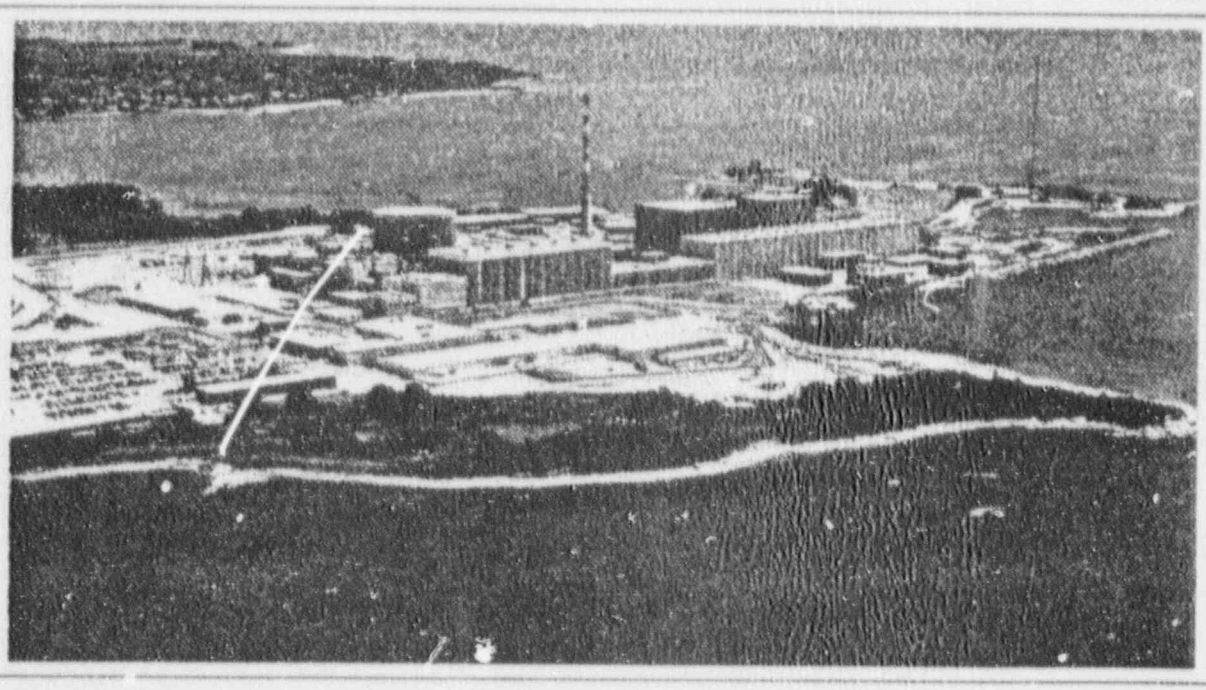
FOR CONTROLLER OR EVALUATOR EYES ONLY !!!

Millstone Nuclear Power Station

Emergency Plan Exercise December 5, 1990

50-336



Controller Evaluator Manual

Prepared For _____

IE35
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Prepared by - Northeast Utilities Service Company

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SECTION 1

INTRODUCTION

1. INTRODUCTION

This manual contains the necessary information to document the events expected to occur during the annual emergency plan exercise at the Millstone Nuclear Power Station, on Wednesday, December 5, 1990.

The Station and Corporate staffs will fully participate in this exercise. The State of Connecticut, the 12 local communities within the 10-mile radius Emergency Planning Zone (EPZ) of the Millstone Site may participate. The Station and Corporate objectives for the exercise are outlined in Section 3.1.

This controller/evaluator manual contains certain common information for all controllers/evaluators (e.g., a scenario sequence of events, controller's/evaluator's rules, etc.). It also contains specific information for you, the controller/evaluator (e.g., an Exercise Controller Guide (ECG) which details the master scenario sequence of events, your controller actions, your player's expected responses, and the messages that you are to issue to your players).

FOLLOW THE RULES AND THE SCENARIO SCRIPT, AND KEEP YOUR CONTROLLER COMMAND POST INFORMED AT ALL TIMES.

SECTION 2

EXERCISE SCOPE & SCHEDULE

2. EXERCISE SCOPE & SCHEDULE

2.1 Participating Agencies

Those organizations that may participate in this partial participation exercise include:

Utility

Millstone Nuclear Power Station,
Millstone Unit 2,
Waterford, Connecticut,

Northeast Utilities Service Company (NUSCO),
Corporate Headquarters,
Berlin, Connecticut.

State Agencies

Connecticut Office of Emergency Management,

Connecticut Department of Environmental Protection,

Connecticut Department of Health,

Connecticut State Police,

Connecticut Department of Agriculture,

Connecticut Department of Consumer Protection,

Connecticut Department of Transportation,

Connecticut Department of Social Services, and

Connecticut National Guard

Municipalities

Town of East Lyme,

City of Groton,

Town of Groton,

Town of Ledyard,

Town of Montville,

Town of New London,

Town of Old Lyme,

Town of Old Saybrook,

Town of Salem,

Town of Waterford,

Fishers Island N. Y.

Plum Island N. Y.

Private Agencies

American Red Cross,

Salvation Army

2. EXERCISE SCOPE & SCHEDULE

2.2 SCHEDULE OF ACTIVITIES

Prior to the exercise two review meetings will be held with controllers to walk through the scenario sequence events and data. State and local controllers will be briefed at 10 a.m. on November 30 , 1990 at the Millstone Point Emergency Operations Facility (EOF). Station and Corporate controllers will be briefed at 8:00 a.m. on December 3, 1990 also at the MP EOF.

An NRC entrance meeting will be held with the Exercise inspection team on Tuesday December 4 , 1990 in the MP EOF. The purpose of the meeting is to to update evaluators on changes since the 65-day submittal and to answer extent of play type questions. Evaluators who wish to become familiar with plant areas associated with the exercise will be given the opprtunity for a tour after the meeting. Plant access for evaluators will also be verified at this time.

The annual exercise will be initiated from the mock Control Room on Wednesday December 5, 1990. The exercise will be approximately 8, hours in duration, including the Utility post-exercise critique.

Immediately following the exercise, a utility self-critique for the players by the controllers/evaluators will be held at the Millstone Point EOF. The formal NRC inspection exit is tentatively scheduled for 2 :00 p.m., December 6, 1990 at the MP EOF.

SECTION 3

EXERCISE OBJECTIVES

3. OBJECTIVES

3.1 Utility Exercise Objectives

1. Demonstrate the adequacy of timing and content of implementing procedures and methods (Classification, Notification, Command/Control, etc.)

2. Demonstrate the capabilities of emergency equipment and communications networks.

3. Demonstrate the ability to notify and alert officials and staff.

4. Demonstrate the adequacy of staffing (adequate augmentation, competency, etc.)

5. Demonstrate the adequacy of Emergency Response Facilities space, comfort, equipment.

6. Demonstrate the ability to disseminate accurate and timely plant parameter data to the Emergency Response Centers.

7. Demonstrate the ability to perform initial and follow-up radiological assessments and projections.

8. Demonstrate the ability to perform accurate and timely radiological field team measurements.

9. Demonstrate the ability to evaluate calculated and measured radiological data and to make if appropriate, proper Protective Action Recommendations.

10. Demonstrate the ability to provide for the continuous radiological safety of Station personnel (monitoring, decon, respiratory protection, PCs, etc.).

11. Demonstrate the observation, evaluation and critique of the exercise.

3. OBJECTIVES

3.1 Utility Exercise Objectives (Cont'd)

12. Demonstrate the ability to provide access control and security for Emergency Response Facilities.

13. Demonstrate the ability to account for personnel remaining within the protected area following an evacuation and continuously therafter.

14. Demonstrate the ability of Technical Support personnel to effectively evaluate plant status and determine appropriate corrective actions.

15. Demonstrate the capability to plan for a shift change at each Emergency Response Facility.

16. Demonstrate the ability to conduct a fire fighting operation.

17. Demonstrate the ability to conduct a repair team operation.

SECTION 4

SCENARIO

4. SCENARIO

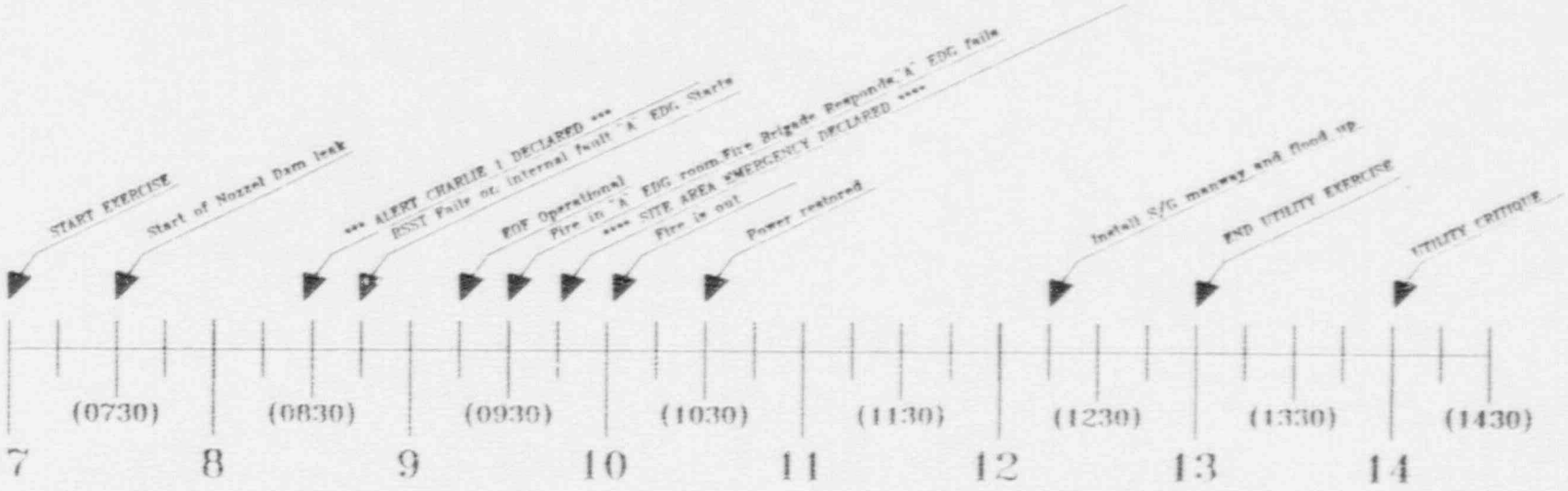
4.1 Scenario Summary

Clock Time	Event Description
0700	Begin Exercise with plant shutdown for a refueling outage. Initial conditions are as follows :
0700	Reactor Shutdown , Head Off, Mode 6 Nozzel dams installed , Refuel pool filled to 36' Fuel transfer tube open, Equipment hatch open No fuel movement in progress. RSST supplying In-House electrical loads. Main and NSST Transformers tagged out for preventive maintenance. Facility 1 shutdown cooling running at this time Facility 2 outage in progress, "B" D/G being overhauled #2 S/G nozzel dam has small seal leak
0730	Report from the Ctmt Coordinator that #2 S/G nozzel dam leakage is increasing rapidly. Leakage appears to be due to a failure of the "O" ring. Ctmt sump level rises.
0800	Operator reports from Spent Fuel Pool that Fuel Transfer tube isolation valve (2-RW-280) is physically bound up and cannot be closed. Also the spent fuel pool water level is going down and local radiation levels appear to be going up.
0800	A classification of Unusual Event, Delta 1, may be declared based on conditions that warrent increased awarness by plant staff.
0815	Spent Fuel Pool Radiation monitor reading > 1000 times normal reading for five minutes.
0820	Operator lowers incore instruments to bottom of Spent Fuel Pool.
0830	Alert Charlie 1 classification should be declared based on ARM spent fuel pool > 1000 x normal reading for 5 minutes.
0845	RSST fails on internal fault . "A"D/G starts and loads up to provide power

