BSEP EMERGENCY EXERCISE NOVEMBER 17, 1987

SCENARIO CHANGES

1. Time line-1145 Normal injection path "not" available for SLC.

2. Time line flowchart-1145 SLC discharge valve C41-F005 leaking.

3. Additionnal information for message #1-seismic chart readout.

4. Message #2-drop the word contigency, this message is to be given in the Control Room.

5. Message #7A-change time from 1035 to 1005.

6. SPDS data sheet, 1100-change line 7 from "Y" to "N".

7. SPDS data sheet, 1115-MAY change from "Y" to "N" if Control Room doesn't get to this point in the EOP by 1115.

8. SPDS data, line 26-main stack gas monitor, sheets:

   0830-5.5 E+1
   0845-6.0 E+1
   0900-6.5 E+1
   0915-6.5 E+1
   0930 through 1045-7.0 E+1
   1100 through 1245-5.0 E+1

These changes were necessary to make rad data consistant between the main stack gas monitor and the SJAEs.

Pete Dorosko @ 2515
Ralph Hoskins

Control Room 4080 & 4081

OSC 2427

EOF 4704

CECC 8-1770 PBX
or
6031 XH

CAROLINA POWER & LIGHT COMPANY

PLAN FOR BRUNSWICK STEAM ELECTRIC PLANT EMERGENCY EXERCISE

NOVEMBER 17, 1987

CAROLINA POWER & LIGHT COMPANY

PLAN FOR BRUNSWICK STEAM ELECTRIC PLANT EMERGENCY EXERCISE
NOVEMBER 17, 1987

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CAROLINA POWER & LIGHT COMPANY

PLAN FOR BRUNSWICK STEAM ELECTRIC PLANT EMERGENCY EXERCISE
November 17, 1987

I. MISSION AND PURPOSE OF EXERCISE

To activate and evaluate major portions of emergency response capabilities and other elements of the CP&L Brunswick Steam Electric Plant Plan, associated implementing procedures, and the CP&L Corporate Emergency Plans in accordance with Nuclear Regulatory Commission (NRC) Regulation 10 CFR 50.47(b).

II. SCOPE AND OBJECTIVES

A. Scope

A simulated accident at the Brunswick Steam Electric Plant (BSEP) which could escalate to a general emergency and will involve planned response and recovery actions to include: emergency classification; notification of off-site organizations and plant personnel; actions to correct the emergency conditions; and initiation of accident assessment and protective actions as necessary to cope with the accident. The exercise will simulate an emergency that results in off-site radiological releases which require responses by state and local government personnel.

B. Objectives

1. Demonstrate the ability of on-site personnel to effectively utilize the emergency action level scheme.

2. Demonstrate the ability of on-site personnel to classify the emergency based on existing plant conditions.

3. Demonstrate the adequacy of the control room staff in the ability to perform control and accident mitigation activities along with accident assessment.

4. Demonstrate the adequacy of procedures for alerting, notifying, and mobilizing emergency response personnel (some individuals will be pre-staged within the local area).

5. Demonstrate that communications capabilities exist to accomplish notification of off-site agencies.

6. Demonstrate the ability to notify off-site authorities within 15 minutes of the emergency classification.

7. Demonstrate the adequacy of the information provided in the initial notification, as well as follow-up notifications to the State and Counties (state and local government organizations will not participate).

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II. SCOPE AND OBJECTIVES (Cont'd)

8. Demonstrate the ability of on-site personnel to formulate protective action recommendations based on pre-established criteria.

9. Demonstrate ability of personnel to activate the TSC, OSC, EOF, and Plant Media Center as described in the emergency plan and procedures.

10. Demonstrate transfer of responsibility between emergency response facilities as described in the plan and procedures.

11. Demonstrate the ability to communicate between emergency response facilities.

12. Demonstrate the adequacy of the Operations Support Center in providing manpower support and coordination.

13. Demonstrate the adequacy of the Technical Support Center in providing accident assessment and mitigation, dose assessment, and communication/notification activities.

14. Demonstrate the adequacy of the EOF in coordinating off-site utility activities.

15. Demonstrate recordkeeping requirements as described in the plan and procedures.

16. Demonstrate that status boards are maintained and updated.

17. Demonstrate the ability to provide adequate radiation protection services such as dosimetry and personnel monitoring.

18. Demonstrate the capability to perform radiological monitoring activities and assessments.

19. Demonstrate the ability to support the radiological assessment process while maintaining personnel radiation exposure as-low-as-reasonably achievable (ALARA).

20. Demonstrate the assessment of radiological consequences of the accident and of any releases of radioactive material to the environment.

21. Demonstrate the activation, operation, and reporting of the field monitoring teams within and beyond the site boundary.

22. Demonstrate the ability to perform on-site accountability within 30 minutes from the time of the order for accountability.

II. SCOPE AND OBJECTIVES (Cont'd)

23. Demonstrate the ability to provide safe on-site access to off-site emergency services and/or support personnel (normal security access procedures will be adhered to).

24. Demonstrate proper procedures for the fire brigade response to the type of fire chosen for the exercise.

25. Demonstrate the adequacy of the interface between off-site fire support personnel and the plant fire brigade.

26. Demonstrate the capability to produce public information releases.

III. SITUATION AND ASSUMPTIONS

A. Exercise Dates

1. Submit exercise scope, and objectives to NRC:

   Exercise - 75 days (September 3, 1987).

2. Submit exercise scenario to NRC:

   Exercise - 45 days (October 2, 1987).

3. Final Evaluator Meeting:

   Exercise - November 16, 1987; 1400 hours
   TSC/EOF Training Building, Room No. 122.

4. Exercise:

   November 17, 1987; 0800 to 1600 hours

5. Evaluator Group Meeting:

   November 17, 1987; 1600 to 1800 hours

6. Lead Evaluator Meeting:

   November 17, 1987; 1800 to 2000 hours

7. Post Exercise Critique Report to Players:

   November 18, 1987; 1100 hours

8. NRC Exit/Critique

   November 18, 1987; 1130 hours

III. SITUATION AND ASSUMPTIONS (Cont'd)

B. Exercise Locations/Facilities

1. Brunswick Plant, Southport, North Carolina

a. Control Room (see Attachment #5). Function is to provide plant control and initial direction of all plant related emergency operations.

b. Operations Support Center (OSC) (see Attachment #5). The OSC will be located in the Service Building. The function of the OSC is to provide an area for assembly and briefing of off-shift and other support personnel.

c. Technical Support Center (TSC) (see Attachment #5). The Technical Support Center is located in the Training Building and is to provide an assembly location for technical personnel who provide engineering and management support of plant activities following an accident; direction and coordination of overall plant emergency activities; direction and coordination of field, mobile, radiological monitoring teams prior to EOF activation; on-site dose projections; off-site dose projections prior to EOF activation; display of status of plant parameters; and provide an emergency reference collection of selected engineering and plant documents. The TSC is activated and emergency functions performed in accordance with the provisions of the plant radiological emergency response plan and procedures.

The TSC will perform the Emergency Operations Facility (EOF) functions until the EOF is operational. In addition to the normal plant communications system, redundant emergency communications facilities in the TSC provide telephone contact with required agencies and other response centers by use of the Corporate Emergency Communications System.

d. Plant Media Center. Located behind the Information/Visitor Center at the Brunswick Site. The Center will be staffed by CP&L Site Public Information Coordinator and other Corporate Public Information personnel. Work stations and a briefing room are available at the Center for CP&L personnel to assist the media representatives by provide immediate access to accurate emergency related information and providing equipment for document reproduction and for communications. Media participation will be simulated.

e. Emergency Operations Facility (EOF) (see Attachment #5). The EOF is located in the plant Training Building. When activated, the EOF is managed by the Emergency Response Manager. He will have a staff to

III. SITUATION AND ASSUMPTIONS (Cont'd)

provide support in: Technical Analysis, Administration and Logistics, Radiological Control, and Emergency Communications.

f. Meteorology Tower. Located north of the TSC on the plant site. Measures wind at 11.46 meters (38 feet) and 104.55 meters (345 feet) above the ground.

Meteorology and Weather

1. Start of Exercise: As advised by Controller
2. Subsequent: As advised by Controller

g. Corporate Emergency Operations Center (CEOC), Raleigh, The Corporate Emergency Operations Center is located on the 11th floor in the Center Plaza Building, Raleigh, NC.

h. Miscellaneous Facilities

(1) Brunswick County Airport, 25-foot elevation, 3200-foot runway, is located approximately 5 miles via Route 133 from the BSEP. Phone (919) 457-6577.

(2) Motels

Sea Captain Motel, Southport, NC
(919) 457-5263.

Wayward Wynds, Yaupon Beach
(919) 278-5975.

Oak Island Inn, Yaupon Beach
(919) 278-5442

Ocean Crest Motel, Long Beach
(919) 278-5212

Best Western Carolinian, Wilmington
(919) 763-4653

IV. CONCEPTS AND CONDUCT OF THE EXERCISE

A. Exercise Scenario

The exercise will simulate an off-normal incident at BSEP that may escalate to a General Emergency and require: accident recognition and classification; assessment of on-site and off-site radiological consequences; alerting, notification, and mobilization of various organizations and personnel; in-plant corrective actions; activation and use of emergency facilities and equipment; effective use of communications; preparation of reports, messages, and records; taking on-site protective action, recommending off-site

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protective action; and maintaining public relations. During the course of the exercise, there will also arise incidents that require deployment of CP&L radiological monitoring teams for off-site monitoring. The scenario and time schedule of simulated plant conditions is contained in Attachment 4. Only the NRC and CP&L Controllers/Evaluators will receive the scenario.

B. Brunswick Exercise Organization Activities

The exercise organization will consist of players; the Corporate Exercise Director; Lead Controller; the Controllers; the Chief Evaluator; the Evaluators; and Observers as follows:

1. The CP&L Players include all plant and other CP&L personnel assigned to perform functions of the emergency positions as described in Section 3 of the Plant Emergency Procedures (PEP). The success of the exercise is largely dependent upon player reaction, player knowledge of the Radiological Emergency Response Plan and Procedures, and an understanding of the Exercise Plan and objectives. Some situations affecting player action or reaction may exist at the time the exercise play begins, however, most will be introduced through the vehicle of Controller Exercise Message Cards and messages generated by players as a result of following the procedures for the particular emergency activity they perform. Players, therefore, are responsible for initiating actions and/or messages during the exercise according to the procedures, responsibilities, and tasks outlined for their particular function in the Plant Radiological Emergency Response Plan and Procedures and in the Exercise Plan and objectives. Certain inconsistencies (such as plume width, release duration, technical reason for the simulated release, etc.) may be identified by players. These may be intentional and required to provide an exercise basis which tests the plant and corporate capabilities to the maximum extent feasible in a limited time frame. With the exception of the already cited and potential inconsistencies, the internal operations of the emergency response facilities will be identical with their intended operation in a real emergency. Players will be identified by wearing a WHITE ribbon, arm band or ID badge.

2. The Corporate EP Exercise Director will be responsible for overall exercise preparation; to oversee conduct of the exercise; to arrange preparation at the conclusion of the exercise for a consolidated evaluation and critique report; and to prepare and follow-up on an itemized list of corrective actions recommended as a result of evaluation and critique.

3. Lead Controller will be responsible for exercise preparation as directed by the Corporate Exercise Director. This will include development of the exercise plan, the scenario and the controller input messages. During the exercise the Lead

Controller will coordinate controller input as necessary to initiate player response and keep the exercise action moving according to the scenario and exercise objectives.

4. The Controllers will deliver "Exercise Message Cards" to designated exercise players at various times and places during the exercise; inject or deliver additional messages, signs, etc., as may be required to initiate the appropriate player response and keep the exercise action moving according to the scenario and exercise objectives; observe the exercise at their assigned locations; prepare critique notes; and submit recommendations on corrective actions to the Chief Exercise Evaluator prior to the scheduled critique. Controllers will be identified by wearing a RED ribbon, arm band, or ID badge.

5. Chief Evaluator and Evaluators are CP&L or other qualified personnel who are assigned to observe and judge the effectiveness of selected organizations, personnel, functions, and/or activities of the plant radiological emergency response plan and procedures. Selection of evaluators is based on their expertise in, or their qualifications to evaluate the activity or area assigned. For example, health physics activities will be evaluated by qualified health physics personnel. When feasible, persons designated as Controllers for a given function will also be assigned as evaluators of that function. Evaluators will record their observations, and provide recommendations on corrective actions to the Chief Exercise Evaluator prior to the scheduled critique. They will critique exercise performance on the basis of standards or requirements contained in the Plant Radiological Emergency Response Plan and Procedures; in the "Actions Expected" portion of the Exercise Message Cards and in the plan for the exercise. They will take steps whenever possible to collect data on the time and motion aspects of the activity observed for post exercise use in designing system improvements. Evaluators will be identified by wearing a BLUE ribbon, arm band, or ID badge. When an Evaluator is serving in a Controller role, he will wear a RED ribbon, arm band, or ID badge.

6. Observers from various CP&L components and from other organizations may be authorized on a limited basis to participate in the exercise solely for the purpose of observing exercise activity.

C. Evaluation and Critique

1. The exercise will be evaluated by Evaluators who will be assigned to key locations and response activities where they will record their observations. Following the exercise, Evaluators will present their findings at critiques as scheduled in Section III.A of this plan.

2. The following facilities will be evaluated in addition to the Plant Emergency Plan and Procedures:

   a. Control Room.
   b. Operational Support Center.
   c. Technical Support Center.
   d. Plant Media Center.
   e. Emergency Operations Facility.
   f. Corporate Emergency Operations Center.
   g. Corporate Media Center

3. The following activities will be evaluated:

   a. Accident recognition, classification, and assessment.
   b. Assessment of on-site and off-site radiological consequences.
   c. Alerting, notification and mobilization activities.
   d. In plant corrective actions.
   e. Activation and use of emergency facilities and equipment.
   f. Use of communications equipment and procedures.
   g. Preparation of reports, messages, and records.
   h. Protective actions.
   i. Public information.
   j. On-site and off-site radiological monitoring.

4. Evaluations will be made on the basis of exercise objectives; standards or requirements contained in the Plant Radiological Emergency Response Plan and implementing procedures; and notations in the "Actions Expected" portion of the Exercise Message Cards for the area evaluated.

5. Any deficiency in the Plant Radiological Emergency Response Plan and implementing procedures, training, etc., that is identified through the critique process shall be documented by the Chief Evaluator and corrected by the organizations and individuals who have responsibility for the areas identified. Management controls shall be established to ensure that corrective actions are taken as necessary.

D. Exercise Exempt Personnel

Some plant personnel must be exempt from exercise participation in order to maintain vital plant functions such as security, normal operations, chemistry, etc.

E. General Guidance for the Conduct of the Exercise

1. Simulating Emergency Actions

Since exercises are intended to demonstrate actual capabilities as realistically as possible, participants should act as they would during a real emergency. Wherever possible, action should be carried out. Only when it is not feasible to perform an action should it be simulated. Any orders given

that for any reason cannot or should not actually be performed should begin with the word "Simulate." For example, the order to put out a fire that is being hypothesized would state: "Simulate discharging the fire extinguisher." Where such actions are being taken, it is suggested that participants inform any controller/evaluators in the area of what action really would be taken had the emergency been real.

2. Avoiding Violation of Laws

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

a. All evaluators and potential exercise 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.

b. Exercise participants will not direct illegal actions being taken by other exercise participants or members of the general public.

c. Exercise participants will not intentionally take illegal actions when being called out to participate in an exercise. Specifically, local traffic laws such as speed limits will be observed.

3. Avoiding Personnel and Property Endangerment

Participants and evaluators will 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. Actions 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 actions of federal, state, and county 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. It is important that conversations that can be monitored by the public (radio, loudspeakers, etc.) be prefaced and conclude with the words, "This is an exercise message."

5. 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 participants will not include any actions which seriously degrade the condition of systems, equipment or supplies, or affect the detection, assessment, or response capability to radiological or other emergencies.

Actions taken by the participants will also avoid actually reducing plant or public safety. The potential for creating real radiological or other emergencies will be specifically avoided.

If a real emergency occurs during the exercise, requiring the actions of Company personnel, then the exercise will be terminated by the Lead Controller or the Emergency Exercise Director in consultation with appropriate plant management. All messages about the real events will be clearly identified as such. For example, precede a peak message with:

"This is NOT, repeat NOT an exercise message."

V. COMMAND, CONTROL, AND COMMUNICATIONS

A. Site Emergency Coordinator (SEC)

The SEC has immediate and unilateral authority to act on behalf of the Company to manage and direct all on-site emergency operations involving the facility. During the exercise, he will have responsibility also for the simulated emergency exercise operations. The SEC will be located in the Control Room at the beginning of the exercise and will relocate to the TSC upon activation of the TSC.

B. Communications

Communication equipment and procedures are described in Plant Emergency Procedures (PEP). The telephone will be the primary means of communications.

C. Records

BSEP Emergency Procedures require that plant personnel responsible for maintaining records during an emergency shall provide a copy of those records to the Emergency Preparedness Specialist following an emergency or emergency exercise.

D. Exercise Message Card

The "Exercise Message Cards" are prepared by the exercise drill planners/controller prior to the exercise to satisfy the requirements of the exercise scenario. The purpose of the

completed form is to initiate the appropriate exercise player response and to keep the exercise action moving according to the scenario and exercise objectives. The messages that are delivered to players during the play of the exercise should allow "free play," i.e., should not tell the players what should be done.

E. Time

1. All CP&L in-plant exercise participants will report time of incidents, messages, etc., in accordance with time based on the Control Room clocks.

2. Local 24-hour clock time will be used to reference time in all reports and communications.

F. Message Preamble and Close

The words "THIS IS AN EXERCISE MESSAGE" should be used at the beginning and end of each message.

Attachment 1

INSTRUCTIONS FOR CONTROLLERS AND EVALUATORS

1. Personnel are assigned as controllers or evaluators at all key function areas to monitor and control the exercise. In addition, they will accompany radiological monitoring teams, plant health physics personnel, and maintenance repair/rescue teams.

2. The in-plant controllers will be coordinated by the Exercise Lead Controller located in the TSC (Ext. *). He/she will be responsible for the overall conduct of the exercise scenario. If unable to reach the Exercise Lead Controller, contact the OSC Lead Controller (Ext. *). Field controllers should contact the Environmental Monitoring Lead Controller in the EOF (Ext. *) regarding coordination problems or questions.

3. Message forms and simulated Control Room data will be used to initiate, modify, and complete the events comprising the overall scenario. Selected controllers will use the message forms to place the scenario events in effect and to trigger responses from the involved emergency response organizations. Each controller will have copies of the messages controlling the portion of the exercise scenario for which he/she is responsible.

   Two kinds of messages will be used:

   Controlling

   Messages used as a primary means of implementing scenario events by announcing or placing an event in effect by hypothesizing conditions resulting from previous actions.

   Contingency

   Messages used at the discretion of the controllers with the approval of the Exercise Lead Controller in order to maintain the scenario plan continuity or schedule.

   Controlling messages will be presented to the designated exercise participant at the time specified in the event schedule. The controller should follow up with an explanation of the message and answer questions to ensure that the participant understands the message.

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

* Phone numbers will be promulgated at the Controller/Evaluator briefing preceeding the exercise.

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4. Note that 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 be previewed by and ended with the words "THIS IS AN EXERCISE." Controllers 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. Required controllers will have the time-related plant and radiological parameters of the exercise scenario. This information should be issued upon request to the appropriate exercise participants by either the Control Room controller or controllers accompanying the radiological monitoring field teams.

6. Some exercise participants may insist that certain parts of the scenario are unrealistic. The controllers and evaluators have the authority, with the approval from the lead controllers, to clarify any questions regarding scenario content. In some cases, it may be necessary to exercise "controller's prerogative" and say, "This is due to exercise requirements" to preserve the continuity and objective of the exercise.

7. Prior to commencement, all telecommunications should be tested to ensure satisfactory communications between the lead controllers and all other controllers.

8. Controllers will commence their assignments at assembly locations for players that they are to observe or as directed by the lead controllers.

9. Players are not allowed to introduce problems or events into the exercise or its scenario.

CONTROLLER'S AND EVALUATOR'S RULES

1. Know the overall Controller's Organization.

2. Identify the players by name and function.

3. Identify yourself at all times to all players. Wear identification as provided by CP&L.

4. Identify the phone (or radio for field teams) you will use to maintain communications with lead controllers.

5. Position yourself to maximize your effectiveness in issuing messages and observing the players.

5. Be sure you understand the player's scenario script and the master scenario.

7. Keep the play on schedule by checking your script.

8. Issue the message on time. Make sure the players understand it.

9. Remember to call the Exercise Lead Controller to report on status of players' actions if off schedule or if in doubt about what to do. Call for advice if players depart significantly from the scenario script.

10. Allow the players reasonable flexibility to perform their functions and demonstrate their skill, knowledge, and initiative.

11. Identify the federal evaluators(s). Make sure they are reasonably aware of all your actions and those of the players.

12. Make notes on good and bad points of players' actions, the strengths and weaknesses, and areas for improvements.

13 Attend the post-exercise critique session to provide your comments and recommendations to the Lead Controller.

14. Identify the players' leaders. Work with them as appropriate.

15. If a real emergency occurs and this affects the players, call off your portion of the exercise, and notify the Exercise Lead Controller immediately.

16. Be at your post at least 20 minutes prior to any player action commencement. Set yourself up.

17. The federal evaluators will not issue "surprise" messages or direct "surprise" actions at the players. They must work through the Exercise Lead Controller. This is essential for the success of the exercise.

18. Controllers and federal evaluators do not have to follow the radiation exposure control practices appropriate for the simulated radiation levels. However, the players must follow the radiation protection rules. Controllers and evaluators will be exempt from accountability and have access to all areas.

19. Do not issue contingency messages without clearance from the Exercise Lead Controller.

DON'Ts

1. Don't leave your post at key times.

2. Don't prompt the players to take action.

3. Don't coach the players.

4. Don't criticize the players' actions during the play.

5. Don't forget to call the lead controllers to seek advice or help as necessary.

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6. Don't allow the media/other external influences to distract the players. No interviews with players are allowed.

7. Don't allow simulation when equipment and facilities are available except for causing flow discharge of fire extinguishers, etc.

NOTE

* All participants will comply with radiation exposure control practices for actual conditions existing at the station at the time of the exercise.

Attachment 2

INSTRUCTIONS AND RULES FOR PLAYERS

All players (at least the leaders of the player groups) must read and follow the rules given below. This is important to the successful demonstration of emergency response capabilities.

1. Identify your controller by his identification badge. These controllers are also evaluators.

2. NRC/FEMA (federal agencies) evaluators are also present. Identify them by their identification badges. They are here to judge players' performance and approve the emergency plan.

3. Visitors may be present. Identify them by their identification badges.

4. Identify yourself by name and function to the exercise controllers and the NRC/FEMA evaluators. This will be helpful.

5. Play out all actions, as much as possible, in accordance with your emergency plan and procedures as if it were a real emergency. Unless authorized by the controller, you should not simulate your actions. If authorized to simulate an action, tell the evaluator how and when you would actually do them.

6. Periodically speak out loud, identifying your key actions and decisions to the controller and federal evaluators. This may seem artificial, but it will assist in the evaluation process and is to your benefit.

7. If you are in doubt, ask your controller for clarification. The controller will not prompt or coach you.

8. The controller periodically will issue messages or instructions designed to initiate response actions. You must accept these messages immediately. They are essential to your successful performance.

9. If the controller intervenes with your play, it is for a good reason. Obey your controller's directions at all times. This is essential to the overall success of the exercise.

10. If you disagree with your controller, you can ask him to reconsider or consult with the controller's command center as time permits. You must, however, accept his/her word as final and proceed.

11. Respond to the controller's questions.

12. You must not accept any message/instruction from the federal evaluators. If they want to initiate actions, test you abilities, or give you "surprises," they must work through your controller. This is essential to the overall success of the exercise.

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13. You must play as if radiation levels actually are present, in accordance with the information you have received. This will require that you wear radiation dosimeters, anti-contamination clothing, observe good radiation protection practices, and be aware of and minimize your radiation exposure. Identify the individuals in your emergency response organization responsible for informing you of these items. Follow their instructions.

14. The controllers and federal evaluators are exempt from acting as if radiation levels from the emergency exercise are present. Do not let them confuse you or cause you to act unwisely.

15. If you are entering normal nuclear station radiation areas, observe all rules and procedures. No one (even the controller and federal evaluators) is exempt from radiological practices and procedures required by actual conditions.

    NOTE: DO NOT ENTER HIGH RADIATION AREAS IN THE PLANT WITHOUT AUTHORIZATION FROM THE CONTROLLER. FOLLOW ALARA PRINCIPLES.

16. Demonstrate knowledge of your emergency plan, emergency operations, and procedures.

17. Utilize status boards, log book, three-part interoffice memos, etc., as much as possible to document and record your actions, instructions, and reports to your co-players. This is very important. Remember, "Put it in writing."

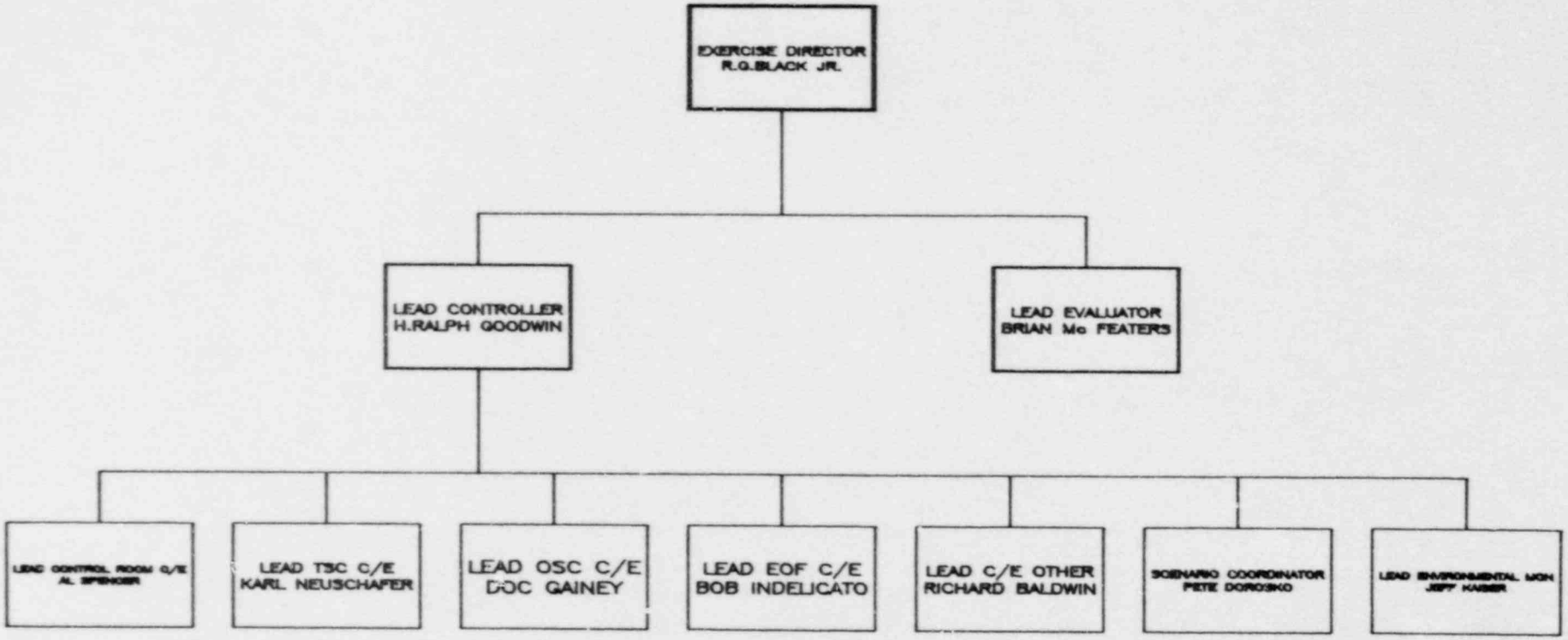
18. Do not enter into conversations with the visitors.

19. You may answer questions directed to you by federal evaluators. If the question is misdirected to you or you do not know the answer, refer them to your lead player or the controller.

20. Keep a list of items you feel will improve your plans and procedures. Provide this to your lead player. Lead players will ensure these are considered. If necessary, they will identify them to the controller. Remember one of the main purposes of the exercise is for you, the players, to assure yourself that you are prepared adequately. Areas for improvement or lessons learned, when identified, will improve your overall emergency planning and preparedness.

21. A critique of the exercise will occur after the exercise is terminated. Provide your input to your lead player or the controller. This will help in the overall evaluation the controller will present at the critique.

BRUNSWICK
EMERGENCY PREPAREDNESS EXERCISE
CONTROL/EVALUATION ORGANIZATION
NOVEMBER 17, 1987



MIKE WILLIAMS
TED ANDERSON

JIM BOONE
MARK HAYNES

BOB JOHNSON
RON THOMPSON
MIKE CRABTREE
RICHARD CONNELLY
BILL MINARD
THOMAS HARRISON

MIKE MORROW
ALBERT GARROU
LARRY RATLIFF

BILL TROLENBURG
MARTHA GLASS
TERRY GARNER
WAYNE ELKS
PHIL LESLIE

BILL CHRISTENSEN
FRANK WATKINS
MIKE SHELLY
DAN CAHILL

Exercise Basics

Date: NOV. 17 1987 Begin Time: 0800 End Time: 1500

Location(s): BRUNSWICK

X Announced ___ Full Scale Max. EAL ___ Site Emergency

___ Unannounced X Small Scale X General Emergency

Participants	Extent of Participation							Notification			Activation	
	Not Involved	Limited	Full Play	Controllers	Evaluators	Observors	Simulated	Actual	Simulated	Start/Finish	Actual	Pre-staged
CP&L Site			X	X	X	X		X			X	X
CP&L Offsite		X		X	X	X		X				X
CP&L Corporate		X		X	X	X		X				X
Counties	X											
State	X											
NRC Resident	X											
NRC Ops Center		X								X	X	
NRC Site Response Team		X										
FEMA		X										
Fire Dept.			X	X	X			X				X
Ambulance	X											
Hospital	X											
Agreement Physician	X											
Media	X											

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Non-CP&L Activities	Extent				Frequency			Time		Source	
	Not Tested	Simulated	Partial	Full	One Time	Every Time	Specific Time	Real Time	Compressed	Players	Scenario
Sheltering	X										
Evacuation	X										
Access Control	X										
Use of KI	X										
Fire Department				X	X		X		X		X
Ambulance/ Medical	X										
Ambulance Contam. Control	X										
Hospital Contam. Control	X										
Agreement Phys. to Site	X										
News Release	X										
Press Conferen.	X										

Scenario	Actual	Scenario	Low Level	High Level	Adverse
Meteorology					
Onsite Radiation					
Onsite Contamination					
Onsite Samples					
Plume Radiation					
Plume Iodine					
Plume Contamination					

(87-3HRG/pcj)

Facilities	Manning				Setup			
	Not Activated	Single Shift	Multiple Shift	Augmentation	Simulated	Actual	Pre-staged	Alternate
Control Room		X					X	
OSC		X				X		
TSC		X				X		
EOF		X				X		
Plant Media Ctr		X					X	
Corporate Media Center		X					X	
CEOC		X					X	
CP&L Mobile Lab	X							
State Mobile Lab	X							
Hospital	X							
SERT/FEOC	X							
SEOC	X							
Simulator	X							
ERFIS	X							

(87-3HRG/poj)

CP&L Activities	Extent				Frequency			Time		Source	
	Not Tested	Simulated	Partial	Full	One Time	Every Time	Specific Time	Real Time	Compressed	Players	Scenario
Accident Assessment				X		X		X		X	
EAL Classification				X		X		X		X	
Notification				X		X		X		X	
Assembly			X		X			X		X	
Accountability			X		X			X		X	
Sheltering	X										
Evacuation			X		X			X		X	
Prot. Area Access Control				X		X		X		X	
Use of Dosimetry				X		X		X		X	
Use of KI	X										
Use of Protect. Clothing				X		X		X		X	
Use of SCBA				X		X		X		X	
Use of Respirators				X		X		X		X	
Source Term Determination				X		X		X		X	
Dose Assessment				X		X		X		X	
Offsite Protect. Action Recommend.				X		X		X		X	
Fire Brigade				X	X				X		X
First Aid Team	X										
Decontamination	X										
Remote Monitor/ Decon	X										
Security			X			X		X		X	
PASS Sample		X									
Other Samples		X									
Lab Analysis		X									
Onsite Surveys				X		X		X		X	
Offsite Surveys			X			X		X		X	
Press Conference			X			X		X		X	
Media Calls			X			X		X			X
News Release			X			X		X		X	
Rumor Control	X										
Recovery			X			X		X		X	
METEOROLOGY								X			X

(87-3HRG/pcj)

INITIAL CONDITIONS

Brunswick Unit 1

Unit 1 is in cold shutdown.

Brunswick Unit 2

Unit 2 is at 100% power. The plant is stable and 2C CSW pump is out of service due to motor failure.

Due to a bad modem at the BSEP Meteorological Tower, access to weather data from the tower is not possible. Repairs to be made by 1500 hours on November 17, 1987.

(87-4HRG/poj)

NARRATIVE SUMMARY

This exercise is initiated by a seismic event which damages reactor internals resulting in blockage of coolant flow to a small percentage of fuel assemblies. This results in fuel element heat up and ultimate fuel cladding failure. The main steam line radiation monitors will start showing an increase approximately one hour into the event.

The diesel generator fuel oil storage tank will also be damaged by the seismic event. Approximately one hour and forty-five minutes into the exercise, a fire will be reported at this tank. Off-site assistance will be required for the fire.

The fuel cladding damage will result in main steam line isolation valve closure and reactor scram signals three hours into the exercise. One main steam line will fail to isolate and all control rods will not fully insert. There will be some increase in radioactivity within the turbine building due to the continued steam flow to the condenser. There will be no off-site radiological consequences as a result of this event. Reactor power will be approximately 10%. The Standby Liquid Control System (SLC) will be initiated to shutdown the reactor.

At three hours and forty-five minutes into the event, it will be discovered that the SLC discharge valve has failed. Activities required for a repair entry will be initiated at this time.

The main steam line that failed to isolate will be closed four hours into the exercise. The reactor will not be shutdown at this time due to failure of all rods to insert and failure of the SLC System. This will result in using SRV's to reject heat from the reactor to the suppression pool and containment heat up.

All control rods will be fully inserted five hours into the exercise. Simultaneously with the control rod insertion, a break will occur in the scram discharge volume header. This results in releasing reactor coolant, directly into secondary containment with a release path from the main stack via the Standby Gas Treatment System. The Environmental Monitoring Team will provide off-site radiological assessment of this release. The exercise will be terminated when the scram discharge volume header is isolated and recovery actions are initiated.

UNUSUAL EVENT

0800 Seismic event annunciator alarms, seismic monitoring confirms earthquake.

0900 Main steam line high rad. annunciator is alarming for Unit 2. This is giving an early indication of fuel damage in Unit 2.

0945 A.O. reports a fire at Fuel Oil Storage Tank. This event is a result of the seismic event and will require assistance from off-site fire department.

ALERT

1045 Fire at Fuel Oil Storage Tank has been extinguished.

1100 The following conditions occur:

1. Main steam line Hi Hi Rad trip.
2. B main steam line MSIV's do not close.
3. Reactor power remains at 10% with some control rods not inserted.

The Control Room Operator should begin injecting the Standby Liquid Control System (SLC) per EOP-1.

1145 A.O. discovers a large leak between the body and bonnett on the SLC discharge valve (2C41-F005). Normal injection path is not available for SLC.

