+04	1.49E+00	1.00E+04	5.36E+05
14:00	06:00	1.00E+04	1.00E+04	1.45E+00	1.00E+04	5.26E+05
14:15	06:15	1.00E+04	1.00E+04	1.41E+00	1.00E+04	5.17E+05
14:30	06:30	1.00E+04	1.00E+04	1.37E+00	1.00E+04	5.09E+05
14:45	06:45	1.00E+04	1.00E+04	1.33E+00	1.00E+04	5.01E+05
15:00	07:00	1.00E+04	1.00E+04	1.29E+00	1.00E+04	4.93E+05
15:15	07:15	1.00E+04	1.00E+04	1.87E-01	1.00E+04	9.02E+04
15:30	07:30	1.00E+04	1.00E+04	1.00E-01	1.00E+04	4.82E+04
15:45	07:45	6.13E+03	6.10E+03	1.00E-01	1.00E+04	6.10E+03
16:00	08:00	1.22E+03	8.63E+02	1.00E-01	8.63E+02	8.63E+02

RMS - Duct Monitors
 Hope Creek Nuclear Generating Station
 10/25/94

Clock Time	Drill Time	C- CRVENT uCi/cc 9RX630	C1- CRVENT uCi/cc 9RX631	D- CRVENT uCi/cc 9RX637	D1- CRVENT uCi/cc 9RX638	DRYWELL LEAK DET 9RX507	GASEOUS R/WEXHST uCi/cc 9RX617
08:00	00:00	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06
08:15	00:15	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06
08:30	00:30	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06
08:45	00:45	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06
09:00	01:00	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06
09:15	01:15	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06
09:30	01:30	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06
09:45	01:45	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06
09:47	01:47	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06
09:50	01:50	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06
10:00	02:00	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06
10:15	02:15	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06
10:30	02:30	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06
10:45	02:45	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06
11:00	03:00	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06
11:15	03:15	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06
11:30	03:30	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06
11:35	03:35	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-02	1.00E-06
11:40	03:40	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-02	1.00E-06
11:45	03:45	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-02	1.00E-06
12:00	04:00	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-02	1.00E-06
12:15	04:15	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-02	1.00E-06
12:20	04:20	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-02	1.00E-06
12:25	04:25	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-02	1.00E-06
12:30	04:30	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-02	1.00E-06
12:35	04:35	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-02	1.00E-06
12:40	04:40	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-02	1.00E-06
12:45	04:45	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-02	1.00E-06
12:50	04:50	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-02	1.00E-06
12:55	04:55	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-02	1.00E-06
13:00	05:00	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-02	1.00E-06
13:05	05:05	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-02	1.00E-06
13:10	05:10	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-02	1.00E-06
13:15	05:15	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-02	1.00E-06
13:20	05:20	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-02	1.00E-06
13:25	05:25	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-02	1.00E-06
13:30	05:30	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-02	1.00E-06
13:35	05:35	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-02	1.00E-06
13:40	05:40	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-02	1.00E-06
13:45	05:45	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-02	1.00E-06
14:00	06:00	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-02	1.00E-06
14:15	06:15	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-02	1.00E-06
14:30	06:30	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-02	1.00E-06
14:45	06:45	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-02	1.00E-06
15:00	07:00	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-02	1.00E-06
15:15	07:15	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-02	1.00E-06
15:30	07:30	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-02	1.00E-06
15:45	07:45	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-02	1.00E-06
16:00	08:00	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-02	1.00E-06

RMS - Duct Monitors
 Hope Creek Nuclear Generating Station
 10/25/94

Clock Time	Drill Time	RADWASTE AREA uCi/cc 9RX619	RADWASTE EXHAUST uCi/cc 9RX616	A- RXBLDEX uCi/cc 9RX632	B- RXBLDEX uCi/cc 9RX633	C- RXBLDEX uCi/cc 9RX634	RXBLDG VNTEXHST uCi/cc 9RX614
08:00	00:00	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06
08:15	00:15	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06
08:30	00:30	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06
08:45	00:45	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06
09:00	01:00	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06
09:15	01:15	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06
09:30	01:30	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06
09:45	01:45	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06
09:47	01:47	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06
09:50	01:50	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06
10:00	02:00	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06
10:15	02:15	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06
10:30	02:30	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06
10:45	02:45	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06
11:00	03:00	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06
11:15	03:15	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06
11:30	03:30	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06
11:35	03:35	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06
11:40	03:40	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06
11:45	03:45	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06
12:00	04:00	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06
12:15	04:15	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06
12:20	04:20	1.00E-06	1.00E-06	2.46E-05	2.46E-05	2.46E-05	1.00E-06
12:25	04:25	1.00E-06	1.00E-06	2.54E-05	2.54E-05	2.54E-05	1.00E-06
12:30	04:30	1.00E-06	1.00E-06	2.63E-05	2.63E-05	2.63E-05	1.00E-06
12:35	04:35	1.00E-06	1.00E-06	7.60E-05	7.60E-05	7.60E-05	1.00E-06
12:40	04:40	1.00E-06	1.00E-06	7.89E-05	7.89E-05	7.89E-05	1.00E-06
12:45	04:45	1.00E-06	1.00E-06	9.72E-05	9.72E-05	9.72E-05	1.00E-06
12:50	04:50	1.00E-06	1.00E-06	1.00E-04	1.00E-04	1.00E-04	1.00E-06
12:55	04:55	1.00E-06	1.00E-06	1.00E-04	1.00E-04	1.00E-04	1.00E-06
13:00	05:00	1.00E-06	1.00E-06	1.00E-04	1.00E-04	1.00E-04	1.00E-06
13:05	05:05	1.00E-06	1.00E-06	1.00E-04	1.00E-04	1.00E-04	1.00E-06
13:10	05:10	1.00E-06	1.00E-06	1.00E-04	1.00E-04	1.00E-04	1.00E-06
13:15	05:15	1.00E-06	1.00E-06	1.00E-02	1.00E-02	1.00E-02	1.00E-06
13:20	05:20	1.00E-06	1.00E-06	1.00E-02	1.00E-02	1.00E-02	1.00E-06
13:25	05:25	1.00E-06	1.00E-06	1.00E-02	1.00E-02	1.00E-02	1.00E-06
13:30	05:30	1.00E-06	1.00E-06	1.00E-02	1.00E-02	1.00E-02	1.00E-06
13:35	05:35	1.00E-06	1.00E-06	1.00E-02	1.00E-02	1.00E-02	1.00E-06
13:40	05:40	1.00E-06	1.00E-06	1.00E-02	1.00E-02	1.00E-02	1.00E-06
13:45	05:45	1.00E-06	1.00E-06	1.00E-02	1.00E-02	1.00E-02	1.00E-06
14:00	06:00	1.00E-06	1.00E-06	1.00E-02	1.00E-02	1.00E-02	1.00E-06
14:15	06:15	1.00E-06	1.00E-06	1.00E-02	1.00E-02	1.00E-02	1.00E-06
14:30	06:30	1.00E-06	1.00E-06	1.00E-02	1.00E-02	1.00E-02	1.00E-06
14:45	06:45	1.00E-06	1.00E-06	1.00E-02	1.00E-02	1.00E-02	1.00E-06
15:00	07:00	1.00E-06	1.00E-06	1.00E-02	1.00E-02	1.00E-02	1.00E-06
15:15	07:15	1.00E-06	1.00E-06	1.00E-02	1.00E-02	1.00E-02	1.00E-06
15:30	07:30	1.00E-06	1.00E-06	1.00E-02	1.00E-02	1.00E-02	1.00E-06
15:45	07:45	1.00E-06	1.00E-06	1.00E-02	1.00E-02	1.00E-02	1.00E-06
16:00	08:00	1.00E-06	1.00E-06	1.00E-02	1.00E-02	1.00E-02	1.00E-06

RMS - Duct Monitors
 Hope Creek Nuclear Generating Station
 10/25/94

Clock Time	Drill Time	A- REFUELEX uCi/cc 9RX627	B- REFUELEX uCi/cc 9RX628	C- REFUELEX uCi/cc 9RX629	TSC VENT uCi/cc 9RX715	TURBBLDG COMPEXHT uCi/cc 9RX618	TURBBLDG EXHAUST uCi/cc 9RX615
08:00	00:00	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06
08:15	00:15	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06
08:30	00:30	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06
08:45	00:45	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06
09:00	01:00	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06
09:15	01:15	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06
09:30	01:30	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06
09:45	01:45	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06
09:47	01:47	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06
09:50	01:50	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06
10:00	02:00	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06
10:15	02:15	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06
10:30	02:30	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06
10:45	02:45	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06
11:00	03:00	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06
11:15	03:15	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06
11:30	03:30	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06
11:35	03:35	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06
11:40	03:40	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06
11:45	03:45	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06
12:00	04:00	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06
12:15	04:15	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06
12:20	04:20	2.46E-05	2.46E-05	2.46E-05	1.00E-06	1.00E-06	1.00E-06
12:25	04:25	2.54E-05	2.54E-05	2.54E-05	1.00E-06	1.00E-06	1.00E-06
12:30	04:30	2.63E-05	2.63E-05	2.63E-05	1.00E-06	1.00E-06	1.00E-06
12:35	04:35	7.60E-05	7.60E-05	7.60E-05	1.00E-06	1.00E-06	1.00E-06
12:40	04:40	7.89E-05	7.89E-05	7.89E-05	1.00E-06	1.00E-06	1.00E-06
12:45	04:45	9.72E-05	9.72E-05	9.72E-05	1.00E-06	1.00E-06	1.00E-06
12:50	04:50	1.00E-04	1.00E-04	1.00E-04	1.00E-06	1.00E-06	1.00E-06
12:55	04:55	1.00E-04	1.00E-04	1.00E-04	1.00E-06	1.00E-06	1.00E-06
13:00	05:00	1.00E-04	1.00E-04	1.00E-04	1.00E-06	1.00E-06	1.00E-06
13:05	05:05	1.00E-04	1.00E-04	1.00E-04	1.00E-06	1.00E-06	1.00E-06
13:10	05:10	1.00E-04	1.00E-04	1.00E-04	1.00E-06	1.00E-06	1.00E-06
13:15	05:15	1.00E-02	1.00E-02	1.00E-02	1.00E-06	1.00E-06	1.00E-06
13:20	05:20	1.00E-02	1.00E-02	1.00E-02	1.00E-06	1.00E-06	1.00E-06
13:25	05:25	1.00E-02	1.00E-02	1.00E-02	1.00E-06	1.00E-06	1.00E-06
13:30	05:30	1.00E-02	1.00E-02	1.00E-02	1.00E-06	1.00E-06	1.00E-06
13:35	05:35	1.00E-02	1.00E-02	1.00E-02	1.00E-06	1.00E-06	1.00E-06
13:40	05:40	1.00E-02	1.00E-02	1.00E-02	1.00E-06	1.00E-06	1.00E-06
13:45	05:45	1.00E-02	1.00E-02	1.00E-02	1.00E-06	1.00E-06	1.00E-06
14:00	06:00	1.00E-02	1.00E-02	1.00E-02	1.00E-06	1.00E-06	1.00E-06
14:15	06:15	1.00E-02	1.00E-02	1.00E-02	1.00E-06	1.00E-06	1.00E-06
14:30	06:30	1.00E-02	1.00E-02	1.00E-02	1.00E-06	1.00E-06	1.00E-06
14:45	06:45	1.00E-02	1.00E-02	1.00E-02	1.00E-06	1.00E-06	1.00E-06
15:00	07:00	1.00E-02	1.00E-02	1.00E-02	1.00E-06	1.00E-06	1.00E-06
15:15	07:15	1.00E-02	1.00E-02	1.00E-02	1.00E-06	1.00E-06	1.00E-06
15:30	07:30	1.00E-02	1.00E-02	1.00E-02	1.00E-06	1.00E-06	1.00E-06
15:45	07:45	1.00E-02	1.00E-02	1.00E-02	1.00E-06	1.00E-06	1.00E-06
16:00	08:00	1.00E-02	1.00E-02	1.00E-02	1.00E-06	1.00E-06	1.00E-06

RMS - Effluent Monitors
 Hope Creek Nuclear Generating Station
 10/25/94

Clock Time	Drill Time	COOLING TOWER BD CPM 9RX598	COOLING TOWER BD CPM 9RX599	FRVS LRNG uCi/cc 9RX640	FRVS MRNG uCi/cc 9RX610	FRVS HRNG uCi/cc 9RX611	FRVS EFFLUENT uCi/sec 9RX680
08:00	00:00	0.00E+00	0.00E+00	1.00E-06	1.00E-03	1.00E-01	6.00E-02
08:15	00:15	0.00E+00	0.00E+00	1.00E-06	1.00E-03	1.00E-01	6.00E-02
08:30	00:30	0.00E+00	0.00E+00	1.00E-06	1.00E-03	1.00E-01	6.00E-02
08:45	00:45	0.00E+00	0.00E+00	1.00E-06	1.00E-03	1.00E-01	6.00E-02
09:00	01:00	0.00E+00	0.00E+00	1.00E-06	1.00E-03	1.00E-01	6.00E-02
09:15	01:15	0.00E+00	0.00E+00	1.00E-06	1.00E-03	1.00E-01	6.00E-02
09:30	01:30	0.00E+00	0.00E+00	1.00E-06	1.00E-03	1.00E-01	6.00E-02
09:45	01:45	0.00E+00	0.00E+00	1.00E-06	1.00E-03	1.00E-01	6.00E-02
09:47	01:47	0.00E+00	0.00E+00	1.00E-06	1.00E-03	1.00E-01	6.00E-02
09:50	01:50	0.00E+00	0.00E+00	1.00E-06	1.00E-03	1.00E-01	6.00E-02
10:00	02:00	0.00E+00	0.00E+00	1.00E-06	1.00E-03	1.00E-01	6.00E-02
10:15	02:15	0.00E+00	0.00E+00	1.00E-06	1.00E-03	1.00E-01	6.00E-02
10:30	02:30	0.00E+00	0.00E+00	1.00E-06	1.00E-03	1.00E-01	6.00E-02
10:45	02:45	0.00E+00	0.00E+00	1.00E-06	1.00E-03	1.00E-01	6.00E-02
11:00	03:00	0.00E+00	0.00E+00	1.00E-06	1.00E-03	1.00E-01	6.00E-02
11:15	03:15	0.00E+00	0.00E+00	1.00E-06	1.00E-03	1.00E-01	6.00E-02
11:30	03:30	0.00E+00	0.00E+00	1.00E-06	1.00E-03	1.00E-01	6.00E-02
11:35	03:35	0.00E+00	0.00E+00	3.71E-05	1.00E-03	1.00E-01	3.50E+01
11:40	03:40	0.00E+00	0.00E+00	3.71E-05	1.00E-03	1.00E-01	3.50E+01
11:45	03:45	0.00E+00	0.00E+00	3.71E-05	1.00E-03	1.00E-01	3.50E+01
12:00	04:00	0.00E+00	0.00E+00	3.71E-05	1.00E-03	1.00E-01	3.50E+01
12:15	04:15	0.00E+00	0.00E+00	3.71E-05	1.00E-03	1.00E-01	3.50E+01
12:20	04:20	0.00E+00	0.00E+00	3.71E-05	1.00E-03	1.00E-01	3.50E+01
12:25	04:25	0.00E+00	0.00E+00	3.71E-05	1.00E-03	1.00E-01	3.50E+01
12:30	04:30	0.00E+00	0.00E+00	3.71E-05	1.00E-03	1.00E-01	3.50E+01
12:35	04:35	0.00E+00	0.00E+00	3.71E-05	1.00E-03	1.00E-01	3.50E+01
12:40	04:40	0.00E+00	0.00E+00	3.71E-05	1.00E-03	1.00E-01	3.92E+01
12:45	04:45	0.00E+00	0.00E+00	3.71E-05	1.00E-03	1.00E-01	5.84E+01
12:50	04:50	0.00E+00	0.00E+00	3.71E-05	1.00E-03	1.00E-01	1.93E+02
12:55	04:55	0.00E+00	0.00E+00	3.71E-05	1.00E-03	1.00E-01	1.92E+02
13:00	05:00	0.00E+00	0.00E+00	3.71E-05	1.00E-03	1.00E-01	1.91E+02
13:05	05:05	0.00E+00	0.00E+00	3.71E-05	1.00E-03	1.00E-01	1.89E+02
13:10	05:10	0.00E+00	0.00E+00	3.71E-05	1.00E-03	1.00E-01	1.88E+02
13:15	05:15	0.00E+00	0.00E+00	1.00E-01	2.66E+00	2.66E+00	1.13E+07
13:20	05:20	0.00E+00	0.00E+00	1.00E-01	2.64E+01	2.65E+01	1.12E+08
13:25	05:25	0.00E+00	0.00E+00	1.00E-01	2.62E+01	2.63E+01	1.12E+08
13:30	05:30	0.00E+00	0.00E+00	1.00E-01	2.61E+01	2.61E+01	1.11E+08
13:35	05:35	0.00E+00	0.00E+00	1.00E-01	2.59E+01	2.60E+01	1.10E+08
13:40	05:40	0.00E+00	0.00E+00	1.00E-01	2.58E+01	2.58E+01	1.10E+08
13:45	05:45	0.00E+00	0.00E+00	1.00E-01	2.56E+01	2.57E+01	1.09E+08
14:00	06:00	0.00E+00	0.00E+00	1.00E-01	2.52E+01	2.52E+01	1.07E+08
14:15	06:15	0.00E+00	0.00E+00	1.00E-01	2.48E+01	2.48E+01	1.05E+08
14:30	06:30	0.00E+00	0.00E+00	1.00E-01	2.44E+01	2.44E+01	1.04E+08
14:45	06:45	0.00E+00	0.00E+00	1.00E-01	2.40E+01	2.41E+01	1.02E+08
15:00	07:00	0.00E+00	0.00E+00	1.00E-01	2.37E+01	2.37E+01	1.01E+08
15:15	07:15	0.00E+00	0.00E+00	1.00E-01	1.93E+01	1.93E+01	8.19E+07
15:30	07:30	0.00E+00	0.00E+00	1.00E-06	8.76E-01	1.00E-01	3.72E+06
15:45	07:45	0.00E+00	0.00E+00	2.93E-02	3.00E-03	1.00E-01	1.24E+05
16:00	08:00	0.00E+00	0.00E+00	2.49E-03	1.00E-03	1.00E-01	1.06E+04

RMS - Effluent Monitors
 Hope Creek Nuclear Generating Station
 10/25/94

Clock Time	Drill Time	LIQRW uCi/cc 9RX508	NPV PIG uCi/cc 9RX597	NPV IODINE uCi/cc 9RX601	NPV PARTICUL uCi/cc 9RX600	NPV NRNG uCi/cc 9RX602	NPV MRNG uCi/cc 9RX603
08:00	00:00	1.00E-05	2.42E-06	9.64E-10	3.00E-11	2.00E-06	1.00E-03
08:15	00:15	1.00E-05	2.42E-06	9.64E-10	3.00E-11	2.00E-06	1.00E-03
08:30	00:30	1.00E-05	2.42E-06	9.64E-10	3.00E-11	2.00E-06	1.00E-03
08:45	00:45	1.00E-05	2.42E-06	9.64E-10	3.00E-11	2.00E-06	1.00E-03
09:00	01:00	1.00E-05	2.42E-06	9.64E-10	3.00E-11	2.00E-06	1.00E-03
09:15	01:15	1.00E-05	2.42E-06	9.64E-10	3.00E-11	2.00E-06	1.00E-03
09:30	01:30	1.00E-05	2.42E-06	9.64E-10	3.00E-11	2.00E-06	1.00E-03
09:45	01:45	1.00E-05	2.42E-06	9.64E-10	3.00E-11	2.00E-06	1.00E-03
09:47	01:47	1.00E-05	1.60E-06	9.64E-10	3.00E-11	2.00E-06	1.00E-03
09:50	01:50	1.00E-05	2.42E-06	9.64E-10	3.00E-11	2.00E-06	1.00E-03
10:00	02:00	1.00E-05	2.42E-06	9.64E-10	3.00E-11	2.00E-06	1.00E-03
10:15	02:15	1.00E-05	2.42E-06	9.64E-10	3.00E-11	2.00E-06	1.00E-03
10:30	02:30	1.00E-05	2.42E-06	9.64E-10	3.00E-11	2.00E-06	1.00E-03
10:45	02:45	1.00E-05	2.42E-06	9.64E-10	3.00E-11	2.00E-06	1.00E-03
11:00	03:00	1.00E-05	2.42E-06	9.64E-10	3.00E-11	2.00E-06	1.00E-03
11:15	03:15	1.00E-05	2.42E-06	9.64E-10	3.00E-11	2.00E-06	1.00E-03
11:30	03:30	1.00E-05	2.42E-06	9.64E-10	3.00E-11	2.00E-06	1.00E-03
11:35	03:35	1.00E-05	2.42E-06	9.64E-10	3.00E-11	2.00E-06	1.00E-03
11:40	03:40	1.00E-05	2.42E-06	9.64E-10	3.00E-11	2.00E-06	1.00E-03
11:45	03:45	1.00E-05	2.42E-06	9.64E-10	3.00E-11	2.00E-06	1.00E-03
12:00	04:00	1.00E-05	2.42E-06	9.64E-10	3.00E-11	2.00E-06	1.00E-03
12:15	04:15	1.00E-05	2.42E-06	9.64E-10	3.00E-11	2.00E-06	1.00E-03
12:20	04:20	1.02E-05	2.42E-06	9.64E-10	3.01E-11	2.00E-06	1.00E-03
12:25	04:25	1.06E-05	2.42E-06	9.64E-10	3.03E-11	2.00E-06	1.00E-03
12:30	04:30	1.01E-05	2.42E-06	9.64E-10	3.05E-11	2.00E-06	1.00E-03
12:35	04:35	1.04E-05	2.42E-06	9.64E-10	3.26E-11	2.00E-06	1.00E-03
12:40	04:40	1.08E-05	2.42E-06	9.64E-10	3.47E-11	2.00E-06	1.00E-03
12:45	04:45	1.12E-05	2.42E-06	9.64E-10	3.70E-11	2.01E-06	1.00E-03
12:50	04:50	1.38E-05	2.42E-06	9.64E-10	5.34E-11	2.02E-06	1.00E-03
12:55	04:55	1.38E-05	2.42E-06	9.64E-10	5.33E-11	2.02E-06	1.00E-03
13:00	05:00	1.38E-05	2.42E-06	9.64E-10	5.32E-11	2.02E-06	1.00E-03
13:05	05:05	1.37E-05	2.42E-06	9.64E-10	5.31E-11	2.02E-06	1.00E-03
13:10	05:10	1.37E-05	2.42E-06	9.64E-10	5.31E-11	2.02E-06	1.00E-03
13:15	05:15	1.37E-05	2.42E-06	9.64E-10	5.30E-11	2.02E-06	1.00E-03
13:20	05:20	1.37E-05	2.42E-06	9.64E-10	5.29E-11	2.02E-06	1.00E-03
13:25	05:25	1.36E-05	2.42E-06	9.64E-10	5.28E-11	2.02E-06	1.00E-03
13:30	05:30	1.36E-05	2.42E-06	9.64E-10	5.28E-11	2.02E-06	1.00E-03
13:35	05:35	1.36E-05	2.42E-06	9.64E-10	5.27E-11	2.02E-06	1.00E-03
13:40	05:40	1.36E-05	2.42E-06	9.64E-10	5.26E-11	2.02E-06	1.00E-03
13:45	05:45	1.36E-05	2.42E-06	9.64E-10	5.26E-11	2.02E-06	1.00E-03
14:00	06:00	1.35E-05	2.42E-06	9.64E-10	5.24E-11	2.02E-06	1.00E-03
14:15	06:15	1.34E-05	2.42E-06	9.64E-10	5.23E-11	2.02E-06	1.00E-03
14:30	06:30	1.34E-05	2.42E-06	9.64E-10	5.21E-11	2.02E-06	1.00E-03
14:45	06:45	1.33E-05	2.42E-06	9.64E-10	5.20E-11	2.02E-06	1.00E-03
15:00	07:00	1.33E-05	2.42E-06	9.64E-10	5.18E-11	2.02E-06	1.00E-03
15:15	07:15	1.32E-05	2.42E-06	9.64E-10	5.17E-11	2.02E-06	1.00E-03
15:30	07:30	1.32E-05	2.42E-06	9.64E-10	5.16E-11	2.02E-06	1.00E-03
15:45	07:45	1.32E-05	2.42E-06	9.64E-10	5.15E-11	2.02E-06	1.00E-03
16:00	08:00	1.31E-05	2.42E-06	9.64E-10	5.14E-11	2.02E-06	1.00E-03

RMS - Effluent Monitors
 Hope Creek Nuclear Generating Station
 10/25/94

Clock Time	Drill Time	NPV HRNG uCi/cc 9RX591	NPV EFFLUENT uCi/sec 9RX590	SPV LRNG uCi/cc 9RX606	SPV MRNG uCi/cc 9RX607	SPV HRNG uCi/cc 9RX581	SPV EFFLUENT uCi/sec 9RX580
08:00	00:00	1.00E-01	3.96E+01	1.00E-06	1.00E-03	1.00E-01	1.50E+02
08:15	00:15	1.00E-01	3.96E+01	1.00E-06	1.00E-03	1.00E-01	1.50E+02
08:30	00:30	1.00E-01	3.96E+01	1.00E-06	1.00E-03	1.00E-01	1.50E+02
08:45	00:45	1.00E-01	3.96E+01	1.00E-06	1.00E-03	1.00E-01	1.50E+02
09:00	01:00	1.00E-01	3.96E+01	1.00E-06	1.00E-03	1.00E-01	1.50E+02
09:15	01:15	1.00E-01	3.96E+01	1.00E-06	1.00E-03	1.00E-01	1.50E+02
09:30	01:30	1.00E-01	3.96E+01	1.00E-06	1.00E-03	1.00E-01	1.50E+02
09:45	01:45	1.00E-01	3.96E+01	1.00E-06	1.00E-03	1.00E-01	1.50E+02
09:47	01:47	1.00E-01	3.96E+01	1.00E-06	1.00E-03	1.00E-01	1.50E+02
09:50	01:50	1.00E-01	3.96E+01	1.00E-06	1.00E-03	1.00E-01	1.50E+02
10:00	02:00	1.00E-01	3.96E+01	1.00E-06	1.00E-03	1.00E-01	1.50E+02
10:15	02:15	1.00E-01	3.96E+01	1.00E-06	1.00E-03	1.00E-01	1.50E+02
10:30	02:30	1.00E-01	3.96E+01	1.00E-06	1.00E-03	1.00E-01	1.50E+02
10:45	02:45	1.00E-01	3.96E+01	1.00E-06	1.00E-03	1.00E-01	1.50E+02
11:00	03:00	1.00E-01	3.96E+01	1.00E-06	1.00E-03	1.00E-01	1.50E+02
11:15	03:15	1.00E-01	3.96E+01	1.00E-06	1.00E-03	1.00E-01	1.50E+02
11:30	03:30	1.00E-01	3.96E+01	1.00E-06	1.00E-03	1.00E-01	1.02E+02
11:35	03:35	1.00E-01	3.96E+01	1.00E-06	1.00E-03	1.00E-01	1.02E+02
11:40	03:40	1.00E-01	3.96E+01	1.00E-06	1.00E-03	1.00E-01	1.02E+02
11:45	03:45	1.00E-01	3.96E+01	1.00E-06	1.00E-03	1.00E-01	1.02E+02
12:00	04:00	1.00E-01	3.96E+01	1.00E-06	1.00E-03	1.00E-01	1.02E+02
12:15	04:15	1.00E-01	3.96E+01	1.00E-06	1.00E-03	1.00E-01	1.02E+02
12:20	04:20	1.00E-01	3.96E+01	1.00E-06	1.00E-03	1.00E-01	1.02E+02
12:25	04:25	1.00E-01	3.96E+01	1.00E-06	1.00E-03	1.00E-01	1.02E+02
12:30	04:30	1.00E-01	3.96E+01	1.00E-06	1.00E-03	1.00E-01	1.02E+02
12:35	04:35	1.00E-01	3.96E+01	1.00E-06	1.00E-03	1.00E-01	1.02E+02
12:40	04:40	1.00E-01	3.96E+01	1.00E-06	1.00E-03	1.00E-01	1.02E+02
12:45	04:45	1.00E-01	3.96E+01	1.00E-06	1.00E-03	1.00E-01	1.02E+02
12:50	04:50	1.00E-01	3.96E+01	1.00E-06	1.00E-03	1.00E-01	1.02E+02
12:55	04:55	1.00E-01	3.96E+01	1.00E-06	1.00E-03	1.00E-01	1.02E+02
13:00	05:00	1.00E-01	3.96E+01	1.00E-06	1.00E-03	1.00E-01	1.02E+02
13:05	05:05	1.00E-01	3.96E+01	1.00E-06	1.00E-03	1.00E-01	1.02E+02
13:10	05:10	1.00E-01	3.96E+01	1.00E-06	1.00E-03	1.00E-01	1.02E+02
13:15	05:15	1.00E-01	3.96E+01	1.00E-06	1.00E-03	1.00E-01	1.02E+02
13:20	05:20	1.00E-01	3.96E+01	1.00E-06	1.00E-03	1.00E-01	1.02E+02
13:25	05:25	1.00E-01	3.96E+01	1.00E-06	1.00E-03	1.00E-01	1.02E+02
13:30	05:30	1.00E-01	3.96E+01	1.00E-06	1.00E-03	1.00E-01	1.02E+02
13:35	05:35	1.00E-01	3.96E+01	1.00E-06	1.00E-03	1.00E-01	1.02E+02
13:40	05:40	1.00E-01	3.96E+01	1.00E-06	1.00E-03	1.00E-01	1.02E+02
13:45	05:45	1.00E-01	3.96E+01	1.00E-06	1.00E-03	1.00E-01	1.02E+02
14:00	06:00	1.00E-01	3.96E+01	1.00E-06	1.00E-03	1.00E-01	1.02E+02
14:15	06:15	1.00E-01	3.96E+01	1.00E-06	1.00E-03	1.00E-01	1.02E+02
14:30	06:30	1.00E-01	3.96E+01	1.00E-06	1.00E-03	1.00E-01	1.02E+02
14:45	06:45	1.00E-01	3.96E+01	1.00E-06	1.00E-03	1.00E-01	1.02E+02
15:00	07:00	1.00E-01	3.96E+01	1.00E-06	1.00E-03	1.00E-01	1.02E+02
15:15	07:15	1.00E-01	3.96E+01	1.00E-06	1.00E-03	1.00E-01	1.02E+02
15:30	07:30	1.00E-01	3.96E+01	1.00E-06	1.00E-03	1.00E-01	1.02E+02
15:45	07:45	1.00E-01	3.96E+01	1.00E-06	1.00E-03	1.00E-01	1.02E+02
16:00	08:00	1.00E-01	3.96E+01	1.00E-06	1.00E-03	1.00E-01	1.02E+02

RMS - Effluent Monitors
 Hope Creek Nuclear Generating Station
 10/25/94

Clock Time	Drill Time	SPV PIG uCi/cc 9RX596	SPV IODINE uCi/cc 9RX605	SPV PARTICUL uCi/cc 9RX604
08:00	00:00	1.63E-06	1.08E-11	1.30E-09
08:15	00:15	1.63E-06	1.08E-11	1.30E-09
08:30	00:30	1.63E-06	1.08E-11	1.30E-09
08:45	00:45	1.63E-06	1.08E-11	1.30E-09
09:00	01:00	1.63E-06	1.08E-11	1.30E-09
09:15	01:15	1.63E-06	1.08E-11	1.30E-09
09:30	01:30	1.63E-06	1.08E-11	1.30E-09
09:45	01:45	1.63E-06	1.08E-11	1.30E-09
09:47	01:47	1.63E-06	1.08E-11	1.30E-09
09:50	01:50	1.63E-06	1.08E-11	1.30E-09
10:00	02:00	1.63E-06	1.08E-11	1.30E-09
10:15	02:15	1.63E-06	1.08E-11	1.30E-09
10:30	02:30	1.63E-06	1.08E-11	1.30E-09
10:45	02:45	1.63E-06	1.08E-11	1.30E-09
11:00	03:00	1.63E-06	1.08E-11	1.30E-09
11:15	03:15	1.63E-06	1.08E-11	1.30E-09
11:30	03:30	1.63E-06	1.08E-11	1.30E-09
11:35	03:35	1.63E-06	1.08E-11	1.30E-09
11:40	03:40	1.63E-06	1.08E-11	1.30E-09
11:45	03:45	1.63E-06	1.08E-11	1.30E-09
12:00	04:00	1.63E-06	1.08E-11	1.30E-09
12:15	04:15	1.63E-06	1.08E-11	1.30E-09
12:20	04:20	1.63E-06	1.08E-11	1.30E-09
12:25	04:25	1.63E-06	1.08E-11	1.30E-09
12:30	04:30	1.63E-06	1.08E-11	1.30E-09
12:35	04:35	1.63E-06	1.08E-11	1.30E-09
12:40	04:40	1.63E-06	1.08E-11	1.30E-09
12:45	04:45	1.63E-06	1.08E-11	1.30E-09
12:50	04:50	1.63E-06	1.08E-11	1.30E-09
12:55	04:55	1.63E-06	1.08E-11	1.30E-09
13:00	05:00	1.63E-06	1.08E-11	1.30E-09
13:05	05:05	1.63E-06	1.08E-11	1.30E-09
13:10	05:10	1.63E-06	1.08E-11	1.30E-09
13:15	05:15	1.63E-06	1.08E-11	1.30E-09
13:20	05:20	1.63E-06	1.08E-11	1.30E-09
13:25	05:25	1.63E-06	1.08E-11	1.30E-09
13:30	05:30	1.63E-06	1.08E-11	1.30E-09
13:35	05:35	1.63E-06	1.08E-11	1.30E-09
13:40	05:40	1.63E-06	1.08E-11	1.30E-09
13:45	05:45	1.63E-06	1.08E-11	1.30E-09
14:00	06:00	1.63E-06	1.08E-11	1.30E-09
14:15	06:15	1.63E-06	1.08E-11	1.30E-09
14:30	06:30	1.63E-06	1.08E-11	1.30E-09
14:45	06:45	1.63E-06	1.08E-11	1.30E-09
15:00	07:00	1.63E-06	1.08E-11	1.30E-09
15:15	07:15	1.63E-06	1.08E-11	1.30E-09
15:30	07:30	1.63E-06	1.08E-11	1.30E-09
15:45	07:45	1.63E-06	1.08E-11	1.30E-09
16:00	08:00	1.63E-06	1.08E-11	1.30E-09

RMS - Process Monitors
 Hope Creek Nuclear Generating Station
 10/25/94

Clock Time	Drill Time	HEATSTM CNDSDECN uCi/cc 9RX513	HEATSTM CNDSWSTE uCi/cc 9RX514	Main Steam A mR/hr 9RX509	Main Steam B mR/hr 9RX510	Main Steam C mR/hr 9RX511	Main Steam D mR/hr 9RX512
08:00	00:00	1.00E-06	1.00E-06	6.50E+01	5.60E+01	6.00E+01	6.40E+01
08:15	00:15	1.00E-06	1.00E-06	6.50E+01	5.60E+01	6.00E+01	6.40E+01
08:30	00:30	1.00E-06	1.00E-06	6.50E+01	5.60E+01	6.00E+01	6.40E+01
08:45	00:45	1.00E-06	1.00E-06	6.50E+01	5.60E+01	6.00E+01	6.40E+01
09:00	01:00	1.00E-06	1.00E-06	6.50E+01	5.60E+01	6.00E+01	6.40E+01
09:15	01:15	1.00E-06	1.00E-06	6.50E+01	5.60E+01	6.00E+01	6.40E+01
09:30	01:30	1.00E-06	1.00E-06	6.50E+01	5.60E+01	6.00E+01	6.40E+01
09:45	01:45	1.00E-06	1.00E-06	6.50E+01	5.60E+01	6.00E+01	6.40E+01
09:47	01:47	1.00E-06	1.00E-06	1.00E+00	1.00E+00	1.00E+00	1.00E+00
09:50	01:50	1.00E-06	1.00E-06	1.00E+00	1.00E+00	1.00E+00	1.00E+00
10:00	02:00	1.00E-06	1.00E-06	1.00E+00	1.00E+00	1.00E+00	1.00E+00
10:15	02:15	1.00E-06	1.00E-06	1.00E+00	1.00E+00	1.00E+00	1.00E+00
10:30	02:30	1.00E-06	1.00E-06	1.00E+00	1.00E+00	1.00E+00	1.00E+00
10:45	02:45	1.00E-06	1.00E-06	1.00E+00	1.00E+00	1.00E+00	1.00E+00
11:00	03:00	1.00E-06	1.00E-06	1.00E+00	1.00E+00	1.00E+00	1.00E+00
11:15	03:15	1.00E-06	1.00E-06	1.00E+00	1.00E+00	1.00E+00	1.00E+00
11:30	03:30	1.00E-06	1.00E-06	1.00E+00	1.00E+00	1.00E+00	1.00E+00
11:35	03:35	1.00E-06	1.00E-06	1.00E+00	1.00E+00	1.00E+00	1.00E+00
11:40	03:40	1.00E-06	1.00E-06	1.00E+00	1.00E+00	1.00E+00	1.00E+00
11:45	03:45	1.00E-06	1.00E-06	1.00E+00	1.00E+00	1.00E+00	1.00E+00
12:00	04:00	1.00E-06	1.00E-06	1.00E+00	1.00E+00	1.00E+00	1.00E+00
12:15	04:15	1.00E-06	1.00E-06	1.00E+00	1.00E+00	1.00E+00	1.00E+00
12:20	04:20	1.14E-06	1.14E-06	1.00E+00	1.00E+00	1.00E+00	1.00E+00
12:25	04:25	1.46E-06	1.46E-06	1.00E+00	1.00E+00	1.00E+00	1.00E+00
12:30	04:30	1.00E-06	1.00E-06	1.00E+00	1.00E+00	1.00E+00	1.00E+00
12:35	04:35	1.33E-06	1.33E-06	1.00E+00	1.00E+00	1.00E+00	1.00E+00
12:40	04:40	1.67E-06	1.67E-06	1.00E+00	1.00E+00	1.00E+00	1.00E+00
12:45	04:45	2.05E-06	2.05E-06	1.00E+00	1.00E+00	1.00E+00	1.00E+00
12:50	04:50	4.72E-06	4.72E-06	1.00E+00	1.00E+00	1.00E+00	1.00E+00
12:55	04:55	4.69E-06	4.69E-06	1.00E+00	1.00E+00	1.00E+00	1.00E+00
13:00	05:00	4.67E-06	4.67E-06	1.00E+00	1.00E+00	1.00E+00	1.00E+00
13:05	05:05	4.64E-06	4.64E-06	1.00E+00	1.00E+00	1.00E+00	1.00E+00
13:10	05:10	4.62E-06	4.62E-06	1.00E+00	1.00E+00	1.00E+00	1.00E+00
13:15	05:15	4.59E-06	4.59E-06	1.00E+00	1.00E+00	1.00E+00	1.00E+00
13:20	05:20	4.57E-06	4.57E-06	1.00E+00	1.00E+00	1.00E+00	1.00E+00
13:25	05:25	4.55E-06	4.55E-06	1.00E+00	1.00E+00	1.00E+00	1.00E+00
13:30	05:30	4.52E-06	4.52E-06	1.00E+00	1.00E+00	1.00E+00	1.00E+00
13:35	05:35	4.50E-06	4.50E-06	3.14E+03	3.11E+03	3.14E+03	3.05E+03
13:40	05:40	4.48E-06	4.48E-06	3.15E+03	3.09E+03	3.12E+03	3.06E+03
13:45	05:45	4.46E-06	4.46E-06	3.15E+03	3.09E+03	3.12E+03	3.06E+03
14:00	06:00	4.40E-06	4.40E-06	3.03E+03	2.97E+03	3.00E+03	2.94E+03
14:15	06:15	4.34E-06	4.34E-06	2.98E+03	2.92E+03	2.95E+03	2.89E+03
14:30	06:30	4.29E-06	4.29E-06	2.98E+03	2.92E+03	2.95E+03	2.89E+03
14:45	06:45	4.24E-06	4.24E-06	2.89E+03	2.83E+03	2.86E+03	2.80E+03
15:00	07:00	4.19E-06	4.19E-06	2.84E+03	2.78E+03	2.81E+03	2.75E+03
15:15	07:15	4.14E-06	4.14E-06	1.07E+03	1.01E+03	1.04E+03	9.80E+02
15:30	07:30	4.10E-06	4.10E-06	3.45E+01	3.36E+01	3.40E+01	3.44E+01
15:45	07:45	4.05E-06	4.05E-06	1.00E+00	1.00E+00	1.00E+00	1.00E+00
16:00	08:00	4.01E-06	4.01E-06	1.00E+00	1.00E+00	1.00E+00	1.00E+00

RMS - Process Monitors
 Hope Creek Nuclear Generating Station
 10/25/94

Clock Time	Drill Time	OFFGASA	OFFGASB	OFFGAS	OFFGAS	RACS	SACS A
		mR/hr 9RX621	mR/hr 9RX622	TRMTSYS A CPM 9RX625	TRMTSYS B CPM 9RX626	uCi/cc 9RX500	uCi/cc 9RX501
08:00	00:00	5.02E+00	4.02E+00	7.78E+00	5.84E+00	3.44E-06	2.34E-06
08:15	00:15	5.02E+00	4.02E+00	7.78E+00	5.84E+00	3.44E-06	2.34E-06
08:30	00:30	5.02E+00	4.02E+00	7.78E+00	5.84E+00	3.44E-06	2.34E-06
08:45	00:45	5.02E+00	4.02E+00	7.78E+00	5.84E+00	3.44E-06	2.34E-06
09:00	01:00	5.02E+00	4.02E+00	7.78E+00	5.84E+00	3.44E-06	2.34E-06
09:15	01:15	5.02E+00	4.02E+00	7.78E+00	5.84E+00	3.44E-06	2.34E-06
09:30	01:30	5.02E+00	4.02E+00	7.78E+00	5.84E+00	3.44E-06	2.34E-06
09:45	01:45	5.02E+00	4.02E+00	7.78E+00	5.84E+00	3.44E-06	2.34E-06
09:47	01:47	5.02E+00	4.02E+00	7.78E+00	5.84E+00	3.44E-06	2.34E-06
09:50	01:50	5.00E+00	4.00E+00	1.00E+00	1.00E+00	3.44E-06	2.34E-06
10:00	02:00	5.00E+00	4.00E+00	1.00E+00	1.00E+00	3.44E-06	2.34E-06
10:15	02:15	5.00E+00	4.00E+00	1.00E+00	1.00E+00	3.44E-06	2.34E-06
10:30	02:30	5.00E+00	4.00E+00	1.00E+00	1.00E+00	3.44E-06	2.34E-06
10:45	02:45	5.00E+00	4.00E+00	1.00E+00	1.00E+00	3.44E-06	2.34E-06
11:00	03:00	5.00E+00	4.00E+00	1.00E+00	1.00E+00	3.44E-06	2.34E-06
11:15	03:15	5.00E+00	4.00E+00	1.00E+00	1.00E+00	3.44E-06	2.34E-06
11:30	03:30	5.00E+00	4.00E+00	1.00E+00	1.00E+00	3.44E-06	2.34E-06
11:35	03:35	5.00E+00	4.00E+00	1.00E+00	1.00E+00	3.44E-06	2.34E-06
11:40	03:40	5.00E+00	4.00E+00	1.00E+00	1.00E+00	3.44E-06	2.34E-06
11:45	03:45	5.00E+00	4.00E+00	1.00E+00	1.00E+00	3.44E-06	2.34E-06
12:00	04:00	5.00E+00	4.00E+00	1.00E+00	1.00E+00	3.44E-06	2.34E-06
12:15	04:15	5.00E+00	4.00E+00	1.00E+00	1.00E+00	2.77E-05	2.34E-06
12:20	04:20	5.00E+00	4.00E+00	1.00E+00	1.00E+00	4.62E-05	2.34E-06
12:25	04:25	5.00E+00	4.00E+00	1.00E+00	1.00E+00	4.88E-05	2.34E-06
12:30	04:30	5.00E+00	4.00E+00	1.00E+00	1.00E+00	1.01E-04	2.34E-06
12:35	04:35	5.00E+00	4.00E+00	1.00E+00	1.00E+00	1.70E-04	2.34E-06
12:40	04:40	5.00E+00	4.00E+00	1.00E+00	1.00E+00	2.47E-04	2.34E-06
12:45	04:45	5.00E+00	4.00E+00	1.00E+00	1.00E+00	7.86E-04	2.34E-06
12:50	04:50	5.00E+00	4.00E+00	1.00E+00	1.00E+00	7.81E-04	2.34E-06
12:55	04:55	5.00E+00	4.00E+00	1.00E+00	1.00E+00	7.88E-04	2.34E-06
13:00	05:00	5.00E+00	4.00E+00	1.00E+00	1.00E+00	7.89E-04	2.34E-06
13:05	05:05	5.00E+00	4.00E+00	1.00E+00	1.00E+00	7.90E-04	2.34E-06
13:10	05:10	5.00E+00	4.00E+00	1.00E+00	1.00E+00	7.91E-04	2.34E-06
13:15	05:15	5.00E+00	4.00E+00	1.00E+00	1.00E+00	7.92E-04	2.34E-06
13:20	05:20	5.00E+00	4.00E+00	1.00E+00	1.00E+00	1.00E-02	1.00E-02
13:25	05:25	5.00E+00	4.00E+00	1.00E+00	1.00E+00	1.00E-02	1.00E-02
13:30	05:30	5.00E+00	4.00E+00	1.00E+00	1.00E+00	1.00E-02	1.00E-02
13:35	05:35	5.00E+00	4.00E+00	1.00E+00	1.00E+00	1.00E-02	1.00E-02
13:40	05:40	5.00E+00	4.00E+00	1.00E+00	1.00E+00	1.00E-02	1.00E-02
13:45	05:45	5.00E+00	4.00E+00	1.00E+00	1.00E+00	1.00E-02	1.00E-02
14:00	06:00	5.00E+00	4.00E+00	1.00E+00	1.00E+00	1.00E-02	1.00E-02
14:15	06:15	5.00E+00	4.00E+00	1.00E+00	1.00E+00	1.00E-02	1.00E-02
14:30	06:30	5.00E+00	4.00E+00	1.00E+00	1.00E+00	1.00E-02	1.00E-02
14:45	06:45	5.00E+00	4.00E+00	1.00E+00	1.00E+00	1.00E-02	1.00E-02
15:00	07:00	5.00E+00	4.00E+00	1.00E+00	1.00E+00	1.00E-02	1.00E-02
15:15	07:15	5.00E+00	4.00E+00	1.00E+00	1.00E+00	1.00E-02	1.00E-02
15:30	07:30	5.00E+00	4.00E+00	1.00E+00	1.00E+00	1.00E-02	1.00E-02
15:45	07:45	5.00E+00	4.00E+00	1.00E+00	1.00E+00	1.00E-02	1.00E-02
16:00	08:00	5.00E+00	4.00E+00	1.00E+00	1.00E+00	1.00E-02	1.00E-02

RMS - Process Monitors
 Hope Creek Nuclear Generating Station
 10/25/94

Clock Time	Drill Time	SACS B uCi/cc 9RX503	CIRCWTR uCi/cc 9RX505
08:00	00:00	2.36E-06	1.10E-06
08:15	00:15	2.36E-06	1.10E-06
08:30	00:30	2.36E-06	1.10E-06
08:45	00:45	2.36E-06	1.10E-06
09:00	01:00	2.36E-06	1.10E-06
09:15	01:15	2.36E-06	1.10E-06
09:30	01:30	2.36E-06	1.10E-06
09:45	01:45	2.36E-06	1.10E-06
09:47	01:47	2.36E-06	1.10E-06
09:50	01:50	2.36E-06	1.10E-06
10:00	02:00	2.36E-06	1.10E-06
10:15	02:15	2.36E-06	1.10E-06
10:30	02:30	2.36E-06	1.10E-06
10:45	02:45	2.36E-06	1.10E-06
11:00	03:00	2.36E-06	1.10E-06
11:15	03:15	2.36E-06	1.10E-06
11:30	03:30	2.36E-06	1.10E-06
11:35	03:35	2.34E-06	1.10E-06
11:40	03:40	2.34E-06	1.10E-06
11:45	03:45	2.34E-06	1.10E-06
11:50	03:50	2.34E-06	1.10E-06
12:00	04:00	2.34E-06	1.10E-06
12:15	04:15	2.34E-06	1.10E-06
12:20	04:20	2.34E-06	1.10E-06
12:25	04:25	2.34E-06	1.10E-06
12:30	04:30	2.34E-06	1.10E-06
12:35	04:35	2.34E-06	1.10E-06
12:40	04:40	2.34E-06	1.10E-06
12:45	04:45	2.34E-06	1.10E-06
12:50	04:50	2.34E-06	1.10E-06
12:55	04:55	2.34E-06	1.10E-06
13:00	05:00	2.34E-06	1.10E-06
13:05	05:05	2.34E-06	1.10E-06
13:10	05:10	2.34E-06	1.10E-06
13:15	05:15	2.34E-06	1.10E-06
13:20	05:20	2.34E-06	1.10E-06
13:25	05:25	1.00E-02	1.10E-06
13:30	05:30	1.00E-02	1.10E-06
13:35	05:35	1.00E-02	1.10E-06
13:40	05:40	1.00E-02	1.10E-06
13:45	05:45	1.00E-02	1.10E-06
14:00	06:00	1.00E-02	1.10E-06
14:15	06:15	1.00E-02	1.10E-06
14:30	06:30	1.00E-02	1.10E-06
14:45	06:45	1.00E-02	1.10E-06
15:00	07:00	1.00E-02	1.10E-06
15:15	07:15	1.00E-02	1.10E-06
15:30	07:30	1.00E-02	1.10E-06
15:45	07:45	1.00E-02	1.10E-06
16:00	08:00	1.00E-02	1.10E-06

PLANT VENT FLOW RATES

REAL TIME	DRILL TIME	NPV FLOW (CFM)	SPV FLOW (CFM)	FRVS FLOW (CFM)
0800	0000	41900	312000	0000
0830	0030	41900	312000	0000
0900	0100	41900	312000	0000
0930	0130	41900	312000	0000
1000	0200	41900	312000	0000
1030	0230	41900	312000	0000
1100	0300	41900	312000	0000
1135	0335	41900	212000	2000
1200	0400	41900	212000	2000
1230	0430	41900	212000	2000
1300	0500	41900	212000	2000
1315	0515	41900	212000	9000
1330	0530	41900	212000	9000
1400	0600	41900	212000	9000
1430	0630	41900	212000	9000
1500	0700	41900	212000	9000
1530	0730	41900	212000	9000
1600	0759	41900	212000	9000

MET DATA AND TOTAL uCi/SEC

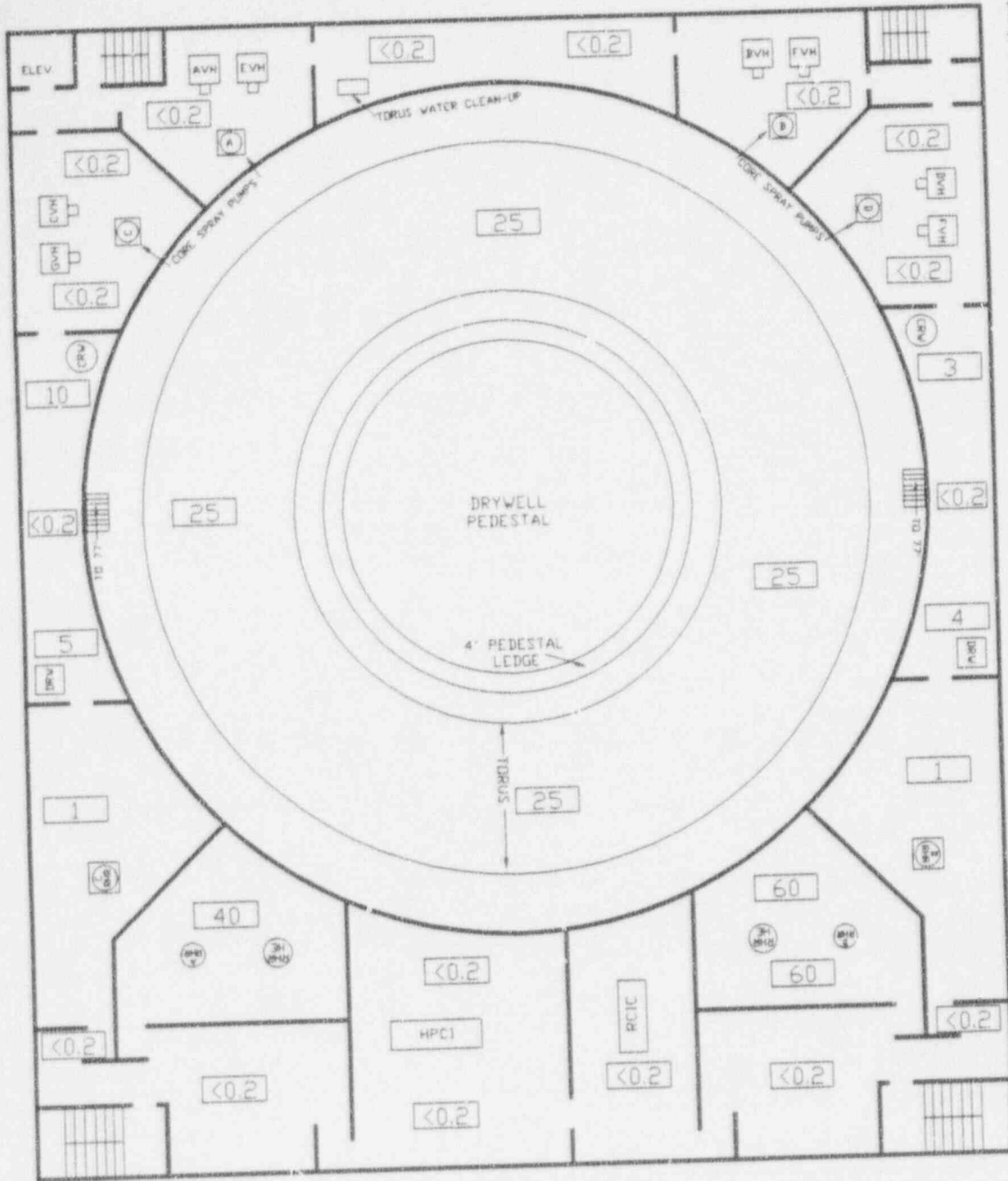
REAL TIME	DRILL TIME	TOTAL uCi/Sec	WIND SPD 33' (MPH)	WIND SPD 150' (MPH)	WIND SPD 300' (MPH)
0800	0000	1.90E+02	5.00	8.00	12.00
0830	0030	1.90E+02	5.20	8.20	12.20
0900	0100	1.90E+02	5.30	8.40	12.40
0930	0130	1.90E+02	5.50	8.60	12.60
1000	0200	1.90E+02	5.60	8.80	12.80
1030	0230	1.90E+02	5.80	8.90	12.90
1100	0300	1.90E+02	5.90	9.10	13.10
1130	0330	1.90E+02	6.10	9.30	13.30
1200	0400	1.77E+02	6.30	9.50	13.50
1230	0430	1.77E+02	6.40	9.70	13.70
1300	0500	3.33E+02	6.60	9.90	13.90
1330	0530	1.11E+08	6.70	10.10	14.10
1400	0600	1.07E+08	6.90	10.20	14.20
1430	0630	1.04E+08	7.00	10.40	14.40
1500	0700	1.01E+08	7.20	10.60	14.60
1530	0730	3.72E+06	7.30	10.80	14.80
1600	0800	1.06E+04	7.50	11.00	15.00

MET DATA

REAL TIME	DRILL TIME	WIND DIR. (DEGREES)	STABILITY CLASS	DELTA T 150'-33' (DEGREES CENT)	DELTA T 300'-33' (DEGRESS CENT)
0800	0000	270.00	F	1.00	1.40
0830	0030	271.80	F	1.00	1.40
0900	0100	273.60	F	1.00	1.40
0930	0130	275.50	F	1.00	1.40
1000	0200	277.30	F	1.00	1.40
1030	0230	279.10	F	1.00	1.40
1100	0300	280.90	F	1.00	1.40
1130	0330	282.70	F	1.00	1.40
1200	0400	284.50	F	1.00	1.40
1230	0430	286.30	F	1.00	1.40
1300	0500	288.20	F	1.00	1.40
1330	0530	292.70	F	1.00	1.40
1400	0600	298.20	F	1.00	1.40
1430	0630	303.60	F	1.00	1.40
1500	0700	309.10	F	1.00	1.40
1530	0730	314.60	F	1.00	1.40
1600	0800	320.00	F	1.00	1.40

9.2.21

REACTOR BUILDING 54' EL.



DATE OF DRILL: OCTOBER 25, 1994

REAL TIME(S) : 0800 - 1219

DRILL TIME(S) : 0000 - 0419

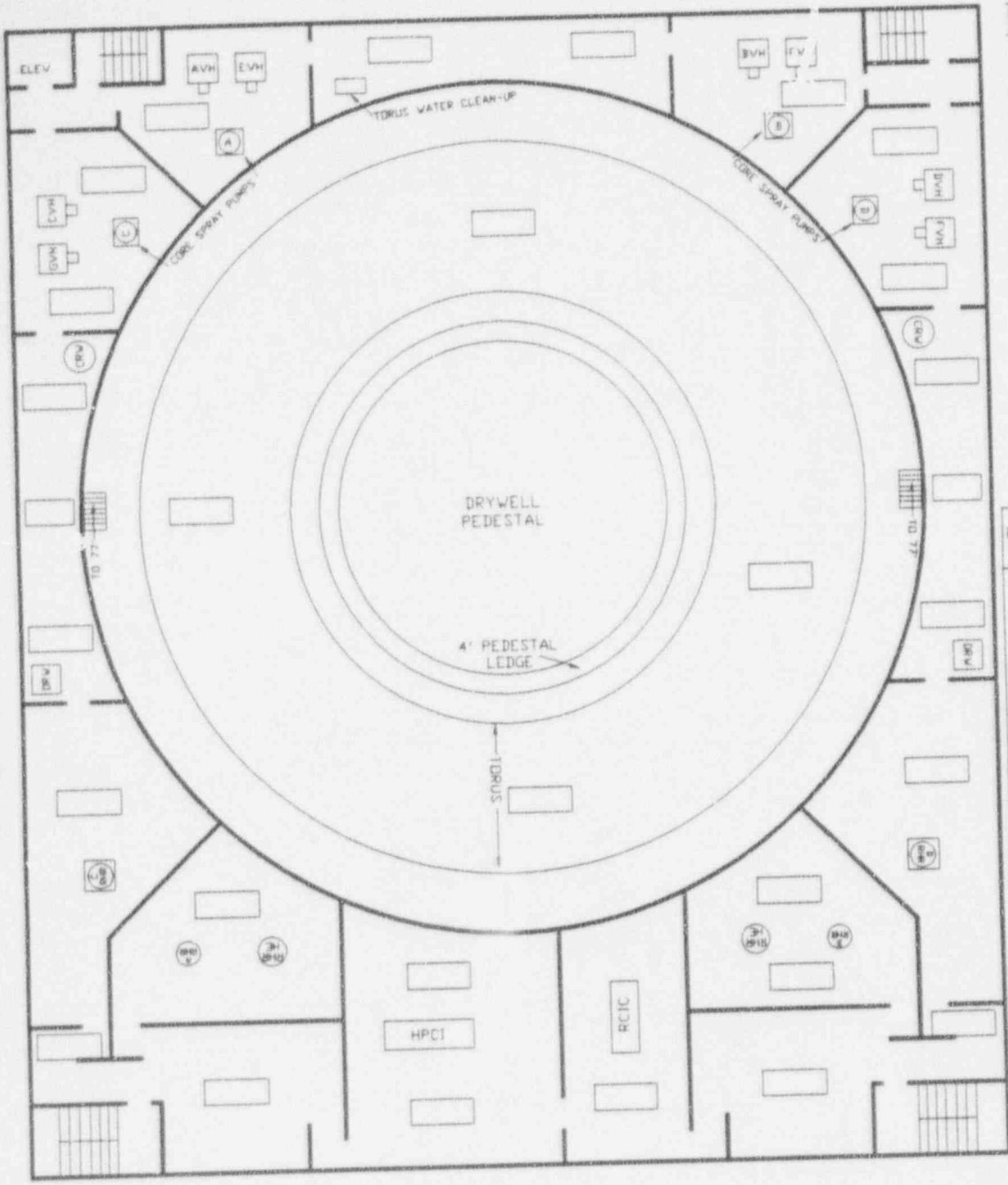
CONTAMINATION LEVELS: N/A

AIR SAMPLE DATA : SEE REACTOR BUILDING
AIR CONCENTRATIONS
DATA

DOSE RATES IN MR/HR UNLESS
OTHERWISE INDICATED.

AMS DATA: N/A

REACTOR BUILDING 54' EL.