4.1 Scenario Summary (Cont'd)

Clock Time	Event Descripti
0915	EOF is manned and operational.
0930	Fire in "A" D/G room, Fire Brigade Responds, "A" D/G fails total loss of on-site and off-site power.
0945	SITE AREA EMERGENCY declared based on total loss of all onsite and all offsite power or fire affecting safety equipment. The fire is out. Fire Watch has been set.
0950	Upon attempting to close in breaker to restore power via Unit 1 the cross connect breaker fails Repair team responds.
1030	epair team repairs the cross connect breaker to Unit 1. Power is restored to Unit 2 emergency electrical bus.
1115	Repair team is dispatched to Containment and begin installing #2 S/G manway cover.
1215	Install S/G manways and begin to flood up.
1300	Exercise is terminated.

Millstone Unit 2
1990 Emergency Response Exercise
Scenario Time Line



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4. SCENARIO

4.2 Scenario Narrative

The scenario begins on December 5, 1990 with all conditions external to the plant, as they appear with the exception of the weather which is pre-determined to be a normal winter day regardless of actual conditions.The plant is Shutdown for refueling and had been operating for 400 Effective Full Power Days (EFPD). Internal to the plant however, two postulated conditions exist which are not usual . First, Steam Generator No. 2 nozzel dam seals are in an advanced state of degradation affecting the integrity of its sealing capability. Secondly, the incore flux detection probes which were recently brought across from Containment to the Spent Fuel Pool are tied off in the spent fuel pool at level higher than normal.

At 0700 exercise play begins in the MP2 Mock Control Room (i.e., The back of U-2 control room) with players receiving a mock shift turnover and briefing on initial conditions. They will also be briefed on the artificial methods utilized in conveying exercise information and data. Other players who would normally be cognizant of plant initial conditions will be briefed as well by their own controller upon their arrival at their designated emergency response facility.

The first exercise event takes place at 0730 when a weakened steam generator nozzel dam fails and causes a large leak of water out of Refueling cavity and Spent Fuel Pool (SFP)the thru the nozzel dam and out of the Steam Generator manway into the containment building sump and floor.

Once operators observe the abnormalities in water levels they will enter AOP 2578 , Loss of Spent Fuel level and Reactor cavity level procedure. Among other things, this procedure has operators try and isolate the the Spent Fuel Pool by shuting 2-RW-280 . A mechanical failure of the valve/reach rod assembly prevents its closure.

Events related to the emergency plan will start taking place as early as 0815 when the Operations Shift Supervisor has verified that he has a Spent Fuel Pool high Area Radiation Monitor alarm and a radiation indication of > 1000 times normal. He will classify this as an ALERT EMEkGENCY, Posture Code Charlie-One. The Onsite and Offsite Emergency Organizations will receive notification of this event by way of the radiopager system within 15 minutes of classification. The Station Emergency Organization (SEO) and Corporate Emergency Organizations (CEO) will begin activating. State and Local Emergency Respone Organizations will verify receipt of notification and begin activating their respective emergency organizations.

At 0845, the Reserve Station Transformer (RSST) experiences an internal fault which makes it inoperable. The Emergency Diesel Generator (EG-2A) , starts and loads up to provide electrical power. An Emergency Repair Team (ERT) will be dispatched to evaluate and report status
of the RSST.

4.2 Scenario Narrative (Cont'd)

The Director of Station Emergency Operations(DSEO) (i.e., the Operations Shift Supervisor) will direct the Security Shift Supervisor to perform an accountability of station personnel inside the protected area as well as direct him to control access to the plant an in particular the vicinity of the Spent Fuel Building. The Duty Officer will report to the Emergency Operations Facility (EOF) and be briefed via telephone on the status of the emergency by the acting DSEO. When the Duty Officer is satisfied he fully understands the emergency plant conditions and staff availability, he will relieve the Operations Shift Supervisor of DSEO responsibilities

The State and Local Emergency Response Organizations will simulate sounding their sirens and provide guidance to the public via the simulated transmission of an Emergency Broadcast System announcement. State and Local traffic control personnel will prevent unauthorized entry into the emergency zone while attempting to expedite the egress of the evacuating public.

Please Note - that an off-line operational test of the Public Alerting and Emergency Broadcast Systems will take place promptly at 1140.

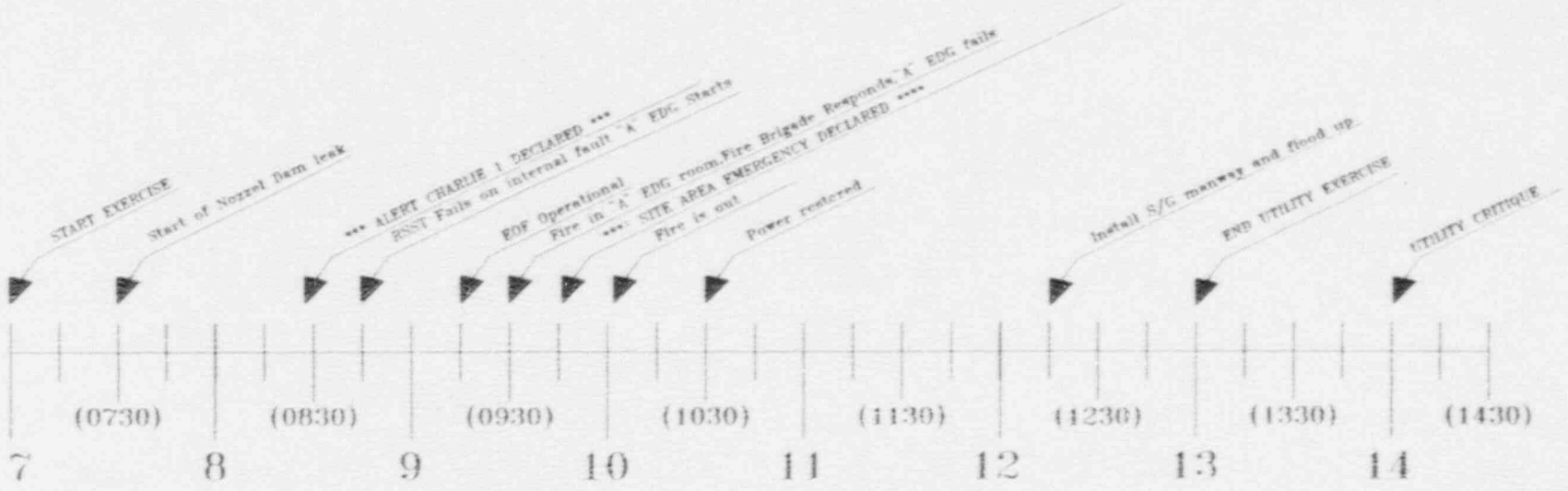
At 09:30 a fire starts in the "A" D/G room. Which shutsdown the "A" D/G. Deluge System Activates. Fire Brigade responds. At 09:45 A SITE AREA EMERGENCY posture code Charlie Two is declared based on a total loss of all onsite and offsite power or a fire affecting safety systems.

At 1030 an Emergency Repair Team (ERT) will have solved the problem with the Unit 1 cross-connect breaker which will restore power via Unit 1 .

At 1215 an Emergency Repair Team (ERT) will have installed the manway for #2S/G in order to isolate the cause of the leak and also to begin to recover lost level in the Spent Fuel Pool.

At 1300 the Exercise will be terminated

Millstone Unit 2
1990 Emergency Response Exercise
Scenario Time Line



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4.3.1 Sub Scenario - "Emergency Diesel13U"

Outline of events for EDG-13U

1. Due to the Facility 2 outage for preventive maintenance it was decided to perform the total tear-down maintenance for the Deisel Generator.

2. EDG 13U is therefore deemed inoperable for the entire exercise.

4.3.2 Sub Scenario - "Emergency Diesel 12 U"

Outline for events associated with EDG - 12U :

1. Initally EDG-12U is in standby.

2. Upon loss of the Reserve Station Transformer (RSST) the EDG 12U will start and load up as designed and provide vital plant equipment with electrical power.

3. When a fire breaks out in the EDG-12U room the Diesel is shutdown and the deluge system activates. This leaves the plant with a total loss of all onsite and offsite power. Vital instrumentation will be powered from the station batteries only.

4. Fire brigde responds and ensures fire is out and reflash watch has been set.

5. Upon fire damage report it is determined that the estimated time of repair to the Emergency Diesel will not be available for 24 hours at a minimum.