SITE EMERGENCY

1145 Declare site emergency due to a failure to scram and failure of the SLC.

1200 B main steam line MSIV's have been closed.

1215 Initiate repair activities on SLC discharge valve (2C41-F005).

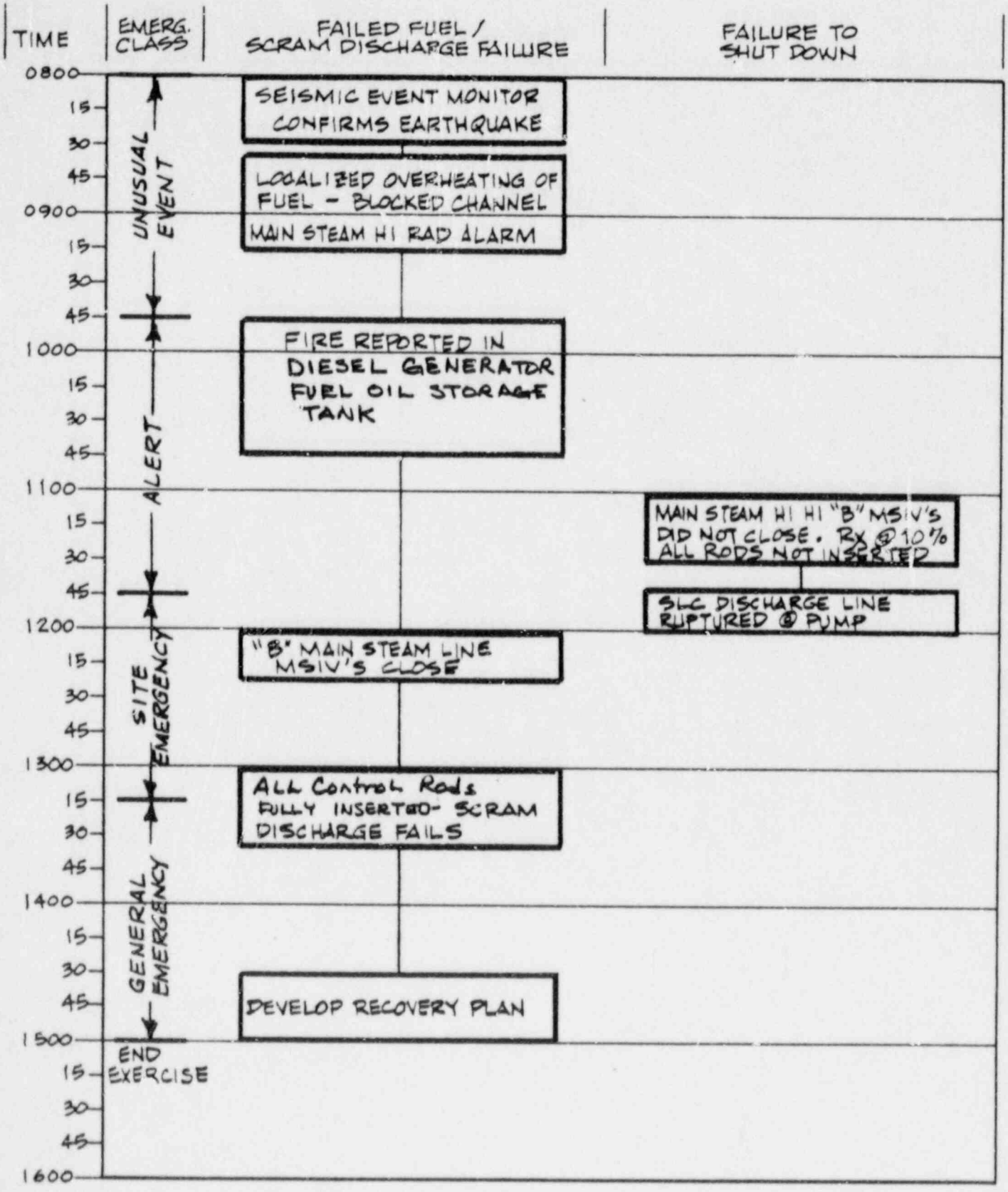
GENERAL EMERGENCY

1300 A.O. reports a break in the south scram discharge volume header.

1305 Release of radioactive material outside secondary containment from the main stack via the Standby Gas Treatment System.

1430 Scram discharge volume header has been isolated. Plans for recovery operation will begin.

BSEP EMERGENCY PREPAREDNESS EXERCISE
NOVEMBER 17, 1987



CP&L
EXERCISE MESSAGE CARD

BSEP
Plant

Message No. 1 Date 11/17/87 Time 0800

MESSAGE FOR: SOS

FROM: CONTROLLER

MESSAGE/SIMULATED PLANT CONDITIONS: "THIS IS AN EXERCISE MESSAGE"

1. Seismic Event Annunciator UA 28 window 6-4.

ACTIONS EXPECTED:

1. Enter APP for Seismic Event, perform evaluation.
2. Determine magnitude of Event to be .07g.
3. Declare UE.
4. Commence Unit S/D per GP-05

FOR CONTROLLER USE ONLY

CP&L
EXERCISE MESSAGE CARD

BSEP
Plant

Message No. 2 Date 11/17/87 Time 0810

MESSAGE FOR: Shift Foreman

FROM: CONTROLLER (CONTINGENCY)

MESSAGE/SIMULATED PLANT CONDITIONS: "THIS IS AN EXERCISE MESSAGE"

The Corporate Meteorological Center calls you to report earthquake activity of unknown magnitude in the Wilmington area with some damage reported.

ACTIONS EXPECTED:

FOR CONTROLLER USE ONLY

USE IF UNUSUAL EVENT HAS NOT BEEN DECLARED BY 0810.

CP&L
EXERCISE MESSAGE CARD

BSEP
Plant

Message No. 2a (Contingency) Date 11/17/87 Time 0830

MESSAGE FOR: SOS

FROM: CONTROLLER (LEAD)

MESSAGE/SIMULATED PLANT CONDITIONS: "THIS IS AN EXERCISE MESSAGE"

Declare an Unusual Event due to alarm on seismic monitor and confirmation of earthquake. (PEP-02.1 14.1)

ACTIONS EXPECTED:

Declare Unusual Event

FOR CONTROLLER USE ONLY

To be used only with approval of the exercise lead controller.

CP&L
EXERCISE MESSAGE CARD

BSEP
Plant

Message No. 3 Date 11/17/87 Time 0900

MESSAGE FOR: SOS

FROM: CONTROLLER

MESSAGE/SIMULATED PLANT CONDITIONS: "THIS IS AN EXERCISE MESSAGE"

1. Main steam line B Hi Rad Annunciator is alarming.

ACTIONS EXPECTED:

1. Reduce power per AOP - 05.3 Main steam line high radiation.
2. Follow actions of APP for main steam line Hi Rad.

FOR CONTROLLER USE ONLY

CP&L
EXERCISE MESSAGE CARD

BSEP
Plant

Message No. 4 Date 11/17/87 Time 0945

MESSAGE FOR: Passerby

FROM: CONTROLLER

MESSAGE/SIMULATED PLANT CONDITIONS: "THIS IS AN EXERCISE MESSAGE"

You observe a large fire burning in the area surrounding the No. 2 Fuel Oil Storage Tank.

ACTIONS EXPECTED:

Report fire to the Control Room.

FOR CONTROLLER USE ONLY

If no one is available to receive this message then call it in to the Control Room.

CP&L

EXERCISE MESSAGE CARD

_____
Plant

Message No. _____ Date _____ Time _____

MESSAGE FOR:

FROM: CONTROLLER

MESSAGE/SIMULATED PLANT CONDITIONS: "THIS IS AN EXERCISE MESSAGE"

MESSAGE 5 HAS BEEN DELETED.

ACTIONS EXPECTED:

FOR CONTROLLER USE ONLY

CP&L
EXERCISE MESSAGE CARD

BSEP
Plant

Message No. 6 Date 11/17/87 Time 0947

MESSAGE FOR: Controller

FROM: SCENARIO WRITING TEAM

FOR CONTROLLER USE ONLY:

The Shift Fire Commander should respond to fire scene in approximately 10 minutes after sounding the fire alarm. The fire brigade should respond within 15 minutes. The Shift Fire Commander should establish a command post upwind of the fire scene. Fire hoses should be deployed, charged and water discharged from hose nozzles. The use of AFFF should be simulated.

The fire brigade should not be allowed to extinguish the fire until after the arrival of the off-site fire department. The off-site fire department should be utilized to their fullest capacity to assist with extinguishment and exposure protection.

As necessary controllers should observe that personnel safety is ensured. It may be necessary to temporary secure plant fire brigade activities while awaiting plant access by the off-site fire department. If this is necessary it should be done in a manner which will not adversely impact the demonstration of the off-site fire department/on-site fire brigade interface.

The fire should have been extinguished and all objectives demonstrated by approximately 1045 hours.

CP&L
EXERCISE MESSAGE CARD

BSEP
Plant

Message No. 7 Date 11/17/87 Time 1030

MESSAGE FOR: Media Center (Corporate if Plant not activated)

FROM: CONTROLLER

MESSAGE/SIMULATED PLANT CONDITIONS: "THIS IS AN EXERCISE MESSAGE"

To the Plant Media Center Controller:

You are to call the Media Center and represent yourself as the local media (do not use real names of local media people ... Tim Smith or Jane Jones should be used). Ask the following questions:

- Why has the Southport Fire Department been called to the Plant?
- Is there a fire such as occurred at Chernobyl burning there?
- Should residents living near the plant evacuate?

ACTIONS EXPECTED:

Respond to Questions:

FOR CONTROLLER USE ONLY

CP&L
EXERCISE MESSAGE CARD

BSEP
Plant

Message No. 7A (Contingency) Date 11/17/87 Time 1035

MESSAGE FOR: Site Emergency Controller

FROM: CONTROLLER (LEAD)

MESSAGE/SIMULATED PLANT CONDITIONS: "THIS IS AN EXERCISE MESSAGE"

Based on fire potentially affecting safety-related equipment declare an ALERT.

ACTIONS EXPECTED:

Declare Alert and implement appropriate procedures.

FOR CONTROLLER USE ONLY

To be used only with approval of exercise lead controller.

CP&L
EXERCISE MESSAGE CARD

BSEP
Plant

Message No. 8 Date 11/17/87 Time 1100

MESSAGE FOR: SOS

FROM: CONTROLLER

MESSAGE/SIMULATED PLANT CONDITIONS: "THIS IS AN EXERCISE MESSAGE"

1. Main Steam Line Hi Hi Rad. Trip.
2. "B"Main Steam Line MSIV's did not close.
3. All Control Rods not full inserted.

ACTIONS EXPECTED:

1. Follow actions per EOP-01 - (Path 1 to Level Power Control).
2. Attempt to Isolate B main steam line.

FOR CONTROLLER USE ONLY

CP&L
EXERCISE MESSAGE CARD

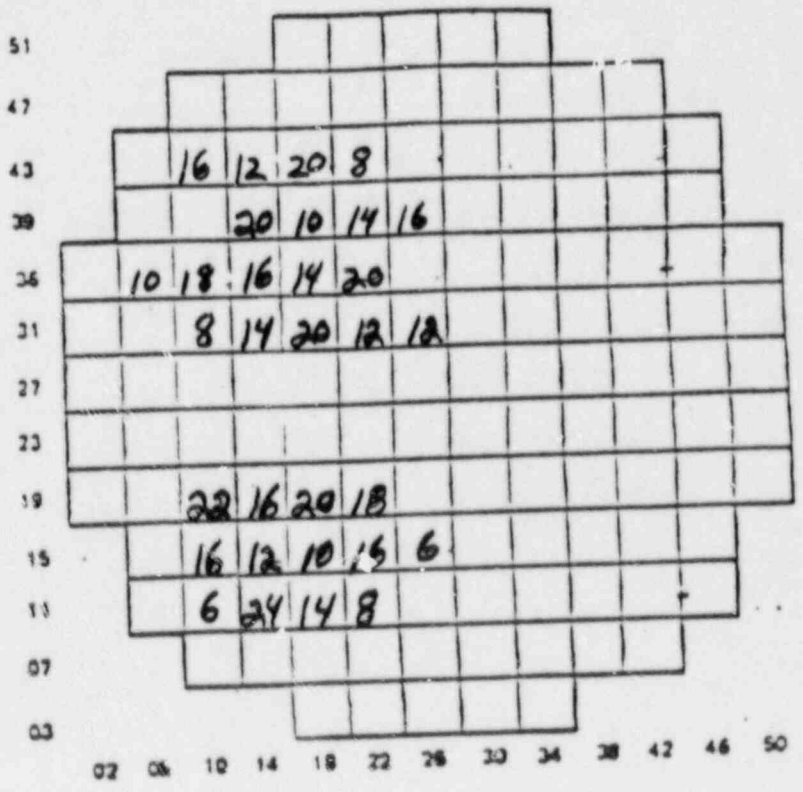
Unit 2
Plant

Message No. 8A Date 11/17/87 Time 1100

MESSAGE FOR: CONTROL ROOM CONTROLLER

FROM: EXERCISE LEAD CONTROLLER

MESSAGE/SIMULATED PLANT CONDITIONS: "THIS IS AN EXERCISE MESSAGE"



ACTIONS EXPECTED:

None.

FOR CONTROLLER USE ONLY

USE AS NECESSARY TO ANSWEAR PLAYER QUESTIONS.

MSC/87-120

CP&L
EXERCISE MESSAGE CARD

BSEP
Plant

Message No. 9 Date 11/17/87 Time 1140

MESSAGE FOR: SOS

FROM: CONTROLLER

MESSAGE/SIMULATED PLANT CONDITIONS: "THIS IS AN EXERCISE MESSAGE"

1. A large leak has occurred at the flanged connection of 2-C41-F005 (SLC discharge).

ACTIONS EXPECTED:

1. Declare site emergency due to failure to scram and failure of SLC.
2. Enter LEP-03 (Alternate Boron Injection Methods).

FOR CONTROLLER USE ONLY

CP&L
EXERCISE MESSAGE CARD

BSEP
Plant

Message No. 10 Date 11/17/87 Time 1145-1300

MESSAGE FOR: Repair Team

FROM: CONTROLLER (See below)

MESSAGE/SIMULATED PLANT CONDITIONS: "THIS IS AN EXERCISE MESSAGE"

1. Clearance has been completed.
2. Visual observation indicates a leak between the body and bonnett on 2 C41-F005 (SLC Discharge).

ACTIONS EXPECTED:

Initiate repair.

FOR CONTROLLER USE ONLY

Give to players upon arrival at valve mock up.

Use Valve mock up.

CP&L
EXERCISE MESSAGE CARD

BSEP
Plant

Message No. 10A (Contingency) Date 11/17/87 Time 1155

MESSAGE FOR: Site Emergency Coordinator

FROM: CONTROLLER (LEAD)

MESSAGE/SIMULATED PLANT CONDITIONS: "THIS IS AN EXERCISE MESSAGE"

Declare Site Emergency due to failure to scram and failure of SLC.

ACTIONS EXPECTED:

Declare Site Emergency.

FOR CONTROLLER USE ONLY

To be used only with approval of exercise lead controller.

CP&L
EXERCISE MESSAGE CARD

BSEP
Plant

Message No. 11 Date 11/17/87 Time 1200

MESSAGE FOR: SOS

FROM: CONTROLLER

MESSAGE/SIMULATED PLANT CONDITIONS: "THIS IS AN EXERCISE MESSAGE"

1. "B" Main Steam Line MSIV's have been closed.

ACTIONS EXPECTED:

1. Recognize that heat from the reactor is being rejected to the suppression pool.
2. Enter containment control section of EOP-01

FOR CONTROLLER USE ONLY

CP&L
EXERCISE MESSAGE CARD

BSEP
Plant

Message No. 12 Date 11/17/87 Time 1205

MESSAGE FOR: Emergency Repair Director

FROM: CONTROLLER (CONTINGENCY)

MESSAGE/SIMULATED PLANT CONDITIONS: "THIS IS AN EXERCISE MESSAGE"

Initiate team to repair valve #2 C41-F005 - (SLC Discharge).

ACTIONS EXPECTED:

1. Damage Control Director notifies OSC to muster a repair team.
2. Notify Control Room to prepare Clearance for repair of #2 C41-F005.

FOR CONTROLLER USE ONLY

Use only if decision has not been made to repair 2 C41-F005 (SLC Discharge).

CP&L
EXERCISE MESSAGE CARD

BSEP
Plant

Message No. 13 Date 11/17/87 Time 1300

MESSAGE FOR: Plant Media Center Controller

FROM: CONTROLLER (LEAD)

MESSAGE/SIMULATED PLANT CONDITIONS: "THIS IS AN EXERCISE MESSAGE"

To the Plant Media Center Controller:

You are to call the Plant Media Center and represent yourself as the local media (do not use real names of local media people ... Tim Smith or Jane Jones should be used). Ask the following questions:

"THIS IS AN EXERCISE MESSAGE."

- Who is responsible for ordering an evacuation? By what criteria is the decision made to order an evacuation?
- Are residents being evacuated at this time? And if so, when will they be allowed to return?
- What precautionary measures should residents living beyond evacuation zones observe?
- What is being done to protect the homes and property these evacuees are being forced to leave behind?
- What accommodations will be made for residents if their homes are isolated indefinitely by contamination?
- Have there been any traffic accidents during the accident?
- Did people really know what to do before all this happened?

CP&L
EXERCISE MESSAGE CARD

BSEP
Plant

Message No. 14 Date 11/17/87 Time 1300

MESSAGE FOR: SOS

FROM: CONTROLLER

MESSAGE/SIMULATED PLANT CONDITIONS: "THIS IS AN EXERCISE MESSAGE"

1. All control rods indicated fully inserted.
2. AO reports break in south scram discharge volume header.

ACTIONS EXPECTED:

1. Exit the Level Power Control Procedure and enter end Path Procedures.

FOR CONTROLLER USE ONLY

CP&L
EXERCISE MESSAGE CARD

BSEP
Plant

Message No. 14 Date 11/17/87 Time 1300

MESSAGE FOR: SOS

FROM: CONTROLLER

MESSAGE/SIMULATED PLANT CONDITIONS: "THIS IS AN EXERCISE MESSAGE"

1. All control rods indicated fully inserted.
2. AO reports break in south scram discharge volume header.
   water and steam spraying From South west scram discharge volume header

ACTIONS EXPECTED:

1. Exit the Level Power Control Procedure and enter end Path Procedures.

FOR CONTROLLER USE ONLY

CP&L
EXERCISE MESSAGE CARD

BSEP
Plant

Message No. 14A Date 11/17/87 Time 1320

MESSAGE FOR: Site Emergency Coordinator

FROM: CONTROLLER (EXERCISE LEAD)

MESSAGE/SIMULATED PLANT CONDITIONS: "THIS IS AN EXERCISE MESSAGE"

Declare General Emergency due to release.

ACTIONS EXPECTED:

Declare General Emergency.

FOR CONTROLLER USE ONLY

To be used only with approval of exercise lead controller.

CP&L
EXERCISE MESSAGE CARD

BSEP
Plant

Message No. 15 Date 11/17/87 Time After 1300

MESSAGE FOR: Plant Media Center Controller

FROM: CONTROLLER (LEAD)

MESSAGE/SIMULATED PLANT CONDITIONS: "THIS IS AN EXERCISE MESSAGE"

- What about jobs? Should a release of radioactivity isolate businesses as well as homes for a long time, will you find new jobs for displaced workers?
- How did the fire at the plant differ from the one at Chernobyl?
- What amounts of radiation were the Southport firefighters exposed to?
- Will CP&L replace fire department equipment which was contaminated during the fire?

ACTIONS EXPECTED:

Respond to questions.

FOR CONTROLLER USE ONLY

CP&L
EXERCISE MESSAGE CARD

RSEP
Plant

Message No. 16 Date 11/17/87 Time 1400

MESSAGE FOR: Plant Media Center Controller

FROM: CONTROLLER (LEAD)

MESSAGE/SIMULATED PLANT CONDITIONS: "THIS IS AN EXERCISE MESSAGE"

To the Plant Media Center Controller:

You are to call the Plant Media Center and represent yourself as the local media (do not use real names of local media people ... Tim Smith or Jane Jones should be used). Ask the following questions:

"THIS IS AN EXERCISE QUESTION:"

- I understand that there has been a release of radiation at the Brunswick Plant. Is this another Chernobyl?
- Where can I get more information about what is happening at the Plant? And how can the public find out what's going on?
- What precautionary measures have been taken to protect the public?
- I'm hearing a lot of unconfirmed reports about what is going on at the Plant. Why should officials in the Company's Raleigh Office know more than people in the Southport area about conditions in the Emergency Planning Zone?
- What about reports that hundreds of workers may have been injured at the Plant because of some kind of explosion? If there are injured, where are they being treated? Do local hospitals have Emergency Room Staff and Facilities to handle injuries?
- Just what kind of damage has occurred at the Plant? What is the condition of the fuel, the Reactor, and the Reactor Coolant Systems? Is there the risk of a meltdown?
- Do people who treat contamination victims run the risk of being contaminated themselves?
- Do local health facilities have the expertise to treat radiation sickness? For example, could bone-marrow treatment be performed locally?

CP&L
EXERCISE MESSAGE CARD

BSEP
Plant

Message No. 17 Date 11/17/87 Time After 1400

MESSAGE FOR: Plant Media Center Controller

FROM: CONTROLLER (LEAD)

MESSAGE/SIMULATED PLANT CONDITIONS: "THIS IS AN EXERCISE MESSAGE" (Continued)

- What about long-term contamination? How long will it take before the full effects of contamination could be known?
- When the sirens were sounded to alert the Public, did all the sirens sound? If they did not, how did people get the message?
- When will the residents be evacuated?
- How many residents evacuated and where have they all gone?
- Have you heard from the President of the United States or any other Government Official from Washington?
- Is the Plant keeping State and local officials informed about current status and project conditions?

FOR CONTROLLER USE ONLY

ACTIONS EXPECTED:

As you ask the above questions, you may further identify other questions which would be appropriate to ask. Please "free play" the asking of questions which will stimulate the Plant Media Center in their assigned emergency role.

CP&L
EXERCISE MESSAGE CARD

BSEP
Plant

Message No. 18 Date 11/17/87 Time 1430

MESSAGE FOR: Plant Media Center Controller

FROM: CONTROLLER (LEAD)

MESSAGE/SIMULATED PLANT CONDITIONS: "THIS IS AN EXERCISE MESSAGE"

To the Plant Media Center Controller:

You are to call the Plant Media Center and represent yourself as the local media (do not use real names of local media people ... Tim Smith or Jane Jones should be used). Ask the following questions:

"THIS IS AN EXERCISE QUESTION:"

- Why does it take so long to get information from you? The incident at the Plant released radiation hours ago, why can't you confirm those reports sooner? Won't a Geiger Counter tell me what I need to know?
- How about insurance? What's the status of this "Price-Anderson Act?" How much coverage does it offer and for whom? People? Power Plants?
- We have heard reports that if people who evacuated the area around the Brunswick Plant, CP&L will pick up the cost in full? What is that address?
- I've been hearing reports that some white puffs of smoke have been coming out of the Plant? Is there another problem which you haven't told us about?
- Will CP&L have any problems meeting the electricity needs of all your customers if this Power Plant must shutdown indefinitely?
- There are several Dairy Farms within fifty miles of the Plant. Whose responsibility is it to gauge the impact of an accident on agriculture?
- What has this emergency taught you? What do you know that you did not know before?
- We have heard reports that the National T.V. Networks have been given special or exclusive access to the Plant for T.V. coverage. Would you please comment on this report?

CP&L
EXERCISE MESSAGE CARD

BSEP
Plant

Message No. 19 Date 11/17/87 Time 1430

MESSAGE FOR: SOS

FROM: CONTROLLER

MESSAGE/SIMULATED PLANT CONDITIONS: "THIS IS AN EXERCISE MESSAGE"

1. Reactor Scram has been reset.

ACTIONS EXPECTED:

1. Report to TSC that scram discharge volume break has been isolated.

FOR CONTROLLER USE ONLY

CP&L
EXERCISE MESSAGE CARD

BSEP
Plant

Message No. 20 Date 11/17/87 Time 1430

MESSAGE FOR: Plant Media Center Controller

FROM: CONTROLLER (LEAD)

MESSAGE/SIMULATED PLANT CONDITIONS: "THIS IS AN EXERCISE MESSAGE" (Continued)

- Have you uncovered any defects that may be common to some or all of your other Nuclear Plants? What impact would this emergency have on the operation of these other plants?
- What kind of assistance from outside agencies are you getting in your efforts to to restore the Plant?
- How do you rely on local, State, and county officials to cooperate during this emergency?
- How responsive have these agencies been so far to your request for assistance?

FOR CONTROLLER USE ONLY

ACTIONS EXPECTED:

As you ask the above questions, you may further identify other questions which would be appropriate to ask. Please "free play" the asking of questions which will stimulate the Plant Media Center in their assigned emergency role.

EXHIBIT 2.6.21-4
SAFETY PARAMETER DISPLAY SYSTEM (UNIT 2)

Operable Inoperable Standby Running Yes No Isolated

NA - Not available

Time 0800

1	HPCI Flow (gpm)	0
2	Core Spray A Flow (gpm)	0
3	RHR A Flow (gpm)	0
4	RCIC Flow (gpm)	0
5	Core Spray B Flow (gpm)	0
6	RHR B Flow (gpm)	0
7	SLC Injecting	N
8	CRD Flow (gpm)	60
9	APRM %	100
10	Reactor Pressure (psig)	1005
11	Reactor Level (in)	187
12	Main Stack Flow Rate (scfm)	66,000
13	Turbine Bldg. Roof Vent Flow (scfm)	14,000
14	Rx. Bldg. Roof Vent Flow (scfm)	172,000
15	Rx. Bldg. Negative Press (inches of water vacuum)	-.25
16	Suppression Pool Level (in)	-29
17	Drywell Pressure (psig)	.30
18	SBGT Flow A (scfm)	0
19	SBGT Flow B (scfm)	0
20	Drywell H_2 4409 (% conc.)	0
21	Drywell H_2 4410 (% conc.)	0
22	Drywell O_2 4409 (% conc.)	1.2
23	Drywell O_2 4410 (% conc.)	1.6
24	AOG System Flow (scfm)	40
25	Off-Site Power Available	Y
26	Main Stack Gas Monitor (μCi/sec)	5.0E+1
27	Turbine Bldg. Vent Monitor (μCi/sec)	2.4E+0
	DRYWELL HIGH RAD MONITOR	R/hr
28	D22-RM-4195 - 30 ft El.	12
29	D22-RM-4196 - 57 ft El.	40
30	D22-RM-4197 - 23 ft El.	10
31	D22-RM-4198 - 57 ft El.	35
32	Drywell Temp (°F)	115
33	Suppression Pool Temp (°F)	87
	RX. BLDG. ROOF VENT RAD MONITOR	
34	Particulate (cpm)	1,200
35	Iodine (cpm)	200
36	Noble Gas (cpm)	100

	AREA RAD MONITORS	mR/hr
37	Rx. Bldg. 20 ft Airlock	1
38	Rx. Bldg. 50 ft Sample Station	2
39	Rx. Bldg. 50 ft Airlock	2
40	Rx. Bldg. North of Fuel Pool	2
41	Between Fuel Pool and Drywell	Downscale
42	Turbine Bldg. Sample Station	0.2
43	SJAE A (mR/hr)	330
44	SJAE B (mR/hr)	260
45	Rx. Bldg. Ventilation Monitor (mR/hr)	1
46	Service Water Rad Monitor (cps)	10
	OTHER UNIT	
47	Turbine Bldg. Roof Vent Flow (scfm)	I
48	Turbine Bldg. Roof Vent Monitor (μCi/sec.)	I

EXHIBIT 2.6.21-4
SAFETY PARAMETER DISPLAY SYSTEM (UNIT 2)

Operable Inoperable Standby Running Yes No Isolated

NA - Not available

Time 0815

1	HPCI Flow (gpm)	0
2	Core Spray A Flow (gpm)	0
3	RHR A Flow (gpm)	0
4	RCIC Flow (gpm)	0
5	Core Spray B Flow (gpm)	0
6	RHR B Flow (gpm)	0
7	SLC Injecting	N
8	CRD Flow (gpm)	60
9	APRM %	100
10	Reactor Pressure (psig)	1,005
11	Reactor Level (in)	187
12	Main Stack Flow Rate (scfm)	46,000
13	Turbine Bldg. Roof Vent Flow (scfm)	14,000
14	Rx. Bldg. Roof Vent Flow (scfm)	172,000
15	Rx. Bldg. Negative Press (inches of water vacuum)	-.25
16	Suppression Pool Level (in)	-29
17	Drywell Pressure (psig)	.30
18	SBGT Flow A (scfm)	0
19	SBGT Flow B (scfm)	0
20	Drywell H_2 4409 (% conc.)	0
21	Drywell H_2 4410 (% conc.)	0
22	Drywell O_2 4409 (% conc.)	1.2
23	Drywell O_2 4410 (% conc.)	1.6
24	AOG System Flow (scfm)	40
25	Off-Site Power Available	Y
26	Main Stack Gas Monitor (uCi/sec)	5.0E+1
27	Turbine Bldg. Vent Monitor (uCi/sec)	2.4E+0
	DRYWELL HIGH RAD MONITOR	R/hr
28	D22-RM-4195 - 30 ft El.	12
29	D22-RM-4196 - 57 ft El.	40
30	D22-RM-4197 - 23 ft El.	10
31	D22-RM-4198 - 57 ft El.	35
32	Drywell Temp (°F)	115
33	Suppression Pool Temp (°F)	87
	RX. BLDG. ROOF VENT RAD MONITOR	
34	Particulate (cpm)	1,000
35	Iodine (cpm)	200
36	Noble Gas (cpm)	100

	AREA RAD MONITORS	mR/hr
37	Rx. Bldg. 20 ft Airlock	1
38	Rx. Bldg. 50 ft Sample Station	2
39	Rx. Bldg. 50 ft Airlock	2
40	Rx. Bldg. North of Fuel Pool	2
41	Between Fuel Pool and Drywell	Downscale
42	Turbine Bldg. Sample Station	0.2
43	SJAE A (mR/hr)	330
44	SJAE B (mR/hr)	260
45	Rx. Bldg. Ventilation Monitor (mR/hr)	1
46	Service Water Rad Monitor (cps)	10
	OTHER UNIT	
47	Turbine Bldg. Roof Vent Flow (scfm)	I
48	Turbine Bldg. Roof Vent Monitor (uCi/sec.)	I

EXHIBIT 2.6.21-4
SAFETY PARAMETER DISPLAY SYSTEM (UNIT 2)

Operable Inoperable Standby Running Yes No Isolated

NA - Not available

Time 0830

1	HPCI Flow (gpm)	0
2	Core Spray A Flow (gpm)	0
3	RHR A Flow (gpm)	0
4	RCIC Flow (gpm)	0
5	Core Spray B Flow (gpm)	0
6	RHR B Flow (gpm)	0
7	SLC Injecting	N
8	CRD Flow (gpm)	60
9	APRM %	100
10	Reactor Pressure (psig)	1,005
11	Reactor Level (in)	186
12	Main Stack Flow Rate (scfm)	66,000
13	Turbine Bldg. Roof Vent Flow (scfm)	14,000
14	Rx. Bldg. Roof Vent Flow (scfm)	172,000
15	Rx. Bldg. Negative Press (inches of water vacuum)	-.25
16	Suppression Pool Level (in)	-29
17	Drywell Pressure (psig)	.30
18	SBGT Flow A (scfm)	0
19	SBGT Flow B (scfm)	0
20	Drywell H_2 4409 (% conc.)	0
21	Drywell H_2 4410 (% conc.)	0
22	Drywell O_2 4409 (% conc.)	1.2
23	Drywell O_2 4410 (% conc.)	1.6
24	AOG System Flow (scfm)	40
25	Off-Site Power Available	Y
26	Main Stack Gas Monitor (μCi/sec)	5.0E+1
27	Turbine Bldg. Vent Monitor (μCi/sec)	2.4E+0
	DRYWELL HIGH RAD MONITOR	R/hr
28	D22-RM-4195 - 30 ft El.	12
29	D22-RM-4196 - 57 ft El.	40
30	D22-RM-4197 - 23 ft El.	10
31	D22-RM-4198 - 57 ft El.	35
32	Drywell Temp (°F)	115
33	Suppression Pool Temp (°F)	87
	RX. BLDG. ROOF VENT RAD MONITOR	
34	Particulate (cpm)	1,000
35	Iodine (cpm)	200
36	Noble Gas (cpm)	100

	AREA RAD MONITORS	mR/hr
37	Rx. Bldg. 20 ft Airlock	1
38	Rx. Bldg. 50 ft Sample Station	2
39	Rx. Bldg. 50 ft Airlock	2
40	Rx. Bldg. North of Fuel Pool	2
41	Between Fuel Pool and Drywell	Downscale
42	Turbine Bldg. Sample Station	0.2
43	SJAE A (mR/hr)	390
44	SJAE B (mR/hr)	280
45	Rx. Bldg. Ventilation Monitor (mR/hr)	1
46	Service Water Rad Monitor (cps)	10
	OTHER UNIT	
47	Turbine Bldg. Roof Vent Flow (scfm)	I
48	Turbine Bldg. Roof Vent Monitor (μCi/sec.)	I

EXHIBIT 2.6.21-4
SAFETY PARAMETER DISPLAY SYSTEM (UNIT 2)

Operable Inoperable Standby Running Yes No Isolated

NA - Not available

Time 0845

1	HPCI Flow (gpm)	0
2	Core Spray A Flow (gpm)	0
3	RHR A Flow (gpm)	0
4	RCIC Flow (gpm)	0
5	Core Spray B Flow (gpm)	0
6	RHR B Flow (gpm)	0
7	SLC Injecting	N
8	CRD Flow (gpm)	60
9	APRM %	95%
10	Reactor Pressure (psig)	1003
11	Reactor Level (in)	186
12	Main Stack Flow Rate (scfm)	66,000
13	Turbine Bldg. Roof Vent Flow (scfm)	14,000
14	Rx. Bldg. Roof Vent Flow (scfm)	172,000
15	Rx. Bldg. Negative Press (inches of water vacuum)	-.25
16	Suppression Pool Level (in)	-29
17	Drywell Pressure (psig)	.30
18	SBGT Flow A (scfm)	0
19	SBGT Flow B (scfm)	0
20	Drywell H_2 4409 (% conc.)	0
21	Drywell H_2 4410 (% conc.)	0
22	Drywell O_2 4409 (% conc.)	1.2
23	Drywell O_2 4410 (% conc.)	1.4
24	AOG System Flow (scfm)	40
25	Off-Site Power Available	Y
26	Main Stack Gas Monitor (μCi/sec)	5.0E+1
27	Turbine Bldg. Vent Monitor (μCi/sec)	2.4E+0
	DRYWELL HIGH RAD MONITOR	R/hr
28	D22-RM-4195 - 30 ft El.	12
29	D22-RM-4196 - 57 ft El.	41
30	D22-RM-4197 - 23 ft El.	11
31	D22-RM-4198 - 57 ft El.	35
32	Drywell Temp (°F)	115
33	Suppression Pool Temp (°F)	87
	RX. BLDG. ROOF VENT RAD MONITOR	
34	Particulate (cpm)	1,000
35	Iodine (cpm)	200
36	Noble Gas (cpm)	100

	AREA RAD MONITORS	mR/hr
37	Rx. Bldg. 20 ft Airlock	1
38	Rx. Bldg. 50 ft Sample Station	2
39	Rx. Bldg. 50 ft Airlock	2
40	Rx. Bldg. North of Fuel Pool	2
41	Between Fuel Pool and Drywell	Downscale
42	Turbine Bldg. Sample Station	0.2
43	SJAE A (mR/hr)	460
44	SJAE B (mR/hr)	390
45	Rx. Bldg. Ventilation Monitor (mR/hr)	1
46	Service Water Rad Monitor (cps)	10
	OTHER UNIT	
47	Turbine Bldg. Roof Vent Flow (scfm)	I
48	Turbine Bldg. Roof Vent Monitor (μCi/sec.)	I

EXHIBIT 2.6.21-4
SAFETY PARAMETER DISPLAY SYSTEM (UNIT 2)

Operable Inoperable Standby Running Yes No Isolated

NA - Not available

Time 0900

1	HPCI Flow (gpm)	0
2	Core Spray A Flow (gpm)	0
3	RHR A Flow (gpm)	0
4	RCIC Flow (gpm)	0
5	Core Spray B Flow (gpm)	0
6	RHR B Flow (gpm)	0
7	SLC Injecting	0
8	CRD Flow (gpm)	60
9	APRM %	92%
10	Reactor Pressure (psig)	1000
11	Reactor Level (in)	187
12	Main Stack Flow Rate (scfm)	66,000
13	Turbine Bldg. Roof Vent Flow (scfm)	14,000
14	Rx. Bldg. Roof Vent Flow (scfm)	172,000
15	Rx. Bldg. Negative Press (inches of water vacuum)	-.25
16	Suppression Pool Level (in)	-29
17	Drywell Pressure (psig)	.80
18	SBGT Flow A (scfm)	0
19	SBGT Flow B (scfm)	0
20	Drywell H_2 4409 (% conc.)	0
21	Drywell H_2 4410 (% conc.)	0
22	Drywell O_2 4409 (% conc.)	1.2
23	Drywell O_2 4410 (% conc.)	1.6
24	AOG System Flow (scfm)	40
25	Off-Site Power Available	Y
26	Main Stack Gas Monitor (μCi/sec)	5.0E+1
27	Turbine Bldg. Vent Monitor (μCi/sec)	2.4E+0
	DRYWELL [illegible] RAD MONITOR	R/hr
28	D22-RM-4195 - 30 ft El.	12
29	D22-RM-4196 - 57 ft El.	41
30	D22-RM-4197 - 23 ft El.	12
31	D22-RM-4198 - 57 ft El.	35
32	Drywell Temp (°F)	115
33	Suppression Pool Temp (°F)	85
	RX. BLDG. ROOF VENT RAD MONITOR	
34	Particulate (cpm)	4,000
35	Iodine (cpm)	200
36	Noble Gas (cpm)	100

	AREA RAD MONITORS	mR/hr
37	Rx. Bldg. 20 ft Airlock	1
38	Rx. Bldg. 30 ft Sample Station	2
39	Rx. Bldg. 50 ft Airlock	2
40	Rx. Bldg. North of Fuel Pool	2
41	Between Fuel Pool and Drywell	Downscale
42	Turbine Bldg. Sample Station	0.2
43	SJAE A (mR/hr)	550
44	SJAE B (mR/hr)	480
45	Rx. Bldg. Ventilation Monitor (mR/hr)	1
46	Service Water Rad Monitor (cps)	10
	OTHER UNIT	
47	Turbine Bldg. Roof Vent Flow (scfm)	I
48	Turbine Bldg. Roof Vent Monitor (μCi/sec.)	I