REAL TIME	DOSE RATES	CONTAMINATION LEVELS
1220	5.0 mR/hr	N/A
1225	10.0 mR/hr	N/A
1235	28.0 mR/hr	N/A
1245	32.0 mR/hr	N/A
1325	490.0 mR/hr	1.9 mRad/hr
1330	8.8 R/hr	35.0 mRad/hr
1335	540.0 R/hr	2.2 Rad/hr
1500	500.0 R/hr	2.2 Rad/hr
1515	90.0 R/hr	2.2 Rad/hr
1530	48.0 R/hr	2.2 Rad/hr
1545	6.1 R/hr	2.2 Rad/hr
1600	1.2 R/hr	2.2 Rad/hr

DATE OF DRILL: OCTOBER 25, 1994

DOSE RATES: SEE ABOVE

REAL TIME(S) : 1220 - END

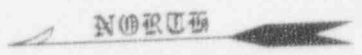
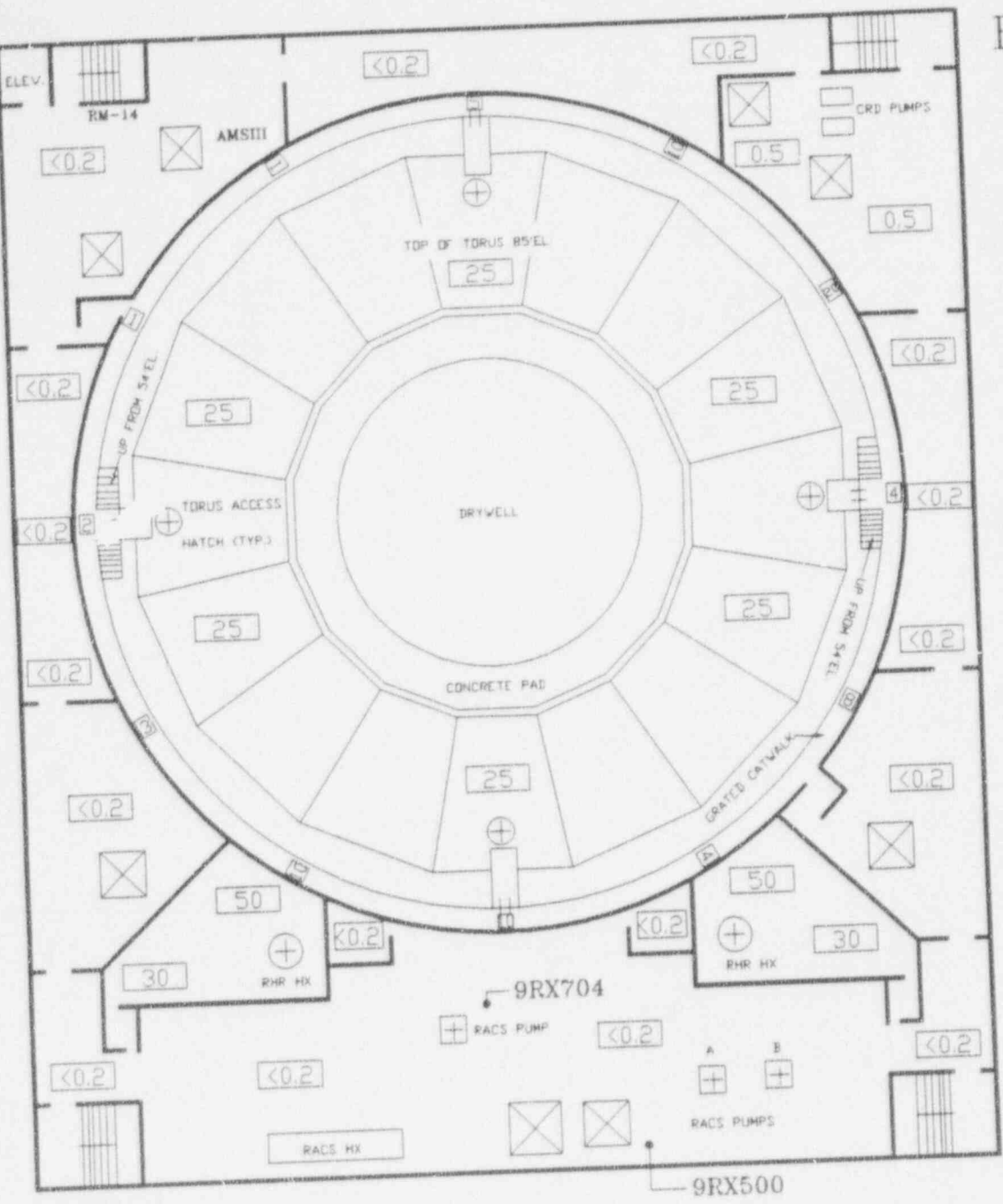
DRILL TIME(S) : 0420 - END

AMS DATA: N/A

CONTAMINATION LEVELS: SEE ABOVE

AIR SAMPLE DATA : SEE REACTOR BUILDING
AIR CONCENTRATIONS
DATA

REACTOR BUILDING 77' EL.



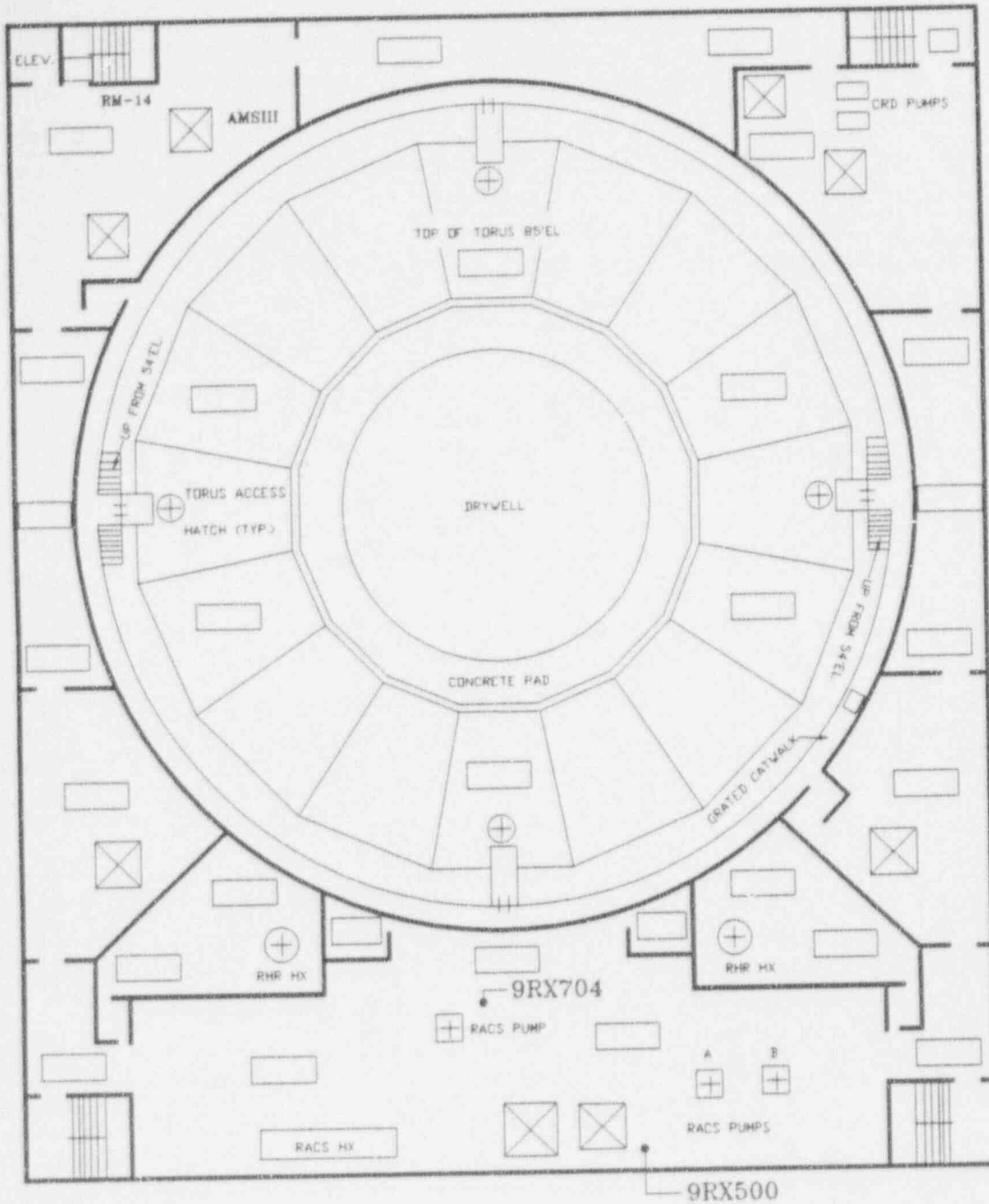
DATE OF DRILL : OCTOBER 25, 1994
 REAL TIME(S) : 0800 - 1219
 DRILL TIME(S) : 0000 - 0419
 CONTAMINATION LEVELS: N/A

□ DOSE RATES IN MR/HR UNLESS OTHERWISE INDICATED.

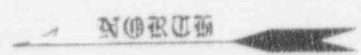
AMS DATA: 400 CCPM

AIR SAMPLE DATA : SEE REACTOR BUILDING AIR CONCENTRATIONS DATA

REACTOR BUILDING 77' EL.



REAL TIME	DOSE RATES	CONTAMINATION LEVELS
1220	5.0 mR/hr	N/A
1225	10.0 mR/hr	N/A
1235	28.0 mR/hr	N/A
1245	32.0 mR/hr	N/A
1325	490.0 mR/hr	1.9 mRad/hr
1330	8.8 R/hr	35.0 mRad/hr
1335	540.0 R/hr	2.2 Rad/hr
1500	500.0 R/hr	2.2 Rad/hr
1515	90.0 R/hr	2.2 Rad/hr
1530	48.0 R/hr	2.2 Rad/hr
1545	6.1 R/hr	2.2 Rad/hr
1600	1.2 R/hr	2.2 Rad/hr



DATE OF DRILL : OCTOBER 25, 1994

DOSE RATES : SEE ABOVE

REAL TIME(S) : 1220 - END

DRILL TIME(S) : 0420 - END

AMS DATA: OFFSCALE HIGH ALARMING!

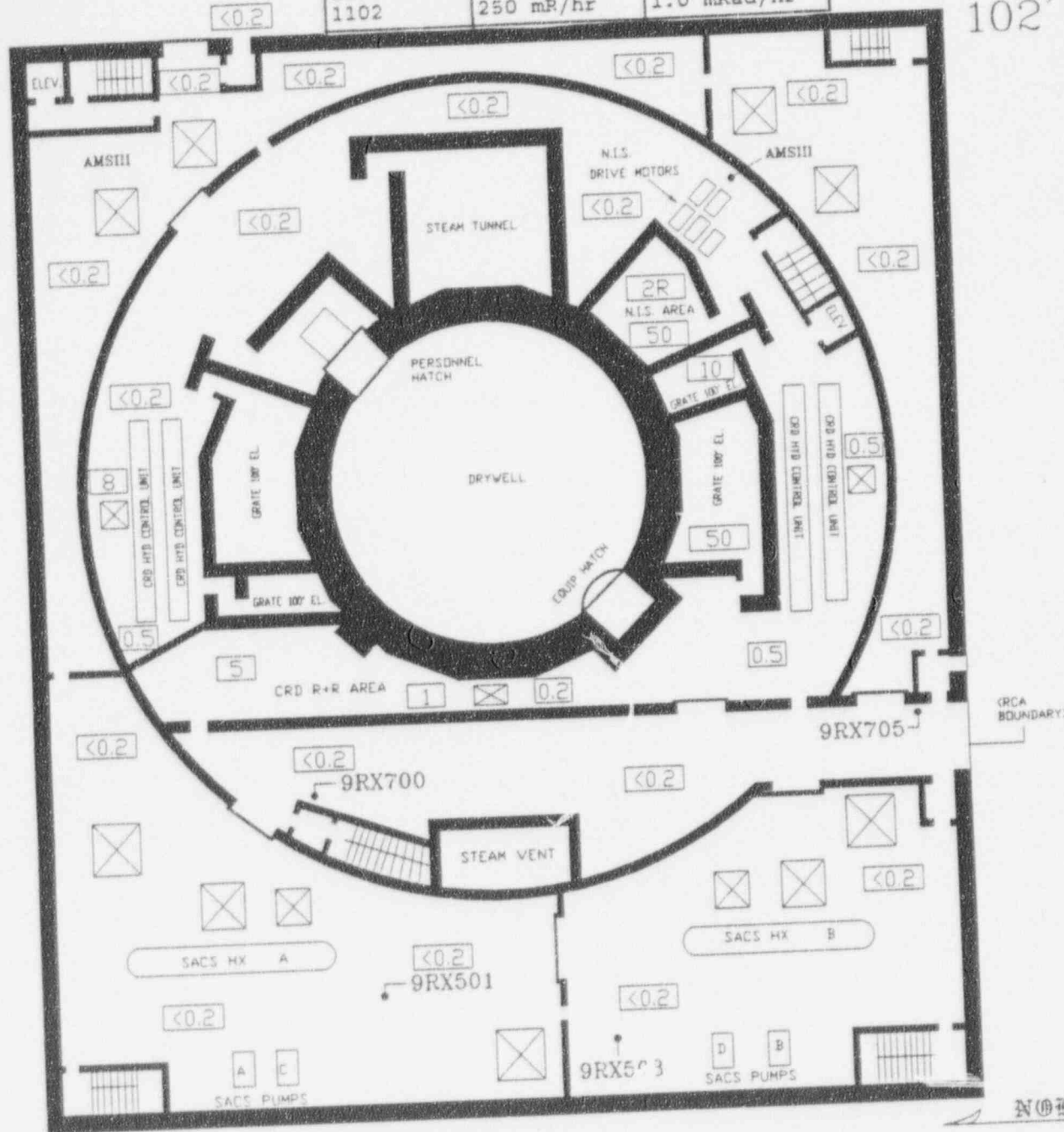
CONTAMINATION LEVELS: SEE ABOVE

AIR SAMPLE DATA : SEE REACTOR BUILDING
AIR CONCENTRATIONS
DATA

SOUTH PIPE CHASE

REAL TIME	DOSE RATES	CONTAMINATION LEVELS
0800	10 mR/hr	N/A
1002	20 mR/hr	10,000 CCPM
1051	75 mR/hr	35,000 CCPM
1102	250 mR/hr	1.0 mRad/hr

REACTOR BUILDING
102' EL.



DATE OF DRILL : OCTOBER 25, 1994

REAL TIME(S) : 0800 - 1324

DRILL TIME(S) : 0000 - 0524

CONTAMINATION LEVELS: N/A

AIR SAMPLE DATA : SEE REACTOR BUILDING
AIR CONCENTRATIONS
DATA

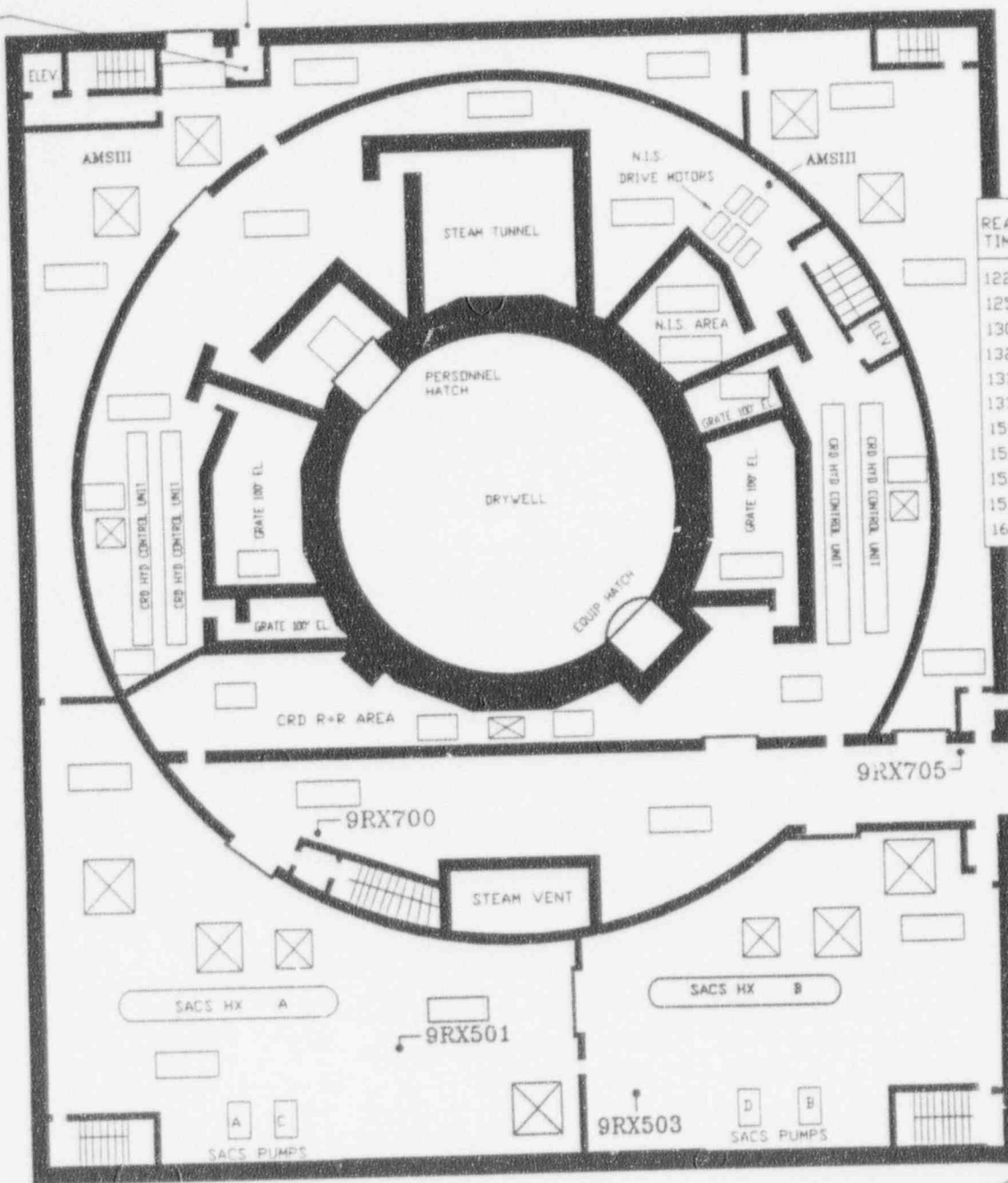
☐ DOSE RATES IN MR/HR UNLESS
OTHERWISE INDICATED.

AMS DATA: 400 CCPM

MULTIPLY GENERAL AREA DOSE RATE DIRECTLY OUTSIDE OF THE HATCH IN THE REACTOR BUILDING BY 0.1 FOR THE DOSE RATE IN THE HATCH.
 MULTIPLY GENERAL AREA DOSE RATE DIRECTLY OUTSIDE OF THE HATCH IN THE REACTOR BUILDING BY 0.01 FOR THE CONTACT DOSE RATE AGAINST THE HATCH.

REACTOR BUILDING 102' EL.

REAL TIME	DOSE RATES	CONTAMINATION LEVELS
1225	0.2 mR/hr	N/A
1250	1.0 mR/hr	N/A
1305	2.0 mR/hr	N/A
1325	546.0 mR/hr	2.2 mRad/hr
1330	8.7 R/hr	34.0 mRAD/hr
1335	540.0 R/hr	2.2 Rad/hr
1500	500.0 R/hr	2.2 RAD/hr
1515	90.0 R/hr	2.2 RAD/hr
1530	48.0 R/hr	2.2 RAD/hr
1545	6.1 R/hr	2.2 RAD/hr
1600	863.0 mR/hr	2.2 RAD/hr



DATE OF DRILL : OCTOBER 25, 1994

DOSE RATES : SEE ABOVE

REAL TIME(S) : 1325 - END

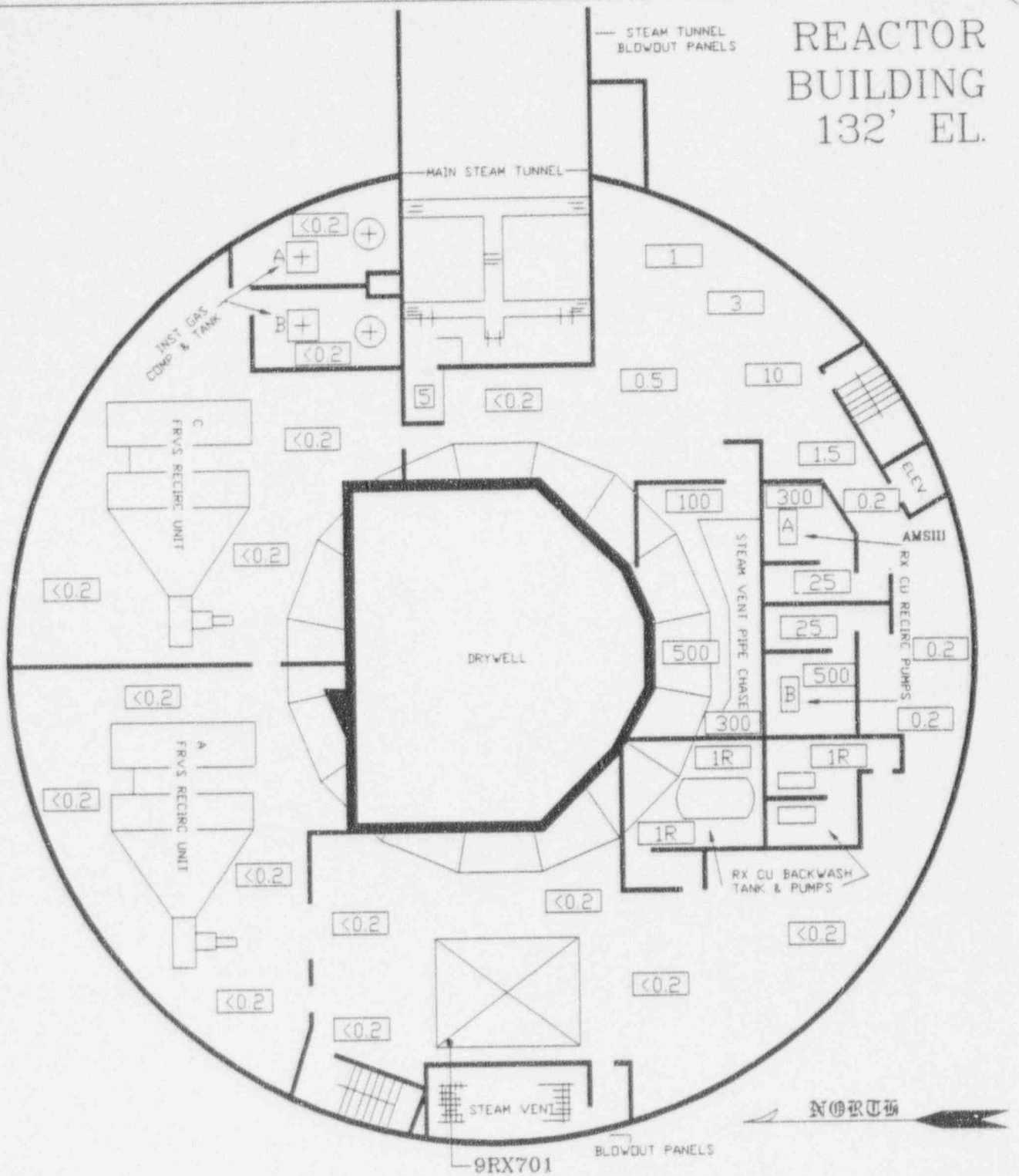
DRILL TIME(S) : 0525 - END

AMS DATA: OFFSCALE HIGH ALARMING!

CONTAMINATION LEVELS: SEE ABOVE

AIR SAMPLE DATA : SEE REACTOR BUILDING
AIR CONCENTRATIONS
DATA

REACTOR BUILDING 132' EL.



DATE OF DRILL : OCTOBER 25, 1994

REAL TIME(S) : 0800 - 1224

DRILL TIME(S) : 0000 - 0424

CONTAMINATION LEVELS: N/A

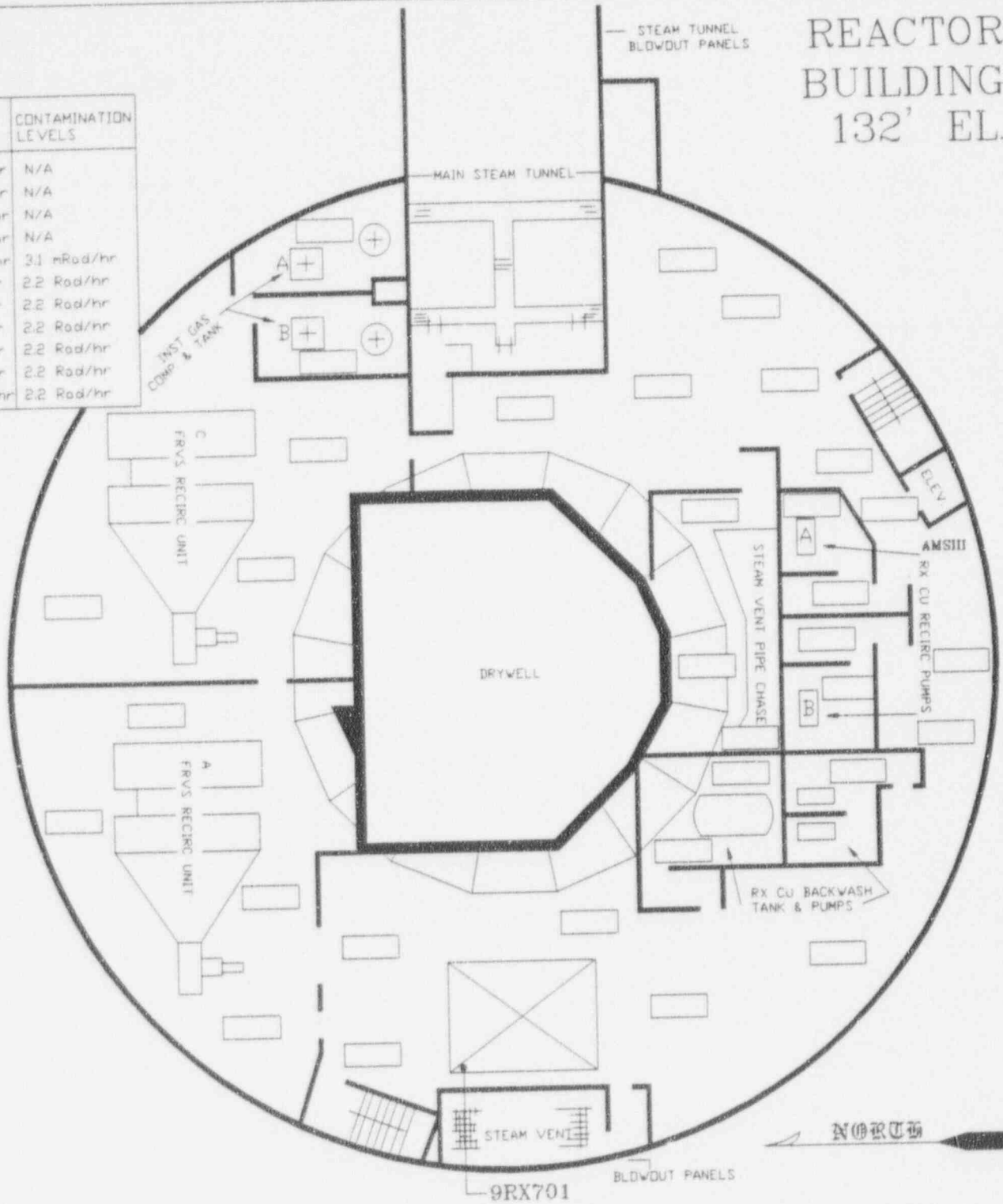
AIR SAMPLE DATA : SEE REACTOR BUILDING
AIR CONCENTRATIONS
DATA

□ DOSE RATES IN MR/HR UNLESS
OTHERWISE INDICATED.

AMS DATA: 400 CCPM

REACTOR BUILDING 132' EL.

TIME	DOSE RATES	CONTAMINATION LEVELS
1225	0.2 mR/hr	N/A
1250	1.0 mR/hr	N/A
1305	2.0 mR/hr	N/A
1320	3.0 mR/hr	N/A
1325	766.0 mR/hr	3.1 mRad/hr
1330	540.0 R/hr	2.2 Rad/hr
1500	500.0 R/hr	2.2 Rad/hr
1515	90.0 R/hr	2.2 Rad/hr
1530	48.0 R/hr	2.2 Rad/hr
1545	6.1 R/hr	2.2 Rad/hr
1600	863.0 mR/hr	2.2 Rad/hr



DATE OF DRILL : OCTOBER 25, 1994

DOSE RATES : SEE ABOVE

REAL TIME(S) : 1225 - END

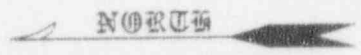
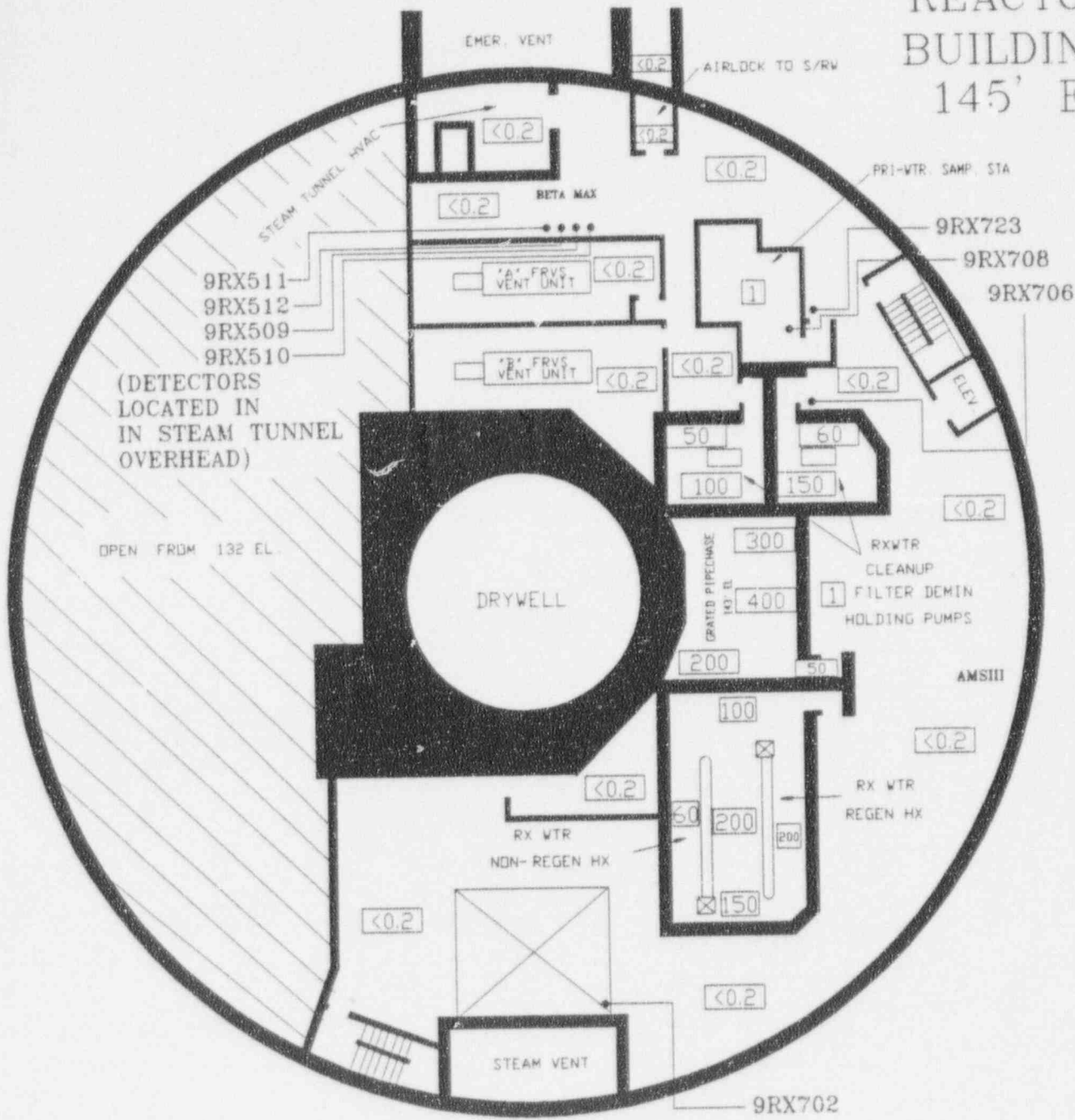
DRILL TIME(S) : 0425 - END

AMS DATA: OFFSCALE HIGH ALARMING!

CONTAMINATION LEVELS : SEE ABOVE

AIR SAMPLE DATA : SEE REACTOR BUILDING
AIR CONCENTRATIONS
DATA

REACTOR BUILDING 145' EL.



DATE OF DRILL : OCTOBER 25, 1994
 REAL TIME(S) : 0800 - 1224
 DRILL TIME(S) : 0000 - 0424
 CONTAMINATION LEVELS: N/A

□ DOSE RATES IN MR/HR UNLESS OTHERWISE INDICATED.

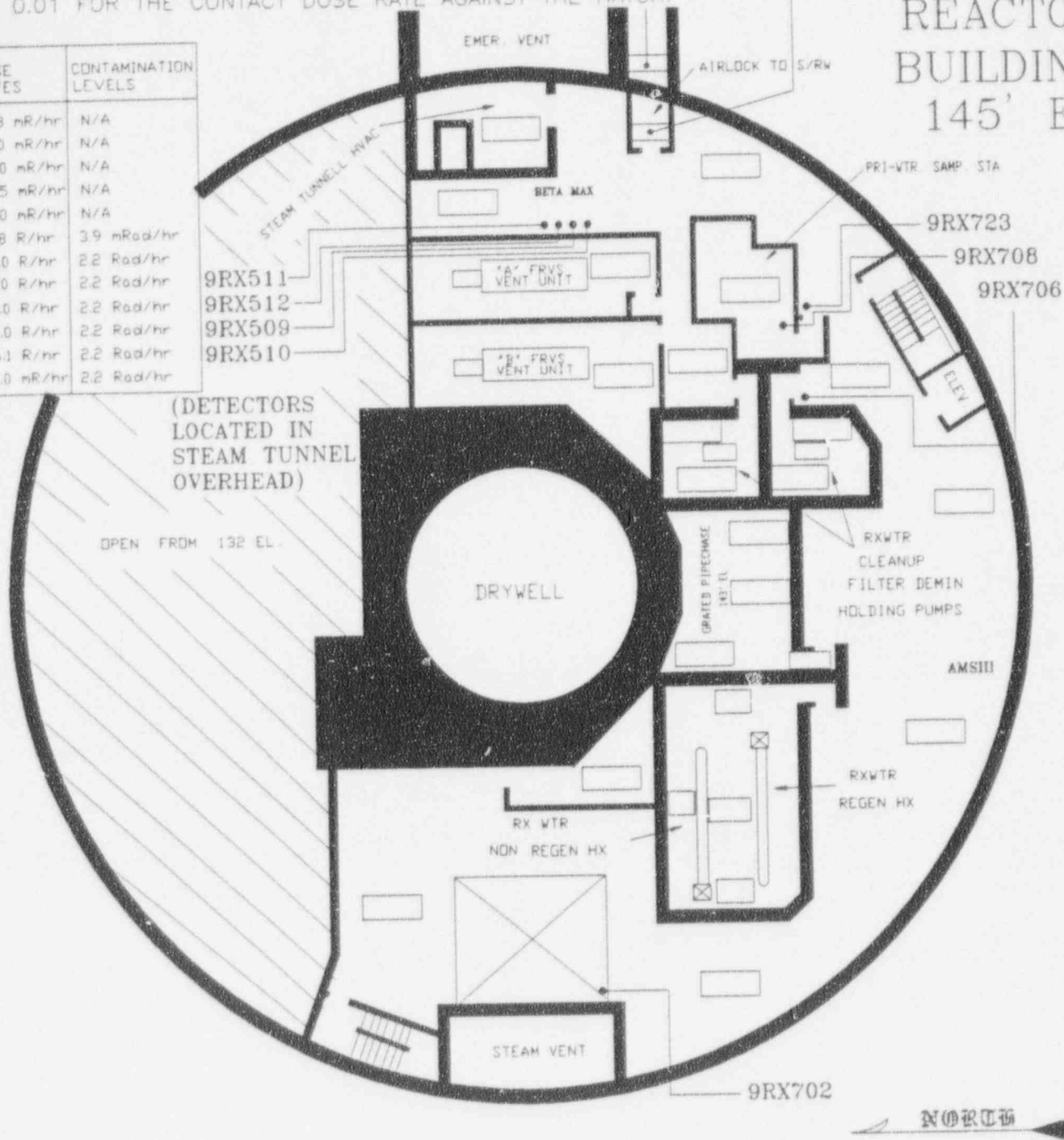
AMS DATA: 400 CCPM

AIR SAMPLE DATA : SEE REACTOR BUILDING
 AIR CONCENTRATIONS
 DATA

MULTIPLY GENERAL AREA DOSE RATE DIRECTLY OUTSIDE OF THE HATCH IN THE REACTOR BUILDING BY 0.1 FOR THE DOSE RATE IN THE HATCH.
 MULTIPLY GENERAL AREA DOSE RATE DIRECTLY OUTSIDE OF THE HATCH IN THE REACTOR BUILDING BY 0.01 FOR THE CONTACT DOSE RATE AGAINST THE HATCH.

REACTOR BUILDING 145' EL.

REAL TIME	DOSE RATES	CONTAMINATION LEVELS
1225	0.3 mR/hr	N/A
1245	1.0 mR/hr	N/A
1300	2.0 mR/hr	N/A
1310	2.5 mR/hr	N/A
1320	890.0 mR/hr	N/A
1325	9.8 R/hr	3.9 mRad/hr
1330	540.0 R/hr	2.2 Rad/hr
1500	500.0 R/hr	2.2 Rad/hr
1515	90.0 R/hr	2.2 Rad/hr
1530	48.0 R/hr	2.2 Rad/hr
1545	6.1 R/hr	2.2 Rad/hr
1600	863.0 mR/hr	2.2 Rad/hr



DATE OF DRILL : OCTOBER 25, 1994

DOSE RATES : SEE ABOVE

REAL TIME(S) : 1225 - END

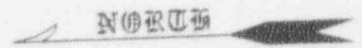
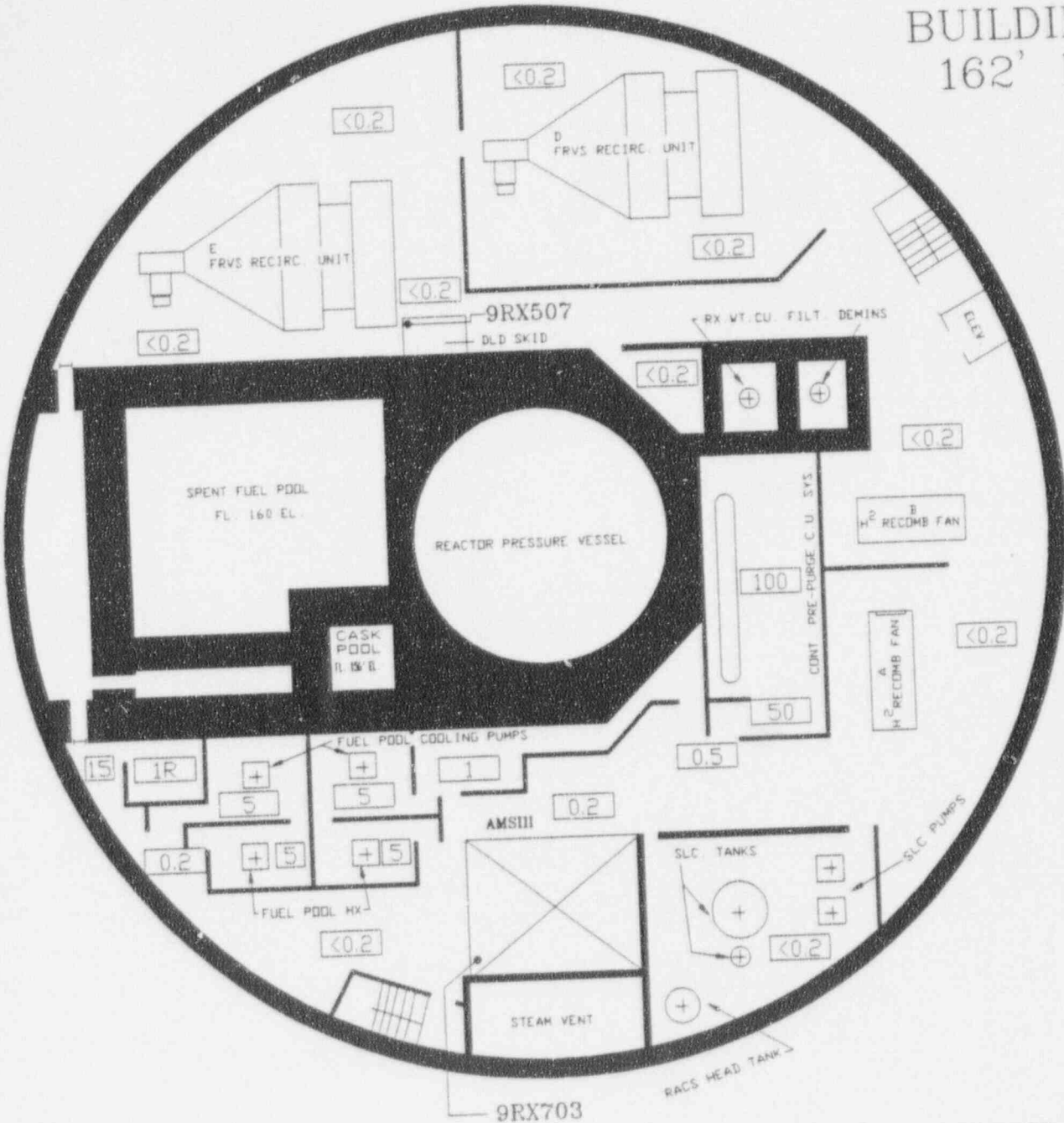
DRILL TIME(S) : 0425 - END

AMS DATA: OFFSCALE HIGH ALARMING!

CONTAMINATION LEVELS: SEE ABOVE

AIR SAMPLE DATA : SEE REACTOR BUILDING
AIR CONCENTRATIONS
DATA

REACTOR BUILDING 162' EL.



DDATE OF DRILL : OCTOBER 25, 1994

REAL TIME(S) : 0800 - 1224

DRILL TIME(S) : 0000 - 0424

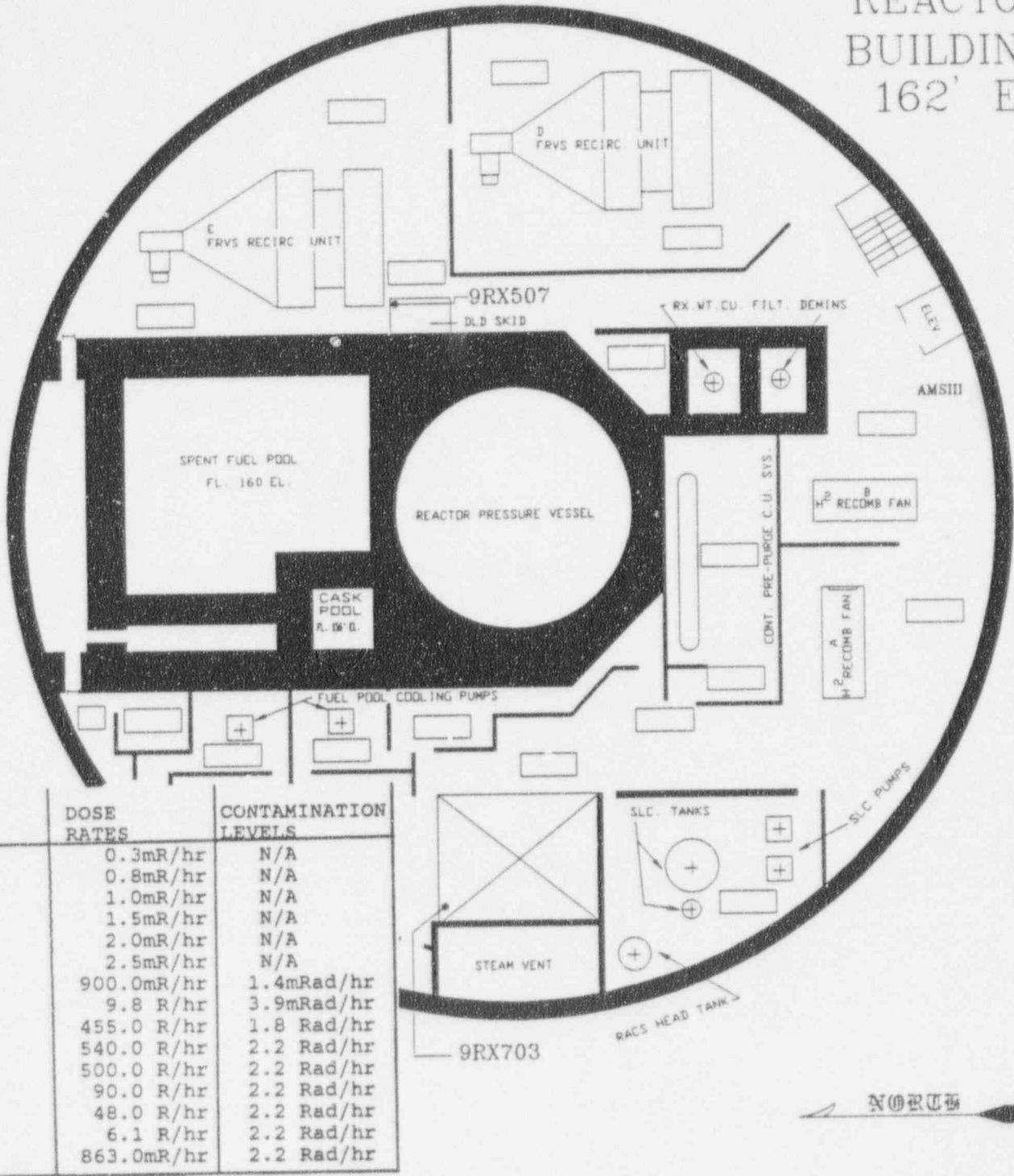
CONTAMINATION LEVELS: N/A

AIR SAMPLE DATA : SEE REACTOR BUILDING
AIR CONCENTRATIONS
DATA

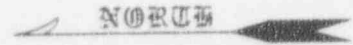
☐ DOSE RATES IN MR/HR UNLESS
OTHERWISE INDICATED.

AMS DATA: 400 CCPM

REACTOR BUILDING 162' EL.



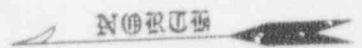
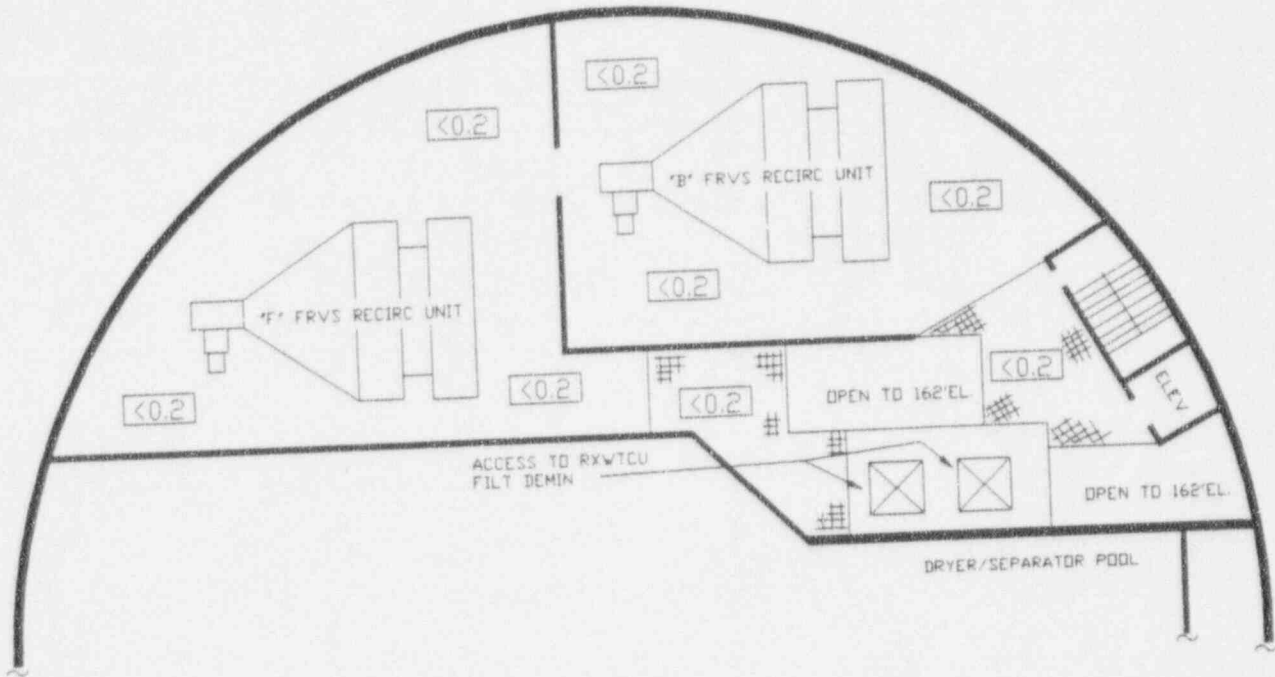
REAL TIME	DOSE RATES	CONTAMINATION LEVELS
1225	0.3mR/hr	N/A
1235	0.8mR/hr	N/A
1245	1.0mR/hr	N/A
1250	1.5mR/hr	N/A
1300	2.0mR/hr	N/A
1310	2.5mR/hr	N/A
1315	900.0mR/hr	1.4mRad/hr
1320	9.8 R/hr	3.9mRad/hr
1325	455.0 R/hr	1.8 Rad/hr
1330	540.0 R/hr	2.2 Rad/hr
1500	500.0 R/hr	2.2 Rad/hr
1515	90.0 R/hr	2.2 Rad/hr
1530	48.0 R/hr	2.2 Rad/hr
1545	6.1 R/hr	2.2 Rad/hr
1600	863.0mR/hr	2.2 Rad/hr



DATE OF DRILL : OCTOBER 25, 1994
 REAL TIME(S) : 1225 - END
 DRILL TIME(S) : 0425 - END
 CONTAMINATION LEVELS: SEE ABOVE
 AIR SAMPLE DATA : SEE REACTOR BUILDING AIR CONCENTRATIONS DATA

DOSE RATES : SEE ABOVE
 AMS DATA: OFFSCALE HIGH ALARMING!

REACTOR BUILDING 178' EL.



DATE OF DRILL : OCTOBER 25, 1994

REAL TIME(S) : 0800 - 1224

DRILL TIME(S) : 0000 - 0424

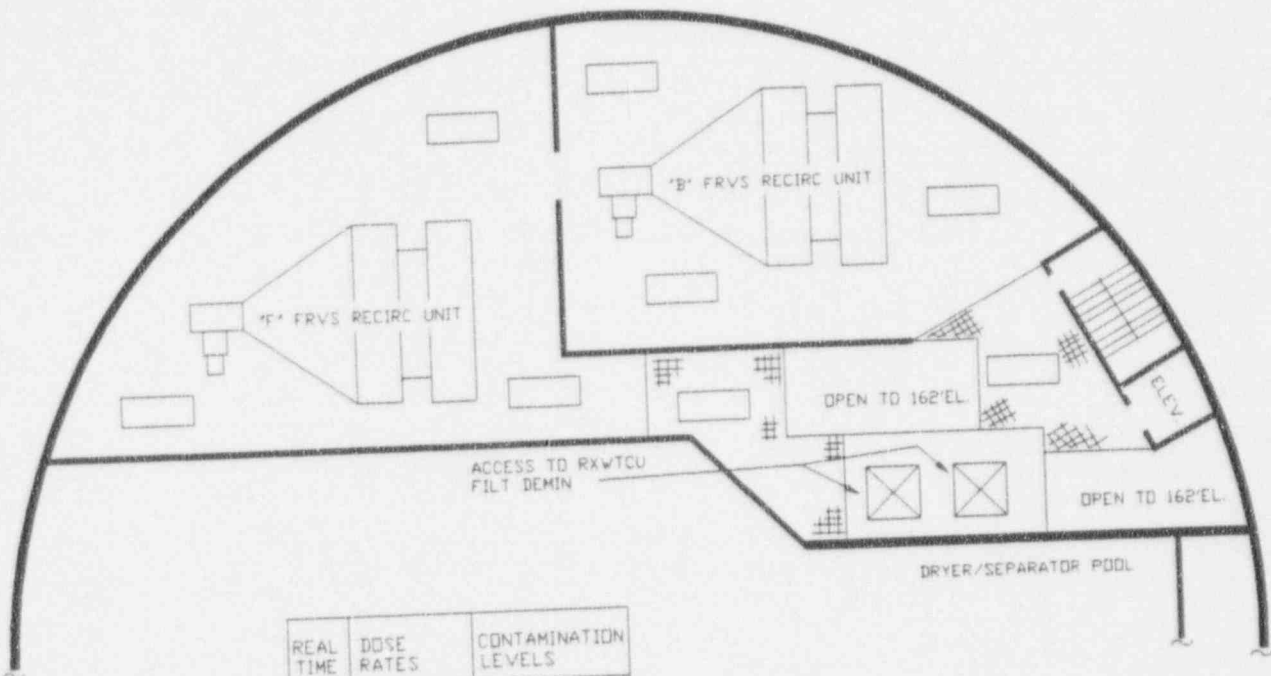
CONTAMINATION LEVELS: N/A

AIR SAMPLE DATA : SEE REACTOR BUILDING
AIR CONCENTRATIONS
DATA

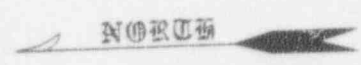
DOSE RATES IN MR/HR UNLESS
OTHERWISE INDICATED.

AMS DATA: N/A

REACTOR BUILDING 178' EL.



REAL TIME	DOSE RATES	CONTAMINATION LEVELS
1225	0.3 mR/hr	N/A
1235	0.8 mR/hr	N/A
1245	1.0 mR/hr	N/A
1250	1.5 mR/hr	N/A
1300	2.0 mR/hr	N/A
1310	2.5 mR/hr	N/A
1320	890 mR/hr	N/A
1325	9.8 R/hr	3.9 mRad/hr
1330	540.0 R/hr	2.2 Rad/hr
1500	500.0 R/hr	2.2 Rad/hr
1515	90.0 R/hr	2.2 Rad/hr
1530	48.0 R/hr	2.2 Rad/hr
1545	6.1 R/hr	2.2 Rad/hr
1600	863.0 mR/hr	2.2 Rad/hr

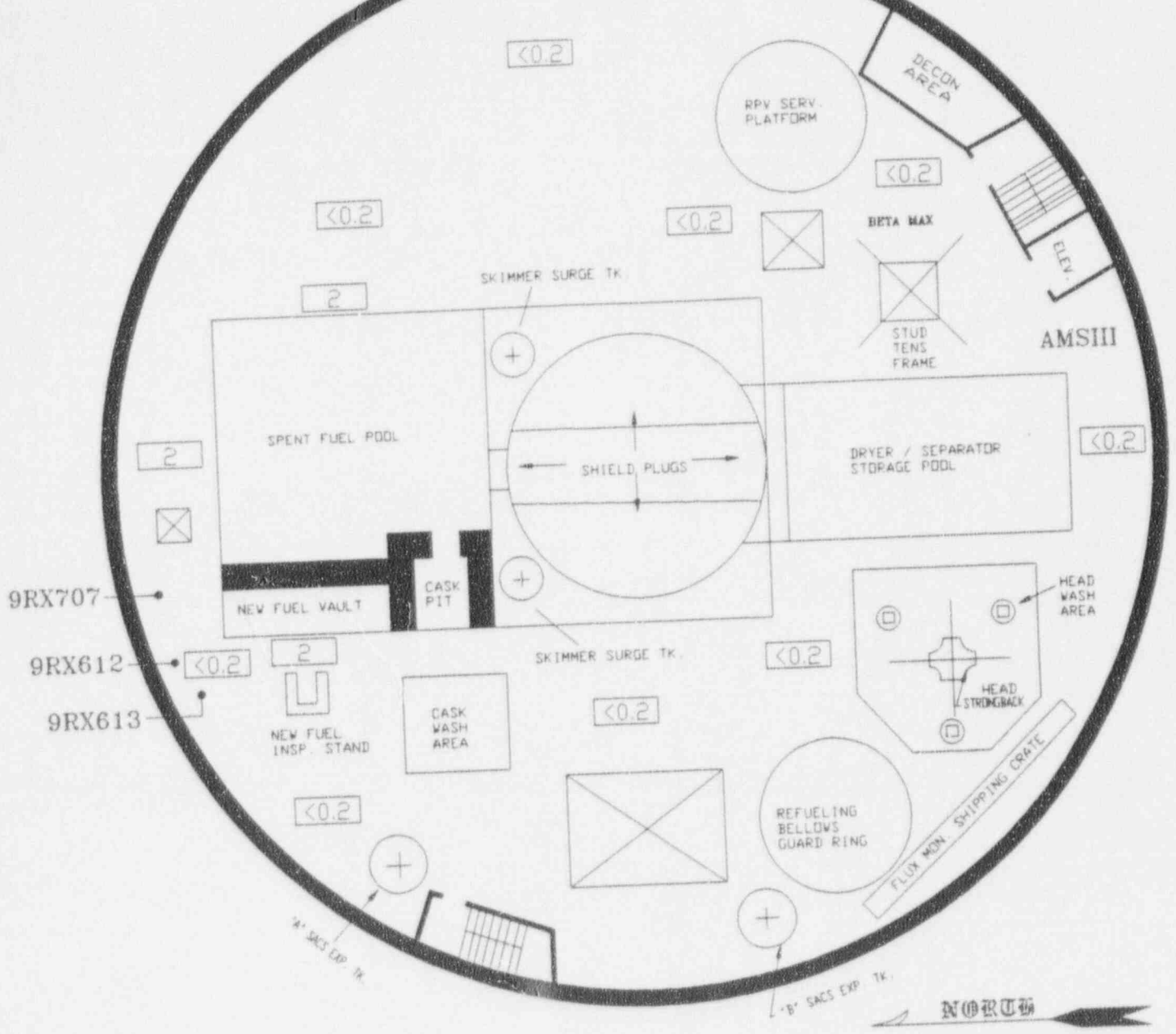


DATE OF DRILL: OCTOBER 25, 1994
 REAL TIME(S) : 1225 - END
 DRILL TIME(S) : 0425 - END
 CONTAMINATION LEVELS: SEE ABOVE

DOSE RATES : SEE ABOVE
 AMS DATA: N/A

AIR SAMPLE DATA : SEE REACTOR BUILDING
 AIR CONCENTRATIONS
 DATA

REACTOR BUILDING 201' EL.



9RX707
9RX612
9RX613

DATE OF DRILL : OCTOBER 25, 1994
 REAL TIME(S) : 0800 - 1224
 DRILL TIME(S) : 0000 - 0424
 CONTAMINATION LEVELS: N/A

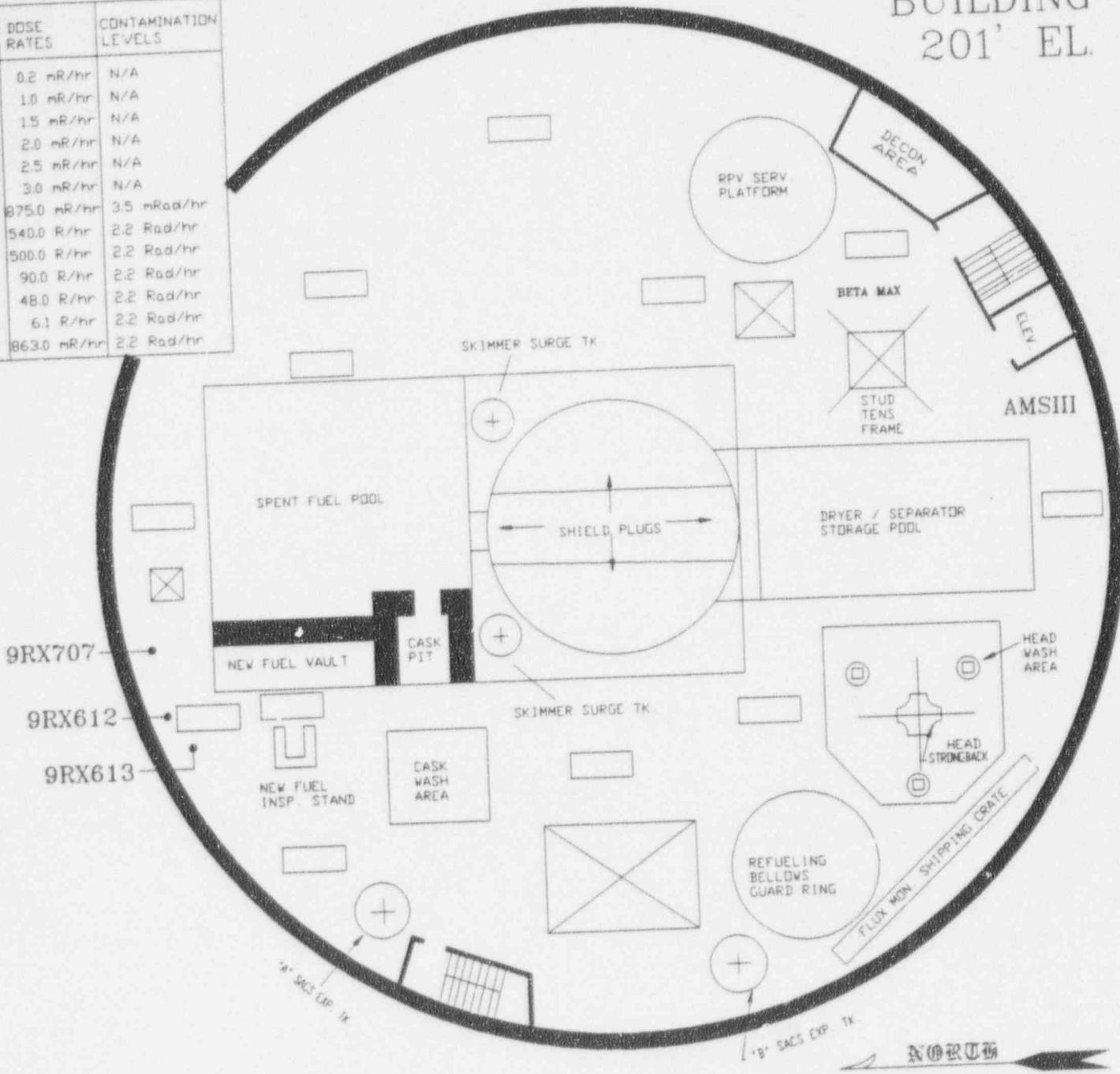
☐ DOSE RATES IN MR/HR UNLESS OTHERWISE INDICATED

AMS DATA: 400 CCPM

AIR SAMPLE DATA : SEE REACTOR BUILDING AIR CONCENTRATIONS DATA

REACTOR BUILDING 201' EL.