6. Therfore EDG-12U will be unavailable for the duration of the exercise.

4.3.3 Sub Scenario - "2-RW-280"

Outline of events for 2-RW-280

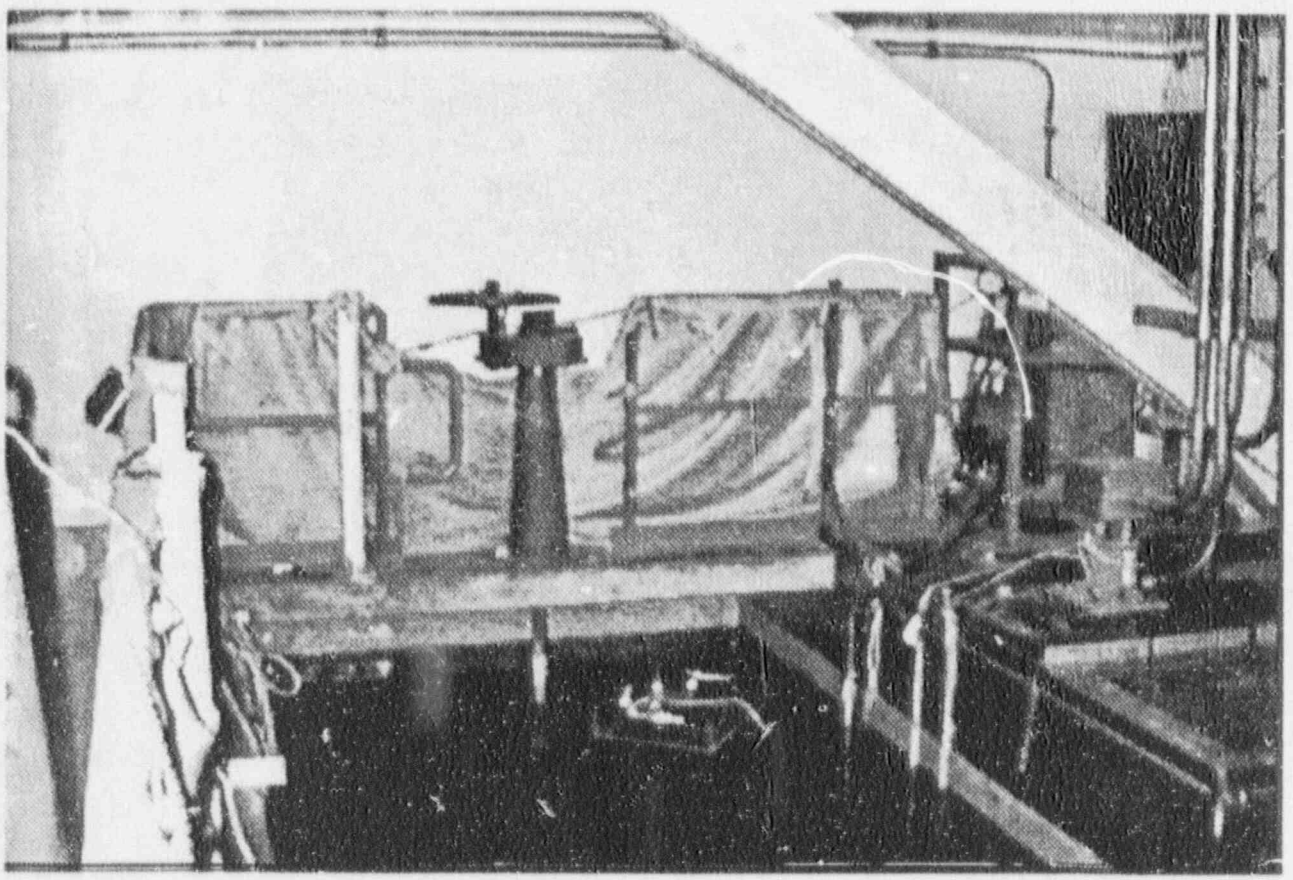
1 Valve is initially full open.

2. Upon nozzel dam seal failure Plant Equipment Operator(PEO) is dispatched to the Spent Fuel Pool (SFP).

3. When directed from the Control Room the SFP, PEO begins his attempt to close 2-RW-280 This valve under normal conditions has a long closure time therefore the PEO continues with his attempted valve closure for approximetly for fifteen to twenty minutes before he realizes that the valve is damaged and cannot be closed.

4. If a repair team inspects the local valve operator, they will find that the manual hand wheel will turn but the reach rod down to the valve appears to be sheared off just above the valve itself. The valve is stuck in its opened position.

5. This status will remain until the end of the exercise.



4.3.4 Sub Scenario - "Unit 1 to Unit 2 cross-connect breaker" (32-A505)

Outline of events for 32-A505

1. Breaker in its normal racked- in and open position.

2. Upon loss of the running Diesel Generator (DG- 12U) Control Room Operators attempt to close in breaker A505 from Control Room Panel (CO8).

3. Control board indication verifies that the breaker has not closed and indication is lost. Operator replaces light bulbs still no indication.

4. The Control Room tasks the Operational Support Center(OSC) to investigte and report on the status of A505.

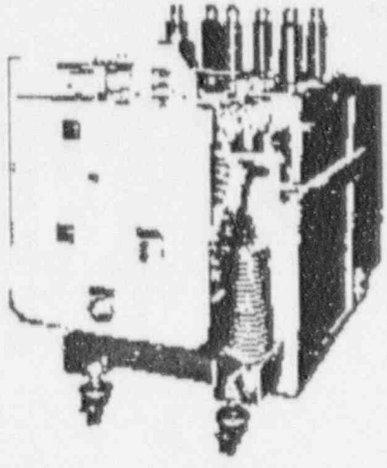
5. When the team is dispatch to the 24E Bus(cubicle A505) located in the switchgear room, the Team will inspect the breaker and verify that the circuit breaker has not closed, no indication and the close spring is not charged.

6. If the Team makes any attempt to reclose the breaker, it will immediately trip.

7. When the repair team inspectes the breaker and its cubicle their inspection reveals that the positive interlock is in the open position and one of the two 35 Amp control fuses has blown. Additionally , the interlocking switch on the breaker is bad. The controller will then have the following options based on estimated time of repair:

   A. Allow the repair team to replace control fuses and repair interlocking switch.
   B. Allow the repair team to replace control fuses use a spare breaker in the A505 cubicle .

8. Once the fix has been performed, the circuit breaker will need to be reset within itscubical - this will bring back MCB position indication; The Operator will then be able to successfully reclose A505.

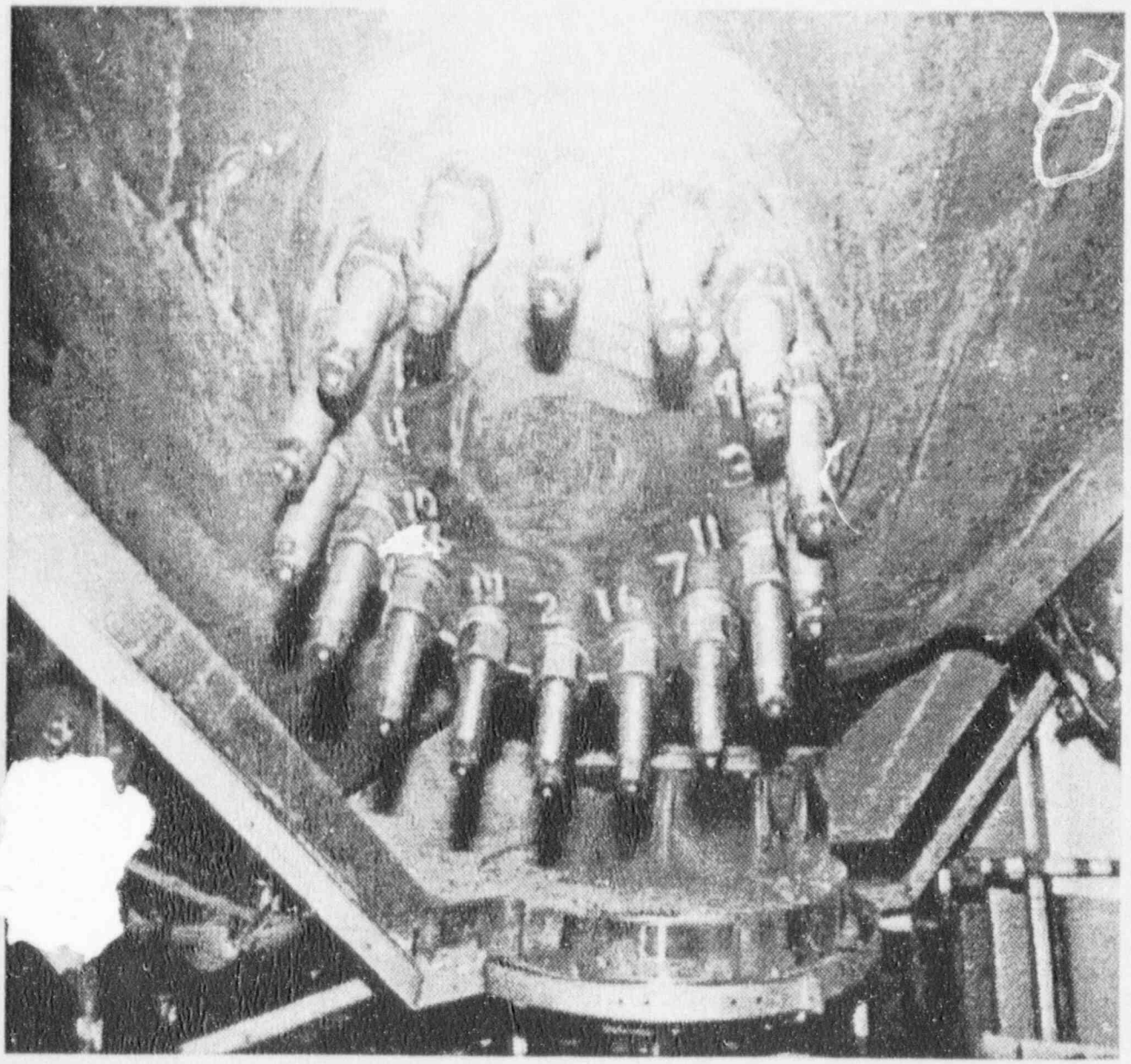


4.3.5 Sub Scenario - "CONTAINMENT EQUIPMENT HATCH"

Initally the Containment Equipment Hatch is open for normal outage puposes. It is not known when the operators will take steps to reestablish Containment Integrity but controllers will allow its closure approximatly 2-3 hours after the decision to shut it is made.

4.3.6 Sub Scenario - "S/G hot leg Manway cover"

Initally the #2 S/G manway is removed and the nozzel dams and seals are installedin preparations for U tube inspection and testing. As a result of the failure of the nozzel dam seals , leak rate thru the dams and out the manway prevents any action to be taken until water stops flowing out of the manway. Only then can a repair team be manned and dispatched in order to install the S/G manway cover. Once this is accomplished it will allow operators to begin to recover water levels in Containment as well as in the Spent Fuel Pool.



SECTION 5

SIMULATION LIST

5. SIMULATION LIST

1. Evacuation and Accountability

A station evacuation will not be demonstrated. All Station evacuation actions will be simulated.

2. Equipment Procurement

Neither equipment nor services will actually be procured from organizations that are not participating in the exercise.

3. Repair Parts

Parts required for simulated repairs will not actually be acquired; paperwork, however, will be submitted and the availability of materials verified.

4. Entry into High Radiation Areas

No actual entry into high radiation areas will be performed as part of the exercise. However, all activities associated with simulated entries, such as conducting briefings, issuing dosimetry, and donning protected clothing, will be performed.

5. Protective Clothing

Off-site radiation monitoring teams will not wear protective clothing or respirators; all other players should wear protective clothing if required by simulated conditions.

6. PASS Samples

Data associated with simulated PASS samples will be provided upon request of players if sufficient time has elapsed.