EXHIBIT 2.6.21-4
SAFETY PARAMETER DISPLAY SYSTEM (UNIT 2)

Operable Inoperable Standby Running Yes No Isolated

NA - Not available

Time 0915

1	HPCI Flow (gpm)	0
2	Core Spray A Flow (gpm)	0
3	RHR A Flow (gpm)	0
4	RCIC Flow (gpm)	0
5	Core Spray B Flow (gpm)	0
6	RHR B Flow (gpm)	0
7	SLC Injecting	N
8	CRD Flow (gpm)	60
9	APRM %	75%
10	Reactor Pressure (psig)	990
11	Reactor Level (in)	187
12	Main Stack Flow Rate (scfm)	46,000
13	Turbine Bldg. Roof Vent Flow (scfm)	14,000
14	Rx. Bldg. Roof Vent Flow (scfm)	172,000
15	Rx. Bldg. Negative Press (inches of water vacuum)	-.25
16	Suppression Pool Level (in)	-29
17	Drywell Pressure (psig)	.27
18	SBGT Flow A (scfm)	0
19	SBGT Flow B (scfm)	0
20	Drywell H_2 4409 (% conc.)	0
21	Drywell H_2 4410 (% conc.)	0
22	Drywell O_2 4409 (% conc.)	1.3
23	Drywell O_2 4410 (% conc.)	1.7
24	AOG System Flow (scfm)	37
25	Off-Site Power Available	Y
26	Main Stack Gas Monitor (uCi/sec)	5.0E+1
27	Turbine Bldg. Vent Monitor (uCi/sec)	2.4E+0
	DRYWELL HIGH RAD MONITOR	R/hr
28	D22-RM-4195 - 30 ft El.	10
29	D22-RM-4196 - 57 ft El.	58
30	D22-RM-4197 - 23 ft El.	10
31	D22-RM-4198 - 57 ft El.	30
32	Drywell Temp (°F)	114
33	Suppression Pool Temp (°F)	85
	RX. BLDG. ROOF VENT RAD MONITOR	
34	Particulate (cpm)	1,000
35	Iodine (cpm)	200
36	Noble Gas (cpm)	100

	AREA RAD MONITORS	mR/hr
37	Rx. Bldg. 20 ft Airlock	1
38	Rx. Bldg. 50 ft Sample Station	2
39	Rx. Bldg. 50 ft Airlock	2
40	Rx. Bldg. North of Fuel Pool	2
41	Between Fuel Pool and Drywell	Downscale
42	Turbine Bldg. Sample Station	0.2
43	SJAE A (mR/hr)	550
44	SJAE B (mR/hr)	480
45	Rx. Bldg. Ventilation Monitor (mR/hr)	1
46	Service Water Rad Monitor (cps)	10
	OTHER UNIT	
47	Turbine Bldg. Roof Vent Flow (scfm)	I
48	Turbine Bldg. Roof Vent Monitor (uCi/sec.)	I

EXHIBIT 2.6.21-4
SAFETY PARAMETER DISPLAY SYSTEM (UNIT 2)

Operable Inoperable Standby Running Yes No Isolated

NA - Not available

Time 0930

1	HPCI Flow (gpm)	0
2	Core Spray A Flow (gpm)	0
3	RHR A Flow (gpm)	0
4	RCIC Flow (gpm)	0
5	Core Spray B Flow (gpm)	0
6	RHR B Flow (gpm)	0
7	SLC Injecting	0
8	CRD Flow (gpm)	60
9	APRM %	60
10	Reactor Pressure (psig)	980
11	Reactor Level (in)	187
12	Main Stack Flow Rate (scfm)	66,000
13	Turbine Bldg. Roof Vent Flow (scfm)	14,000
14	Rx. Bldg. Roof Vent Flow (scfm)	172,000
15	Rx. Bldg. Negative Press (inches of water vacuum)	-.25
16	Suppression Pool Level (in)	-29
17	Drywell Pressure (psig)	.25
18	SBGT Flow A (scfm)	0
19	SBGT Flow B (scfm)	0
20	Drywell H_2 4409 (% conc.)	0
21	Drywell H_2 4410 (% conc.)	0
22	Drywell O_2 4409 (% conc.)	1.4
23	Drywell O_2 4410 (% conc.)	1.7
24	AOG System Flow (scfm)	35
25	Off-Site Power Available	Y
26	Main Stack Gas Monitor (μCi/sec)	5.0E+1
27	Turbine Bldg. Vent Monitor (μCi/sec)	3.4E+0
	DRYWELL HIGH RAD MONITOR	R/hr
28	D22-RM-4195 - 30 ft El.	10
29	D22-RM-4196 - 57 ft El.	36
30	D22-RM-4197 - 23 ft El.	10
31	D22-RM-4198 - 57 ft El.	30
32	Drywell Temp (°F)	113
33	Suppression Pool Temp (°F)	85
	RX. BLDG. ROOF VENT RAD MONITOR	
34	Particulate (cpm)	4,000
35	Iodine (cpm)	200
36	Noble Gas (cpm)	100

	AREA RAD MONITORS	mR/hr
37	Rx. Bldg. 20 ft Airlock	1
38	Rx. Bldg. 50 ft Sample Station	2
39	Rx. Bldg. 50 ft Airlock	2
40	Rx. Bldg. North of Fuel Pool	2
41	Between Fuel Pool and Drywell	Downscale
42	Turbine Bldg. Sample Station	0.2
43	SJAE A (mR/hr)	610
44	SJAE B (mR/hr)	490
45	Rx. Bldg. Ventilation Monitor (mR/hr)	1
46	Service Water Rad Monitor (cps)	10
	OTHER UNIT	
47	Turbine Bldg. Roof Vent Flow (scfm)	I
48	Turbine Bldg. Roof Vent Monitor (μCi/sec.)	I

EXHIBIT 2.6.21-4
SAFETY PARAMETER DISPLAY SYSTEM (UNIT 2)

Operable Inoperable Standby Running Yes No Isolated

NA - Not available

Time 0945

1	HPCI Flow (gpm)	0
2	Core Spray A Flow (gpm)	0
3	RHR A Flow (gpm)	0
4	RCIC Flow (gpm)	0
5	Core Spray B Flow (gpm)	0
6	RHR B Flow (gpm)	0
7	SLC Injecting	N
8	CRD Flow (gpm)	60
9	APRM %	55
10	Reactor Pressure (psig)	977
11	Reactor Level (in)	187
12	Main Stack Flow Rate (scfm)	66,000
13	Turbine Bldg. Roof Vent Flow (scfm)	14,000
14	Rx. Bldg. Roof Vent Flow (scfm)	172,000
15	Rx. Bldg. Negative Press (inches of water vacuum)	-.25
16	Suppression Pool Level (in)	-29
17	Drywell Pressure (psig)	.25
18	SBGT Flow A (scfm)	0
19	SBGT Flow B (scfm)	0
20	Drywell H_2 4409 (% conc.)	0
21	Drywell H_2 4410 (% conc.)	0
22	Drywell O_2 4409 (% conc.)	1.5
23	Drywell O_2 4410 (% conc.)	1.8
24	AOG System Flow (scfm)	35
25	Off-Site Power Available	Y
26	Main Stack Gas Monitor (uCi/sec)	5.0E+1
27	Turbine Bldg. Vent Monitor (uCi/sec)	2.4E+0
	DRYWELL HIGH RAD MONITOR	R/hr
28	D22-RM-4195 - 30 ft El.	10
29	D22-RM-4196 - 57 ft El.	36
30	Q22-RM-4197 - 23 ft El.	10
31	D22-RM-4198 - 57 ft El.	30
32	Drywell Temp (°F)	113
33	Suppression Pool Temp (°F)	86
	RX. BLDG. ROOF VENT RAD MONITOR	
34	Particulate (cpm)	1,000
35	Iodine (cpm)	200
36	Noble Gas (cpm)	100

	AREA RAD MONITORS	mR/hr
37	Rx. Bldg. 20 ft Airlock	1
38	Rx. Bldg. 50 ft Sample Station	2
39	Rx. Bldg. 50 ft Airlock	2
40	Rx. Bldg. North of Fuel Pool	2
41	Between Fuel Pool and Drywell	Downscale
42	Turbine Bldg. Sample Station	0.2
43	SJAE A (mR/hr)	620
44	SJAE B (mR/hr)	500
45	Rx. Bldg. Ventilation Monitor (mR/hr)	1
46	Service Water Rad Monitor (cps)	10
	OTHER UNIT	
47	Turbine Bldg. Roof Vent Flow (scfm)	I
48	Turbine Bldg. Roof Vent Monitor (uCi/sec.)	I

EXHIBIT 2.6.21-4
SAFETY PARAMETER DISPLAY SYSTEM (UNIT 2)

Operable Inoperable Standby Running Yes No Isolated

NA - Not available

Time 1000

1	HPCI Flow (gpm)	0
2	Core Spray A Flow (gpm)	0
3	RHR A Flow (gpm)	0
4	RCIC Flow (gpm)	0
5	Core Spray B Flow (gpm)	0
6	RHR B Flow (gpm)	0
7	SLC Injecting	N
8	CRD Flow (gpm)	60
9	APRM %	51
10	Reactor Pressure (psig)	975
11	Reactor Level (in)	185
12	Main Stack Flow Rate (scfm)	66,000
13	Turbine Bldg. Roof Vent Flow (scfm)	14,000
14	Rx. Bldg. Roof Vent Flow (scfm)	172,000
15	Rx. Bldg. Negative Press (inches of water vacuum)	-.25
16	Suppression Pool Level (in)	-29
17	Drywell Pressure (psig)	.25
18	SBGT Flow A (scfm)	0
19	SBGT Flow B (scfm)	0
20	Drywell H_2 4409 (% conc.)	0
21	Drywell H_2 4410 (% conc.)	0
22	Drywell O_2 4409 (% conc.)	15
23	Drywell O_2 4410 (% conc.)	1.9
24	AOG System Flow (scfm)	36
25	Off-Site Power Available	Y
26	Main Stack Gas Monitor (μCi/sec)	6.0E+1
27	Turbine Bldg. Vent Monitor (μCi/sec)	2.4E+0
	DRYWELL HIGH RAD MONITOR	R/hr
28	D22-RM-4195 - 30 ft El.	12
29	D22-RM-4196 - 57 ft El.	36
30	D22-RM-4197 - 23 ft El.	10
31	D22-RM-4198 - 57 ft El.	30
32	Drywell Temp (°F)	113
33	Suppression Pool Temp (°F)	86
	RX. BLDG. ROOF VENT RAD MONITOR	
34	Particulate (cpm)	1,000
35	Iodine (cpm)	200
36	Noble Gas (cpm)	100

	AREA RAD MONITORS	mR/hr
37	Rx. Bldg. 20 ft Airlock	1
38	Rx. Bldg. 50 ft Sample Station	2
39	Rx. Bldg. 50 ft Airlock	2
40	Rx. Bldg. North of Fuel Pool	2
41	Between Fuel Pool and Drywell	Downscale
42	Turbine Bldg. Sample Station	0.2
43	SJAE A (mR/hr)	420
44	SJAE B (mR/hr)	500
45	Rx. Bldg. Ventilation Monitor (mR/hr)	1
46	Service Water Rad Monitor (cps)	10
	OTHER UNIT	
47	Turbine Bldg. Roof Vent Flow (scfm)	I
48	Turbine Bldg. Roof Vent Monitor (μCi/sec.)	I

EXHIBIT 2.6.21-4
SAFETY PARAMETER DISPLAY SYSTEM (UNIT 2)

Operable Inoperable Standby Running Yes No Isolated

NA - Not available

Time 1015

1	HPCI Flow (gpm)	0
2	Core Spray A Flow (gpm)	0
3	RHR A Flow (gpm)	0
4	RCIC Flow (gpm)	0
5	Core Spray B Flow (gpm)	0
6	RHR B Flow (gpm)	0
7	SLC Injecting	N
8	CRD Flow (gpm)	60
9	APRM %	50
10	Reactor Pressure (psig)	975
11	Reactor Level (in)	186
12	Main Stack Flow Rate (scfm)	66,000
13	Turbine Bldg. Roof Vent Flow (scfm)	14,000
14	Rx. Bldg. Roof Vent Flow (scfm)	172,000
15	Rx. Bldg. Negative Press (inches of water vacuum)	-.25
16	Suppression Pool Level (in)	-29
17	Drywell Pressure (psig)	.25
18	SBGT Flow A (scfm)	0
19	SBGT Flow B (scfm)	0
20	Drywell H_2 4409 (% conc.)	0
21	Drywell H_2 4410 (% conc.)	0
22	Drywell O_2 4409 (% conc.)	1.5
23	Drywell O_2 4410 (% conc.)	1.9
24	AOG System Flow (scfm)	36
25	Off-Site Power Available	Y
26	Main Stack Gas Monitor (μCi/sec)	6.0E+1
27	Turbine Bldg. Vent Monitor (μCi/sec)	2.4E+0
	DRYWELL HIGH RAD MONITOR	R/hr
28	D22-RM-4195 - 30 ft El.	10
29	D22-RM-4196 - 57 ft El.	36
30	D22-RM-4197 - 23 ft El.	10
31	D22-RM-4198 - 57 ft El.	30
32	Drywell Temp (°F)	113
33	Suppression Pool Temp (°F)	86
	RX. BLDG. ROOF VENT RAD MONITOR	
34	Particulate (cpm)	1,000
35	Iodine (cpm)	200
36	Noble Gas (cpm)	100

	AREA RAD MONITORS	mR/hr
37	Rx. Bldg. 20 ft Airlock	1
38	Rx. Bldg. 50 ft Sample Station	2
39	Rx. Bldg. 50 ft Airlock	2
40	Rx. Bldg. North of Fuel Pool	2
41	Between Fuel Pool and Drywell	Downscale
42	Turbine Bldg. Sample Station	0.2
43	SJAE A (mR/hr)	620
44	SJAE B (mR/hr)	500
45	Rx. Bldg. Ventilation Monitor (mR/hr)	1
46	Service Water Rad Monitor (cps)	10
	OTHER UNIT	
47	Turbine Bldg. Roof Vent Flow (scfm)	I
48	Turbine Bldg. Roof Vent Monitor (μCi/sec.)	I

EXHIBIT 2.6.21-4
SAFETY PARAMETER DISPLAY SYSTEM (UNIT 2)

Operable Inoperable Standby Running Yes No Isolated

NA - Not available

Time 1030

1	HPCI Flow (gpm)	0
2	Core Spray A Flow (gpm)	0
3	RHR A Flow (gpm)	0
4	RCIC Flow (gpm)	0
5	Core Spray B Flow (gpm)	0
6	RHR B Flow (gpm)	0
7	SLC Injecting	N
8	CRD Flow (gpm)	60
9	APRM %	45
10	Reactor Pressure (psig)	970
11	Reactor Level (in)	187
12	Main Stack Flow Rate (scfm)	66,000
13	Turbine Bldg. Roof Vent Flow (scfm)	14,000
14	Rx. Bldg. Roof Vent Flow (scfm)	172,000
15	Rx. Bldg. Negative Press (inches of water vacuum)	-.25
16	Suppression Pool Level (in)	-27
17	Drywell Pressure (psig)	.23
18	SBGT Flow A (scfm)	0
19	SBGT Flow B (scfm)	0
20	Drywell H_2 4409 (% conc.)	0
21	Drywell H_2 4410 (% conc.)	0
22	Drywell O_2 4409 (% conc.)	1.6
23	Drywell O_2 4410 (% conc.)	2.0
24	AOG System Flow (scfm)	32
25	Off-Site Power Available	Y
26	Main Stack Gas Monitor (uCi/sec)	5.0E+1
27	Turbine Bldg. Vent Monitor (uCi/sec)	2.4E+0
	DRYWELL HIGH RAD MONITOR	R/hr
28	D22-RM-4195 - 30 ft El.	10
29	D22-RM-4196 - 57 ft El.	36
30	D22-RM-4197 - 23 ft El.	10
31	D22-RM-4198 - 57 ft El.	30
32	Drywell Temp (°F)	112
33	Suppression Pool Temp (°F)	86
	RX. BLDG. ROOF VENT RAD MONITOR	
34	Particulate (cpm)	1,000
35	Iodine (cpm)	200
36	Noble Gas (cpm)	100

	AREA RAD MONITORS	mR/hr
37	Rx. Bldg. 20 ft Airlock	1
38	Rx. Bldg. 50 ft Sample Station	2
39	Rx. Bldg. 50 ft Airlock	2
40	Rx. Bldg. North of Fuel Pool	2
41	Between Fuel Pool and Drywell	Downscale
42	Turbine Bldg. Sample Station	0.2
43	SJAE A (mR/hr)	640
44	SJAE B (mR/hr)	510
45	Rx. Bldg. Ventilation Monitor (mR/hr)	1
46	Service Water Rad Monitor (cps)	10
	OTHER UNIT	
47	Turbine Bldg. Roof Vent Flow (scfm)	I
48	Turbine Bldg. Roof Vent Monitor (uCi/sec.)	I

EXHIBIT 2.6.21-4
SAFETY PARAMETER DISPLAY SYSTEM (UNIT 2)

Operable Inoperable Standby Running Yes No Isolated

NA - Not available

Time 1045

1	HPCI Flow (gpm)	0
2	Core Spray A Flow (gpm)	0
3	RHR A Flow (gpm)	0
4	RCIC Flow (gpm)	0
5	Core Spray B Flow (gpm)	0
6	RHR B Flow (gpm)	0
7	SLC Injecting	N
8	CRD Flow (gpm)	60
9	APRM %	42
10	Reactor Pressure (psig)	970
11	Reactor Level (in)	187
12	Main Stack Flow Rate (scfm)	64,000
13	Turbine Bldg. Roof Vent Flow (scfm)	14,000
14	Rx. Bldg. Roof Vent Flow (scfm)	172,000
15	Rx. Bldg. Negative Press (inches of water vacuum)	-.25
16	Suppression Pool Level (in)	-.29
17	Drywell Pressure (psig)	.24
18	SBGT Flow A (scfm)	0
19	SBGT Flow B (scfm)	0
20	Drywell H_2 4409 (% conc.)	0
21	Drywell H_2 4410 (% conc.)	0
22	Drywell O_2 4409 (% conc.)	1.6
23	Drywell O_2 4410 (% conc.)	1.9
24	AOG System Flow (scfm)	33
25	Off-Site Power Available	Y
26	Main Stack Gas Monitor (uCi/sec)	5.0E+1
27	Turbine Bldg. Vent Monitor (uCi/sec)	2.4E+0
	DRYWELL HIGH RAD MONITOR	R/hr
28	D22-RM-4195 - 30 ft El.	10
29	D22-RM-4196 - 57 ft El.	36
30	D22-RM-4197 - 23 ft El.	10
31	D22-RM-4198 - 57 ft El.	30
32	Drywell Temp (°F)	112
33	Suppression Pool Temp (°F)	86
	RX. BLDG. ROOF VENT RAD MONITOR	
34	Particulate (cpm)	1,000
35	Iodine (cpm)	200
36	Noble Gas (cpm)	100

	AREA RAD MONITORS	mR/hr
37	Rx. Bldg. 20 ft Airlock	1
38	Rx. Bldg. 50 ft Sample Station	2
39	Rx. Bldg. 50 ft Airlock	2
40	Rx. Bldg. North of Fuel Pool	2
41	Between Fuel Pool and Drywell	Downscale
42	Turbine Bldg. Sample Station	0.2
43	SJAE A (mR/hr)	645
44	SJAE B (mR/hr)	510
45	Rx. Bldg. Ventilation Monitor (mR/hr)	1
46	Service Water Rad Monitor (cps)	10
	OTHER UNIT	
47	Turbine Bldg. Roof Vent Flow (scfm)	I
48	Turbine Bldg. Roof Vent Monitor (uCi/sec.)	I

EXHIBIT 2.6.21-4
SAFETY PARAMETER DISPLAY SYSTEM (UNIT 2)

Operable Inoperable Standby Running Yes No Isolated

NA - Not available

Time 1100

1	HPCI Flow (gpm)	0
2	Core Spray A Flow (gpm)	0
3	RHR A Flow (gpm)	0
4	RCIC Flow (gpm)	0
5	Core Spray B Flow (gpm)	0
6	RHR B Flow (gpm)	0
7	SLC Injecting	N
8	CRD Flow (gpm)	>100
9	APRM %	10%
10	Reactor Pressure (psig)	925
11	Reactor Level (in)	180
12	Main Stack Flow Rate (scfm)	66,000
13	Turbine Bldg. Roof Vent Flow (scfm)	14,000
14	Rx. Bldg. Roof Vent Flow (scfm)	172,000
15	Rx. Bldg. Negative Press (inches of water vacuum)	-.25
16	Suppression Pool Level (in)	-29
17	Drywell Pressure (psig)	.1
18	SBGT Flow A (scfm)	0
19	SBGT Flow B (scfm)	0
20	Drywell H_2 4409 (% conc.)	0
21	Drywell H_2 4410 (% conc.)	0
22	Drywell O_2 4409 (% conc.)	1.7
23	Drywell O_2 4410 (% conc.)	2.1
24	AOG System Flow (scfm)	22
25	Off-Site Power Available	Y
26	Main Stack Gas Monitor (μCi/sec)	8.0E+1
27	Turbine Bldg. Vent Monitor (μCi/sec)	5.0E+3
	DRYWELL HIGH RAD MONITOR	R/hr
28	D22-RM-4195 - 30 ft El.	6
29	D22-RM-4196 - 57 ft El.	12
30	D22-RM-4197 - 23 ft El.	5
31	D22-RM-4198 - 57 ft El.	10
32	Drywell Temp (°F)	110
33	Suppression Pool Temp (°F)	86
	RX. BLDG. ROOF VENT RAD MONITOR	
34	Particulate (cpm)	1,000
35	Iodine (cpm)	200
36	Noble Gas (cpm)	100

	AREA RAD MONITORS	mR/hr
37	Rx. Bldg. 20 ft Airlock	1
38	Rx. Bldg. 50 ft Sample Station	2
39	Rx. Bldg. 50 ft Airlock	2
40	Rx. Bldg. North of Fuel Pool	2
41	Between Fuel Pool and Drywell	Downscale
42	Turbine Bldg. Sample Station	3
43	SJAE A (mR/hr)	220
44	SJAE B (mR/hr)	160
45	Rx. Bldg. Ventilation Monitor (mR/hr)	1
46	Service Water Rad Monitor (cps)	10
	OTHER UNIT	
47	Turbine Bldg. Roof Vent Flow (scfm)	I
48	Turbine Bldg. Roof Vent Monitor (μCi/sec.)	I

EXHIBIT 2.6.21-4
SAFETY PARAMETER DISPLAY SYSTEM (UNIT 2)

Operable Inoperable Standby Running Yes No Isolated

NA - Not available

Time 1115

1	HPCI Flow (gpm)	0
2	Core Spray A Flow (gpm)	0
3	RHR A Flow (gpm)	0
4	RCIC Flow (gpm)	0
5	Core Spray B Flow (gpm)	0
6	RHR B Flow (gpm)	0
7	SLC Injecting	Y
8	CRD Flow (gpm)	>100
9	APRM %	9%
10	Reactor Pressure (psig)	925
11	Reactor Level (in)	187
12	Main Stack Flow Rate (scfm)	66,000
13	Turbine Bldg. Roof Vent Flow (scfm)	14,000
14	Rx. Bldg. Roof Vent Flow (scfm)	172,000
15	Rx. Bldg. Negative Press (inches of water vacuum)	-.25
16	Suppression Pool Level (in)	-29
17	Drywell Pressure (psig)	.20
18	SBGT Flow A (scfm)	0
19	SBGT Flow B (scfm)	0
20	Drywell H_2 4409 (% conc.)	0
21	Drywell H_2 4410 (% conc.)	0
22	Drywell O_2 4409 (% conc.)	1.7
23	Drywell O_2 4410 (% conc.)	2.1
24	AOG System Flow (scfm)	22
25	Off-Site Power Available	Y
26	Main Stack Gas Monitor (μCi/sec)	8.0E+1
27	Turbine Bldg. Vent Monitor (μCi/sec)	5.0E+3
	DRYWELL HIGH RAD MONITOR	R/hr
28	D22-RM-4195 - 30 ft El.	6
29	D22-RM-4196 - 57 ft El.	12
30	D22-RM-4197 - 23 ft El.	5
31	D22-RM-4198 - 57 ft El.	10
32	Drywell Temp (°F)	110
33	Suppression Pool Temp (°F)	86
	RX. BLDG. ROOF VENT RAD MONITOR	
34	Particulate (cpm)	1,000
35	Iodine (cpm)	200
36	Noble Gas (cpm)	100

	AREA RAD MONITORS	mR/hr
37	Rx. Bldg. 20 ft Airlock	1
38	Rx. Bldg. 50 ft Sample Station	2
39	Rx. Bldg. 50 ft Airlock	2
40	Rx. Bldg. North of Fuel Pool	2
41	Between Fuel Pool and Drywell	Downscale
42	Turbine Bldg. Sample Station	3
43	SJAE A (mR/hr)	210
44	SJAE B (mR/hr)	150
45	Rx. Bldg. Ventilation Monitor (mR/hr)	1
46	Service Water Rad Monitor (cps)	10
	OTHER UNIT	
47	Turbine Bldg. Roof Vent Flow (scfm)	I
48	Turbine Bldg. Roof Vent Monitor (μCi/sec.)	I

EXHIBIT 2.6.21-4
SAFETY PARAMETER DISPLAY SYSTEM (UNIT 2)

Operable Inoperable Standby Running Yes No Isolated

NA - Not available

Time 1130

1	HPCI Flow (gpm)	0
2	Core Spray A Flow (gpm)	0
3	RHR A Flow (gpm)	0
4	RCIC Flow (gpm)	0
5	Core Spray B Flow (gpm)	0
6	RHR B Flow (gpm)	0
7	SLC Injecting	Y
8	CRD Flow (gpm)	>100
9	APRM %	7%
10	Reactor Pressure (psig)	925
11	Reactor Level (in)	197
12	Main Stack Flow Rate (scfm)	66,000
13	Turbine Bldg. Roof Vent Flow (scfm)	14,000
14	Rx. Bldg. Roof Vent Flow (scfm)	172,000
15	Rx. Bldg. Negative Press (inches of water vacuum)	-.25
16	Suppression Pool Level (in)	-29
17	Drywell Pressure (psig)	.20
18	SBGT Flow A (scfm)	0
19	SBGT Flow B (scfm)	0
20	Drywell H_2 4409 (% conc.)	0
21	Drywell H_2 4410 (% conc.)	0
22	Drywell O_2 4409 (% conc.)	1.8
23	Drywell O_2 4410 (% conc.)	2.2
24	AOG System Flow (scfm)	20
25	Off-Site Power Available	Y
26	Main Stack Gas Monitor (μCi/sec)	8.0E+1
27	Turbine Bldg. Vent Monitor (μCi/sec)	5.0E+3
	DRYWELL HIGH RAD MONITOR	R/hr
28	D22-RM-4195 - 30 ft El.	6
29	D22-RM-4196 - 57 ft El.	12
30	D22-RM-4197 - 23 ft El.	5
31	D22-RM-4198 - 57 ft El.	10
32	Drywell Temp (°F)	110
33	Suppression Pool Temp (°F)	86
	RX. BLDG. ROOF VENT RAD MONITOR	
34	Particulate (cpm)	1,000
35	Iodine (cpm)	200
36	Noble Gas (cpm)	100

	AREA RAD MONITORS	mR/hr
37	Rx. Bldg. 20 ft Airlock	1
38	Rx. Bldg. 50 ft Sample Station	2
39	Rx. Bldg. 50 ft Airlock	2
40	Rx. Bldg. North of Fuel Pool	2
41	Between Fuel Pool and Drywell	Downscale
42	Turbine Bldg. Sample Station	3
43	SJAE A (mR/hr)	200
44	SJAE B (mR/hr)	140
45	Rx. Bldg. Ventilation Monitor (mR/hr)	1
46	Service Water Rad Monitor (cps)	10
	OTHER UNIT	
47	Turbine Bldg. Roof Vent Flow (scfm)	I
48	Turbine Bldg. Roof Vent Monitor (μCi/sec.)	I

EXHIBIT 2.6.21-4
SAFETY PARAMETER DISPLAY SYSTEM (UNIT 2)

Operable Inoperable Standby Running Yes No Isolated

NA - Not available

Time 1145

1	HPCI Flow (gpm)	0
2	Core Spray A Flow (gpm)	0
3	RHR A Flow (gpm)	0
4	RCIC Flow (gpm)	0
5	Core Spray B Flow (gpm)	0
6	RHR B Flow (gpm)	0
7	SLC Injecting	N
8	CRD Flow (gpm)	>100
9	APRM %	7%
10	Reactor Pressure (psig)	925
11	Reactor Level (in)	187
12	Main Stack Flow Rate (scfm)	66,000
13	Turbine Bldg. Roof Vent Flow (scfm)	14,000
14	Rx. Bldg. Roof Vent Flow (scfm)	172,000
15	Rx. Bldg. Negative Press (inches of water vacuum)	-.25
16	Suppression Pool Level (in)	-29
17	Drywell Pressure (psig)	.20
18	SBGT Flow A (scfm)	0
19	SBGT Flow B (scfm)	0
20	Drywell H_2 4409 (% conc.)	0
21	Drywell H_2 4410 (% conc.)	0
22	Drywell O_2 4409 (% conc.)	1.8
23	Drywell O_2 4410 (% conc.)	2.2
24	AOG System Flow (scfm)	20
25	Off-Site Power Available	Y
26	Main Stack Gas Monitor (μCi/sec)	8.0E+1
27	Turbine Bldg. Vent Monitor (μCi/sec)	5.0E+3
	DRYWELL HIGH RAD MONITOR	R/hr
28	D22-RM-4195 - 30 ft El.	6
29	D22-RM-4196 - 57 ft El.	12
30	D22-RM-4197 - 23 ft El.	5
31	D22-RM-4198 - 57 ft El.	10
32	Drywell Temp (°F)	110
33	Suppression Pool Temp (°F)	86
	RX. BLDG. ROOF VENT RAD MONITOR	
34	Particulate (cpm)	1,000
35	Iodine (cpm)	200
36	Noble Gas (cpm)	100

	AREA RAD MONITORS	mR/hr
37	Rx. Bldg. 20 ft Airlock	1
38	Rx. Bldg. 50 ft Sample Station	2
39	Rx. Bldg. 50 ft Airlock	2
40	Rx. Bldg. North of Fuel Pool	2
41	Between Fuel Pool and Drywell	Downscale
42	Turbine Bldg. Sample Station	3
43	SJAE A (mR/hr)	200
44	SJAE B (mR/hr)	140
45	Rx. Bldg. Ventilation Monitor (mR/hr)	1
46	Service Water Rad Monitor (cps)	10
	OTHER UNIT	
47	Turbine Bldg. Roof Vent Flow (scfm)	I
48	Turbine Bldg. Roof Vent Monitor (μCi/sec.)	I

EXHIBIT 2.6.21-4
SAFETY PARAMETER DISPLAY SYSTEM (UNIT 2)

Operable Inoperable Standby Running Yes No Isolated

NA - Not available

Time 1200

1	HPCI Flow (gpm)	4,300-Test
2	Core Spray A Flow (gpm)	0
3	RHR A Flow (gpm)	0
4	RCIC Flow (gpm)	400
5	Core Spray B Flow (gpm)	0
6	RHR B Flow (gpm)	0
7	SLC Injecting	N
8	CRD Flow (gpm)	>100
9	APRM %	4%
10	Reactor Pressure (psig)	1120
11	Reactor Level (in)	170
12	Main Stack Flow Rate (scfm)	66,000
13	Turbine Bldg. Roof Vent Flow (scfm)	14,000
14	Rx. Bldg. Roof Vent Flow (scfm)	172,000
15	Rx. Bldg. Negative Press (inches of water vacuum)	-.25
16	Suppression Pool Level (in)	-28.5
17	Drywell Pressure (psig)	.27
18	SBGT Flow A (scfm)	0
19	SBGT Flow B (scfm)	0
20	Drywell H_2 4409 (% conc.)	0
21	Drywell H_2 4410 (% conc.)	0
22	Drywell O_2 4409 (% conc.)	2.0
23	Drywell O_2 4410 (% conc.)	2.3
24	AOG System Flow (scfm)	0
25	Off-Site Power Available	Y
26	Main Stack Gas Monitor (μCi/sec)	9.0E+1
27	Turbine Bldg. Vent Monitor (μCi/sec)	5.0E+3
	DRYWELL HIGH RAD MONITOR	R/hr
28	D22-RM-4195 - 30 ft El.	10
29	D22-RM-4196 - 57 ft El.	18
30	D22-RM-4197 - 23 ft El.	8
31	D22-RM-4198 - 57 ft El.	16
32	Drywell Temp (°F)	115
33	Suppression Pool Temp (°F)	90
	RX. BLDG. ROOF VENT RAD MONITOR	
34	Particulate (cpm)	1,000
35	Iodine (cpm)	200
36	Noble Gas (cpm)	100

	AREA RAD MONITORS	mR/hr
37	Rx. Bldg. 20 ft Airlock	1
38	Rx. Bldg. 50 ft Sample Station	2
39	Rx. Bldg. 50 ft Airlock	2
40	Rx. Bldg. North of Fuel Pool	2
41	Between Fuel Pool and Drywell	Downscale
42	Turbine Bldg. Sample Station	3
43	SJAE A (mR/hr)	10
44	SJAE B (mR/hr)	6
45	Rx. Bldg. Ventilation Monitor (mR/hr)	1
46	Service Water Rad Monitor (cps)	10
	OTHER UNIT	
47	Turbine Bldg. Roof Vent Flow (scfm)	I
48	Turbine Bldg. Roof Vent Monitor (μCi/sec.)	I

EXHIBIT 2.6.21-4
SAFETY PARAMETER DISPLAY SYSTEM (UNIT 2)

Operable Inoperable Standby Running Yes No Isolated

NA - Not available

Time 1215

1	HPCI Flow (gpm)	0
2	Core Spray A Flow (gpm)	0
3	RHR A Flow (gpm)	0
4	RCIC Flow (gpm)	400
5	Core Spray B Flow (gpm)	0
6	RHR B Flow (gpm)	0
7	SLC Injecting	N
8	CRD Flow (gpm)	>100
9	APRM %	2.5
10	Reactor Pressure (psig)	950
11	Reactor Level (in)	185
12	Main Stack Flow Rate (scfm)	66,000
13	Turbine Bldg. Roof Vent Flow (scfm)	14,000
14	Rx. Bldg. Roof Vent Flow (scfm)	172,000
15	Rx. Bldg. Negative Press (inches of water vacuum)	-.25
16	Suppression Pool Level (in)	-28.7
17	Drywell Pressure (psig)	.26
18	SBGT Flow A (scfm)	0
19	SBGT Flow B (scfm)	0
20	Drywell H_2 4409 (% conc.)	0
21	Drywell H_2 4410 (% conc.)	0
22	Drywell O_2 4409 (% conc.)	2.0
23	Drywell O_2 4410 (% conc.)	2.3
24	AOG System Flow (scfm)	0
25	Off-Site Power Available	Y
26	Main Stack Gas Monitor (μCi/sec)	9.0E+1
27	Turbine Bldg. Vent Monitor (μCi/sec)	5.0E+3
	DRYWELL HIGH RAD MONITOR	R/hr
28	D22-RM-4195 - 30 ft El.	12
29	D22-RM-4196 - 57 ft El.	22
30	D22-RM-4197 - 23 ft El.	14
31	D22-RM-4198 - 57 ft El.	20
32	Drywell Temp (°F)	115
33	Suppression Pool Temp (°F)	96
	RX. BLDG. ROOF VENT RAD MONITOR	
34	Particulate (cpm)	1,600
35	Iodine (cpm)	200
36	Noble Gas (cpm)	100

	AREA RAD MONITORS	mR/hr
37	Rx. Bldg. 20 ft Airlock	1
38	Rx. Bldg. 50 ft Sample Station	2
39	Rx. Bldg. 50 ft Airlock	2
40	Rx. Bldg. North of Fuel Pool	2
41	Between Fuel Pool and Drywell	Downscale
42	Turbine Bldg. Sample Station	3
43	SJAE A (mR/hr)	8
44	SJAE B (mR/hr)	5
45	Rx. Bldg. Ventilation Monitor (mR/hr)	1
46	Service Water Rad Monitor (cps)	10
	OTHER UNIT	
47	Turbine Bldg. Roof Vent Flow (scfm)	I
48	Turbine Bldg. Roof Vent Monitor (μCi/sec.)	I

EXHIBIT 2.6.21-4
SAFETY PARAMETER DISPLAY SYSTEM (UNIT 2)