TIME	DOSE RATES	CONTAMINATION LEVELS
1225	0.2 mR/hr	N/A
1245	1.0 mR/hr	N/A
1300	1.5 mR/hr	N/A
1305	2.0 mR/hr	N/A
1315	2.5 mR/hr	N/A
1320	3.0 mR/hr	N/A
1325	875.0 mR/hr	3.5 mRad/hr
1330	540.0 R/hr	2.2 Rad/hr
1500	500.0 R/hr	2.2 Rad/hr
1515	90.0 R/hr	2.2 Rad/hr
1530	48.0 R/hr	2.2 Rad/hr
1545	6.1 R/hr	2.2 Rad/hr
1600	863.0 mR/hr	2.2 Rad/hr

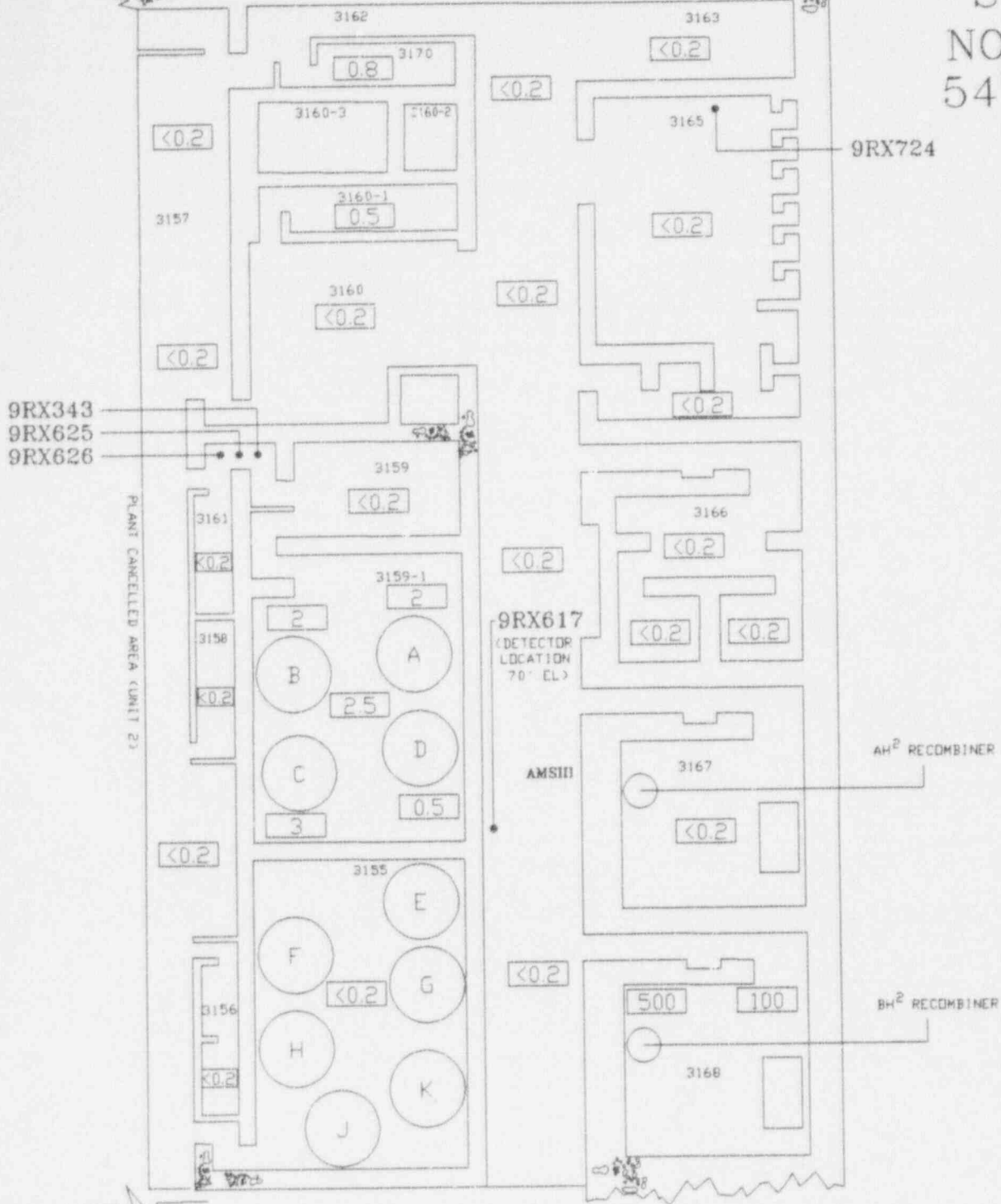


DATE OF DRILL : OCTOBER 25, 1994
 REAL TIME(S) : 1225 - END
 DRILL TIME(S) : 0425 - END
 CONTAMINATION LEVELS: SEE ABOVE

DOSE RATES : SEE ABOVE
 AMS DATA: OFFSCALE HIGH ALARMING!

AIR SAMPLE DATA : SEE REACTOR BUILDING
 AIR CONCENTRATIONS
 DATA

S/RW
NORTH
54' EL.



DATE OF DRILL : OCTOBER 25, 1994

REAL TIME(S) : 0800 - 0946

DRILL TIME(S) : 0000 - 0146

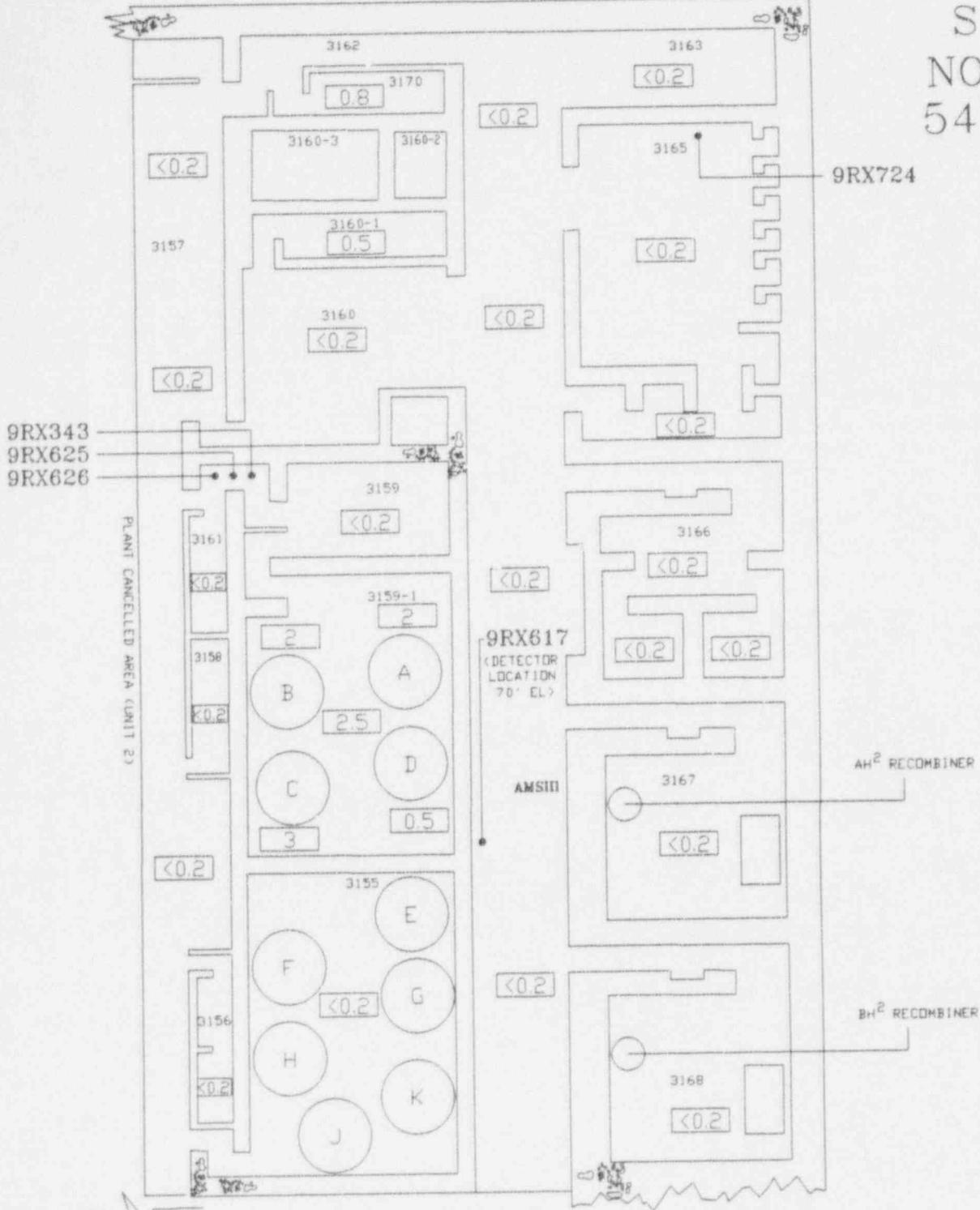
CONTAMINATION LEVELS: N/A

AIR SAMPLE DATA : SEE SERVICE RADWASTE
AIR CONCENTRATIONS
DATA

□ DOSE RATES IN MR/HR UNLESS OTHERWISE INDICATED.

AMS DATA: 400 CCPM

S/RW
NORTH
54' EL.



9RX343
9RX625
9RX626

9RX724

9RX617
(DETECTOR
LOCATION
70' EL)

AH² RECOMBINER

AMSIII

BH² RECOMBINER



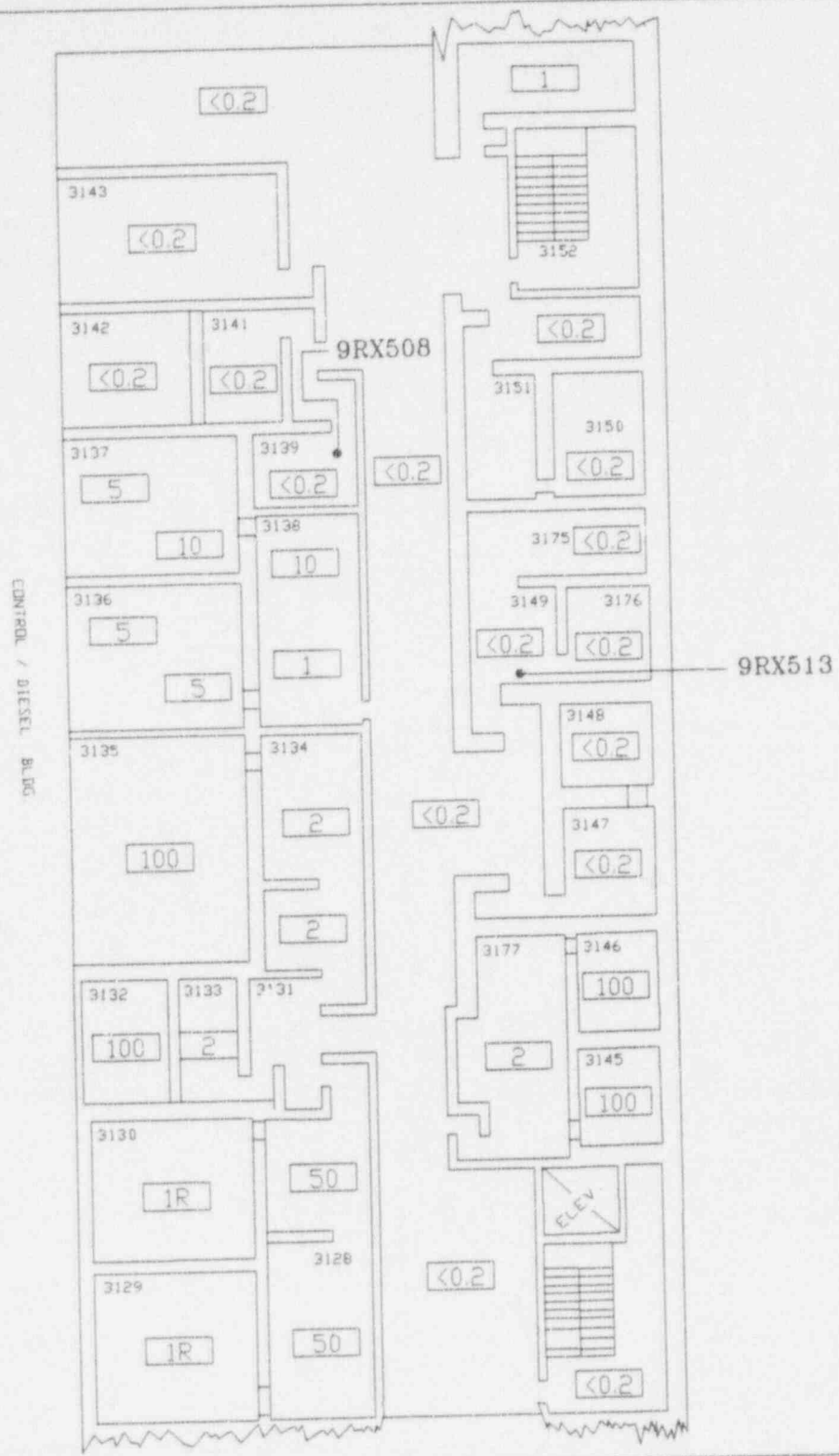
DATE OF DRILL : OCTOBER 25, 1994
REAL TIME(S) : 0947 - END
DRILL TIME(S) : 0147 - END
CONTAMINATION LEVELS: N/A

□ DOSE RATES IN MR/HR UNLESS OTHERWISE INDICATED.

AMS DATA: 400 CCPM

AIR SAMPLE DATA : SEE SERVICE RADWASTE
AIR CONCENTRATIONS
DATA

S/RW
CENTER
54' EL.



CONTROL / DIESEL BLDG.



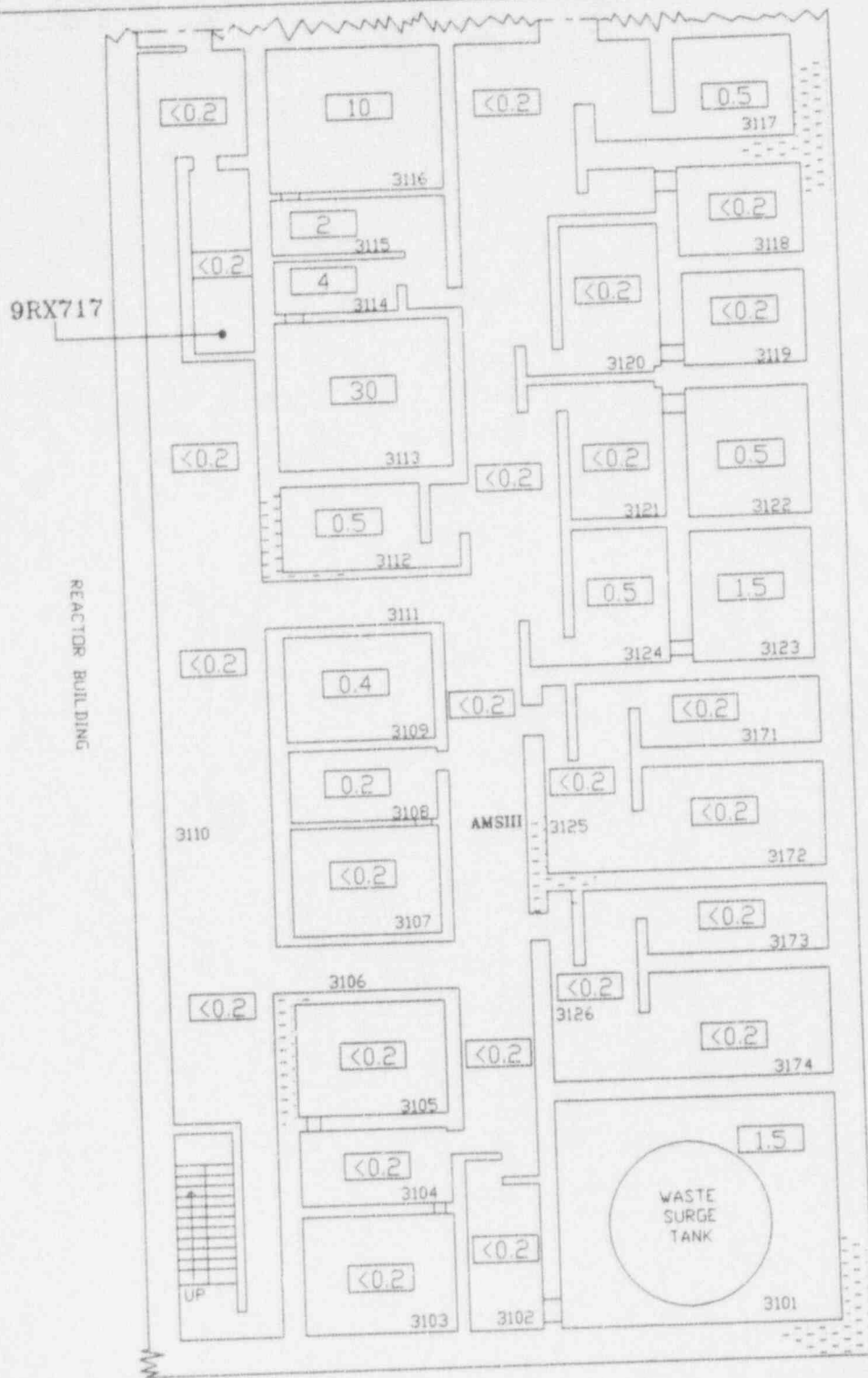
DATE OF DRILL : OCTOBER 25, 1994
 REAL TIME(S) : 0800 - END
 DRILL TIME(S) : 0000 - END
 CONTAMINATION LEVELS: N/A

□ DOSE RATES IN MR/HR UNLESS OTHERWISE INDICATED.

AMS DATA: N/A

AIR SAMPLE DATA : SEE SERVICE RADWASTE
 AIR CONCENTRATIONS
 DATA

S/RW
SOUTH
54' EL.



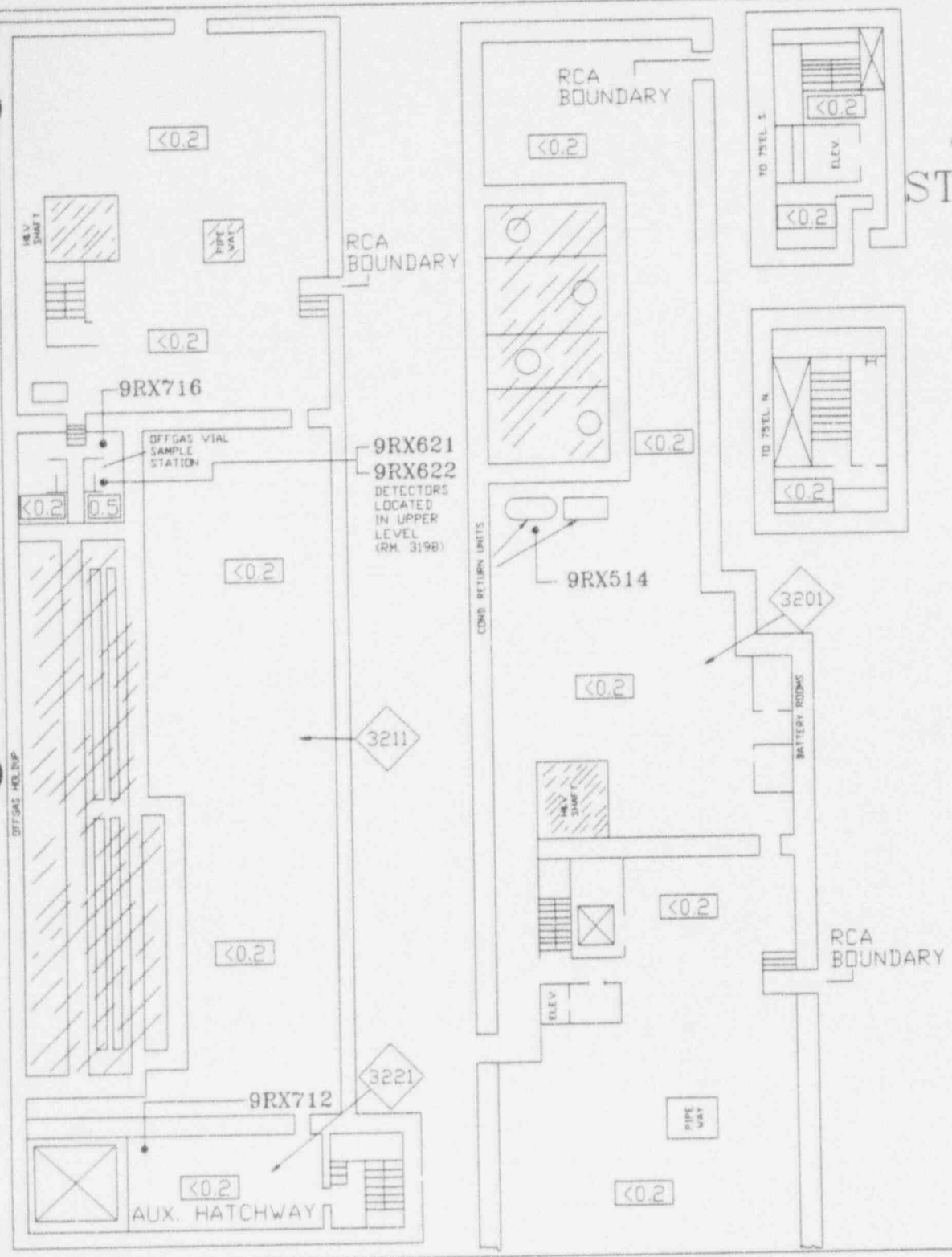
DATE OF DRILL : OCTOBER 25, 1994
 REAL TIME(S) : 0800 - END
 DRILL TIME(S) : 0000 - END
 CONTAMINATION LEVELS: N/A

DOSE RATES IN MR/HR UNLESS OTHERWISE INDICATED.

AMS DATA: 400 CCPM

AIR SAMPLE DATA : SEE SERVICE/RADWASTE BLDG
 AIR CONCENTRATIONS
 DATA

S/RW
87' EL.
& 75' EL.
STAIRWELLS

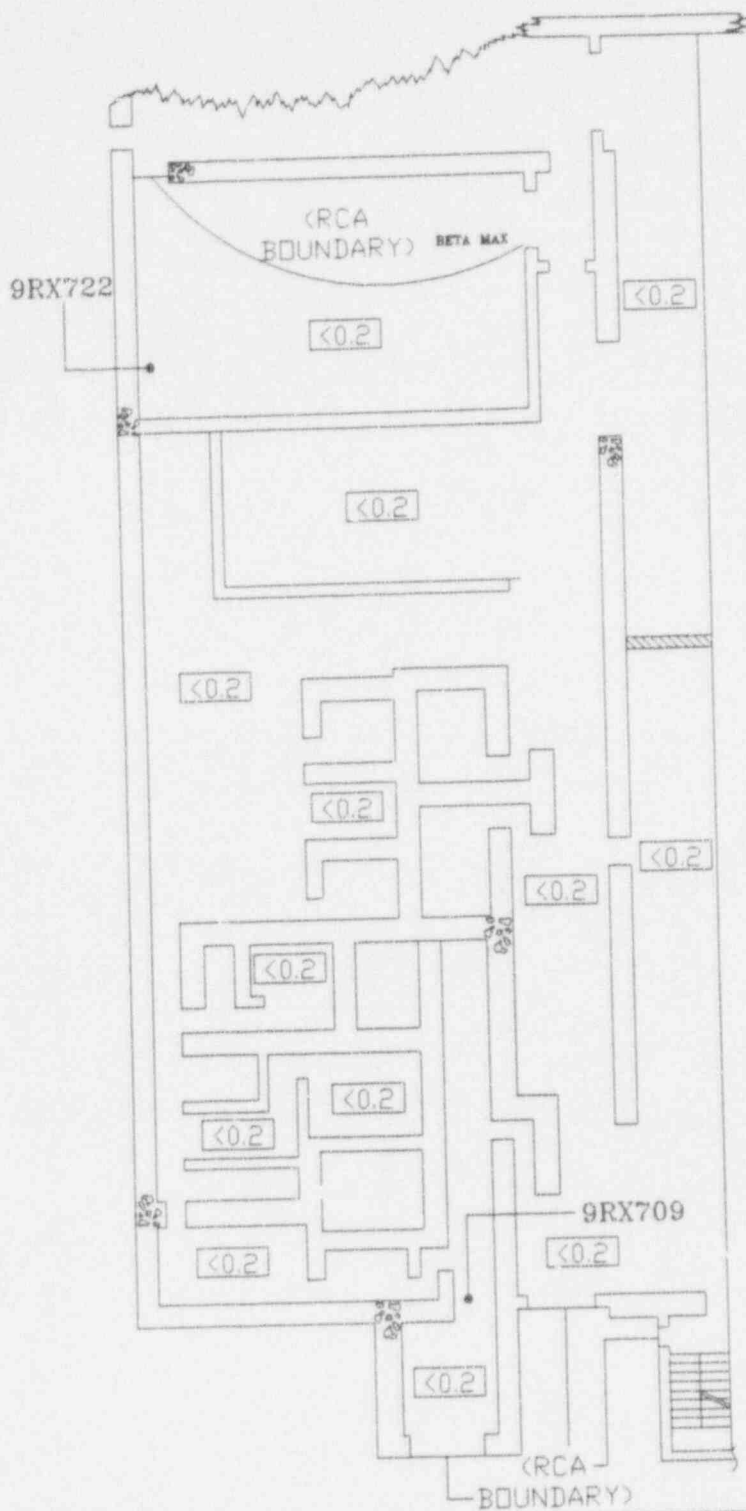


DATE OF DRILL : OCTOBER 25, 1994
 REAL TIME(S) : 0800 - END
 DRILL TIME(S) : 0000 - END
 CONTAMINATION LEVELS: N/A

□ DOSE RATES IN MR/HR UNLESS OTHERWISE INDICATED.
 AMS DATA: N/A

AIR SAMPLE DATA : SEE SERVICE RADWASTE
 AIR CONCENTRATIONS
 DATA

S/RW
NORTH
102' EL.



DATE OF DRILL : OCTOBER 25, 1994

REAL TIME(S) : 0800 - END

DRILL TIME(S) : 0000 - END

CONTAMINATION LEVELS: N/A

AIR SAMPLE DATA : SEE SERVICE RADWASTE
AIR CONCENTRATIONS
DATA

□ DOSE RATES IN MR/HR UNLESS
OTHERWISE INDICATED.

AMS DATA: N/A

S/RW
CENTER
102' EL.



DATE OF DRILL : OCTOBER 25, 1994

REAL TIME(S) : 0800 - 0946

DRILL TIME(S) : 0000 - 0146

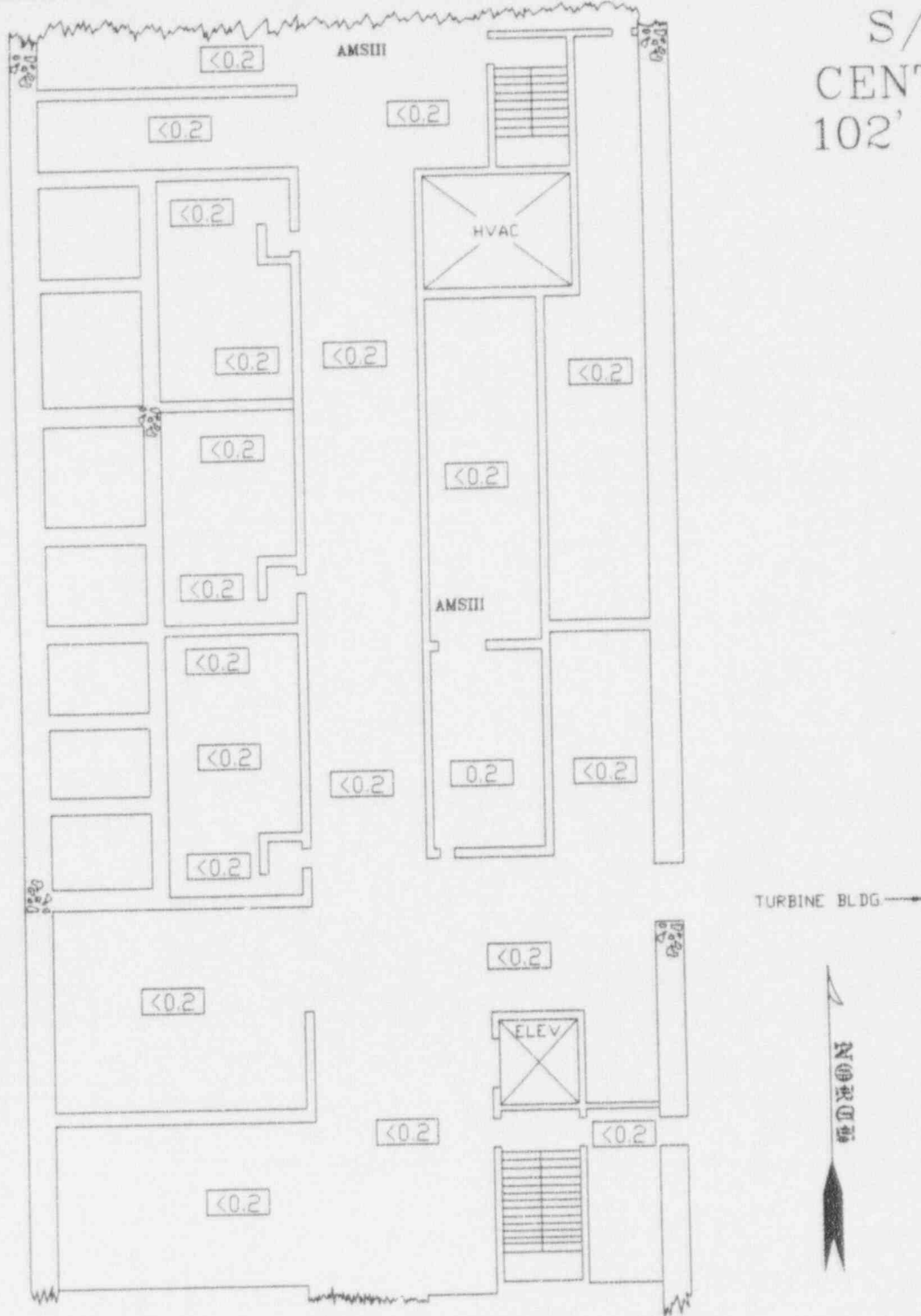
CONTAMINATION LEVELS: N/A

AIR SAMPLE DATA : SEE SERVICE RADWASTE
AIR CONCENTRATIONS
DATA

□ DOSE RATES IN MR/HR UNLESS
OTHERWISE INDICATED.

AMS DATA: 400 CCPM

S/RW
CENTER
102' EL.



DATE OF DRILL : OCTOBER 25, 1994

REAL TIME(S) : 0947 - END

DRILL TIME(S) : 0147 - END

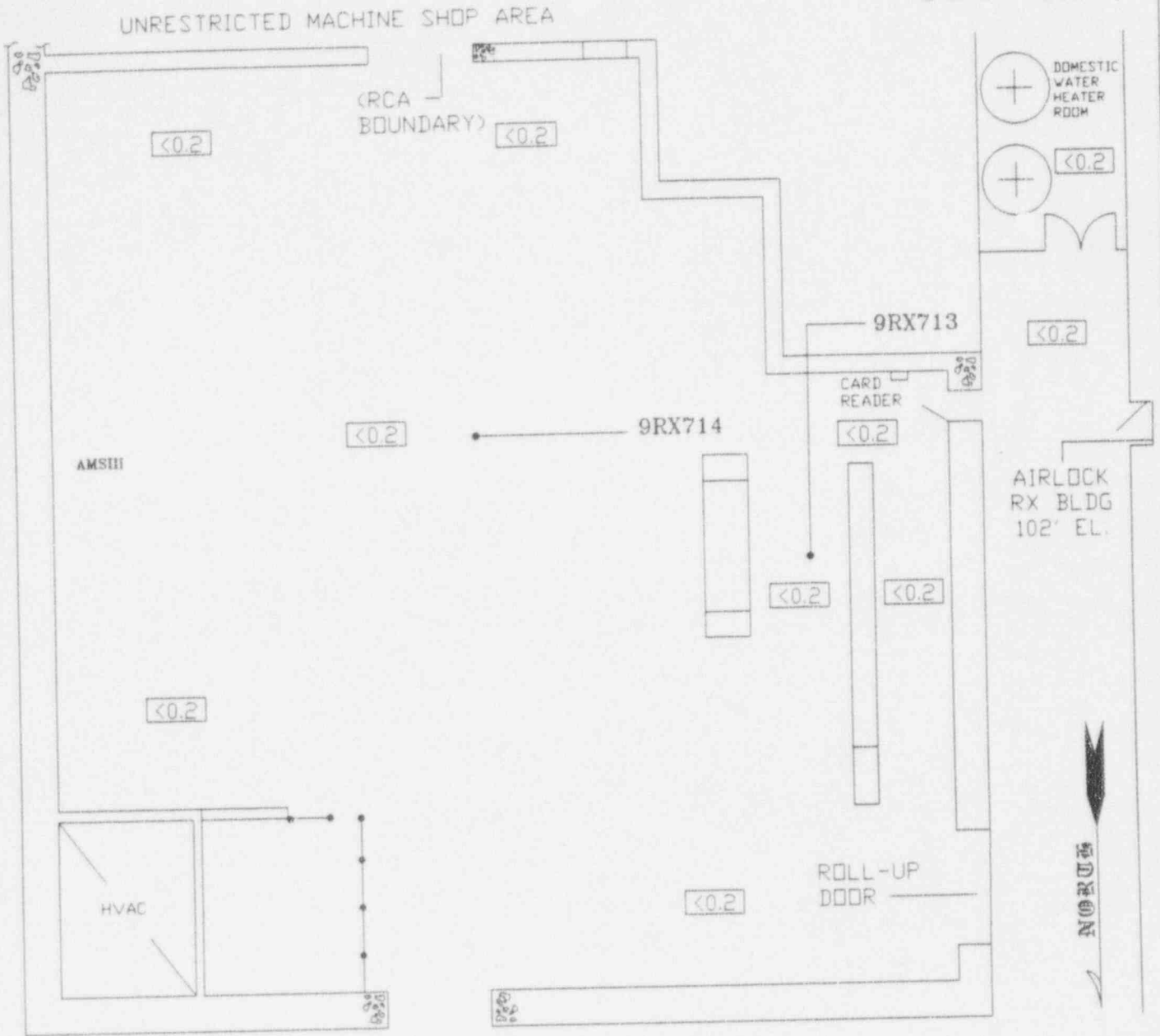
CONTAMINATION LEVELS: N/A

AIR SAMPLE DATA : SEE SERVICE RADWASTE
AIR CONCENTRATIONS
DATA

□ DOSE RATES IN MR/HR UNLESS
OTHERWISE INDICATED.

AMS DATA: 400 CCPM

S/RW
RESTRICTED MACHINE SHOP
 102' EL.



DATE OF DRILL : OCTOBER 25, 1994

REAL TIME(S) : 0800 - 1328

DRILL TIME(S) : 0000 - 0528

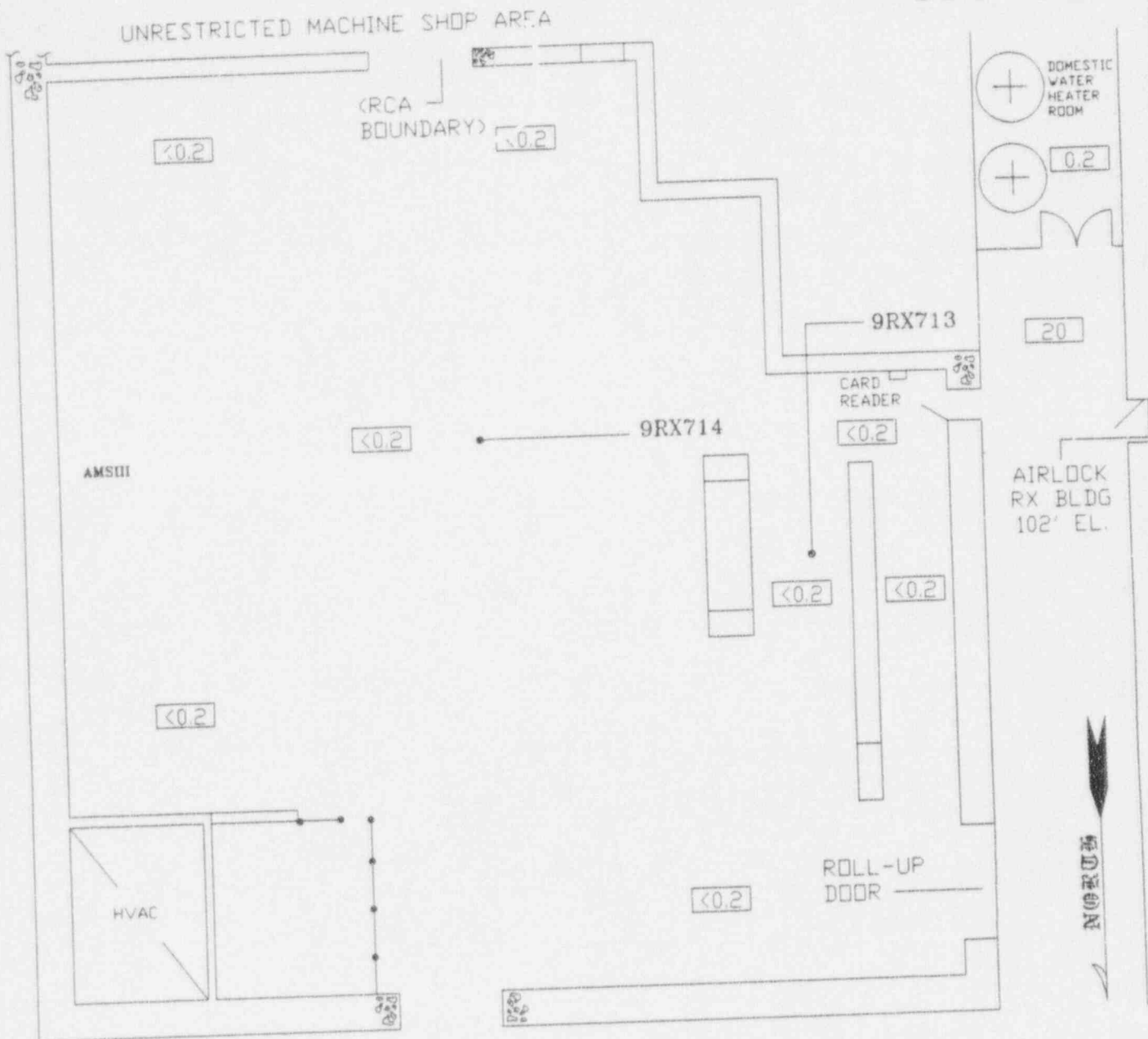
CONTAMINATION LEVELS: N/A

AIR SAMPLE DATA : SEE SERVICE RADWASTE
 AIR CONCENTRATIONS
 DATA

DOSE RATES IN MR/HR UNLESS OTHERWISE INDICATED.

AMS DATA: 400 CCPM

S/RW
 RESTRICTED MACHINE SHOP
 102' EL.



DATE OF DRILL : OCTOBER 25, 1994

REAL TIME(S) : 1329 - 1514

DRILL TIME(S) : 0529 - 0714

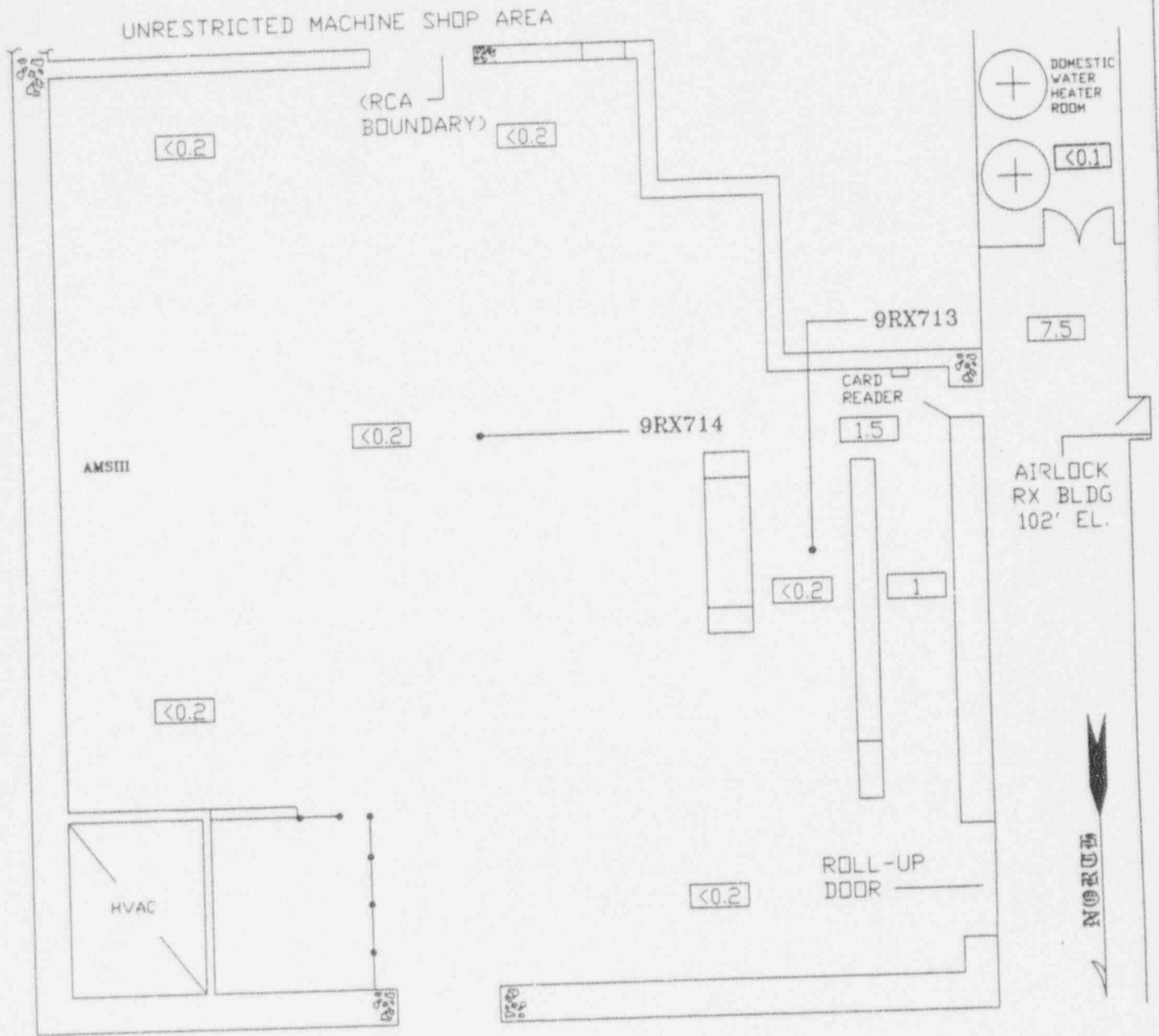
CONTAMINATION LEVELS: N/A

AIR SAMPLE DATA : SEE SERVICE RADWASTE
 AIR CONCENTRATIONS
 DATA

☐ DOSE RATES IN MR/HR UNLESS
 OTHERWISE INDICATED.

AMS DATA: 400 CCPM

S/RW
 RESTRICTED MACHINE SHOP
 102' EL.



DATE OF DRILL : OCTOBER 25, 1994

REAL TIME(S) : 1515 - 1529

DRILL TIME(S) : 0715 - 0729

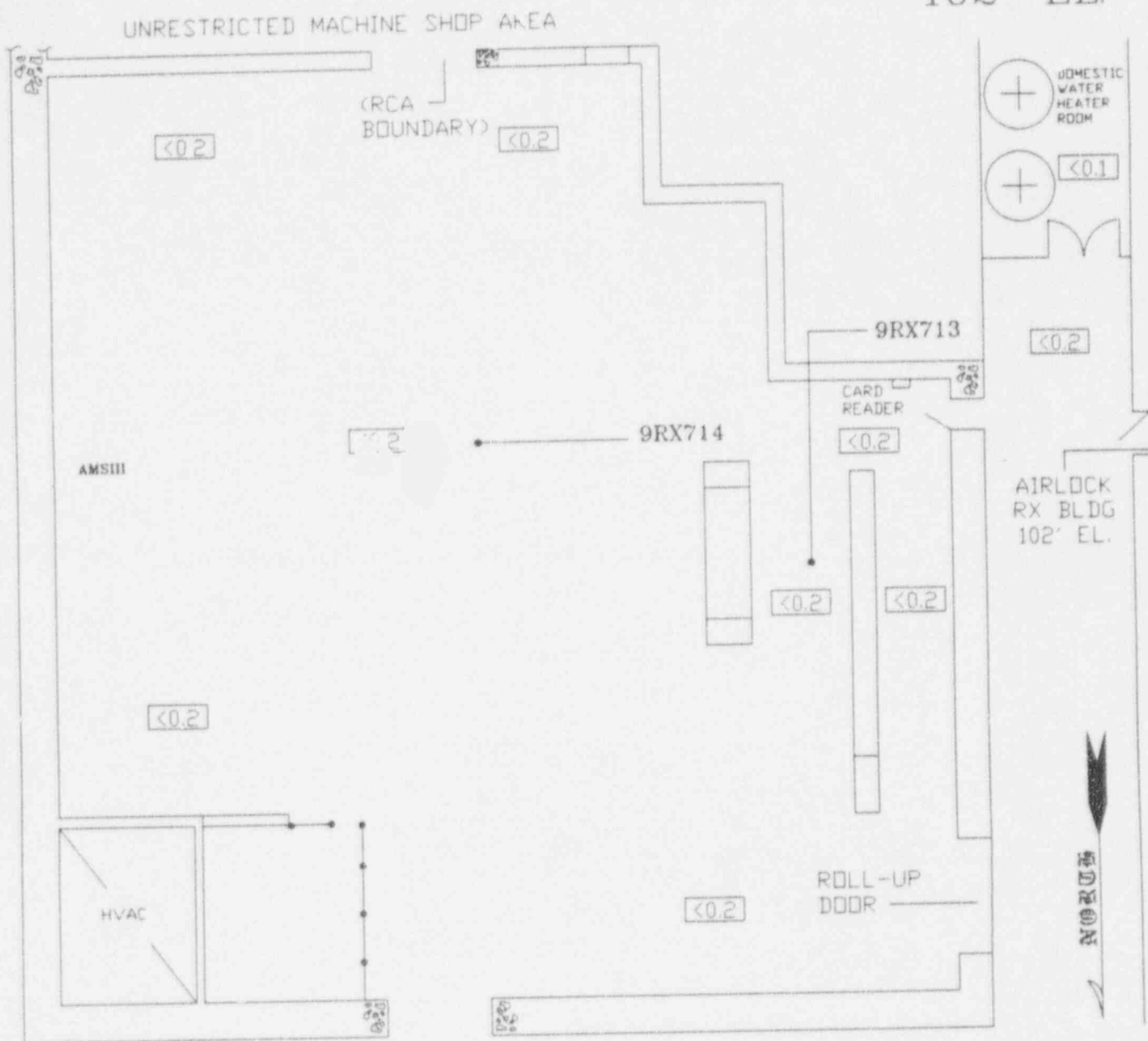
CONTAMINATION LEVELS: N/A

AIR SAMPLE DATA : SEE SERVICE RADWASTE
 AIR CONCENTRATIONS
 DATA

□ DOSE RATES IN MR/HR UNLESS
 OTHERWISE INDICATED.

AMS DATA: 400 CCPM

S/RW
 RESTRICTED MACHINE SHOP
 102' EL.



DATE OF DRILL : OCTOBER 25, 1994

REAL TIME(S) : 1530 - END

DRILL TIME(S) : 0730 - END

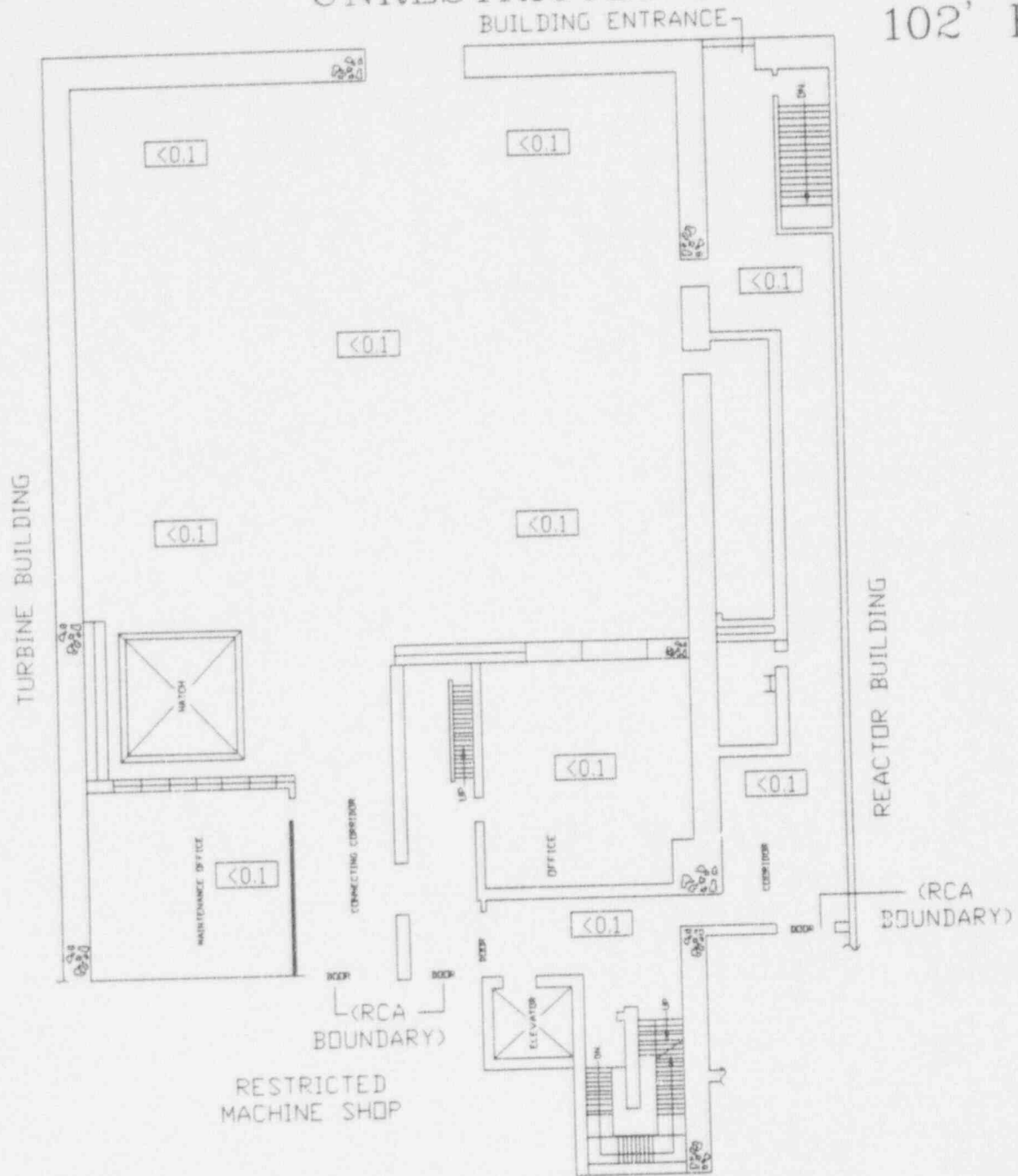
CONTAMINATION LEVELS: N/A

AIR SAMPLE DATA : SEE SERVICE RADWASTE
 AIR CONCENTRATIONS
 DATA

□ DOSE RATES IN MR/HR UNLESS
 OTHERWISE INDICATED.

AMS DATA: 400 CPM

S/RW
UNRESTRICTED MACHINE SHOP
102' EL.



DATE OF DRILL : OCTOBER 25, 1994

REAL TIME(S) : 0800 - END

DRILL TIME(S) : 0000 - END

CONTAMINATION LEVELS: N/A

AIR SAMPLE DATA : SEE SERVICE RADWASTE
AIR CONCENTRATIONS
DATA

☐ DOSE RATES IN MR/HR UNLESS
OTHERWISE INDICATED.

AMS DATA: N/A

S/RW
RADIATION PROTECTION FACILITIES
124' EL.



DATE OF DRILL : OCTOBER 25, 1994

REAL TIME(S) : 0800 - END

DRILL TIME(S) : 0000 - END

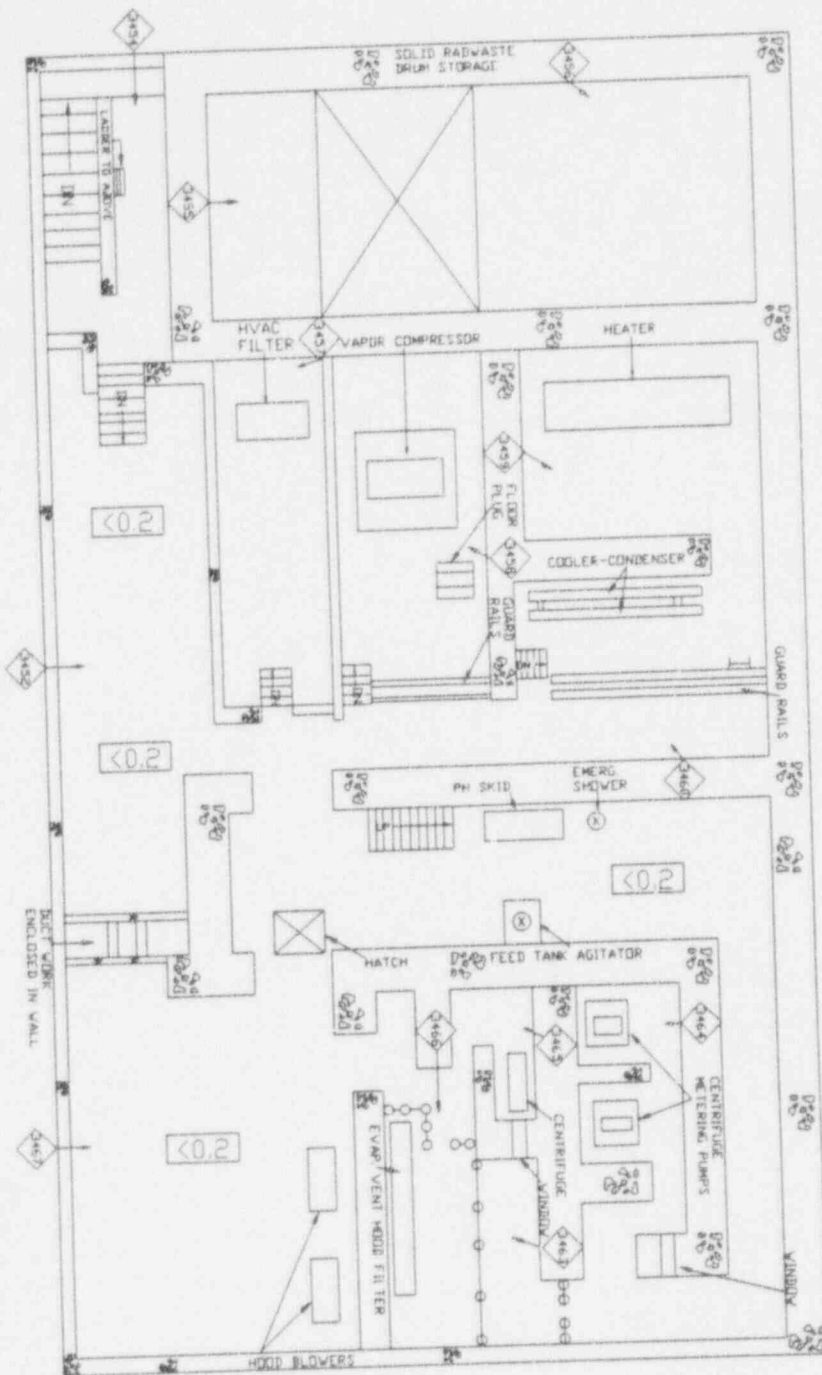
CONTAMINATION LEVELS: N/A

AIR SAMPLE DATA : SEE SERVICE RADWASTE
AIR CONCENTRATIONS
DATA

☐ DOSE RATES IN MR/HR UNLESS OTHERWISE INDICATED.

AMS DATA: 400 CCPM

S/RW
NORTH
124' EL.



DATE OF DRILL : OCTOBER 25, 1994

REAL TIME(S) : 0800 - END

DRILL TIME(S) : 0000 - END

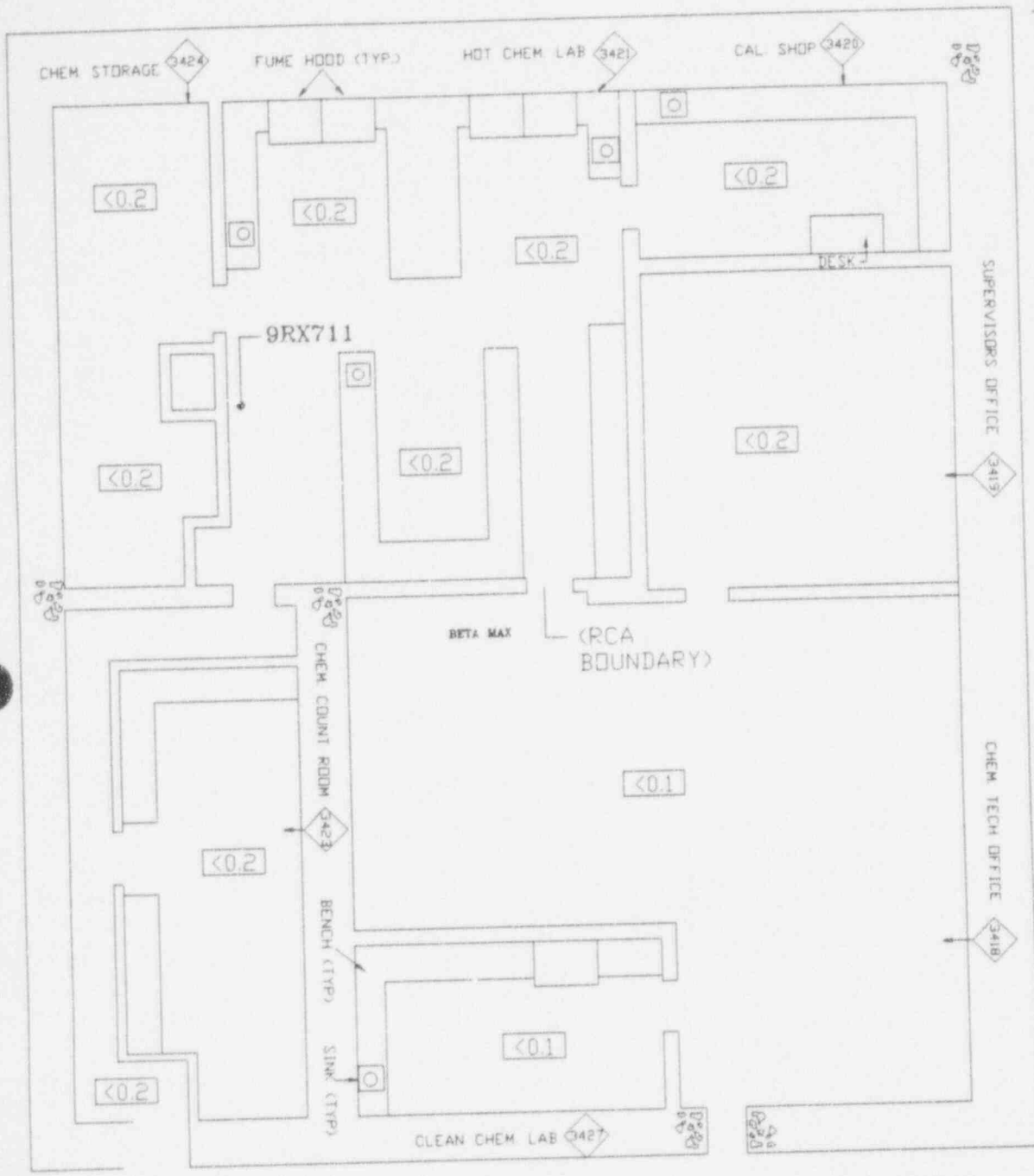
CONTAMINATION LEVELS: N/A

AIR SAMPLE DATA : SEE SERVICE RADWASTE
AIR CONCENTRATIONS
DATA

□ DOSE RATES IN MR/HR UNLESS
OTHERWISE INDICATED.