7. Off-site Facilities Information System (OFIS)/Nuclear Emergency Status System (NESS) Data Input

The Control Room Data Coordinator (CRDC) will record actual data from the control boards. After actual data is recorded, the CRDC will be handed exercise data which is to be input to the OFIS or NESS. The CRDC controller may suspend the recording of actual data when the Controller is satisfied that accurate data can be acquired within the time intervals allowed.

5. SIMULATION LIST (Cont'd)

8. Air Samples

The initial air samples taken by any player will be in accordance with the established procedure; the taking of subsequent air samples may be simulated if the controller is satisfied that the initial sample was taken properly.

9. Evacuation of Security Guards

Security guards will not be evacuated for the exercise.

10. Use of Self-Contained Breathing Apparatus (SCBA)

SCBAs, if required by simulated conditions, will be donned and worn with the face piece over the wearer's shoulder (or otherwise secured to prevent damage or injury).

11. Tracking of Expendable Materials

Expendable materials that are simulated to be used, such as silica gel cartridges and SCBA air bottles, will be monitored by the appropriate controller to ensure the adequacy of expendable material inventories is assessed.

12. Radiological Surveys/Dosimetry Distribution

All radiological surveys will be demonstrated. The inventory of radiological kits, equipment operation checks, and dosimeter and TLD distribution to Emergency Organization personnel will also be demonstrated.

13. Personnel Activation

The on-call SEO personnel and any additional necessary Emergency Response staff will respond to the ALERT.

14. Access Control

The demarcation and access control of scenario related radiation areas within the plant area will be simulated.

SECTION 6

CONTROLLER RULES

6. CONTROLLER RULES

6.1. DO's

A. IF AN ACTUAL CASUALTY OCCURS AND THIS IMPACTS THE EXERCISE, NOTIFY THE CONTROLLER COMMAND POST I MMEDI ATELY. STOP EXERCISE PLAY AND RESPOND TO CASUALTY.

B. Know the overall controller's organization (Figure 6-1).

C. Identify the players by name and function. Read the players rules (Section 7).

D. Identify yourself to all players and wear your controller badge at all times.

E. **IDENTIFY THE PHONE NUMBER WHICH YOU WILL USE TO MAINTAIN** COMMUNICATIONS WITH THE CONTROLLER COMMAND POST **(Attachment 1".A.1).**

F. Position yours lf in order to maximize your effectiveness in issuing messages and observing the players.

G. Know your play r's scenario script and the master scenario thoroughly.

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

I. There are **TWO** types of controller messages:

COMMAND: To be issued on or about the designated time to provide a player with information necessary to continue the exercise.

CONTINGENCY: To be issued if in the opinion of a controller it is needed to allow action to progress and keep the scenario on track.

Issue COMMAND and CONTINGENCY messages at the proper times.

J. Remember to call the controller command post by phone approximately once every 60 minutes to report on the status of players' actions, (i.e., on or off sched ule).

K. **CALL THE CONTROLLER COMMAND POST IMMEDIATELY** FOR ADVICE IF YOU HAVE DOUBTS ABOUT WHAT ACTIONS TO TAKE, IF PLAYERS ARE CONFUSED, OR IF PLAYERS DEPART SIGNIFICANTLY FROM THE SCENARIO SCRIPT AND THIS WILL IMPACT THE EXERCISE AND CREATE A MAJOR DELAY. IF NECESSARY, INTERVENE WITH PLAYER ACTION AND PUT **PLAY BACK ON SCENARIO SCHEDULE.**

6. CONTROLLER RULES

6.1. DO's (Cont'd)

L. Allow the players reasonable flexibility to perform their functions and demonstrate their skill, knowledge, and initiative. Acknowledge and record the mitigation of problems and/or corrective action, but do not allow player actions to influence the scripted scenario sequence of events.

M. Keep a running chronology of all key decisions made by players.

N. Identify yourself to the federal evaluator(s). Make sure they are reasonably aware of all your actions and the players' actions.

O. Ensure that the federal evaluator is in a position to observe specific events, especially those events identified as exercise objective.

P. MAKE NOTES ON PLAYERS' ACTIONS, THE STRENGTHS AND WEAKNESSES, AND AREAS THAT NEED IMPROVEMENT. USE THE EVALUATOR'S CRITIQUE SHEETS (ATTACHMENT 12.I).

Q. Attend the post-exercise critique session to provide your comments and recommendations to the lead controllers. Lead controllers will make comments durin the critique. All controller comments must be completed and reviewed with the chief controller prior to the post-exercise critique.

R. Identify the players' leaders (Director of SEO, Managers, etc.). Work with them at all times.

S. Be at your assigned station at least 20 minutes prior to the commencing of any player action. Call the controller command post to verify communications.

T. CONTROLLERS AND PLAYERS ENTERING OR LEAVING ESTABLISHED STATION RADIATION CONTROL AREAS MUST OBSERVE ALL NORMAL RADIATION CONTROL PRACTICES. THE PLAYERS MUST FOLLOW ALL RADIATION PROTECTION RULES AS APPLI CABLE TO THE EXERCISE. CONTROLLERS ARE EXEMPT FROM THE RADIATION EXPOSURE CONTROL PRACTICES FOR THE EXERCISE SCENARIO RADIATION LEVELS.

6. CONTROLLER RULES

6.2 DON'T's

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

B. Don't prompt or coach the players to take action.

C. Don't criticize the player actions during the exercise.

D. Don't forget to call the controller command post to provide a status report approximately once every 60 minutes or to seek advice.

E. Don't issue Contingency messages if the action has been or will be carried out by the players.

6.3 IDENTIFICATION BADGE COLOR CODE

Controllers:	Participants:
Station - blue	All players - white
Corporate - blue	Contaminated Individual - red
State - yellow	
Towns - yellow	
Federal Observers:	**Others:**
FEMA - green	Visitors - orange
NRC - green	Media - yellow

SECTION 7

PLAYER RULES

7. PLAYER RULES

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

1. ALL RADIO AND TELEPHONE COMMUNICATIONS MUST BE PRECEDED AND FOLLOWED BY THE PHRASE.....

   "THIS IS A DRILL."

2. Identify your controllers by their identification badges. The controllers are the evaluators.

3. Federal agency observers may be present. You can identify them by their identification badges.

4. Identify yourself by name and function to the exercise controllers.

5. Play out actions as much as possible in accordance with your emergency plan and implementing procedures, as if it were an actual emergency. Your Controller has a simulation list which describes those actions which can be simulated. Check with your controller if in doubt. Stop short of spending money. It is to your advantage to play out as many of your actions as possible.

6. PERIODICALLY SPEAK OUT LOUD, identify your key actions and decisions to the controller. This may seem artificial, but it will assist in the evaluation process and is to your benefit.

7. If you are in doubt about conditions, ask your controller for clarification. The controller can give you information that you could legitimately access if the event were real but will not prompt or coach you unless you are stuck or have made an error.

8. The controller will periodically issue messages or instructions designed to initiate response actions. You must accept these messages. They are essential to keeping the exercise scenario on schedule.

9. If the controller intervenes and recommends that you redirect or reconsider your play actions, it is for a good reason. Listen to the controller. This is essential to the overall success of the exercise for all participating groups.

10. If you disagree with the controller, you can ask him/her to reconsider or consult with the chief controller. You must, however, accept his/her word as final and proceed. This is particularly true for the station emergency response facilities, as their actions can delay or

7. PLAYER RULES (Cont'd)

speed up the entire exercise and impact other activities.

11. Always respond to the controller's and/or Federal evaluator'squestions in a timely manner.

12. **FEDERAL EVALUATORS ARE NOT ALLOWED TO ISSUE MESSAGES OR INSTRUCTIONS TO PLAYERS.**

13. You must play as if radiation levels are actually present, in accordance with information you receive. This will require that you wear radiation dosimeters, observe good radiation protection practices, and are aware of and minimize your radiation exposure at all times. Identify the individuals in your respone organization responsible for informing you of these items. Follow their instructions.

14. The controllers and/or evaluators are not subjet to artifical radiation exposure. Do not let this confuse you or cause you to act unwisely.

15. If you enter the station Radiation Control Areas (RCA), observe all station radiation protection practices and procedures. No one (not the controller nor federal evaluator) is exempt from normal station radiation protection pratices and procedures.

16. Demonstrate your knowledge of the emergency plan, emergency actions, and procedures.

17. UTILIZE STATUS BOARDS, LOG BOOKS, THREE PART MEMOS, ETC., AS MUCH AS POSSIBLE TO DOCUMENT AND RECORD YOUR ACTIONS, INSTRUCTIONS, AND REPORTS TO YOUR CO-PLAYERS. RECONSTRUCTION OF ALL EVENTS THAT OCCURED DURING THE EXERCISE MAY BE REQUIRED.

18. Do not enter into conversations wityh people not involved with the exercise.

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

20. Make a mental note of things you feel will improve the emergency plan and implementing procedures. Provide this list to your lead player, or chief controller, who will in turn ensure these items are considered and incorporated as appropriate.

21. A post-exercise critique of the exercise will be held immediately after the exercise is terminated. Provide your input to your lead player or the controller. This will help in the overall evaluation which the controller will present to the chief controller.

22. ALL COMMUNICATIONS MUST BE PROCEEDED AND FOLLOWED BY THE PHRASE.... **"THIS IS A DRILL"**

SECTION 8

VISITOR RULES

8. VISITOR RULES

1. THE EVENT TIMES AND SCENARIO ARE CONFIDENTIAL AND SHOULD BE KEPT CONFIDENTIAL DURING THE EXERCISE. DO NOT DISCUSS THEM WITH THE PLAYERS OR LEAVE SCENARIO INFORMATION UNATTENDED.

2. Visitors should not participate in the exercise nor interfere in the actions taken by the exercise players, controllers, and evaluators.

3. Identification badges are to be worn on the upper front of the torso, so as to be clearly visible. Badges should be returned at the end of the exercise or critique. Identify yourself to the drill controllers.

4. If you have questions, contact the controller of the location you are visiting.

SECTION 9

DEFINITIONS

9. DEFINITIONS

ALERT (Posture Code CHARLIE-ONE) -

An emergency classification which is defined as an actual or potential substantial degradation of the level of safety of the plant.

Clock Time -

The real (or clock) time sequence of events.

Controller -

A member of the station, corporate office, state, local community or consultants who has the authority to take actions necessary to ensure continuity of the exercise without hindering or aiding the player's initiative, free-play, and decision-making processes. These controllers can also be evaluators (distinct from federal agency evaluators).

Critique -

A meeting of key personnel that participated in the exercise. A critique is usually held shortly after the conclusion of the exercise; the exercise controllers/evaluators review the operations and the performance of participating individuals or groups.

Emergency Action -

Levels (EALs)

Specific threshold conditions that may be used to designate a particular classification or level of emergency.