Operable Inoperable Standby Running Yes No Isolated

NA - Not available

Time 1230

1	HPCI Flow (gpm)	0
2	Core Spray A Flow (gpm)	0
3	RHR A Flow (gpm)	0
4	RCIC Flow (gpm)	400
5	Core Spray B Flow (gpm)	0
6	RHR B Flow (gpm)	0
7	SLC Injecting	N
8	CRD Flow (gpm)	>100
9	APRM %	2.5
10	Reactor Pressure (psig)	875
11	Reactor Level (in)	183
12	Main Stack Flow Rate (scfm)	66,000
13	Turbine Bldg. Roof Vent Flow (scfm)	14,000
14	Rx. Bldg. Roof Vent Flow (scfm)	172,000
15	Rx. Bldg. Negative Press (inches of water vacuum)	-.25
16	Suppression Pool Level (in)	-28
17	Drywell Pressure (psig)	.50
18	SBGT Flow A (scfm)	0
19	SBGT Flow B (scfm)	0
20	Drywell H_2 4409 (% conc.)	0
21	Drywell H_2 4410 (% conc.)	0
22	Drywell O_2 4409 (% conc.)	2.1
23	Drywell O_2 4410 (% conc.)	2.4
24	AOG System Flow (scfm)	0
25	Off-Site Power Available	Y
26	Main Stack Gas Monitor (μCi/sec)	9.0E+1
27	Turbine Bldg. Vent Monitor (μCi/sec)	8.0E+0
	DRYWELL HIGH RAD MONITOR	R/hr
28	D22-RM-4195 - 30 ft El.	18
29	D22-RM-4196 - 57 ft El.	24
30	D22-RM-4197 - 23 ft El.	16
31	D22-RM-4198 - 57 ft El.	20
32	Drywell Temp (°F)	120
33	Suppression Pool Temp (°F)	107
	RX. BLDG. ROOF VENT RAD MONITOR	
34	Particulate (cpm)	4,000
35	Iodine (cpm)	200
36	Noble Gas (cpm)	100

	AREA RAD MONITORS	mR/hr
37	Rx. Bldg. 20 ft Airlock	1
38	Rx. Bldg. 50 ft Sample Station	2
39	Rx. Bldg. 50 ft Airlock	2
40	Rx. Bldg. North of Fuel Pool	2
41	Between Fuel Pool and Drywell	Downscale
42	Turbine Bldg. Sample Station	0.3
43	SJAE A (mR/hr)	6
44	SJAE B (mR/hr)	4
45	Rx. Bldg. Ventilation Monitor (mR/hr)	1
46	Service Water Rad Monitor (cps)	10
	OTHER UNIT	
47	Turbine Bldg. Roof Vent Flow (scfm)	I
48	Turbine Bldg. Roof Vent Monitor (μCi/sec.)	I

EXHIBIT 2.6.21-4
SAFETY PARAMETER DISPLAY SYSTEM (UNIT 2)

Operable Inoperable Standby Running Yes No Isolated

NA - Not available

Time 1245

1	HPCI Flow (gpm)	0
2	Core Spray A Flow (gpm)	0
3	RHR A Flow (gpm)	7500
4	RCIC Flow (gpm)	400
5	Core Spray B Flow (gpm)	0
6	RHR B Flow (gpm)	7500
7	SLC Injecting	N
8	CRD Flow (gpm)	>100
9	APRM %	2.5
10	Reactor Pressure (psig)	900
11	Reactor Level (in)	190
12	Main Stack Flow Rate (scfm)	66,000
13	Turbine Bldg. Roof Vent Flow (scfm)	14,000
14	Rx. Bldg. Roof Vent Flow (scfm)	172,000
15	Rx. Bldg. Negative Press (inches of water vacuum)	-.25
16	Suppression Pool Level (in)	-28.2
17	Drywell Pressure (psig)	.5
18	SBGT Flow A (scfm)	0
19	SBGT Flow B (scfm)	0
20	Drywell H_2 4409 (% conc.)	0
21	Drywell H_2 4410 (% conc.)	0
22	Drywell O_2 4409 (% conc.)	2.2
23	Drywell O_2 4410 (% conc.)	2.4
24	AOG System Flow (scfm)	0
25	Off-Site Power Available	Y
26	Main Stack Gas Monitor (uCi/sec)	9.0E+1
27	Turbine Bldg. Vent Monitor (uCi/sec)	7.0E+0
	DRYWELL HIGH RAD MONITOR	R/hr
28	D22-RM-4195 - 30 ft El.	20
29	D22-RM-4196 - 57 ft El.	28
30	D22-RM-4197 - 23 ft El.	18
31	D22-RM-4198 - 57 ft El.	24
32	Drywell Temp (°F)	124
33	Suppression Pool Temp (°F)	115
	RX. BLDG. ROOF VENT RAD MONITOR	
34	Particulate (cpm)	1,000
35	Iodine (cpm)	200
36	Noble Gas (cpm)	100

	AREA RAD MONITORS	mR/hr
37	Rx. Bldg. 20 ft Airlock	1
38	Rx. Bldg. 50 ft Sample Station	2
39	Rx. Bldg. 50 ft Airlock	2
40	Rx. Bldg. North of Fuel Pool	2
41	Between Fuel Pool and Drywell	Downscale
42	Turbine Bldg. Sample Station	0.2
43	SJAE A (mR/hr)	5
44	SJAE B (mR/hr)	3
45	Rx. Bldg. Ventilation Monitor (mR/hr)	0.8
46	Service Water Rad Monitor (cps)	10
	OTHER UNIT	
47	Turbine Bldg. Roof Vent Flow (scfm)	I
48	Turbine Bldg. Roof Vent Monitor (uCi/sec.)	I

EXHIBIT 2.6.21-4
SAFETY PARAMETER DISPLAY SYSTEM (UNIT 2)

Operable Inoperable Standby Running Yes No Isolated

NA - Not available

Time 1300

1	HPCI Flow (gpm)	0
2	Core Spray A Flow (gpm)	0
3	RHR A Flow (gpm)	7500
4	RCIC Flow (gpm)	400
5	Core Spray B Flow (gpm)	0
6	RHR B Flow (gpm)	7500
7	SLC Injecting	N
8	CRD Flow (gpm)	>100
9	APRM %	0
10	Reactor Pressure (psig)	900
11	Reactor Level (in)	192
12	Main Stack Flow Rate (scfm)	72,000
13	Turbine Bldg. Roof Vent Flow (scfm)	14,000
14	Rx. Bldg. Roof Vent Flow (scfm)	0
15	Rx. Bldg. Negative Press (inches of water vacuum)	-.25
16	Suppression Pool Level (in)	-27.5
17	Drywell Pressure (psig)	.6
18	SBGT Flow A (scfm)	3000
19	SBGT Flow B (scfm)	3000
20	Drywell H_2 4409 (% conc.)	0
21	Drywell H_2 4410 (% conc.)	0
22	Drywell O_2 4409 (% conc.)	2.2
23	Drywell O_2 4410 (% conc.)	2.5
24	AOG System Flow (scfm)	0
25	Off-Site Power Available	Y
26	Main Stack Gas Monitor (μCi/sec)	1.0E+7
27	Turbine Bldg. Vent Monitor (μCi/sec)	6.0E+0
	DRYWELL HIGH RAD MONITOR	R/hr
28	D22-RM-4195 - 30 ft El.	10
29	D22-RM-4196 - 57 ft El.	18
30	D22-RM-4197 - 23 ft El.	14
31	D22-RM-4198 - 57 ft El.	10
32	Drywell Temp (°F)	127
33	Suppression Pool Temp (°F)	122
	RX. BLDG. ROOF VENT RAD MONITOR	
34	Particulate (cpm)	800
35	Iodine (cpm)	100
36	Noble Gas (cpm)	60

	AREA RAD MONITORS	mR/hr
37	Rx. Bldg. 20 ft Airlock	Offscale High
38	Rx. Bldg. 50 ft Sample Station	Offscale High
39	Rx. Bldg. 50 ft Airlock	10
40	Rx. Bldg. North of Fuel Pool	2
41	Between Fuel Pool and Drywell	Downscale
42	Turbine Bldg. Sample Station	0.2
43	SJAE A (mR/hr)	4
44	SJAE B (mR/hr)	2
45	Rx. Bldg. Ventilation Monitor (mR/hr)	0.8
46	Service Water Rad Monitor (cps)	10
	OTHER UNIT	
47	Turbine Bldg. Roof Vent Flow (scfm)	I
48	Turbine Bldg. Roof Vent Monitor (μCi/sec.)	I

EXHIBIT 2.6.21-4
SAFETY PARAMETER DISPLAY SYSTEM (UNIT 2)

Operable Inoperable Standby Running Yes No Isolated

NA - Not available

Time 1315

1	HPCI Flow (gpm)	0
2	Core Spray A Flow (gpm)	0
3	RHR A Flow (gpm)	7500
4	RCIC Flow (gpm)	0
5	Core Spray B Flow (gpm)	0
6	RHR B Flow (gpm)	7500
7	SLC Injecting	N
8	CRD Flow (gpm)	>100
9	APRM %	0
10	Reactor Pressure (psig)	910
11	Reactor Level (in)	196
12	Main Stack Flow Rate (scfm)	72,000
13	Turbine Bldg. Roof Vent Flow (scfm)	14,000
14	Rx. Bldg. Roof Vent Flow (scfm)	0
15	Rx. Bldg. Negative Press (inches of water vacuum)	>0
16	Suppression Pool Level (in)	-27
17	Drywell Pressure (psig)	.7
18	SBGT Flow A (scfm)	3000
19	SBGT Flow B (scfm)	3000
20	Drywell H_2 4409 (% conc.)	0
21	Drywell H_2 4410 (% conc.)	0
22	Drywell O_2 4409 (% conc.)	2.3
23	Drywell O_2 4410 (% conc.)	2.6
24	AOG System Flow (scfm)	0
25	Off-Site Power Available	Y
26	Main Stack Gas Monitor (uCi/sec)	1.0E+7
27	Turbine Bldg. Vent Monitor (uCi/sec)	5.0E+0
	DRYWELL HIGH RAD MONITOR	R/hr
28	D22-RM-4195 - 30 ft El.	4
29	D22-RM-4196 - 57 ft El.	6
30	D22-RM-4197 - 23 ft El.	4
31	D22-RM-4198 - 57 ft El.	6
32	Drywell Temp (°F)	130
33	Suppression Pool Temp (°F)	120
	RX. BLDG. ROOF VENT RAD MONITOR	
34	Particulate (cpm)	700
35	Iodine (cpm)	100
36	Noble Gas (cpm)	60

	AREA RAD MONITORS	mR/hr
37	Rx. Bldg. 20 ft Airlock	Offscale High
38	Rx. Bldg. 50 ft Sample Station	Offscale High
39	Rx. Bldg. 50 ft Airlock	10
40	Rx. Bldg. North of Fuel Pool	2
41	Between Fuel Pool and Drywell	Downscale
42	Turbine Bldg. Sample Station	0.2
43	SJAE A (mR/hr)	4
44	SJAE B (mR/hr)	2
45	Rx. Bldg. Ventilation Monitor (mR/hr)	0.8
46	Service Water Rad Monitor (cps)	10
	OTHER UNIT	
47	Turbine Bldg. Roof Vent Flow (scfm)	I
48	Turbine Bldg. Roof Vent Monitor (uCi/sec.)	I

EXHIBIT 2.6.21-4
SAFETY PARAMETER DISPLAY SYSTEM (UNIT 2)

Operable Inoperable Standby Running Yes No Isolated

NA - Not available

Time 1330

1	HPCI Flow (gpm)	0
2	Core Spray A Flow (gpm)	0
3	RHR A Flow (gpm)	7500
4	RCIC Flow (gpm)	400
5	Core Spray B Flow (gpm)	0
6	RHR B Flow (gpm)	7500
7	SLC Injecting	N
8	CRD Flow (gpm)	>100
9	APRM %	0
10	Reactor Pressure (psig)	675
11	Reactor Level (in)	172
12	Main Stack Flow Rate (scfm)	72,000
13	Turbine Bldg. Roof Vent Flow (scfm)	14,000
14	Rx. Bldg. Roof Vent Flow (scfm)	0
15	Rx. Bldg. Negative Press (inches of water vacuum)	>0
16	Suppression Pool Level (in)	-27
17	Drywell Pressure (psig)	.8
18	SBGT Flow A (scfm)	3000
19	SBGT Flow B (scfm)	3000
20	Drywell H_2 4409 (% conc.)	0
21	Drywell H_2 4410 (% conc.)	0
22	Drywell O_2 4409 (% conc.)	2.4
23	Drywell O_2 4410 (% conc.)	2.7
24	AOG System Flow (scfm)	0
25	Off-Site Power Available	Y
26	Main Stack Gas Monitor (uCi/sec)	1.0E+7
27	Turbine Bldg. Vent Monitor (uCi/sec)	4.0E+0
	DRYWELL HIGH RAD MONITOR	R/hr
28	D22-RM-4195 - 30 ft El.	3
29	D22-RM-4196 - 57 ft El.	6
30	D22-RM-4197 - 23 ft El.	3
31	D22-RM-4198 - 57 ft El.	6
32	Drywell Temp (°F)	122
33	Suppression Pool Temp (°F)	116
	RX. BLDG. ROOF VENT RAD MONITOR	
34	Particulate (cpm)	700
35	Iodine (cpm)	100
36	Noble Gas (cpm)	60

	AREA RAD MONITORS	mR/hr
37	Rx. Bldg. 20 ft Airlock	Offscale High
38	Rx. Bldg. 50 ft Sample Station	Offscale High
39	Rx. Bldg. 50 ft Airlock	10
40	Rx. Bldg. North of Fuel Pool	2
41	Between Fuel Pool and Drywell	Downscale
42	Turbine Bldg. Sample Station	0.2
43	SJAE A (mR/hr)	3
44	SJAE B (mR/hr)	2
45	Rx. Bldg. Ventilation Monitor (mR/hr)	0.8
46	Service Water Rad Monitor (cps)	10
	OTHER UNIT	
47	Turbine Bldg. Roof Vent Flow (scfm)	I
48	Turbine Bldg. Roof Vent Monitor (uCi/sec.)	I

EXHIBIT 2.6.21-4
SAFETY PARAMETER DISPLAY SYSTEM (UNIT 2)

Operable Inoperable Standby Running Yes No Isolated

NA - Not available

Time 1345

1	HPCI Flow (gpm)	0
2	Core Spray A Flow (gpm)	0
3	RHR A Flow (gpm)	7500
4	RCIC Flow (gpm)	0
5	Core Spray B Flow (gpm)	0
6	RHR B Flow (gpm)	7500
7	SLC Injecting	N
8	CRD Flow (gpm)	>100
9	APRM %	0
10	Reactor Pressure (psig)	1090
11	Reactor Level (in)	190
12	Main Stack Flow Rate (scfm)	72,000
13	Turbine Bldg. Roof Vent Flow (scfm)	14,000
14	Rx. Bldg. Roof Vent Flow (scfm)	0
15	Rx. Bldg. Negative Press (inches of water vacuum)	>0
16	Suppression Pool Level (in)	-27
17	Drywell Pressure (psig)	.8
18	SBGT Flow A (scfm)	3000
19	SBGT Flow B (scfm)	3000
20	Drywell H_2 4409 (% conc.)	0
21	Drywell H_2 4410 (% conc.)	0
22	Drywell O_2 4409 (% conc.)	2.5
23	Drywell O_2 4410 (% conc.)	2.8
24	AOG System Flow (scfm)	0
25	Off-Site Power Available	Y
26	Main Stack Gas Monitor (uCi/sec)	1.0E+7
27	Turbine Bldg. Vent Monitor (uCi/sec)	4.0E+0
	DRYWELL HIGH RAD MONITOR	R/hr
28	D22-RM-4195 - 30 ft El.	3
29	D22-RM-4196 - 57 ft El.	5
30	Q22-RM-4197 - 23 ft El.	3
31	D22-RM-4198 - 57 ft El.	6
32	Drywell Temp (°F)	118
33	Suppression Pool Temp (°F)	112
	RX. BLDG. ROOF VENT RAD MONITOR	
34	Particulate (cpm)	700
35	Iodine (cpm)	100
36	Noble Gas (cpm)	60

	AREA RAD MONITORS	mR/hr
37	Rx. Bldg. 20 ft Airlock	Offscale High
38	Rx. Bldg. 50 ft Sample Station	Offscale High
39	Rx. Bldg. 50 ft Airlock	10
40	Rx. Bldg. North of Fuel Pool	2
41	Between Fuel Pool and Drywell	Downscale
42	Turbine Bldg. Sample Station	0.2
43	SJAE A (mR/hr)	3
44	SJAE B (mR/hr)	2
45	Rx. Bldg. Ventilation Monitor (mR/hr)	0.8
46	Service Water Rad Monitor (cps)	10
	OTHER UNIT	
47	Turbine Bldg. Roof Vent Flow (scfm)	I
48	Turbine Bldg. Roof Vent Monitor (uCi/sec.)	I

EXHIBIT 2.6.21-4
SAFETY PARAMETER DISPLAY SYSTEM (UNIT 2)

Operable Inoperable Standby Running Yes No Isolated

NA - Not available

Time 1400

1	HPCI Flow (gpm)	0
2	Core Spray A Flow (gpm)	0
3	RHR A Flow (gpm)	7500
4	RCIC Flow (gpm)	0
5	Core Spray B Flow (gpm)	0
6	RHR B Flow (gpm)	7500
7	SLC Injecting	N
8	CRD Flow (gpm)	>100
9	APRM %	0
10	Reactor Pressure (psig)	700
11	Reactor Level (in)	192
12	Main Stack Flow Rate (scfm)	72,000
13	Turbine Bldg. Roof Vent Flow (scfm)	14,000
14	Rx. Bldg. Roof Vent Flow (scfm)	0
15	Rx. Bldg. Negative Press (inches of water vacuum)	>0
16	Suppression Pool Level (in)	-27
17	Drywell Pressure (psig)	.5
18	SBGT Flow A (scfm)	3000
19	SBGT Flow B (scfm)	3000
20	Drywell H_2 4409 (% conc.)	0
21	Drywell H_2 4410 (% conc.)	0
22	Drywell O_2 4409 (% conc.)	2.5
23	Drywell O_2 4410 (% conc.)	2.9
24	AOG System Flow (scfm)	0
25	Off-Site Power Available	Y
26	Main Stack Gas Monitor (uCi/sec)	1.0E+7
27	Turbine Bldg. Vent Monitor (uCi/sec)	4.0E+0
	DRYWELL HIGH RAD MONITOR	R/hr
28	D22-RM-4195 - 30 ft El.	3
29	D22-RM-4196 - 57 ft El.	5
30	D22-RM-4197 - 23 ft El.	3
31	D22-RM-4198 - 57 ft El.	5
32	Drywell Temp (°F)	110
33	Suppression Pool Temp (°F)	109
	RX. BLDG. ROOF VENT RAD MONITOR	
34	Particulate (cpm)	700
35	Iodine (cpm)	100
36	Noble Gas (cpm)	60

	AREA RAD MONITORS	mR/hr
37	Rx. Bldg. 20 ft Airlock	Offscale High
38	Rx. Bldg. 50 ft Sample Station	Offscale High
39	Rx. Bldg. 50 ft Airlock	10
40	Rx. Bldg. North of Fuel Pool	2
41	Between Fuel Pool and Drywell	Downscale
42	Turbine Bldg. Sample Station	0.2
43	SJAE A (mR/hr)	3
44	SJAE B (mR/hr)	2
45	Rx. Bldg. Ventilation Monitor (mR/hr)	0.8
46	Service Water Rad Monitor (cps)	10
	OTHER UNIT	
47	Turbine Bldg. Roof Vent Flow (scfm)	I
48	Turbine Bldg. Roof Vent Monitor (uCi/sec.)	I

EXHIBIT 2.6.21-4
SAFETY PARAMETER DISPLAY SYSTEM (UNIT 2)

Operable Inoperable Standby Running Yes No Isolated

NA - Not available

Time 1415

1	HPCI Flow (gpm)	0
2	Core Spray A Flow (gpm)	0
3	RHR A Flow (gpm)	7500
4	RCIC Flow (gpm)	0
5	Core Spray B Flow (gpm)	0
6	RHR B Flow (gpm)	7500
7	SLC Injecting	N
8	CRD Flow (gpm)	>100
9	APRM %	0
10	Reactor Pressure (psig)	705
11	Reactor Level (in)	190
12	Main Stack Flow Rate (scfm)	72,000
13	Turbine Bldg. Roof Vent Flow (scfm)	14,000
14	Rx. Bldg. Roof Vent Flow (scfm)	0
15	Rx. Bldg. Negative Press (inches of water vacuum)	>0
16	Suppression Pool Level (in)	-27
17	Drywell Pressure (psig)	.3
18	SBGT Flow A (scfm)	3000
19	SBGT Flow B (scfm)	3000
20	Drywell H_2 4409 (% conc.)	0
21	Drywell H_2 4410 (% conc.)	0
22	Drywell O_2 4409 (% conc.)	2.5
23	Drywell O_2 4410 (% conc.)	3.0
24	AOG System Flow (scfm)	0
25	Off-Site Power Available	Y
26	Main Stack Gas Monitor (uCi/sec)	1.0E+7
27	Turbine Bldg. Vent Monitor (uCi/sec)	4.0E+0
	DRYWELL HIGH RAD MONITOR	R/hr
28	D22-RM-4195 - 30 ft El.	3
29	D22-RM-4196 - 57 ft El.	5
30	D22-RM-4197 - 23 ft El.	3
31	D22-RM-4198 - 57 ft El.	5
32	Drywell Temp (°F)	105
33	Suppression Pool Temp (°F)	105
	RX. BLDG. ROOF VENT RAD MONITOR	
34	Particulate (cpm)	700
35	Iodine (cpm)	100
36	Noble Gas (cpm)	60

	AREA RAD MONITORS	mR/hr
37	Rx. Bldg. 20 ft Airlock	Offscale High
38	Rx. Bldg. 50 ft Sample Station	Offscale High
39	Rx. Bldg. 50 ft Airlock	10
40	Rx. Bldg. North of Fuel Pool	2
41	Between Fuel Pool and Drywell	Downscale
42	Turbine Bldg. Sample Station	0.2
43	SJAE A (mR/hr)	2
44	SJAE B (mR/hr)	1
45	Rx. Bldg. Ventilation Monitor (mR/hr)	0.8
46	Service Water Rad Monitor (cps)	10
	OTHER UNIT	
47	Turbine Bldg. Roof Vent Flow (scfm)	I
48	Turbine Bldg. Roof Vent Monitor (uCi/sec.)	I

EXHIBIT 2.6.21-4
SAFETY PARAMETER DISPLAY SYSTEM (UNIT 2)

Operable Inoperable Standby Running Yes No Isolated

NA - Not available

Time 1430

1	HPCI Flow (gpm)	0
2	Core Spray A Flow (gpm)	0
3	RHR A Flow (gpm)	7500
4	RCIC Flow (gpm)	0
5	Core Spray B Flow (gpm)	0
6	RHR B Flow (gpm)	7500
7	SLC Injecting	N
8	CRD Flow (gpm)	60
9	APRM %	0
10	Reactor Pressure (psig)	710
11	Reactor Level (in)	190
12	Main Stack Flow Rate (scfm)	72,000
13	Turbine Bldg. Roof Vent Flow (scfm)	14,000
14	Rx. Bldg. Roof Vent Flow (scfm)	0
15	Rx. Bldg. Negative Press (inches of water vacuum)	-.25
16	Suppression Pool Level (in)	-27
17	Drywell Pressure (psig)	.3
18	SBGT Flow A (scfm)	3000
19	SBGT Flow B (scfm)	3000
20	Drywell H_2 4409 (% conc.)	0
21	Drywell H_2 4410 (% conc.)	0
22	Drywell O_2 4409 (% conc.)	2.6
23	Drywell O_2 4410 (% conc.)	3.0
24	AOG System Flow (scfm)	0
25	Off-Site Power Available	Y
26	Main Stack Gas Monitor (μCi/sec)	1.0E+7
27	Turbine Bldg. Vent Monitor (μCi/sec)	4.0E+0
	DRYWELL HIGH RAD MONITOR	R/hr
28	D22-RM-4195 - 30 ft El.	3
29	D22-RM-4196 - 57 ft El.	5
30	D22-RM-4197 - 23 ft El.	3
31	D22-RM-4198 - 57 ft El.	5
32	Drywell Temp (°F)	100
33	Suppression Pool Temp (°F)	101
	RX. BLDG. ROOF VENT RAD MONITOR	
34	Particulate (cpm)	700
35	Iodine (cpm)	100
36	Noble Gas (cpm)	60

	AREA RAD MONITORS	mR/hr
37	Rx. Bldg. 20 ft Airlock	Offscale High
38	Rx. Bldg. 50 ft Sample Station	Offscale High
39	Rx. Bldg. 50 ft Airlock	10
40	Rx. Bldg. North of Fuel Pool	2
41	Between Fuel Pool and Drywell	Downscale
42	Turbine Bldg. Sample Station	0.2
43	SJAE A (mR/hr)	2
44	SJAE B (mR/hr)	1
45	Rx. Bldg. Ventilation Monitor (mR/hr)	0.9
46	Service Water Rad Monitor (cps)	10
	OTHER UNIT	
47	Turbine Bldg. Roof Vent Flow (scfm)	I
48	Turbine Bldg. Roof Vent Monitor (μCi/sec.)	I

EXHIBIT 2.6.21-4
SAFETY PARAMETER DISPLAY SYSTEM (UNIT 2)

Operable Inoperable Standby Running Yes No Isolated

NA - Not available

Time 1445

1	HPCI Flow (gpm)	0
2	Core Spray A Flow (gpm)	0
3	RHR A Flow (gpm)	7500
4	RCIC Flow (gpm)	0
5	Core Spray B Flow (gpm)	0
6	RHR B Flow (gpm)	7500
7	SLC Injecting	N
8	CRD Flow (gpm)	60
9	APRM %	0
10	Reactor Pressure (psig)	715
11	Reactor Level (in)	190
12	Main Stack Flow Rate (scfm)	72,000
13	Turbine Bldg. Roof Vent Flow (scfm)	14,000
14	Rx. Bldg. Roof Vent Flow (scfm)	0
15	Rx. Bldg. Negative Press (inches of water vacuum)	-.25
16	Suppression Pool Level (in)	-27
17	Drywell Pressure (psig)	.2
18	SBGT Flow A (scfm)	3000
19	SBGT Flow B (scfm)	3000
20	Drywell H_2 4409 (% conc.)	0
21	Drywell H_2 4410 (% conc.)	0
22	Drywell O_2 4409 (% conc.)	2.7
23	Drywell O_2 4410 (% conc.)	3.1
24	AOG System Flow (scfm)	0
25	Off-Site Power Available	Y
26	Main Stack Gas Monitor (uCi/sec)	1.0E+7
27	Turbine Bldg. Vent Monitor (uCi/sec)	4.0 E+0
	DRYWELL HIGH RAD MONITOR	R/hr
28	D22-RM-4195 - 30 ft El.	3
29	D22-RM-4196 - 57 ft El.	5
30	D22-RM-4197 - 23 ft El.	3
31	D22-RM-4198 - 57 ft El.	5
32	Drywell Temp (°F)	100
33	Suppression Pool Temp (°F)	97
	RX. BLDG. ROOF VENT RAD MONITOR	
34	Particulate (cpm)	700
35	Iodine (cpm)	100
36	Noble Gas (cpm)	60

	AREA RAD MONITORS	mR/hr
37	Rx. Bldg. 20 ft Airlock	Offscale High
38	Rx. Bldg. 50 ft Sample Station	Offscale High
39	Rx. Bldg. 50 ft Airlock	10
40	Rx. Bldg. North of Fuel Pool	2
41	Between Fuel Pool and Drywell	Downscale
42	Turbine Bldg. Sample Station	0.2
43	SJAE A (mR/hr)	2
44	SJAE B (mR/hr)	1
45	Rx. Bldg. Ventilation Monitor (mR/hr)	0.8
46	Service Water Rad Monitor (cps)	10
	OTHER UNIT	
47	Turbine Bldg. Roof Vent Flow (scfm)	I
48	Turbine Bldg. Roof Vent Monitor (uCi/sec.)	I

EXHIBIT 2.6.21-4
SAFETY PARAMETER DISPLAY SYSTEM (UNIT 2)

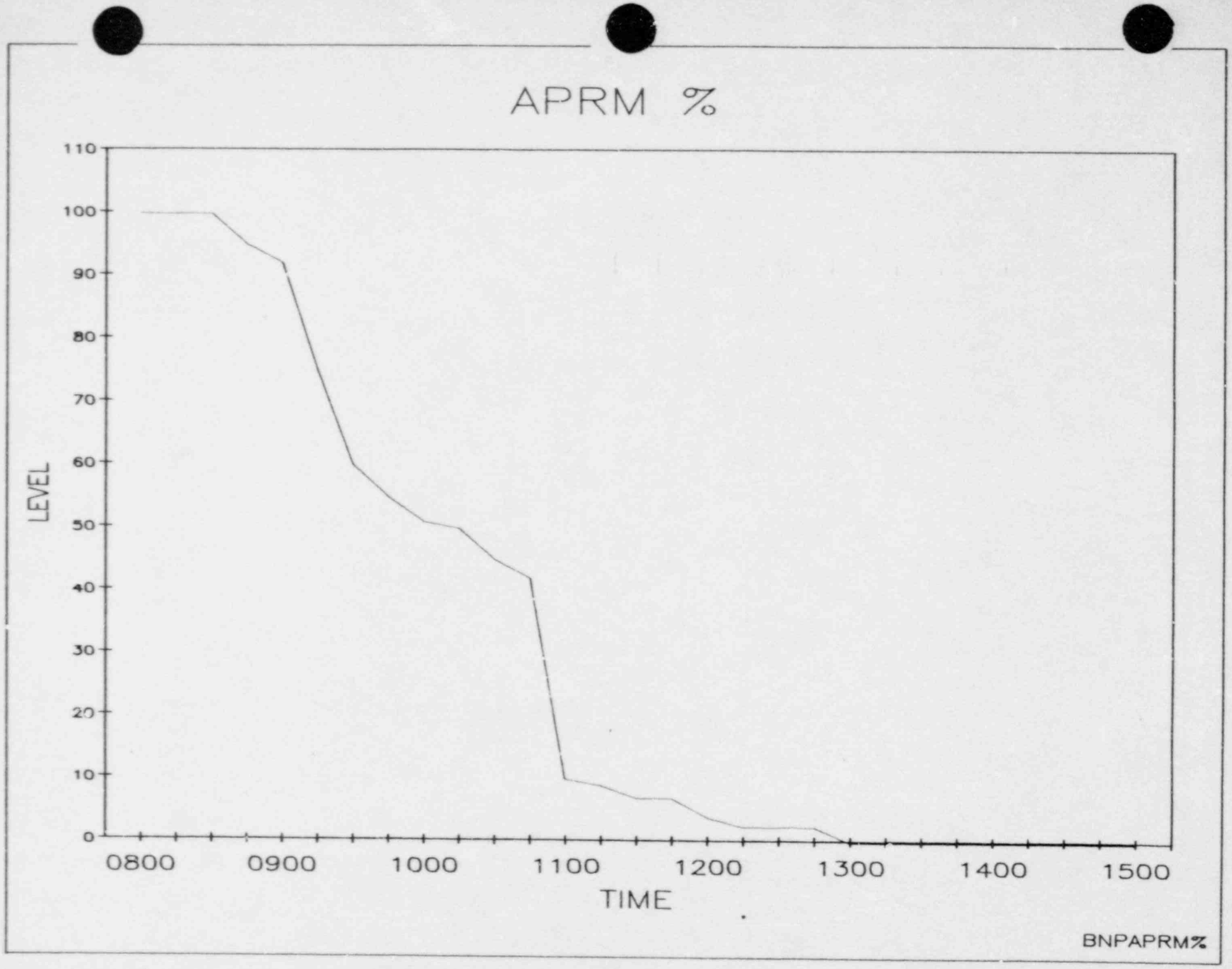
Operable Inoperable Standby Running Yes No Isolated

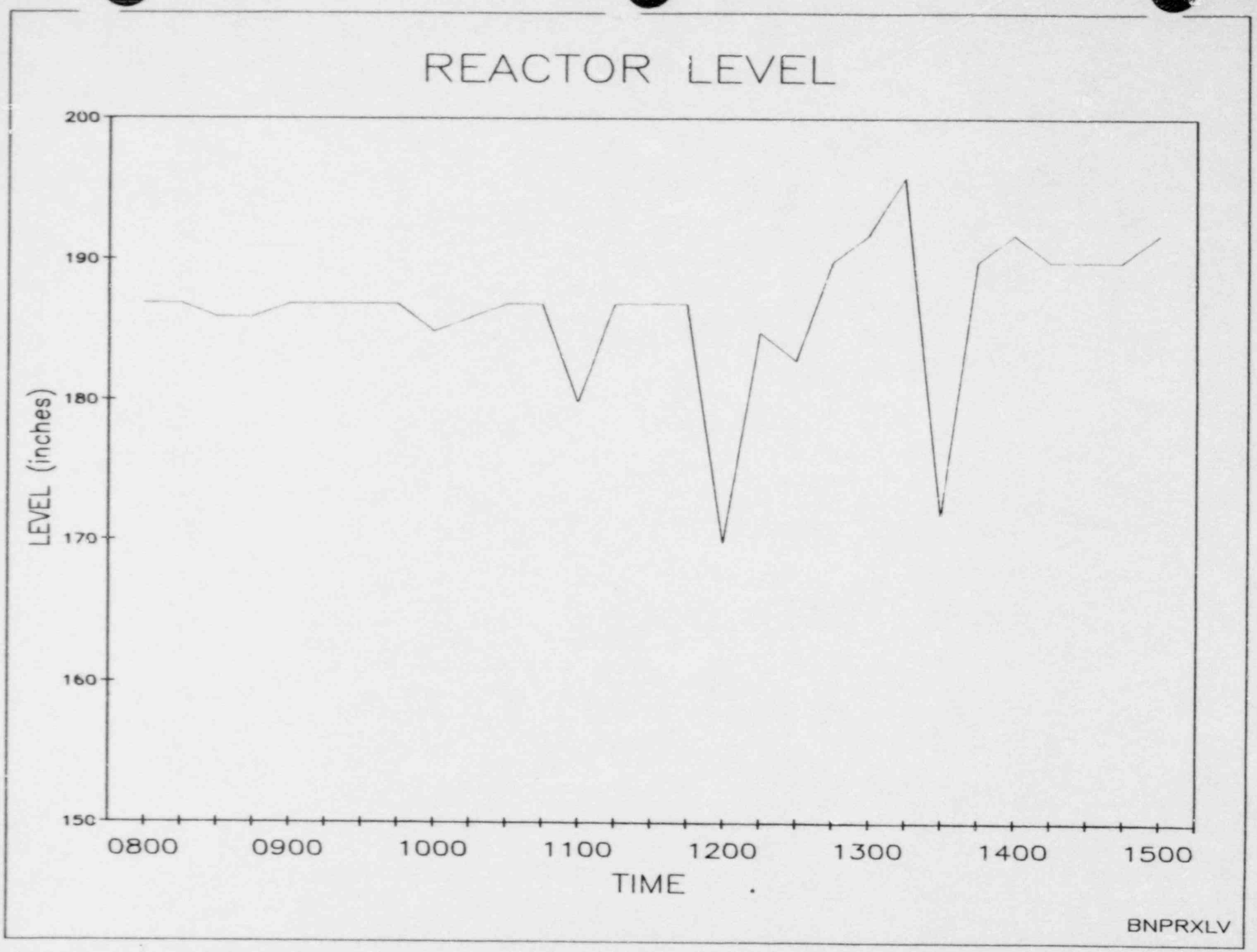
NA - Not available

Time 1500

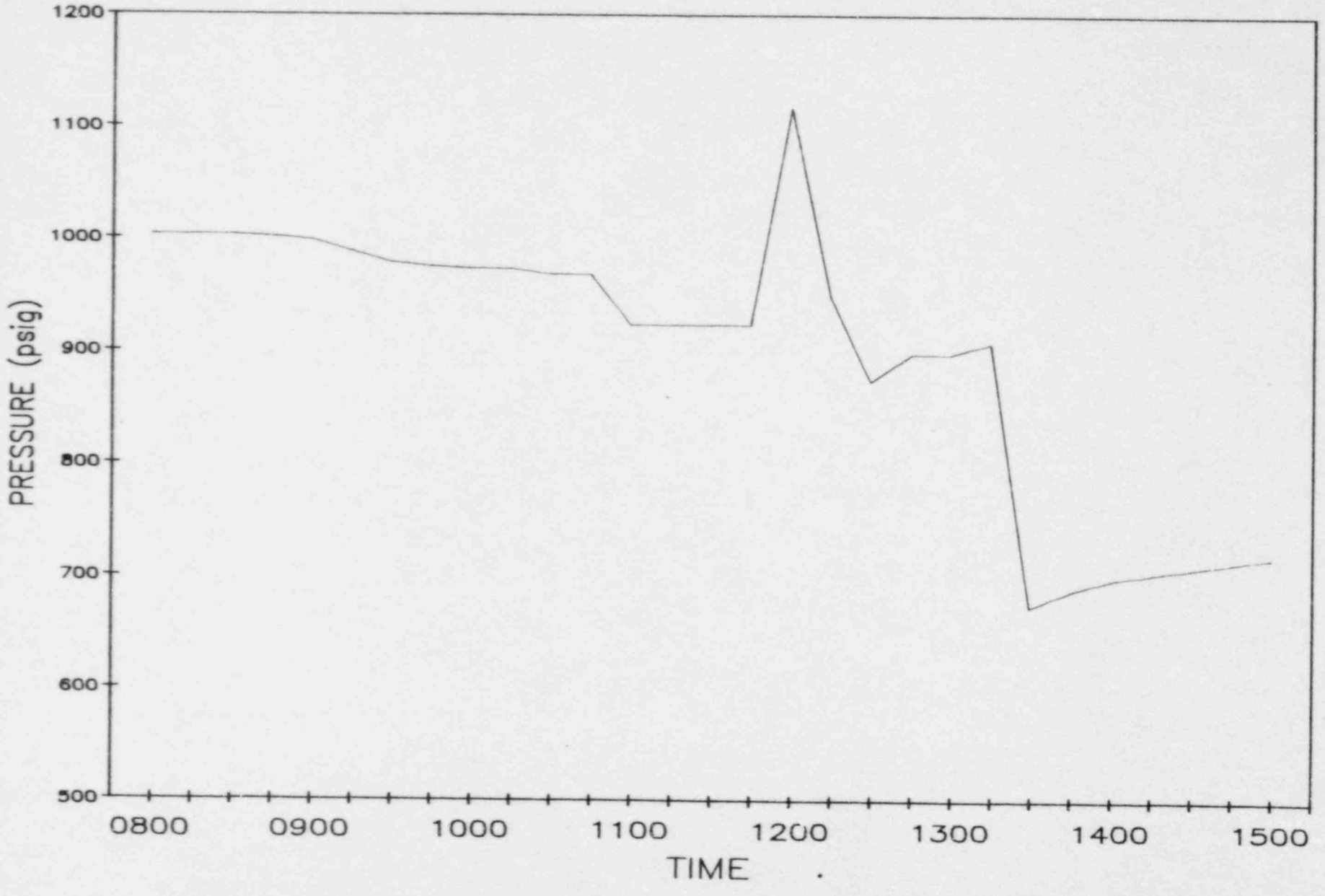
1	HPCI Flow (gpm)	0
2	Core Spray A Flow (gpm)	0
3	RHR A Flow (gpm)	7500
4	RCIC Flow (gpm)	0
5	Core Spray B Flow (gpm)	0
6	RHR B Flow (gpm)	7500
7	SLC Injecting	N
8	CRD Flow (gpm)	60
9	APRM %	0
10	Reactor Pressure (psig)	720
11	Reactor Level (in)	192
12	Main Stack Flow Rate (scfm)	72,000
13	Turbine Bldg. Roof Vent Flow (scfm)	14,000
14	Rx. Bldg. Roof Vent Flow (scfm)	0
15	Rx. Bldg. Negative Press (inches of water vacuum)	-.25
16	Suppression Pool Level (in)	-27
17	Drywell Pressure (psig)	.2
18	SBGT Flow A (scfm)	3000
19	SBGT Flow B (scfm)	3000
20	Drywell H_2 4409 (% conc.)	0
21	Drywell H_2 4410 (% conc.)	0
22	Drywell O_2 4409 (% conc.)	2.8
23	Drywell O_2 4410 (% conc.)	3.1
24	AOG System Flow (scfm)	0
25	Off-Site Power Available	Y
26	Main Stack Gas Monitor (uCi/sec)	1.0E+7
27	Turbine Bldg. Vent Monitor (uCi/sec)	4.0E+0
	DRYWELL HIGH RAD MONITOR	R/hr
28	D22-RM-4195 - 30 ft El.	3
29	D22-RM-4196 - 57 ft El.	5
30	D22-RM-4197 - 23 ft El.	3
31	D22-RM-4198 - 57 ft El.	5
32	Drywell Temp (°F)	98
33	Suppression Pool Temp (°F)	94
	RX. BLDG. ROOF VENT RAD MONITOR	
34	Particulate (cpm)	700
35	Iodine (cpm)	100
36	Noble Gas (cpm)	60