AMS DATA: N/A

S/RW
 CHEMISTRY FACILITIES
 124' EL.



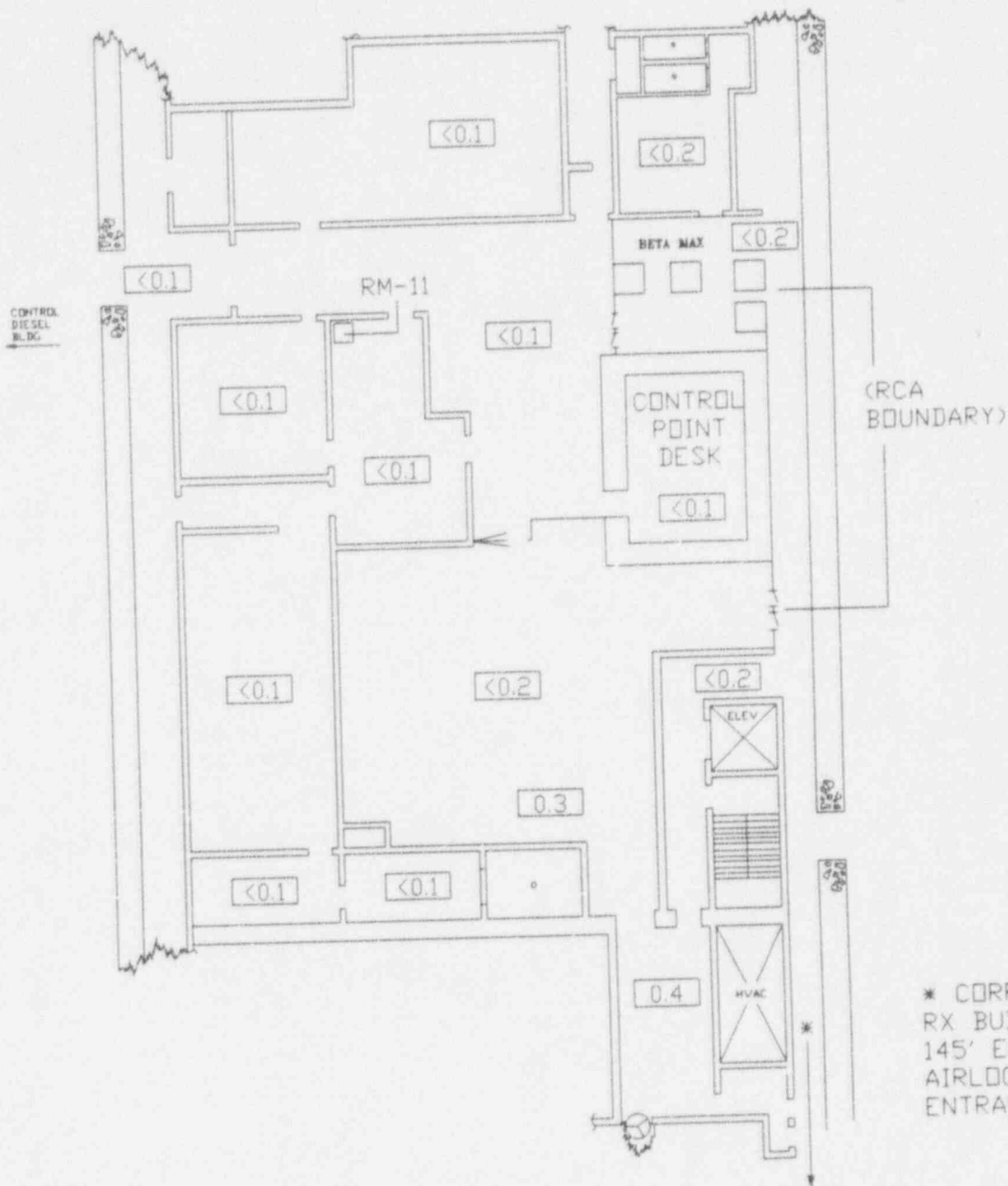
DATE OF DRILL : OCTOBER 25, 1994
 REAL TIME(S) : 0800 - END
 DRILL TIME(S) : 0000 - END
 CONTAMINATION LEVELS: N/A

□ DOSE RATES IN MR/HR UNLESS OTHERWISE INDICATED.

AMS DATA: N/A

AIR SAMPLE DATA : SEE SERVICE RADWASTE AIR CONCENTRATIONS DATA

S/RW
RADIATION PROTECTION CONTROL POINT AREA
137' EL.



DATE OF DRILL : OCTOBER 25, 1994

REAL TIME(S) : 0800 - END

DRILL TIME(S) : 0000 - END

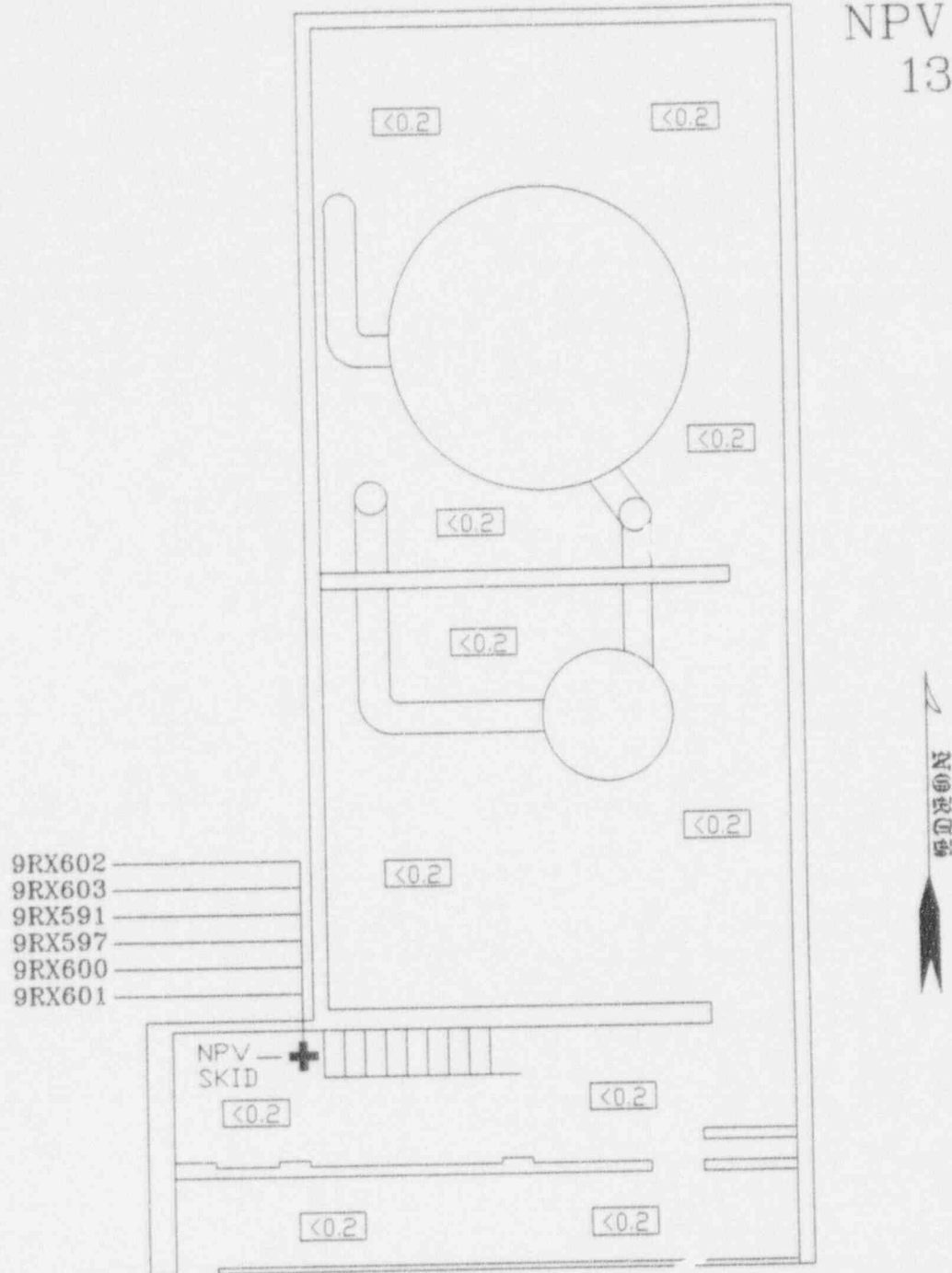
CONTAMINATION LEVELS: N/A

AIR SAMPLE DATA : SEE SERVICE RADWASTE
AIR CONCENTRATIONS
DATA

□ DOSE RATES IN MR/HR UNLESS
OTHERWISE INDICATED.

AMS DATA: N/A

S/RW
 NPV SKID
 137' EL.



DATE OF DRILL : OCTOBER 25, 1994

REAL TIME(S) : 0800 - END

DRILL TIME(S) : 0000 - END

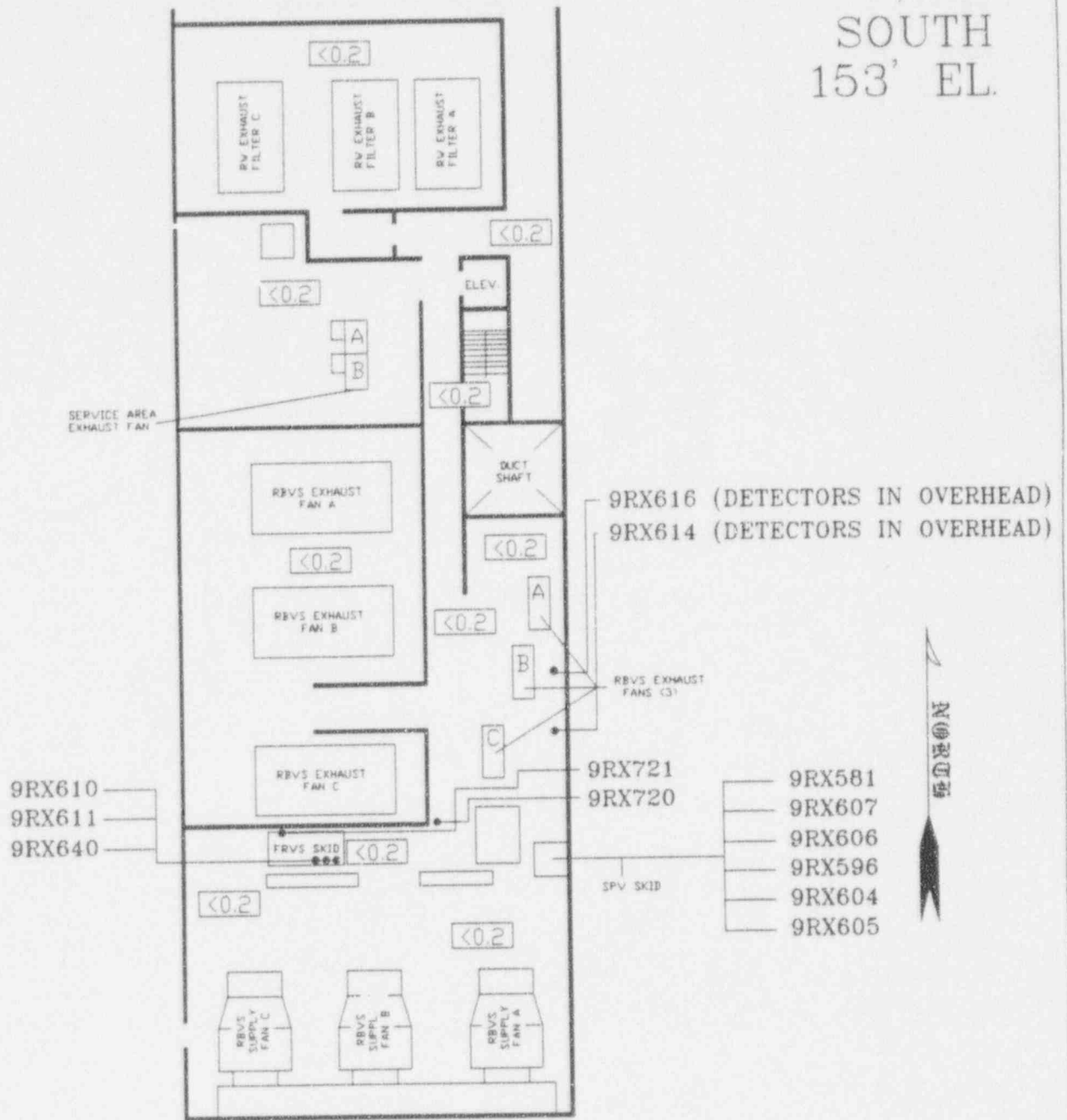
CONTAMINATION LEVELS: N/A

AIR SAMPLE DATA : SEE SERVICE RADWASTE
 AIR CONCENTRATIONS
 DATA

☐ DOSE RATES IN MR/HR UNLESS OTHERWISE INDICATED.

AMS DATA: N/A

S/RW
SOUTH
153' EL.



DATE OF DRILL : OCTOBER 25, 1994

REAL TIME(S) : 0800 - 1314

DRILL TIME(S) : 0000 - 0514

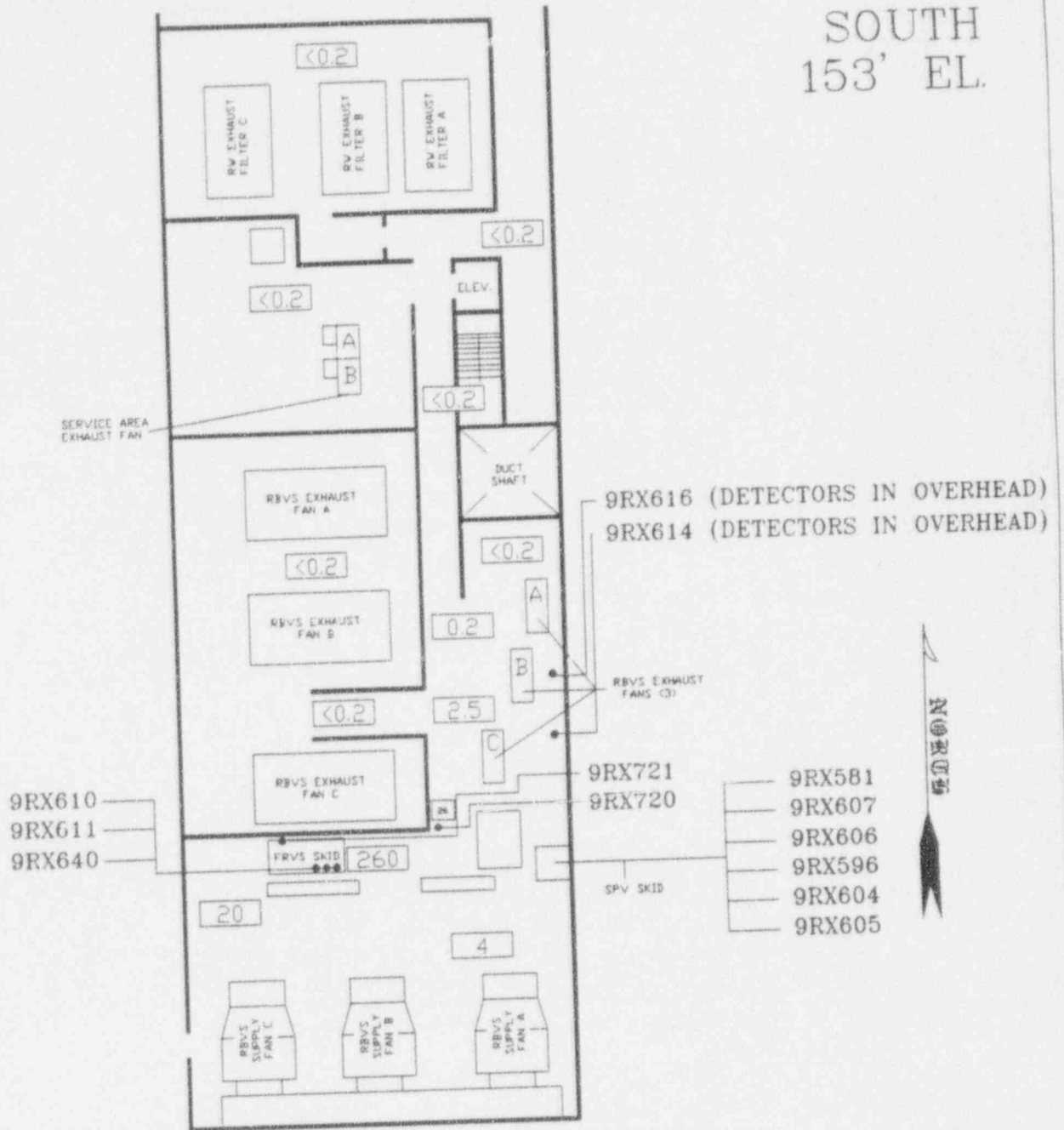
CONTAMINATION LEVELS: N/A

AIR SAMPLE DATA : SEE SERVICE RADWASTE
AIR CONCENTRATIONS
DATA

☐ DOSE RATES IN MR/HR UNLESS
OTHERWISE INDICATED.

AMS DATA: N/A

S/RW
SOUTH
153' EL.



DATE OF DRILL : OCTOBER 25, 1994

REAL TIME(S) : 1315 - 1529

DRILL TIME(S) : 0515 - 0729

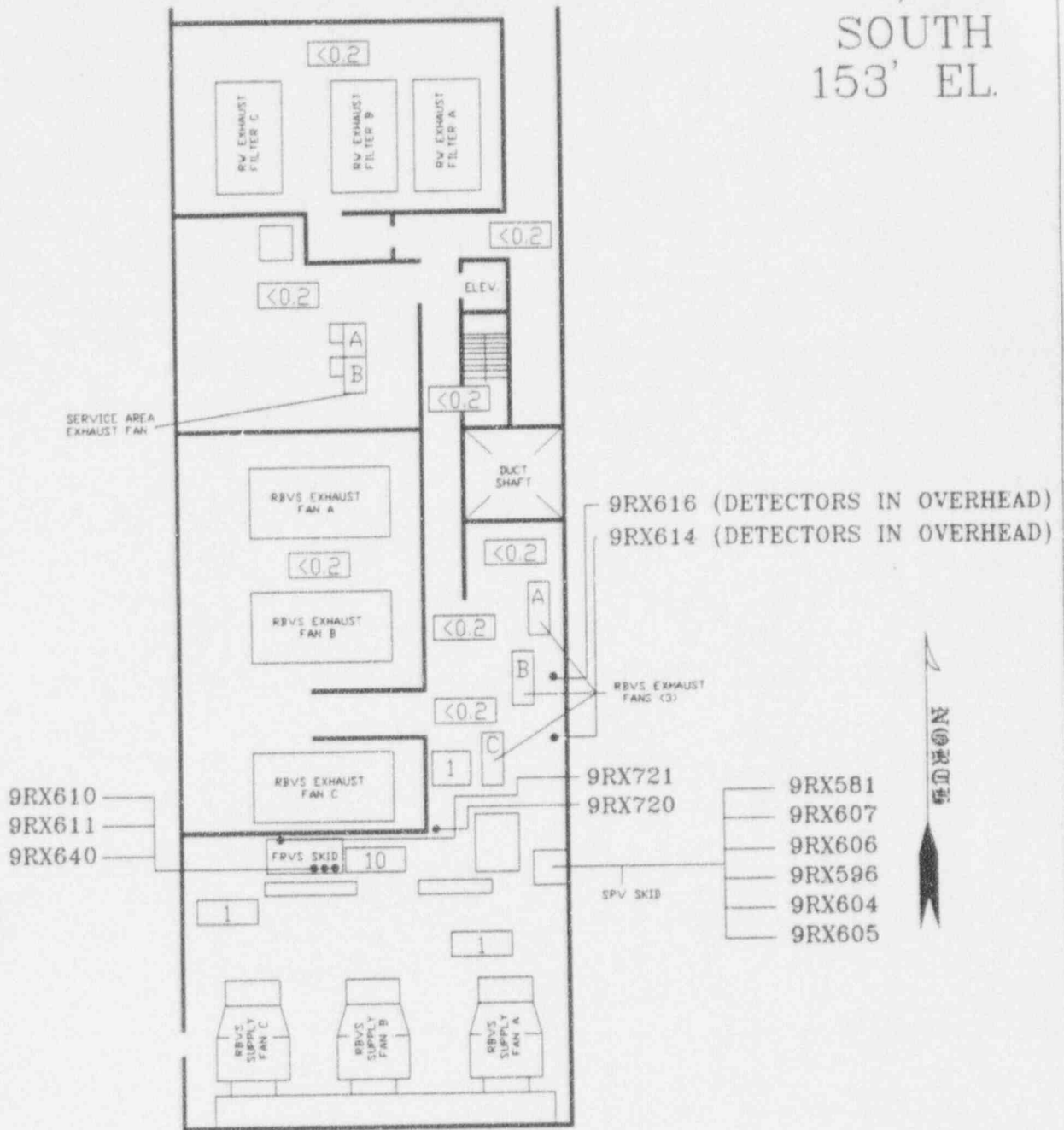
CONTAMINATION LEVELS: N/A

AIR SAMPLE DATA : SEE SERVICE RADWASTE
AIR CONCENTRATIONS
DATA

□ DOSE RATES IN MR/HR UNLESS
OTHERWISE INDICATED.

AMS DATA: N/A

S/RW
SOUTH
153' EL.



DATE OF DRILL : OCTOBER 25, 1994

REAL TIME(S) : 1530 - END

DRILL TIME(S) : 0730 - END

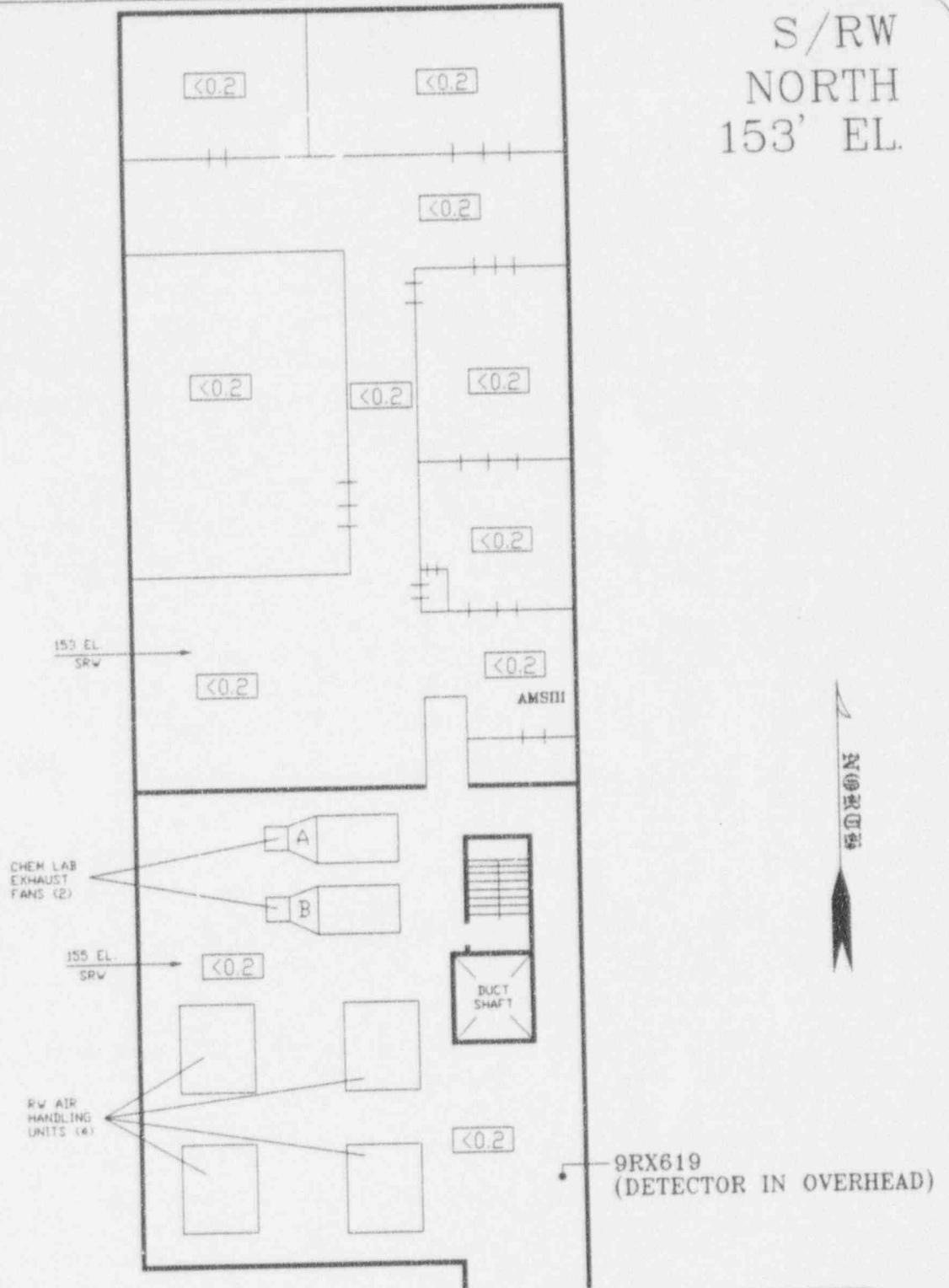
CONTAMINATION LEVELS: N/A

AIR SAMPLE DATA : SEE SERVICE RADWASTE
AIR CONCENTRATIONS
DATA

□ DOSE RATES IN MR/HR UNLESS
OTHERWISE INDICATED.

AMS DATA: N/A

S/RW
NORTH
153' EL.



DATE OF DRILL : OCTOBER 25, 1994

REAL TIME(S) : 0800 - END

DRILL TIME(S) : 0000 - END

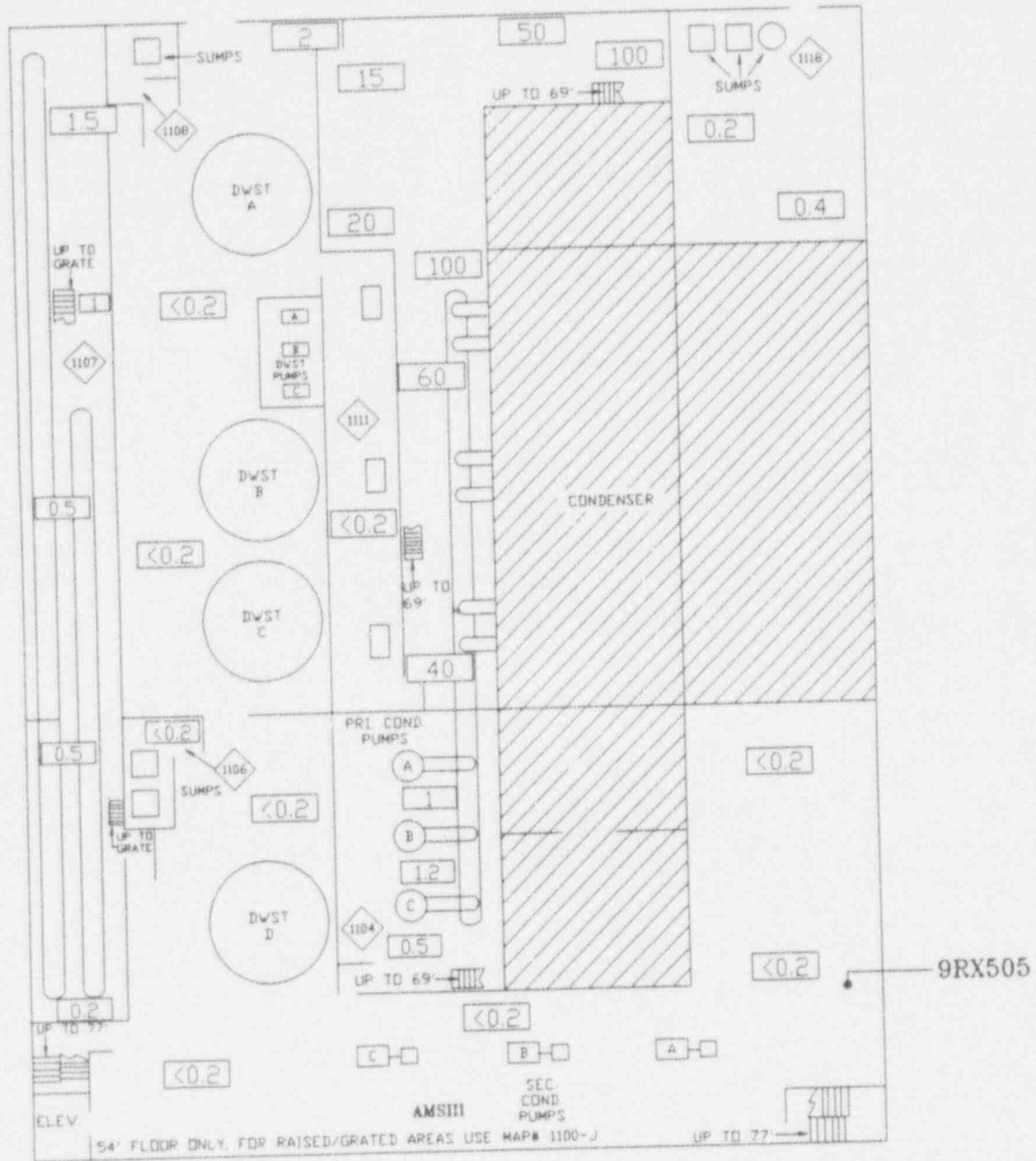
CONTAMINATION LEVELS: N/A

AIR SAMPLE DATA : SEE SERVICE RADWASTE
AIR CONCENTRATIONS
DATA

☐ DOSE RATES IN MR/HR UNLESS
OTHERWISE INDICATED.

AMS DATA: 4000 CCPM

TURBINE (FLOOR AREA ONLY) 54' EL.

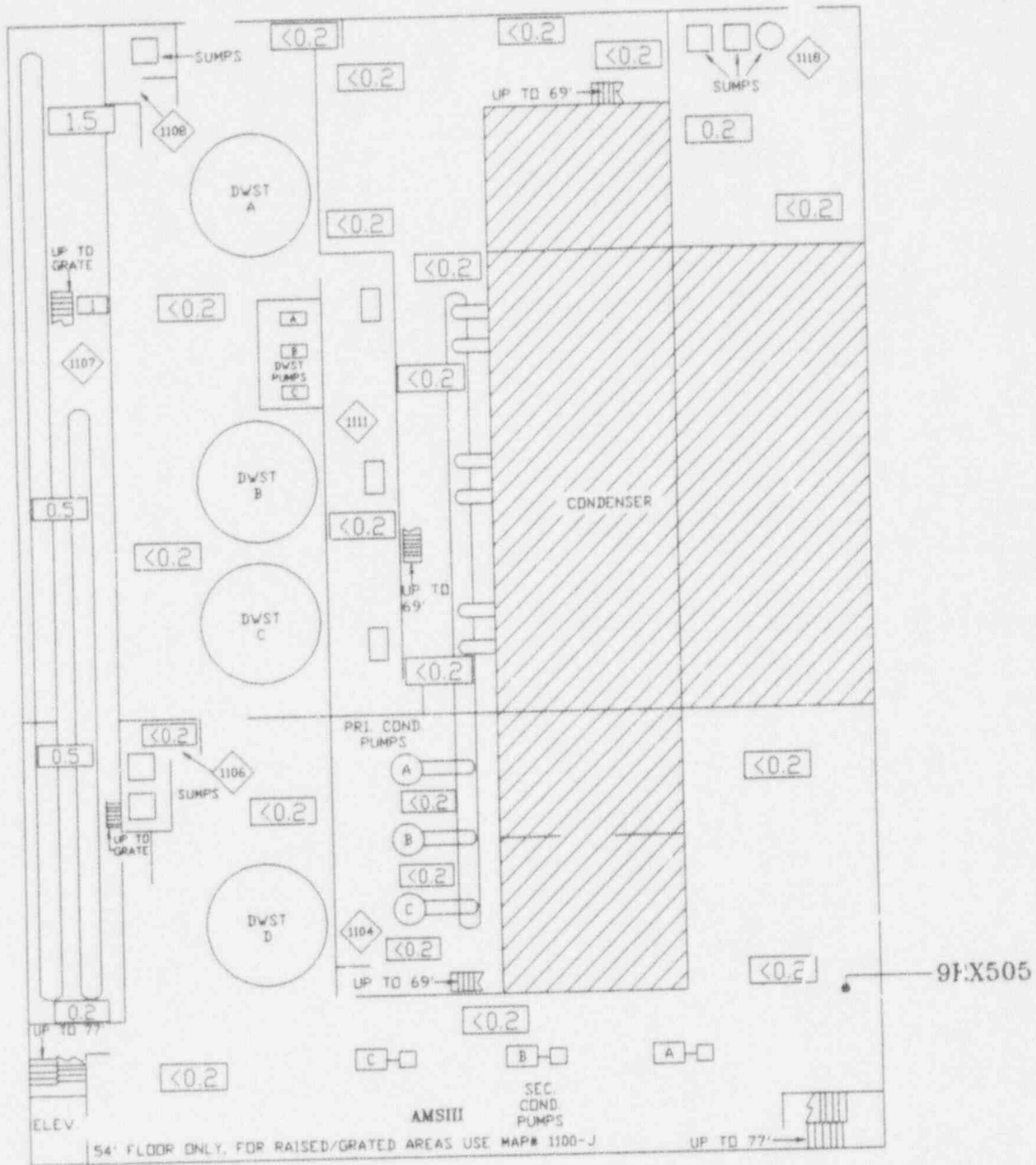


DATE OF DRILL : OCTOBER 25, 1994
 REAL TIME(S) : 0800 - 0946
 DRILL TIME(S) : 0000 - 0146
 CONTAMINATION LEVELS: N/A
 AIR SAMPLE DATA : N/A

□ DOSE RATES IN MR/HR UNLESS OTHERWISE INDICATED.

AMS DATA: 400 CCPM

TURBINE
(FLOOR AREA ONLY)
54' EL.

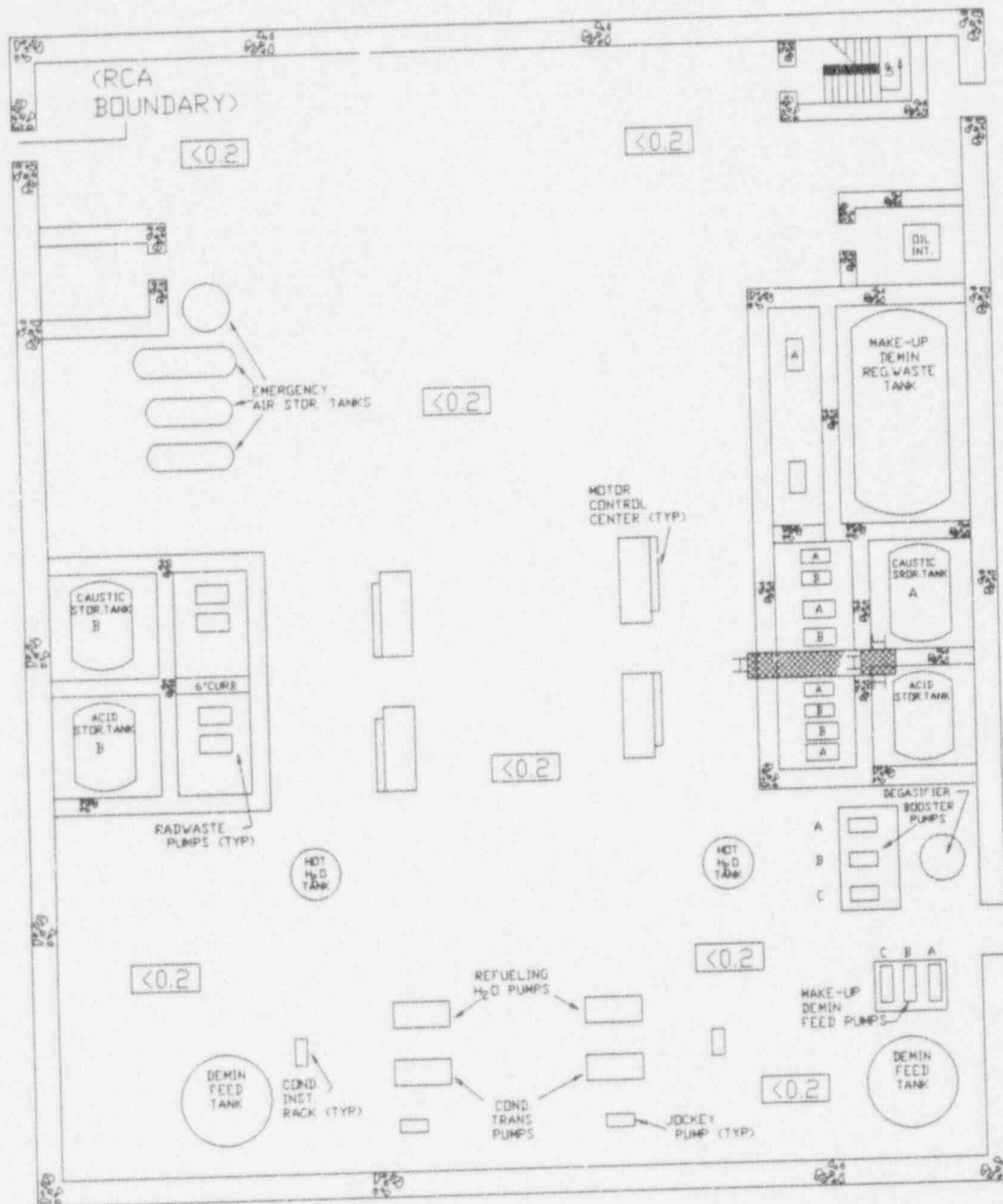


DATE OF DRILL : OCTOBER 25, 1994
 REAL TIME(S) : 0947 - END
 DRILL TIME(S) : 0147 - END
 CONTAMINATION LEVELS: N/A
 AIR SAMPLE DATA : N/A

□ DOSE RATES IN MR/HR UNLESS OTHERWISE INDICATED.

AMS DATA: 400 CCPM

TURBINE COMMON AREA 54' EL.



DATE OF DRILL : OCTOBER 25, 1994

REAL TIME(S) : 0800 - END

DRILL TIME(S) : 0000 - END

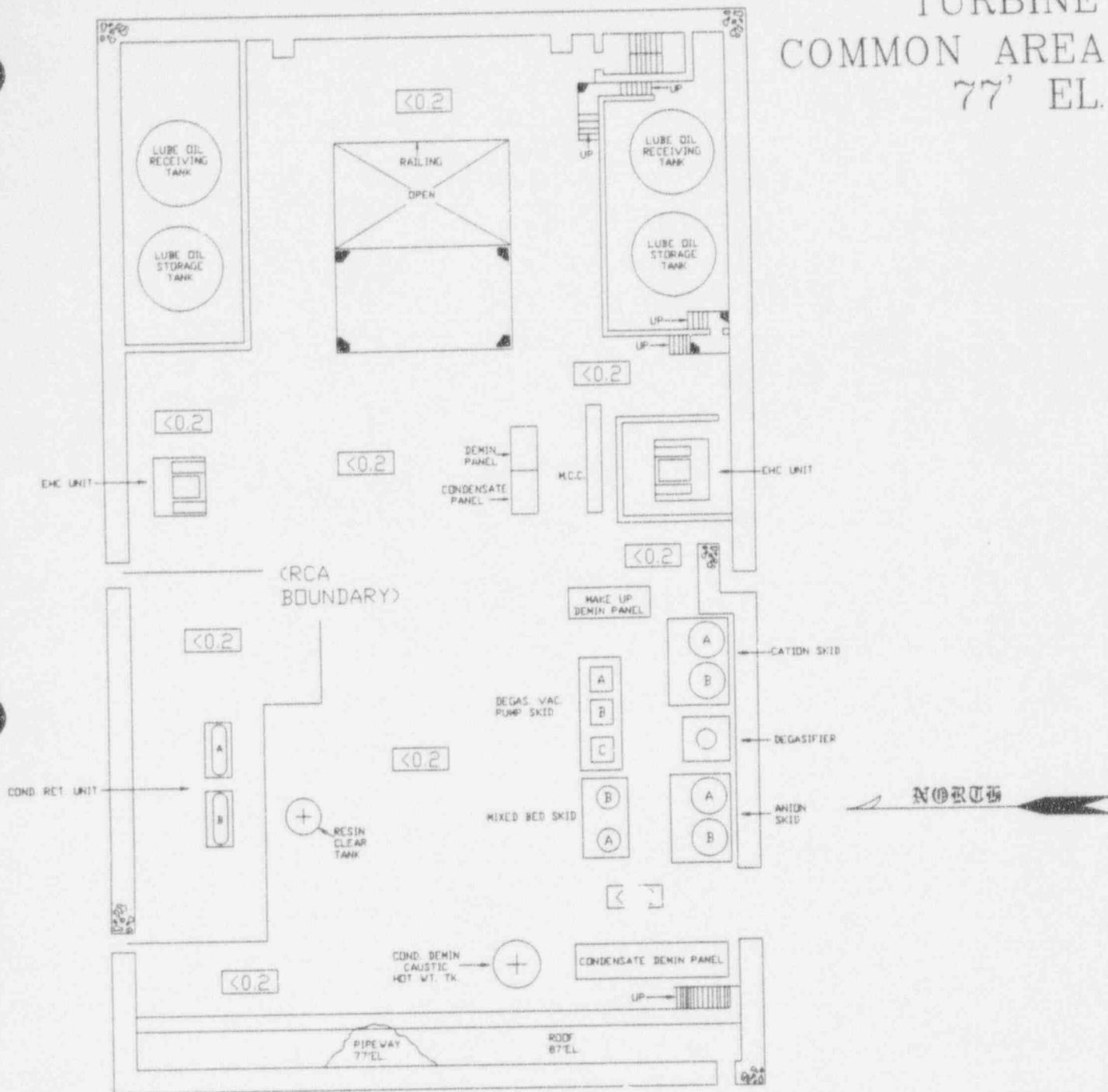
CONTAMINATION LEVELS: N/A

AIR SAMPLE DATA : SEE SERVICE RADWASTE
AIR CONCENTRATIONS
DATA

□ DOSE RATES IN MR/HR UNLESS
OTHERWISE INDICATED.

AMS DATA: N/A

TURBINE COMMON AREA 77' EL.



DATE OF DRILL : OCTOBER 25, 1994

REAL TIME(S) : 0800 - END

DRILL TIME(S) : 0000 - END

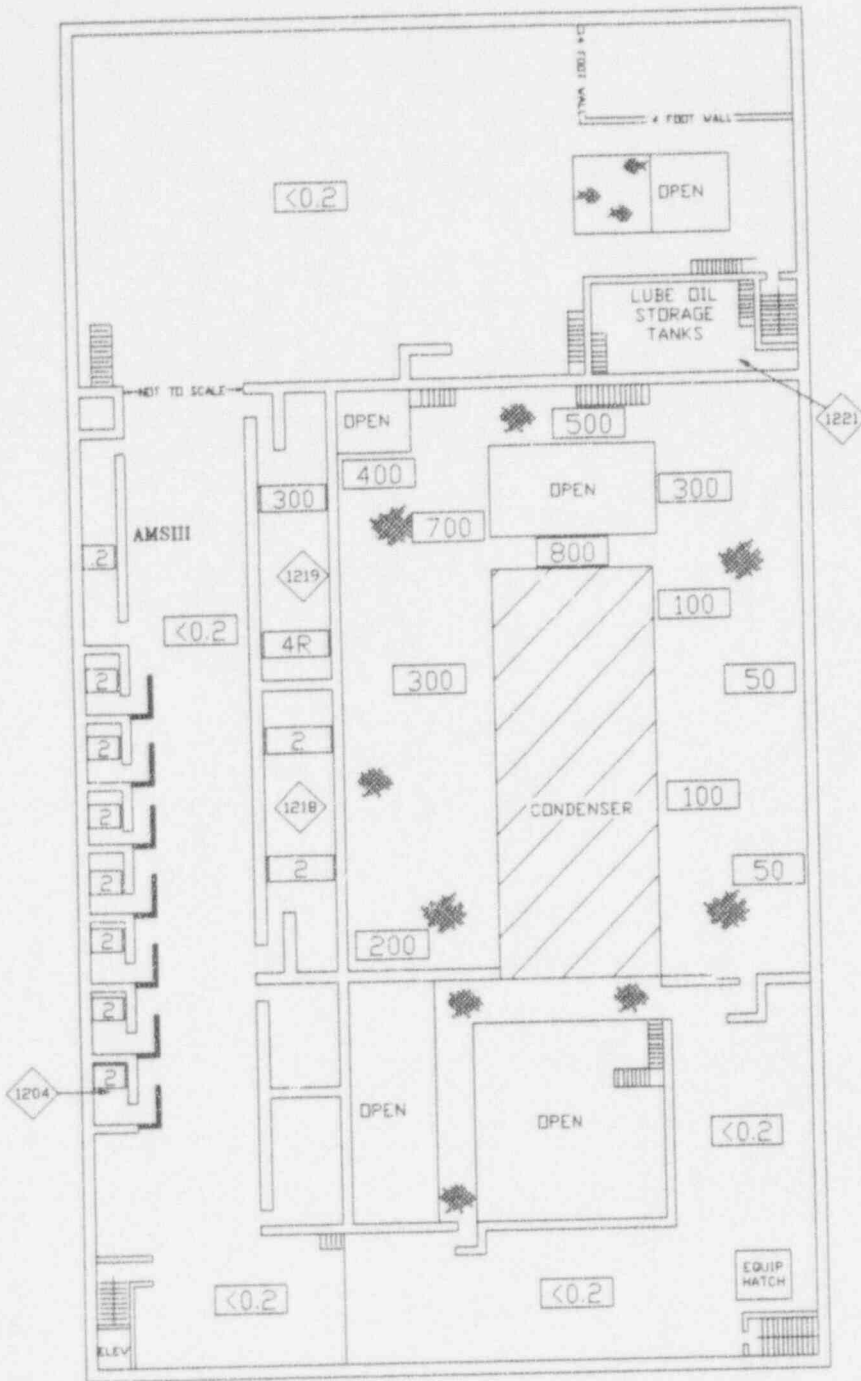
CONTAMINATION LEVELS: N/A

AIR SAMPLE DATA : AS READ

□ DOSE RATES IN MR/HR UNLESS OTHERWISE INDICATED.

AMS DATA: N/A

TURBINE WALKWAYS 77'-87' EL.



DATE OF DRILL : OCTOBER 25, 1994

REAL TIME(S) : 0800 - 0946

DRILL TIME(S) : 0000 - 0146

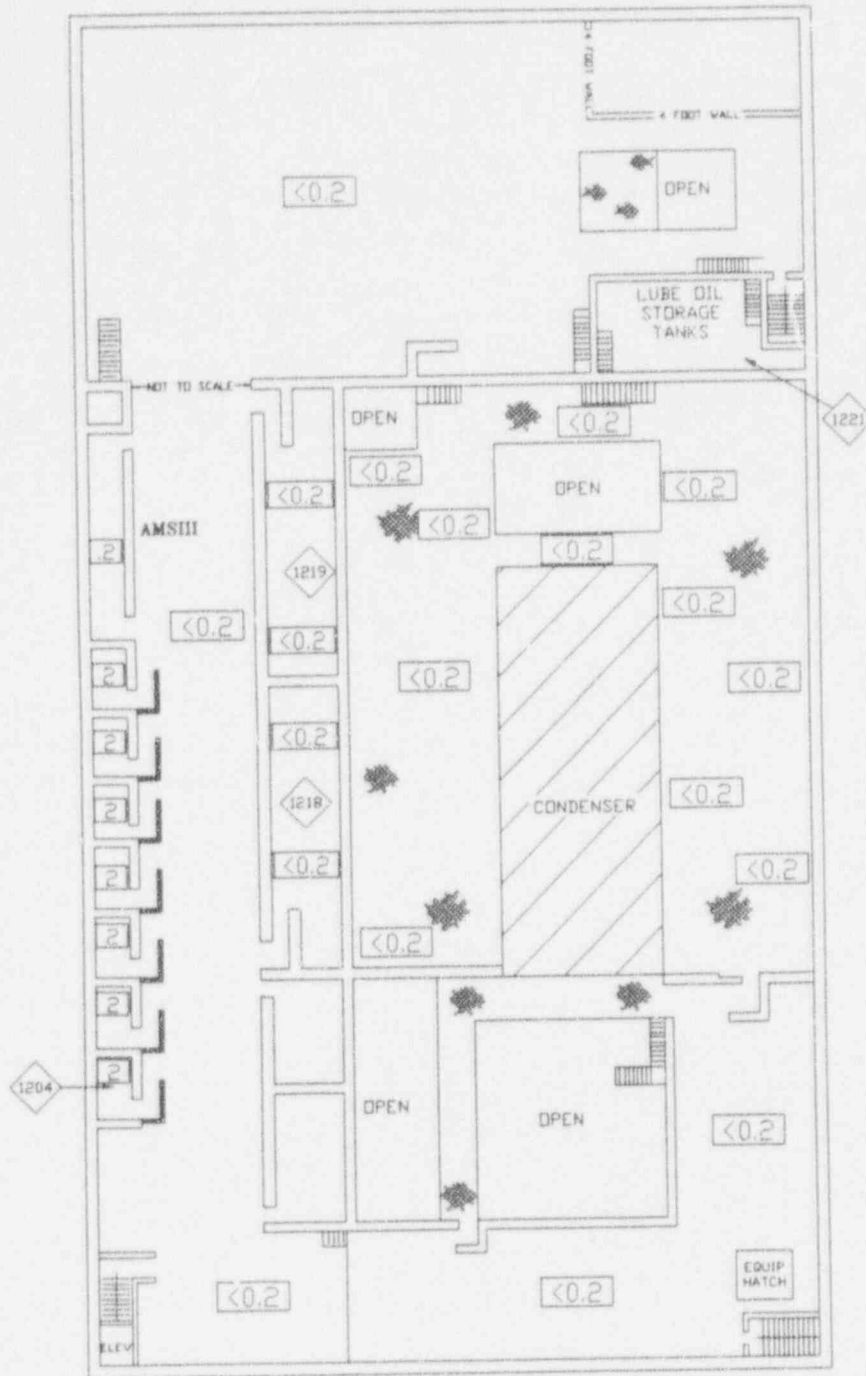
CONTAMINATION LEVELS: N/A

AIR SAMPLE DATA : AS READ

□ DOSE RATES IN MR/HR UNLESS OTHERWISE INDICATED.

AMS DATA: 400 CCPM

TURBINE WALKWAYS 77'-87' EL.

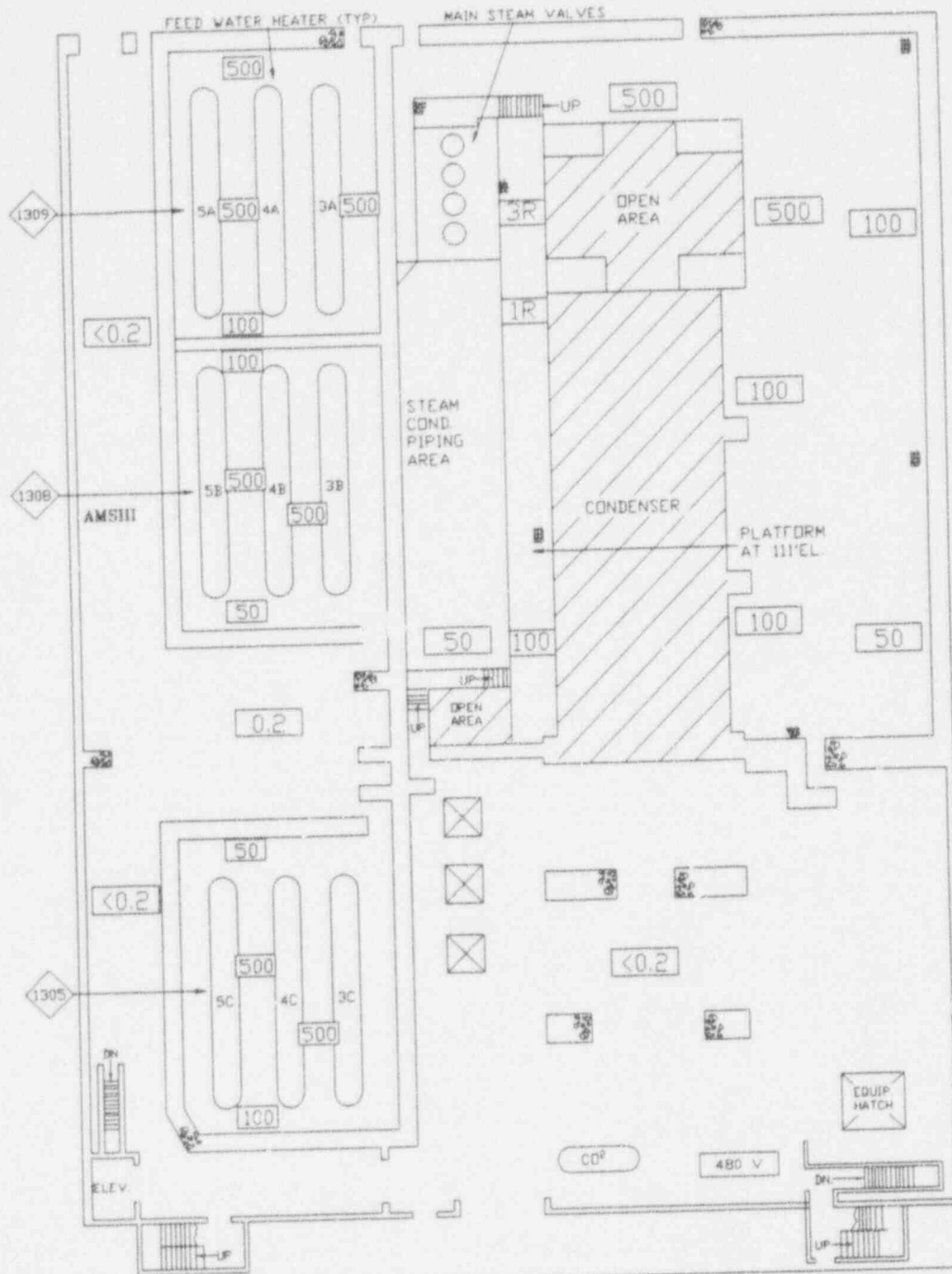


DATE OF DRILL : OCTOBER 25, 1994
 REAL TIME(S) : 0947 - END
 DRILL TIME(S) : 0147 - END
 CONTAMINATION LEVELS: N/A
 AIR SAMPLE DATA : AS READ

□ DOSE RATES IN MR/HR UNLESS OTHERWISE INDICATED

AMS DATA: 400 CCPM

TURBINE 102' - 111' EL.

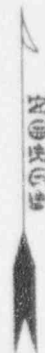
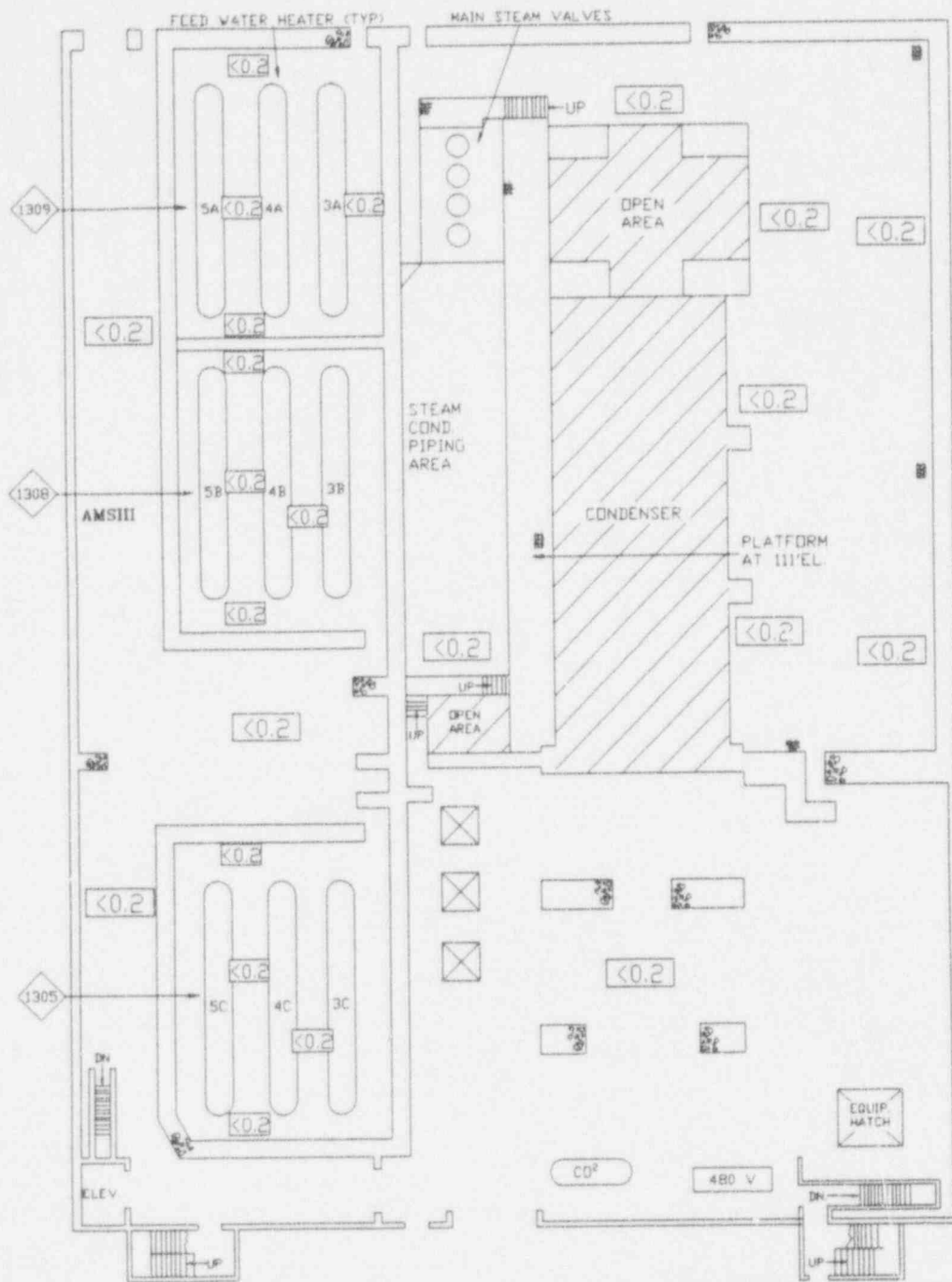


DATE OF DRILL : OCTOBER 25, 1994
 REAL TIME(S) : 0800 - 0946
 DRILL TIME(S) : 0000 - 0146
 CONTAMINATION LEVELS: N/A
 AIR SAMPLE DATA : AS READ

□ DOSE RATES IN MR/HR UNLESS OTHERWISE INDICATED.

AMS DATA: 400 CCPM

TURBINE 102'-111' EL.

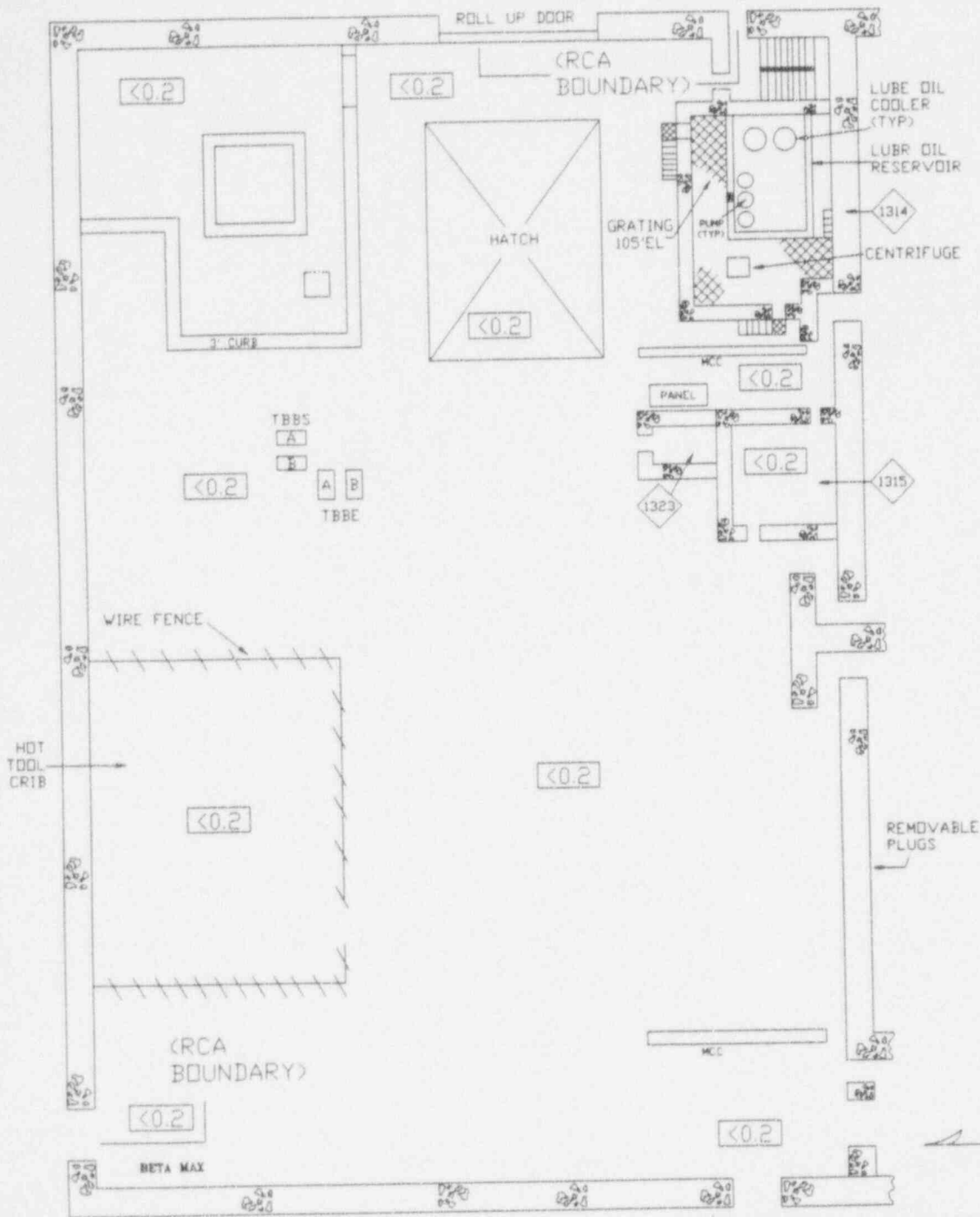


DATE OF DRILL : OCTOBER 25, 1994
 REAL TIME(S) : 0947 - END
 DRILL TIME(S) : 0147 - END
 CONTAMINATION LEVELS: N/A
 AIR SAMPLE DATA : AS READ

□ DOSE RATES IN MR/HR UNLESS OTHERWISE INDICATED.