Evaluator -

An evaluator may be assigned to one or more activities or functions for the purpose of evaluating, recording, and reporting the strengths and weaknesses, and making recommendations for improvements.

Federal Agency Evaluators -

These are agents of the Nuclear Regulatory Commission (NRC) or the Federal Emergency Management Agency (FEMA) who will evaluate the player's performance.

GENERAL EMERGENCY (Posture Code BRAVO/ALPHA) -

An emergency classification which is defined as actual or imminent substantial core degradation or melting with potential loss of containment integrity.

Player -

A member of the emergency response organization who responds to the postulated emergency and acts in accordance with the emergency plan and procedures.

Scenario -

The hypothetical sequence of events of the exercise.

Scenario Time -

The elapsed time of the exercise.

SITE AREA EMERGENCY Posture Code CHARLIE-TWO) -

An emergency classification which is defined as actual or likely major failures of plant functions needed for the protection of the public.

UNUSUAL EVENT (Posture Code DELTA ONE / DELTA-TWO) -

An emergency classification which is defined as a potential degraation of th elevel of safety of the plant

Visitor -

An individual who does not participate, but rather observes the actions of the players.

SECTION 10

EXERCISE EVALUATION CRITERIA

10. EXERCISE EVALUATION CRITERIA

10.1 General

A. Purpose

The purpose of this evaluation is to ensure that a mechanism exists for evaluating key actions of the utility participants during the exercise. Both adequate and inadequate performance will be rated so that future training efforts may be redirected to ensure that a satisfactory level of knowledge is achieved by the emergency response organization.

B. Implementation

Once the evaluation has been performed, it is the responsibility of the controller (and other evaluators) to review and summarize the results of the evaluation during the post-exercise critique.

10.2 Evaluation Standards

A. E - Exceptional

Personnel and equipment always functioned without error every time and there were no problems encountered. All personnel and equipment functioned at a level much greater than could reasonably be anticipated.

B. FM - Fully Meets

Personnel and equipment performed in accordance with the emergency plan and implementing procedure requirements, with few minor exceptions. Any errors noted were not severe and could be corrected without undue labor and/or expense.

C. U - Unable to Meet Requirements

Personnel and/or equipment were unable to perform as required and/or there were numerous and/or serious deficiencies.

D. N/A - Not applicable

10.3 Evaluation Overview (i.e., generic questions for all locations to determine emergency response adequacy)

A. Performance

1. Command Functions - Did the player properly direct the activities of other components?

2. **Notification/Activation of Emergency Response Staff** - Were supporting activities/staffs promptly and properly notified/activated, as applicable?

3. **Assessment and Evaluation** - Was information promptly and correctly received, assessed, documented, and appropriate action taken?

4. **Personnel Function** - Did personnel know and carry out their assigned duties with efficiency and without undue direction?

5. **Communications** - Did the participants establish and maintain communications in their area of responsibility? Was the information timely, accurate, appropriate, and concise?

6. **Record Keeping** - Were status boards, logs and/or records adequately mainained that documented significant events, actions, and corrective actions which would allow reconstruction of the emergency events and conditions?

B. Facilities and Equipment

1. **Physical Facilities** - Was the allocated area functional by virtue of its size and location? Was there enough necessary furniture, adequate ventilation, rest rooms, office supplies, etc., to support the operation? Could the area support the number of personnel assigned to it?

2. **Resource Materials** - Were there resource materials readily available to assess the emergency situation and to plan corrective actions - maps, reference books, copies of emergency.

3. **Communications Equipment** - Was the on-site and off-site communications equipment adequate in quantity, operability and availability? Did personnel know how to use the equipment properly and efficiently?

4. **Emergency Equipment** - Was emergency equipment readily available, adequate in quantity, operability and availability? Did personnel know how to use the equipment properly and efficiently?

5. **Personnel Quantity** - Were there enough trained personnel to carry out the operation? Too few? Too many?

6. **Area Access Control** - Did all designated personnel arrive at their area promptly and stay in their assigned area for the duration of the exercise? Was there an identification system developed and used that effectively identified authorized personnel and their assigned duties?

C. Overall Evaluation

1. **Performance** - As a whole, was the command-level control of the exercise satisfactory? Were command and support personnel kept informed of the situations as they developed and did they respond to needs as they developed? Were communications effective? Are records adequate to support future reconstruction of the sequence of events?

2. **Facilities and Equipment** - Were material assets adequate to support the operation or were they part of the problem? Were there any notable shortages or excesses of equipment or trained personnel? Was equipment and personnel management effective?

10.4 Evalution Summary

A. Describe any overall problems or inadequacies noted during the exercise in the area being evaluated (such as participant performance, equipment readiness, familiarity with equipment, etc.). Include a description of the problem, its outcome or effect, and recommended corrective actions to resolve the problem.

B. Use the predetermined identified success path (there may be others) to acknowledge and recognize exercise participants for actions which would be appropriate to mitigate the consequence of the incident/accident.

C. After completing the evaluation form, determine the overall performance of the area being evaluated.

D. The controllers and evaluators are to sign the completed evaluation form and promptly return it as directed.

SECTION 11

STATION CRITIQUE

11. STATION CRITIQUE

11.1 Critique Meeting

The following controllers are expected to attend and speak at the critique meeting. These controllers should be prepared to summarize comments from other controllers in their work area. They should use the critique sheet (Form 11-1) to prepare their comments.

Lead Controller	Evaluation Area
DSEO	EOF and Site Area Activities
TSC/OSC	TSC Activities/OSC Activities
Control Room	CR Activities
MRCA/MRDA	On-Site Rad Protection/Off-Site Rad Protection (including Field Teams)
Corporate*	Corporate EOC Activities & State interface

*The Corporate EOC comments will be received via telecopier and read during the critique.

11. STATION CRITIQUE

11.2 Station and Corporate Controller Critique Summary Sheet

The post exercise critique will be held following the exercise in the OSC and will be attended by exercise participants and predesignated controllers (speakers) from each area evaluated. Exercise participants may respond to any and all exercise controller critique comments. The critiques should list each item by:

A. Deficiencies of corporate/station procedures or known commitments; the finding should specifically state the cause of the deficiency if known (i.e., inadequate material, procedure, training, etc.).

B. Operational fixes that should be made (i.e., equipment failure not related to station procedures),

C. Players inability to demonstrate knowledge of procedures,

D. Recommend corrective actions, and

E. Good practices (success paths identified).

It is extremely important to list the items by priority of importance. This information will be used during the NRC critique, so be as brief and clear as possible. Limit your oral critique to a maximum of 5 minutes.

After reviewing the critique items, the lead controllers should address the positive items observed during the exercise.

11. STATION CRITIQUE

11.3 Critique Sheet (FORM 11-1)

A.. Corporate/Station Procedure Deficiencies

B. Operational (equipment)

C. Training Problems

D. Recommended Corrective Actions

NOTE

Appendices have limited distribution. Only the information that is directly applicable to the controller area of evaluation has been included in the controller's package.

APPENDIX A.1

CONTROLLERS LIST

MILLSTONE UNIT 2 EMERGENCY REHEARSAL/EXERCISE

CONTROLLERS - EOF

CONTROLLER POSITION	CONTROLLER
CHIEF CONTROLLER	Edward J. Molloy
DSEO	Fred Dacimo
MOC/TIC	Tom Harvey
MPI	Bob Winkler
MOR	Bob Griswold
MOSC	Dave Clark
MRCA	John Dorowski
MANAGER OF ENGINEERING SUPPORT	
MRDA	Bill Eakin
MANAGER OF SECURITY	Mark Gelinas
EOF LEAD CONTROLLER	Walter H. Buch
EVACUATION	Pat Anhalt
LOGISTICS	Thomas J. Dembek
TECHNICAL SUPPORT CENTER	Ken Truesdale
EOF/EMERGENCY TRAFFICE	Brad McClure
NAP ASSEMBLY AREA	Judi Clark
SAP ASSEMBLY AREA	Fran Bergeron

MILLSTONE 2 EMERGENCY REHEARSAL/EXERCISE

CONTROLLER - CONTROL ROOM

CONTROLLER POSITION	CONTROLLER
ON-SHIFT OPERATIONS	
LEAD	Tim Rehyer
SHIFT SUPERVISOR	Bob Barron
TECH DATA/COMPUTER	Tim Honan
TECH DATA	
SSSA *	
CRDC *	Tom Quatrochi
PEO	Dan Aloi
PEO	
ON-SHIFT HP TECH CR/OSC	Bob Gustafson
ON-SHIFT HP TECH CR/OSC	LeBaron Chambers
ON-SHIFT CHEM TECH	Dave Peiffer
OSC H.P. ACTIONS	Jim Bennett
OSC H.P. ACTIONS	Stu Torf
REPAIR PARTY #1	Jack Heisler
REPAIR PARTY #2	Rick Halleck
REPAIR PARTY #3	Andy Gathy
REPAIR PARTY #4	Mike Piccarrelo
EVACUATION NAP	
EVAUCATION SAP	
FIRE BRIGADE	John Nickerson

MILLSTONE 2 EMERGENCY REHEARSAL/EXERCISE

CONTROLLERS - EMT

CONTROLLER POSITION	CONTROLLER
EMT - NAP	John Waggoner
EMT - SAP	Bob Doherty
EMT - 3	Pat Burke
EMT - 4	Dave Fitts
EMT - 5	Barry Kreilius

ATTACHMENT 1

1990 EMERGENCY EXERCISE (12/5/90) AND REHEARSAL (11/15/90)
CORPORATE EMERGENCY ORGANIZATION - PLAYERS / CONTROLLER LIST

POSITION	PLAYER NAME	*CONTROLLER / EVALUATOR
Director of Emergency Operations (CDEOC)	CEOC: C.F. Sears (Lead) ✓ E. A. DeBarba (Asst.)	E.R. Foster
	State EOC: W.D. Romberg (Lead) G.D. Baston (Asst.) R.T. Harris (Obsrv.)	M.E. Birch (Controller only)
	MP EOF (Obsv.): G.L. Johnson	
NUSCO Nu. Ops. Duty Officer (NUDO)	M.J. Whitney	R.C. Rodgers
Public Affairs Duty Officer (PADO - Level 1 - State Armory)	L.J. Keezing	M.E. Birch
Manager of Public Information (CMPI - Level 2 - Corporate EOC)	A.J. Castagno	W.T. McCance
Manager of Public Information (Station EOC - Level 2)	S.L. Jackson	E.J. Molloy
Manager of Resources (CMOR)	√R.R. Viviano √H.H. Wong	W.T. McCance
Manager of External Communications (CMEC)	CEOC: P.A. Blasioli J.R. Himmelwright	W.T. McCance
	State EOC: G.R. Van Noordennen	M.E. Birch
Manager of Rad. Cons. Asses. (CMRCA)	R.A. Crandall I.L. Haas	R.C. Rodgers
Field Team Data Coordinator (CFTDC)	A.S. Klotz A.E. LaMan	J.G. McHugh
Radiological Assessment Engineer (RAE)	L.J. Landry C.A. Flory	J.G. McHugh
Meteorological Team (CMET)	R.T. Myers	J. Gastler ✓
Environmental Sampling Team (POSL)	G.A. Martel	R.C. Rodgers
IRG Team (IRG)	D.J. Auretta	R.C. Rodgers
Manager of Technical Support (CMTSC)	A.R. Roby R.P. Necci	J.A. Blaisdell
Thermal Hydraulics Engineer (CMTSC-TH)	A. Chyra A. Gharakhanian	J.A. Blaisdell
Mechanical Engineer (CMTSC-M)	F.J. Lukaszek T.J. Mawson	J.A. Blaisdell
Electrical Engineer (CMTSC-E)	R.J. Young P.M. Blanch	J.A. Blaisdell