	AREA RAD MONITORS	mR/hr
37	Rx. Bldg. 20 ft Airlock	Offscale High
38	Rx. Bldg. 50 ft Sample Station	Offscale High
39	Rx. Bldg. 50 ft Airlock	10
40	Rx. Bldg. North of Fuel Pool	2
41	Between Fuel Pool and Drywell	Downscale
42	Turbine Bldg. Sample Station	0.2
43	SJAE A (mR/hr)	2
44	SJAE B (mR/hr)	1
45	Rx. Bldg. Ventilation Monitor (mR/hr)	0.8
46	Service Water Rad Monitor (cps)	10
	OTHER UNIT	
47	Turbine Bldg. Roof Vent Flow (scfm)	I
48	Turbine Bldg. Roof Vent Monitor (uCi/sec.)	I

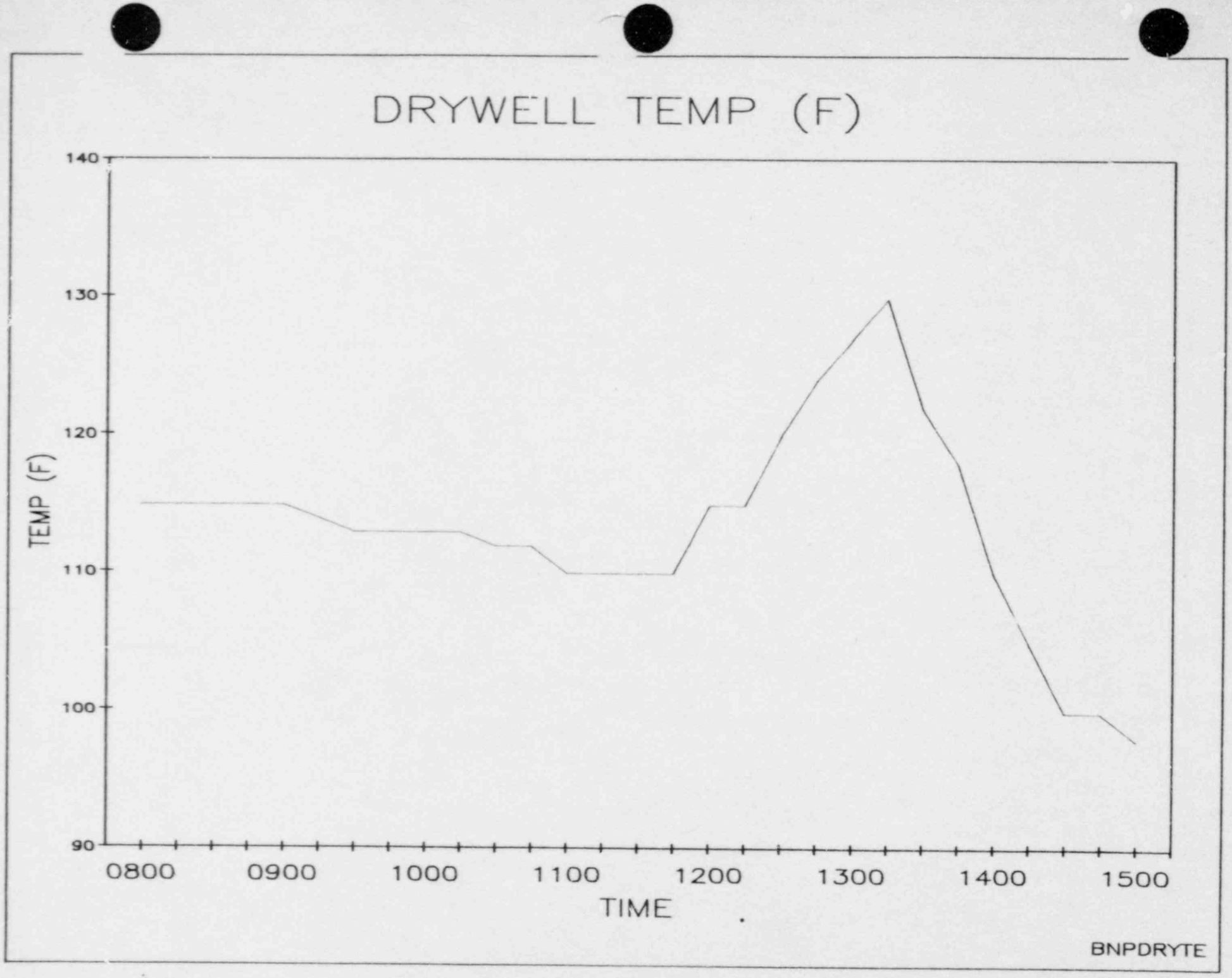

APRM %
110
100
90
80
70
60
50
40
30
20
10
0
LEVEL
0800
0900
1000
1100
1200
1300
1400
1500
TIME
BNPAPRM%

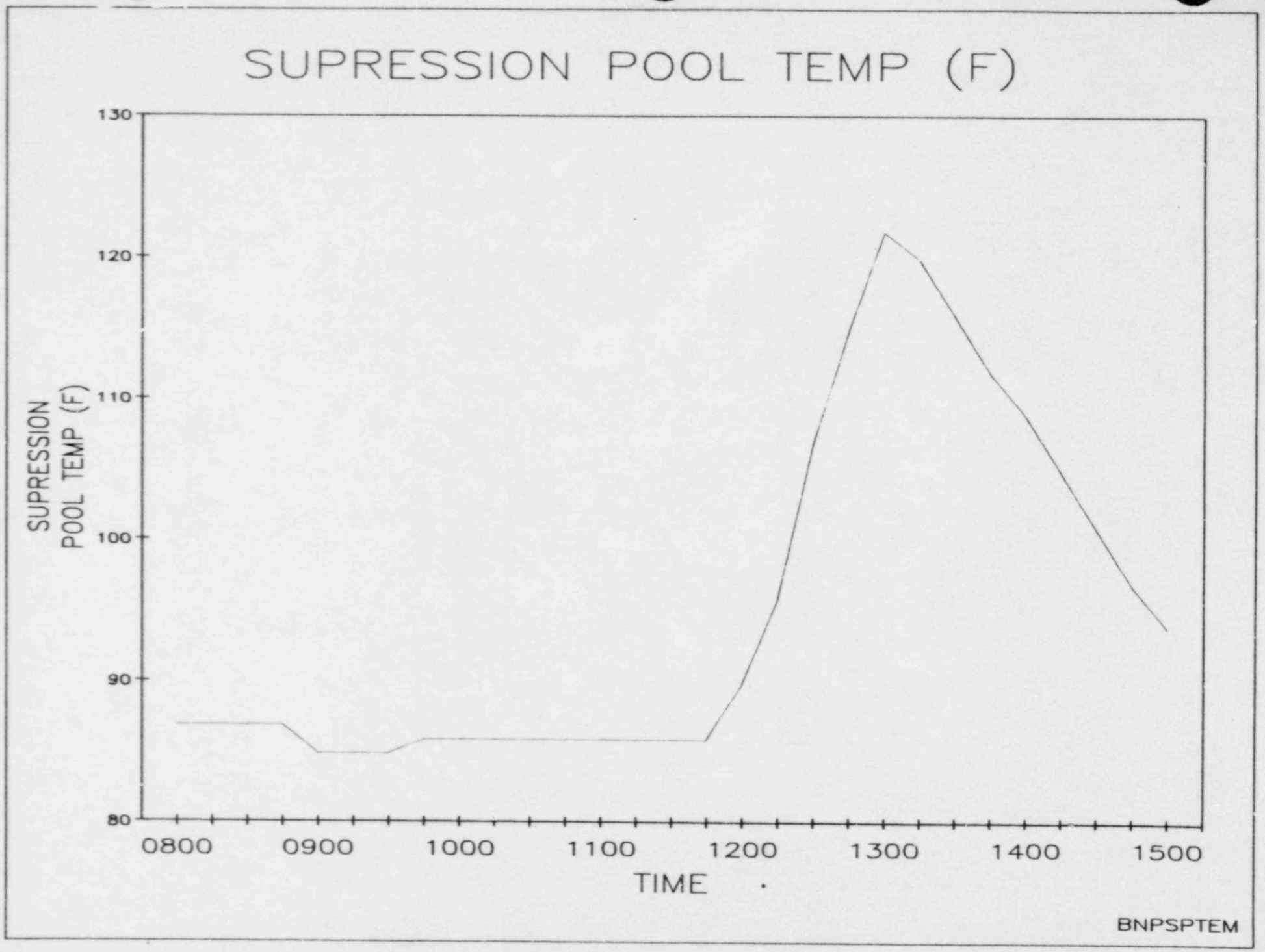

REACTOR LEVEL
200
190
180
170
160
150
LEVEL (inches)
0800
0900
1000
1100
1200
1300
1400
1500
TIME
BNPRXLV

REACTOR PRESSURE



BNPRXPR


DRYWELL TEMP (F)
140
130
120
110
100
90
TEMP (F)
0800
0900
1000
1100
1200
1300
1400
1500
TIME
BNPDRYTE


SUPRESSION POOL TEMP (F)
130
120
110
100
90
80
SUPRESSION POOL TEMP (F)
0800
0900
1000
1100
1200
1300
1400
1500
TIME
BNPSPTEM

BRUNSWICK ANNUAL EMERGENCY EXERCISE
(UNIT 2 REACTOR BUILDING RADIOLOGICAL CONDITIONS)

Prior to 1300 hours, all radiological conditions in the Unit 2 Reactor Building will be "as read." From 1300 hours until drill termination (except in the North and South RHR rooms, where radiation levels will increase at 1245 hours), radiological conditions will be elevated due to the following:

- Dumping of reactor coolant into the reactor building due to the scram discharge volume failure.
- Buildup of radioactive material in the Standby Gas Treatment System.
- Operation of RHR loops A and B.

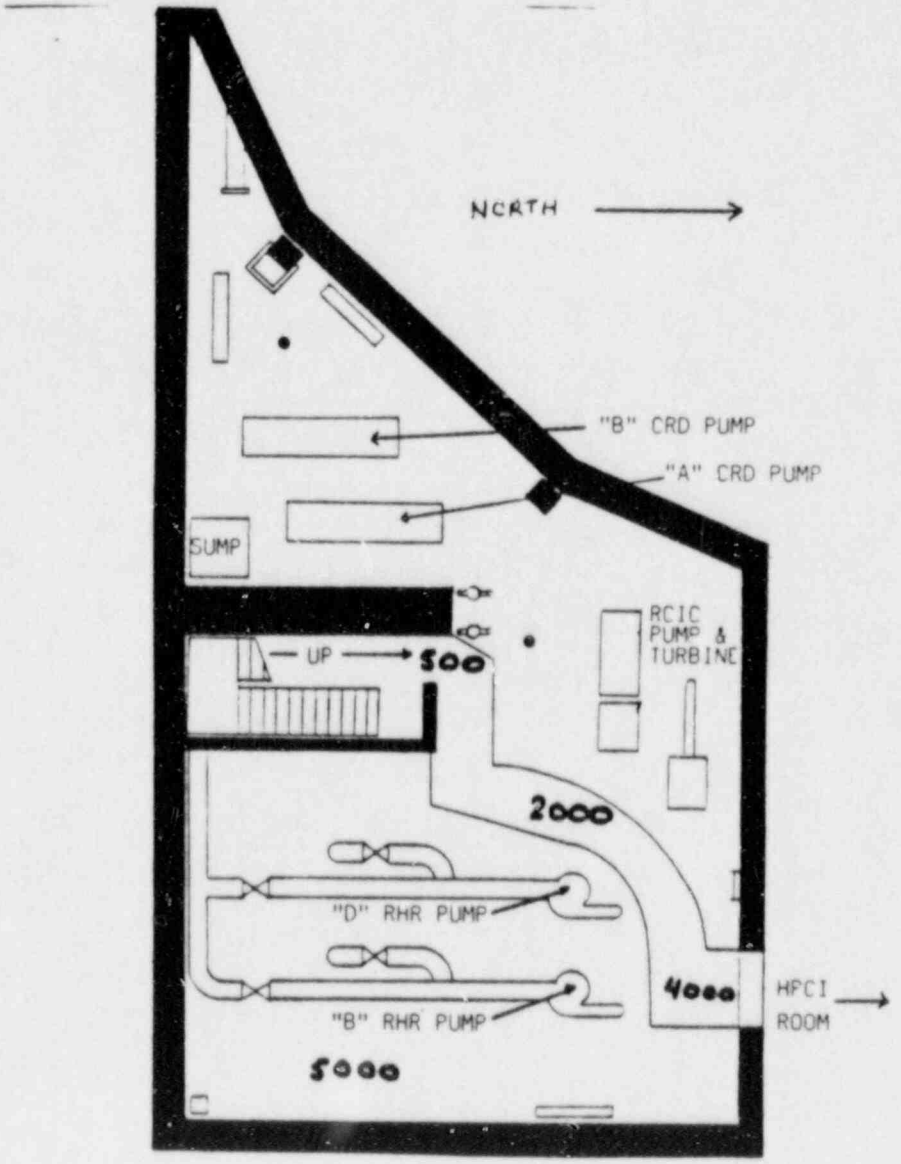
The following attachments provide radiation and airborne radioactivity levels in affected areas of the Reactor Building.

After 1300 hours contamination surveys on the Reactor Building - 17 ft., 20 ft., and 50 ft. levels are 500,000 DPM/100^2cm. On the 80 ft. level contamination surveys show 10,000 DPM/100^2cm.

(87-6HRG/pcj)

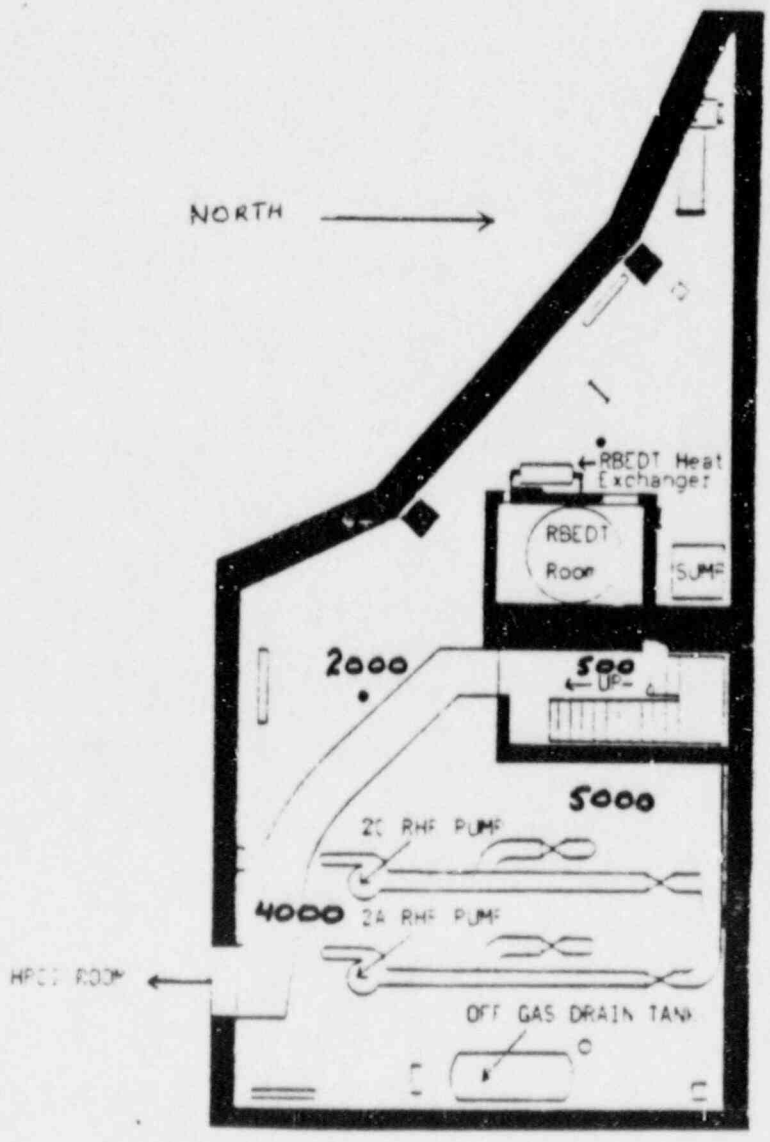
IN-PLANT RADIOLOGICAL SURVEY RESULTS
UNIT 2 REACTOR BUILDING
-17' ELEVATION (SOUTH RHR)

Time: 1245 to 1500 Hours
Note: All readings in mR/hr



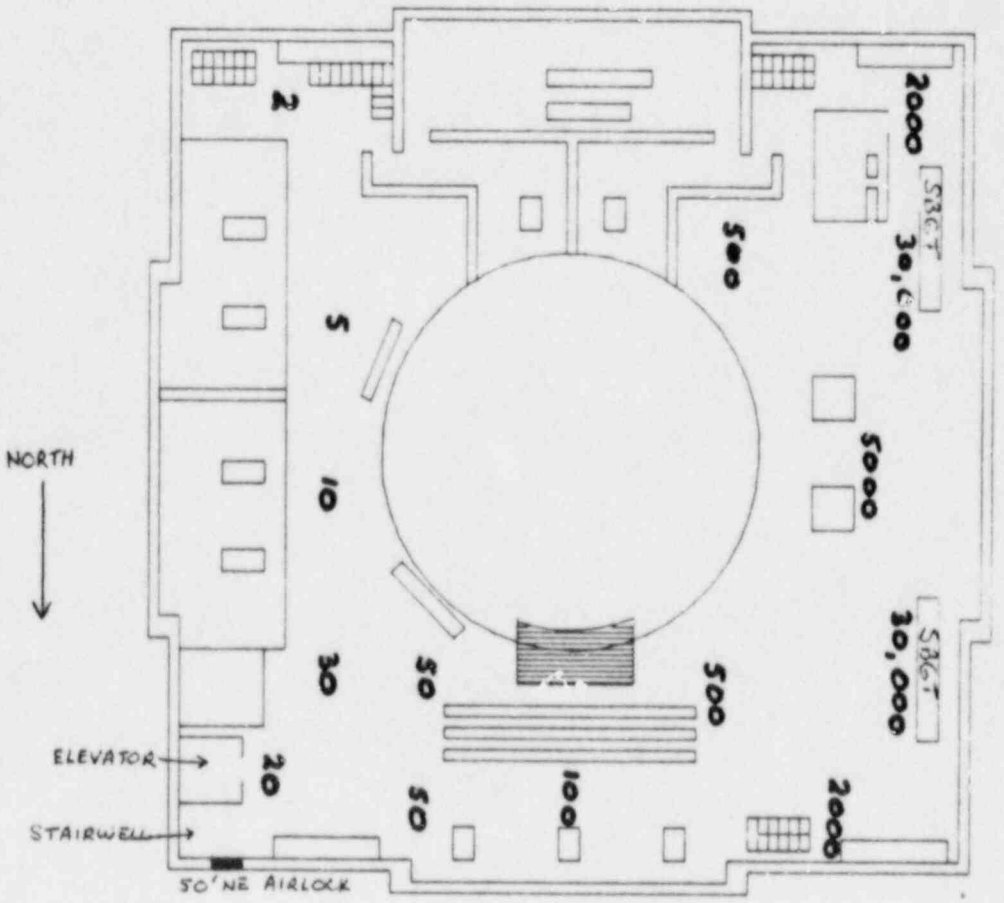
IN-PLANT RADIOLOGICAL SURVEY RESULTS
UNIT 2 REACTOR BUILDING
-17' ELEVATION (NORTH RHR)

Time: 1245 to 1500 hours
Note: All readings in mR/hr



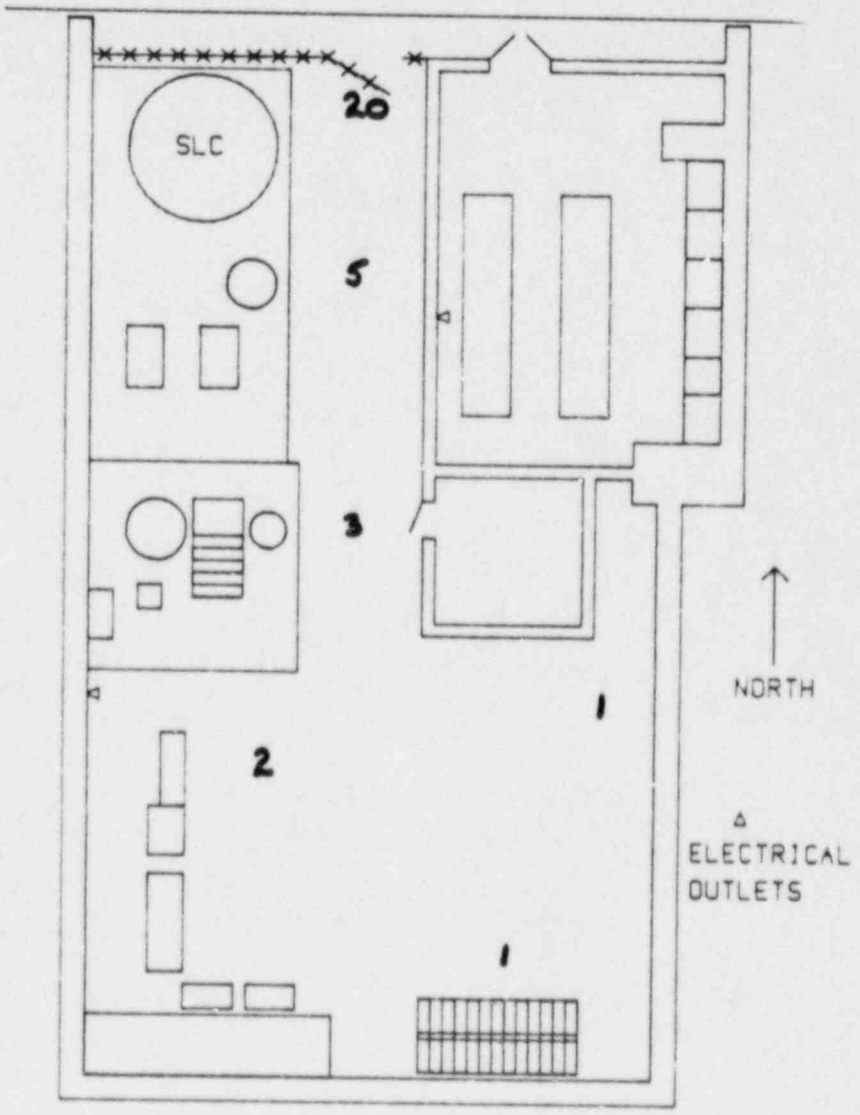
IN-PLANT RADIOLOGICAL SURVEY RESULTS
UNIT 2 REACTOR BUILDING
50' ELEVATION

Time: 1300 to 1500 hours
Note: All readings in mR/hr



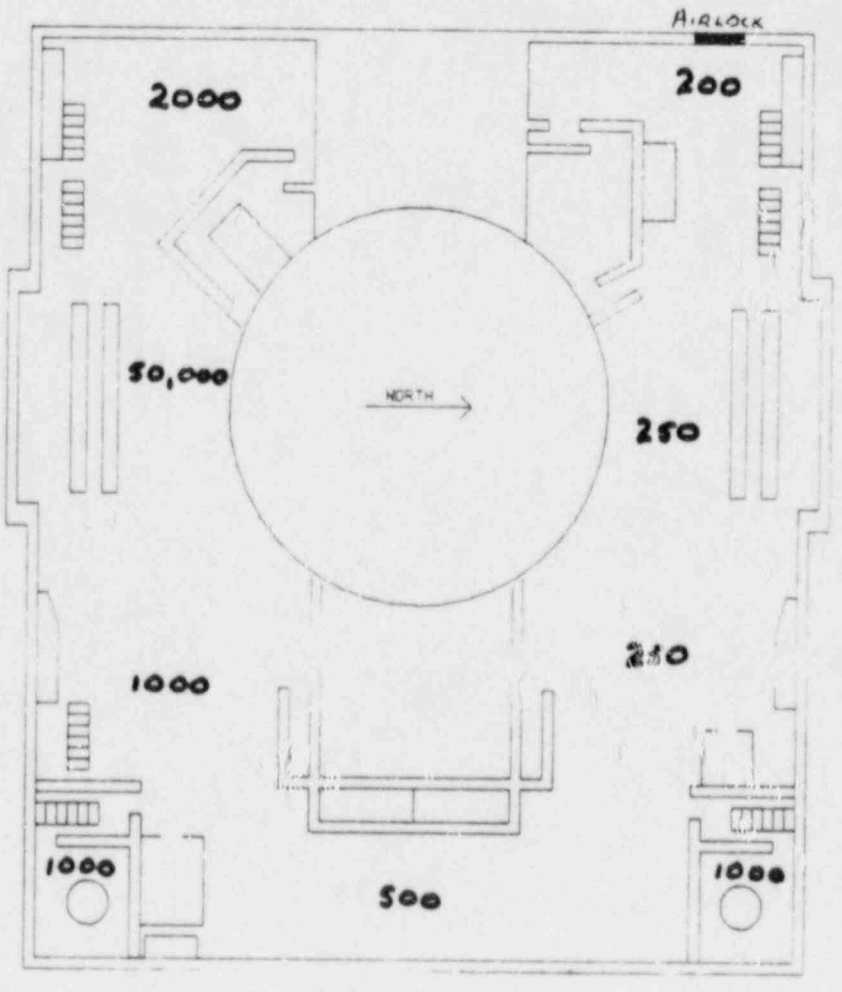
IN-PLANT RADIOLOGICAL SURVEY RESULTS
UNIT 2 REACTOR BUILDING
80' ELEVATION (EAST SIDE)

Time: 1300 to 1500 hours
Note: All readings in mR/hr



IN-PLANT RADIOLOGICAL SURVEY RESULTS
UNIT 2 REACTOR BUILDING
20' ELEVATION

Time: 1300 to 1500 hours
Note: All readings in mR/hr



UNIT 2 REACTOR BUILDING AIR SAMPLES

Air samples obtained in the Unit 2 Reactor Building after 1300 hours will indicate the following activities:

Location	Gross Activity (uCi/cc)	MPC
-17' Elevation (all)	4.46 E-6	12
20' Elevation (south side)	3.22 E-4	140
20' Elevation (north side)	6.87 E-5	30
50' Elevation (all)	6.48 E-8	0.7
80' Elevation (all)	3.28 E-9	0.06

(87-6HRG/poj)

BRUNSWICK ANNUAL EMERGENCY EXERCISE (11/17/87)
(TURBINE BUILDING RADIOLOGICAL CONDITIONS)

Between 1100 and 1230 hours, a quantity of radioactive steam is released into the Turbine Building due to a Main Steam Isolation Valve failing to close. The following survey maps indicate expected dose rates (mR/hr). Areas not covered by survey maps will be considered to have dose rates "as read."

At all other times during the drill, Turbine Building dose rates will be "as read."

Any air samples taken in the Turbine Building will indicate gross activity of 8×10^{-6} uCi/cc.

- Particulate MPC ratio: 0.4 (Between 1100 and
- Iodine MPC ratio: 0.8 1230 hours)

At all other times, air sample results will be "as read."

Contamination surveys after 1100 hours will indicate **50,000** DPM/100^2cm in the Turbine Building.

(87-GHRG/pcj)

BRUNSWICK ST M ELECTRIC PLANT

RADIOLOGICAL SURVEY

U/1 Breezeway

Survey No. _____

RWP No. _____

BRUNSWICK ANNUAL EMERGENCY EXERCISE

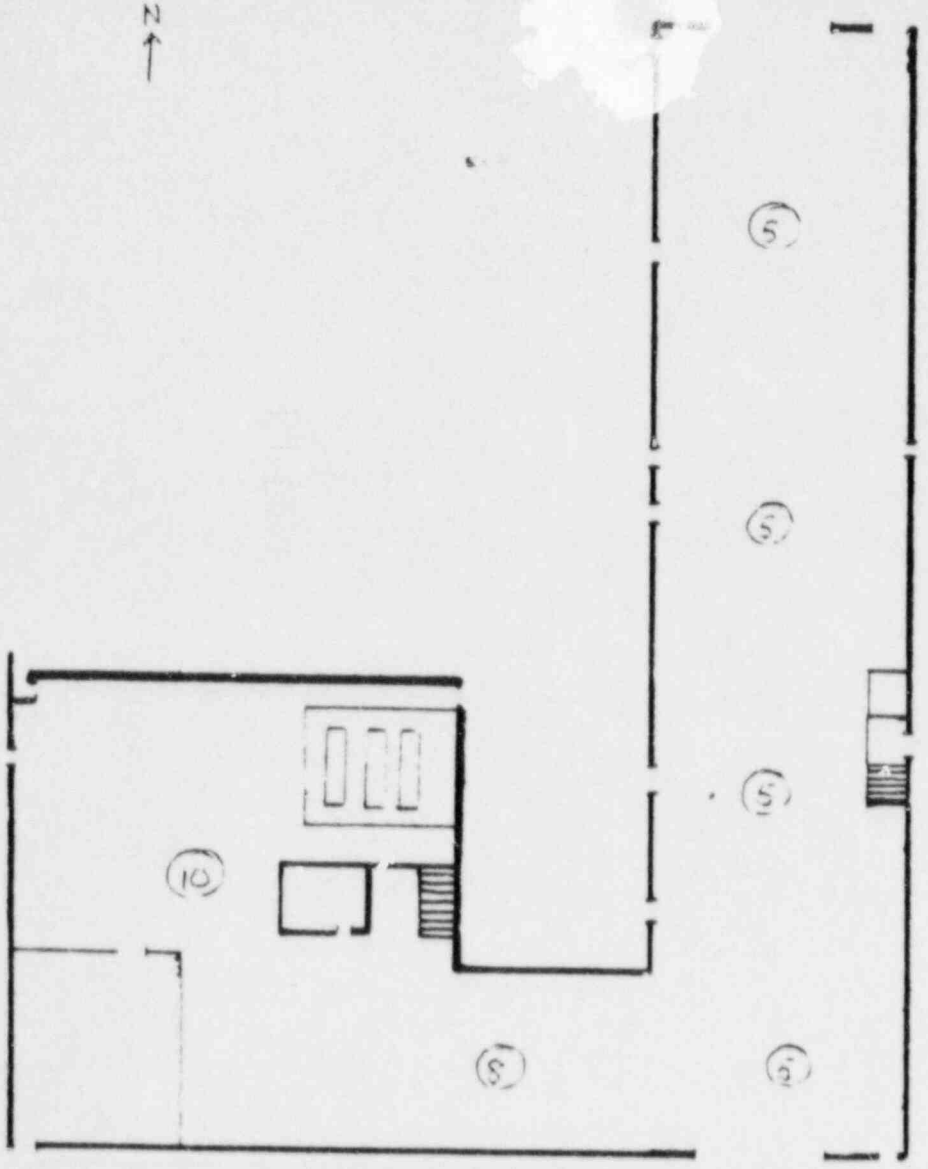
DATE: 11/17/87 TIME: 1100-1330 DOSE RATE: _____ CONTAMINATION: _____

INST. TYPE: _____ INST. _____

SURVEY BY: _____ SERIAL NO: _____ EFF: _____

REVIEWED BY: _____ REACTOR POWER: _____ BKG: _____

All Dose Rates < 5 mR/hr



SMEAR RESULTS	
Point	DPM/100 cm²

NOTES: (1) Dose Rate Readings: General Area Readings are to be indicated in mR/hr at the location taken. Contact readings are to be indicated in mR/hr and denoted with an asterisk (*).

(2) Contamination Results: Recorded in DPM/100 cm². Indicate and circle location.