AMS DATA: 400 CCPM

TURBINE COMMON AREA 102' EL.



DATE OF DRILL : OCTOBER 25, 1994

REAL TIME(S) : 0800 - END

DRILL TIME(S) : 0000 - END

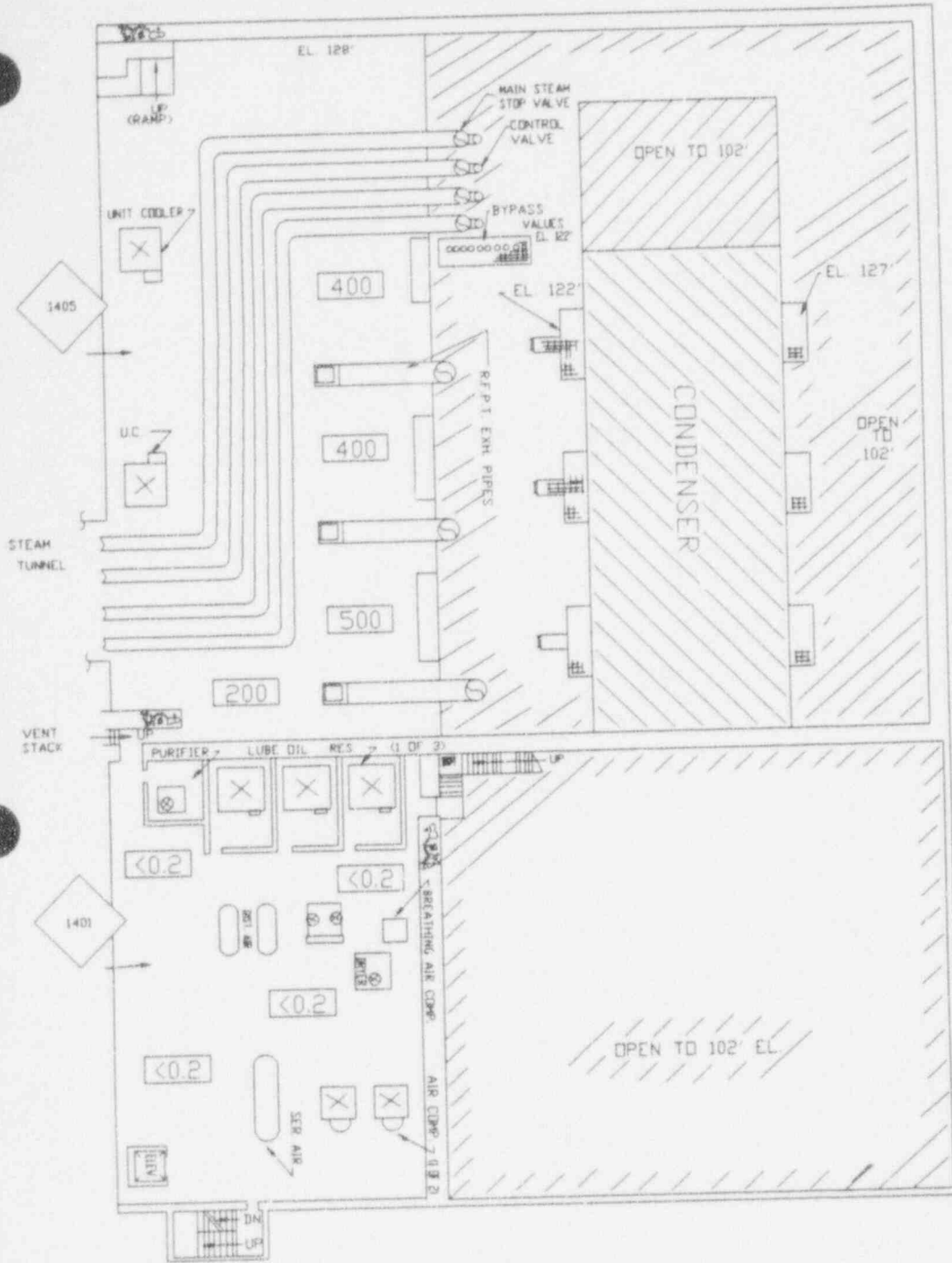
CONTAMINATION LEVELS: N/A

AIR SAMPLE DATA : AS READ

□ DOSE RATES IN MR/HR UNLESS OTHERWISE INDICATED.

AMS DATA: N/A

TURBINE 120'-128' EL.



DATE OF DRILL : OCTOBER 25, 1994

REAL TIME(S) : 0800 - 0946

DRILL TIME(S) : 0000 - 0146

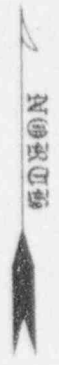
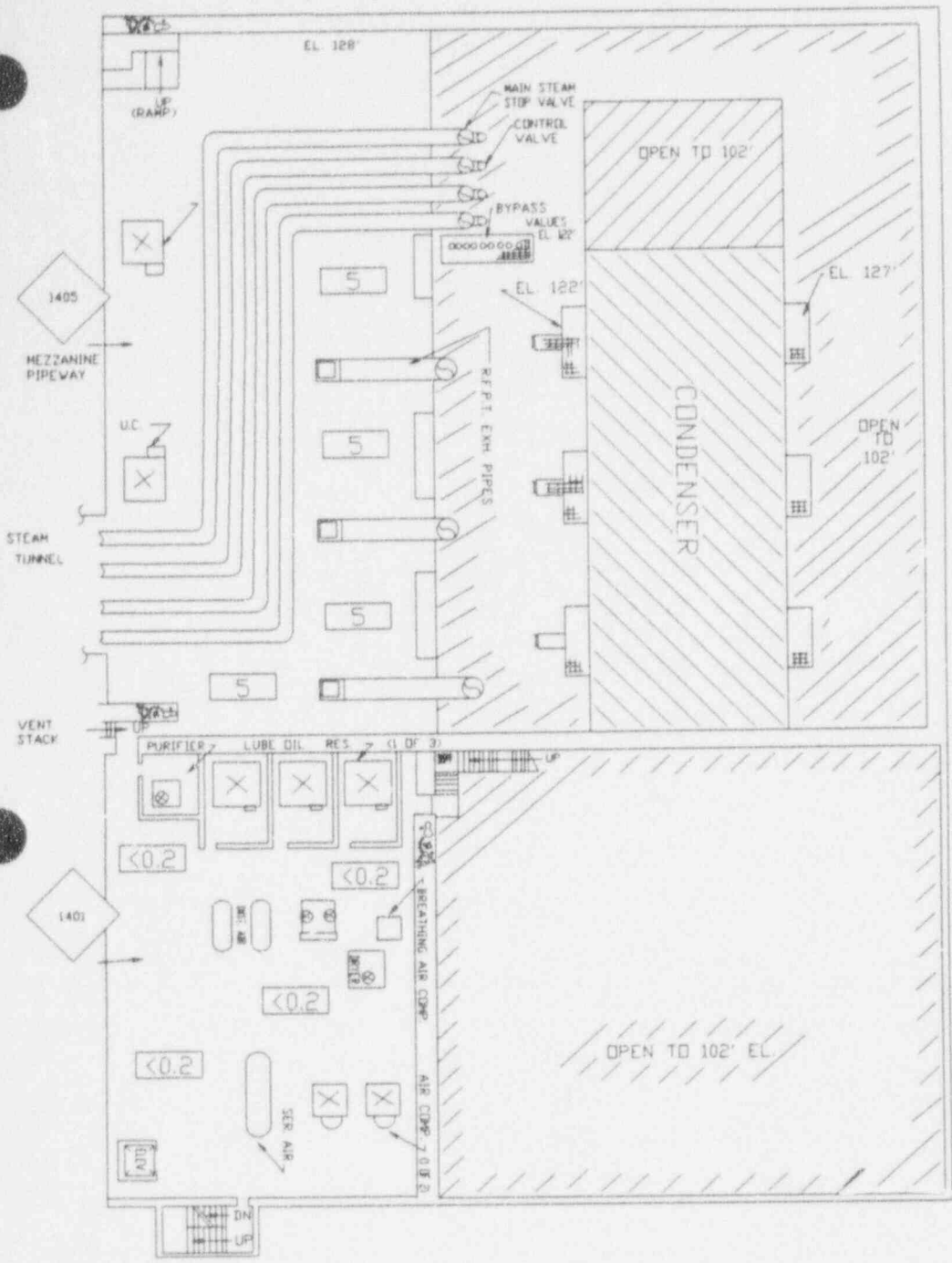
CONTAMINATION LEVELS: N/A

AIR SAMPLE DATA : AS READ

□ DOSE RATES IN MR/HR UNLESS OTHERWISE INDICATED.

AMS DATA: N/A

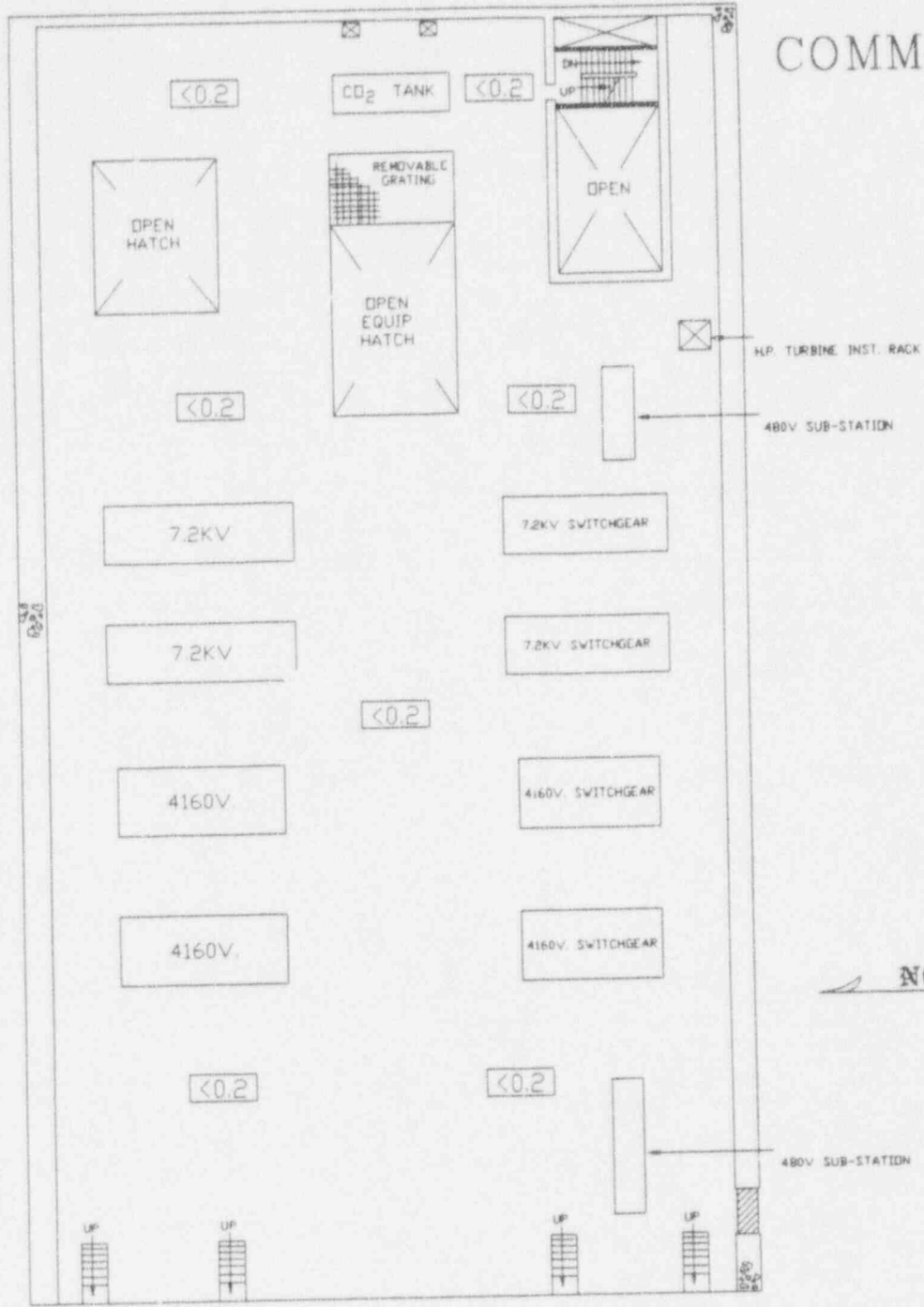
TURBINE 120'-128' EL.



DATE OF DRILL : OCTOBER 25, 1994
 REAL TIME(S) : 0947 - END
 DRILL TIME(S) : 0147 - END
 CONTAMINATION LEVELS: N/A
 AIR SAMPLE DATA : AS READ

☐ DOSE RATES IN MR/HR UNLESS OTHERWISE INDICATED.
 AMS DATA: N/A

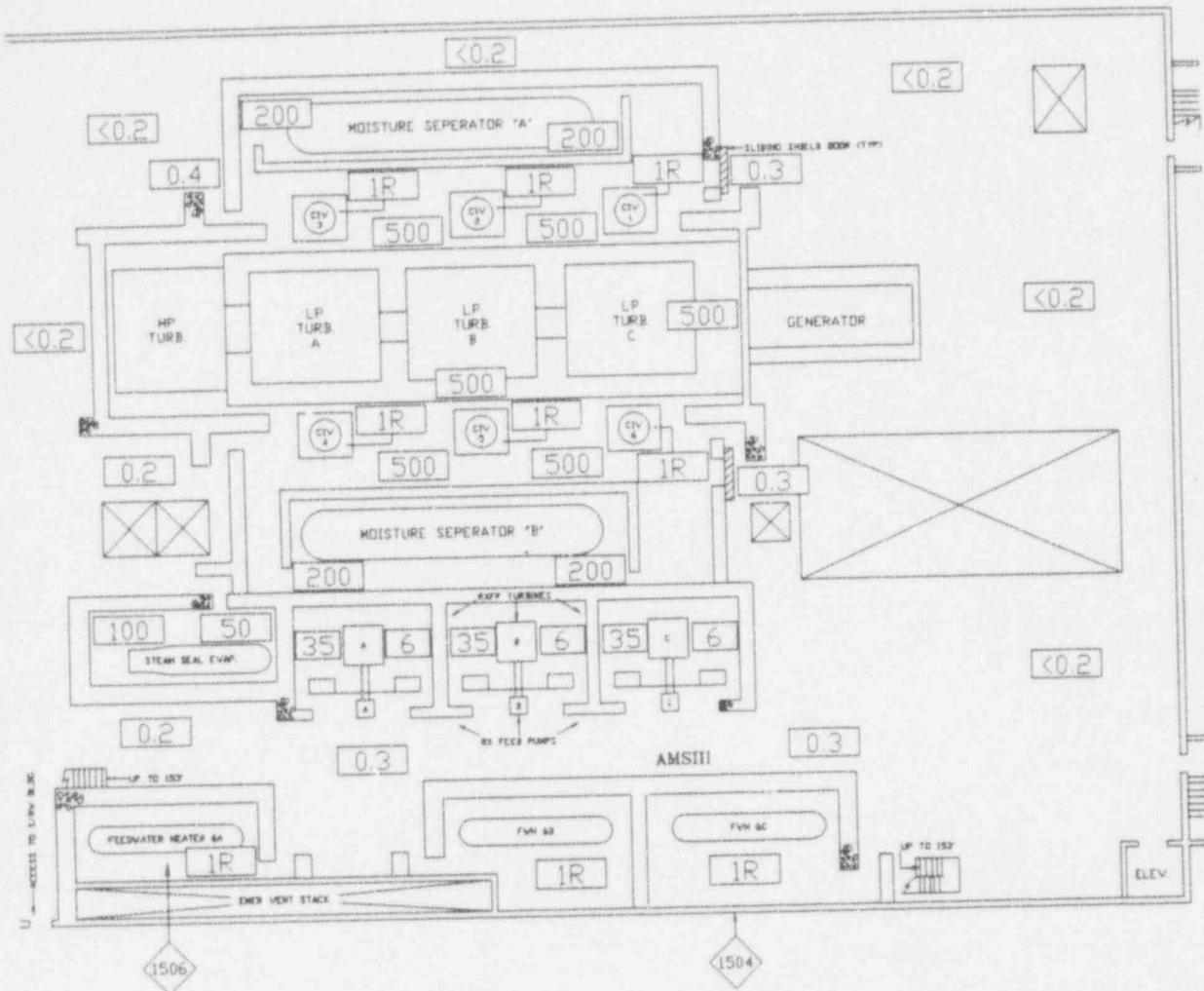
TURBINE COMMON AREA 120' EL.



DATE OF DRILL : OCTOBER 25, 1994
 REAL TIME(S) : 0800 - END
 DRILL TIME(S) : 0000 - END
 CONTAMINATION LEVELS: N/A
 AIR SAMPLE DATA : AS READ

☐ DOSE RATES IN MR/HR UNLESS OTHERWISE INDICATED.
 AMS DATA: N/A

TURBINE 137' EL.



DATE OF DRILL : OCTOBER 25, 1994

REAL TIME(S) : 0800 - 0946

DRILL TIME(S) : 0000 - 0146

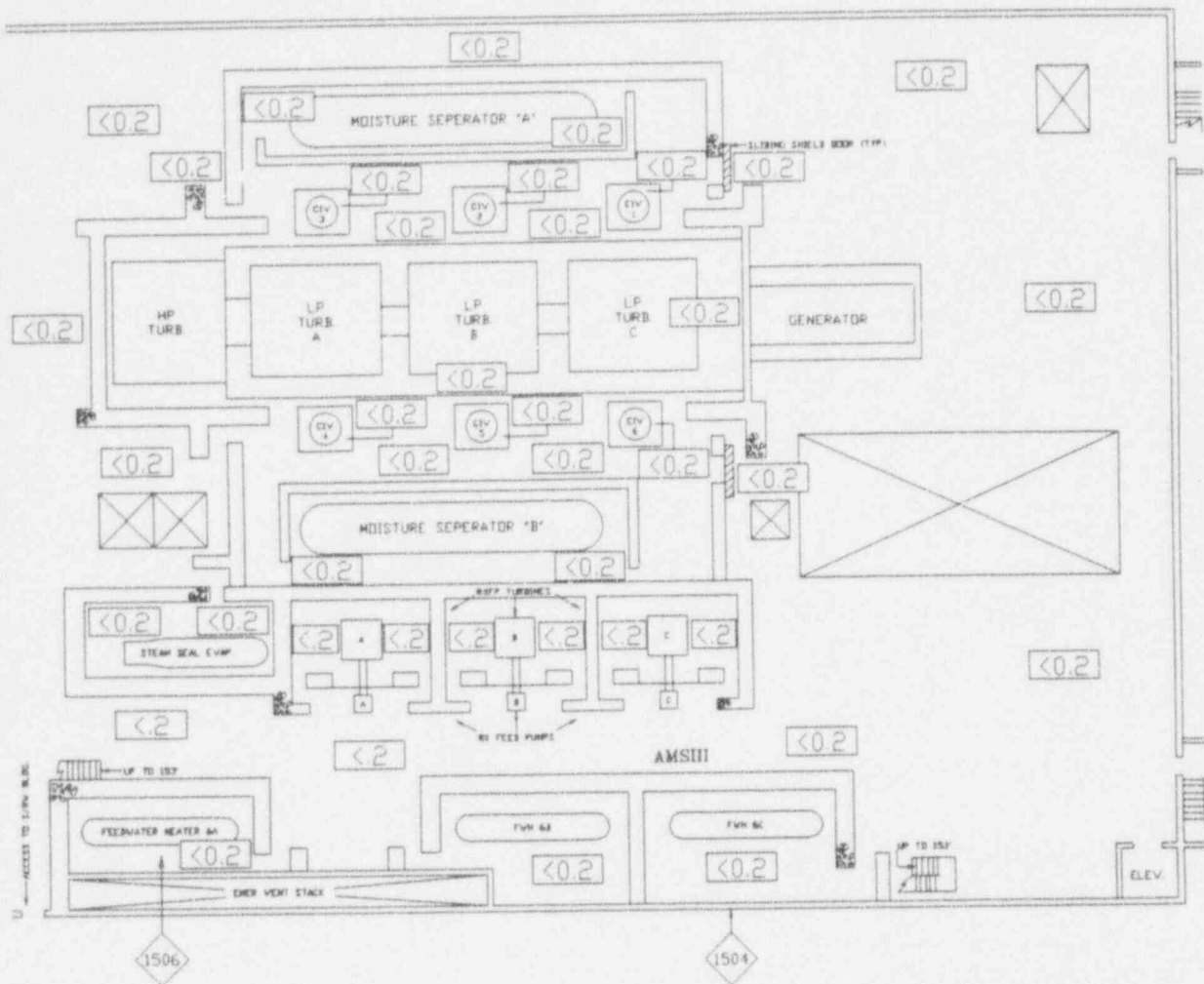
CONTAMINATION LEVELS: N/A

AIR SAMPLE DATA : AS READ

☐ DOSE RATES IN MR/HR UNLESS OTHERWISE INDICATED.

AMS DATA: 400 CCPM

TURBINE 137' EL.



NORTH

DATE OF DRILL : OCTOBER 25, 1994

REAL TIME(S) : 0947 - END

DRILL TIME(S) : 0147 - END

CONTAMINATION LEVELS: N/A

AIR SAMPLE DATA : AS READ

☐ DOSE RATES IN MR/HR UNLESS OTHERWISE INDICATED.

AMS DATA: 400 CCPM

TURBINE 153' EL.

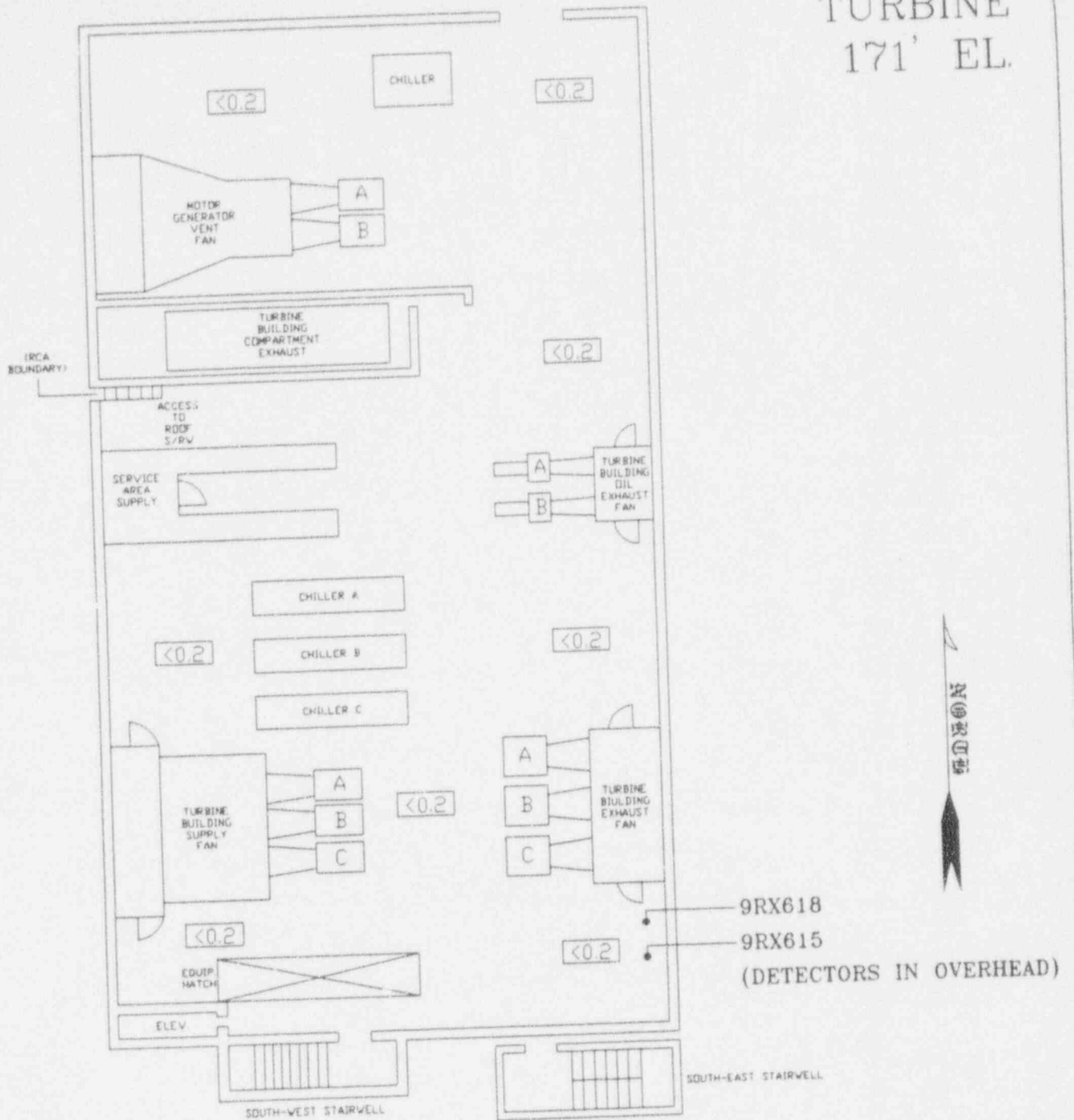


DATE OF DRILL : OCTOBER 25, 1994
REAL TIME(S) : 0800 - END
DRILL TIME(S) : 0000 - END
CONTAMINATION LEVELS: N/A
AIR SAMPLE DATA : AS READ

DOSE RATES IN MR/HR UNLESS OTHERWISE INDICATED.

AMS DATA: N/A

TURBINE 171' EL.



DATE OF DRILL : OCTOBER 25, 1994

REAL TIME(S) : 0800 - END

DRILL TIME(S) : 0000 - END

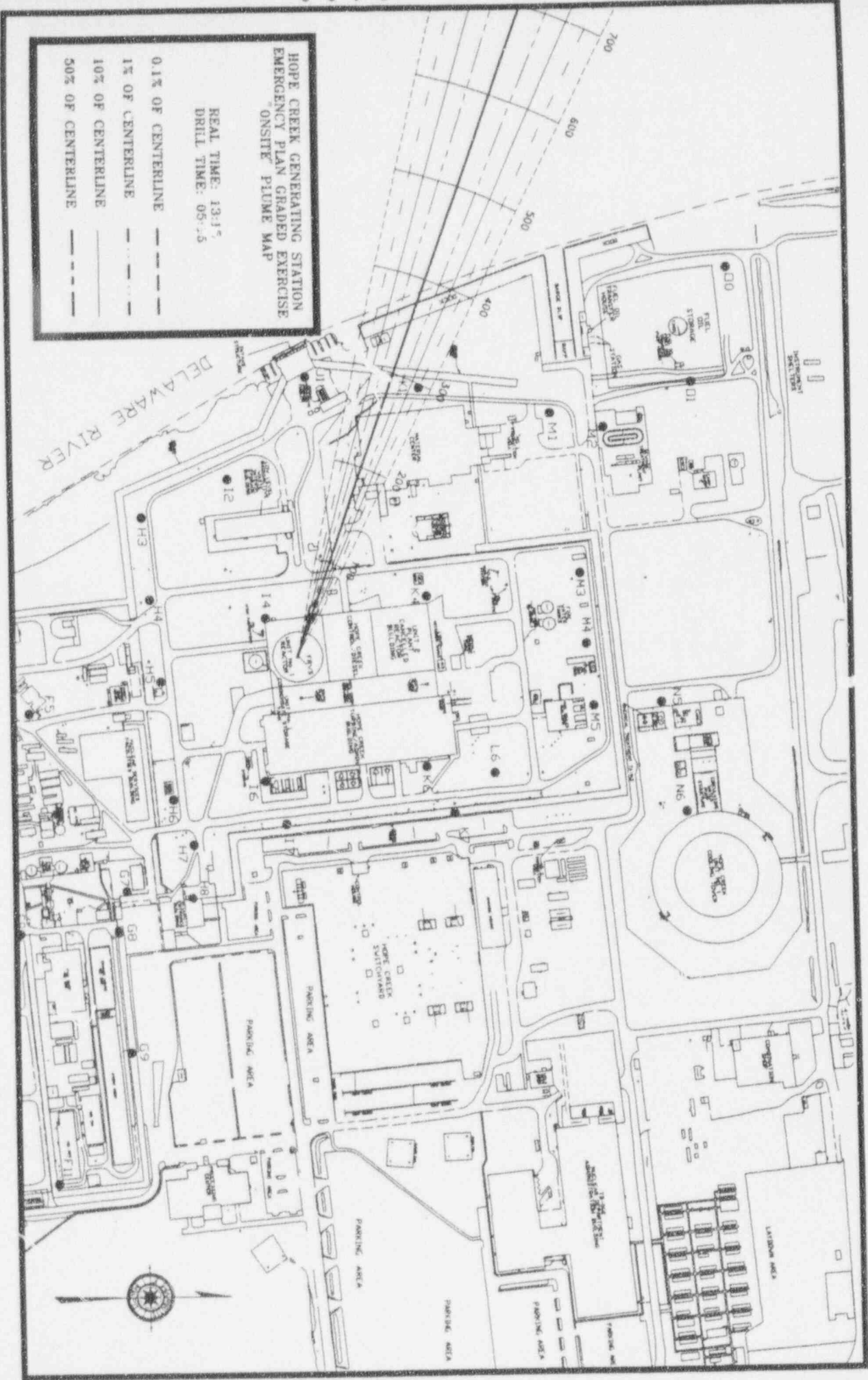
CONTAMINATION LEVELS: N/A

AIR SAMPLE DATA : AS READ

HOPE CREEK GENERATING STATION
 EMERGENCY PLAN GRADED EXERCISE
 "ONSITE" PLUME MAP

REAL TIME: 13:15
 DRILL TIME: 05:26

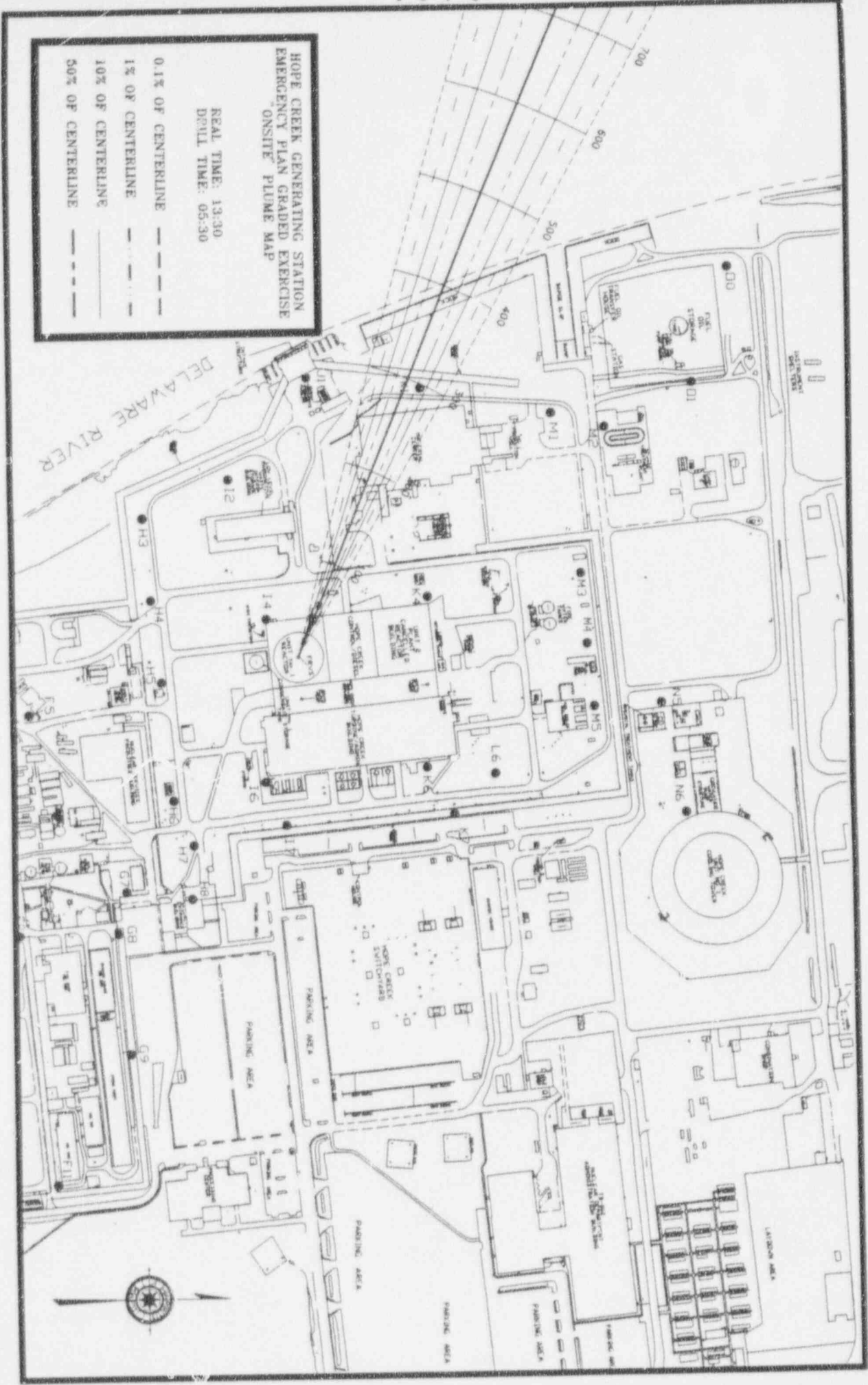
0.1% OF CENTERLINE ———
 1% OF CENTERLINE - - - - -
 10% OF CENTERLINE ———
 50% OF CENTERLINE - - - - -



HOPE CREEK GENERATING STATION
 EMERGENCY PLAN GRADED EXERCISE
 "ONSITE" PLUME MAP

REAL TIME: 13:30
 DRILL TIME: 05:30

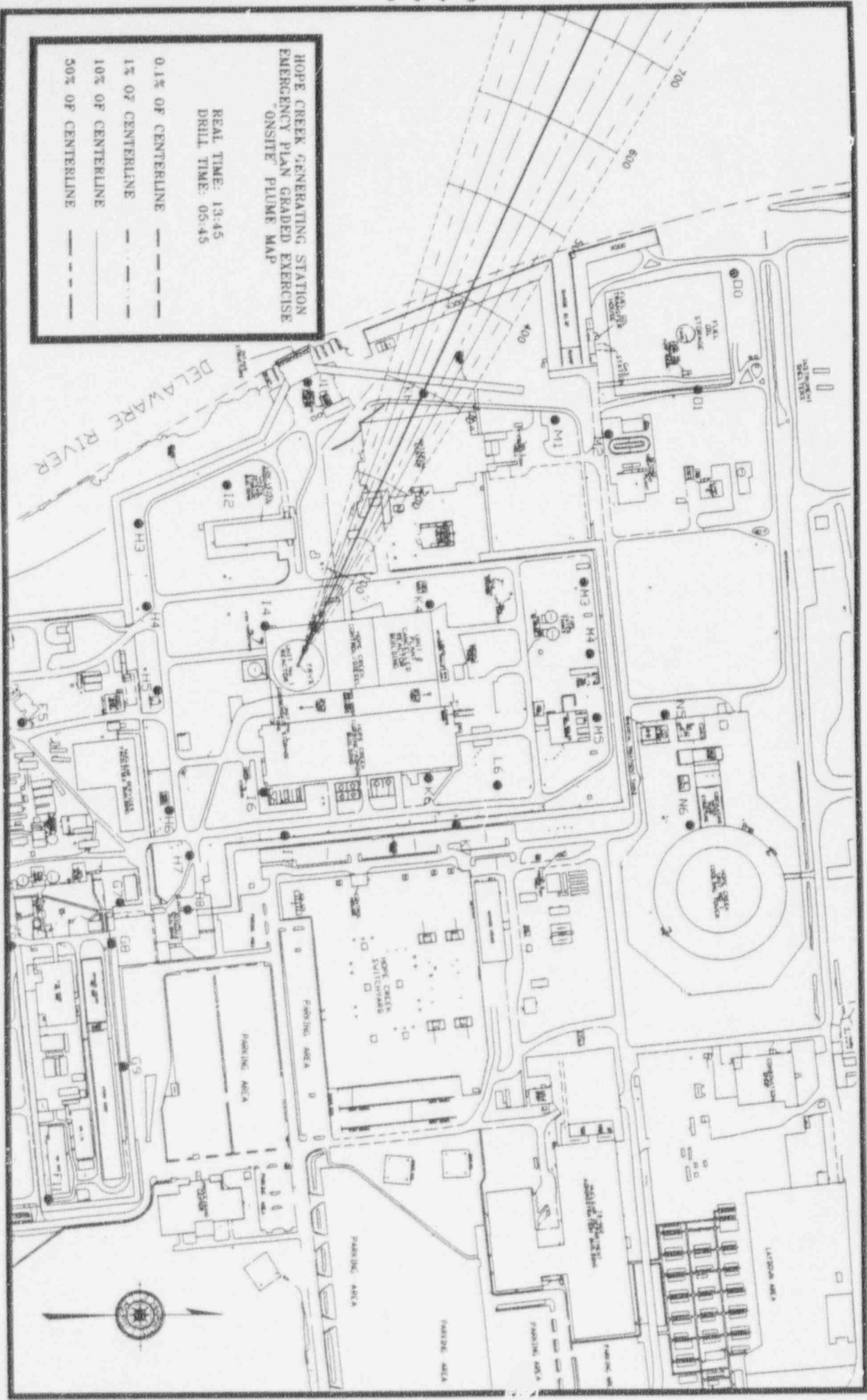
0.1% OF CENTERLINE
 1% OF CENTERLINE
 10% OF CENTERLINE
 50% OF CENTERLINE



HOPE CREEK GENERATING STATION
 EMERGENCY PLAN GRADED EXERCISE
 ONSITE PLUME MAP

REAL TIME: 13:45
 DRILL TIME: 05:45

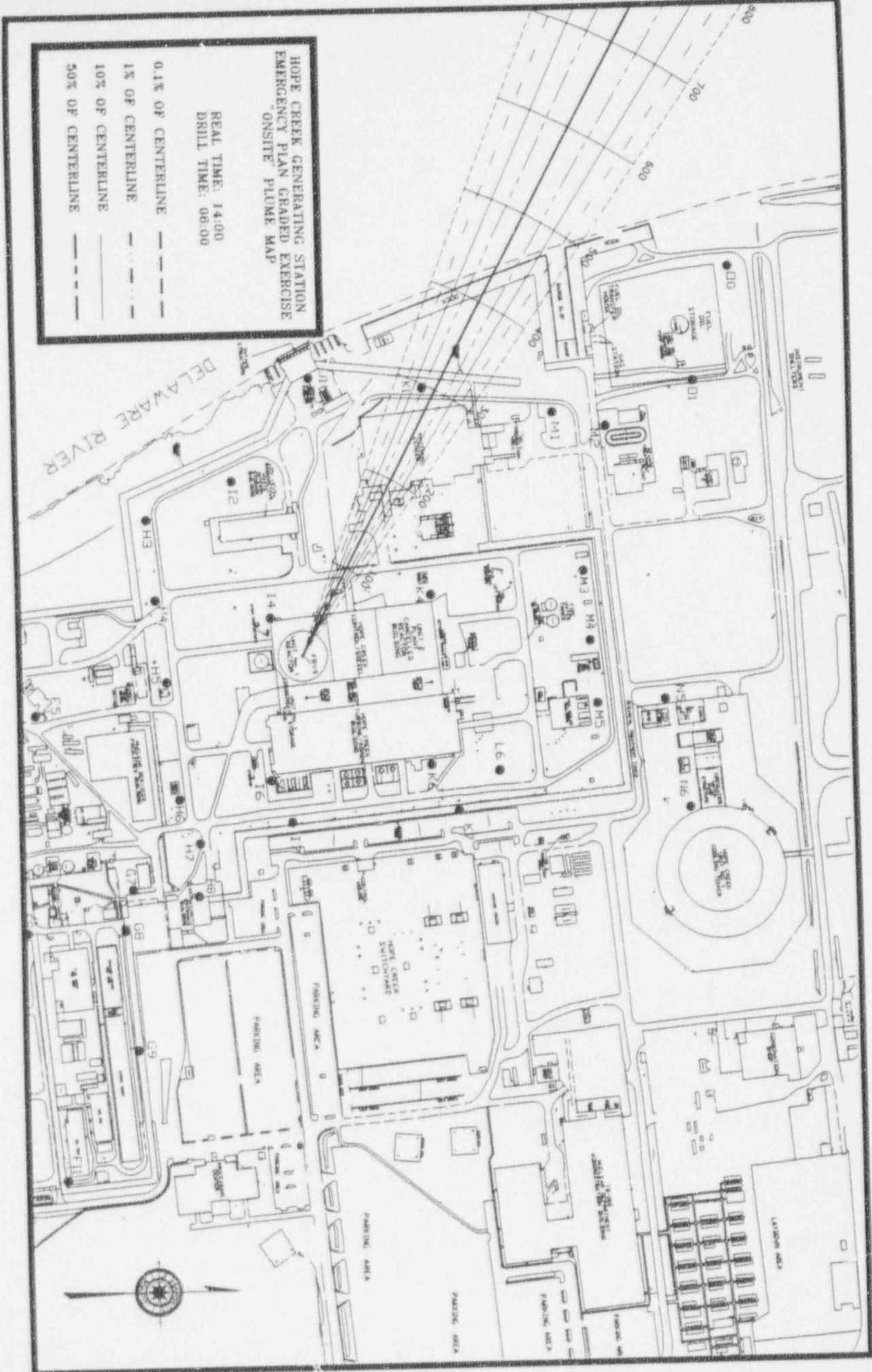
0.1% OF CENTERLINE
 1% OF CENTERLINE
 10% OF CENTERLINE
 50% OF CENTERLINE



HOPE CREEK GENERATING STATION
 EMERGENCY PLAN GRADED EXERCISE
 'ONSITE' PLUME MAP

REAL TIME: 14:00
 DRILL TIME: 06:00

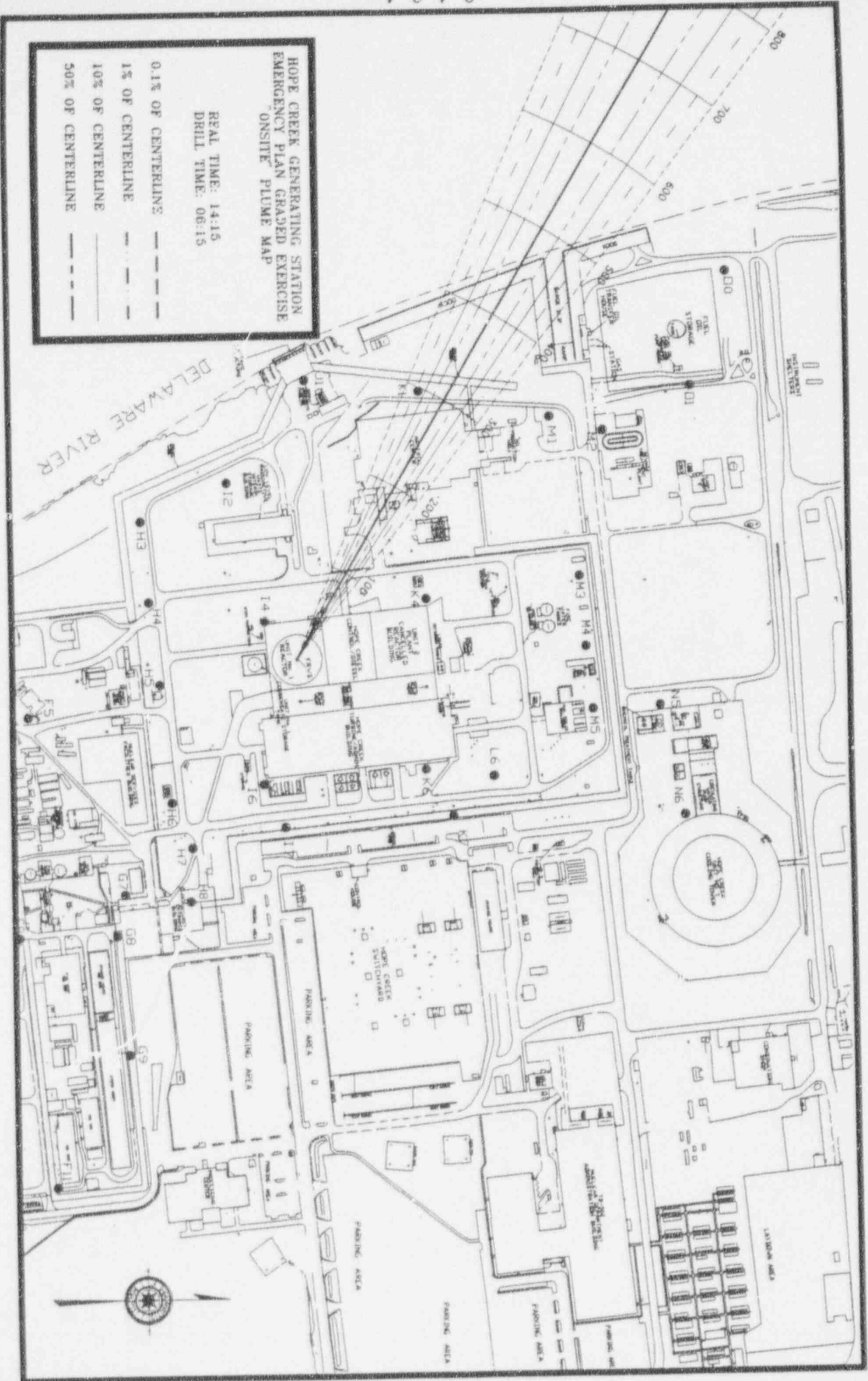
0.1% OF CENTERLINE ---
 1% OF CENTERLINE - - -
 10% OF CENTERLINE - · - ·
 50% OF CENTERLINE - - -



HOPE CREEK GENERATING STATION
 EMERGENCY PLAN GRADED EXERCISE
 ONSITE PLUME MAP

REAL TIME: 14:15
 DRILL TIME: 06:15

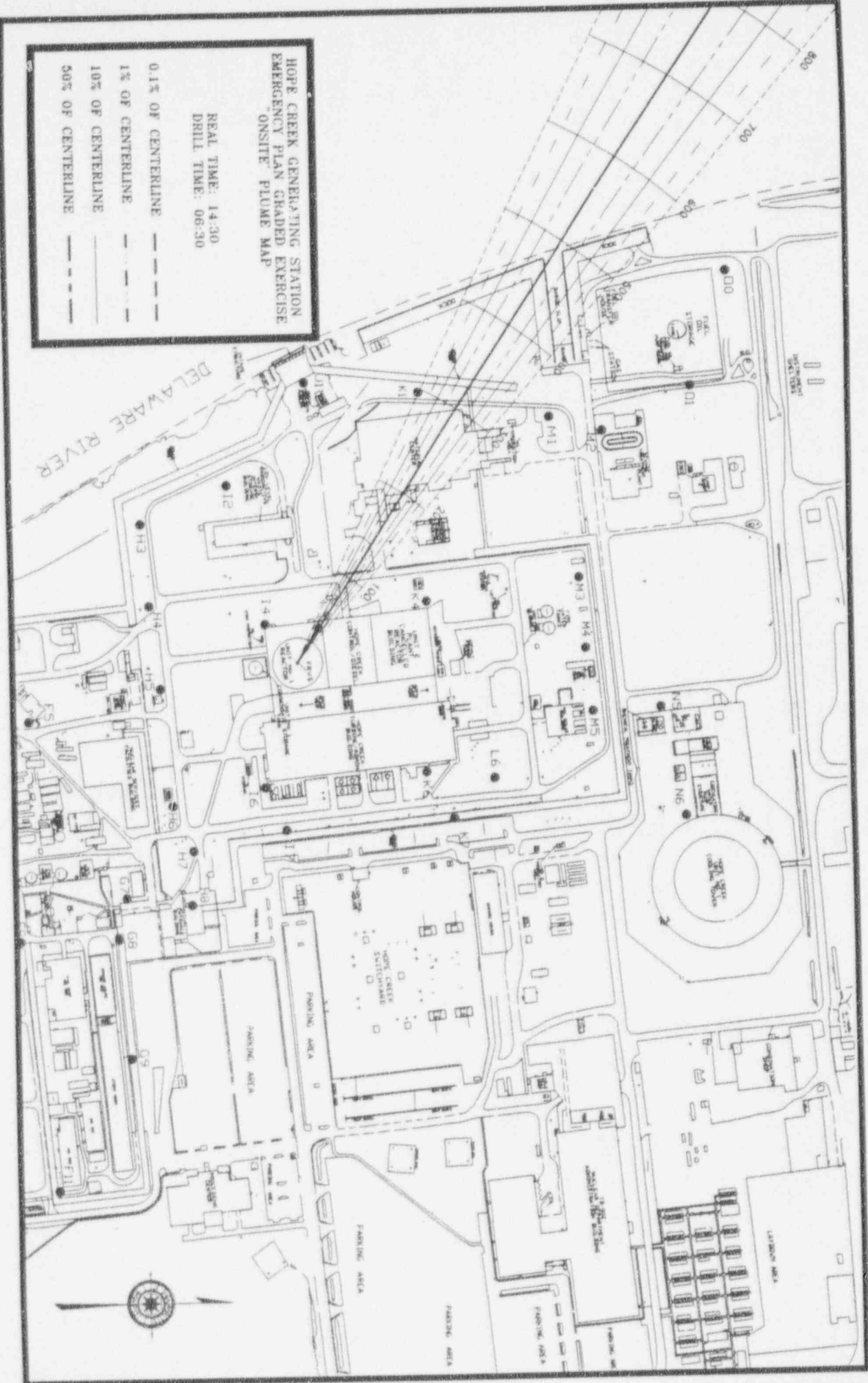
0.1% OF CENTERLINE
 1% OF CENTERLINE
 10% OF CENTERLINE
 50% OF CENTERLINE



HOPE CREEK GENERATING STATION
 EMERGENCY PLAN GRADED EXERCISE
 "ONSITE" PLUME MAP

REAL TIME: 14:30
 DRILL TIME: 06:30

0.1% OF CENTERLINE ———
 1% OF CENTERLINE - - - - -
 10% OF CENTERLINE - - - - -
 50% OF CENTERLINE - - - - -

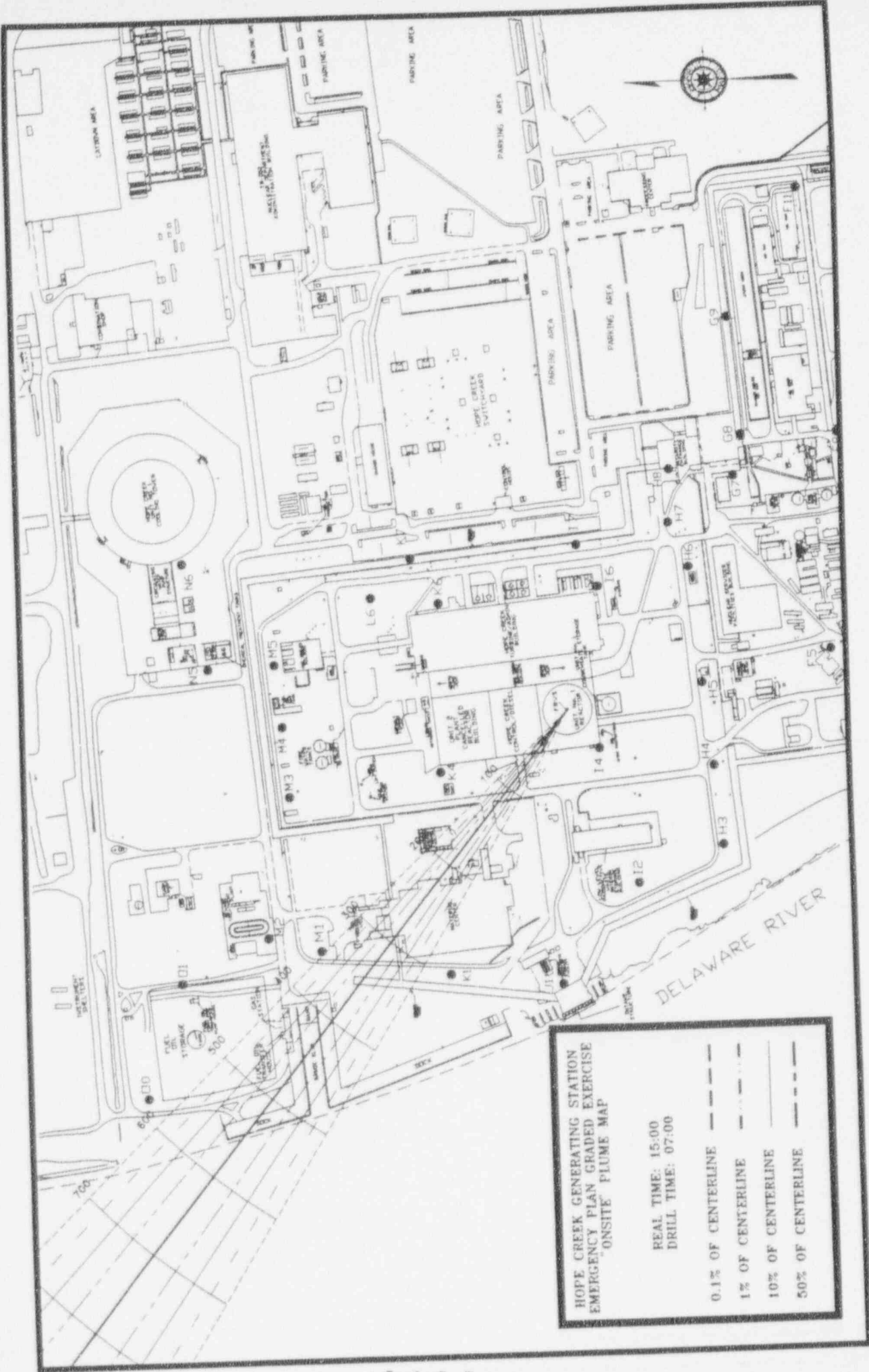


HOPE CREEK GENERATING STATION
 EMERGENCY PLAN GRADED EXERCISE
 "ONSITE" PLUME MAP

REAL TIME: 14:45
 DRILL TIME: 06:45

0.1% OF CENTERLINE ————
 1% OF CENTERLINE - - - - -
 10% OF CENTERLINE - · - · -
 50% OF CENTERLINE - - - - -

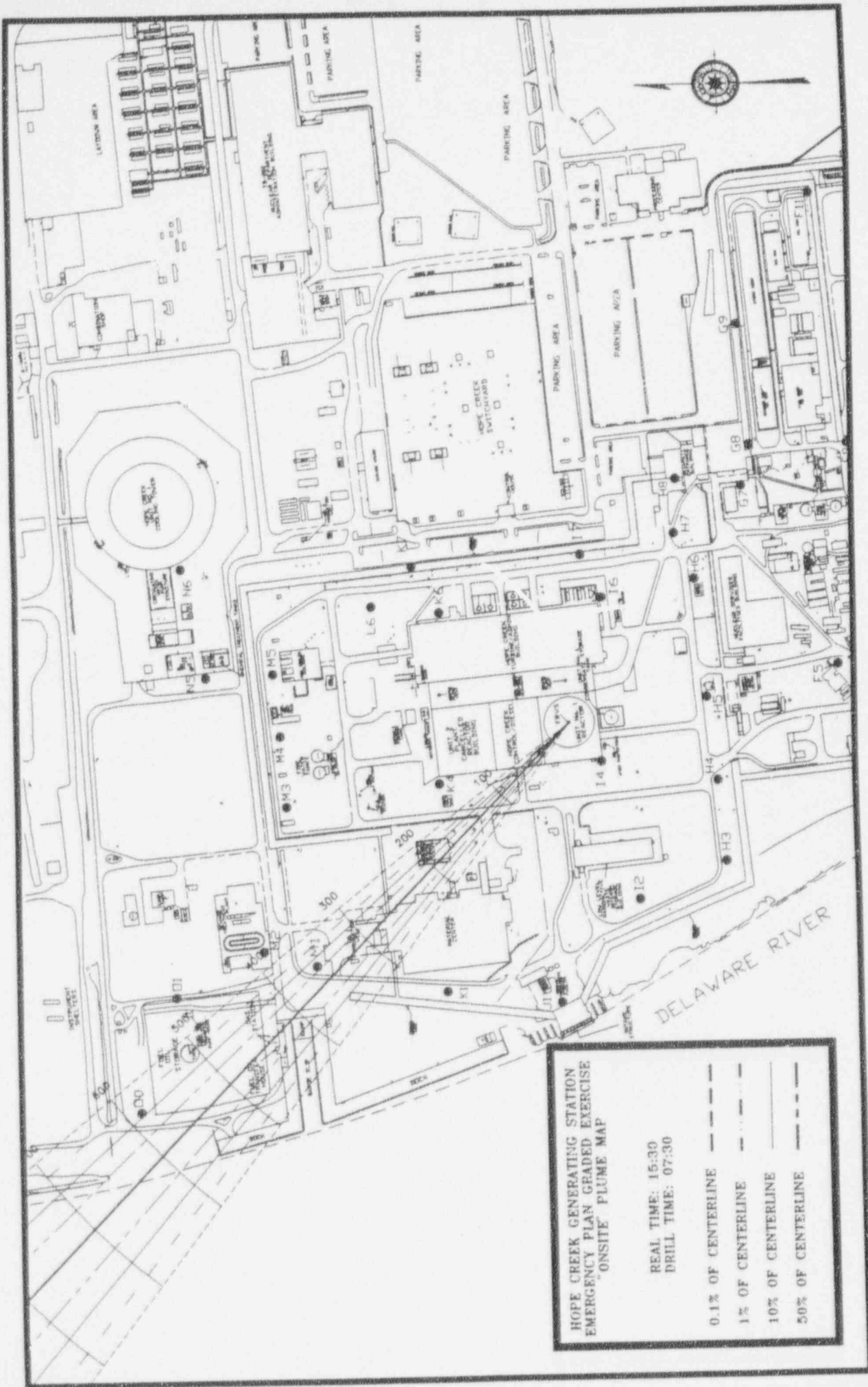


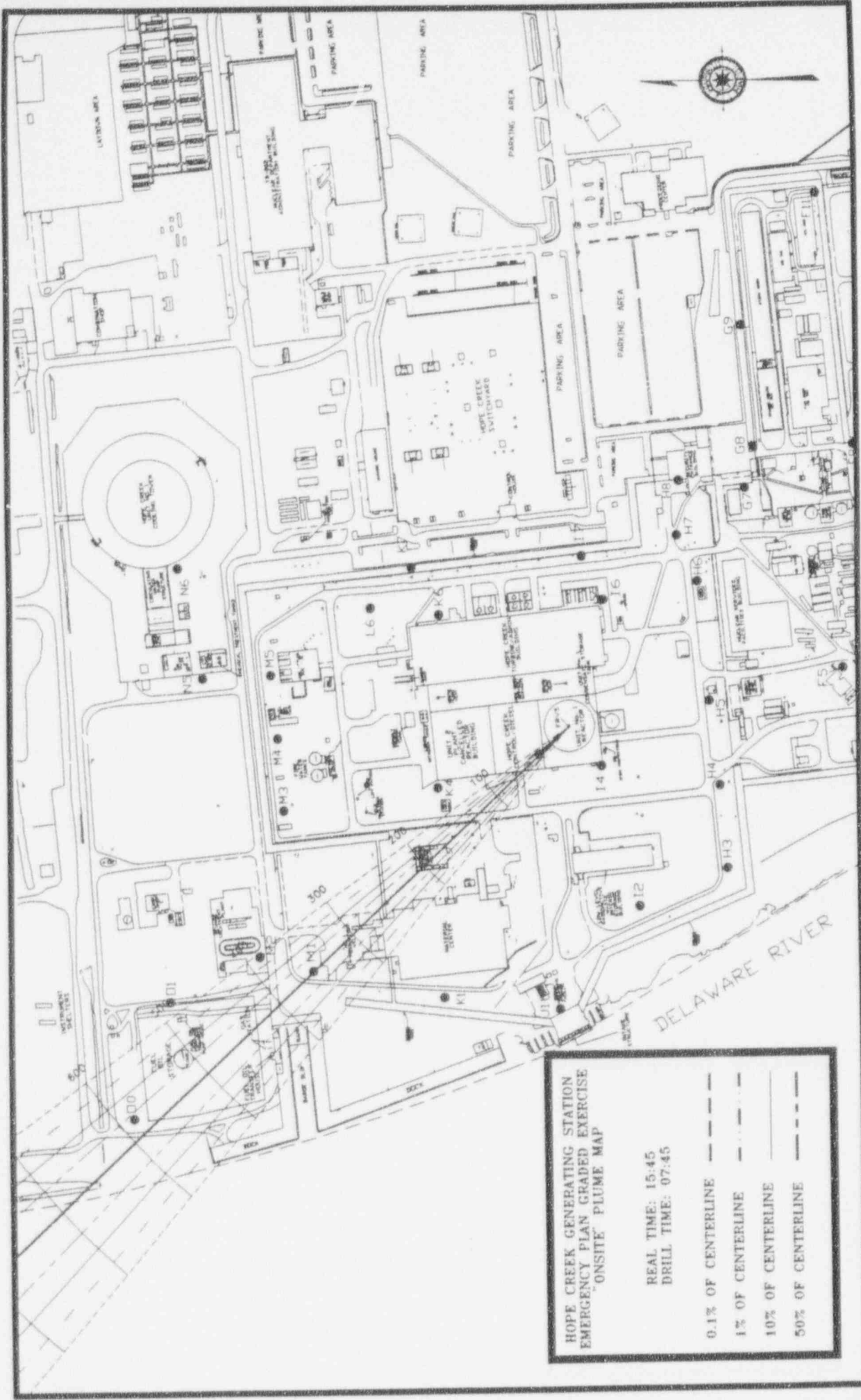


HOPE CREEK GENERATING STATION
 EMERGENCY PLAN GRADED EXERCISE
 "ONSITE PLUME MAP"

REAL TIME: 15:00
 DRILL TIME: 07:00

0.1% OF CENTERLINE ———
 1% OF CENTERLINE - - - -
 10% OF CENTERLINE ———
 50% OF CENTERLINE - - - -

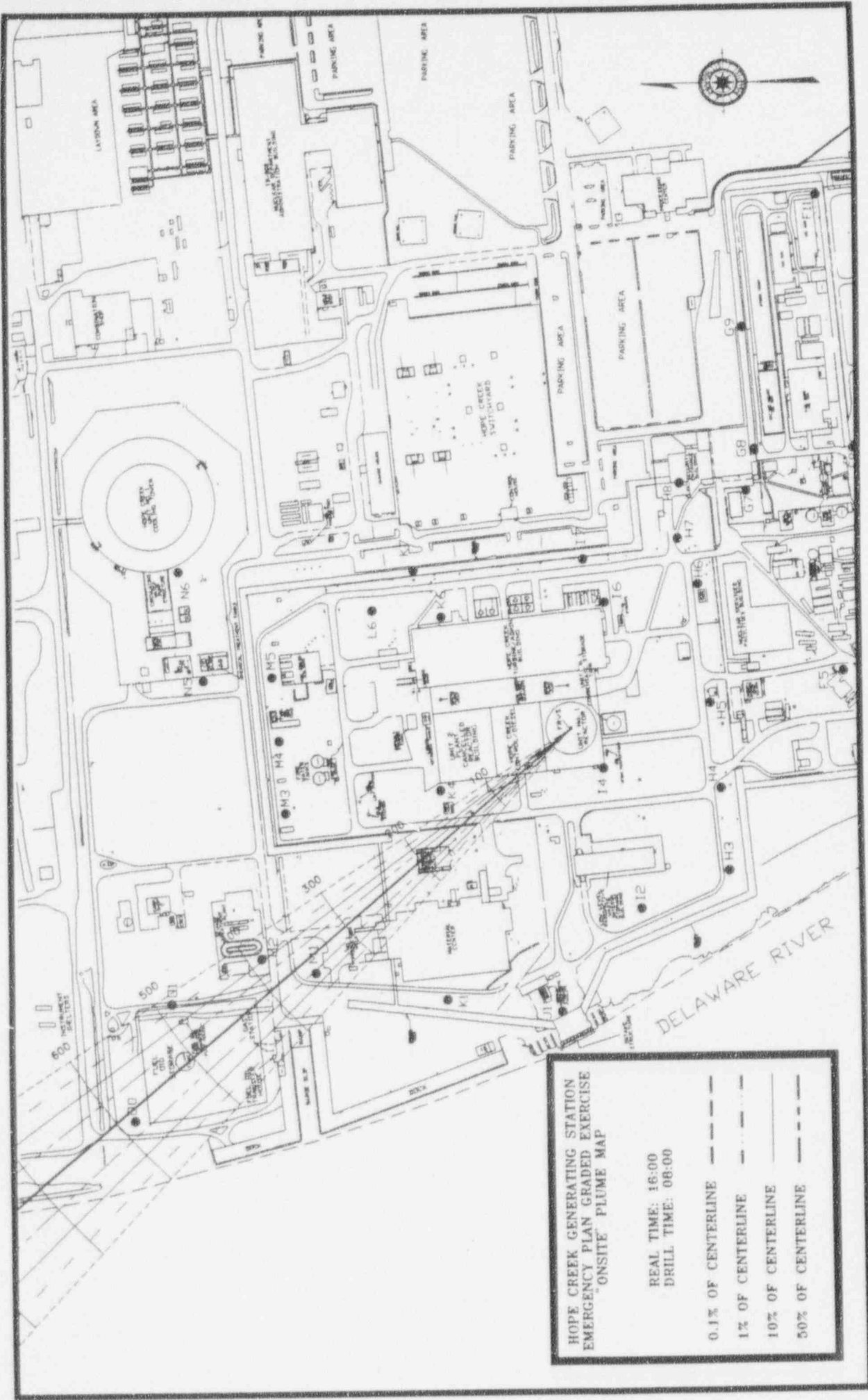




HOPE CREEK GENERATING STATION
 EMERGENCY PLAN GRADED EXERCISE
 "ONSITE" PLUME MAP

REAL TIME: 15:45
 DRILL TIME: 07:45

0.1% OF CENTERLINE ———
 1% OF CENTERLINE - - - - -
 10% OF CENTERLINE - - - - -
 50% OF CENTERLINE - - - - -



CONTAMINATION LEVELS FOR ONSITE FIELD MONITORING TEAMS AND THEIR VEHICLES

IF THE FIELD MONITOR TEAM WENT INTO THE PLUME THREE OR LESS TIMES AND EXITED THE VEHICLE, PERSONNEL CONTAMINATION LEVELS SHOULD BE 450 CPM.