*Controller walk through at the MP EOF of rehearsal scenario (13:00 11/13/90) and exercise scenario (08:00 12/3/90)

APPENDIX A.2

PLAYERS LIST

MILLSTONE UNIT 2 EMERGENCY EXERCISE/REHEARSAL

STATION PLAYER LIST

DSEO	ON-CALL	Harry F. Haynes
	CALLED IN	John S. Keenan
	CALLED IN	Carl Clement
MTSC	U1 ON-CALL	Pete Przekop
	U2 ON-CALL	John D. Becker
	U3 ON-CALL	Dave Mc Daniel
	U2 CALLED IN (TO TSC)	Brendan J. Duffy
	U2 CALLED IN (TO EOF)	John W. Riley, Jr.
MOC	ON-CALL	Michael Jensen
	U2 CALLED IN	Richard Spurr
TIC	ON-CALL	William Landon
	U2 CALLED IN	R. Keith Bragg
MPI	ON-CALL	Steve Jackson
	CALLED IN	Greg Wilson
MGR RESOURCES	ON-CALL	Steve Main
	CALLED IN	Walt Varney
MOSC	U1 ON-CALL	Jim Nowell
	U2 ON-CALL	William E. Strong III
MRCA	ON-CALL	Eric Laine
	CALLED IN	John Sullivan
	CALLED IN	Ron Sachattelo
	CALLED IN	Dan Hagan
MANAGER OF ENGINEERING SUPPORT	ON-CALL	William Lacy
	CALLED IN	Mike Sforza
	CALLED IN	Joe Impellizeri
MRDA	ON-CALL	J. P. Kangely
	CALLED IN	D. L. Wilkens
	CALLED IN	G. L. D'Auria

EOF COMMUNICATOR	ON-CALL	Steve Turowski
MAINTENANCE SUPERVISORS	U1 I&C ON-CALL	Rich Donovan
	U1 ELEC ON-CALL	
	U1 MECH ON-CALL	Robert Lord/Boyer(call in)
	U2 ELEC ON-CALL	Bob Rowe (call in)
	U2 MECH ON-CALL	Frank Donahue
	U2 I&C CALLED IN	Pete Smith
CRDC	U1 ON-CALL	Drexel N. Harris
	U2 ON-CALL	Robert Flanagan
	U3 ON-CALL	Gary Box
	U2 CALLED IN (TO TSC)	Craig Hines
	U2 CALLED IN (TO EOF)	William Souder
MANAGER OF SECURITY	ON-SHIFT	Trish Weekley
ASSISTANT MOS	ON-SHIFT	11-15 Jim Smith/12-5 Margaret Moore
OPERATIONS SHIFT SUPERVISOR	U2 ON-SHIFT	Rick Gauzza
SENIOR CONTROL OPERATOR	U2 ON-SHIFT	Rich Amour
REACTOR OPERATOR	U2 ON-SHIFT	Howard Duffy
REACTOR OPERATOR	U2 ON-SHIFT	Walt Seifert
PLANT EQUIPMENT OPERATOR	U2 ON-SHIFT	Scott Howes
	U2 ON-SHIFT	Mike Cote
	U2 ON-SHIFT	Steve Schlachter
SHIFT SUPERVISOR STAFF ASSISTANT	U1 ON-SHIFT	Jim Bauer/Ron Haska (back up)
	U3 ON-SHIFT	
CHEMISTRY TECHNICIAN	U1 ON-SHIFT	John Stark
	U2 ON-SHIFT	Mike Gobeli
	U3 ON-SHIFT	Jeff Peters
HEALTH PHYSICS TECHNICIAN	U1 ON-SHIFT	Mat Joyce
	U2 ON-SHIFT	Jan Drzewianowski
	U3 ON-SHIFT	Tom Cummins

TSC STAFF	U1 ON-CALL	Bill Noll
	U2 ON-CALL	Steve Stadnick
	U3 ON-CALL	Nelson D. Hulme
	U2 CALLED IN	Paul Parulis
	U2 CALLED IN	
	U2 CALLED IN	Vere R. Joseph
I&C TECHNICIAN	U1 ON-CALL	Leo Karnes
	U2 ON-CALL	Pat Kane
	U1 CALLED IN	Wayne Larson
UNIT 3 FIRE BRIGADE MEMBERS	U2 CALLED IN	Chris LaTour
UNIT 1 FIRE BRIGADE MEMBERS	SHIFT RELIEF	
MECHANIC	U1 ON-CALL	Richard Kirk/Emory (call in)
	U2 ON-CALL	Godinez/Wynkoop (call in)
ELECTRICIAN	U1 ON-CALL	James Parsells (call in)
	U2 ON-CALL	Pettengill/Thoma (call in)
EMT	ON-CALL EMT 2 NAP	Jon Burdick
	EMT 2 NAP	Mike Avery
	EMT 2 SAP	Mark Brooks
	EMT 2 SAP	Joe Aquitante/Huley (call in)
	EMT 3-4-5	Steve Saulter
	EMT 3-4-5	Darlene Gallant
	EMT 3-4-5	Tom Ricketts
	EMT 3-4-5	John Criscione
	EMT 3-4-5	Frank A. Perry
	EMT 3-4-5	Dan Gorby
	EMT 3-4-5	Valerie Searle
OSC H.P. TECHNICIAN	CALLED IN	Charlie Bacon
	CALLED IN	Larry Donovan
OSC H.P. SUPERVISOR (MGR RCA QUALIFIED)	CALLED IN	Rick Gault/Bob King(call in)
EVACUEES TO NAP, SAP	DESIGNATED	John Stoker

ATTACHMENT 1

1990 EMERGENCY EXERCISE (12/5/90) AND REHEARSAL (11/15/90)
CORPORATE EMERGENCY ORGANIZATION - PLAYERS / CONTROLLER LIST

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	State EOC: G.R. Van Noordennen	M.E. Birch
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IRG Team (IRG)	D.J. Auretta	R.C. Rodgers
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Thermal Hydraulics Engineer (CMTSC-TH)	A. Chyra A. Gharakhanian	J.A. Blaisdell
Mechanical Engineer (CMTSC-M)	F.J. Lukaszek T.J. Mawson	J.A. Blaisdell
Electrical Engineer (CMTSC-E)	R.J. Young P.M. Blanch	J.A. Blaisdell

*Controller walk through at the MP EOF of rehearsal scenario (13:00 11/13/90) and exercise scenario (08:00 12/3/90)

APPENDIX B.1

STATION EXERCISE CONTROLLERS GUIDE (ECG)

Abbreviations and Acronyms

ARM - Area Radiation Monitors
CFTDC- Corporate Field Team Data Coordinator
CMPI - Corporate Manager of Pubic Information
CMRI - Corporate Manager of Regional Information
CR - Control Room
CRDC - Control Room Data Coordinator
DO - Duty Officer
DSEO - Director of Station Emergency Operations
EBFS - Enclosure Building Filtration System
EC - Exercise Controller
ECCS - Emergency Core Cooling System
EMT - Emergency Monitoring Team
EOC - Emergency Operations Center
EOF - Emergency Operations Facility
EORT - Emergency Operations Repair Team
EPIP - Emergency Plan Implementing Procedures
ERF - Emergency Response Facility
GPM - Gallons per Minute
HP Tech - Health Physics Technician
IRF - Incident Report Form
LOCA - Loss of Coolant Accident
LPSI - Low Pressure Safety Injection
MCRO - Manager of Control Room Operations
MNPS - Millstone Nuclear Power Station
MOC - Manager of Communications
MOR - Manager of Resources
MOS - Manager of Security
MOSC - Manager of Operational Support Center
MPI - Manager of Public Information
MRCA - Manager of Radiological Consequence Assessment
MRDA - Manager of Radiological Dose Assessment
MTS - Manager of Technical Support
NESS - Nuclear Emergency Status System
NRC - Nuclear Regulatory Commission
OSC - Operational Support Center
PA - Public Address
PASS - Post Accident Sampling System
PING - Particulate Iodine Noble Gas Monitor
RCS - Reactor Coolant System
RWST - Refueling Water Storage Tank
SCO - Senior Control Operator
SEC - Security
SEO - Station Emergency Organization
SIAS - Safety Injection Actuation Signal
SIT - Safety Injection Tank
SRAS - Sub Recirculation Actuation Signal
SS - Shift Supervisor
SSS - Security Shift Supervisor
SSSA - Shift Supervisor Staff Assistant
TSC - Technical Support Center
OFIS - Offsite Based Information System

MP EXERCISE - DECEMBER 5,1998
STATION CONTROLLER GUIDE

MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
0:00	07:00 MNPS	Initial Conditions: ********** Known to players at start of the exercise: Unit 2 is shutdown and in the 10th day of a refueling outage. S/G nozzel dams installed in preparation of S/G U-tube inspection. Refual Pool level at 36'6". Fuel Transfer tube open. Containment Equipment Hatch opened No fuel movement in progress. Unit 1 and 3 are operating at 100 percent power. Facility 2 outage in progress: Facility 2 shutdown cooling out of service "B"D/G in overhaul 24D bus out for PM's Facility 1 shutdown cooling is running.	CR NOTE	07:00	*** CONTROLLER NOTE *** Call Controller Command post to leave your phone number and to synchronize watches. Brief players on the following: - Exercise objectives - Controller organization - Player organization list and controller rules - Computerized data presentation - Techniques to assure effective drill play	CR EC DSEO EC	CR DSEO	07:00 OSS	Reviews initial plant conditions with players assembled in the control room. This information is also made available to Corporate and Site players by the daily report sheet.