BRUNSWICK STEAM ELECTRIC PLANT

RADIOLOGICAL SURVEY

Survey No. _____
RWP. No. _____

Unit 2 Breezeway

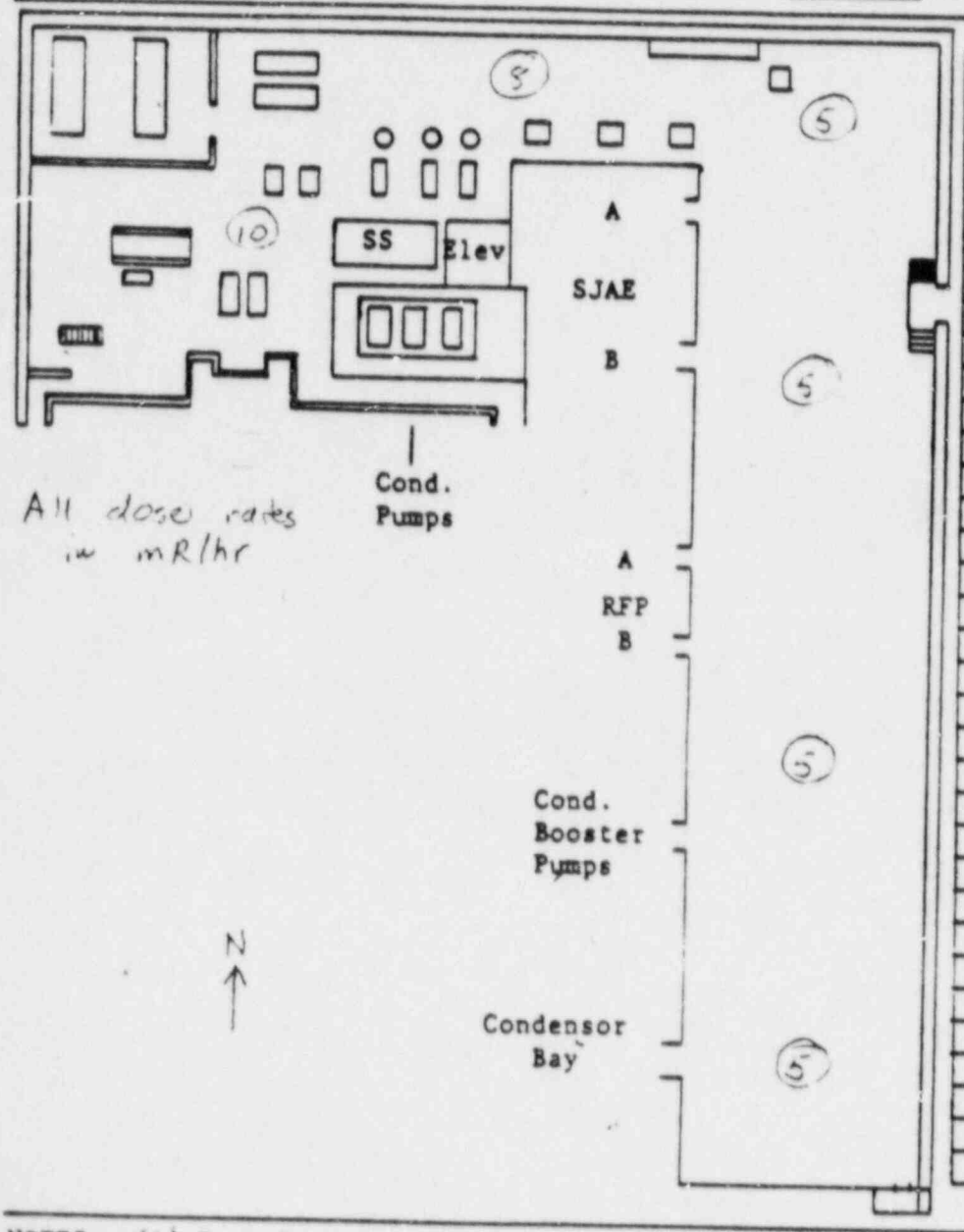
BRUNSWICK ANNUAL EMERGENCY EXERCISE

DATE: 11/17/87 TIME: 1100 - 1230 DOSE RATE: ✓ CONTAMINATION: _____

INST. TYPE: _____ INST. _____

SURVEY BY: _____ SERIAL NO: _____ EFF: _____

REVIEWED BY: _____ REACTOR POWER: _____ BKG: _____



SMEAR RESULTS	
Point	DPM/100cm²

NOTES: (1) Dose Rate Readings: General Area Readings are to be indicated in mR/hr at the location taken. Contact readings are to be indicated in mR/hr and denoted with an asterisk (*).
(2) Contamination Results: Recorded in DPM/100 cm². Indicate and circle location.

BRUNSWICK STEAM ELECTRIC PLANT

RADIOLOGICAL SURVEY

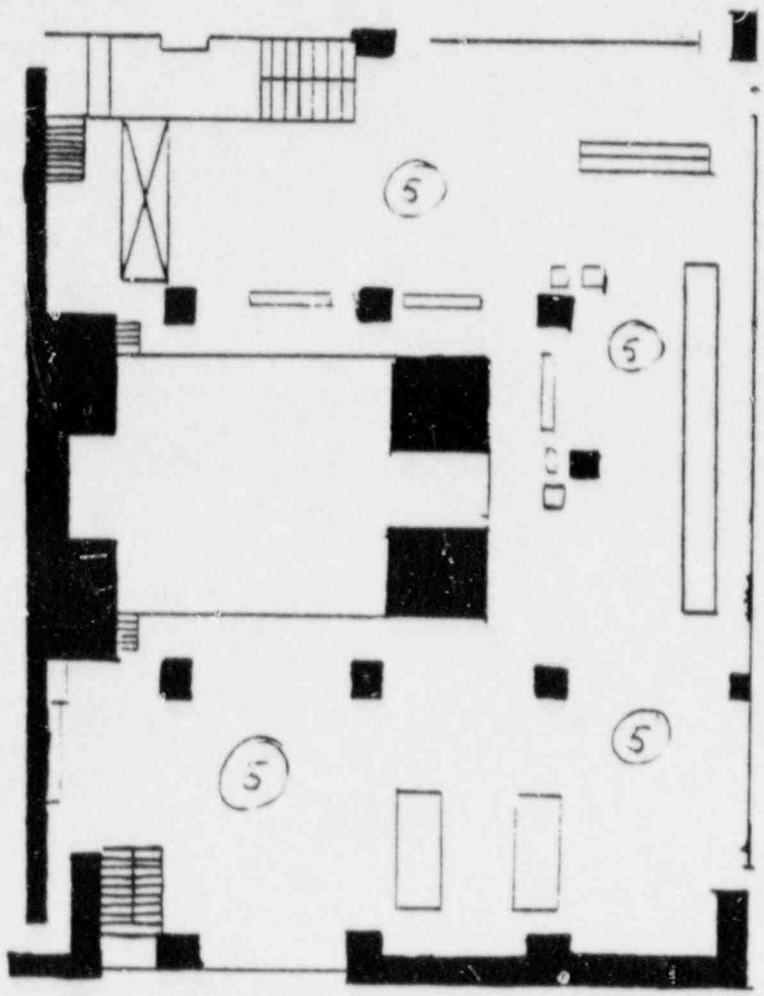
Survey No. ________
RWP No. ________

BRUNSWICK ANNUAL EMERGENCY EXERCISE
U/1 TB 38'

DATE: 11/17/87	TIME: 1100-1230	DOSE RATE: ✓	CONTAMINATION: ________
		INST. TYPE: ________	INST. ________
SURVEY BY: ________		SERIAL NO: ________	EFF: ________
REVIEWED BY: ________		REACTOR POWER: ________	BKG: ________

Dose Rates in mR/hr

N ←



SMEAR RESULTS

Point	DPM/100cm²

NOTES: (1) Dose Rate Readings: General Area Readings are to be indicated in mR/hr at the location taken. Contact readings are to be indicated in mR/hr and denoted with an asterisk (*).

(2) Contamination Results: Recorded in DPM/100 cm². Indicate and circle location.

BRUNSWICK STEAM ELECTRIC PLANT

RADIOLOGICAL SURVEY

Unit 2 Turbine Building

38' Elevation

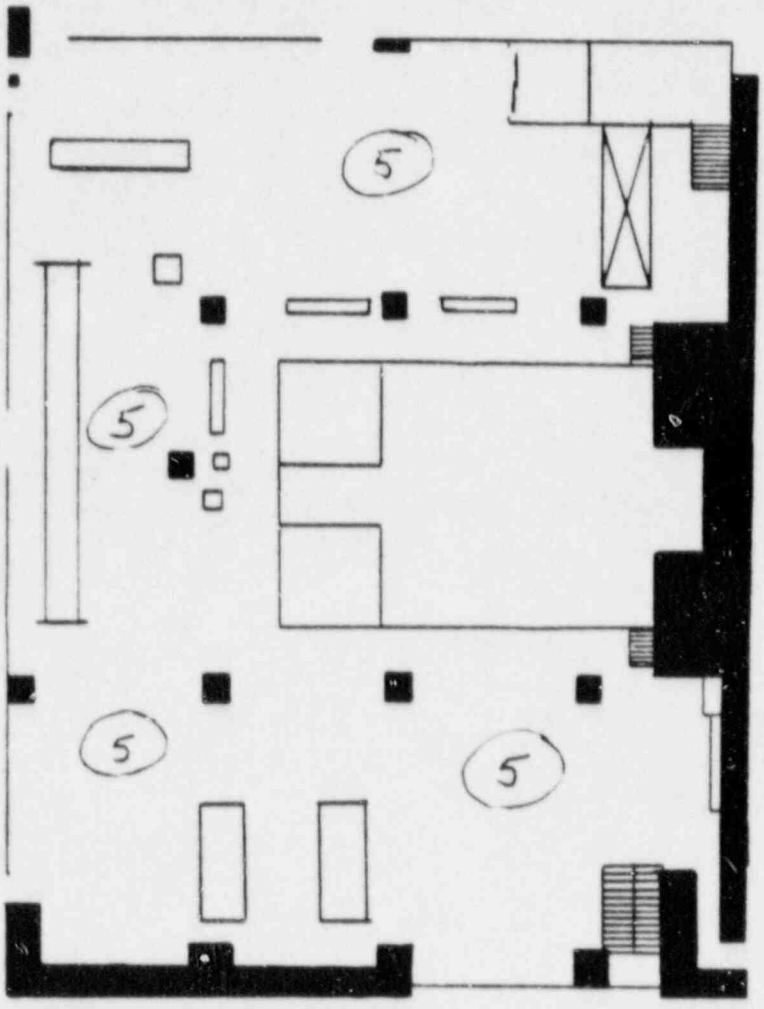
Survey No. _____
RWP No. _____

BRUNSWICK ANNUAL EMERGENCY EXERCISE

DATE: 11/17/87	**TIME:** 1100-1230	**DOSE RATE:** ✓	**CONTAMINATION:** _____
		INST. TYPE: _____	**INST.** _____
SURVEY BY: _____		**SERIAL NO:** _____	**EFF:** _____
REVIEWED BY: _____		**REACTOR POWER:** _____	**BKG:** _____

Dose Rates in mR/hr

N ←



SMEAR RESULTS	
Point	DPM/100cm²

NOTES: (1) Dose Rate Readings: General Area Readings are to be indicated in mR/hr at the location taken. Contact readings are to be indicated in mR/hr and denoted with an asterisk (*).
(2) Contamination Results: Recorded in DPM/100 cm². Indicate and circle location.

BRUNSWICK STEAM ELECTRIC PLANT

RADIOLOGICAL SURVEY

Survey No. _____
RWP No. _____

70' Turbine Deck Interface

BRUNSWICK ANNUAL EMERGENCY EXERCISE

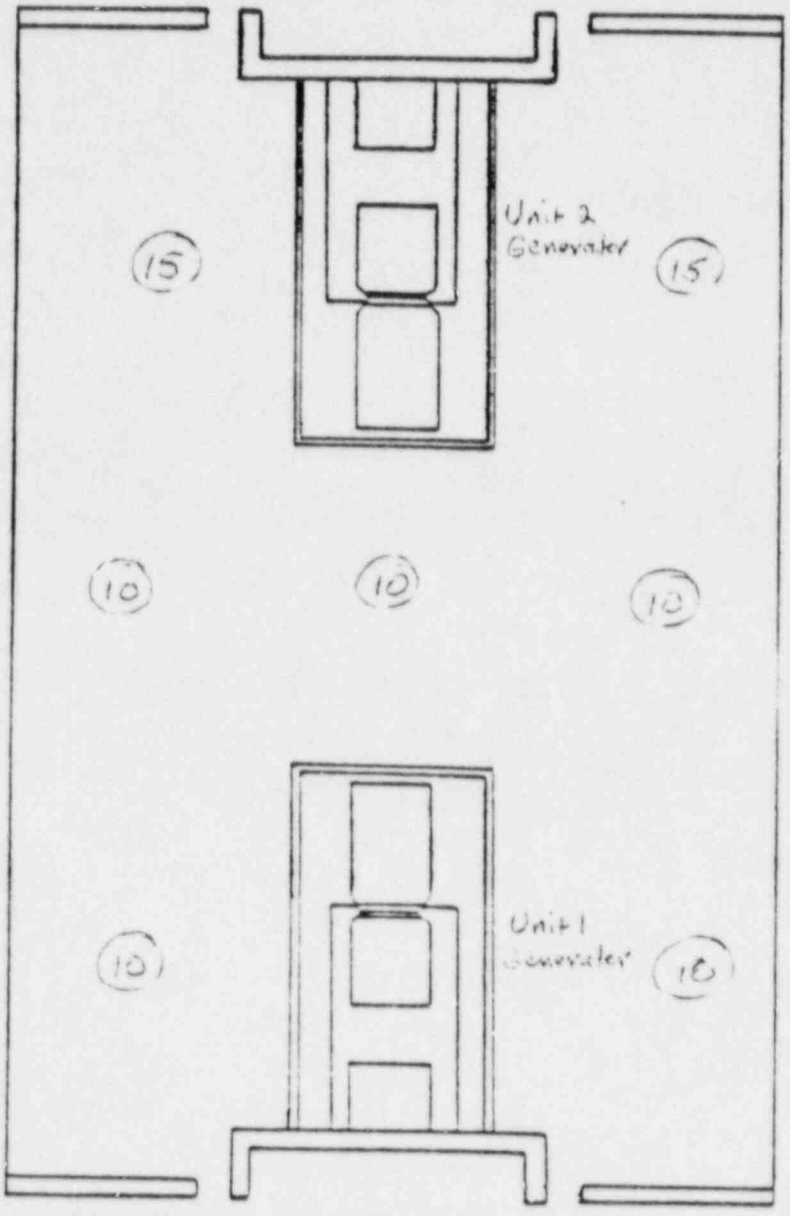
DATE: 11/17/87 TIME: 1100-1230 DOSE RATE: ✓ CONTAMINATION: _____

INST. TYPE: _____ INST. _____

SURVEY BY: _____ SERIAL NO: _____ EFF: _____

REVIEWED BY: _____ REACTOR POWER: _____ BKG: _____

Dose Rates in mR/hr



SMEAR RESULTS	
Point	DPM/100 cm²

NOTES: (1) Dose Rate Readings: General Area Readings are to be indicated in mR/hr at the location taken. Contact readings are to be indicated in mR/hr and denoted with an asterisk (*).

(2) Contamination Results: Recorded in DPM/100 cm². Indicate and circle location.

BRUNSWICK ANNUAL EMERGENCY EXERCISE
(AREA RADIATION MONITOR READINGS)

Prior to 1300 hours, Unit 2 ARM's will read "normally" with the exception of the Turbine Building ARM's (all reading 3-5 mR/hr between 1100 and 1230 hours; otherwise normal). After 1300 hours, Unit 2 ARM readings will be as indicated on the attached sheets.

(87-6HRG/poj)

UNIT 2 AREA RADIATION MONITOR READINGS

TIME: 1300-1500 Hours

Channel	Range (mR/hr)	Designation	Detector Location (Bldg.)	Radiation Reading (mR/hr)
2-1*	0.1 - 10^3	Radwaste Bldg. EL 3 ft. N MCC and Sump Area	Radwaste	As read
2-2*	0.1 - 10^3	Radwaste Bldg. EL 3 ft. S MCC and Sump Area	Radwaste	As read
2-3*	0.1 - 10^3	U-2 Cond Filter - Demin Aisle	Radwaste	As read
2-4*	0.1 - 10^3	U-1 Cond Filter - Demin Aisle	Radwaste	As read
2-5*	0.01 - 100	Radwaste Control Room	Radwaste	As read
2-6*	0.01 - 100	Radwaste Sampling Station	Radwaste	As read
2-7*	0.01 - 100	Radwaste Drum Capping Station	Radwaste	As read
2-8*	1.0 - 10^4	Radwaste Drum Storage	Radwaste	As read
2-9*	0.01 - 100	U-2 Turb. Hall Access Corridor	Turbine	As read
2-10*	0.01 - 100	U-2 FW Heater Bay Access Corridor	Turbine	As read
2-11	0.01 - 100	U-2 Turb. Bldg. Sampling Station	Turbine	As read
2-12	0.1 - 10^3	U-2 Turb. W Moist Sep Drain Tanks	Turbine	As read
2-13	0.1 - 10^3	U-2 Turb. E Moist Sep Drain Tanks	Turbine	As read
2-14	0.1 - 10^3	U-2 Turb. Rotor Washdown Area	Turbine	As read
2-15	0.1 - 10^3	2A Core Spray Pump Room ESS I	Reactor	As read
2-16	0.1 - 10^3	2B Core Spray Pump Room ESS II	Reactor	As read
2-17	0.1 - 10^3	2A RHR System Hx and Pump Room ESS I	Reactor	$> 10^3$
2-18	0.1 - 10^3	2B RHR System Hx and Pump Room ESS II	Reactor	$> 10^3$
2-19	0.01 - 100	U-2 Rx Bldg. Airlock EL 20 ft.	Reactor	> 100
2-20	0.01 - 100	U-2 Drywell Entrance	Reactor	> 100
2-21	1.0 - 10^4	U-2 TIP Room	Reactor	As read

* Radiation level signals supplied to common area recorders.

UNIT 2 AREA RADIATION MONITOR READINGS

Time: 1300-1500 Hours

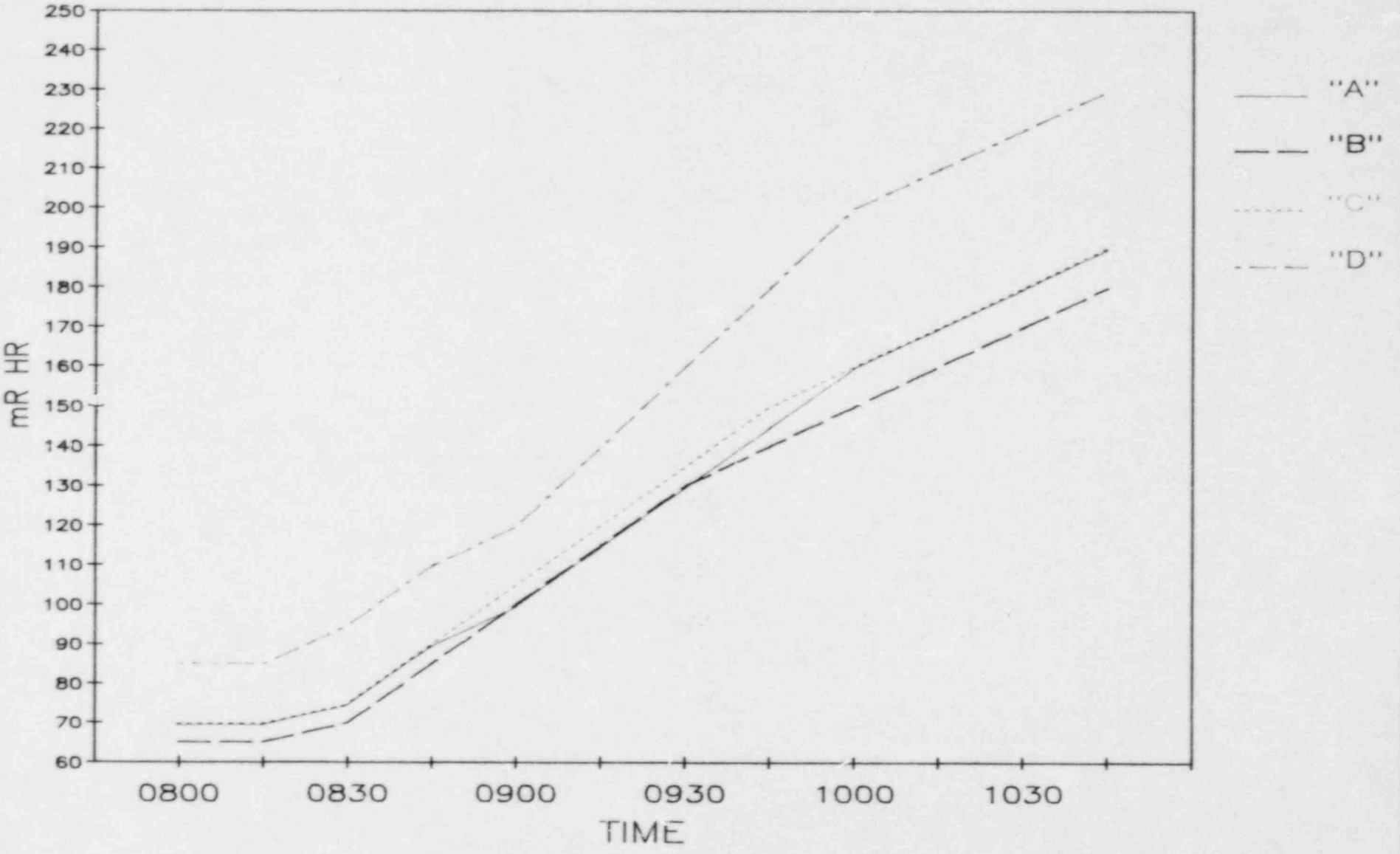
Channel	Range (mR/hr)	Designation	Detector Location (Bldg.)	RADIATION READING (mR/hr)
2-22	0.01 - 100	U-2 Decontam. Room EL 20 ft.	Reactor	> 100
2-23	0.01 - 100	U-2 Equipment Entry EL 20 ft.	Reactor	> 100
2-24	0.01 - 100	U-2 Rx Bldg. Sampling Station	Reactor	> 100
2-25	0.01 - 100	U-2 Rx Bldg. Airlock EL 50 ft.	Reactor	10
2-26	0.01 - 100	U-2 Inside New Fuel Vault EL 98 ft. 8 in.	Reactor	As read
2-27	0.01 - 100	U-2 North of Fuel Storage Pool	Reactor	As read
2-28	10^2 - 10^6	U-2 Between Rx and Fuel Pool EL 117 ft. 4 in.	Reactor	As read
2-29	0.01 - 100	U-2 Cask Wash Area Refuel Floor	Reactor	As read
2-30	0.01 - 100	U-2 Spent Fuel Pool Cooling System	Reactor	As read

MAIN STEAM LINE MONITOR READINGS AS ON FUNCTION OF TIME

Time	"A"	"B"	"C"	"D"
0800	70	65	70	85
0815	70	65	70	85
0830	75	70	75	95
0845	90	85	90	110
0900	100	100	105	120
0915	115	115	120	140
0930	130	130	135	160
0945	145	140	150	180
1000	160	150	160	200
1015	170	160	170	210
1030	180	170	180	220
1045	190	180	190	230
1059	200	185	200	240
1100	40	130	40	40
1115	40	140	40	50
1130	40	150	40	50
1145	35	160	35	40
1159	35	170	35	40
1200	35	40	35	40
1215	35	40	35	40
1230	35	40	35	40
1245	35	40	35	40
1259	35	40	35	40
1300	0	0	0	0
1315	0	0	0	0
1330	0	0	0	0
1345	0	0	0	0
1400	0	0	0	0
1415	0	0	0	0
1430	0	0	0	0
1445	0	0	0	0
1500	0	0	0	0

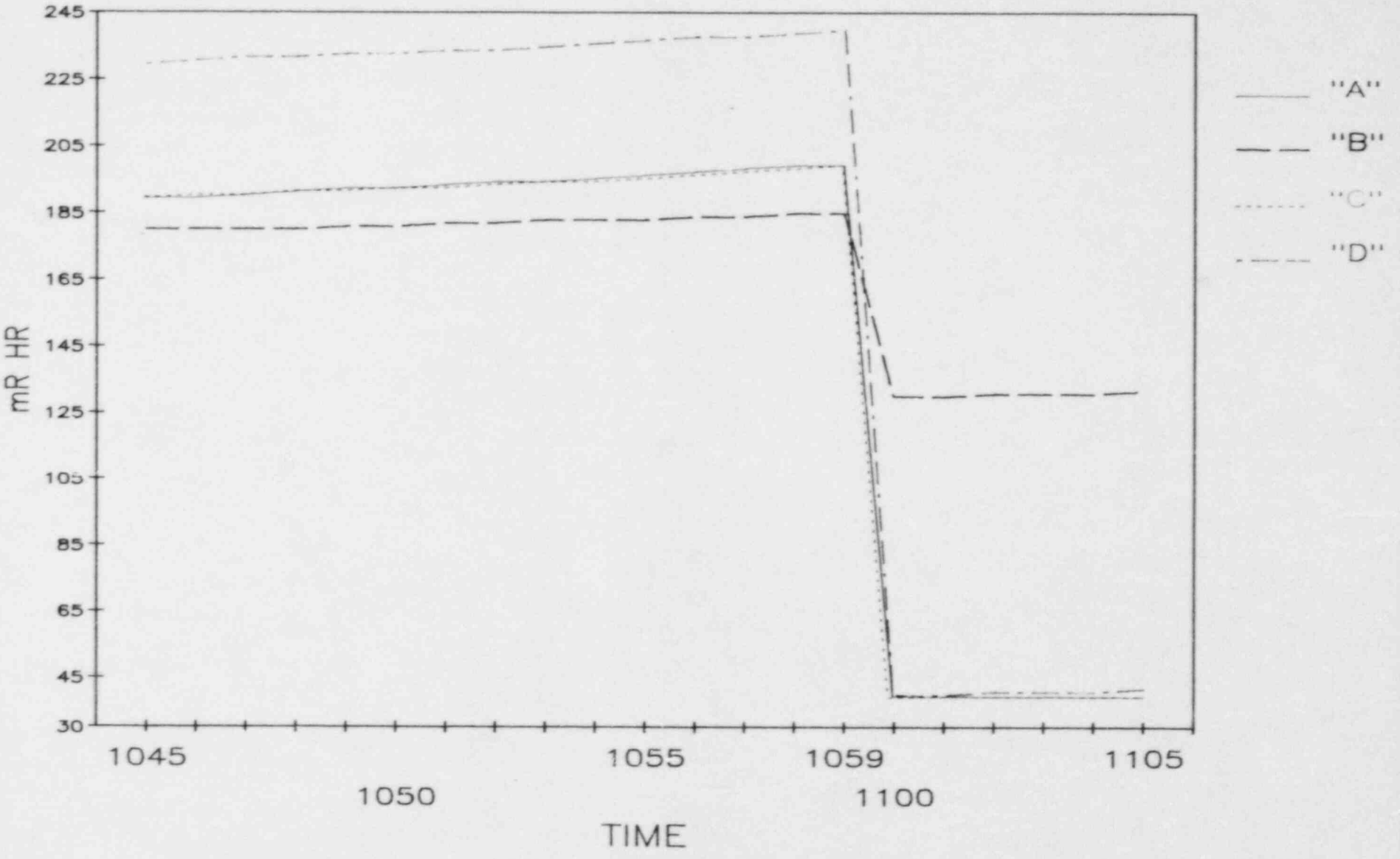
(87-6HRG/poj)

MAIN STEAM LINE MONITOR READINGS
0800 – 1045



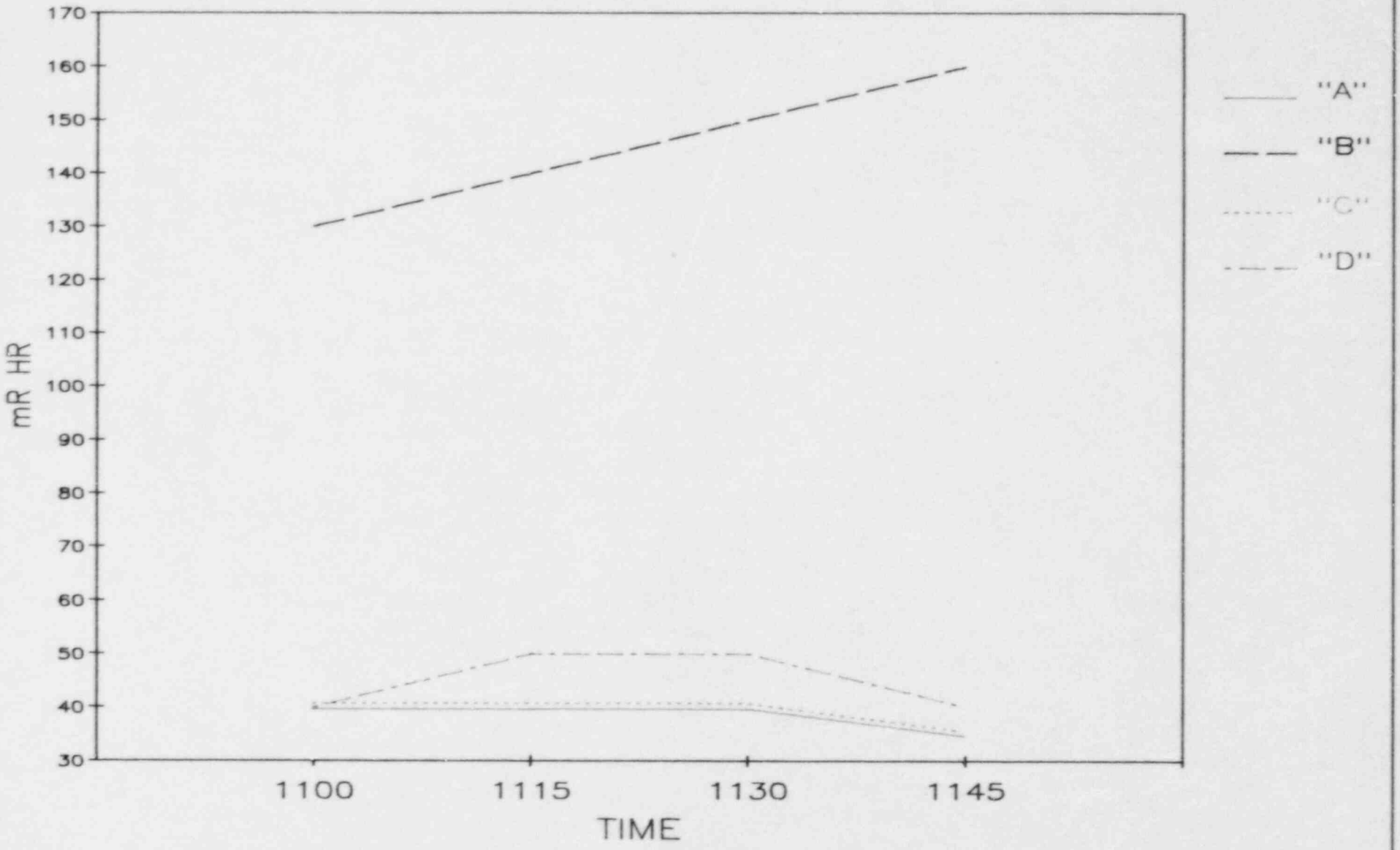
BNPST1

MAIN STEAM LINE MONITOR READINGS
1045–1105



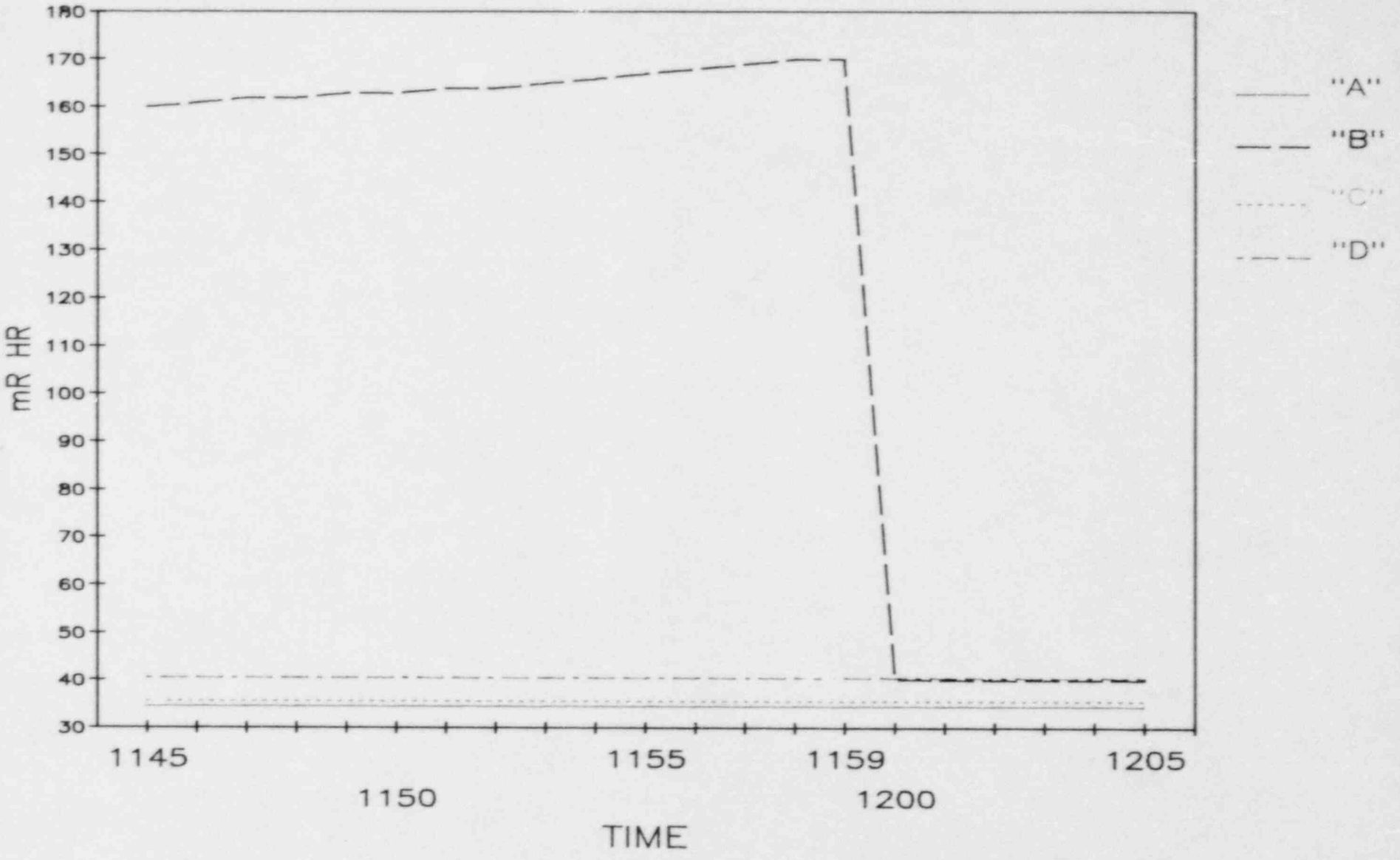
BNPST1

MAIN STEAM LINE MONITOR READINGS
1100 – 1145



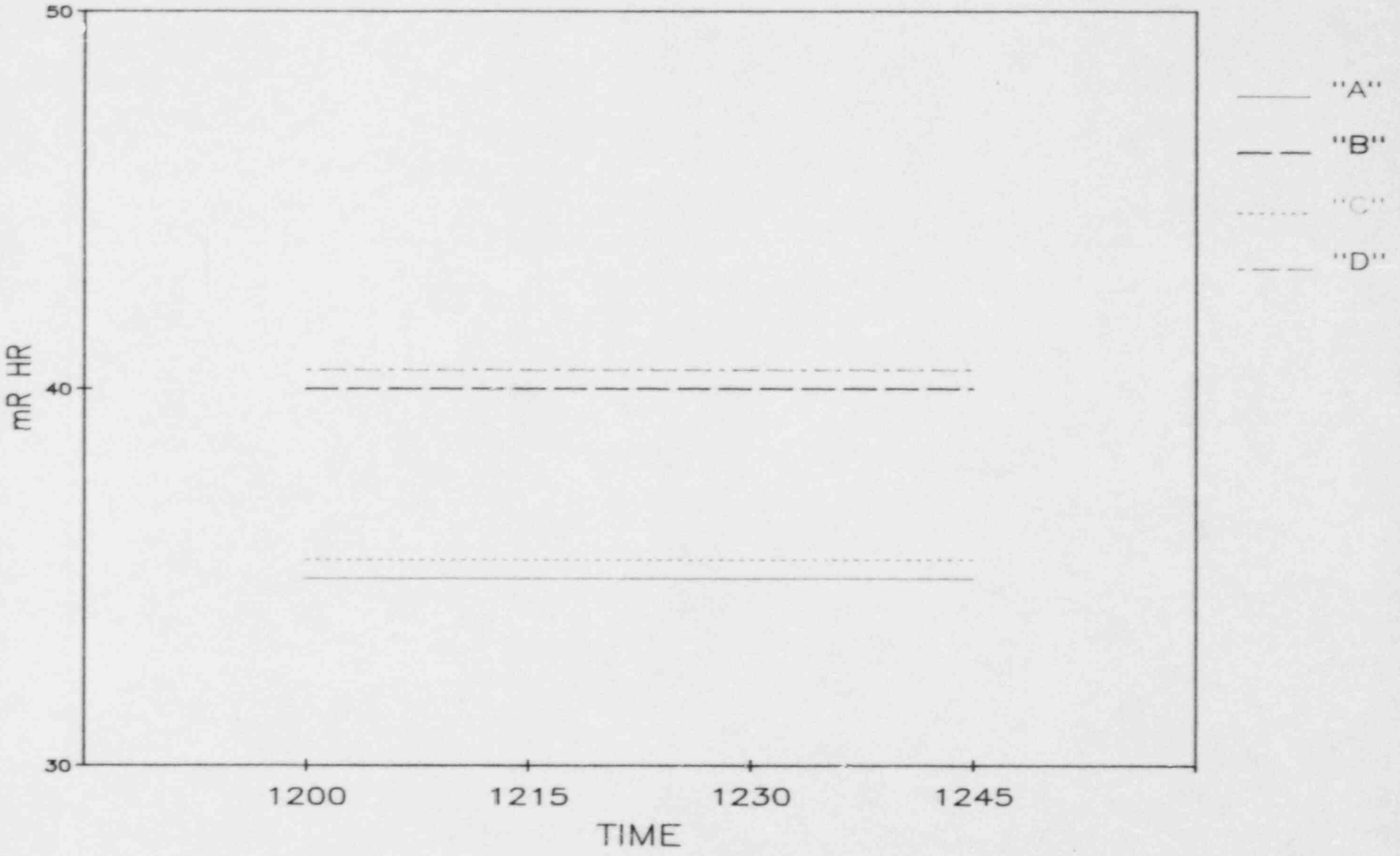
BNPST3

MAIN STEAM LINE MONITOR READINGS
1145 – 1205



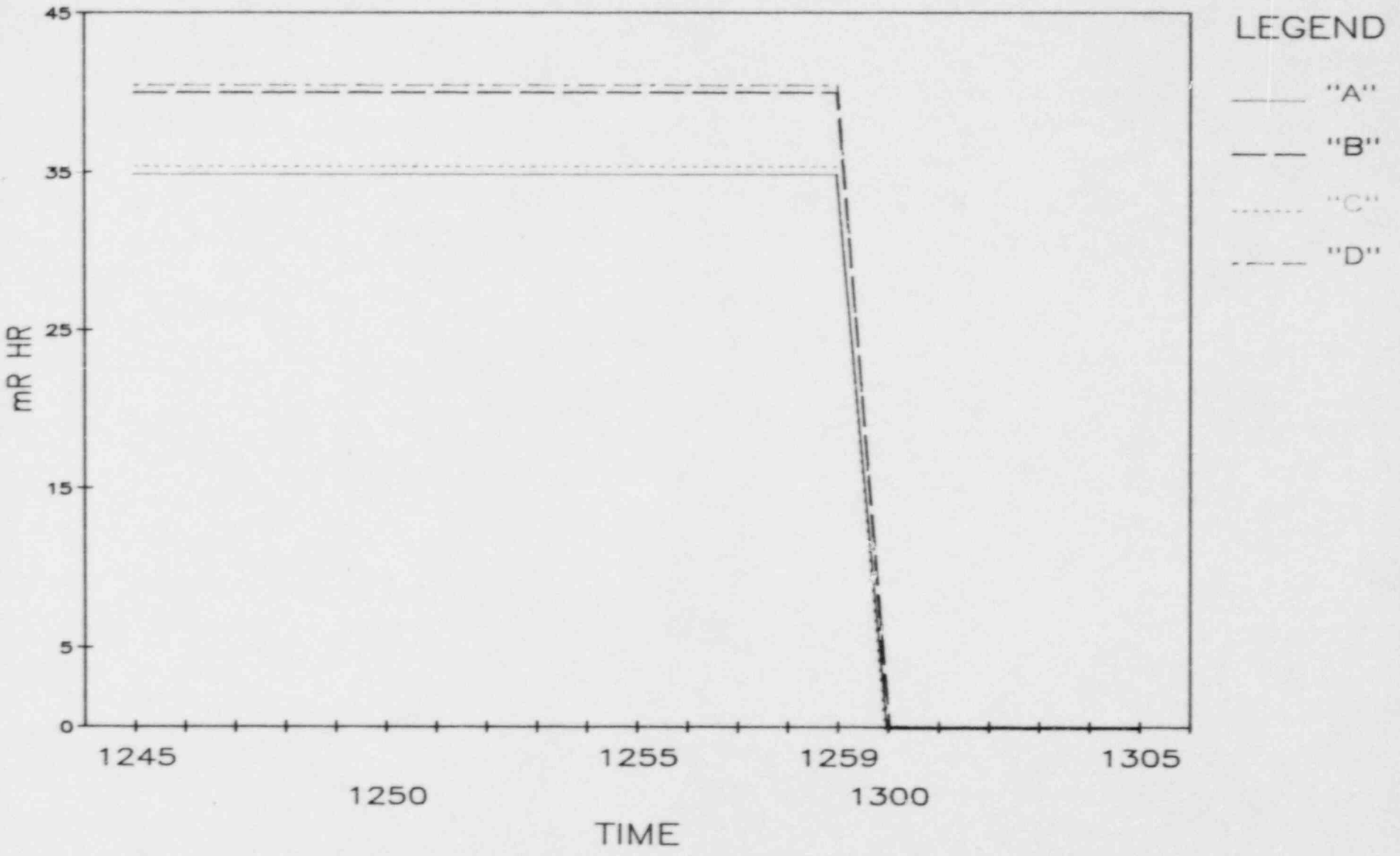
BNPST4

MAIN STEAM LINE MONITOR READINGS
1200 – 1245



BNPST5

MAIN STEAM LINE MONITOR READINGS
1245 – 1305



BNPST6

POST ACCIDENT SAMPLING SYSTEM (PASS) RESULTS

The following information will be applicable for any PASS samples obtained after 0900.