IF THE FIELD MONITOR TEAM WENT INTO THE PLUME FOUR OR MORE TIMES AND EXITED THE VEHICLE, PERSONNEL CONTAMINATION LEVELS SHOULD BE 15,000 CPM.

IF THE FIELD MONITOR TEAM DROVE INTO THE PLUME THREE OR LESS TIMES, THE VEHICLE CONTAMINATION LEVELS SHOULD BE 4,500 CPM.

IF THE FIELD MONITOR TEAM DROVE INTO THE PLUME FOUR OR MORE TIMES, THE VEHICLE CONTAMINATION LEVELS SHOULD BE 150,000 CPM.

BACKGROUND FOR ALL E-140N READINGS SHOULD BE THE 50 CPM. THESE VALUES SHOULD BE GIVEN WHEN ASKED FOR BY THE RPS-OFFSITE OR RPT-RADIO.

IF THE DOSE RATE IS < 0.2 mR/HR THEN REPORT 0.2 mR/HR.

TO CALCULATE THE ONE FOOT RULE OF THUMB DOSE RATES ON IODINE CARTRIDGES TAKE THE CPM IODINE VALUES FROM ONSITE PORTION OF SECTION 9 AT THE AREA THE SAMPLE WAS TAKEN AND PERFORM THE FOLLOWING:

IODINE CPM

CPM IODINE
VALUES FROM

SECTION 9.4.1

1E+04 CPM	DIVIDE BY 1E6 =	GROSS CPM VALUE ON CARTRIDGE.
1E+03 CPM	DIVIDE BY 1E5 =	GROSS CPM VALUE ON CARTRIDGE.
1E+02 CPM	DIVIDE BY 1E4 =	GROSS CPM ON CARTRIDGE.
1E+01 CPM	DIVIDE BY 1E3 =	GROSS CPM ON CARTRIDGE.
1E+00 CPM	DIVIDE BY 1E2 =	GROSS CPM ON CARTRIDGE.

TO CALCULATE THE ONE FOOT RULE OF THUMB DOSE RATES ON 9.5 LITER MARINELLI TAKE THE CLOSED WINDOW VALUES FROM ONSITE PORTION OF 9.4.1 AT THE AREA THE SAMPLE WAS TAKEN AND REPORT THAT VALUE.

10/25/94

H94-06

Location : Centerline

Waters : 100

Miles : 0.10

Real Time	Drill Time	Wind Dir ° From	Wind Speed MPH	Survey Instrument Readings		Field Team Exposure Rate (mR/min)	Gross Particulate C.P.M. Assumes 10 Cu.Ft & 10% Eff.	Iodine-131	
				Open Window Beta/Gamma (mRad/hr)	Closed Window Gamma (mR/hr)			C.P.M. Assumes 10 Cu.Ft & 0.2% Eff.	Thyroid Inhalation Dose Rate (mRem/hr)
08:00	00:00	90.00	5.00	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
13:15	05:15	110.00	6.64	1.22E+04	9.73E+03	1.62E+02	2.35E+03	4.44E+03	1.07E+04
13:30	05:30	112.73	6.72	1.21E+04	9.68E+03	1.61E+02	2.35E+03	4.44E+03	1.07E+04
13:45	05:45	115.45	6.80	1.21E+04	9.65E+03	1.61E+02	2.36E+03	4.47E+03	1.08E+04
14:00	06:00	118.18	6.88	1.05E+04	8.39E+03	1.40E+02	2.36E+03	4.50E+03	1.07E+04
14:15	06:15	120.91	6.95	1.05E+04	8.38E+03	1.40E+02	2.37E+03	4.53E+03	1.08E+04
14:30	06:30	123.64	7.03	1.05E+04	8.38E+03	1.40E+02	2.38E+03	4.57E+03	1.09E+04
14:45	06:45	126.36	7.11	1.05E+04	8.38E+03	1.40E+02	2.40E+03	4.60E+03	1.10E+04
15:00	07:00	129.09	7.19	9.20E+03	7.36E+03	1.23E+02	2.40E+03	4.64E+03	1.09E+04
15:15	07:15	131.82	7.27	7.59E+03	6.07E+03	1.01E+02	2.00E+03	3.86E+03	9.06E+03
15:30	07:30	134.55	7.34	3.45E+03	2.76E+03	4.60E+01	8.98E+03	1.79E+03	4.14E+03
15:45	07:45	137.27	7.42	8.73E+01	6.98E+01	1.16E+00	7.20E+01	9.00E+01	1.05E+02
16:00	08:00	140.00	7.50	1.11E+00	8.91E-01	1.49E-02	5.00E+01	5.00E+01	1.51E+00

*** NOTE : Waist and ground level readings are the same.

10/25/94

H94-06

Location : Centerline

Meters : 200

Miles : 0.10

Real Time	Drill Time	Wind Dir ° From	Wind Speed MPH	Survey Instrument Readings		Field Team Exposure Rate (mR/min)	Gross Particulate	Iodine-131	
				Open Window Beta/Gamma (mRad/hr)	Closed Window Gamma (mR/hr)		C.P.M. Assumes 10 Cu.Ft & 10% Eff.	C.P.M. Assumes 10 Cu.Ft & 0.2% Eff.	Thyroid Inhalation Dose Rate (mRem/hr)
08:00	00:00	90.00	5.00	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
13:15	05:15	110.00	6.64	6.15E-01	4.92E-01	8.20E-03	5.00E+01	5.00E+01	5.39E-01
13:30	05:30	112.73	6.72	1.15E+04	9.17E+03	1.53E+02	2.23E+03	4.21E+03	1.02E+04
13:45	05:45	115.45	6.80	1.14E+04	9.14E+03	1.52E+02	2.23E+03	4.24E+03	1.02E+04
14:00	06:00	118.18	6.88	9.94E+03	7.95E+03	1.33E+02	2.24E+03	4.26E+03	1.01E+04
14:15	06:15	120.91	6.95	9.93E+03	7.94E+03	1.32E+02	2.25E+03	4.29E+03	1.02E+04
14:30	06:30	123.64	7.03	9.91E+03	7.93E+03	1.32E+02	2.26E+03	4.33E+03	1.03E+04
14:45	06:45	126.36	7.11	9.93E+03	7.94E+03	1.32E+02	2.28E+03	4.36E+03	1.04E+04
15:00	07:00	129.09	7.19	8.71E+03	6.97E+03	1.16E+02	2.28E+03	4.40E+03	1.03E+04
15:15	07:15	131.82	7.27	7.34E+03	5.87E+03	9.78E+01	1.94E+03	3.73E+03	8.75E+03
15:30	07:30	134.55	7.34	3.71E+03	2.97E+03	4.95E+01	1.10E+03	1.93E+03	4.46E+03
15:45	07:45	137.27	7.42	8.79E+01	7.03E+01	1.17E+00	7.20E+01	9.00E+01	1.06E+02
16:00	08:00	140.00	7.50	1.06E+00	8.45E-01	1.41E-02	5.00E+01	5.00E+01	1.43E+00

*** NOTE : Waist and ground level readings are the same.

10/25/94

H94-06

Location : Centerline

Meters : 300

Miles : 0.20

Real Time	Drill Time	Wind Dir ° From	Wind Speed MPH	Survey Instrument Readings		Field Team Exposure Rate (mR/min)	Gross Particulate	Iodine-131	
				Open Window Beta/Gamma (mRad/hr)	Closed Window Gamma (mR/hr)		C.P.M. Assumes 10 Cu.Ft & 10% Eff.	C.P.M. Assumes 10 Cu.Ft & 0.2% Eff.	Thyroid Inhalation Dose Rate (mRem/hr)
08:00	00:00	90.00	5.00	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
13:15	05:15	110.00	6.64	5.73E-01	4.58E-01	7.63E-03	5.00E+01	5.00E+01	5.02E-01
13:30	05:30	112.73	6.72	1.07E+04	8.54E+03	1.42E+02	2.08E+03	3.92E+03	9.46E+03
13:45	05:45	115.45	6.80	1.06E+04	8.51E+03	1.42E+02	2.08E+03	3.95E+03	9.51E+03
14:00	06:00	118.18	6.88	9.25E+03	7.40E+03	1.23E+02	2.09E+03	3.97E+03	9.45E+03
14:15	06:15	120.91	6.95	9.24E+03	7.39E+03	1.23E+02	2.10E+03	4.00E+03	9.51E+03
14:30	06:30	123.64	7.03	9.24E+03	7.39E+03	1.23E+02	2.11E+03	4.03E+03	9.59E+03
14:45	06:45	126.36	7.11	9.24E+03	7.39E+03	1.23E+02	2.12E+03	4.06E+03	9.66E+03
15:00	07:00	129.09	7.19	8.11E+03	6.49E+03	1.08E+02	2.13E+03	4.10E+03	9.62E+03
15:15	07:15	131.82	7.27	6.83E+03	5.46E+03	9.10E+01	1.81E+03	3.47E+03	8.15E+03
15:30	07:30	134.55	7.34	3.45E+03	2.76E+03	4.60E+01	8.99E+02	1.80E+03	4.15E+03
15:45	07:45	137.27	7.42	8.19E+01	6.55E+01	1.09E+00	7.20E+01	9.00E+01	9.89E+01
16:00	08:00	140.00	7.50	5.63E+00	4.50E+00	7.50E-02	5.20E+01	5.30E+01	7.64E+00

*** NOTE : Waist and ground level readings are the same.

10/25/94

H94-06

Location : Centerline

Meters : 400

Miles : 0.20

Real Time	Drill Time	Wind Dir ° From	Wind Speed MPH	Survey Instrument Readings		Field Team Exposure Rate (mR/min)	Gross Particulate C.P.M. Assumes 10 Cu.Ft & 10% Eff.	Iodine-131	
				Open Window Beta/Gamma (mRad/hr)	Closed Window Gamma (mR/hr)			C.P.M. Assumes 10 Cu.Ft & 0.2% Eff.	Thyroid Inhalation Dose Rate (mRem/hr)
08:00	00:00	90.00	5.00	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
13:15	05:15	110.00	6.64	5.26E-01	4.21E-01	7.02E-03	5.00E+01	5.00E+01	4.62E-01
13:30	05:30	112.73	6.72	9.83E+03	7.86E+03	1.31E+02	1.92E+03	3.57E+03	8.70E+03
13:45	05:45	115.45	6.80	9.79E+03	7.83E+03	1.31E+02	1.92E+03	3.69E+03	8.75E+03
14:00	06:00	118.18	6.88	8.51E+03	6.81E+03	1.14E+02	1.93E+03	3.66E+03	8.69E+03
14:15	06:15	120.91	6.95	8.50E+03	6.80E+03	1.13E+02	1.93E+03	3.68E+03	8.75E+03
14:30	06:30	123.64	7.03	8.50E+03	6.80E+03	1.13E+02	1.94E+03	3.71E+03	8.81E+03
14:45	06:45	126.36	7.11	8.50E+03	6.80E+03	1.13E+02	1.95E+03	3.74E+03	8.88E+03
15:00	07:00	129.09	7.19	7.46E+03	5.97E+03	9.95E+01	1.96E+03	3.77E+03	8.84E+03
15:15	07:15	131.82	7.27	6.40E+03	5.12E+03	8.53E+01	1.70E+03	3.26E+03	7.63E+03
15:30	07:30	134.55	7.34	3.53E+03	2.82E+03	4.70E+01	9.16E+02	1.83E+03	4.23E+03
15:45	07:45	137.27	7.42	7.98E+01	6.38E+01	1.06E+00	7.10E+01	8.80E+01	9.63E+01
16:00	08:00	140.00	7.50	5.18E+00	4.14E+00	6.90E-02	5.10E+01	5.30E+01	7.04E+00

*** NOTE : Waist and ground level readings are the same.

10/25/94

H94-06

Location : Centerline

Meters : 500

Miles : 0.30

Real Time	Drill Time	Wind Dir ° From	Wind Speed MPH	Survey Instrument Readings		Field Team Exposure Rate (mR/min)	Gross Particulate C.P.M. Assumes 10 Cu.Ft & 10% Eff.	Iodine-131	
				Open Window Beta/Gamma (mRad/hr)	Closed Window Gamma (mR/hr)			C.P.M. Assumes 10 Cu.Ft & 0.2% Eff.	Thyroid Inhalation Dose Rate (mRem/hr)
08:00	00:00	90.00	5.00	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
13:15	05:15	110.00	6.64	4.81E-01	3.85E-01	6.42E-03	5.00E+01	5.00E+01	4.22E-01
13:30	05:30	112.73	6.72	8.99E+03	7.19E+03	1.20E+02	1.76E+03	3.31E+03	7.95E+03
13:45	05:45	115.45	6.80	8.95E+03	7.16E+03	1.19E+02	1.76E+03	3.33E+03	8.00E+03
14:00	06:00	118.18	6.88	7.78E+03	6.22E+03	1.04E+02	1.76E+03	3.35E+03	7.94E+03
14:15	06:15	120.91	6.95	7.78E+03	6.22E+03	1.04E+02	1.77E+03	3.37E+03	8.00E+03
14:30	06:30	123.64	7.03	7.76E+03	6.21E+03	1.04E+02	1.78E+03	3.40E+03	8.06E+03
14:45	06:45	126.36	7.11	7.78E+03	6.22E+03	1.04E+02	1.79E+03	3.42E+03	8.12E+03
15:00	07:00	129.09	7.19	6.83E+03	5.46E+03	9.10E+01	1.80E+03	3.45E+03	8.08E+03
15:15	07:15	131.82	7.27	5.85E+03	4.68E+03	7.80E+01	1.56E+03	2.99E+03	6.97E+03
15:30	07:30	134.55	7.34	3.23E+03	2.58E+03	4.30E+01	8.33E+03	1.63E+03	3.86E+03
15:45	07:45	137.27	7.42	7.29E+03	5.83E+03	9.72E-01	5.30E+01	5.50E+01	8.80E+01
16:00	08:00	140.00	7.50	8.61E+00	6.89E+00	1.15E-01	5.30E+01	5.50E+01	1.17E+01

*** NOTE : Waist and ground level readings are the same.

10/25/94

H94-06

Location : Centerline

Meters : 600

Miles : 0.40

Real Time	Drill Time	Wind Dir ° From	Wind Speed MPH	Survey Instrument Readings		Field Team Exposure Rate (mR/min)	Gross Particulate C.P.M. Assumes 10 Cu.Ft & 10% Eff.	Iodine-131	
				Open Window Beta/Gamma (mRad/hr)	Closed Window Gamma (mR/hr)			C.P.M. Assumes 10 Cu.Ft & 0.2% Eff.	Thyroid Inhalation Dose Rate (mRem/hr)
08:00	00:00	90.00	5.00	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
13:15	05:15	110.00	6.64	4.39E-01	3.51E-01	5.85E-03	5.00E+01	5.00E+01	3.84E-01
13:30	05:30	112.73	6.72	8.18E+03	6.54E+03	1.09E+02	1.60E+03	3.01E+03	7.23E+03
13:45	05:45	115.45	6.80	8.15E+03	6.52E+03	1.09E+02	1.61E+03	3.03E+03	7.28E+03
14:00	06:00	118.18	6.88	7.09E+03	5.67E+03	9.45E+01	1.61E+03	3.05E+03	7.22E+03
14:15	06:15	120.91	6.95	7.08E+03	5.66E+03	9.43E+01	1.62E+03	3.07E+03	7.27E+03
14:30	06:30	123.64	7.03	7.08E+03	5.66E+03	9.43E+01	1.62E+03	3.10E+03	7.33E+03
14:45	06:45	126.36	7.11	7.08E+03	5.66E+03	9.43E+01	1.63E+03	3.12E+03	7.39E+03
15:00	07:00	129.09	7.19	6.21E+03	4.97E+03	8.28E+01	1.64E+03	3.15E+03	7.35E+03
15:15	07:15	131.82	7.27	5.41E+03	4.33E+03	7.22E+01	1.44E+03	2.77E+03	6.45E+03
15:30	07:30	134.55	7.34	3.19E+03	2.55E+03	4.25E+01	8.30E+02	1.66E+03	3.83E+03
15:45	07:45	137.27	7.42	7.00E+01	5.60E+01	9.33E-01	6.90E+01	8.40E+01	8.45E+01
16:00	08:00	140.00	7.50	7.85E+00	6.28E+00	1.05E-01	5.20E+01	5.40E+01	1.07E+01

*** NOTE : Waist and ground level readings are the same.

10/25/94

H94-06

Location : Centerline

Meters : 700

Miles : 0.40

Real Time	Drill Time	Wind Dir ° From	Wind Speed MPH	Survey Instrument Readings		Field Team Exposure Rate (mR/min)	Gross Particulate C.P.M. Assumes 10 Cu.Ft & 10% Eff.	Iodine-131	
				Open Window Beta/Gamma (mRad/hr)	Closed Window Gamma (mR/hr)			C.P.M. Assumes 10 Cu.Ft & 0.2% Eff.	Thyroid Inhalation Dose Rate (mRem/hr)
08:00	00:00	90.00	5.00	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
13:15	05:15	110.00	6.64	3.99E-01	3.19E-01	5.32E-03	5.00E+01	5.00E+01	3.49E-01
13:30	05:30	112.73	6.72	7.44E+03	5.95E+03	9.92E+01	1.46E+03	2.74E+03	6.58E+03
13:45	05:45	115.45	6.80	7.41E+03	5.93E+03	9.88E+01	1.46E+03	2.75E+03	6.62E+03
14:00	06:00	118.18	6.88	6.44E+03	5.15E+03	8.58E+01	1.48E+03	2.78E+03	6.57E+03
14:15	06:15	120.91	6.95	6.44E+03	5.15E+03	8.58E+01	1.47E+03	2.80E+03	6.62E+03
14:30	06:30	123.64	7.03	6.43E+03	5.14E+03	8.57E+01	1.43E+03	2.82E+03	6.67E+03
14:45	06:45	126.36	7.11	6.44E+03	5.15E+03	8.58E+01	1.49E+03	2.84E+03	6.72E+03
15:00	07:00	129.09	7.19	5.65E+03	4.52E+03	7.53E+01	1.50E+03	2.87E+03	6.69E+03
15:15	07:15	131.82	7.27	4.93E+03	3.94E+03	6.57E+01	1.32E+03	2.52E+03	5.87E+03
15:30	07:30	134.55	7.34	2.90E+03	2.32E+03	3.87E+01	8.00E+02	1.52E+03	3.48E+03
15:45	07:45	137.27	7.42	6.36E+01	5.09E+01	8.48E-01	6.70E+01	8.10E+01	7.68E+01
16:00	08:00	140.00	7.50	1.03E+01	8.26E+00	1.38E-01	5.30E+01	5.60E+01	1.40E+01

*** NOTE : Waist and ground level readings are the same.

10/25/94

H94-06

Location : Centerline

Meters : 800

Miles : 0.50

Real Time	Drill Time	Wind Dir ° From	Wind Speed MPH	Survey Instrument Readings		Field Team Exposure Rate (mR/min)	Gross Particulate C.P.M. Assumes 10 Cu.Ft & 10% Eff.	Iodine-131	
				Open Window Beta/Gamma (mRad/hr)	Closed Window Gamma (mR/hr)			C.P.M. Assumes 10 Cu.Ft & 0.2% Eff.	Thyroid Inhalation Dose Rate (mRem/hr)
08:00	00:00	90.00	5.00	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
13:15	05:15	110.00	6.64	3.63E-01	2.90E-01	4.83E-03	5.00E+01	5.00E+01	3.17E-01
13:30	05:30	112.73	6.72	6.76E+03	5.41E+03	9.02E+01	1.33E+03	2.50E+03	5.98E+03
13:45	05:45	115.45	6.80	6.74E+03	5.39E+03	8.98E+01	1.34E+03	2.51E+03	6.01E+03
14:00	06:00	118.18	6.88	5.85E+03	4.68E+03	7.80E+01	1.34E+03	2.53E+03	5.97E+03
14:15	06:15	120.91	6.95	5.85E+03	4.68E+03	7.80E+01	1.34E+03	2.55E+03	6.01E+03
14:30	06:30	123.64	7.03	5.84E+03	4.67E+03	7.78E+01	1.35E+03	2.57E+03	6.05E+03
14:45	06:45	126.36	7.11	5.85E+03	4.68E+03	7.80E+01	1.36E+05	2.59E+03	6.10E+03
15:00	07:00	129.09	7.19	5.14E+03	4.11E+03	6.85E+01	1.36E+03	2.61E+03	6.07E+03
15:15	07:15	131.82	7.27	4.55E+03	3.64E+03	6.07E+01	1.22E+03	2.33E+03	5.42E+03
15:30	07:30	134.55	7.34	2.84E+03	2.27E+03	3.78E+01	7.37E+02	1.48E+03	3.40E+03
15:45	07:45	137.27	7.42	6.09E+01	4.87E+01	8.12E-01	6.60E+01	7.90E+01	7.35E+01
16:00	08:00	140.00	7.50	9.40E+00	7.52E+00	1.25E-01	5.30E+01	5.50E+01	1.28E+01

*** NOTE : Waist and ground level readings are the same.

10/25/94

H94-06

Location : Centerline

Meters : 900

Miles : 0.60

Real Time	Drill Time	Wind Dir ° From	Wind Speed MPH	Survey Instrument Readings		Field Team Exposure Rate (mR/min)	Gross Particulate C.P.M. Assumes 10 Cu.Ft & 10% Eff.	Iodine-131	
				Open Window Beta/Gamma (mRad/hr)	Closed Window Gamma (mR/hr)			C.P.M. Assumes 10 Cu.Ft & 0.2% Eff.	Thyroid Inhalation Dose Rate (mRem/hr)
08:00	00:00	90.00	5.00	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
13:15	05:15	110.00	6.64	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
13:30	05:30	112.73	6.72	4.30E+03	3.44E+03	5.73E+01	8.21E+02	1.61E+03	3.80E+03
13:45	05:45	115.45	6.80	4.29E+03	3.43E+03	5.72E+01	8.23E+02	1.62E+03	3.82E+03
14:00	06:00	118.18	6.88	3.73E+03	2.98E+03	4.97E+01	8.70E+02	1.63E+03	3.80E+03
14:15	06:15	120.91	6.95	3.73E+03	2.98E+03	4.97E+01	8.73E+02	1.64E+03	3.82E+03
14:30	06:30	123.64	7.03	3.71E+03	2.97E+03	4.95E+01	8.77E+02	1.65E+03	3.85E+03
14:45	06:45	126.36	7.11	3.71E+03	2.97E+03	4.95E+01	8.81E+02	1.66E+03	3.88E+03
15:00	07:00	129.09	7.19	3.26E+03	2.61E+03	4.35E+01	9.10E+02	1.68E+03	3.86E+03
15:15	07:15	131.82	7.27	2.89E+03	2.31E+03	3.85E+01	7.49E+02	1.50E+03	3.45E+03
15:30	07:30	134.55	7.34	1.80E+03	1.44E+03	2.40E+01	5.16E+02	1.40E+03	2.16E+03
15:45	07:45	137.27	7.42	3.88E+01	3.10E+01	5.17E-01	6.00E+01	6.90E+01	4.67E+01
16:00	08:00	140.00	7.50	7.81E+00	6.25E+00	1.04E-01	5.20E+01	5.40E+01	1.06E+01

*** NOTE : Waist and ground level readings are the same.

10/25/94

H94-06

Location : K1

Meters : 307

Miles : 0.20

Real Time	Drill Time	Wind Dir ° From	Wind Speed MPH	Survey Instrument Readings		Field Team Exposure Rate (mR/min)	Gross Particulate	Iodine-131	
				Open Window Beta/Gamma (mRad/hr)	Closed Window Gamma (mR/hr)		C.P.M. Assumes 10 Cu.Ft & 10% Eff.	C.P.M. Assumes 10 Cu.Ft & 0.2% Eff.	Thyroid Inhalation Dose Rate (mRem/hr)
08:00	00:00	90.00	5.00	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
13:15	05:15	110.00	6.64	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
13:30	05:30	112.73	6.72	3.20E+03	2.56E+03	4.27E+01	6.58E+02	1.21E+03	2.84E+03
13:45	05:45	115.45	6.80	1.00E+04	8.50E+03	1.42E+02	2.50E+03	3.95E+03	9.50E+03
14:00	06:00	118.18	6.88	4.63E+03	3.70E+03	6.17E+01	1.52E+02	2.01E+03	4.70E+03
14:15	06:15	120.91	6.95	9.20E+01	7.40E+01	1.23E+00	5.50E+01	8.80E+01	9.50E+01
14:30	06:30	123.64	7.03	9.30E+00	7.50E+00	1.25E-01	5.00E+01	5.00E+01	< 0.2
14:45	06:45	126.36	7.11	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
15:00	07:00	129.09	7.19	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
15:15	07:15	131.82	7.27	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
15:30	07:30	134.55	7.34	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
15:45	07:45	137.27	7.42	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
16:00	08:00	140.00	7.50	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2

* *** NOTE : Waist and ground level readings are the same.

10/25/94

H94-06

Miles : 0.2

Location : M1

Meters : 350

Real Time	Drill Time	Wind Dir ° From	Wind Speed MPH	Survey Instrument Readings		Field Team Exposure Rate (mR/min)	Gross Particulate	Iodine-131	
				Open Window Beta/Gamma (mRad/hr)	Closed Window Gamma (mR/hr)		C.P.M. Assumes 10 Cu.Ft & 10% Eff.	C.P.M. Assumes 10 Cu.Ft & 0.2% Eff.	Thyroid Inhalation & Dose Rate (mRem/hr)
08:00	00:00	90.00	5.00	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
13:15	05:15	110.00	6.64	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
13:30	05:30	112.73	6.72	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
13:45	05:45	115.45	6.80	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
14:00	06:00	118.18	6.88	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
14:15	06:15	120.91	6.95	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
14:30	06:30	123.64	7.03	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
14:45	06:45	126.36	7.11	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
15:00	07:00	129.09	7.19	6.50E+00	5.22E+00	8.70E-02	5.00E+01	7.80E+01	6.68E+01
15:15	07:15	131.82	7.27	5.60E+01	4.48E+01	7.47E-01	5.30E+01	1.24E+02	1.85E+02
15:30	07:30	134.55	7.34	1.54E+03	1.23E+03	2.05E+01	5.90E+01	8.40E+01	8.43E+01
15:45	07:45	137.27	7.42	6.90E+01	5.60E+01	9.33E-01	5.40E+01	5.00E+01	< 0.2
16:00	08:00	140.00	7.50	2.30E+00	1.80E+00	3.00E-02	5.00E+01	5.00E+01	< 0.2

*** NOTE : Waist and ground level readings are the same.

10/25/94

H94-06

Location : M2

Meters : 368

Miles : 0.20

Real Time	Drill Time	Wind Dir ° From	Wind Speed MPH	Survey Instrument Readings		Field Team Exposure Rate (mR/min)	Gross Particulate C.P.M. Assumes 10 Cu.Ft & 10% Eff.	Iodine-131	
				Open Window Beta/Gamma (mRad/hr)	Closed Window Gamma (mR/hr)			C.P.M. Assumes 10 Cu.Ft & 0.2% Eff.	Thyroid Inhalation Dose Rate (mRem/hr)
08:00	00:00	90.00	5.00	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
13:15	05:15	110.00	6.64	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
13:30	05:30	112.73	6.72	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
13:45	05:45	115.45	6.80	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
14:00	06:00	118.18	6.88	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
14:15	06:15	120.91	6.95	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
14:30	06:30	123.64	7.03	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
14:45	06:45	126.36	7.11	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
15:00	07:00	129.09	7.19	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
15:15	07:15	131.82	7.27	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
15:30	07:30	134.55	7.34	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
15:45	07:45	137.27	7.42	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
16:00	08:00	140.00	7.50	5.00E-01	4.00E-01	6.67E-03	< 100	< 100	< 0.2

*** NOTE : Waist and ground level readings are the same.

10/25/94

H94-06

Location : 00

Meters : 590

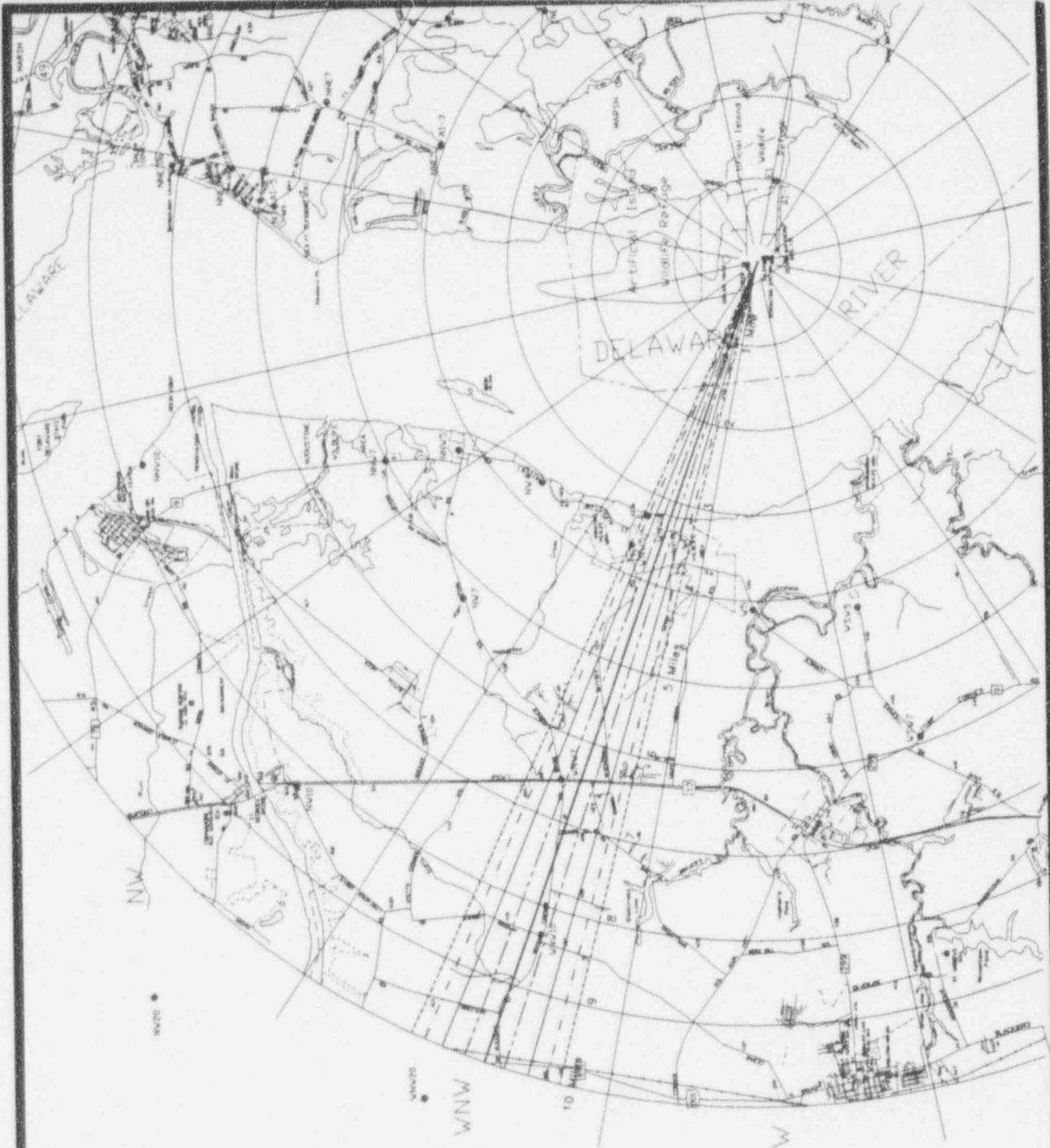
Miles : 0.4

Real Time	Drill Time	Wind Dir ° From	Wind Speed MPH	Survey Instrument Readings		Field Team Exposure Rate (mR/min)	Gross Particulate	Iodine-131	
				Open Window Beta/Gamma (mRad/hr)	Closed Window Gamma (mR/hr)		C.P.M. Assumes 10 Cu.Ft & 10% Eff.	C.P.M. Assumes 10 Cu.Ft & 0.2% Eff.	Thyroid Inhalation Dose Rate (mRem/hr)
08:00	00:00	90.00	5.00	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
13:15	05:15	110.00	6.64	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
13:30	05:30	112.73	6.72	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
13:45	05:45	115.45	6.80	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
14:00	06:00	118.18	6.88	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
14:15	06:15	120.91	6.95	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
14:30	06:30	123.64	7.03	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
14:45	06:45	126.36	7.11	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
15:00	07:00	129.09	7.19	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
15:15	07:15	131.82	7.27	5.00E+00	4.00E+00	6.67E-02	5.00E+01	5.00E+01	< 0.2
15:30	07:30	134.55	7.34	3.19E+02	2.55E+02	4.25E+00	6.90E+01	2.02E+02	3.80E+02
15:45	07:45	137.27	7.42	4.20E+01	3.40E+01	5.67E-01	5.20E+01	7.00E+01	5.07E+01
16:00	08:00	140.00	7.50	7.80E+00	6.20E+00	1.03E-01	5.10E+01	5.40E+01	1.00E+01

*** NOTE : Waist and ground level readings are the same.

SECTION 10

<u>SECTION</u>	<u>TITLE</u>	<u>PAGE</u>
10.1	Offsite Plume Map	10.1.0
10.2	Offsite Centerline Plume Data	10.2.1
10.3	Offsite Specific Location Data	10.3.1
10.4	Meteorological Forecast	10.4.1



HOPE CREEK GENERATING STATION
 EMERGENCY PLAN GRADED EXERCISE
 "OFFSITE" PLUME MAP

REAL TIME: 13:15
 DRILL TIME: 05:15

0.1% OF CENTERLINE - - - - -
 1% OF CENTERLINE - · - · - ·
 10% OF CENTERLINE ————
 50% OF CENTERLINE - - - - -

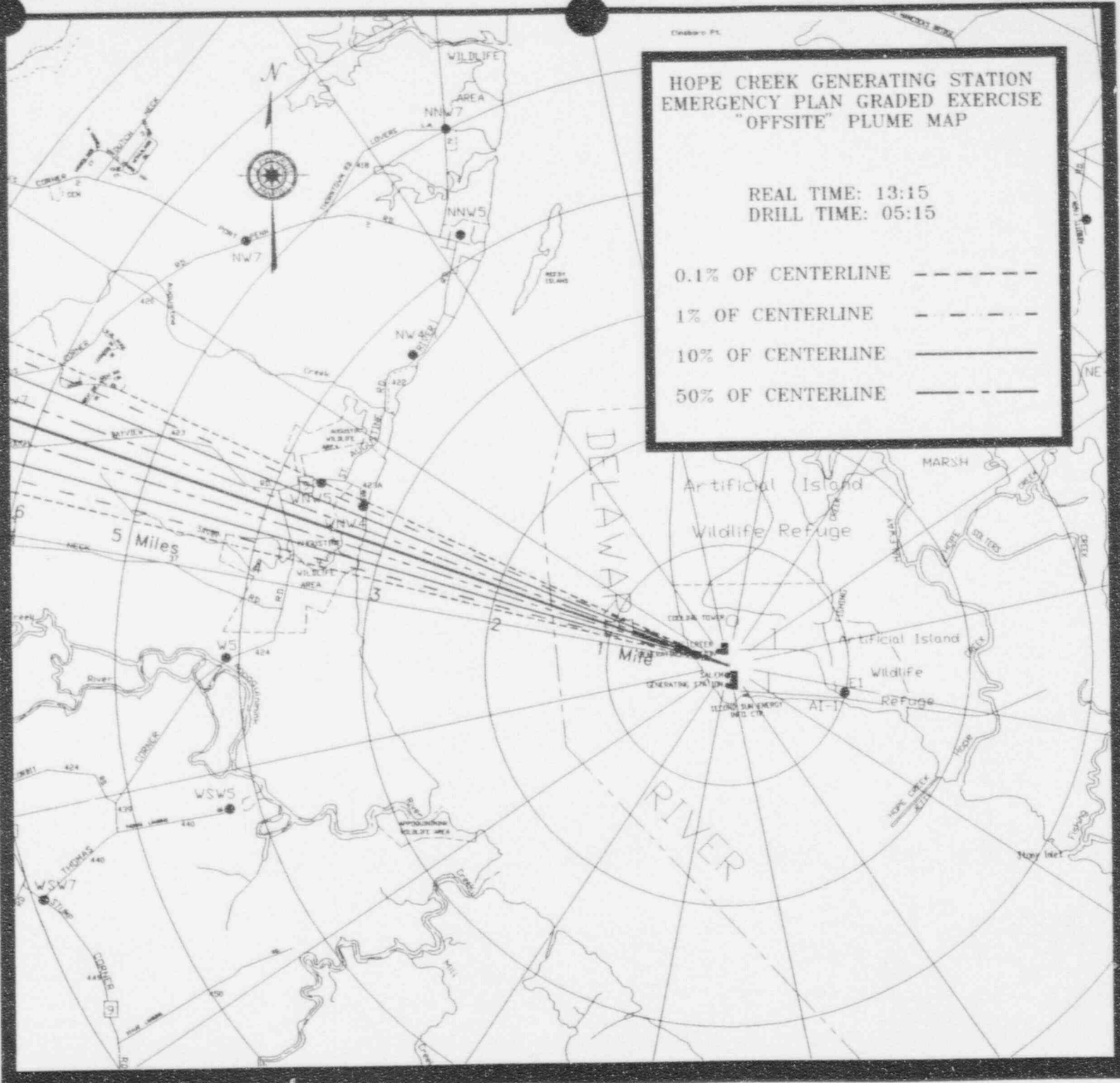


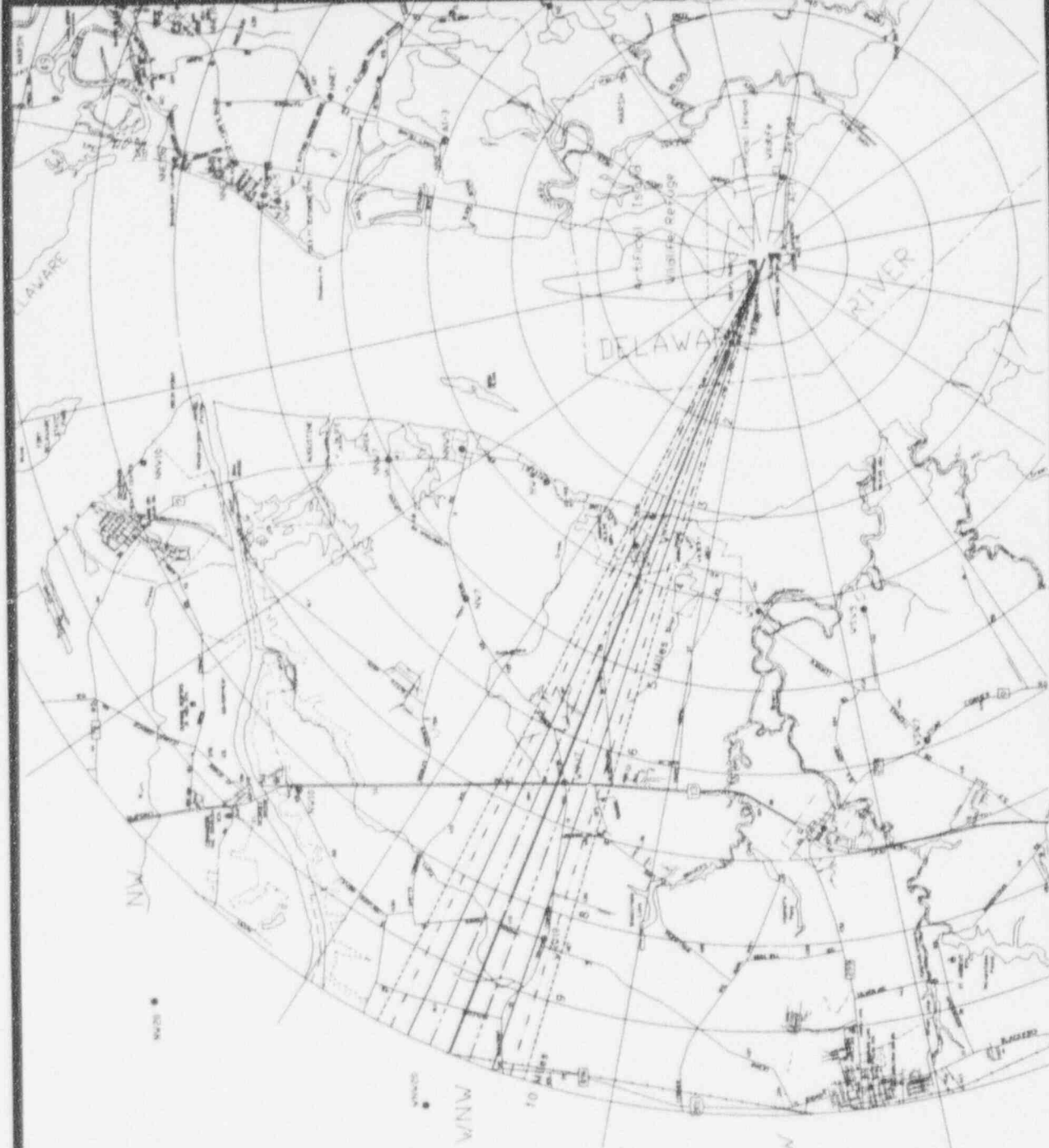
HOPE CREEK GENERATING STATION EMERGENCY PLAN GRADED EXERCISE "OFFSITE" PLUME MAP

REAL TIME: 13:15
DRILL TIME: 05:15

- 0.1% OF CENTERLINE -----
- 1% OF CENTERLINE - - - - -
- 10% OF CENTERLINE _____
- 50% OF CENTERLINE - - - - -

10.1.0.a





HOPE CREEK GENERATING STATION
 EMERGENCY PLAN GRADED EXERCISE
 "OFFSITE" PLUME MAP

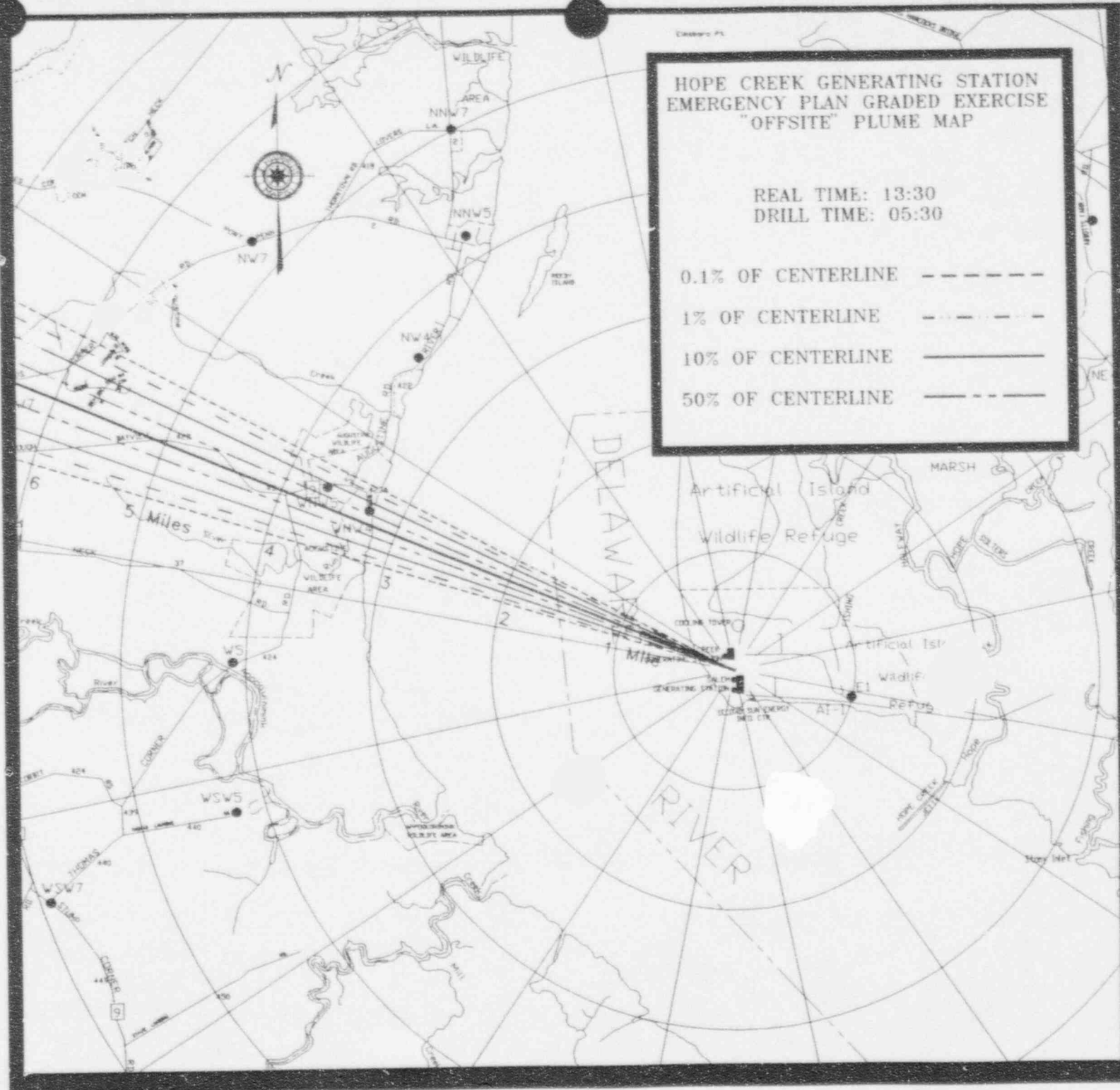
REAL TIME: 13:30
 DRILL TIME: 05:30

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 10% OF CENTERLINE ————
 50% OF CENTERLINE - · - · -

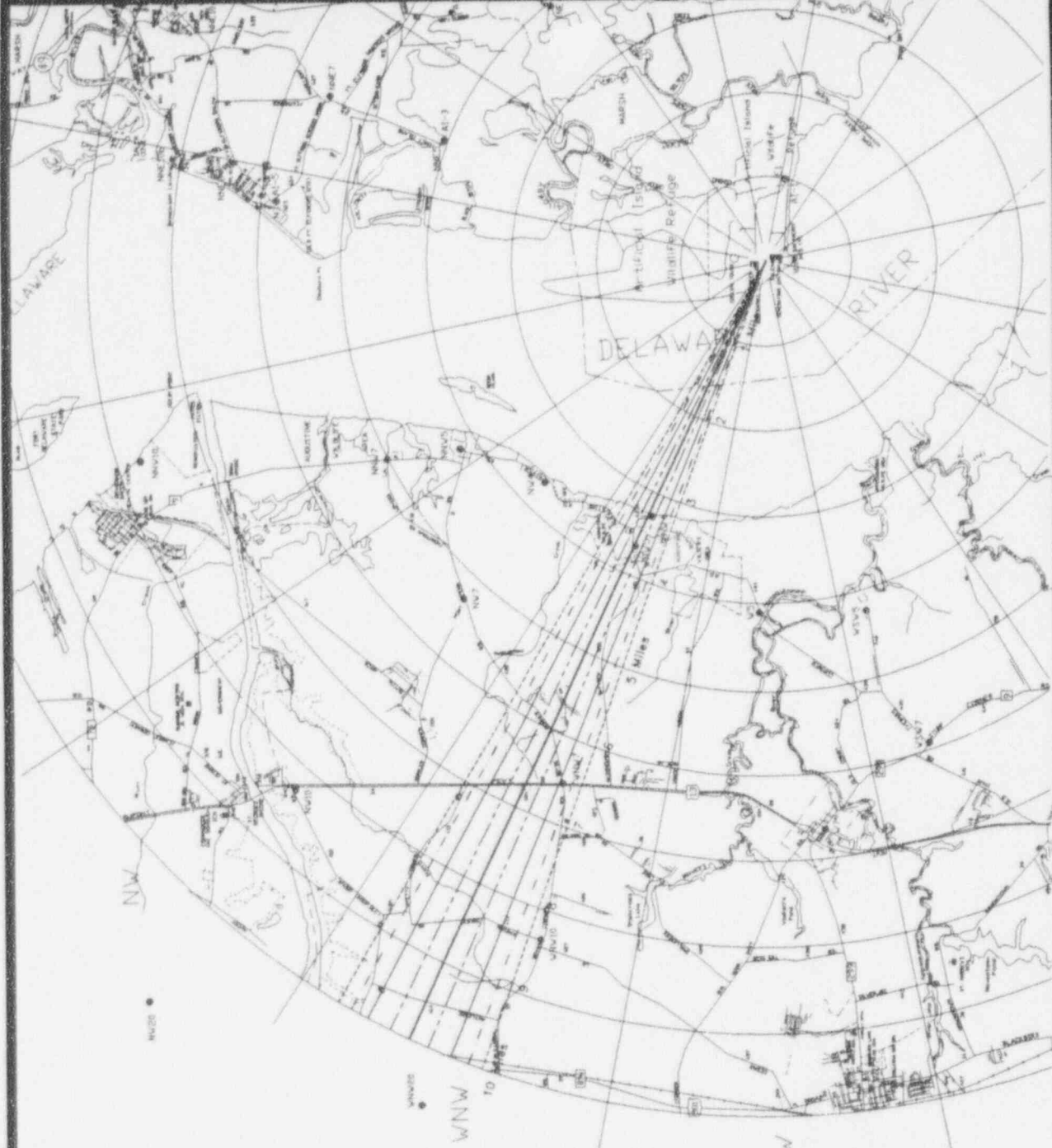
HOPE CREEK GENERATING STATION
 EMERGENCY PLAN GRADED EXERCISE
 "OFFSITE" PLUME MAP

REAL TIME: 13:30
 DRILL TIME: 05:30

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- 1% OF CENTERLINE -
- 10% OF CENTERLINE - - - - -
- 50% OF CENTERLINE - - - - -



10.1.1.a

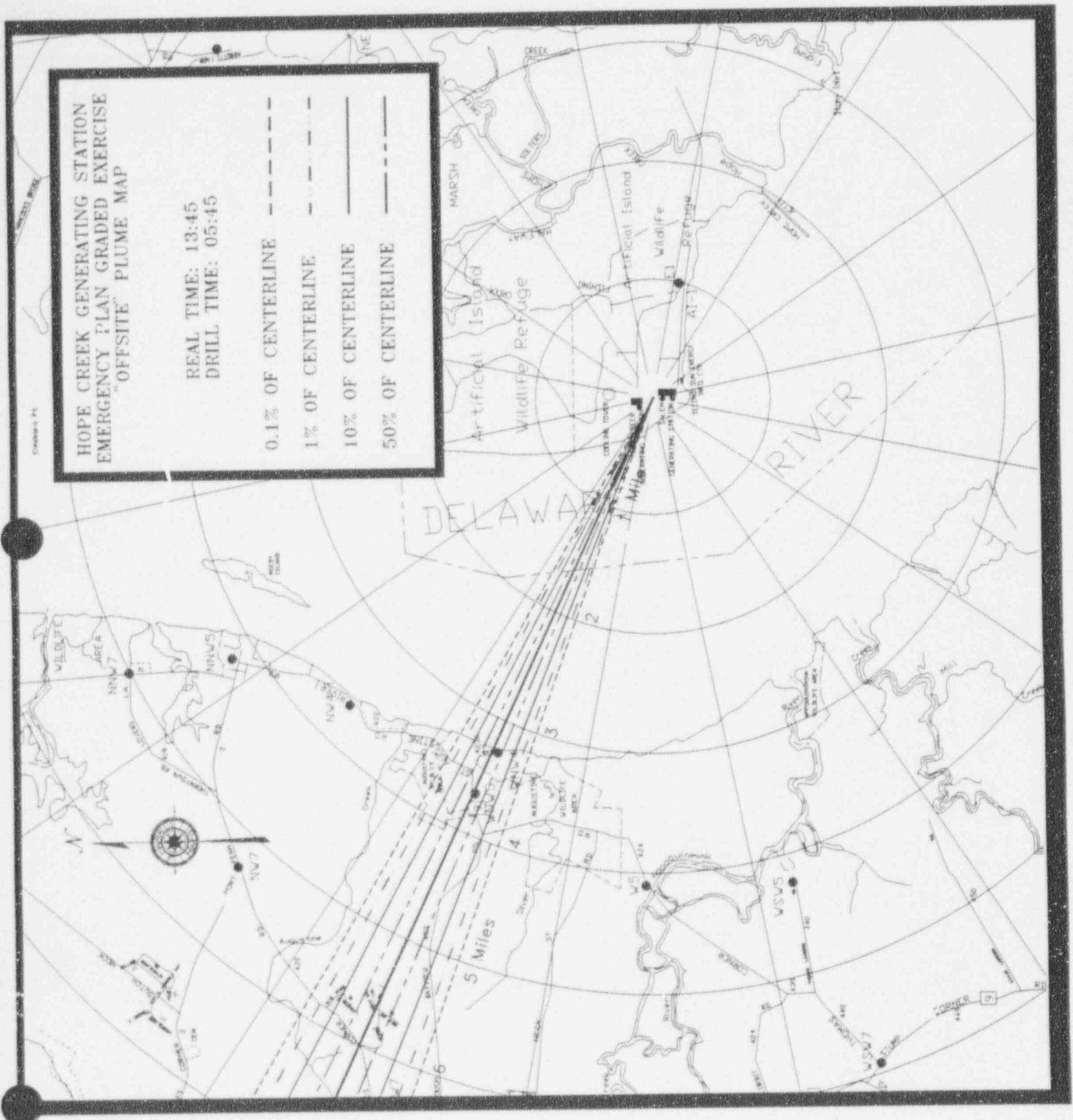


HOPE CREEK GENERATING STATION
 EMERGENCY PLAN GRADED EXERCISE
 "OFFSITE" PLUME MAP

REAL TIME: 13:45
 DRILL TIME: 05:45

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 50% OF CENTERLINE - - - - -