MP EXERCISE - DECEMBER 5,1990
STATION CONTROLLER GUIDE

MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
	MNPS	The Main Transformer and the Normal Station Services Transformer (NSST) are tagged out. And all oil has been drained from the Main Transformer. Station electrical loads have been placed on the Reserve Station Service Transformer (RSST).	CR 1	07:00	******* COMMAND ********* This is your shift turnover report: Unit 2 is shutdown for refueling. (Mode 6) Unit 1 and 3 are operating at 100% power. The Main Transformer an the Normal Station Serv Transformer (NSST) are out for PM's Station electrical loads are on the Reserve Station Service Transformer (RSST).	CR EC	OSS		

MP EXERCISE - DECEMBER 5,1990
STATION CONTROLLER GUIDE

MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
0:30	07:30 MNPS	A report from the Ctmt Coordinator at #2S/G indicates that normal leakage from the hot leg nozzel dams has increased drastically. Air pressure reading to the seals appears normal. Operators respond with AOP 2578 Loss of Refuel Pool and Spent Fuel Pool(SFP) level.	CR 2	07:30	*** CONTROLLER NOTE *** Controller Call: Call the Control Room with the following message. ******* COMMAND ********* Phone call: I'm the Ctmt Coordinato at#2 S/G.Normal leakage from the hot leg nozzel dams has increased dramatically.Pressure to the seals appears normal.	CR EC	OSS	07:30 POs	Observe changes in plant status and acknowledge loss of water.
0:35	07:35 MNPS	SS action as follows: Evacuates Containment and Spent Fuel Pool areas. Notifies the Duty Officer (DO) of plant conditions. Dispatches PEO & HP tech to the SFP area.	CR 3	07:35	******* COMMAND ********* SS notifies the Duty Officer(DO) of plant conditions.	CR EC	OSS	07:35 OSS	Notifies the Duty Officer (DO) of plant conditions.
0:45	07:45 MNPS	Control Room directs PEO in the SFP to close the Transfer Tube Isolation Valve (2-RW-280).							

HP EXERCISE - DECEMBER 5,1990
STATION CONTROLLER GUIDE

MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
1:05	08:05 MNPS	PEO in the SFP room reports attempts to shut the Fuel transfer tube isolation valve (2-RW-280)have failed. Valve operator is turning but no valve movement is occuring. It appears that the reach rod is broken just above where it goes into the valve.	CR 4	08:05	*** CONTROLLER NOTE *** When the player has taken appropriate action then have him Call the Control Room with the following message. ******* COMMAND ********* Phone call: I'm the PEO at the Transfer Tube isolation valve (2-RW-280) I've been cranking on this handwheel for about 15 minutes without any valve movement it looks to me that the reach rod is broken near where it goes into the valve. Also Spent Fuel Pool water level is still going down and HP tells me the radiation levels in the area are going up. What should I do now?	PEO EC	PEO		
1:15	08:15 MNPS	A Spent Fuel Pool area rad monitor indicates > 1000 X normal readin for 5 minutes.	CRDC 1	08:15	******* COMMAND ********* Issue plant parameter data sheet.	CRDC EC	CRDC		

MP EXERCISE - DECEMBER 5,1990
STATION CONTROLLER GUIDE

MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
1:20	08:20 MNPS	PEO/HP tech lower incore detectors to bottom of the Spent Fuel Pool.							
1:30	08:30 MNPS	** ALERT POSTURE CODE CHARLIE 1 DECLARED based on radiation levels > 1000 times normal for 5 minutes.	CR 5	08:30	*** CONTROLLER NOTE *** Issue the following message only if the players have had access to the information which warrants an action but have not as yet taken that action. **.** CONTINGENCY ***** Call Control Room with the following message: I'm the PEO at the Spent Fuel Pool and I have just lowered the incore instumentation to the bottom of the SFP.	PEO EC	PEO	08:30 OSS SSSA HP Chem Tech PEOs Evac uees	Declares an ALERT Posture Code Charlie 1 based on Spent Fuel Pool area rad monitor indicating > 1000 times normal reading. Assumes DSEO authority. Prepares Incident Report Form (IRF), obtains OSS approval. Report to control room for assignment. Pre-determined evacuees proceed to assembly areas.
			CRDC 2	08:30	******* COMMAND ******** Issue plant parameter data sheet.	CRDC EC	CRDC		

MP EXERCISE - DECEMBER 5,1990
STATION CONTROLLER GUIDE

MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
1:40	08:40 MNPS	********* NOTE ********* This Step may occur based on the Shift Supervisors judgement that a threat to staff personel exists. OSS sounds station evacuation alarm and provides instructions. to station personnel. Predatermined evacuees proceed to the assembly areas.	CR 6	08:40	*** CONTROLLER NOTE *** Notify the OSS that for Exercise purposes he is to simulate assembly and accountability at this time. Issue the following message which provides instructions on how the simulation is to occur. ******* COMMAND ******** Notify the town of Waterford that you are about to test the station evacuation alarm, then issue the following message over the PA System before sounding alarm: "THIS IS A DRILL" "THIS IS A DRILL" "THIS IS A DRILL" "AN INCIDENT CLASS ALERT HAS JUST BEEN DECLARED BY THE UNIT 2 CONTROL ROOM". "THE FOLLOWING IS A TEST OF THE STATION EVACUATION ALARM". "ONLY STATION EMERGENCY ORGANIZATION STAFF ARE TO REPORT TO THEIR DUTY STATIONS".	CR EC	OSS	08:40 OSS	Sounds station evacuation alarm and announces the Alert Charlie 1 EMERGENCY on the PA system. Simulates directing station personnal to assemble.

					********** *** SOUND ALARM *** ********** "THIS IS A DRILL" "THE PRECEDING WAS A TEST OF THE STATION EVACUATION ALARM FROM THE UNIT 2 CONTROL ROOM".				
1:45	08:45 MNPS	SSSA transmits the radiopager message for ALERT CHARLIE 1	CR	08:45	*** CONTROLLER NOTE *** Issue the following message only if the players have had access to the information which warrants a declaration but have not as yet taken action ***** CONTINGENCY ***** Declare an **ALERT** EMERGENCY posture code Charlie-One based on Radiation readings > 1000 times normal for 5 minutes. NOTE: Only the Chief Exercise Controller may authorize this message to be handed out.	CR EC	OSS	08:45 SSSA Asst SSS Evac uees SSSA	Records IRF on code-a-phone system. Initiates radiopage. Reports to appropriate alarm station to coordinate assembly and initiate accountability actions. Pre-designated evacuees arrive at access points and are processed out of the pr tected area. Monitors call-backs and makes back up calls as necessary.
	MNPS	Reserve Staion Service Transformer fails due internal fault "A" D/G starts and loads.	CRDC 3	08:43	******* COMMAND ********* Issue plant parameter data sheet.	CRDC EC	CRDC		
1:57	08:57							08:57 MOS	Initiates accountability computer code.

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MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
2:00	09:00 MNPS	Director, Managers and support staff begin to arrive at the Emergency Operations facility (EOF) and the Corporate Emergency Operations Center (CEOC) to assume emergency response duties.	CRDC 4	09:00	****** COMMAND ********* Issue plant parameter data sheet.	CRDC EC	CRDC	09:00 SSSA	ENS contact with NRC is established.

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MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
	State Local	State and local officials begin activation of their EOC's and notification of their staff.						DSEO	Prepares to assume the duties of DSEO. Establishes contact with Corporate counterpart. Briefs managers on plant status.
								MCRO	OSS assumes duties as Manager of Control Room Operation (MCRO).
								CRDC	Contacts Manager of Communications (MOC) for specific plant parameter data, collects appropriate plant parameter data and inputs it into OFIS.
								MPI	Prepares nontechnical media information based on current conditions for the Corporate Manager of Public Information (CMPI).
								MRCA	Establishes contact with Corporate counterpart. Determines where onsite survey teams should be deployed and obtains dose history for RWPs. Activates PING.
								MOS/ SSS	Directs security personnel to simulate sweeping protected area ensuring all non-SEO personnel have evacuated.

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MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
2:10	09:10							09:10 MPI	Responds to Public Inquiry.
2:15	09:15 HNPS	The EOF is fully activated . The DSEO relieves the SS of the DSEO responsibilities.	CRDC 5	09:15	****** COMMAND ******** Issue plant parameter data sheet.	CRDC EC	CRDC	09:15 MOC	Takes over ENS/HPN control from S SA and briefs Millstone staff on methods to get information to the NRC.(i.e. phone, telecopier.)
	CEOC	***RUMOR*** This is the Hartford Courant. What is happening at MP. I heard a message on the scanner. Are you having a large unplanned release of radiation? Do you have a statement? What should the public do? ***RUMOR***						DSEO	Briefs Managers on station status and plant conditions. Briefs MOC on major events and actions taken for ENS communications. Relieves the OSS of DSEO responsibility, asssumes the position of DSEO.
								MPI	Prepares nontechnical media information based on current conditions for the Corporate Manager of Public Information (CMPI).
								MRDA	Assure meteological data printer is turned on. Directs formation of off-site Emergency Monitoring Teams (EMTs), verify contents of survey kits, and prepare to deploy them into the field.
								MOR	Verifies SEO is adequately staffed.

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MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
								MOSC MISC	Prepares Emergency Repair Teams (ERTs) for deployment into plant to repair
								MRDA MRCA	Deploy EMTs to monitor radiation in both on-site and off-site downwind locations.
								MRCA	Takes control of EMT team #1 from the MCRO.
2:20	09:20 CEOC	DCEO dispatches a NU executive representative and staff to go to the State EOC and provide State communication interface.	SEC 1	09:20	******* COMMAND ********* Note: Controller may issue this message based on progress of simulation. Accountability is complete. There are no unaccounted for personnel.	SEC EC	Asst SSS	09:20 DSEO	Establishes contact with corporate liason at State Armory.
								TSC	TSC staff works on method by which to fix inoperable equipment

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MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
2:30	09:30 State Local	The State and Local EOC's are staffed and fully operational.	DSEO 1	09:30	*** CONTROLLER NOTE *** Issue the following message only if this player has in your opinion exceeded the time at which this action should have been taken. ***** CONTINGENCY ***** Announce over the EOF page and to the MCRO that you have assumed the positon of Director of Station Emergency Operations.	DSEO EC	DSED	09:30 MRDA MRCA MOC	Transfer Control of the offsite EMTs to the Corporate Field Team Data Coordinator (CFTDC). Verifies that monitoring control points have been established. Obtains, distributes, and posts plant parameter printouts.
	MNPS	Fire in "A" D/G room Fire Brigade responds Deluge system actuates Loss of all onsite and off site power. ***Controller Note*** All Offsite assistance will be simulated.	CRDC 6	09:30	****** COMMAND ****** Issue plant parameter data sheet.	CRDC EC	CRDC	OSC	Fire Brigade responds to fire in "A" D/G room.
	State	State begins coordination with local communities.							