> RADIATION READINGS FOR VARIOUS TYPES OF SAMPLES

Reactor Coolant Samples

Small (diluted) vial - unshielded:	6.0 mR/hr contact 0.1 mR/hr at 1 ft
Small (diluted) vial - shielded:	0.1 mR/hr contact "as read" at 1 ft
Large (undiluted) vial - unshielded:	600 mR/hr contact 10 mR/hr at 1 ft
Large (undiluted) vial - shielded:	10 mR/hr contact 0.2 mR/hr at 1 ft

Suppression Pool (RHR) Liquid Samples

Large (undiluted) vial - unshielded:	10 mR/hr contact 1 mR/hr at 1 ft

All other Supp. Pool (RHR) samples indicate "as read".

Drywell Air Samples

20 mR/hr contact
0.5 mR/hr at 1 ft

Torus Air Samples

10 mR/hr contact
0.2 mR/hr at 1 ft

> RADIATION MONITOR READINGS ON RMS II PASS CONTROL PANEL

These readings are applicable during sample aquisition.

Area Monitor (RI-507):	"as read"
Liquid Monitor (RI-665):	0.005 R/hr (Rx coolant - small) 0.5 R/hr (Rx coolant - large) "as read" (Wetwell liq - small) 0.01 R/hr (Wetwell liq - large)
Cartridge Monitor (RI-704):	20 mR/hr (Drywell air) 10 mR/hr (Torus air)

BRUNSWICK ANNUAL EMERGENCY EXERCISE (11/17/87)

PASS Sample Analysis Results

NUCLIDE	DRYWELL AIR ($\frac{\mu Ci}{cc}$)	REACTOR COOLANT ($\frac{\mu Ci}{ml}$)	TORUS AIR ($\frac{\mu Ci}{cc}$)	TORUS WATER ($\frac{\mu Ci}{ml}$)
I-131	4.3E-2	6.0E+1	6.2E-3	7.2E-2
I-133	6.5E-2	2.3E+1	9.3E-3	1.1E-1
I-135	5.5E-2	2.1E+1	8.3E-3	9.6E-2
Xe-133m	5.0E-1	1.4E-1	1.8E-2	2.4E-3
Xe-133	6.9E+0	4.0E+0	5.2E-1	6.8E-2
Xe-135m	7.6E-2	3.6E-1	4.6E-2	6.0E-3
Xe-135	1.2E-1	6.9E-1	9.1E-2	1.2E-2
Kr-85	3.0E-2	4.7E-2	6.1E-3	8.1E-4
Kr-87	6.5E-2	2.1E-1	2.7E-2	3.6E-3
Kr-88	1.0E-1	5.7E-1	7.3E-2	9.6E-3
Cs-137	2.9E-6	1.5E+1	3.4E-6	1.6E-2

METEOROLOGICAL FORECAST INPUT
DATA MESSAGES

CP&L

Carolina Power & Light Company

ONSITE METEOROLOGICAL DATA

Date: NOVEMBER 17, 1987

Brunswick

Time (EST)	08:00	08:15	08:30	08:45
Upper Speed (mph) (m/s)	7.21	7.01	7.91	8.31
Upper Direc. (DEG)	355	011	005	023
Lower Speed (mph) (m/s)	2.11	1.81	2.51	2.71
Lower Direc. (DEG)	346	350	016	358
AMB Temp. (°F)	51°	52°	52°	53°
ΔT (°C/100m)	+2.55	+1.89	+1.49	+1.52
Stability Class	F	F	E	F

Time (EST)	09:00	09:15	09:30	09:45
Upper Speed (mph) (m/s)	9.41	8.71	10.81	11.21
Upper Direc. (DEG)	018	037	044	068
Lower Speed (mph) (m/s)	3.3	3.0	4.4	5.8
Lower Direc. (DEG)	004	016	050	060
AMB Temp. (°F)	53°	53°	54°	55°
ΔT (°C/100m)	+0.85	+0.02	-0.23	-0.61
Stability Class	E	E	E	D

CP&L

Carolina Power & Light Company

ONSITE METEOROLOGICAL DATA

Date: NOVEMBER 17, 1987

Brunswick

Time (EST)	10:00	10:15	10:30	10:45
Upper Speed (mph) (m/s)	12.51	12.01	14.31	15.41
Upper Direc. (DEG)	075	087	094	090
Lower Speed (mph) (m/s)	6.31	6.91	7.81	9.41
Lower Direc. (DEG)	073	080	088	088
AMB Temp. (°F)	56°	56°	57°	57°
△T (°C/100m)	-0.92	-0.79	-1.18	-1.26
Stability Class	D	D	D	D

Time (EST)	11:00	11:15	11:30	11:45
Upper Speed (mph) (m/s)	15.71	15.01	15.91	14.81
Upper Direc. (DEG)	100	089	084	093
Lower Speed (mph) (m/s)	10.1	10.5	10.9	11.3
Lower Direc. (DEG)	090	087	080	091
AMB Temp. (°F)	58°	58°	59°	59°
△T (°C/100m)	-0.77	-0.94	-1.01	-1.18
Stability Class	D	D	D	D

CP&L

Carolina Power & Light Company

ONSITE METEOROLOGICAL DATA

Date: NOVEMBER 17, 1987

Brunswick

Time (EST)	12:00	12:15	12:30	12:45
Upper Speed (mph) (m/s)	16.01	15.51	15.11	14.11
Upper Direc. (DEG)	099	085	080	094
Lower Speed (mph) (m/s)	11.91	12.01	10.51	10.81
Lower Direc. (DEG)	093	082	074	089
AMB Temp. (°F)	60°	60°	61°	62°
ΔT (°C/100m)	-1.22	-1.29	-1.34	-1.25
Stability Class	D	D	D	D

Time (EST)	13:00	13:15	13:30	13:45
Upper Speed (mph) (m/s)	13.71	14.31	14.91	15.21
Upper Direc. (DEG)	090	088	092	089
Lower Speed (mph) (m/s)	10.2	9.9	11.3	12.0
Lower Direc. (DEG)	086	085	087	088
AMB Temp. (°F)	62°	62°	63°	63°
ΔT (°C/100m)	-1.09	-1.22	-1.33	-1.40
Stability Class	D	D	D	D

CP&L

Carolina Power & Light Company

ONSITE METEOROLOGICAL DATA

Date: NOVEMBER 17, 1987

Brunswick

Time (EST)	14:00	14:15	14:30	14:45
Upper Speed (mph) (m/s)	15.51	16.11	14.71	14.91
Upper Direc. (DEG)	098	101	095	091
Lower Speed (mph) (m/s)	11.51	11.31	11.71	11.91
Lower Direc. (DEG)	090	095	089	089
AMB Temp. (°F)	63°	64°	64°	64°
△T (°C/100m)	-1.45	-1.39	-1.47	-1.43
Stability Class	D	D	D	D

Time (EST)	15:00	15:15	15:30	15:45
Upper Speed (mph) (m/s)	15.01	16.01	16.31	16.71
Upper Direc. (DEG)	096	100	104	109
Lower Speed (mph) (m/s)	10.7	10.9	12.4	13.0
Lower Direc. (DEG)	088	096	099	105
AMB Temp. (°F)	65°	65°	65°	66°
△T (°C/100m)	-1.45	-1.41	-1.48	-1.52
Stability Class	D	D	D	C

CP&L

Carolina Power & Light Company

METEOROLOGICAL FORECAST FOR

Date: November 17, 1987 Time Issued: 08:00

Issued By: _____ Received By: _____

Forecast Location: Brunswick

A) Next 1 Hour

1) Wind Direction: Sector NNE Deg. 15

2) Winds Should Remain (Steady; Shifting; Variable)

2a) Variation Should Be ± 15 Deg.

3) Wind Velocity: 5 to 10 (MPH)

4) Stability Class F-E

5) Precipitation Activity Will Be (None, Scattered, Steady)

6) Precipitation Type (Rain, Rainshowers, Thunderstorms, Ice, Snow)

7) Precipitation Intensity (Light, Moderate, Severe)

B) Next 3 Hours:

Winds: NNE-E 5-15 mph

Stab: E-D

No Precipitation

C) Remarks: _____

CP&L

Carolina Power & Light Company

METEOROLOGICAL FORECAST FOR

Date: November 17, 1987 Time Issued: 09:00

Issued By: _____ Received By: _____

Forecast Location: Brunswick

A) Next 1 Hour

1) Wind Direction: Sector NE-ENE Deg. 45

2) Winds Should Remain (Steady; (Shifting); Variable)

2a) Variation Should Be ±15 Deg.

3) Wind Velocity: 8 to 12 (MPH)

4) Stability Class E-D

5) Precipitation Activity Will Be (None, Scattered, Steady)

6) Precipitation Type (Rain, Rainshowers, Thunderstorms, Ice, Snow)

7) Precipitation Intensity (Light, Moderate, Severe)

B) Next 3 Hours:

Winds: ENE-E 12-16 mph

Stab: D

No Precipitation

C) Remarks: _____

Carolina Power & Light Company

METEOROLOGICAL FORECAST FOR

Date: November 17, 1987 Time Issued: 10:00

Issued By: _____ Received By: _____

Forecast Location: Brunswick

A) Next 1 Hour

1) Wind Direction: Sector E Deg. 090

2) Winds Should Remain (Steady; Shifting; Variable)

2a) Variation Should Be ± 10 Deg.

3) Wind Velocity: 12 to 16 (MPH)

4) Stability Class D

5) Precipitation Activity Will Be (None, Scattered, Steady)

6) Precipitation Type (Rain, Rainshowers, Thunderstorms, Ice, Snow)

7) Precipitation Intensity (Light, Moderate, Severe)

B) Next 3 Hours:

Winds: E 12-16 mph

Stab D

No Precipitation

C) Remarks: _____

Carolina Power & Light Company

METEOROLOGICAL FORECAST FOR

Date: November 17, 1987 Time Issued: 11:00

Issued By: _____ Received By: _____

Forecast Location: Brunswick

A) Next 1 Hour

1) Wind Direction: Sector E Deg. 90

2) Winds Should Remain (Steady; Shifting; Variable)

2a) Variation Should Be I10 Deg.

3) Wind Velocity: 12 to 16 (MPH)

4) Stability Class D

5) Precipitation Activity Will Be (None, Scattered, Steady)

6) Precipitation Type (Rain, Rainshowers, Thunderstorms, Ice, Snow)

7) Precipitation Intensity (Light, Moderate, Severe)

B) Next 3 Hours:

Winds: E 12-16 mph

Stab: D

No Precipitation

C) Remarks: _____

CP&L

Carolina Power & Light Company

METEOROLOGICAL FORECAST FOR

Date: November 17, 1987 Time Issued: 12:00

Issued By: _____ Received By: _____

Forecast Location: Brunswick

A) Next 1 Hour

1) Wind Direction: Sector E Deg. 90

2) Winds Should Remain (Steady; Shifting; Variable)

2a) Variation Should Be ±10 Deg.

3) Wind Velocity: 12 to 16 (MPH)

4) Stability Class D

5) Precipitation Activity Will Be (None, Scattered, Steady)

6) Precipitation Type (Rain, Rainshowers, Thunderstorms, Ice, Snow)

7) Precipitation Intensity (Light, Moderate, Severe)

B) Next 3 Hours:

Winds: E 12-16 mph

Stab: D

No Precipitation

C) Remarks: _____

CP&L

Carolina Power & Light Company

METEOROLOGICAL FORECAST FOR

Date: November 17, 1987 Time Issued: 13:00

Issued By: _____ Received By: _____

Forecast Location: Brunswick

A) Next 1 Hour

1) Wind Direction: Sector E Deg. 90

2) Winds Should Remain (Steady; Shifting; Variable)

2a) Variation Should Be ±10 Deg.

3) Wind Velocity: 12 to 16 (MPH)

4) Stability Class D

5) Precipitation Activity Will Be (None, Scattered, Steady)

6) Precipitation Type (Rain, Rainshowers, Thunderstorms, Ice Snow)

7) Precipitation Intensity (Light, Moderate, Severe)

B) Next 3 Hours:

Winds: E-ESE 14-18mph

STAB: D-C

No Precipitation

C) Remarks: _____

CP&L

Carolina Power & Light Company

METEOROLOGICAL FORECAST FOR

Date: November 17, 1987 Time Issued: 14:00

Issued By: _____ Received By: _____

Forecast Location: Brunswick

A) Next 1 Hour

1) Wind Direction: Sector E Deg. 95

2) Winds Should Remain (Steady; Shifting; Variable)

2a) Variation Should Be ±10 Deg.

3) Wind Velocity: 14 to 18 (MPH)

4) Stability Class D

5) Precipitation Activity Will Be (None, Scattered, Steady)

6) Precipitation Type (Rain, Rainshowers, Thunderstorms, Ice, Snow)

7) Precipitation Intensity (Light, Moderate, Severe)

B) Next 3 Hours:

Winds: E-ESE 12-18mph

STAB: D-C

No Precipitation

C) Remarks: _____

Carolina Power & Light Company

METEOROLOGICAL FORECAST FOR

Date: November 17, 1987 Time Issued: 15:00

Issued By: _____ Received By: _____

Forecast Location: Brunswick

A) Next 1 Hour

1) Wind Direction: Sector E-ESE Deg. 100

2) Winds Should Remain (Steady; Shifting; Variable)

2a) Variation Should Be I10 Deg.

3) Wind Velocity: 14 to 18 (MPH)

4) Stability Class D-C

5) Precipitation Activity Will Be (None, Scattered, Steady)

6) Precipitation Type (Rain, Rainshowers, Thunderstorms, Ice, Snow)

7) Precipitation Intensity (Light, Moderate, Severe)

B) Next 3 Hours:

Winds: ESE-SE

STAB : D-C

No Precipitation

C) Remarks: _____

BSEP ANNUAL EMERGENCY EXERCISE
(RADIOLOGICAL ENVIRONMENTAL MONITORING)

Based on a failure of the Scram Discharge Volume in the Unit 2 Reactor Building at approximately 1300 hours, an elevated (stack) release of radioactive material to the environment will commence. Following commencement of the release, environmental dose rates and air sample results will be as described in the attached sheets.

Whole body and thyroid dose projection isopleths are attached. Projections for known and unknown radionuclide mixes are included since dose projections may be performed prior to the availability of isotopic information. Environmental measurements will most closely reflect the known isotope mix.

(87-5HRG/poj)

ENVIRONMENTAL AIR SAMPLE RESULTS

Though a small release of radioactive material from the Turbine Building will occur between 1100-1230 hours, there will be no measurable environmental effects. Following the commencement of the plant release at 1300 hours, air sample radiation levels and analysis results will be as follows:

Survey Location	Time	Contact Dose Rate Just After Sampling For Particulate Sample	Contact Dose Rate Just After Sampling For Silver Zeolite Cartridge	Contact Dose Rate Before Lab Analysis For Either Cartridge	Lab Analysis Results (uCi/cc)
Hwy 87 near B&I Grocery Store	1305-1500	0.4 mR/hr or 1000 cpm	4 mR/hr or 8000 cpm	0.8 mR/hr or 2000 cpm	I-131:6.37E-8 I-133:9.68E-8 I-135:8/14E-8 Cs-137:1.18E-9
Hwy 211 Near Entrance to Dutchman Acres	1310-1500	0.4 mR/hr or 1000 cpm	4 mR/hr or 8000 cpm	0.8 mR/hr 2000 cpm	I-131:5.65E-8 I-133:8.90E-8 I-135:7.60E-8 Cs-137:1.02E-9
Hwy 211 at Beaverdam Creek	1315-1500	0.3 mR/hr or 750 cpm	3 mR/hr or 6000 cpm	0.6 mR/hr or 1500 cpm	I-131:4.64E-8 I-133:8.90E-8 I-135:5.93E-8 Cs-137:8.60E-10
Intersection Hwy 133 and 87 near Plant Entrance	1305-1500	0.1mR/hr or 250 cpm	1 mR/hr or 2000 cpm	0.2 mR/hr or 500 cpm	I-131:1.86E-8 I-133:2.65E-8 I-135:1.98E-8 Cs-137:3.44E-10

(87-5HRG/pcj)

ENVIRONMENTAL RADIATION LEVEL READINGS

Though a small release of radioactive material from the Turbine Building will occur between 1100-1230 hours, there will be no measurable environmental effects. Following the commencement of the plant release at 1300 hrs., radiation readings at the following representative downwind locations will be as follows:

Survey Location	Time	Radiation Reading
Hwy 87 near B&I Grocery Store	1305-1500	0.3 mR/hr
Hwy 211 near entrance to Dutchman Acres	1310-1500	0.3 mR/hr
Hwy 211 at Beaverdam Creek	1315-1500	0.2 mR/hr
Intersection Hwy 133 and 211	1310-1500	0.1 mR/hr
Intersection Hwy 133 and 87 near Plant Entrance	1305-1500	0.1 mR/hr

(87-5HRG/pcj)

THYROID DOSE PROJECTION 10:02:00 09-14-1987
STABILITY CLASS : D
WIND VELOCITY : 15 (MPH) BLOWING FROM 90 (DEGREES)
SOURCE TERM : 738 (CURIES)
ESTIMATED DURATION OF RELEASE : 1 (HOURS)
RELEASE HEIGHT : 100 (METERS)
TIME FROM SAMPLE TO RELEASE : 0 (HOURS)
DCF : 1284438 (REM/HR)/(CURIE/M^3)

DISTANCE (METERS/MILES)	DOSE (REMS)	X/Q (SEC/METERS^3)
804 / 0.50	7.16E-03	2.72E-08
1608 / 1.00	1.97E-01	7.47E-07
2412 / 1.50	3.04E-01	1.15E-06
3216 / 2.00	3.11E-01	1.18E-06
4020 / 2.50	2.86E-01	1.09E-06
4824 / 3.00	2.56E-01	9.71E-07
5628 / 3.50	2.27E-01	8.60E-07
6432 / 4.00	2.01E-01	7.64E-07
7236 / 4.50	1.79E-01	6.81E-07
8040 / 5.00	1.61E-01	6.10E-07
8844 / 5.50	1.45E-01	5.51E-07
9648 / 6.00	1.32E-01	4.99E-07
10452 / 6.50	1.20E-01	4.56E-07
11256 / 7.00	1.10E-01	4.18E-07

WHOLE BODY DOSE PROJECTION 10:28:42 09-14-1987
STABILITY CLASS : D
WIND VELOCITY : 15 (MPH) BLOWING FROM 90 (DEGREES)
[redacted]E TERM : 35269.2 (CURIES)
[redacted]IMATED DURATION OF RELEASE : 1 (HOURS)
RELEASE HEIGHT : 100 (METERS)
TIME FROM SAMPLE TO RELEASE : 0 (HOURS)
DCF : 40.73542 (REM/HR)/(CURIE/M^3)

DISTANCE (METERS/MILES)	DOSE (REMS)	X/Q (SEC/METERS^3)
402 / 0.25	3.24E-11	8.11E-14
804 / 0.50	1.09E-05	2.72E-08
1206 / 0.75	1.34E-04	3.36E-07
1608 / 1.00	2.98E-04	7.47E-07
2010 / 1.25	4.08E-04	1.02E-06
2412 / 1.50	4.61E-04	1.15E-06
2814 / 1.75	4.77E-04	1.19E-06
3216 / 2.00	4.72E-04	1.18E-06
3618 / 2.25	4.55E-04	1.14E-06
4020 / 2.50	4.34E-04	1.09E-06
4422 / 2.75	4.11E-04	1.03E-06
4824 / 3.00	3.88E-04	9.71E-07
5226 / 3.25	3.65E-04	9.14E-07
5628 / 3.50	3.43E-04	8.60E-07
6030 / 3.75	3.23E-04	8.10E-07
6432 / 4.00	3.05E-04	7.64E-07
[redacted] / 4.25	2.88E-04	7.20E-07
[redacted] / 4.50	2.72E-04	6.81E-07
7638 / 4.75	2.57E-04	6.44E-07
8040 / 5.00	2.44E-04	6.10E-07
8442 / 5.25	2.31E-04	5.79E-07
8844 / 5.50	2.20E-04	5.51E-07
9246 / 5.75	2.09E-04	5.24E-07
9648 / 6.00	1.99E-04	4.99E-07
10050 / 6.25	1.90E-04	4.77E-07
10452 / 6.50	1.82E-04	4.56E-07
10854 / 6.75	1.74E-04	4.36E-07
11256 / 7.00	1.67E-04	4.18E-07

[redacted]

WHOLE BODY DOSE PROJECTION 14:10:01 09-11-1987
STABILITY CLASS : D
WIND VELOCITY : 15 (MPH) BLOWING FROM 90 (DEGREES)
SOURCE TERM : 36000 (CURIES)
ESTIMATED DURATION OF RELEASE : 1 (HOURS)
RELEASE HEIGHT : 100 (METERS)
TIME SINCE REACTOR SHUTDOWN : 0 (HOURS)
DCF : 379 (REM/HR)/(CURIE/M^3)

DISTANCE (METERS/MILES)	DOSE (REMS)	X/Q (SEC/METERS^3)
804 / 0.50	1.03E-04	2.72E-08
1608 / 1.00	2.83E-03	7.47E-07
2412 / 1.50	4.38E-03	1.15E-06
3216 / 2.00	4.48E-03	1.18E-06
4020 / 2.50	4.12E-03	1.09E-06
4824 / 3.00	3.68E-03	9.71E-07
5628 / 3.50	3.26E-03	8.60E-07
6432 / 4.00	2.89E-03	7.64E-07
7236 / 4.50	2.58E-03	6.81E-07
8040 / 5.00	2.31E-03	6.10E-07
8844 / 5.50	2.09E-03	5.51E-07
9648 / 6.00	1.89E-03	4.99E-07
10452 / 6.50	1.73E-03	4.56E-07
11256 / 7.00	1.58E-03	4.18E-07

Whole Body-Unknown Mix

THYROID DOSE PROJECTION 14:32:24 09-11-1987

[redacted]ABILITY CLASS : D

[redacted]D VELOCITY : 15 (MPH) BLOWING FROM 90 (DEGREES)

SOURCE TERM : 5400 (CURIES)

ESTIMATED DURATION OF RELEASE : 1 (HOURS)

RELEASE HEIGHT : 100 (METERS)

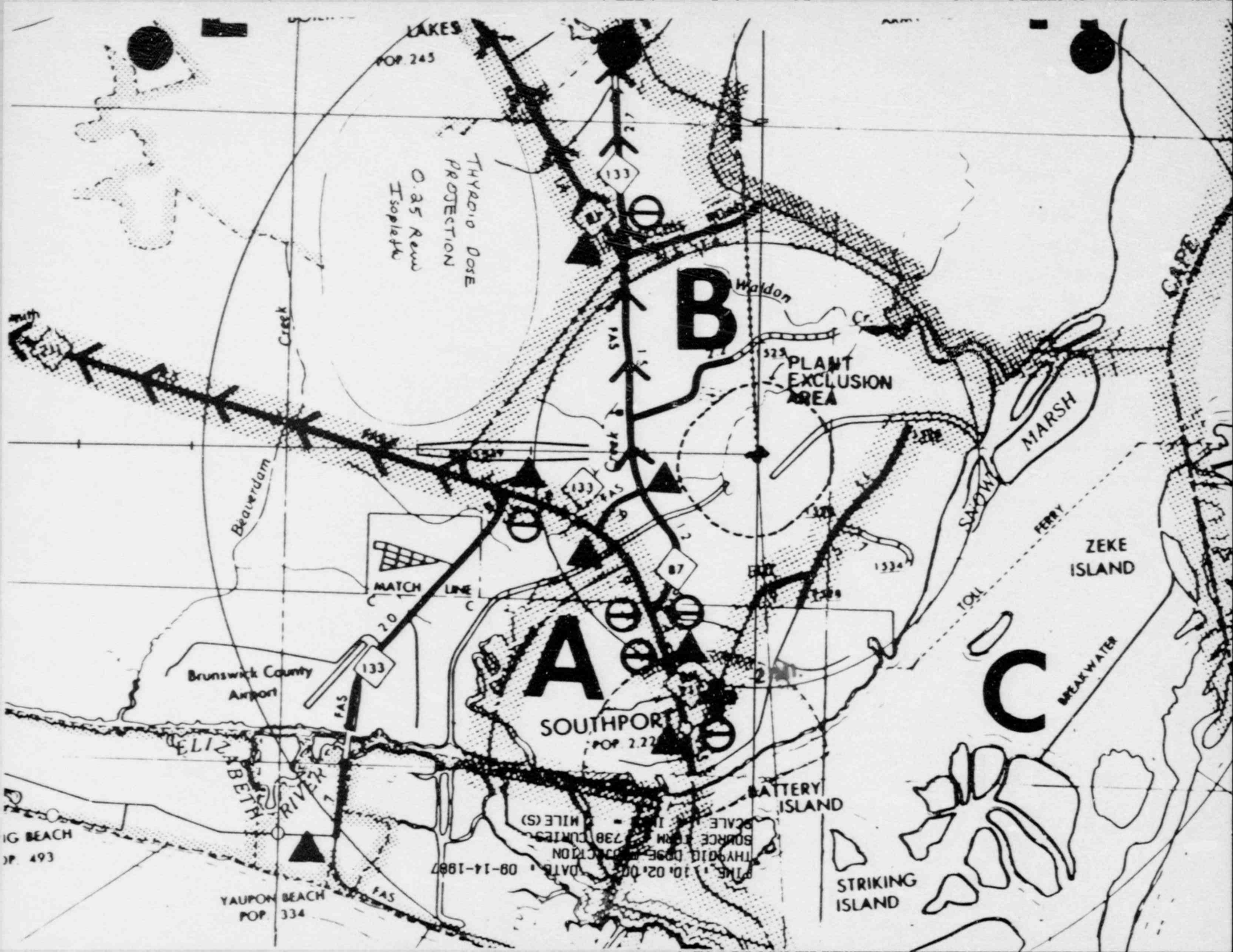
TIME SINCE REACTOR SHUTDOWN : 0 (HOURS)

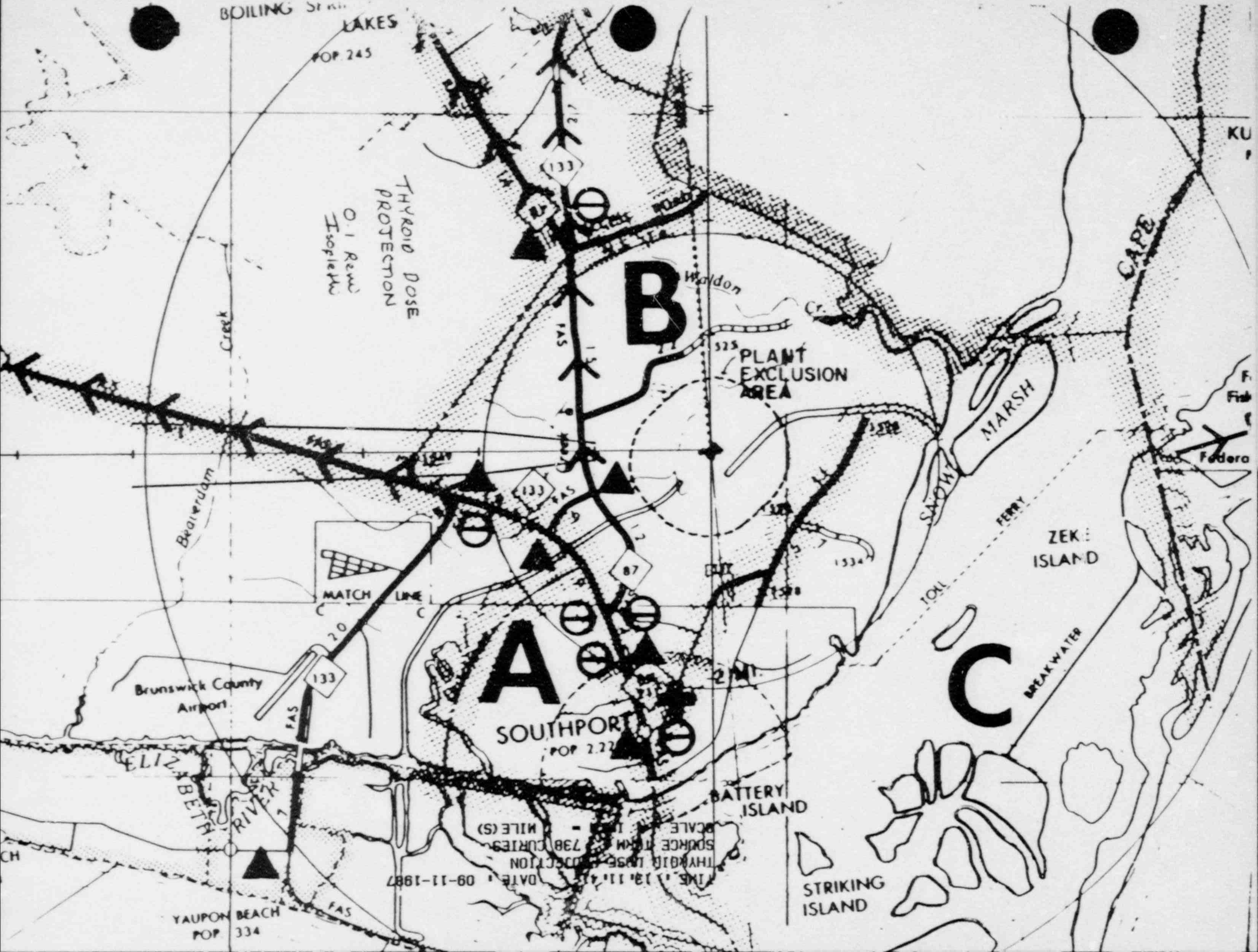
DCF : 661700 (REM/HR)/(CURIE/M^3)

DISTANCE (METERS/MILES)	DOSE (REMS)	X/Q (SEC/METERS^3)
402 / 0.25	8.05E-08	8.11E-14
804 / 0.50	2.70E-02	2.72E-08
1206 / 0.75	3.34E-01	3.36E-07
1608 / 1.00	7.41E-01	7.47E-07
2010 / 1.25	1.01E+00	1.02E-06
2412 / 1.50	1.15E+00	1.15E-06
2814 / 1.75	1.19E+00	1.19E-06
3216 / 2.00	1.17E+00	1.18E-06
3618 / 2.25	1.13E+00	1.14E-06
4020 / 2.50	1.08E+00	1.09E-06
4422 / 2.75	1.02E+00	1.03E-06
4824 / 3.00	9.64E-01	9.71E-07
5226 / 3.25	9.07E-01	9.14E-07
5628 / 3.50	8.54E-01	8.60E-07
6030 / 3.75	8.04E-01	8.10E-07
[redacted]32 / 4.00	7.58E-01	7.64E-07
[redacted]34 / 4.25	7.15E-01	7.20E-07
7236 / 4.50	6.76E-01	6.81E-07
7638 / 4.75	6.39E-01	6.44E-07
8040 / 5.00	6.06E-01	6.10E-07
8442 / 5.25	5.75E-01	5.79E-07
8844 / 5.50	5.47E-01	5.51E-07
9246 / 5.75	5.20E-01	5.24E-07
9648 / 6.00	4.96E-01	4.99E-07
10050 / 6.25	4.73E-01	4.77E-07
10452 / 6.50	4.52E-01	4.56E-07
10854 / 6.75	4.33E-01	4.36E-07
11256 / 7.00	4.14E-01	4.18E-07