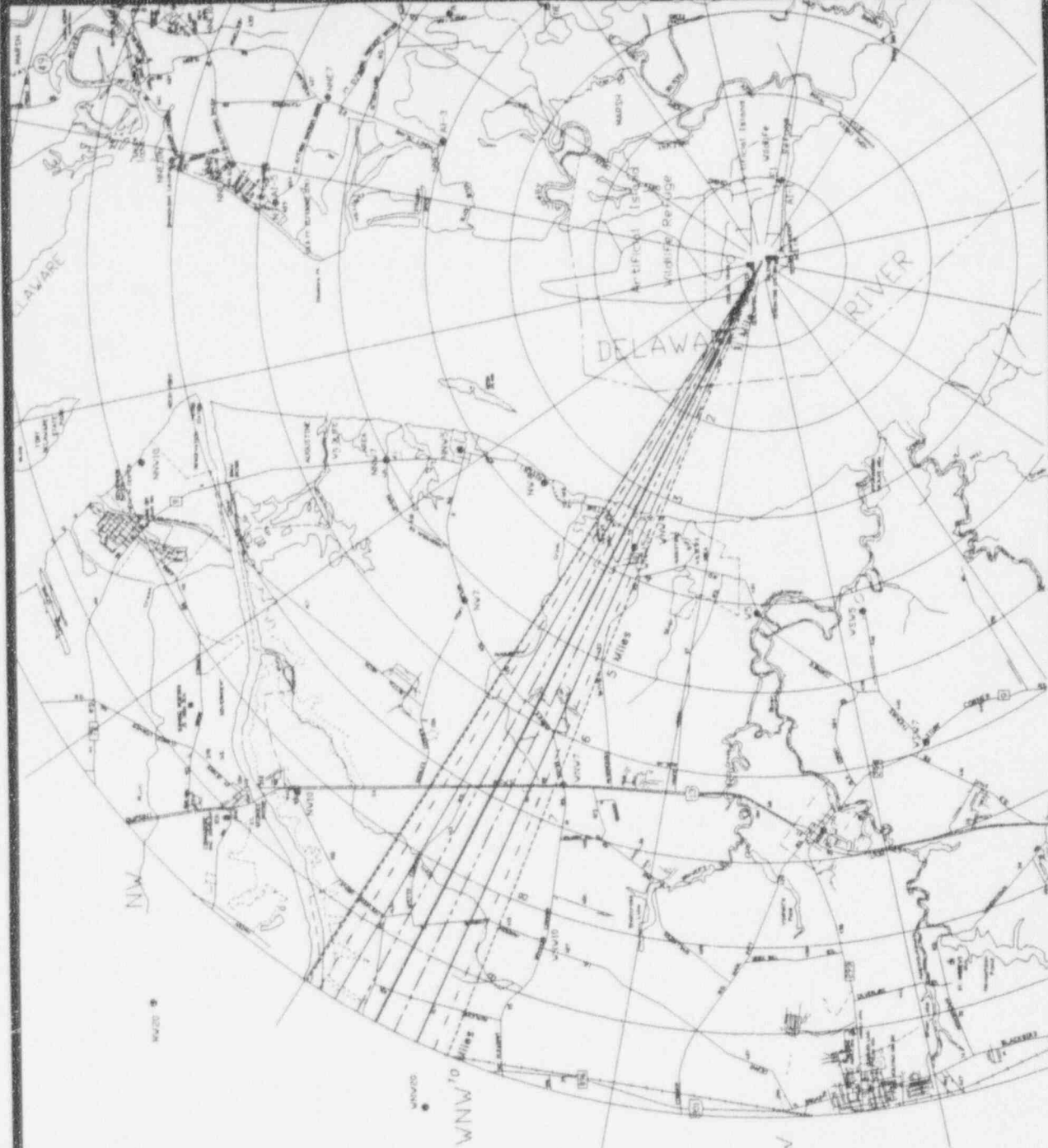




HOPE CREEK GENERATING STATION
 EMERGENCY PLAN GRADED EXERCISE
 "OFFSITE" PLUME MAP

REAL TIME: 13:45
 DRILL TIME: 05:45

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 1% OF CENTERLINE - - - - -
 10% OF CENTERLINE ————
 50% OF CENTERLINE - · - · -

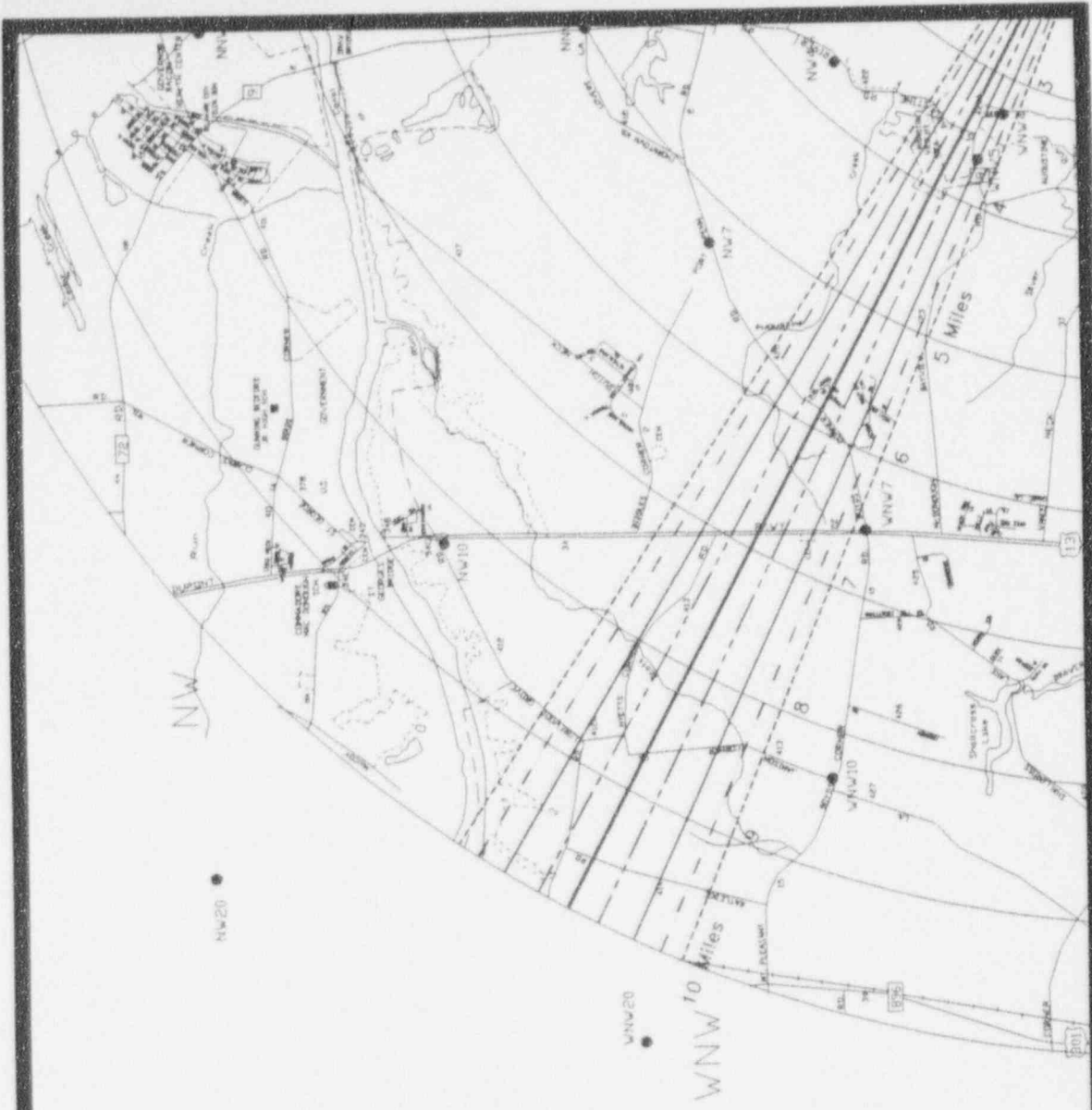


HOPE CREEK GENERATING STATION
 EMERGENCY PLAN GRADED EXERCISE
 "OFFSITE" PLUME MAP

REAL TIME: 14:00
 DRILL TIME: 06:00

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 1% OF CENTERLINE - - - - -
 10% OF CENTERLINE ————
 50% OF CENTERLINE - - - - -

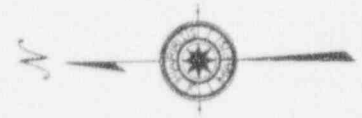


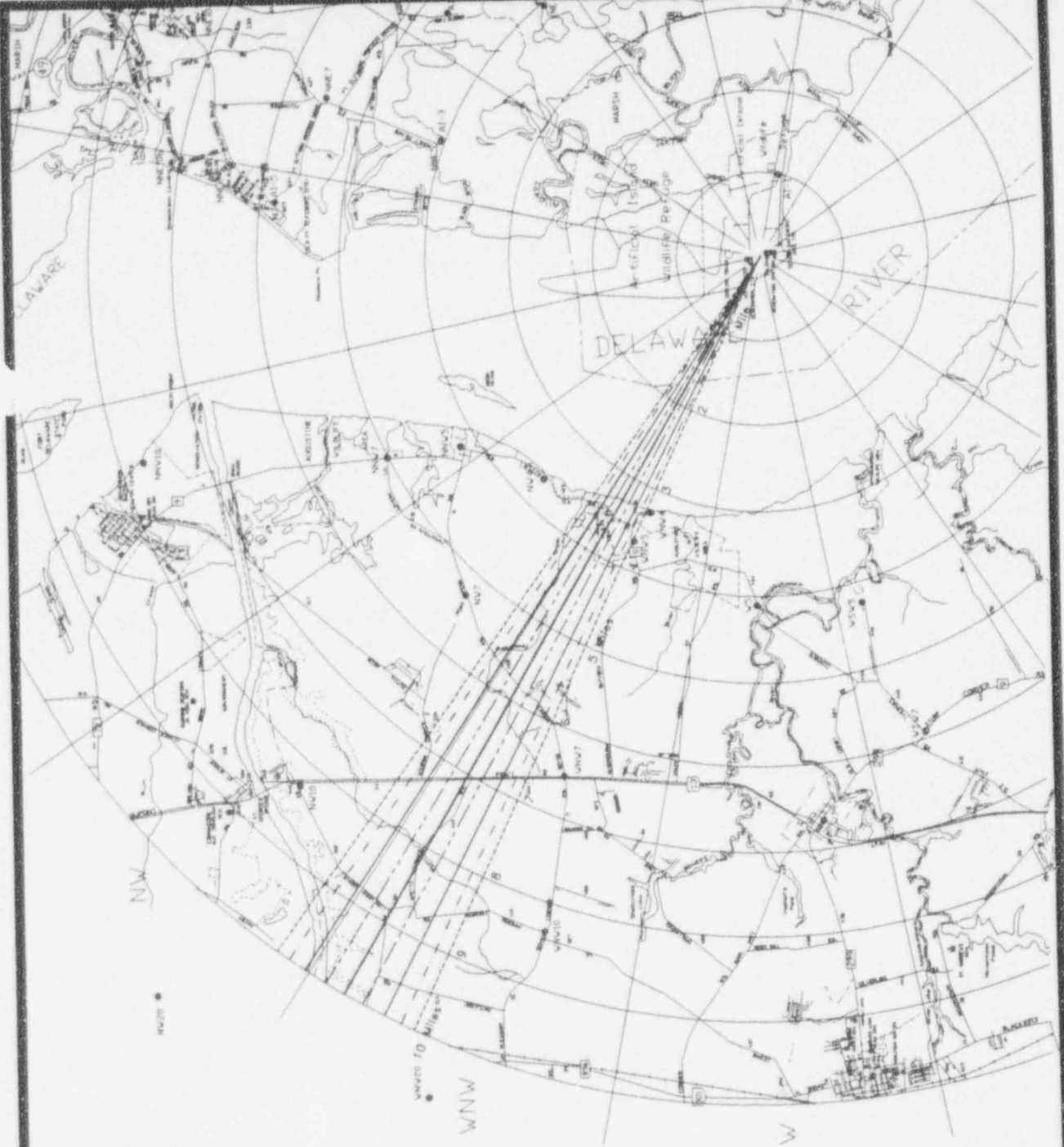


HOPE CREEK GENERATING STATION
 EMERGENCY PLAN GRADED EXERCISE
 "OFFSITE" PLUME MAP

REAL TIME: 14:00
 DRILL TIME: 06:00

- 0.1% OF CENTERLINE - - - - -
- 1% OF CENTERLINE - · - - - -
- 10% OF CENTERLINE ———
- 50% OF CENTERLINE - - - - -





HOPE CREEK GENERATING STATION
 EMERGENCY PLAN GRADED EXERCISE
 "OFFSITE" PLUME MAP

REAL TIME: 14:15
 DRILL TIME: 00:15

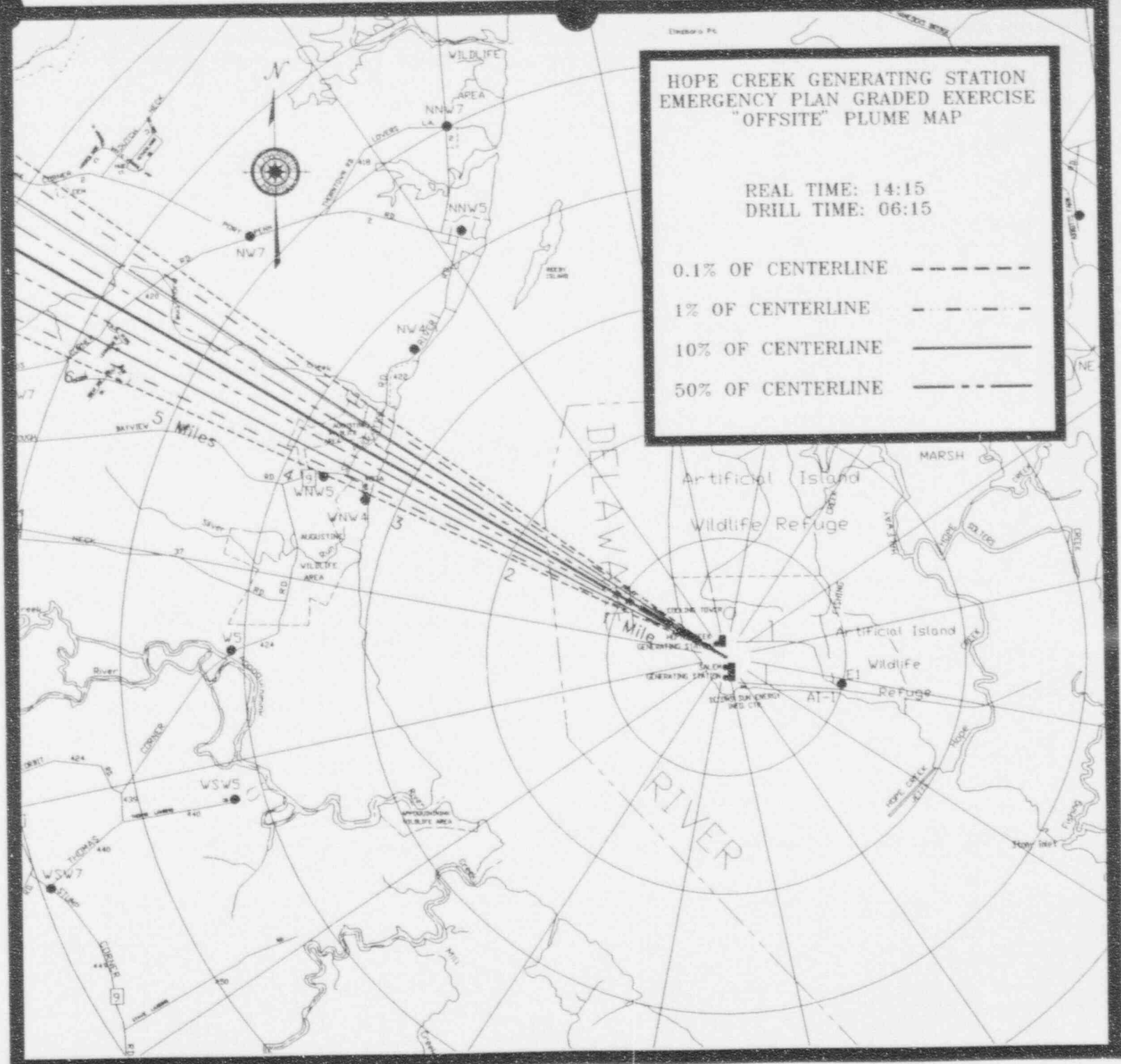
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 1% OF CENTERLINE - · - · -
 10% OF CENTERLINE ————
 50% OF CENTERLINE - - - - -



HOPE CREEK GENERATING STATION EMERGENCY PLAN GRADED EXERCISE "OFFSITE" PLUME MAP

REAL TIME: 14:15
DRILL TIME: 06:15

- 0.1% OF CENTERLINE - - - - -
- 1% OF CENTERLINE - - - - -
- 10% OF CENTERLINE - - - - -
- 50% OF CENTERLINE - - - - -



10.1.4.a

HOPE CREEK GENERATING STATION
EMERGENCY PLAN GRADED EXERCISE
"OFFSITE" PLUME MAP

REAL TIME: 14:15
DRILL TIME: 06:15

- 0.1% OF CENTERLINE
- 1% OF CENTERLINE
- 10% OF CENTERLINE
- 50% OF CENTERLINE

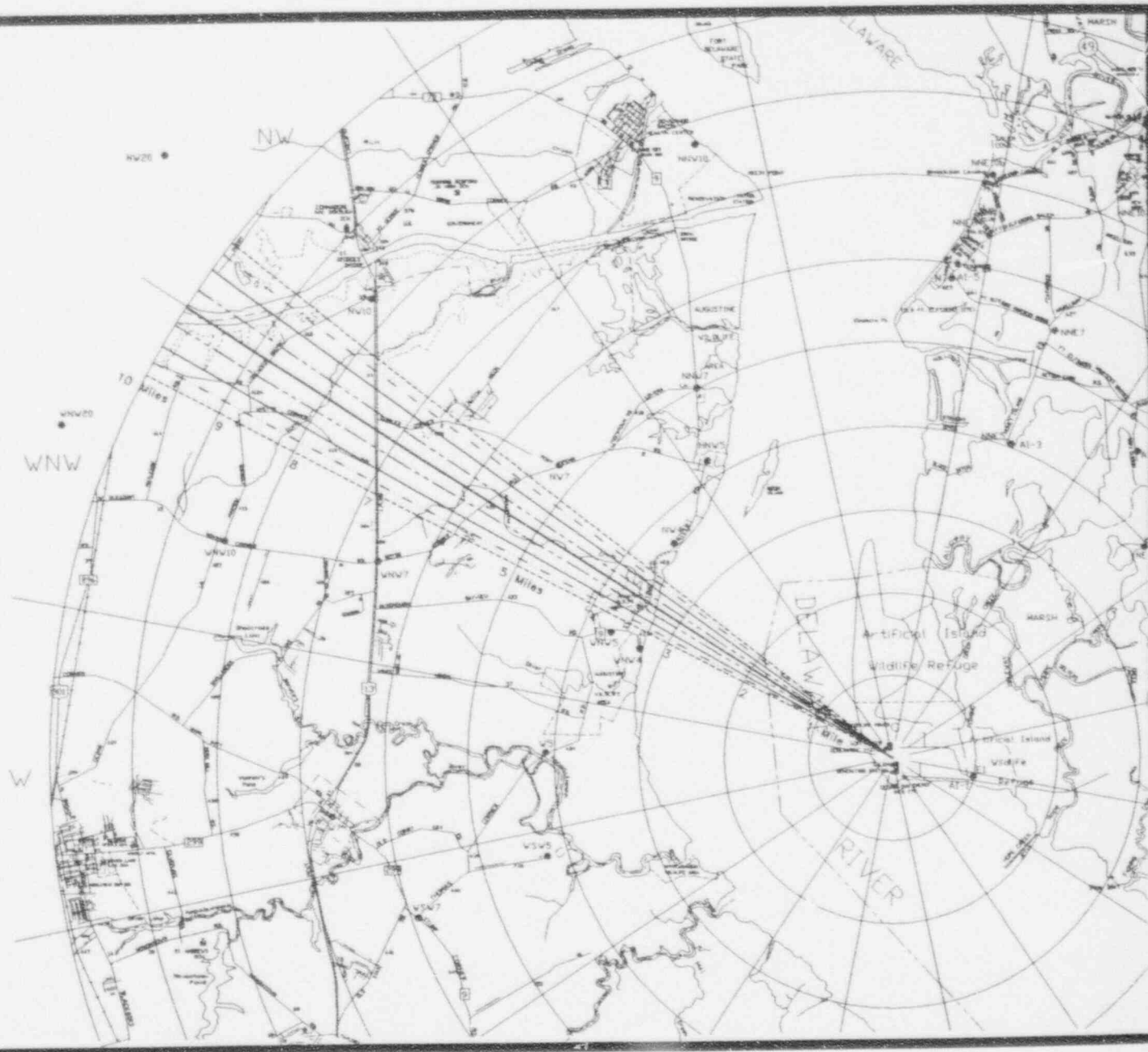


10.1.4.b

HOPE CREEK GENERATING STATION
EMERGENCY PLAN GRADED EXERCISE
"OFFSITE" PLUME MAP

REAL TIME: 14:30
DRILL TIME: 06:30

0.1% OF CENTERLINE - - - - -
1% OF CENTERLINE - · - · - ·
10% OF CENTERLINE - - - - -
50% OF CENTERLINE - - - - -



10.1.5

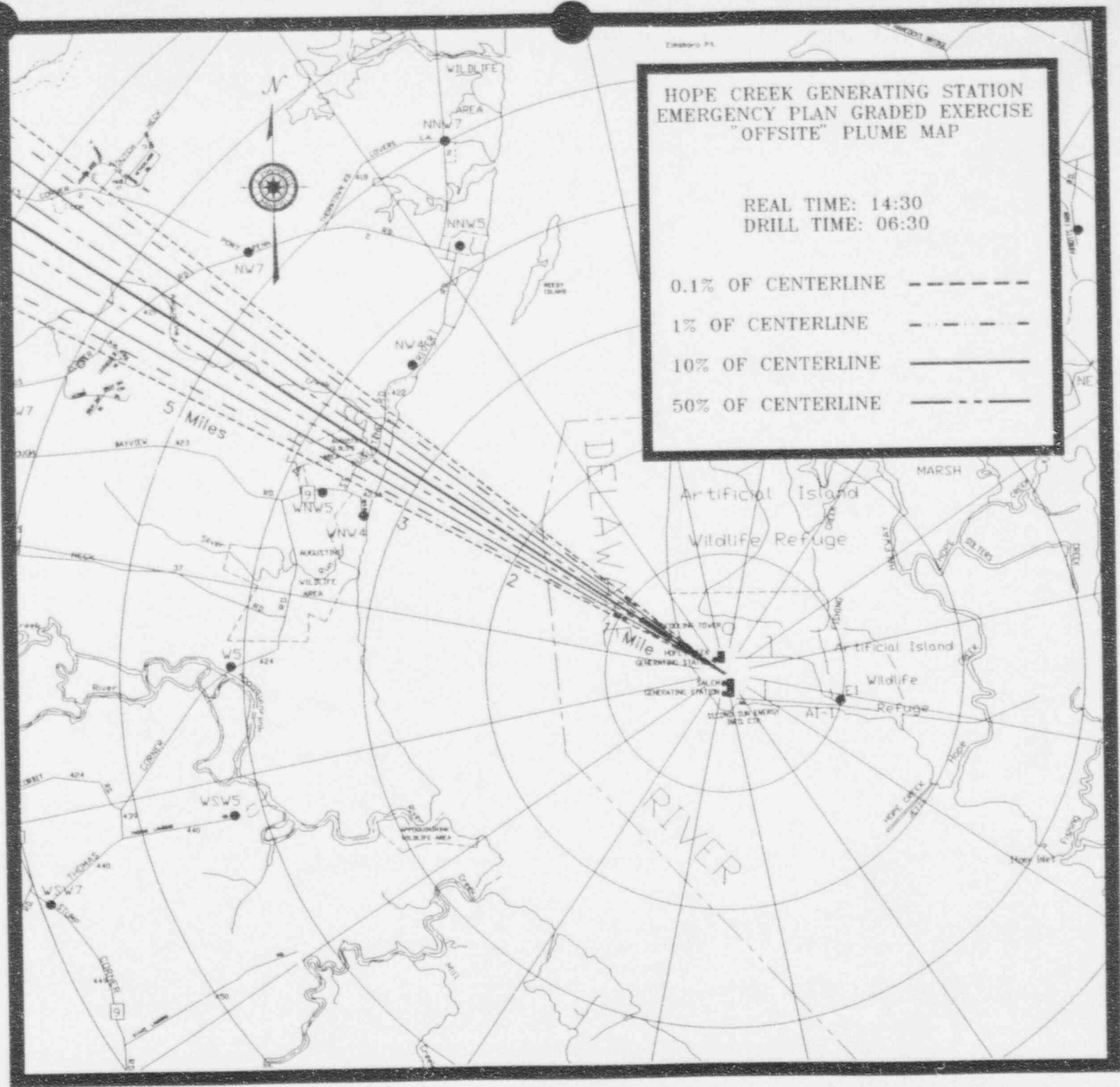
EDWARDS PL

HOPE CREEK GENERATING STATION EMERGENCY PLAN GRADED EXERCISE "OFFSITE" PLUME MAP

REAL TIME: 14:30
DRILL TIME: 06:30

- 0.1% OF CENTERLINE -----
- 1% OF CENTERLINE -
- 10% OF CENTERLINE _____
- 50% OF CENTERLINE - - - - -

10.1.5.a



HOPE CREEK GENERATING STATION
EMERGENCY PLAN GRADED EXERCISE
"OFFSITE" PLUME MAP

REAL TIME: 14:30
DRILL TIME: 06:30

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1% OF CENTERLINE - · - - - -
10% OF CENTERLINE - - - - -
50% OF CENTERLINE - - - - -

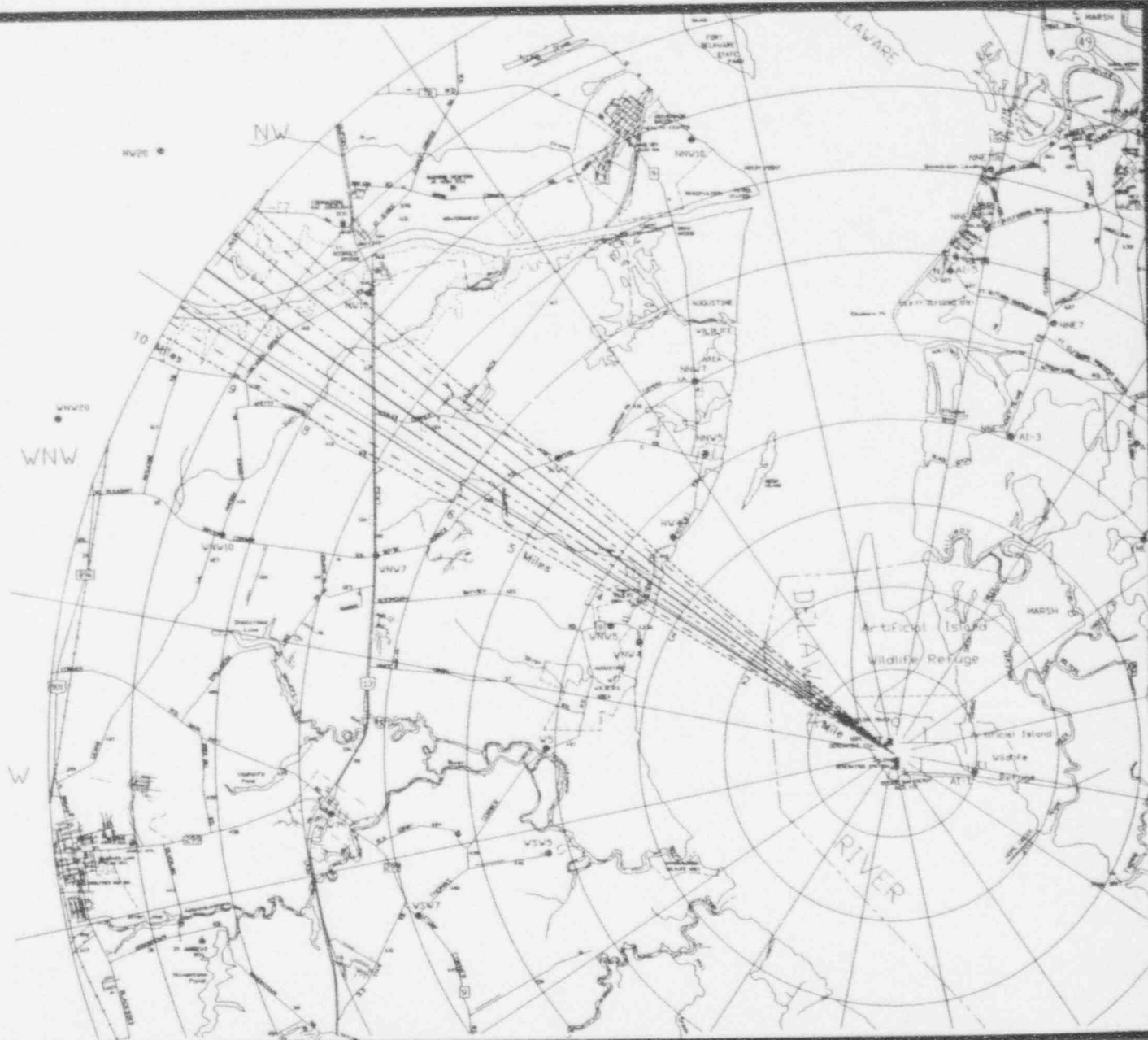


10.1.5.b

HOPE CREEK GENERATING STATION
EMERGENCY PLAN GRADED EXERCISE
"OFFSITE" PLUME MAP

REAL TIME: 14:45
DRILL TIME: 06:45

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1% OF CENTERLINE - · - - - -
10% OF CENTERLINE - - - - -
50% OF CENTERLINE - - - - -



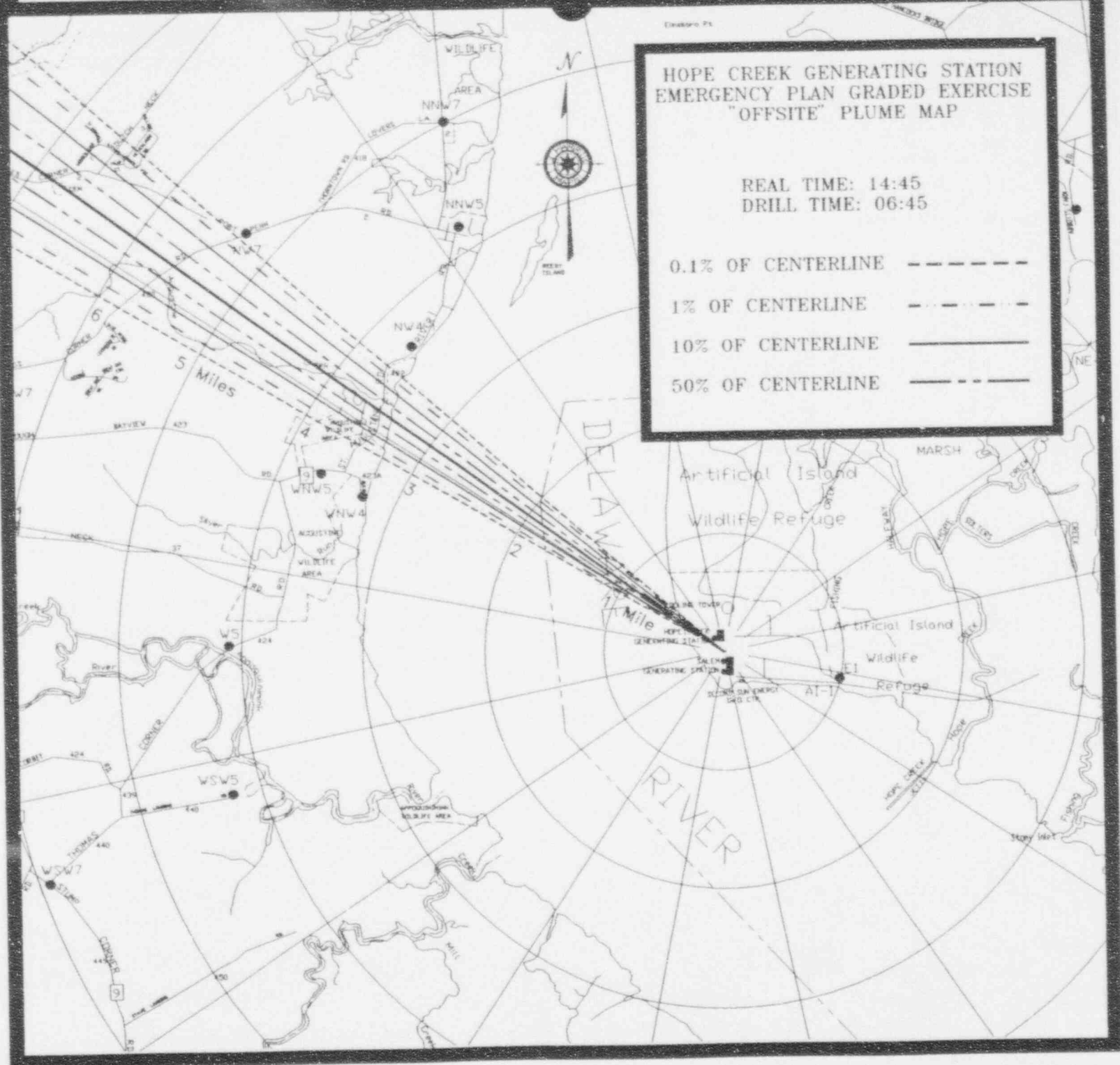
10.1.6

Clipboard 74

HOPE CREEK GENERATING STATION
 EMERGENCY PLAN GRADED EXERCISE
 "OFFSITE" PLUME MAP

REAL TIME: 14:45
 DRILL TIME: 06:45

0.1% OF CENTERLINE - - - - -
 1% OF CENTERLINE - · - · -
 10% OF CENTERLINE - - - - -
 50% OF CENTERLINE - - - - -



10.1.6.a

HOPE CREEK GENERATING STATION
EMERGENCY PLAN GRADED EXERCISE
"OFFSITE" PLUME MAP

REAL TIME: 14:45
DRILL TIME: 06:45

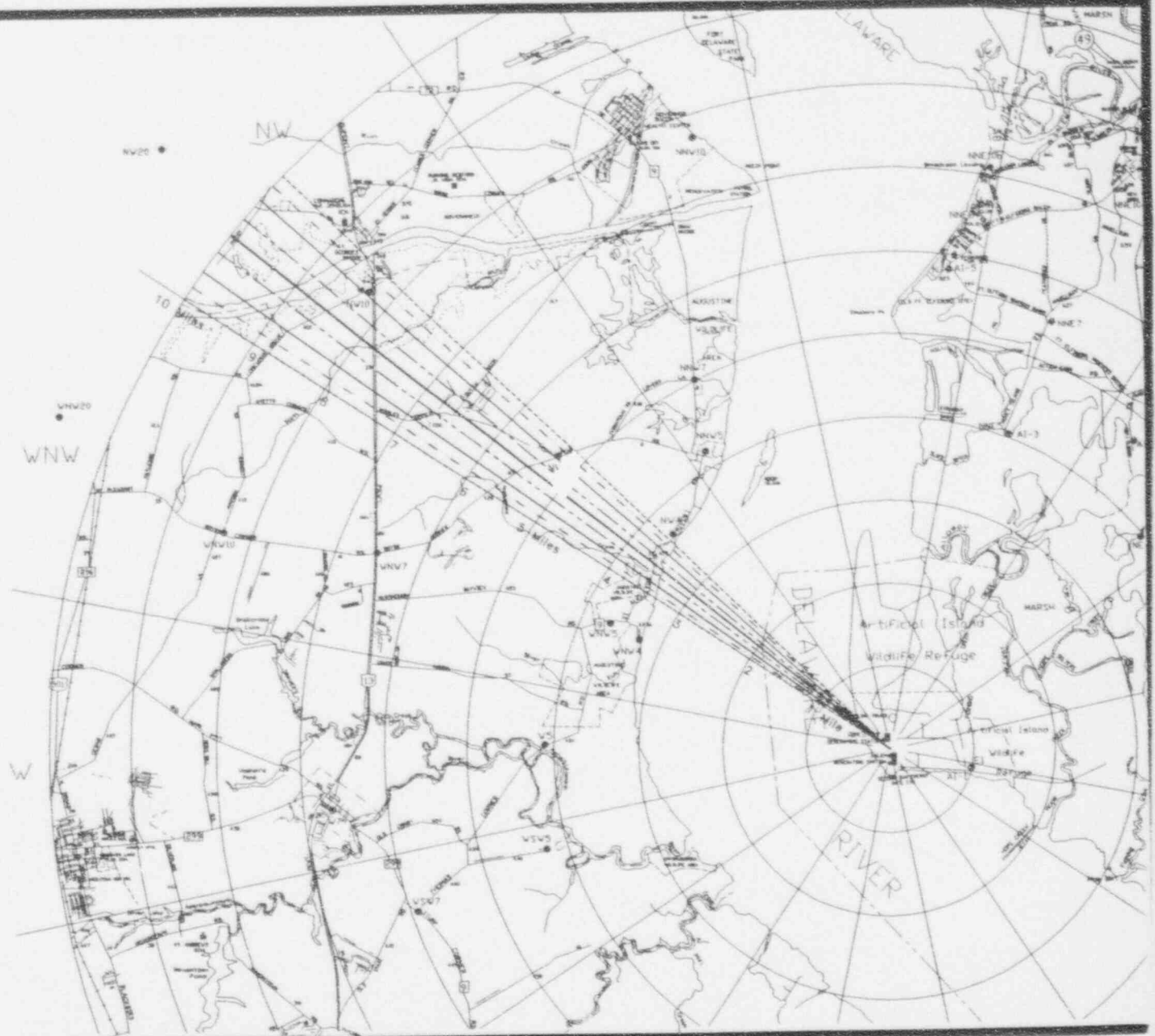
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1% OF CENTERLINE - · - · - ·
10% OF CENTERLINE - - - - -
50% OF CENTERLINE - - - - -



HOPE CREEK GENERATING STATION
EMERGENCY PLAN GRADED EXERCISE
"OFFSITE" PLUME MAP

REAL TIME: 15:00
DRILL TIME: 07:00

- 0.1% OF CENTERLINE - - - - -
- 1% OF CENTERLINE - - - - -
- 10% OF CENTERLINE ———
- 50% OF CENTERLINE - - - - -



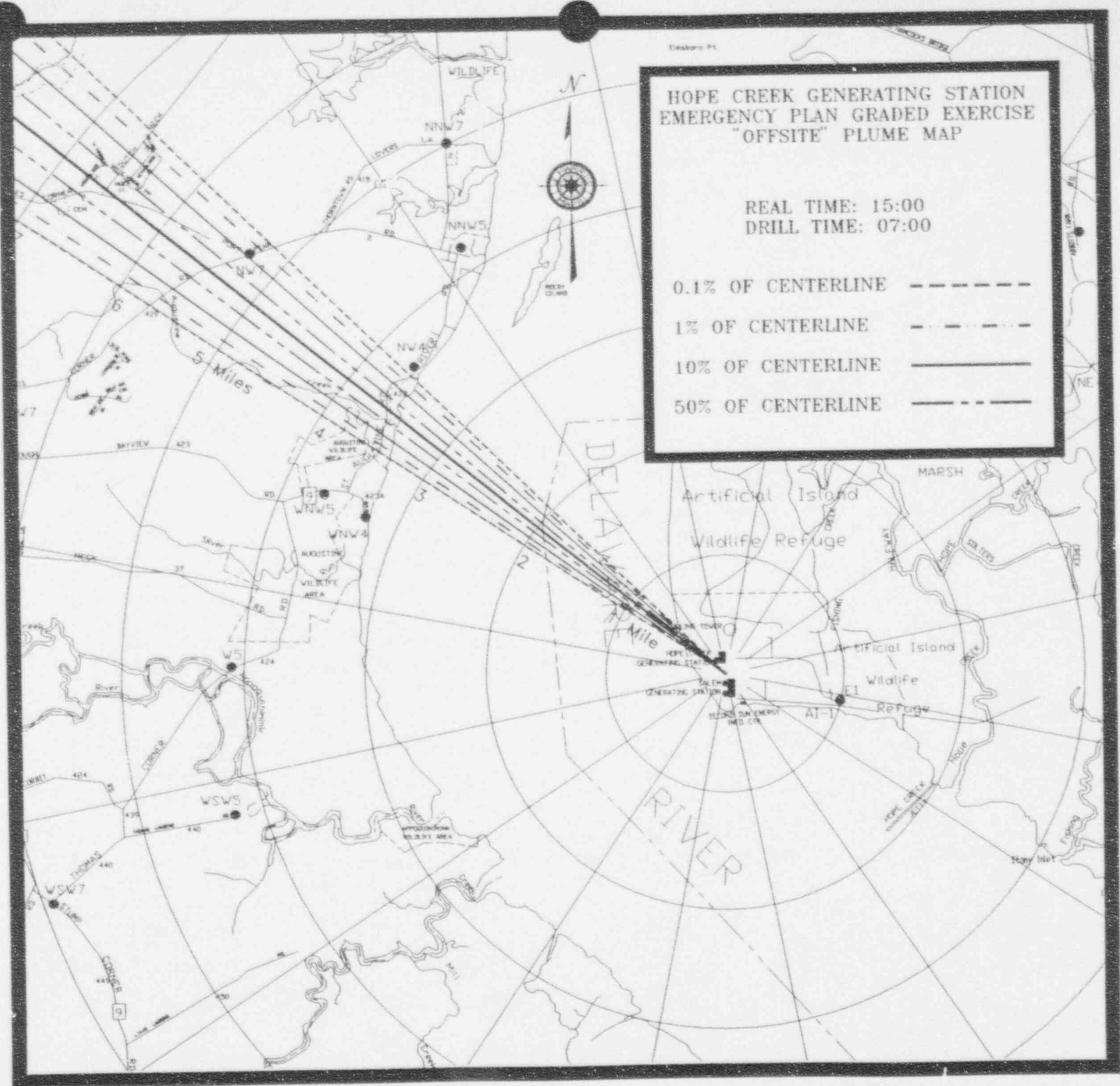
10.1.7

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HOPE CREEK GENERATING STATION
 EMERGENCY PLAN GRADED EXERCISE
 "OFFSITE" PLUME MAP

REAL TIME: 15:00
 DRILL TIME: 07:00

0.1% OF CENTERLINE - - - - -
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 10% OF CENTERLINE - - - - -
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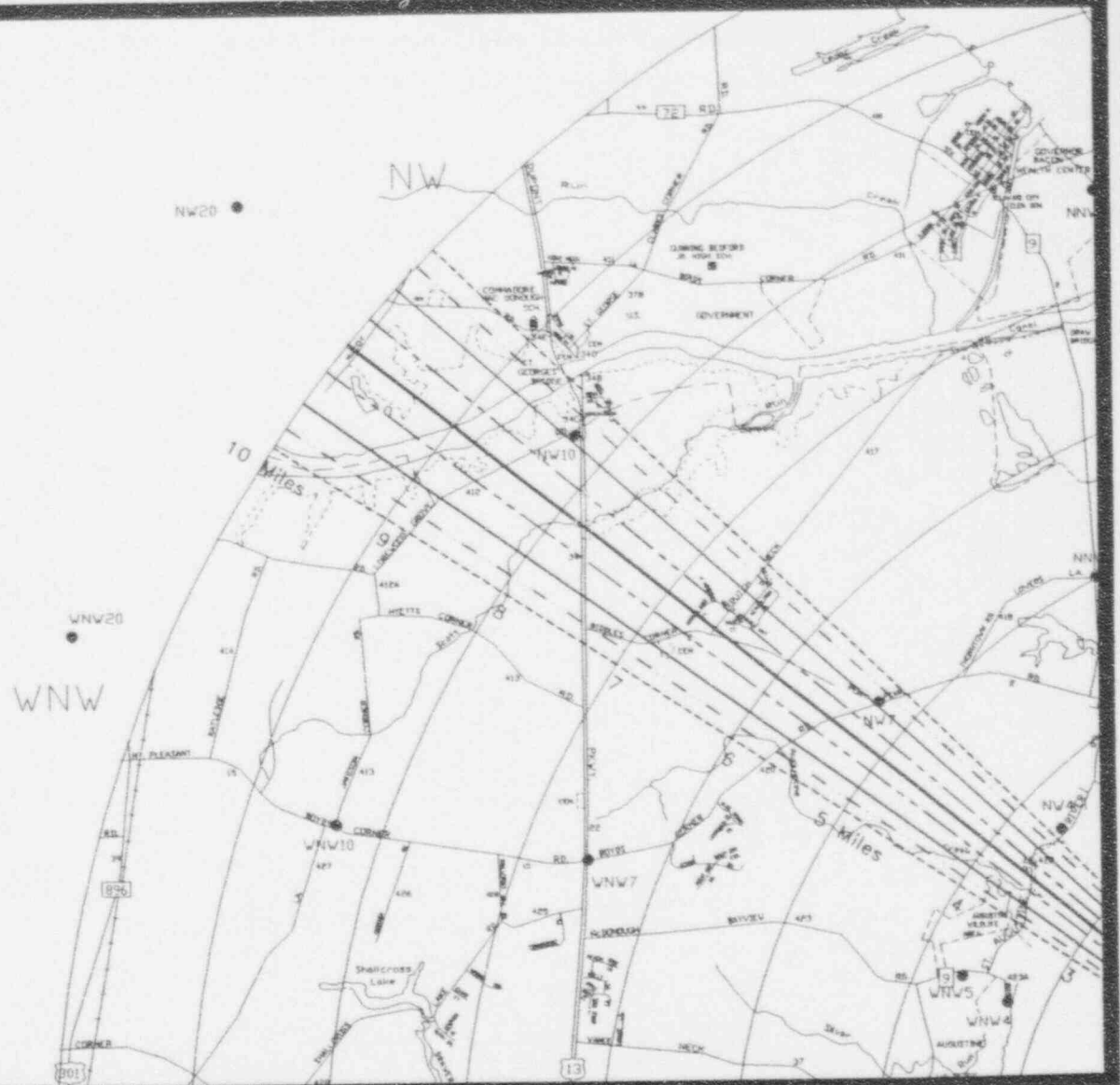


10.1.7.a

HOPE CREEK GENERATING STATION
 EMERGENCY PLAN GRADED EXERCISE
 "OFFSITE" PLUME MAP

REAL TIME: 15:00
 DRILL TIME: 07:00

- 0.1% OF CENTERLINE
- 1% OF CENTERLINE
- 10% OF CENTERLINE
- 50% OF CENTERLINE

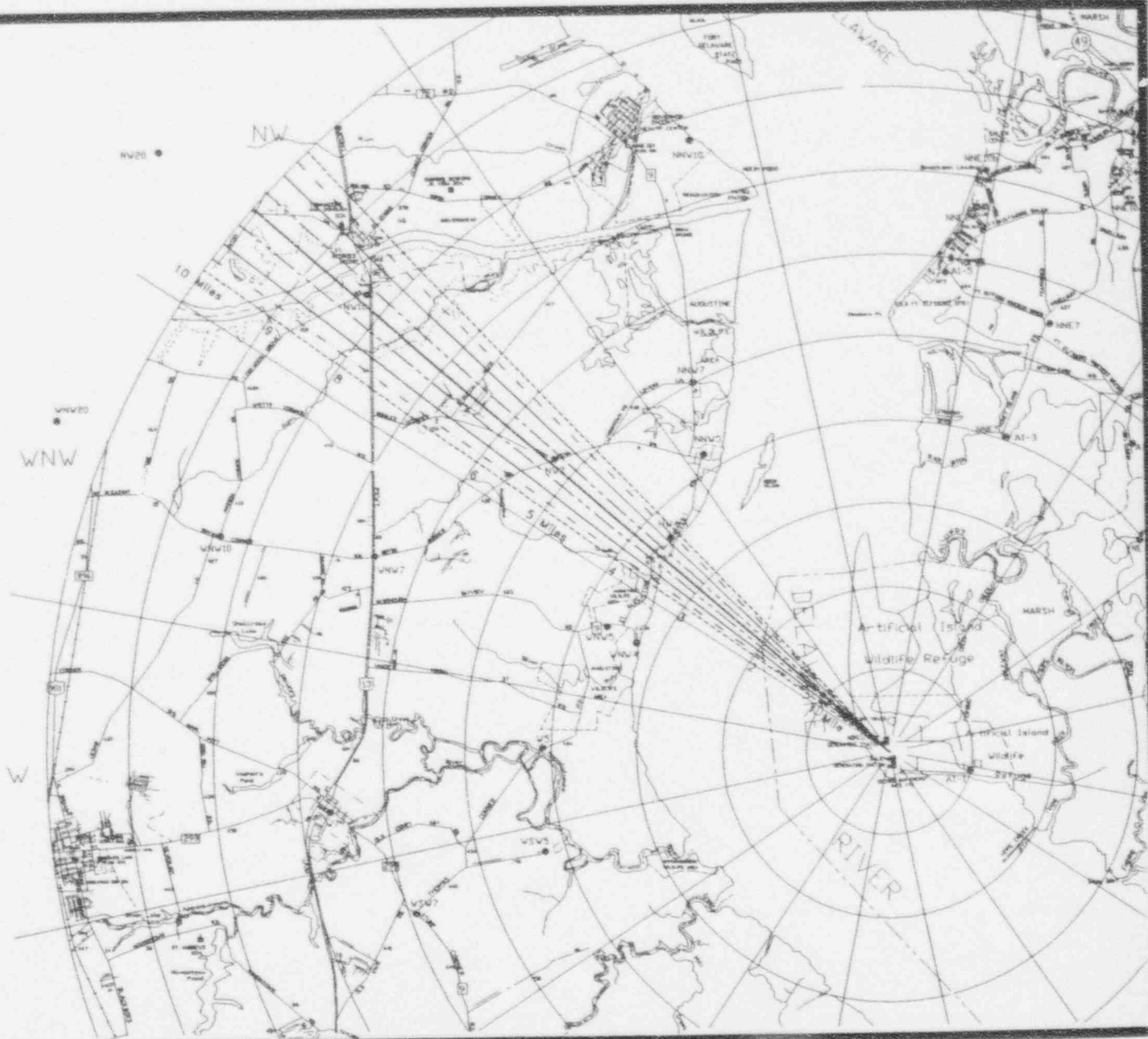


10.1.7.b

HOPE CREEK GENERATING STATION
EMERGENCY PLAN GRADED EXERCISE
"OFFSITE" PLUME MAP

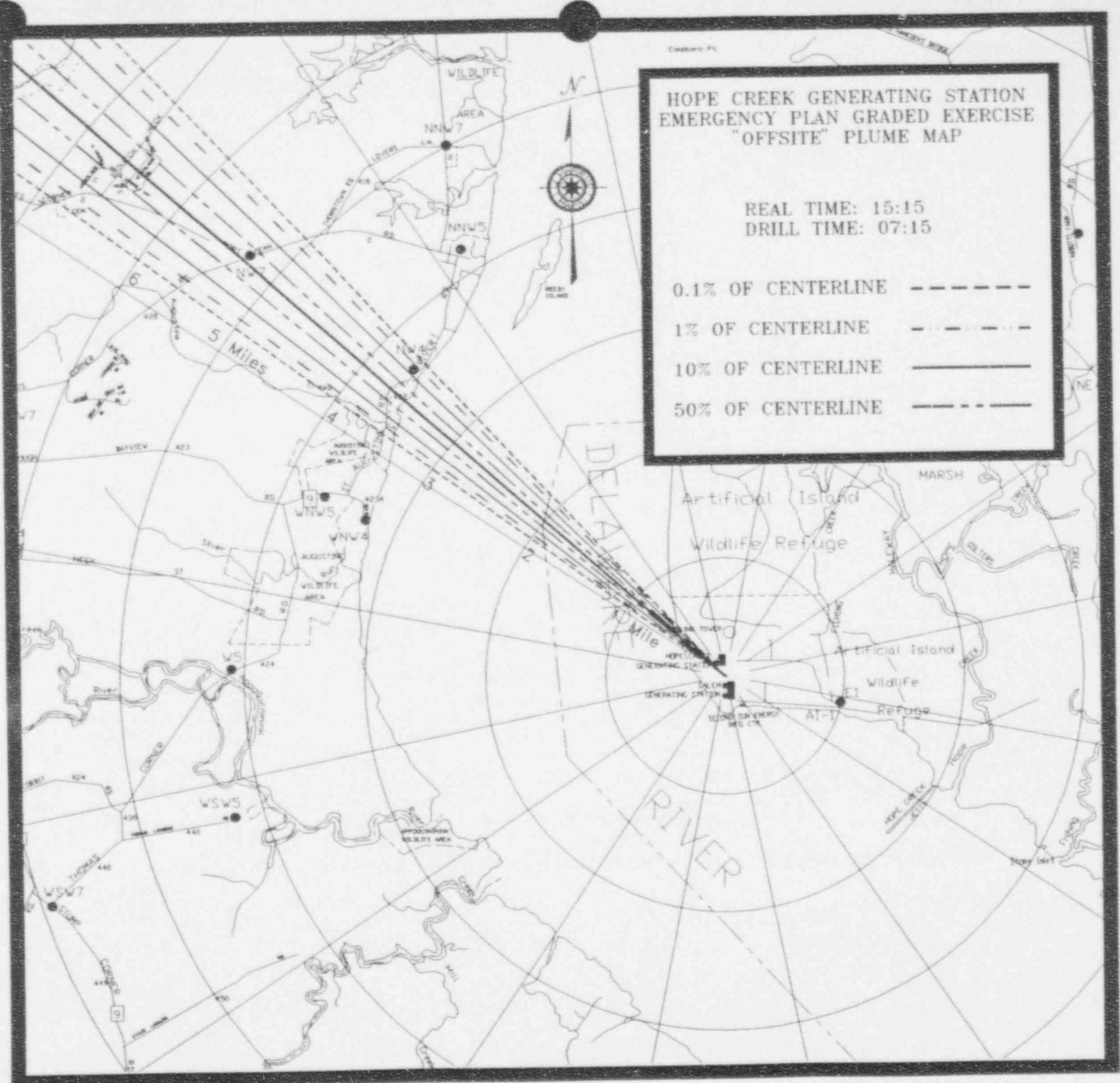
REAL TIME: 15:15
DRILL TIME: 07:15

- 0.1% OF CENTERLINE - - - - -
- 1% OF CENTERLINE - - - - -
- 10% OF CENTERLINE ————
- 50% OF CENTERLINE - - - - -



10.1.8

10.1.8.a



HOPE CREEK GENERATING STATION
 EMERGENCY PLAN GRADED EXERCISE
 "OFFSITE" PLUME MAP

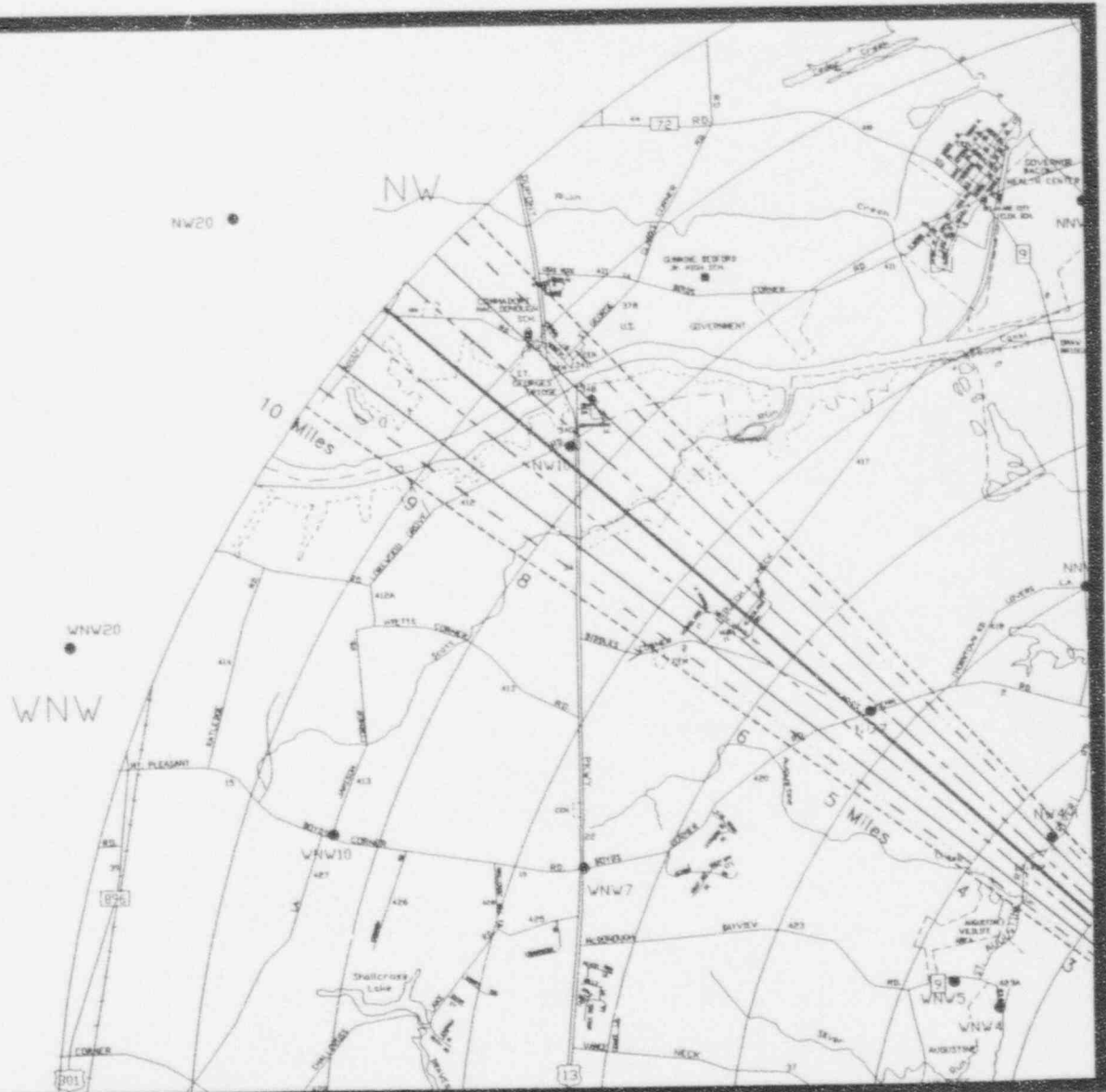
REAL TIME: 15:15
 DRILL TIME: 07:15

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 1% OF CENTERLINE - · - · -
 10% OF CENTERLINE _____
 50% OF CENTERLINE - - - -

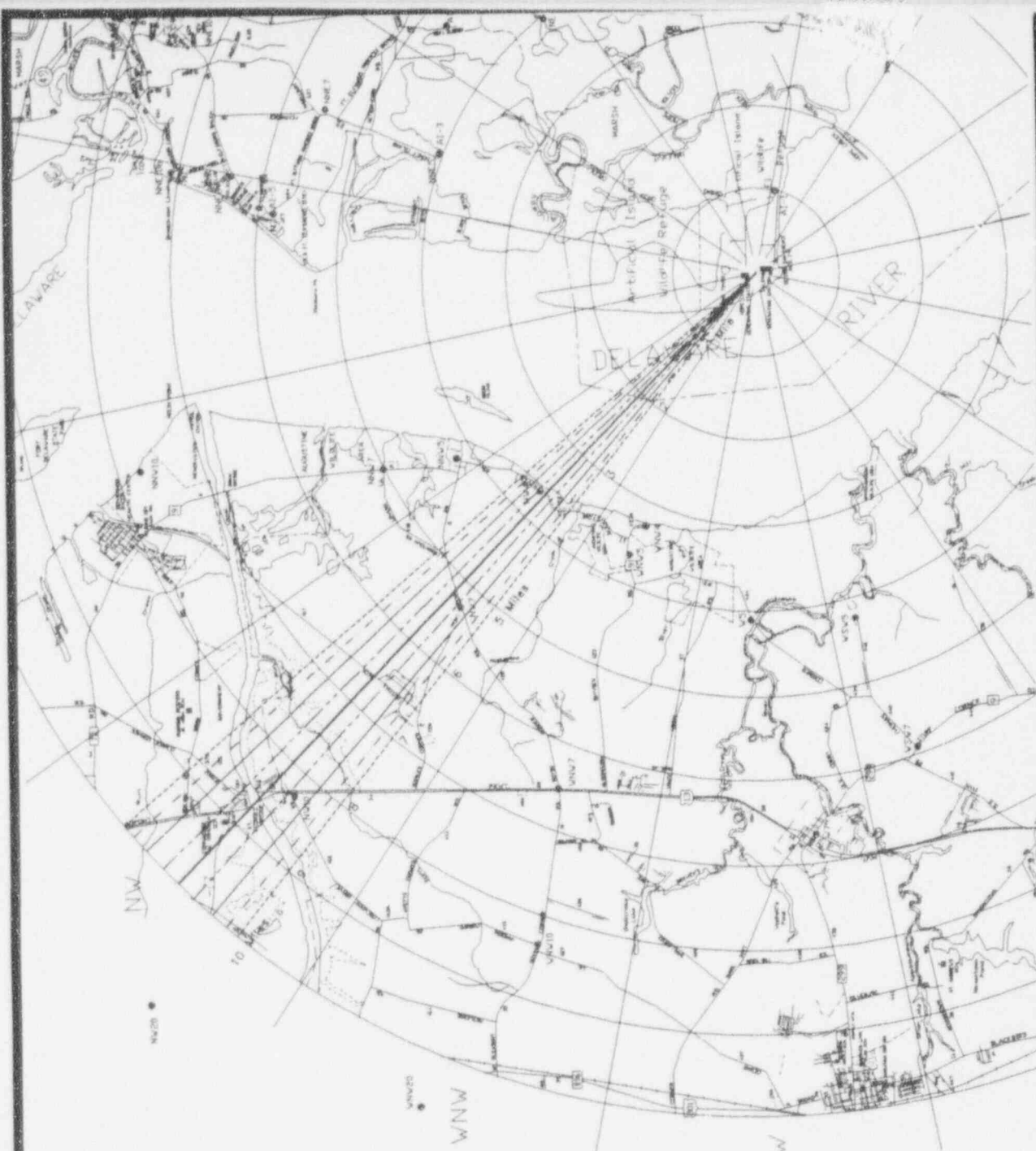
HOPE CREEK GENERATING STATION
EMERGENCY PLAN GRADED EXERCISE
"OFFSITE" PLUME MAP