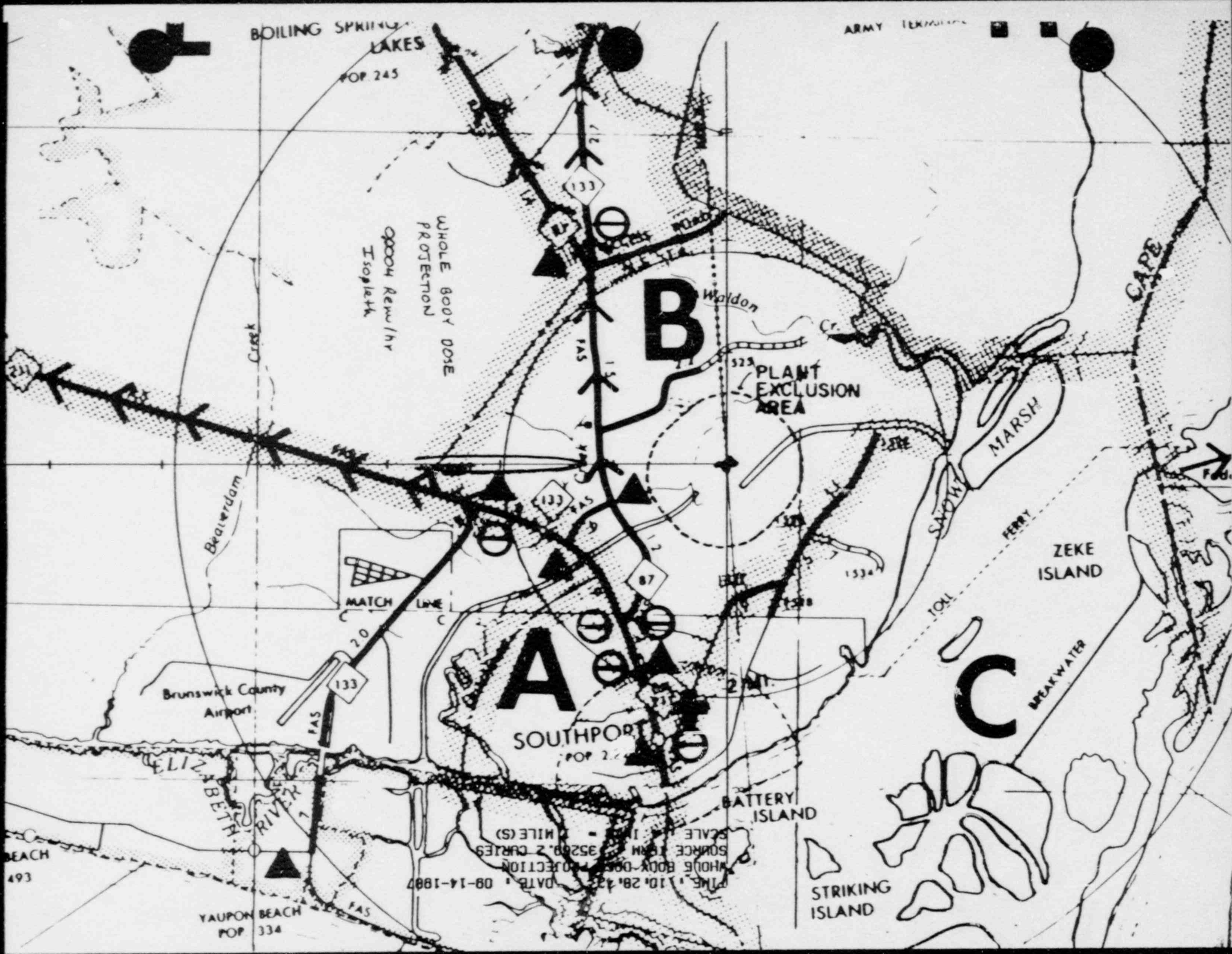
Thyroid-Unknown Mix

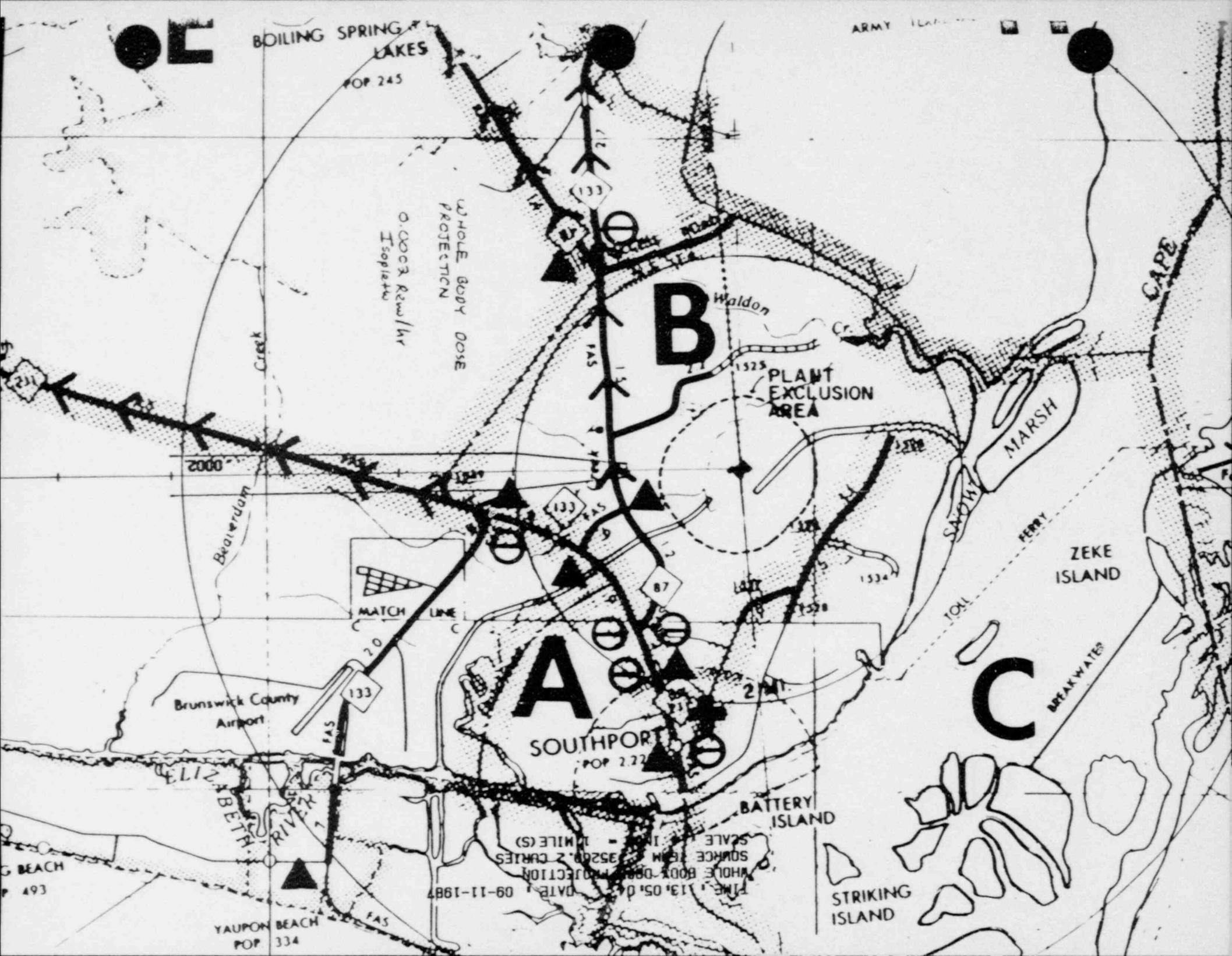
[redacted]


LAKES
POP. 245
THYROID DOSE PROJECTION
0.25 Rem Isopleth
Creek
Beaverdam
Waldon Cr.
B
PLANT EXCLUSION AREA
MARSH
SALT W
CAPE
FERRY
ZEKE ISLAND
TOLL
BREAKWATER
MATCH LINE
Brunswick County Airport
A
SOUTHPORT
POP. 2,22
C
ELIZABETH RIVER
BATTERY ISLAND
STRIKING ISLAND
YAUPON BEACH
POP. 334
FAS
133
87
211
09-14-1987



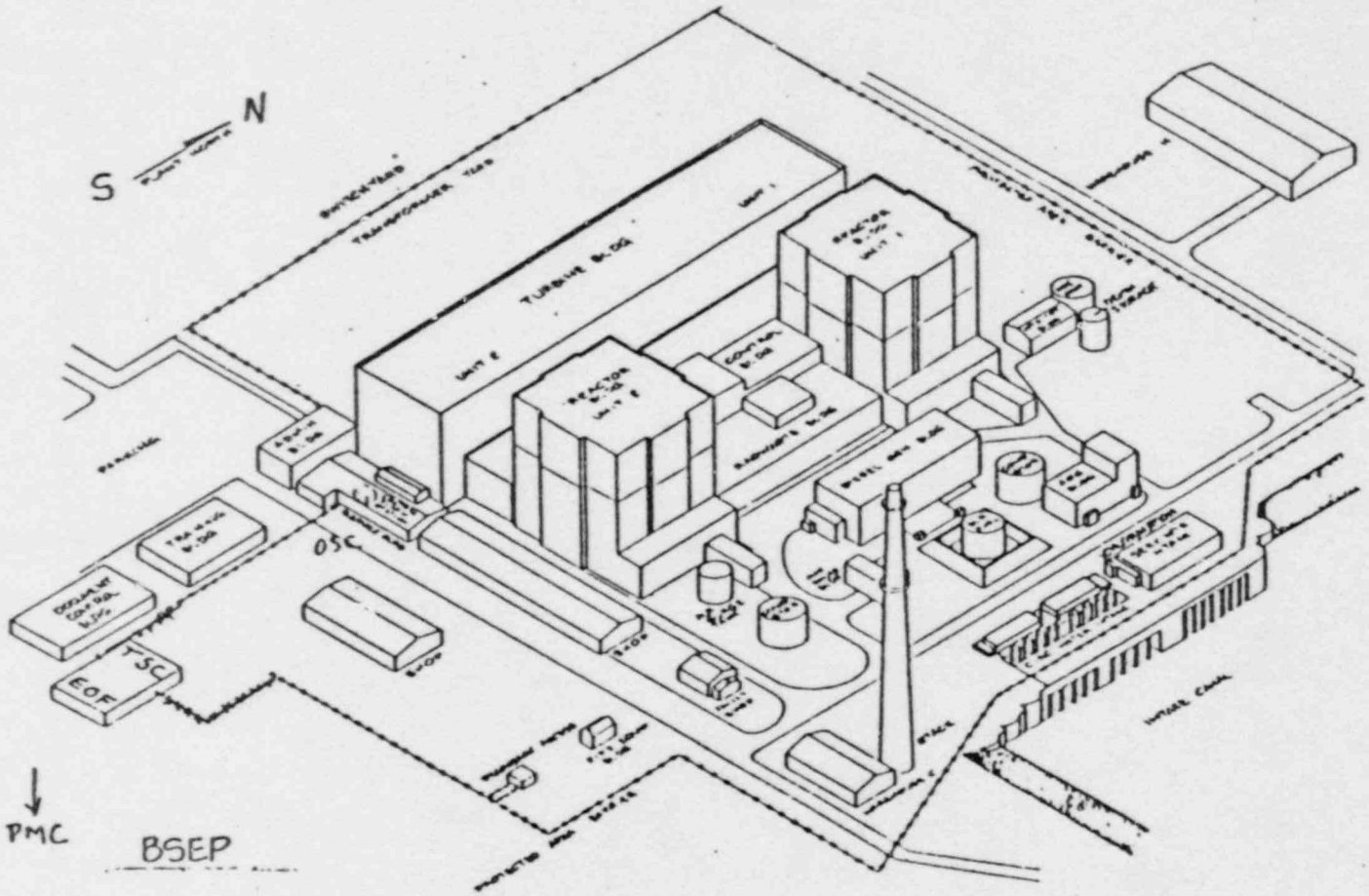
BOILING
LAKES
POP. 245
THYROID DOSE
PROJECTION
0.1 Rem
Isopleth
B
Waldon
Cr.
PLANT
EXCLUSION
AREA
MARSH
CAPE
ZEKE
ISLAND
FERRY
TOLL
C
BREAKWATER
A
SOUTHPORT
MATCH LINE
Brunswick County
Airport
Beaverdam
Creek
ELIZABETH RIVER
YAUPON BEACH
POP. 334
BATTERY
ISLAND
STRIKING
ISLAND
2 MI
133
87
FAS


BOILING SPRING
LAKES
POP. 245
ARMY
WHOLE BODY DOSE PROJECTION
0.0004 Rem/hr Isopleth
B
Waldon
Cr.
PLANT EXCLUSION AREA
MARSH
CAPE
ZEKE ISLAND
FERRY
TOLL
BREAKWATER
C
MATCH LINE
Beaverdam
Creek
Brunswick County Airport
A
SOUTHPORT
2 MI.
BATTERY ISLAND
STRIKING ISLAND
ELIZABETH RIVER
YAUPON BEACH
POP 334
BEACH
493
133
87
FAS


BOILING SPRING LAKES
POP 245
ARMY
WHOLE BODY DOSE PROJECTION
0.000 Rem/hr Isopleth
B
Waldon Cr
1525
PLANT EXCLUSION AREA
CAPE
MARSH
SALTY
FERRY
ZEKE ISLAND
TOLL
BREAKWATER
Bear dam Creek
2000
MATCH LINE
A
SOUTHPORT
POP 2,22
Brunswick County Airport
ELIZABETH RIVER
BATTERY ISLAND
STRIKING ISLAND
C
YAUPON BEACH
POP 334
133
211
87
FAS

EMERGENCY RESPONSE FACILITIES

Aerial View
Brunswick Nuclear Power Plant



EVALUATION CHECKLISTS

-Control Room Controller-

		Yes	No	Not Observed
1.	Did the operators respond quickly to the initiating events and properly assess the situation	____	____	____
2.	Did the Control Room personnel take appropriate actions to mitigate the emergency condition in an expeditious manner?	____	____	____
3.	Were appropriate abnormal conditions and emergency operations procedures used and periodically reviewed during the emergency situation?	____	____	____
4.	Did the Shift Supervisor receive immediate notification of the emergency condition?	____	____	____
5.	Were there sufficient measurable/observable indications to recognize the Emergency Action Levels?	____	____	____
6.	Were classifications of the emergency conditions timely and accurate?	____	____	____
7.	Did Control Room personnel know when to refer to the emergency plan implementing procedures and which procedures to use?	____	____	____
8.	Was the emergency classification upgraded or downgraded when appropriate?	____	____	____
9.	Did the Shift Foreman promptly assume control and authority?	____	____	____
10.	Did the Shift Foreman initiate the correct response actions to implement onsite and offsite assessment and protective response measures?	____	____	____
11.	Were such measures implemented in a prompt and well throughout manner?	____	____	____
12.	If an emergency condition required corrective action in-plant, was a team assembled and briefed in a timely manner?	____	____	____
13.	Did the Shift Foreman practice efficient use of available personnel?	____	____	____
14.	Was assistance requested from the appropriate emergency response organizations?	____	____	____

-Control Room Controller-

		Yes	No	Not Observed
15.	Were personnel aware of their emergency response roles and functions?	____	____	____
16.	Did the Shift Foreman review the declared emergency classification(s) with the Site Emergency Coordinator upon his arrival at the TSC?	____	____	____
17.	Were appropriate decision-making responsibilities transferred to the TSC upon its activation?	____	____	____
18.	Were manpower and staffing requirements for protracted operations assessed?	____	____	____
19.	Were notification procedures available and used for mobilizing onsite emergency response personnel and augmenting the emergency response staff?	____	____	____
20.	Were emergency response phone listings available, complete, and up-to-date?	____	____	____
21.	Were initial and follow-up notification forms readily available and properly completed?	____	____	____
22.	Did the Control Room communicators appear to understand and use the communications equipment and systems effectively?	____	____	____
23.	Did Control Room personnel transmit data in a timely and knowledgeable manner?	____	____	____
24.	Did the Control Room communicators use the statement, "this is a drill," or a similar statement?	____	____	____
25.	Were communications links checked?	____	____	____
26.	Were all communication networks operational?	____	____	____
27.	Were communications adequate to ensure that the flow of information was timely, effective, and efficient?	____	____	____
28.	Were dedicated communication links with the TSC, EOF, and OSC available and used?	____	____	____

-Control Room Controller-

		Yes	No	Not Observed
29.	Were general status announcements or periodic updates provided to Control Room personnel throughout the emergency?	____	____	_____
30.	Was the plant page-party system used to apprise emergency workers of changes in the status of the emergency situation?	____	____	_____
31.	Was there a proper flow of data between the TSC and the Control Room?	____	____	_____
32.	Were Control Room logs maintained?	____	____	_____
33.	Did operators obtain the appropriate information necessary to Support dose projection calculations?	____	____	_____
34.	Did operators obtain release rate and offsite dose assessment information from the appropriate radiological monitoring systems when required?	____	____	_____
35.	Was a calculator or computer immediately available for performing dose projection calculations?	____	____	_____
36.	Were dose projection calculations performed efficiently and accurately?	____	____	_____
37.	Were emergency supplies and equipment, such as respirators and protective clothing available to Control Room personnel?	____	____	_____
38.	Was the ambient noise level in the Control Room acceptable?	____	____	_____
39.	Was access to the Control Room restricted to specific individuals?	____	____	_____
40.	Was a post-drill/exercise critique held to evaluate Control Room performance?	____	____	_____

-Technical Support Center (TSC) Controller-

		Yes	No	Not Observed
1.	Was the TSC activated automatically upon the declaration of an Alert?	____	____	____
2.	Did emergency response personnel assigned to the TSC report in a timely manner?	____	____	____
3.	Were TSC personnel aware of their assigned work areas?	____	____	____
4.	Were TSC personnel familiar with their assigned duties and responsibilities?	____	____	____
5.	Did applicable personnel in the TSC refer to and utilize their checklists?	____	____	____
6.	Did TSC personnel have up-to-date phone listings for onsite and offsite contacts?	____	____	____
7.	Was command control authority transferred from the Control Room to the TSC according to procedures?	____	____	____
8.	Did communications contain the statement "this is a drill," or a similar statement?	____	____	____
9.	Did the Site Emergency Coordinator formally accept the transfer of responsibilities from the Control Room?	____	____	____
10.	Was the TSC formally declared operational by the Site Emergency Coordinator?	____	____	____
11.	Were TSC personnel informed of the change of command?	____	____	____
12.	Did the Site Emergency Coordinator demonstrate the ability to maintain command control over all emergency response activities conducted from the TSC?	____	____	____
13.	Were plant status briefings periodically conducted by the Site Emergency Coordinator?	____	____	____
14.	If necessary, did the Site Emergency Coordinator make offsite protective action recommendations in a proper and timely manner?	____	____	____

-Technical Support Center (TSC) Controller-

	Yes	No	Not Observed
15. Were manpower and staffing requirements for protracted operations assessed?	____	____	____
16. Did TSC personnel demonstrate, if necessary, the ability to identify the need for outside assistance when station capabilities were exceeded?	____	____	____
17. Did TSC personnel demonstrate the ability to classify the emergency condition in a timely manner?	____	____	____
18. Did technical personnel demonstrate their ability to react to escalating emergency classification?	____	____	____
19. Did the TSC Accident Assessment Team demonstrate the ability to gather, assess, and disseminate information to help mitigate the emergency conditions?	____	____	____
20. Did the TSC staff adequately Support the Control Room staff's efforts to identify the cause of an incident, mitigate the consequences of that incident, and place the unit in a safe and stable conditions?	____	____	____
21. Did TSC personnel demonstrate the ability to respond to mitigating circumstances and properly de-escalate the emergency situation?	____	____	____
22. Were the notification procedures available and used for mobilizing onsite emergency response personnel and augmenting the emergency response staff?	____	____	____
23. Were communication links established with other emergence response facilities in a timely manner?	____	____	____
24. Did TSC personnel properly communicate with:			
a. Control Room?	____	____	____
b. OSC?	____	____	____
c. EOF?	____	____	____

-Technical Support Center (TSC) Controller-

		Yes	No	Not Observed
25.	Did the Logistic Support Director notify the Emergency Security Team Leader of anticipated emergency vehicle access to the site necessary to Support emergency response activities?	____	____	____
26.	Were necessary modifications to the security program coordinated with the Emergency Security Team Leader Coordinator?	____	____	____
27.	Were the periodic follow-up notifications conducted per procedure?	____	____	____
28.	Were the initiating conditions or events posted on Plant Status Boards in a timely fashion?	____	____	____
29.	Were the subsequent plant status reports posted in a timely manner?	____	____	____
30.	Did the TSC have suitable communications with the field monitoring teams?	____	____	____
31.	Were the initial radiological conditions ascertained in a timely manner?	____	____	____
32.	Did the Dose Assessment Coordinator receive proper data to be able to assess radiological conditions (e.g., meteorological data and release rate data)?	____	____	____
33.	Did the TSC receive prompt information regarding permanent and portable radiological monitoring results?	____	____	____
34.	Was effluent sampling information available?	____	____	____
35.	Were the correct procedures and methods used for making dose projection calculations?	____	____	____
36.	Were dose projections performed in a timely manner?	____	____	____
37.	Was there a clear interface between the TSC staff and field monitoring teams?	____	____	____

-Technical Support Center (TSC) Controller-

		Yes	No	Not Observed
38.	Did the Radiological Assessment Coordinator adequately coordinate the activities of the Onsite Survey Teams with those of the Radiological Monitoring Teams?	____	____	____
39.	Were habitability surveys initiated by the Radiological Assessment Coordinator?	____	____	____
40.	Was the TSC monitored for radiological hazards?	____	____	____
41.	Did TSC personnel demonstrate the ability to properly define protective action recommendations?	____	____	____
42.	Did the TSC have sufficient protective equipment and supplies for the personnel assigned to the TSC?	____	____	____
43.	Was the status of the TSC ventilation addressed?	____	____	____
44.	Were procedures available to, and used by, TSC personnel?	____	____	____
45.	Were technical resources and other information, such as as-built drawings, maps, and emergency plan implementing procedures, readily available?	____	____	____
46.	Was the operational and functional adequacy of the TSC demonstrated during the drill/exercise?	____	____	____
47.	Was the ambient noise level in the TSC acceptable?	____	____	____
48.	Was a post-drill/exercise critique held to evaluate TSC performance?	____	____	____

-Emergency Operations Facility (EOF) Controller-

		Yes	No	Not Observed
1.	Was the Emergency Response Manager notified following the Notification of Unusual Event and Alert declarations?	____	____	____
2.	Was the EOF activated in a timely manner?	____	____	____
3.	Were EOF personnel aware of their assigned work areas?	____	____	____
4.	Was the EOF activated as prescribed in the emergency plan implementing procedures?	____	____	____
5.	Were security controls exercised concerning personnel permitted access to the EOF?	____	____	____
6.	Was there a clear and precise transfer of responsibility from the TSC staff to the EOF staff?	____	____	____
7.	Did the Emergency Response Manager declare the EOF operational prior to accepting full responsibility for offsite activities?	____	____	____
8.	Did the Emergency Response Manager maintain command control over the emergency response activities conducted from the EOF?	____	____	____
9.	Was there a clear dissemination of authority and control in the EOF organization?	____	____	____
10.	Did the EOF staff initiate and coordinate activities in an efficient and timely manner?	____	____	____
11.	Were procedures available to, and used by, EOF personnel?	____	____	____
12.	Did EOF personnel have up-to-date phone listings for onsite and offsite emergency contacts?	____	____	____
13.	Were current plant status announcements and periodic updates made?	____	____	____
14.	Did communications contain the statement "this is a drill," or a similar statement?	____	____	____
15.	Were appropriate EOF staff members aware of decisions regarding protective action recommendations for the general public and emergency workers within the 10-mile EPZ?	____	____	____

-Emergency Operations Facility (EOF) Controller-

		Yes	No	Not Observed
16.	Did the EOF staff perform manpower projections to support contracted operations and notify the Administrative and Logistic Manager accordingly?	____	____	_____
17.	Did the EOF staff demonstrate the ability to obtain outside resources when station capabilities were exceeded?	____	____	_____
18.	Were communicators correctly assigned and communication checks performed in a timely fashion?	____	____	_____
19.	Were dedicated communication links available and operational?	____	____	_____
20.	Were the communication links between the EOF and other locations, including mobile personnel, effective?	____	____	_____
21.	Following changes in the emergency classification level, were notifications made to the proper authorities when required?	____	____	_____
22.	Did the EOF staff inform and update the appropriate County, State, and Federal emergency response personnel in a timely manner?	____	____	_____
23.	Did EOF personnel demonstrate the ability to gather, assess, and disseminate information regarding the status of emergency conditions and the status of emergency response activities in a timely manner?	____	____	_____
24.	Did the EOF staff demonstrate the ability to Support the TSC staff's efforts to identify the cause of an incident, mitigate the consequences of that incident, and place the unit in a safe and stable condition?	____	____	_____
25.	Did the EOF staff demonstrate the ability to analyze current plant conditions and identify projected trends and potential consequences?	____	____	_____
26.	Were there sufficient sources of technical expertise available and utilized?	____	____	_____
27.	Were technical resources and other information such as as-built drawings, maps, and emergency plan implementing procedures, readily available?	____	____	_____

-Emergency Operations Facility (EOF) Controller-

		Yes	No	Not Observed
28.	Were procedures and other necessary documents used?	____	____	____
29.	Did the EOF staff demonstrate the ability to utilize vendor and other outside resources to assist accident analysis and mitigation efforts where necessary?	____	____	____
30.	Did the Radiological Control Manager demonstrate the ability to perform offsite dose assessment activities in a timely manner?	____	____	____
31.	Did the EOF staff demonstrate the ability to perform timely assessments of offsite radiological conditions to support the formulation of protective action recommendations?	____	____	____
32.	Was there an adequate flow of information between State and RNPD radiological assessment personnel regarding offsite radiological conditions?	____	____	____
33.	Did the EOF staff effectively direct and coordinate the Radiological Monitoring Teams' activities?	____	____	____
34.	Were the EOF radiological assessment personnel in frequent communication with the Radiological Monitoring Teams?	____	____	____
35.	Did the Radiological Control Manager demonstrate the ability to coordinate the activities of the Radiological Monitoring Teams with those of the Onsite Survey Teams?	____	____	____
36.	Were the emergency plan implementing procedures effectively used to provide adequate protection to station personnel and the general public?	____	____	____
37.	Was there good communication between EOF personnel, State, and Local authorities regarding the protective action recommendations?	____	____	____
38.	Was the operational and functional adequacy of the EOF demonstrated?	____	____	____
39.	Was the ambient noise level in the EOF acceptable?	____	____	____

-Emergency Operations Facility (EOF) Controller-

		Yes	No	Not Observed
40.	Did the EOF have sufficient protective equipment and supplies for personnel stationed in the EOF?	____	____	____
41.	Did the EOF staff demonstrate, if appropriate, the ability to de-escalate the emergency response based on current plant conditions and projected trends?	____	____	____
42.	Did the EOF staff remain involved through the de-escalation of the emergency situation?	____	____	____
43.	Was the EOF staff able to identify and discuss appropriate reentry and recovery activities based on current or projected conditions?	____	____	____
44.	Was a post-drill/exercise critique held to evaluate EOF performance?	____	____	____

-Plant Monitoring Team Controller-

		Yes	No	Not Observed
1.	Did the team response to, and prepare for, survey tasks in a timely manner?	____	____	____
2.	Did the team have the proper equipment?			
	a. Dosimetry?	____	____	____
	b. Survey instruments?	____	____	____
	c. Maps?	____	____	____
	d. Protective clothing/respiratory protection equipment?	____	____	____
	e. Radio?	____	____	____
	f. Vehicle (if needed)?	____	____	____
	g. Sampling equipment?	____	____	____
3.	Prior to deployment, was the team adequately briefed regarding potential hazards and conditions?	____	____	____
4.	Prior to deployment, was a team leader identified?	____	____	____
5.	Were the survey instruments and radios functionally checked prior to starting on the survey and were the instrument calibrations current?	____	____	____
6.	Was personnel dosimetry available and issued to the team members?	____	____	____
7.	Were teams supplied with appropriate high-range personnel dosimeters?	____	____	____
8.	Were procedures followed while taking samples?	____	____	____
9.	Were appropriate precautions taken in the handling and storing of any high-level samples?	____	____	____
10.	Were samples collected in a timely manner?	____	____	____
11.	Were samples analyzed within the required time limit?	____	____	____
12.	Were emergency monitoring procedures available to, and used by, team personnel?	____	____	____
13.	Were the capabilities in place for dealing with both heavily contaminated personnel and those individuals only slightly contaminated?	____	____	____

-Plant Monitoring Team Controller-

	Yes	No	Not Observed
14. Was respiratory protection equipment available and used while making the surveys?	____	____	____
15. Were communications properly maintained?	____	____	____
16. Did communications contain the statement "this is a drill," or similar statement?	____	____	____
17. Upon return, was the team properly debriefed?	____	____	____

-Environmental Monitoring Teams Controller-

		Yes	No	Not Observed
1.	Did team members arrive at the staging area and prepare themselves in a timely manner?	____	____	____
2.	Was the team equipped with the following supplies:			
	a. Survey instruments?	____	____	____
	b. Air samplers?	____	____	____
	c. Radio?	____	____	____
	d. Maps?	____	____	____
	e. Protective clothing?	____	____	____
	f. Respiratory protection equipment?	____	____	____
3.	With respect to the team's vehicle:			
	a. Was it fully gassed?	____	____	____
	b. Were the keys readily available?	____	____	____
	c. Was a release survey completed prior to deployment?	____	____	____
4.	Prior to deployment, was a team leader identified?	____	____	____
5.	Prior to deployment, did team personnel perform preoperational checks on the following equipment:			
	a. Radio?	____	____	____
	b. Survey meters?	____	____	____
	c. Sampling equipment?	____	____	____
6.	Were the instruments calibrated within the current calendar quarter or within the prescribed schedule?	____	____	____
7.	Was the team briefed prior to dispatch?	____	____	____
8.	Was the vehicle properly designed or modified to hold team members, and monitoring, protective, safety, and auxiliary equipment?	____	____	____
9.	Were there enough team members to adequately conduct survey and sampling activities?	____	____	____
10.	Was the vehicle and/or team equipped with an adequate radio system that permitted unimpeded transmission and reception of data and instructions?	____	____	____

-Environmental Monitoring Teams Controller-

		Yes	No	Not Observed
11.	Did the EOF provide adequate instructions regarding what measurements were to be performed?	____	____	____
12.	Did the radio communications contain the statement, "this is a drill," or a similar statement?	____	____	____
13.	Were radio communications clear, concise, and accurate?	____	____	____
14.	Were communications properly maintained?	____	____	____
15.	Did the Environmental Monitoring Coordinator exhibit good ALARA practices in directing team?	____	____	____
16.	Was information transmitted to the EOF communicator in a timely manner?	____	____	____
17.	Was the team kept apprised of the status of the emergency situation?	____	____	____
18.	Were dose rate measurements taken to verify radiation levels while in transit to monitoring and/or sampling sites?	____	____	____
19.	Was the team able to find the monitoring and/or sampling locations?	____	____	____
20.	Did the team demonstrate a knowledge of proper survey and sampling techniques?	____	____	____
21.	Did team personnel know how to operate and/or handle monitoring, sampling, and auxiliary equipment?	____	____	____
22.	Were air samplers run for an appropriate time interval?	____	____	____
23.	Were samples counted outside the plume?	____	____	____
24.	Was the proper procedure used for field counting of airborne samples?	____	____	____
25.	Were good sample handling techniques used to avoid cross-contamination?	____	____	____

-Environmental Monitoring Teams Controller-

		Yes	No	Not Observed
26.	Was raw field data converted correctly to uCi/cc for both particulate and iodine airborne samples?	____	____	____
27.	Were vehicle surveys performed periodically?	____	____	____
28.	Was the team aware of sample drop location(s)?	____	____	____
29.	Did the team members keep track of their individual exposure?	____	____	____
30.	Were pocket dosimeters checked on a regular basis?	____	____	____
31.	Were data sheets properly filled out and maintained?	____	____	____
32.	Were standby areas clearly identified to the team?	____	____	____
33.	Were spare batteries available for portable radios?	____	____	____
34.	Were backup instruments available in case of a failure of the primary instruments?	____	____	____
35.	Were the team members and vehicle properly surveyed upon completion of their monitoring tasks?	____	____	____
36.	Were the team members debriefed upon their return?	____	____	____
37.	Upon return, was equipment returned to its original status?	____	____	____

-Medical Emergency Controller-

		Yes	No	Not Observed
1.	Was the information concerning the event transmitted properly to the Control Room?	____	____	____
2.	Was the response team organized and dispatched quickly?	____	____	____
3.	Prior to deployment, was a team leader identified and properly briefed?	____	____	____
4.	Prior to deployment, were the radiological conditions analyzed for potential personnel hazards?	____	____	____
5.	Prior to deployment, was the team adequately briefed regarding the actual or potential radiological and operational conditions?	____	____	____
6.	Was access to the site coordinated with security to minimize ambulance and rescue team ingress and egress times?	____	____	____
7.	Was health physics coverage available and utilized, if required?	____	____	____
8.	Were access badges, dosimetry, and security escort standing by for ambulance or other emergency personnel?	____	____	____
9.	Was the required equipment available to support the medical emergency response?	____	____	____
10.	Was adequate first aid equipment available?	____	____	____
11.	Was the worst-case situation philosophy exercised on the victim?	____	____	____
12.	Were communications adequately demonstrated during the response (i.e., were they maintained on a frequent basis)?	____	____	____
13.	Did the emergency response team follow proper procedures?	____	____	____
14.	Were radiological controls implemented during evaluation, treatment, and transport?	____	____	____
15.	Did the team practice contamination control during the response?	____	____	____

	Yes	No	Not Observed
16. Did the ambulance have to wait for an excessive period of time to receive the victim for transport?	____	____	____
17. Were proper radiological controls practiced by the ambulance and hospital personnel?	____	____	____
18. Were proper release procedures practiced and followed?	____	____	____
19. Were appropriate procedures employed to minimize ambulance or other transport vehicle contamination?	____	____	____
20. Were appropriate procedures employed to maintain the hospital free of contamination?	____	____	____

-Corporate Emergency Operations Center (CEOC) and
Plant Media Center (PMC) Controllers·

		Yes	No	Not Observed
1.	Were the CEOC and PMC activated in a timely manner?	____	____	____
2.	Were the CEOC and PMC activated as prescribed in the emergency plan implementing procedures?	____	____	____
3.	Were procedures broken out and used?	____	____	____
4.	Was there a clear dissemination of authority and control in the organizations?	____	____	____
5.	Were dedicated communication links available with all necessary points of contact?	____	____	____
6.	Did the CEOC and PMC staff initiate and coordinate activities in an efficient and timely manner?	____	____	____
7.	Were current plant status announcements and periodic updates made?	____	____	____
8.	Did the CEOC and PMC demonstrate operational and functional adequacy during the exercise?	____	____	____
9.	Was there sufficient coordination in the preparation, review, and release of information to provide accurate and timely releases to the general public and news media?	____	____	____
10.	Was the ability to establish, operate, and coordinate an effective rumor control demonstrated?	____	____	____
11.	Were accurate and timely information releases made to the general public and the news media?	____	____	____
12.	Did the PMC contain sufficient equipment and supplies to support all required public information activities?	____	____	____
13.	Upon activation of the CEOC and PMC, was a check made to assure operability of all phone and telecopy equipment?	____	____	____

-Corporate Emergency Operations Center (CEOC) and
Plant Media Center (PMC) Controllers-

	Yes	No	Not Observed
14. Was a "Media Call" list used to properly notify representatives of the media of the emergency?	____	____	____
15. Was a post-drill/exercise critique held to evaluate CEOC and PMC personnel performance?	____	____	____

-Assembly, Accountability, and Evacuation Controllers-

		Yes	No	Not Observed
1.	Did the RNPD security organization mobilize and respond to the declaration of an Alert in a timely and effective manner?	____	____	____
2.	Did RNPD security personnel adequately control site access in accordance with applicable security procedures?	____	____	____
3.	Were appropriate security procedures available to, and used by security personnel?	____	____	____
4.	Did communications contain the statement "this is a drill," or a similar statement?	____	____	____
5.	Was site access limited to those persons necessary to perform emergency-related tasks?	____	____	____
6.	Were security posts and access control points established and maintained as appropriate?	____	____	____
7.	Did the RNPD security organization demonstrate the ability to account for all personnel in a timely manner?	____	____	____
8.	Was the evacuation conducted in an efficient manner?	____	____	____
9.	Did the security organization initiate steps to locate unaccounted-for individuals?	____	____	____
10.	Were these steps coordinated with the Site Emergency Coordinator?	____	____	____

CAROLINA POWER & LIGHT COMPANY
Exercise Critique Form

To: Chief Evaluator Date: _____

1. Type of activity or facility observed (such as off-site dose assessment, notification, decontamination, public information, TSC, EOF, etc.):
_____

2. Location: _____

3. Date: _____

4. Time: From _____ To _____

5. Procedure numbers that apply to activity and/or facility evaluated:

6. Names of personnel evaluated:

7. With respect to the particular function or activity you are evaluating, do you think that the Plan and Procedures are adequate (explain if necessary)?
_____

8. Either here or in an attached report state your conclusions as to the favorable aspects of the function or facility observed. Include good points which you observed.

9. Either here or in an attached report, enumerate the deficiencies observed and give your recommendations for corrective action. If you have none, so state.

10. Overall Rating:

Excellent -
Satisfactory -
Unsatisfactory -

_____ Evaluator

_____
Name Printed

_____ Evaluator's Own
Dept. & Section

Location: _____

Drill/Exercise Type: _____

CONTROLLER'S LOG SHEET

Name: _____

Date: _____ Page: _____ OF _____

Time	Summary of Activity Performed	Entered By (Initials)

Location: _____

Drill/Exercise Type: _____

CONTROLLER'S LOG SHEET

Name: _____

Date: _____ Page: ____ OF ____

Time	Summary of Activity Performed	Entered By (Initials)

Location: _____

Drill/Exercise Type: _____

CONTROLLER'S LOG SHEET

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Time	Summary of Activity Performed	Entered By (Initials)

Location: _____

Drill/Exercise Type: _____

CONTROLLER'S LOG SHEET

Name: _____

Date: _____ Page: _____ OF _____

Time	Summary of Activity Performed	Entered By (Initials)

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CONTROLLER'S LOG SHEET

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Time	Summary of Activity Performed	Entered By (Initials)

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Date: _____ Page: _____ OF _____

Time	Summary of Activity Performed	Entered By (Initials)

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CONTROLLER'S LOG SHEET

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Date: _____ Page: _____ OF _____

Time	Summary of Activity Performed	Entered By (Initials)

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Date: _____ Page: _____ OF _____

Time	Summary of Activity Performed	Entered By (Initials)

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Time	Summary of Activity Performed	Entered (Initials)

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