REAL TIME: 15:15
DRILL TIME: 07:15

- 0.1% OF CENTERLINE - - - - -
- 1% OF CENTERLINE - · - - - -
- 10% OF CENTERLINE - - - - -
- 50% OF CENTERLINE - - - - -



10.1.8.b



HOPE CREEK GENERATING STATION
 EMERGENCY PLAN GRADED EXERCISE
 "OFFSITE" PLUME MAP

REAL TIME: 15:30
 DRILL TIME: 07:30

0.1% OF CENTERLINE - - - - -
 1% OF CENTERLINE - · - · - ·
 10% OF CENTERLINE ————
 50% OF CENTERLINE - - - - -

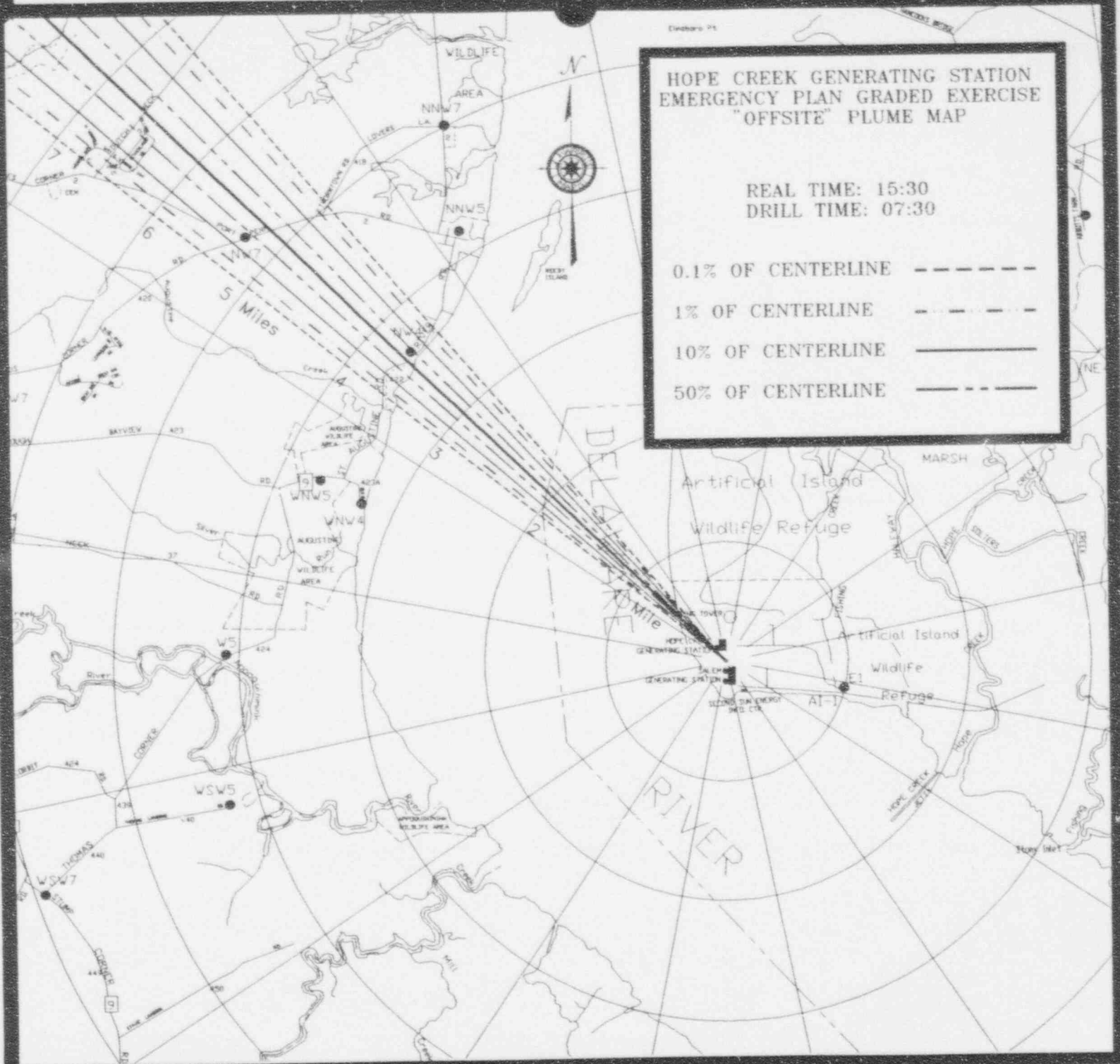
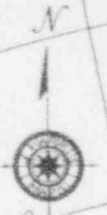


Circle 75

HOPE CREEK GENERATING STATION
 EMERGENCY PLAN GRADED EXERCISE
 "OFFSITE" PLUME MAP

REAL TIME: 15:30
 DRILL TIME: 07:30

0.1% OF CENTERLINE - - - - -
 1% OF CENTERLINE - · - · -
 10% OF CENTERLINE - - - - -
 50% OF CENTERLINE - - - - -

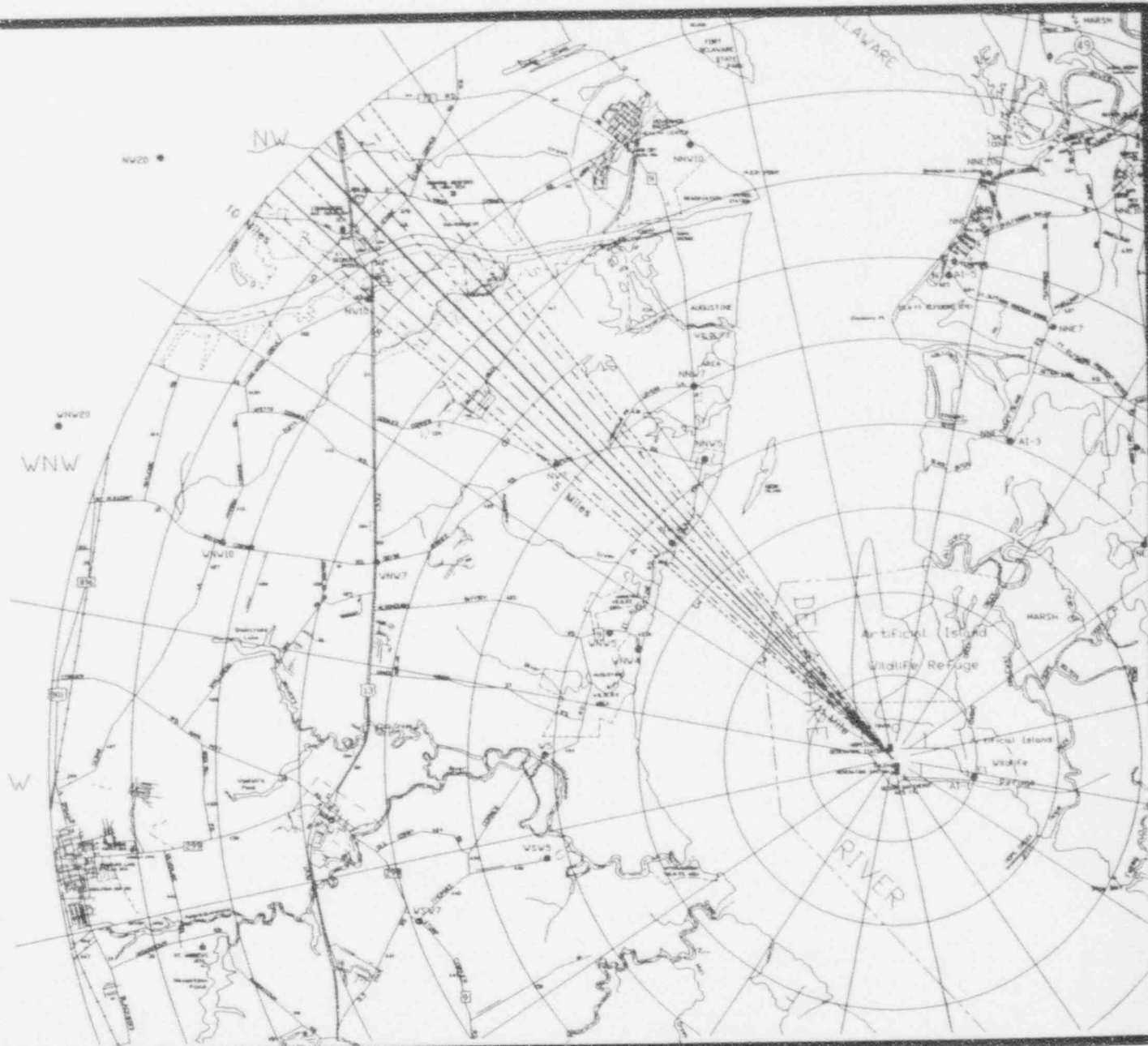


10.1.9.a

HOPE CREEK GENERATING STATION
EMERGENCY PLAN GRADED EXERCISE
"OFFSITE" PLUME MAP

REAL TIME: 15:45
DRILL TIME: 07:45

0.1% OF CENTERLINE - - - - -
1% OF CENTERLINE - - - - -
10% OF CENTERLINE - - - - -
50% OF CENTERLINE - - - - -



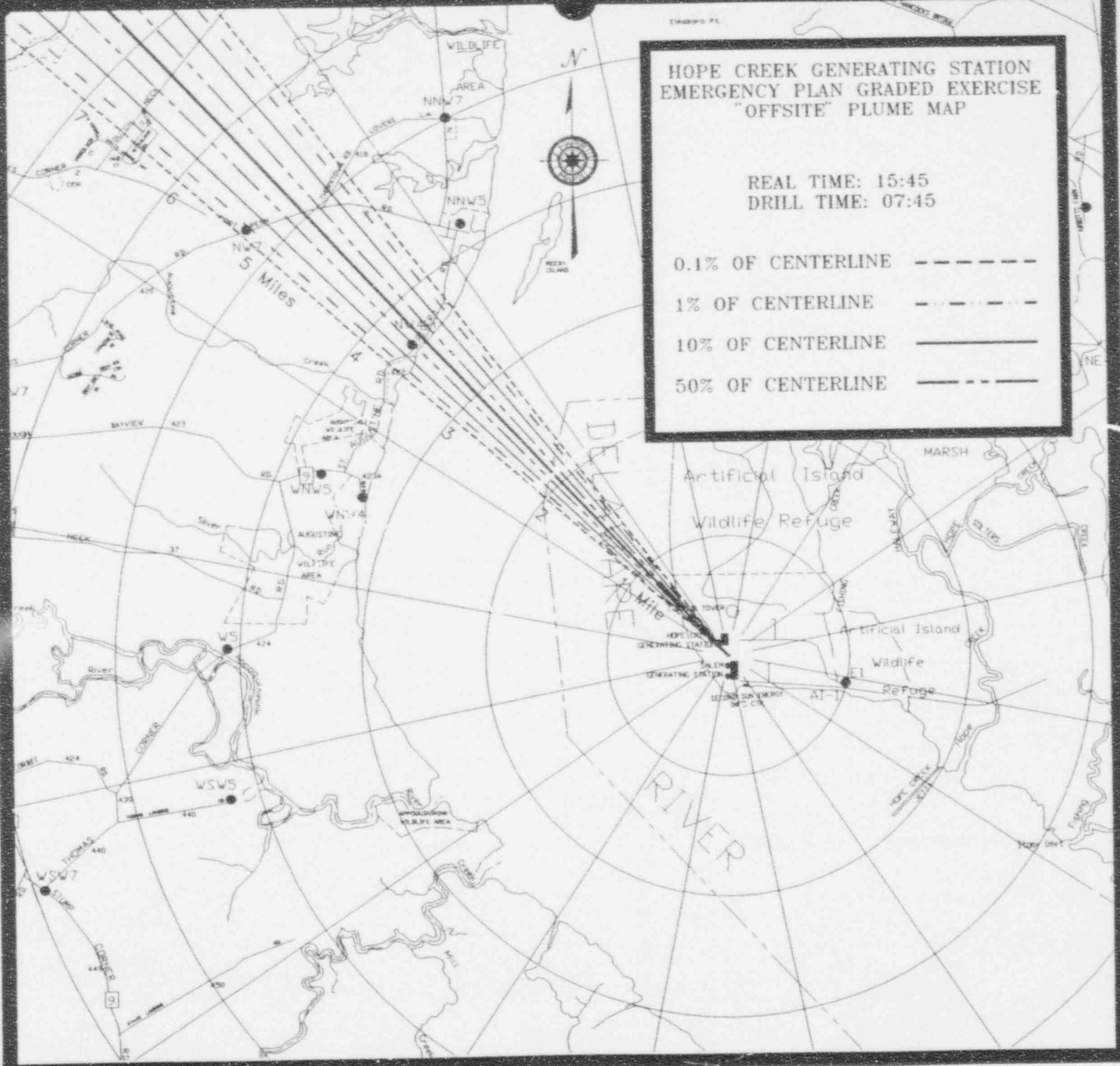
10.1.10

ENCLOSURE PL

HOPE CREEK GENERATING STATION
 EMERGENCY PLAN GRADED EXERCISE
 "OFFSITE" PLUME MAP

REAL TIME: 15:45
 DRILL TIME: 07:45

0.1% OF CENTERLINE ---
 1% OF CENTERLINE - - -
 10% OF CENTERLINE ———
 50% OF CENTERLINE - - -

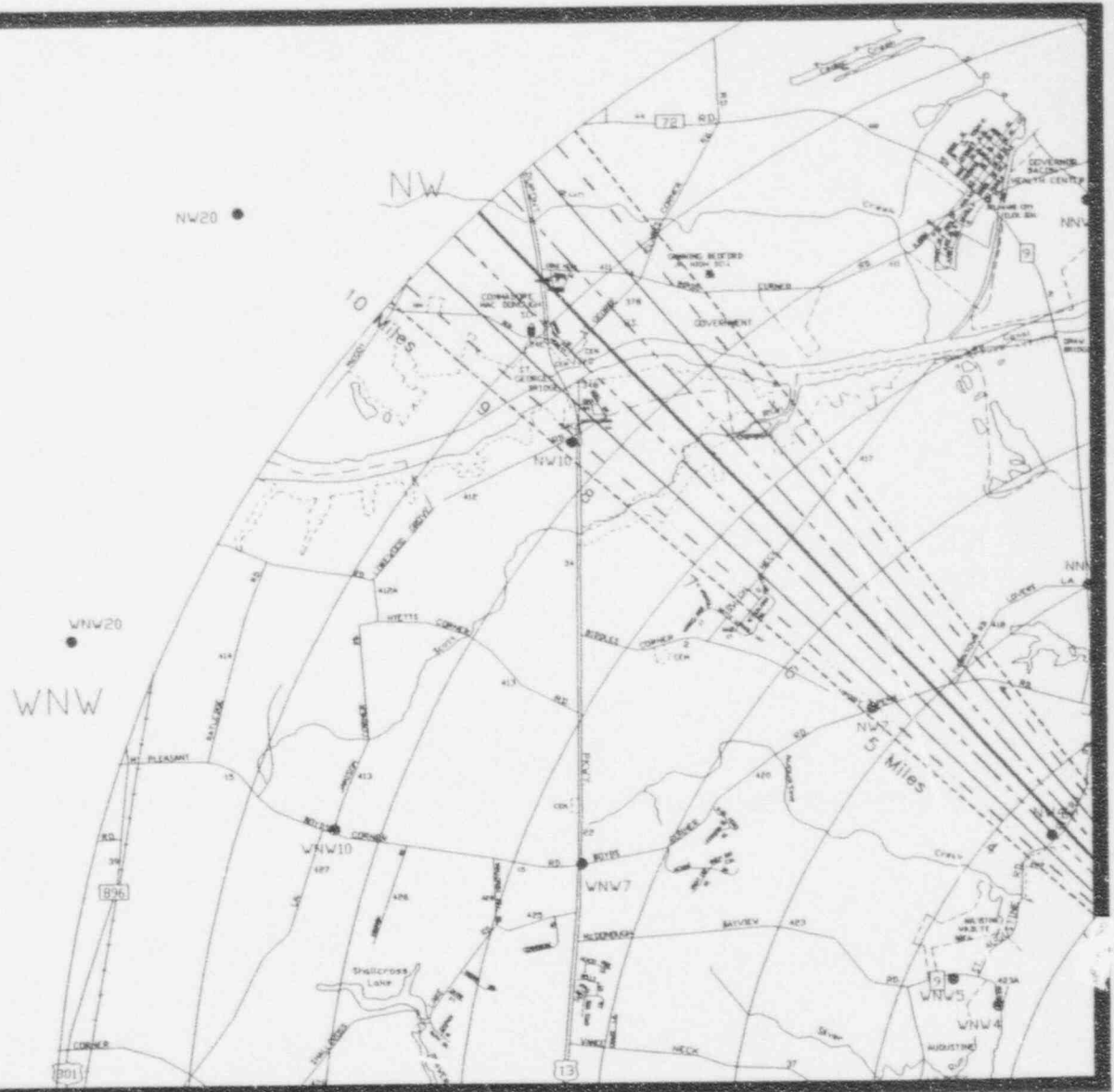


10.1.10.a

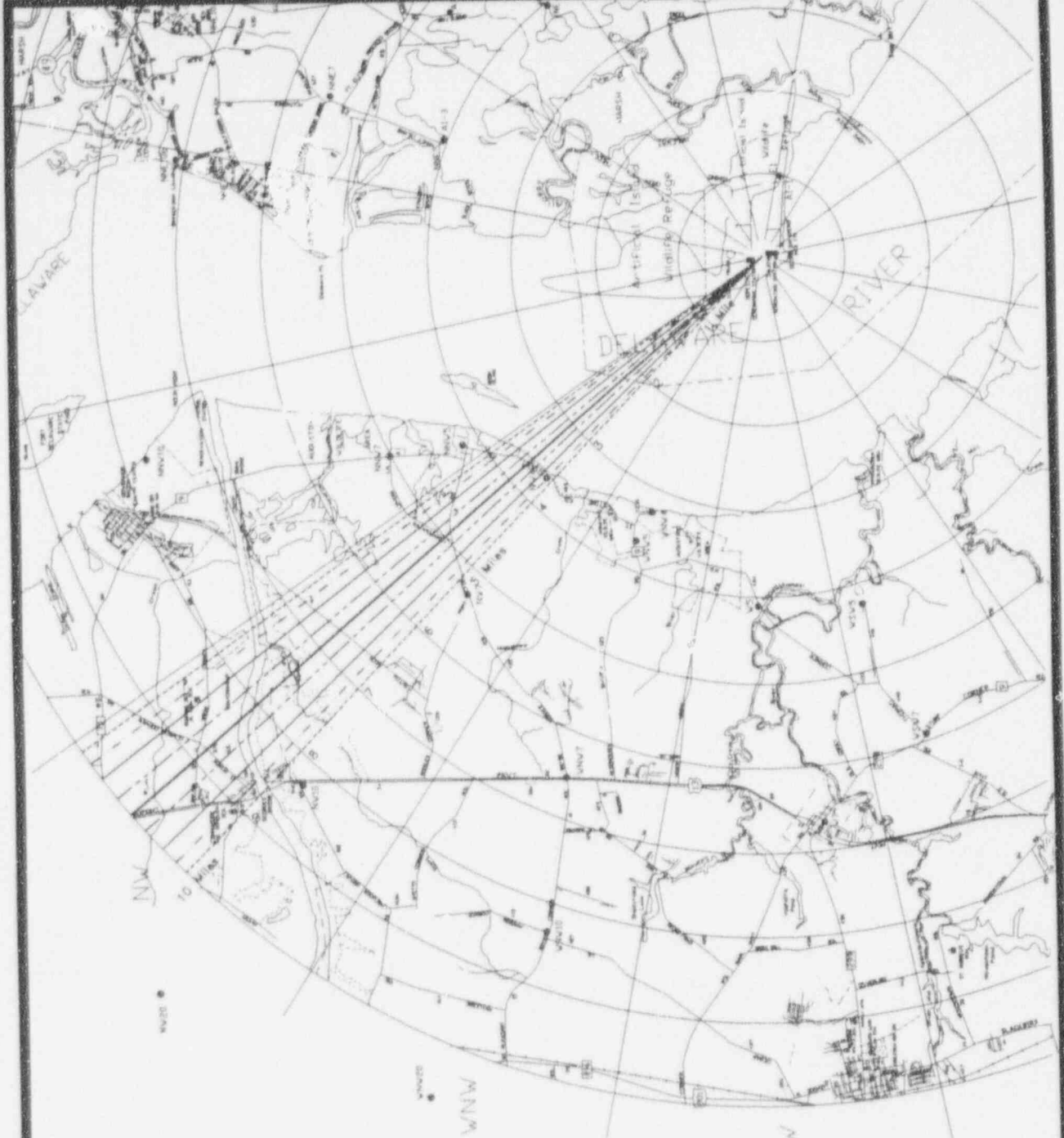
HOPE CREEK GENERATING STATION
EMERGENCY PLAN GRADED EXERCISE
"OFFSITE" PLUME MAP

REAL TIME: 15:45
DRIFT TIME: 07:45

0.1% OF CENTERLINE - - - - -
1% OF CENTERLINE - · - · - · -
10% OF CENTERLINE ————
50% OF CENTERLINE - - - - -



10.1.10.b



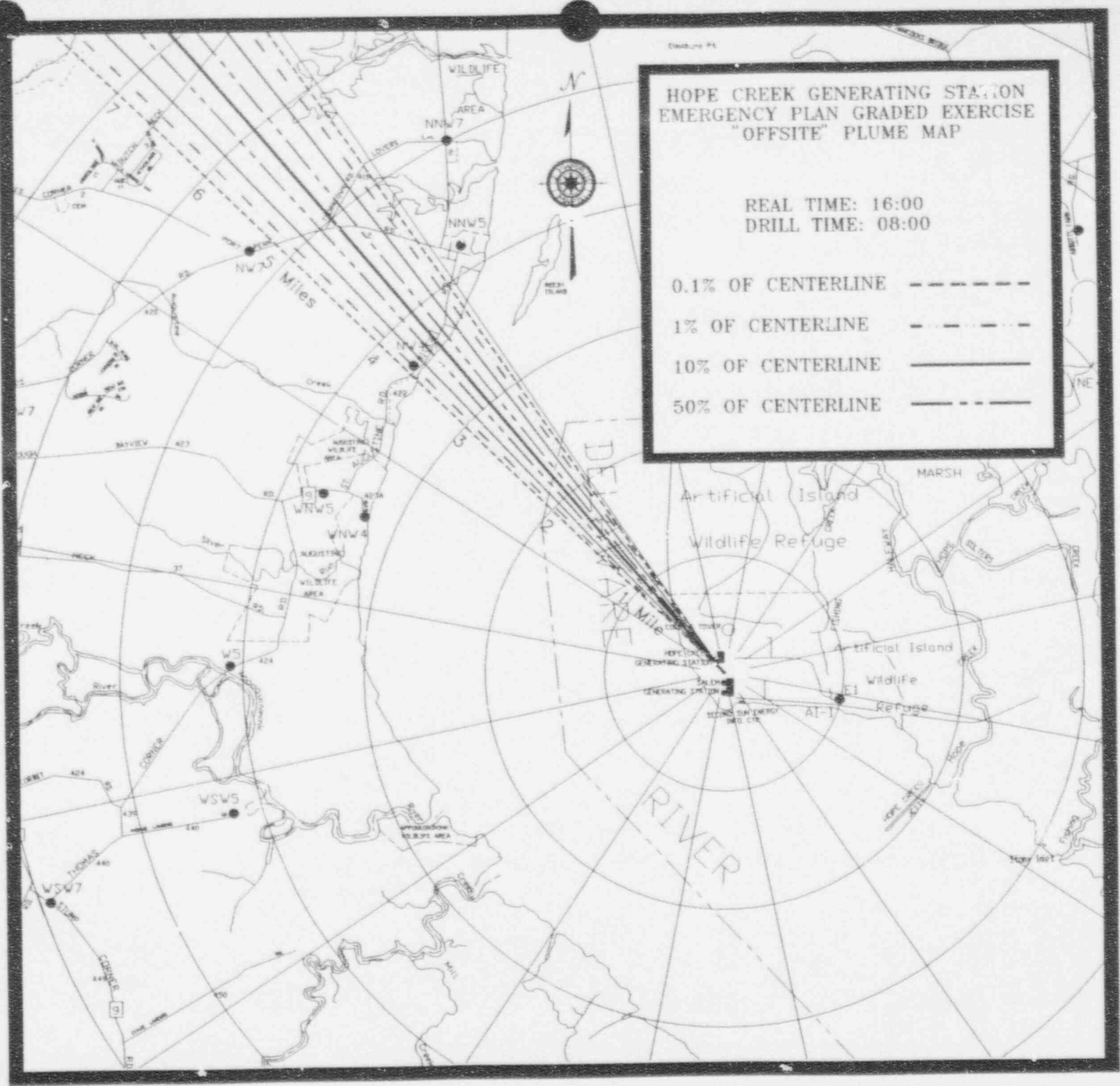
HOPE CREEK GENERATING STATION
 EMERGENCY PLAN GRADED EXERCISE
 "OFFSITE" PLUME MAP

REAL TIME: 16:00
 DRILL TIME: 08:00

0.1% OF CENTERLINE - - - - -
 1% OF CENTERLINE - - - - -
 10% OF CENTERLINE - - - - -
 50% OF CENTERLINE - - - - -



10.1.11.a



HOPE CREEK GENERATING STATION
 EMERGENCY PLAN GRADED EXERCISE
 "OFFSITE" PLUME MAP

REAL TIME: 16:00
 DRILL TIME: 08:00

0.1% OF CENTERLINE ---
 1% OF CENTERLINE - · - · -
 10% OF CENTERLINE ———
 50% OF CENTERLINE - - - -

HOPE CREEK GENERATING STATION
EMERGENCY PLAN GRADED EXERCISE
"OFFSITE" PLUME MAP

REAL TIME: 16:00
DRILL TIME: 08:00

0.1% OF CENTERLINE ---
1% OF CENTERLINE - - -
10% OF CENTERLINE ———
50% OF CENTERLINE - - -



10.1.11.b

CONTAMINATION LEVELS FOR OFFSITE FIELD MONITORING TEAMS AND THEIR VEHICLES

IF THE FIELD MONITOR TEAM WENT INTO THE PLUME THREE OR LESS TIMES AND EXITED THE VEHICLE, PERSONNEL CONTAMINATION LEVELS SHOULD BE 450 CPM.

IF THE FIELD MONITOR TEAM WENT INTO THE PLUME FOUR OR MORE TIMES AND EXITED THE VEHICLE, PERSONNEL CONTAMINATION LEVELS SHOULD BE 15,000 CPM.

IF THE FIELD MONITOR TEAM DROVE INTO THE PLUME THREE OR LESS TIMES, THE VEHICLE CONTAMINATION LEVELS SHOULD BE 4,500 CPM.

IF THE FIELD MONITOR TEAM DROVE INTO THE PLUME FOUR OR MORE TIMES, THE VEHICLE CONTAMINATION LEVELS SHOULD BE 150,000 CPM.

BACKGROUND FOR ALL E-140N READINGS SHOULD BE THE 50 CPM. THESE VALUES SHOULD BE GIVEN WHEN ASKED FOR BY THE RPS-OFFSITE OR RPT-RADIO.

**THE LEADING EDGE OF THE PLUME
IS AS FOLLOWS :**

1 MILE = 13:30/05:30

3 MILES = 13:45/05:45

5 MILES = 14:00/06:00

6 MILES = 14:15/06:15

8 MILES = 14:30/06:30

10 MILES = 15:00/07:00

PROJECTED PEAK TEDE 4 DAY DOSE

0.56 MILES = 5.30E+03 mRem
2.00 MILES = 2.60E+03 mRem
5.00 MILES = 1.20E+03 mRem
10.00 MILES = 4.90E+02 mRem

PROJECTED PEAK TEDE DOSE RATES

0.56 MILES = 1.33E+03 mRem/hr
2.00 MILES = 6.50E+02 mRem/hr
5.00 MILES = 3.00E+02 mRem/hr
10.00 MILES = 1.23E+02 mRem/hr

PROJECTED AVERAGE TEDE 4 DAY DOSE

0.56 MILES = 4.70E+03 mRem
2.00 MILES = 2.30E+03 mRem
5.00 MILES = 1.00E+03 mRem
10.00 MILES = 4.30E+02 mRem

PROJECTED AVERAGE TEDE DOSE RATES

0.56 MILES = 1.18E+03 mRem/hr
2.00 MILES = 5.75E+02 mRem/hr
5.00 MILES = 2.50E+02 mRem/hr
10.00 MILES = 1.08E+02 mRem/hr

AVERAGE FIELD CLOSED WINDOW GAMMA DOSE RATES

100 METERS = 8.3 R/HR
200 METERS = 7.9 R/HR
300 METERS = 7.3 R/HR
400 METERS = 6.8 R/HR
500 METERS = 6.2 R/HR
600 METERS = 5.6 R/HR
700 METERS = 5.1 R/HR
800 METERS = 4.6 R/HR
900 METERS = 2.9 R/HR
1 MILE = 1.4 R/HR
2 MILES = 619 mR/HR
3 MILES = 380 mR/HR
4 MILES = 260 mR/HR
5 MILES = 205 mR/HR
6 MILES = 145 mR/HR
7 MILES = 119 mR/HR
8 MILES = 100 mR/HR
9 MILES = 87 mR/HR
10 MILES = 76 mR/HR

PROJECTED THYROID CDE DOSE BASED ON FRVS IODINE 131 SAMPLE RESULTS OF 8.20E-03 uCi/cc. THIS EQUATES TO 3.48E+04 uCi/SEC.

0.56 MILES = 1.30E+04 mRem
2.00 MILES = 4.30E+03 mRem
5.00 MILES = 1.10E+03 mRem
10.00 MILES = 2.50E+02 mRem

PROJECTED THYROID CDE DOSE RATE BASED ON FRVS IODINE 131 SAMPLE RESULTS OF 8.20E-03 uCi/cc. THIS EQUATES TO 3.48E+04 uCi/SEC.

0.56 MILES = 3.25E+03 mRem/hr
2.00 MILES = 1.08E+03 mRem/hr
5.00 MILES = 2.75E+02 mRem/hr
10.00 MILES = 6.25E+01 mRem/hr

AVERAGE FIELD THYROID INHALATION DOSE RATES BASED ON AN IODINE 131 SOURCE TERM OF 3.48E+04 uCi/SEC

100 METERS = 10.7 R/HR
200 METERS = 10 R/HR
300 METERS = 9.5 R/HR
400 METERS = 8.8 R/HR
500 METERS = 8 R/HR
600 METERS = 7.3 R/HR
700 METERS = 6.6 R/HR
800 METERS = 6 R/HR
900 METERS = 3.8 R/HR
1 MILE = 1.8 R/HR
2 MILES = 700 mR/HR
3 MILES = 480 mR/HR
4 MILES = 340 mR/HR
5 MILES = 260 mR/HR
6 MILES = 200 mR/HR
7 MILES = 170 mR/HR
8 MILES = 140 mR/HR
9 MILES = 120 mR/HR
10 MILES = 55 mR/HR

Land fall occurs at approximately 3.25 miles.

10/25/94

H94-06

Location : Centerline

Meters : 1609

Miles : 1.00

Real Time	Drill Time	Wind Dir ° From	Wind Speed MPH	Survey Instrument Readings		Field Team Exposure Rate (mR/min)	Gross Particulate C.P.M. Assumes 10 Cu.Ft & 10% Eff.	Iodine-131	
				Open Window Beta/Gamma (mRad/hr)	Closed Window Gamma (mR/hr)			C.P.M. Assumes 10 Cu.Ft & 0.2% Eff.	Thyroid Inhalation Dose Rate (mRem/hr)
08:00	00:00	90.00	5.00	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
13:15	05:15	110.00	6.64	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
13:30	05:30	112.73	6.72	2.06E+03	1.65E+03	2.75E+01	4.42E+02	7.96E+02	1.82E+03
13:45	05:45	115.45	6.80	2.06E+03	1.65E+03	2.75E+01	4.42E+02	7.91E+02	1.83E+03
14:00	06:00	118.18	6.88	1.79E+03	1.43E+03	2.38E+01	4.43E+02	7.96E+02	1.82E+03
14:15	06:15	120.91	6.95	1.79E+03	1.43E+03	2.38E+01	4.45E+02	8.11E+02	1.83E+03
14:30	06:30	123.64	7.03	1.79E+03	1.43E+03	2.38E+01	4.16E+02	8.17E+02	1.85E+03
14:45	06:45	126.36	7.11	1.79E+03	1.43E+03	2.38E+01	4.48E+02	8.23E+02	1.86E+03
15:00	07:00	129.09	7.19	1.56E+03	1.25E+03	2.08E+01	4.51E+02	8.29E+02	1.85E+03
15:15	07:15	131.82	7.27	1.46E+03	1.17E+03	1.95E+01	4.26E+02	7.83E+02	1.74E+03
15:30	07:30	134.55	7.34	1.06E+03	8.49E+02	1.42E+01	3.24E+02	5.85E+02	1.27E+03
15:45	07:45	137.27	7.42	2.23E+01	1.78E+01	2.97E-01	5.60E+01	6.10E+01	2.68E+01
16:00	08:00	140.00	7.50	6.38E+00	5.10E+00	8.50E-02	5.20E+01	5.30E+01	8.64E+00

*** NOTE : Waist and ground level readings are the same.

10/25/94

H94-06

Location : Centerline

Meters : 3218

Miles : 2.00

Real Time	Drill Time	Wind Dir ° From	Wind Speed MPH	Survey Instrument Readings		Field Team Exposure Rate (mR/min)	Gross Particulate C.P.M. Assumes 10 Cu.Ft & 10% Eff.	Iodine-131	
				Open Window Beta/Gamma (mRad/hr)	Closed Window Gamma (mR/hr)			C.P.M. Assumes 10 Cu.Ft & 0.2% Eff.	Thyroid Inhalation Dose Rate (mRem/hr)
08:00	00:00	90.00	5.00	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
13:15	05:15	110.00	6.64	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
13:30	05:30	112.73	6.72	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
13:45	05:45	115.45	6.80	8.94E+02	7.15E+02	1.19E+01	2.20E+02	3.74E+02	7.91E+02
14:00	06:00	118.18	6.88	7.76E+02	6.21E+02	1.04E+01	2.20E+02	3.76E+02	7.85E+02
14:15	06:15	120.91	6.95	7.74E+02	6.19E+02	1.03E+01	2.21E+02	3.78E+02	7.90E+02
14:30	06:30	123.64	7.03	7.74E+02	6.19E+02	1.03E+01	2.21E+02	3.81E+02	7.96E+02
14:45	06:45	126.36	7.11	7.74E+02	6.19E+02	1.03E+01	2.22E+02	3.83E+02	8.03E+02
15:00	07:00	129.09	7.19	6.79E+02	5.43E+02	9.05E+00	2.23E+02	3.86E+02	7.99E+02
15:15	07:15	131.82	7.27	6.80E+02	5.44E+02	9.07E+00	2.24E+02	3.89E+02	8.06E+02
15:30	07:30	134.55	7.34	5.73E+02	4.58E+02	7.63E+00	2.97E+02	3.37E+02	6.83E+02
15:45	07:45	137.27	7.42	2.90E+02	2.32E+02	3.87E+00	7.99E+01	2.96E+02	3.48E+02
16:00	08:00	140.00	7.50	5.71E+00	4.57E+00	7.62E-02	5.00E+01	5.30E+01	7.71E+00

*** NOTE : Waist and ground level readings are the same.

10/25/94

H94-06

Location : Centerline

Meters : 4827

Miles : 3.00

Real Time	Drill Time	Wind Dir ° From	Wind Speed MPH	Survey Instrument Readings		Field Team Exposure Rate (mR/min)	Gross Particulate C.P.M. Assumes 10 Cu.Ft & 10% Eff.	Iodine-131	
				Open Window Beta/Gamma (mRad/hr)	Closed Window Gamma (mR/hr)			C.P.M. Assumes 10 Cu.Ft & 0.2% Eff.	Thyroid Inhalation Dose Rate (mRem/hr)
08:00	00:00	90.00	5.00	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
13:15	05:15	110.00	6.64	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
13:30	05:30	112.73	6.72	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
13:45	05:45	115.45	6.80	5.50E+02	4.40E+02	7.33E+00	1.54E+02	2.48E+02	4.83E+02
14:00	06:00	118.18	6.88	4.78E+02	3.82E+02	6.37E+00	2.54E+02	2.49E+02	4.80E+02
14:15	06:15	120.91	6.95	4.76E+02	3.81E+02	6.35E+00	2.55E+03	2.51E+02	4.83E+02
14:30	06:30	123.64	7.03	4.75E+02	3.80E+02	6.33E+00	1.55E+02	2.52E+02	4.87E+02
14:45	06:45	126.36	7.11	4.75E+02	3.80E+02	6.33E+00	1.55E+02	2.54E+02	4.90E+02
15:00	07:00	129.09	7.19	4.16E+02	3.33E+02	5.55E+00	1.56E+02	2.55E+02	4.88E+02
15:15	07:15	131.82	7.27	4.18E+02	3.34E+02	5.57E+00	1.57E+02	2.57E+02	4.93E+02
15:30	07:30	134.55	7.34	3.95E+02	3.16E+02	5.27E+00	1.51E+02	2.47E+02	4.69E+02
15:45	07:45	137.27	7.42	2.94E+02	2.35E+02	3.92E+00	8.07E+01	1.98E+02	3.51E+02
16:00	08:00	140.00	7.50	5.24E+00	4.19E+00	6.98E-02	5.00E+01	5.30E+01	7.05E+00

*** NOTE : Waist and ground level readings are the same.

10/25/94

H94-06

Location : Centerline

Meters : 6436

Miles : 4.00

Real Time	Drill Time	Wind Dir ° From	Wind Speed MPH	Survey Instrument Readings		Field Team Exposure Rate (mR/min)	Gross Particulate C.P.M. Assumes 10 Cu.Ft & 10% Eff.	Iodine-131	
				Open Window Beta/Gamma (mRad/hr)	Closed Window Gamma (mR/hr)			C.P.M. Assumes 10 Cu.Ft & 0.2% Eff.	Thyroid Inhalation Dose Rate (mRem/hr)
08:00	00:00	90.00	5.00	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
13:15	05:15	110.00	6.64	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
13:30	05:30	112.73	6.72	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
13:45	05:45	115.45	6.80	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
14:00	06:00	118.18	6.88	3.38E+02	2.70E+02	4.50E+00	7.85E+01	1.90E+02	3.38E+02
14:15	06:15	120.91	6.95	3.36E+02	2.69E+02	4.48E+00	7.87E+01	1.91E+02	3.40E+02
14:30	06:30	123.64	7.03	3.35E+02	2.68E+02	4.47E+00	7.89E+01	1.92E+02	3.42E+02
14:45	06:45	126.36	7.11	3.35E+02	2.68E+02	4.47E+00	7.93E+01	1.93E+02	3.45E+02
15:00	07:00	129.09	7.19	2.94E+02	2.35E+02	3.92E+00	7.96E+01	1.94E+02	3.43E+02
15:15	07:15	131.82	7.27	2.94E+02	2.35E+02	3.92E+00	8.00E+01	1.96E+02	3.46E+02
15:30	07:30	134.55	7.34	2.95E+02	2.36E+02	3.93E+00	8.06E+01	1.97E+02	3.49E+02
15:45	07:45	137.27	7.42	2.53E+02	2.02E+02	3.37E+00	7.01E+01	1.77E+02	3.02E+02
16:00	08:00	140.00	7.50	1.11E+02	8.89E+01	1.48E+00	5.80E+01	1.11E+02	1.52E+02

*** NOTE : Waist and ground level readings are the same.

10/25/94

H94-06

Location : Centerline

Meters : 8045

Miles : 5.00

Real Time	Drill Time	Wind Dir ° From	Wind Speed MPH	Survey Instrument Readings		Field Team Exposure Rate (mR/min)	Gross Particulate	Iodine-131	
				Open Window Beta/Gamma (mRad/hr)	Closed Window Gamma (mR/hr)		C.P.M. Assumes 10 Cu.Ft & 10% Eff.	C.P.M. Assumes 10 Cu.Ft & 0.2% Eff.	Thyroid Inhalation Dose Rate (mRem/hr)
08:00	00:00	90.00	5.00	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
13:15	05:15	110.00	6.64	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
13:30	05:30	112.73	6.72	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
13:45	05:45	115.45	6.80	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
14:00	06:00	118.18	6.88	2.58E+02	2.06E+02	3.43E+00	1.09E+02	1.56E+02	2.56E+02
14:15	06:15	120.91	6.95	2.56E+02	2.05E+02	3.42E+00	1.06E+02	1.57E+02	2.58E+02
14:30	06:30	123.64	7.03	2.56E+02	2.05E+02	3.42E+00	1.06E+02	1.58E+02	2.60E+02
14:45	06:45	126.36	7.11	2.56E+02	2.05E+02	3.42E+00	1.06E+02	1.59E+02	2.62E+02
15:00	07:00	129.09	7.19	2.24E+02	1.79E+02	2.98E+00	1.07E+02	1.60E+02	2.60E+02
15:15	07:15	131.82	7.27	2.24E+02	1.79E+02	2.98E+00	1.07E+02	1.61E+02	2.63E+02
15:30	07:30	134.55	7.34	2.25E+02	1.80E+02	3.00E+00	1.07E+02	1.62E+02	2.65E+02
15:45	07:45	137.27	7.42	2.15E+02	1.72E+02	2.87E+00	1.05E+02	1.58E+02	2.55E+02
16:00	08:00	140.00	7.50	1.40E+02	1.12E+02	1.87E+00	5.90E+01	1.25E+02	1.87E+02

*** NOTE : Waist and ground level readings are the same.

10.2.5

10/25/94

H94-06

Location : Centerline

Meters : 9654

Miles : 6.00

Real Time	Drill Time	Wind Dir ° From	Wind Speed MPH	Survey Instrument Readings		Field Team Exposure Rate (mR/min)	Gross Particulate C.P.M. Assumes 10 Cu.Ft & 10% Eff.	Iodine-131	
				Open Window Beta/Gamma (mRad/hr)	Closed Window Gamma (mR/hr)			C.P.M. Assumes 10 Cu.Ft & 0.2% Eff.	Thyroid Inhalation Dose Rate (mRem/hr)
08:00	00:00	90.00	5.00	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
13:15	05:15	110.00	6.64	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
13:30	05:30	112.73	6.72	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
13:45	05:45	115.45	6.80	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
14:00	06:00	118.18	6.88	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
14:15	06:15	120.91	6.95	2.06E+02	1.65E+02	2.75E+00	5.21E+01	1.32E+02	2.06E+02
14:30	06:30	123.64	7.03	2.05E+02	1.64E+02	2.73E+00	5.24E+01	1.33E+02	2.07E+02
14:45	06:45	126.36	7.11	2.05E+02	1.64E+02	2.73E+00	5.25E+01	1.34E+02	2.09E+02
15:00	07:00	129.09	7.19	1.80E+02	1.44E+02	2.40E+00	5.24E+01	1.33E+02	2.07E+02
15:15	07:15	131.82	7.27	1.80E+02	1.44E+02	2.40E+00	5.24E+01	1.34E+02	2.09E+02
15:30	07:30	134.55	7.34	1.80E+02	1.44E+02	2.40E+00	5.25E+01	1.36E+02	2.11E+02
15:45	07:45	137.27	7.42	1.80E+02	1.44E+02	2.40E+00	5.31E+01	1.38E+02	2.13E+02
16:00	08:00	140.00	7.50	1.36E+02	1.09E+02	1.82E+00	5.90E+01	1.23E+02	1.82E+02

*** NOTE.: Waist and ground level readings are the same.

10/25/94

H94-06

Location : Centerline

Meters : 11263

Miles : 7.00

Real Time	Drill Time	Wind Dir ° From	Wind Speed MPH	Survey Instrument Readings		Field Team Exposure Rate (mR/min)	Gross Particulate C.P.M. Assumes 10 Cu.Ft & 10% Eff.	Iodine-131	
				Open Window Beta/Gamma (mRad/hr)	Closed Window Gamma (mR/hr)			C.P.M. Assumes 10 Cu.Ft & 0.2% Eff.	Thyroid Inhalation Dose Rate (mRem/hr)
08:00	00:00	90.00	5.00	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
13:15	05:15	110.00	6.64	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
13:30	05:30	112.73	6.72	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
13:45	05:45	115.45	6.80	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
14:00	06:00	118.18	6.88	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
14:15	06:15	120.91	6.95	1.70E+02	1.36E+02	2.27E+00	5.80E+01	1.18E+02	1.69E+02
14:30	06:30	123.64	7.03	1.70E+02	1.36E+02	2.27E+00	5.80E+01	1.18E+02	1.71E+02
14:45	06:45	126.36	7.11	1.70E+02	1.36E+02	2.27E+00	5.90E+01	1.19E+02	1.72E+02
15:00	07:00	129.09	7.19	1.49E+02	1.19E+02	1.98E+00	5.80E+01	1.18E+02	1.71E+02
15:15	07:15	131.82	7.27	1.49E+02	1.19E+02	1.98E+00	5.90E+01	1.19E+02	1.73E+02
15:30	07:30	134.55	7.34	1.49E+02	1.19E+02	1.98E+00	5.90E+01	1.20E+02	1.74E+02
15:45	07:45	137.27	7.42	1.49E+02	1.19E+02	1.98E+00	5.90E+01	1.20E+02	1.76E+02
16:00	08:00	140.00	7.50	1.26E+02	1.01E+02	1.68E+00	5.80E+01	1.17E+02	1.67E+02

*** NOTE : Waist and ground level readings are the same.

10/25/94

H94-06

Location : Centerline

Meters : 12872

Miles : 8.00

Real Time	Drill Time	Wind Dir ° From	Wind Speed MPH	Survey Instrument Readings		Field Team Exposure Rate (mR/min)	Gross Particulate C.P.M. Assumes 10 Cu.Ft & 10% Eff.	Iodine-131	
				Open Window Beta/Gamma (mRad/hr)	Closed Window Gamma (mR/hr)			C.P.M. Assumes 10 Cu.Ft & 0.2% Eff.	Thyroid Inhalation Dose Rate (mRem/hr)
08:00	00:00	90.00	5.00	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
13:15	05:15	110.00	6.64	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
13:30	05:30	112.73	6.72	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
13:45	05:45	115.45	6.80	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
14:00	06:00	118.18	6.88	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
14:15	06:15	120.91	6.95	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
14:30	06:30	123.64	7.03	1.45E+02	1.16E+02	1.93E+00	5.70E+01	1.08E+02	1.44E+02
14:45	06:45	126.36	7.11	1.44E+02	1.15E+02	1.92E+00	5.70E+01	1.08E+02	1.45E+02
15:00	07:00	129.09	7.19	1.26E+02	1.01E+02	1.68E+00	5.70E+01	1.08E+02	1.44E+02
15:15	07:15	131.82	7.27	1.26E+02	1.01E+02	1.68E+00	5.70E+01	1.08E+02	1.46E+02
15:30	07:30	134.55	7.34	1.26E+02	1.01E+02	1.68E+00	5.70E+01	1.09E+02	1.47E+02
15:45	07:45	137.27	7.42	1.26E+02	1.01E+02	1.68E+00	5.70E+01	1.09E+02	1.48E+02
16:00	08:00	140.00	7.50	1.12E+02	8.95E+01	1.49E+00	5.70E+01	1.09E+02	1.48E+02

*** NOTE : Waist and ground level readings are the same.

10/25/94

H94-06

Location : Centerline

Meters : 14481

Miles : 9.00

Real Time	Drill Time	Wind Dir ° From	Wind Speed MPH	Survey Instrument Readings		Field Team Exposure Rate (mR/min)	Gross Particulate C.P.M. Assumes 10 Cu.Ft & 10% Eff.	Iodine-131	
				Open Window Beta/Gamma (mRad/hr)	Closed Window Gamma (mR/hr)			C.P.M. Assumes 10 Cu.Ft & 0.2% Eff.	Thyroid Inhalation Dose Rate (mRem/hr)
08:00	00:00	90.00	5.00	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
13:15	05:15	110.00	6.64	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
13:30	05:30	112.73	6.72	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
13:45	05:45	115.45	6.80	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
14:00	06:00	118.18	6.88	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
14:15	06:15	120.91	6.95	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
14:30	06:30	123.64	7.03	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
14:45	06:45	126.36	7.11	1.25E+02	9.97E+01	1.66E+00	5.60E+01	1.00E+02	1.25E+02
15:00	07:00	129.09	7.19	1.09E+02	8.73E+01	1.46E+00	5.60E+01	1.00E+02	1.24E+02
15:15	07:15	131.82	7.27	1.09E+02	8.72E+01	1.45E+00	5.60E+01	1.00E+02	1.25E+02
15:30	07:30	134.55	7.34	1.09E+02	8.72E+01	1.45E+00	5.60E+01	1.00E+02	1.26E+02
15:45	07:45	137.27	7.42	1.09E+02	8.73E+01	1.46E+00	5.60E+01	1.01E+02	1.28E+02
16:00	08:00	140.00	7.50	9.66E+01	7.73E+01	1.29E+00	5.60E+01	1.01E+02	1.27E+02

*** NOTE : Waist and ground level readings are the same.

10/25/94

H94-06

Location : Centerline

Meters : 16090

Miles : 10.00

Real Time	Drill Time	Wind Dir ° From	Wind Speed MPH	Survey Instrument Readings		Field Team Exposure Rate (mR/min)	Gross Particulate C.P.M. Assumes 10 Cu.Ft & 10% Eff.	Iodine-131	
				Open Window Beta/Gamma (mRad/hr)	Closed Window Gamma (mR/hr)			C.P.M. Assumes 10 Cu.Ft & 0.2% Eff.	Thyroid Inhalation Dose Rate (mRem/hr)
08:00	00:00	90.00	5.00	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
13:15	05:15	110.00	6.64	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
13:30	05:30	112.73	6.72	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
13:45	05:45	115.45	6.80	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
14:00	06:00	118.18	6.88	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
14:15	06:15	120.91	6.95	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
14:30	06:30	123.64	7.03	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
14:45	06:45	126.36	7.11	1.10E+02	8.76E+01	1.46E+00	5.30E+01	7.20E+01	5.50E+01
15:00	07:00	129.09	7.19	9.59E+01	7.67E+01	1.28E+00	5.30E+01	7.20E+01	5.50E+01
15:15	07:15	131.82	7.27	9.56E+01	7.65E+01	1.28E+00	5.30E+01	7.20E+01	5.50E+01
15:30	07:30	134.55	7.34	9.56E+01	7.65E+01	1.28E+00	5.30E+01	7.20E+01	5.50E+01
15:45	07:45	137.27	7.42	9.58E+01	7.66E+01	1.28E+00	5.30E+01	7.20E+01	5.52E+01
16:00	08:00	140.00	7.50	8.48E+01	6.78E+01	1.13E+00	5.30E+01	7.20E+01	5.51E+01

*** NOTE : Waist and ground level readings are the same.

10/25/94

H94-06

Location : Centerline

Meters : 24135

Miles : 15.00

Real Time	Drill Time	Wind Dir ° From	Wind Speed MPH	Survey Instrument Readings		Field Team Exposure Rate (mR/min)	Gross Particulate C.P.M. Assumes 10 Cu.Ft & 10% Eff.	Iodine-131	
				Open Window Beta/Gamma (mRad/hr)	Closed Window Gamma (mR/hr)			C.P.M. Assumes 10 Cu.Ft & 0.2% Eff.	Thyroid Inhalation Dose Rate (mRem/hr)
08:00	00:00	90.00	5.00	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
13:15	05:15	110.00	6.64	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
13:30	05:30	112.73	6.72	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
13:45	05:45	115.45	6.80	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
14:00	06:00	118.18	6.88	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
14:15	06:15	120.91	6.95	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
14:30	06:30	123.64	7.03	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
14:45	06:45	126.36	7.11	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
15:00	07:00	129.09	7.19	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
15:15	07:15	131.82	7.27	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
15:30	07:30	134.55	7.34	5.78E-01	4.62E-01	7.70E-03	5.00E+01	5.00E+01	6.51E-01
15:45	07:45	137.27	7.42	5.76E-01	4.61E-01	7.68E-03	5.00E+01	5.00E+01	< 0.2
16:00	08:00	140.00	7.50	5.09E-01	4.07E-01	6.78E-03	5.00E+01	5.00E+01	< 0.2

*** NOTE : Waist and ground level readings are the same.

10.2.11

10/25/94

H94-06

Location : WNW4

Meters : 5471

Miles : 3.40

Real Time	Drill Time	Wind Dir ° From	Wind Speed MPH	Survey Instrument Readings		Field Team Exposure Rate (mR/min)	Gross Particulate C.P.M. Assumes 10 Cu.Ft & 10% Eff.	Iodine-131	
				Open Window Beta/Gamma (mRad/hr)	Closed Window Gamma (mR/hr)			C.P.M. Assumes 10 Cu.Ft & 0.2% Eff.	Thyroid Inhalation Dose Rate (mRem/hr)
08:00	00:00	90.00	5.00	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
13:15	05:15	110.00	6.64	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
13:30	05:30	112.73	6.72	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
13:45	05:45	115.45	6.80	4.13E+02	3.30E+02	5.50E+00	1.28E+02	1.95E+02	3.62E+02
14:00	06:00	118.18	6.88	2.40E+01	1.90E+01	3.17E-01	5.10E+01	6.00E+01	2.40E+01
14:15	06:15	120.91	6.95	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
14:30	06:30	123.64	7.03	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
14:45	06:45	126.36	7.11	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
15:00	07:00	129.09	7.19	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
15:15	07:15	131.82	7.27	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
15:30	07:30	134.55	7.34	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
15:45	07:45	137.27	7.42	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
16:00	08:00	140.00	7.50	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2

*** NOTE : Waist and ground level readings are the same.

10/25/94

H94-06

Location : NW4

Meters : 6116

Miles : 3.80

Real Time	Drill Time	Wind Dir ° From	Wind Speed MPH	Survey Instrument Readings		Field Team Exposure Rate (mR/min)	Gross Particulate	Iodine-131	
				Open Window Beta/Gamma (mRad/hr)	Closed Window Gamma (mR/hr)		C.P.M. Assumes 10 Cu.Ft & 10% Eff.	C.P.M. Assumes 10 Cu.Ft & 0.2% Eff.	Thyroid Inhalation Dose Rate (mRem/hr)
08:00	00:00	90.00	5.00	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
13:15	05:15	110.00	6.64	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
13:30	05:30	112.73	6.72	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
13:45	05:45	115.45	6.80	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
14:00	06:00	118.18	6.88	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
14:15	06:15	120.91	6.95	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
14:30	06:30	123.64	7.03	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
14:45	06:45	126.36	7.11	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
15:00	07:00	129.09	7.19	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
15:15	07:15	131.82	7.27	1.50E+01	1.20E+01	2.00E-01	5.00E+01	5.00E+01	< 0.2
15:30	07:30	134.55	7.34	1.92E+02	1.53E+02	2.55E+00	6.10E+01	1.41E+02	2.27E+02
15:45	07:45	137.27	7.42	1.27E+02	1.01E+02	1.68E+00	5.80E+01	1.10E+02	1.51E+02
16:00	08:00	140.00	7.50	1.00E+00	8.90E-01	1.48E-02	5.00E+01	5.00E+01	< 0.2

*** NOTE : Waist and ground level readings are the same.

10/25/94

H94-06

Location : WNWS

Meters : 6438

Miles : 4.00

Real Time	Drill Time	Wind Dir ° From	Wind Speed MPH	Survey Instrument Readings		Field Team Exposure Rate (mR/min)	Gross Particulate C.P.M. Assumes 10 Cu.Ft & 10% Eff.	Iodine-131	
				Open Window Beta/Gamma (mRad/hr)	Closed Window Gamma (mR/hr)			C.P.M. Assumes 10 Cu.Ft & 0.2% Eff.	Thyroid Inhalation Dose Rate (mRem/hr)
08:00	00:00	90.00	5.00	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
13:15	05:15	110.00	6.64	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
13:30	05:30	112.73	6.72	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
13:45	05:45	115.45	6.80	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
14:00	06:00	118.18	6.88	3.40E+01	2.70E+01	4.50E-01	5.20E+01	6.40E+01	3.38E+01
14:15	06:15	120.91	6.95	3.40E+01	2.70E+01	4.50E-01	5.20E+01	6.40E+01	3.40E+01
14:30	06:30	123.64	7.03	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
14:45	06:45	126.36	7.11	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
15:00	07:00	129.09	7.19	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
15:15	07:15	131.82	7.27	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
15:30	07:30	134.55	7.34	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
15:45	07:45	137.27	7.42	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
16:00	08:00	140.00	7.50	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2

*** NOTE : Waist and ground level readings are the same.

10/25/94

H94-06

Location : NW7

Meters : 8852

Miles : 5.50

Real Time	Drill Time	Wind Dir ° From	Wind Speed MPH	Survey Instrument Readings		Field Team Exposure Rate (mR/min)	Gross Particulate C.P.M. Assumes 10 Cu.Ft & 10% Eff.	Iodine-131	
				Open Window Beta/Gamma (mRad/hr)	Closed Window Gamma (mR/hr)			C.P.M. Assumes 10 Cu.Ft & 0.2% Eff.	Thyroid Inhalation Dose Rate (mRem/hr)
08:00	00:00	90.00	5.00	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
13:15	05:15	110.00	6.64	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
13:30	05:30	112.73	6.72	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
13:45	05:45	115.45	6.80	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
14:00	06:00	118.18	6.88	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
14:15	06:15	120.91	6.95	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
14:30	06:30	123.64	7.03	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
14:45	06:45	126.36	7.11	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
15:00	07:00	129.09	7.19	1.80E+01	1.40E+01	2.33E-01	5.10E+01	6.00E+01	2.40E+01
15:15	07:15	131.82	7.27	1.68E+02	1.34E+02	2.23E+00	6.00E+01	1.29E+02	1.97E+02
15:30	07:30	134.55	7.34	9.00E+01	7.20E+01	1.20E+00	5.50E+01	9.20E+01	1.06E+02
15:45	07:45	137.27	7.42	1.08E+00	8.61E-01	1.44E-02	5.00E+01	5.00E+01	< 0.2
16:00	08:00	140.00	7.50	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2

*** NOTE : Waist and ground level readings are the same.

10/25/94

H94-06

Location : NW10

Meters : 13519

Miles : 8.40

Real Time	Drill Time	Wind Dir ° From	Wind Speed MPH	Survey Instrument Readings		Field Team Exposure Rate (mR/min)	Gross Particulate	Iodine-131	
				Open Window Beta/Gamma (mRad/hr)	Closed Window Gamma (mR/hr)		C.P.M. Assumes 10 Cu.Ft & 10% Eff.	C.P.M. Assumes 10 Cu.Ft & 0.2% Eff.	Thyroid Inhalation Dose Rate (mRem/hr)
08:00	00:00	90.00	5.00	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
13:15	05:15	110.00	6.64	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
13:30	05:30	112.73	6.72	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
13:45	05:45	115.45	6.80	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
14:00	06:00	118.18	6.88	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
14:15	06:15	120.91	6.95	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
14:30	06:30	123.64	7.03	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
14:45	06:45	126.36	7.11	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2
15:00	07:00	129.09	7.19	1.00E+01	8.00E+00	1.33E-01	5.10E+01	6.00E+01	2.40E+01
15:15	07:15	131.82	7.27	9.50E+01	7.60E+01	1.27E+00	5.50E+01	9.40E+01	1.10E+02
15:30	07:30	134.55	7.34	5.00E+01	4.00E+01	6.67E-01	5.30E+01	7.40E+01	5.88E+01
15:45	07:45	137.27	7.42	6.30E-01	5.05E-01	8.42E-03	5.00E+01	5.00E+01	< 0.2
16:00	08:00	140.00	7.50	< 0.2	< 0.2	0.00E+00	5.00E+01	5.00E+01	< 0.2

*** NOTE : Waist and ground level readings are the same.

10.3.5

MET FORECAST DATA

October 25, 1994

DRILL TIME : 00:00 - 08:00

REAL TIME : 08:00 - 16:00

WEATHER FORECAST FROM NOAA

General Forecast:

Winds are presently from the East ¹5 to 10 ³ mph with temperatures in the low to mid 40's. Expected a wind shift to occur from the East to the East South East.

Present Temperature and Wind Information:

Winds from 90 degrees , ¹
Temperature is 41 degrees F , ²
Wind speed is 5 mph , ³

Extended Period Forecast:

Weather conditions should be stable for the next few days as a high pressure system remains in the Delaware Valley area. Expect clear skies with temperatures in the mid to high 40's for the next few days. Winds should be shifting from the East South East to the South East 5 to 10 mph.

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CONTROLLER INFORMATION

¹ WD Degrees	Generic Name
348.75 to 11.25	N
11.25 to 33.75	NNE
33.75 to 56.25	NE
56.25 to 78.75	ENE
78.25 to 101.25	E
101.25 to 123.75	ESE
123.75 to 146.25	SE
146.25 to 168.75	SSE
168.75 to 191.25	S
191.25 to 213.75	SSW
213.75 to 236.25	SW
236.25 to 258.75	WSW
258.75 to 281.25	W
281.25 to 303.75	WNW
303.75 to 326.25	NW
326.25 to 348.75	NNW

The controller may vary the information listed below at anytime.

² Temperature may vary + or - 5 degrees.

³ Wind speed may vary + or - 0.5 miles per hour.