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MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
2:45	09:45 MNPS	Station Director declares a SITE AREA EMERGENCY, posture code Charlie-Two based Fire affecting safety systems or total loss of onsite and offsite power.	CRDC 7	09:45	****** COMMAND ******** Issue plant parameter data sheet.	CRDC EC	CRDC		
2:55	09:55		TSC 1	09:55	*** CONTROLLER NOTE *** Issue the following message only if the players, in your opinion, exceeded the time at which this action should have been taken. ***** CONTINGENCY ***** 1. Advise the DSEC to direct the MOSC to form an Emergency Repair Team (ERT) to find out the condition of the Unit 1 cross-connect breaker A505 and repair as necessary.	TSC EC	MTSC		
3:00	10:00 MNPS	State DEP liason arrives at Site EOF.	CRDC 8	10:00	****** COMMAND ******** Issue plant parameter data sheet.	CRDC EC	CRDC		

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MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
	MNPS	SSSA transmits the radiopager message for SITE AREA EMERGENCY.							
	MNPS	An emergency repair team is manned and deployed to investigate the problem with the Unit 1 cross-connect breaker which is not operating properly so that power may be restored to vital equipment.							
	MNPS	Loss of Plant Process Computer(PPC) and loss of Offsite Based Information System (OFIS)							
	CEOC	***RUMOR*** This is WFSB 3. We heard from special sources that there is something going on at MP and we need details for a story we are going to broadcast. ***RUMOR***							

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STATION CONTROLLER GUIDE

MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
3:05	10:05 MNPS	***PUBLIC INQUIRY*** A local resident who knows someone at the plant has heard there are problems at MP and has started calling neighbors to warn them to the possibility of an evacuation of the area. One of the neighbors has called and wants to know if this is just a rumor or is something actually wrong. ***PUBLIC INQUIRY***	MPI 1	10:05	*** PUBLIC INQUIRY *** A local resident who knows someone at the plant has heard there are problems at MP and has started calling neighbors to alert them to the possibility of an evacuation of the area. One of the neighbors has called and wants to know if this is just a rumor or is there something actually wrong. Inform DSEO of how this is resolved.	MPI EC	MPI		
			OSC 1	10:05	****** COMMAND ******** Notify the MOSC/MTSC that estimated time of repair 1/2 hour.	ERT A505	ERT		

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MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
3:10	10:10 CEOC	***RUMOR*** This is WTIC. What is happening at MP? Is there an accident? What is NU doing? Have federal officials been notified? ***RUMOR*** ***CONTROLLER NOTE*** Be aware that at this time players may be considering upgradeing the classification due to potential.							
3:15	10:15		CRDC 9	10:15	****** COMMAND ******** Issue plant parameter data sheet.	CRDC EC	CRDC	10:15 OSEO	Briefs Managers on station status and plant conditions.
3:30	10:30 MNPS	Emergency repair team fixes faulty cross-connect breaker and allows operators to close in and regain power to its vital electrical bus.	OSC 2	10:30	****** COMMAND ******** Notify the MOSC/MTSC that the Unit 1 cross-connect breaker A505 is repair and may be closed whenever OSS decides. We will be standing by to insure its proper operation.	ERT A505	ERT	10:30 TSC CTSC	TSC and Corporate TSC discuss potential core damage and loss of containment if water level decrease contiues at this rate well as corrective actions.

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MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
	MNPS	Water Levels in the Spent Fuel Pool and Refuel pol are at there lowest levels.	CRDC 10	10:30	******* COMMAND ********* Issue plant parameter data sheet.	CRDC EC	CRDC		
	State	***RUMOR*** Residents are calling in local & state officials that a "grayish blue" mist is coming from plant. Please verify. ***RUMOR***							
	MNPS CEOC	TSC and Corporate TSC discuss potential core damage and loss of containment if water level continues down.							
	MNPS CEOC	Corporate and Station EOC staff discuss possible options concerning the loss of power and the estimated time of its return.							

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MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
3:39	10:39 MNPS	***PUBLIC INQUIRY*** A local nursing home administrator has called to confirm a story heard on a news station that reported major nuclear fuel problems at the Millstone Nuclear Power Station "Which could result in health problems to the public". The report indicated that the information was received from a "Spokesperson" from one of the towns near the plant and that reports of the "accident" had not been confirmed, but that access to the nuclear plant had been stopped. Is this true? ***PUBLIC INQUIRY***	MPI 2	10:39	******** RUMOR ********** A local nursing home administrator has called to confirm a story heard on a news station that reported major nuclear fuel problems at the Millstone Nuclear Power Station "Which could result in health problems to the public" The report indicated that the information was received from a "Spokesperson" from one of the towns near the plant and that reports of the"accident" had not been confirmed, but that access to the nuclear plant had been stopped. Is this true? Inform DSEO of how this is resolved.	MPI EC	MPI		

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MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
3:45	10:45 CEOC	***RUMOR*** The wife of a construction worker calls to ask about her husband. She heard there is an accident and is very concerned. ***RUMOR***	CRDC 11	10:45	****** COMMAND ******** Issue plant parameter data sheet.	CRDC EC	CRDC	10:45 DSEO	Briefs Managers on station status and plant conditions.
4:00	11:00 MNPS	There is a Reporter from the New London Day at the gate wanting access to the EOF.	SEC 2	11:00	****** COMMAND ******** There is a Reporter from the New London Day at the gate wanting access to the EOF.	SEC EC	SEC Gate Guard		
	State	State sets up Media Center.	CRDC 12	11:00	****** COMMAND ******** Issue plant parameter data sheet.	CRDC EC	CRDC		
4:05	11:05							11:05 MOS	Requests parmission of the DSEO for the Reporter to enter the EOF.
4:15	11:15		CRDC 13	11:15	****** COMMAND ******** Issue plant parameter data sheet.	CRDC EC	CRDC	11:15 DSEO	Briefs Managers on station status and plant conditions.

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MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
4:30	11:30 CEOC	***RUMOR*** Radiation is being released and the plant is out of control. ***RUMOR***	TSC 2	11:30	*** CONTROLLER NOTE *** Issue the following message only if the players, in your opinion, exceeded the time at which this action should have been taken. ***** CONTINGENCY ***** 1. Advise the DSEO to direct the MOSC to form an Emergency Repair Team (ERT) to find out if the S/G manway cover can be put back on and tightened down.	TSC EC	MTSC		
			CRDC 14	11:30	******* COMMAND ********* Issue plant parameter data sheet.	CRDC EC	CRDC		

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MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
4:31	11:31 MNPS	***PUBLIC INQUIRY*** A local radio station called. They have received word that the access road to the plant has been blocked and cars are being turned away from the area. Has there been some type of accident and/or release of radiation that is being kept secret from the public? ***PUBLIC INQUIRY***	MPI 3	11:31	*** PUBLIC INQUIRY *** A local radio station called. They have received word that the access road to the plant has been blocked and cars are being turned away from the area. Has there been some type of accident and/or release of rzdiation that is being kept secret from the public?	MPI EC	MPI		
4:35	11:35							11:35 MPI	Responds to Public Inquiry.
4:45	11:45		CRDC 15	11:45	****** COMMAND *** [illegible] Issue plant parameter data sheet.	[illegible]JC EC	CRDC	11:45 DSEO	Briefs Managers on station status and plant conditions.
								MRCA MRDA	MRCA/MRDA are involved in determining with Berlin counterparts the potential of radiological implications of loss of water level in Spent Fuel Pool and Reactor Cavity.

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MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
5:00	12:00 MNPS	Emergency Repair Team is making preparations to install S/G manway so that Operators can regain lost water levels.	CRDC 16	12:00	****** COMMAND ******** Issue plant parameter data sheet.	CRDC EC	CRDC		
	State	NU & State discuss need for additional PARs or need to consider longer term extensions of PAR distances.							
5:12	12:12 MNPS	***PUBLIC INQUIRY*** The wife of one of the employees has called in to inquire into the whereabouts of her husband. It seems that he was supposed to call her at 10:00 but hasn't. She wants to know his whereabouts and if anyone is unaccounted for at the plant. His name is Joe Smuts. ***PUBLIC INQUIRY***	MPI 4	12:12	*** PUBLIC INQUIRY **** The wife of one of the employees has called in to inquire into the whereabouts of her husband. It seems that he was supposed to call her at 10:00 but hasn't. She wants to know his whereabouts and if anyone is unaccounted for at the plant. His name is Joe Smuts.	MPI EC	MPI		
5:14	12:14							12:14 MPI	Responds to Public Inquiry.

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MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
5:15	12:15 MNPS	#2 S/G hot leg manway covers are replaced & water level recovery can take place.	OSC 3	12:15	****** COMMAND ******** Notify the MOSC/MTSC that the #2S/G manway cover is back in place and bolted down.	ERT S/G	ERT	12:15 OSEO	Briefs Managers on station status and plant conditions.
	CEOC	***RUMOR*** A Waterford resident has heard MP employees speak about an accident at the plant. She wants to know what is going on and if it is safe to stay in the area. ***RUMOR***	CRDC 17	12:15	****** COMMAND ******** Issue plant parameter data sheet.	CRDC EC	CRDC		
5:20	12:20 State	State & locals coordinate on protective action measures for public & coordinate issuance of EBS message.							
5:30	12:30		CRDC 18	12:30	****** COMMAND ******** Issue plant parameter data sheet.	CRDC EC	CRDC		
5:45	12:45		CRDC 19	12:45	****** COMMAND ******** Issue plant parameter data sheet.	CRDC EC	CRDC		

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MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
6:00	13:00 MNPS	Exercise is terminated.	DSEO	13:00	***.* COMMAND ******** Stop Exercise play. Key players and controllers are to report to the MP EOF for a critique at 1400.	DSEO EC	DSEO		
			CRDC 20	13:09	******* COMMAND ******** Issue plant parameter data sheet.	CRDC EC	CRDC		
6:05	13:05 MNPS	SS.. transmits the Exercise closeout message.							
7:00	14:00 MNPS	Exercise Critique in the EOF.						14:00 ALL	All key players report to the EOF for critique.

APPENDIX B.2

CORPORATE EXERCISE CONTROLLERS GUIDE (ECG)

ABBREVIATIONS AND ACRONYMS

CEOC - Corporate Emergency Operations Center
CMEC - Corporate Manager of External Communications
CMOR - Corporate Manager of Resources
CMPI - Corporate Manager of Public Information
CMRCA - Corporate Manager Radiological Consequence Assessment
CMRES - Corporate Manager of Resources
CMTS - Corporate Manager of Technical Support
CONI - Corporate Organization Nuclear Incident
DCEO - Director Corporate Emergency Operations
DO - Duty Officer
EC - Exercise Controller
EDAN - Environmental Data Acquisition Network
EOC - Emergency Operations Center
EOF - Emergency Operations Facility
FTDC - Field Team Data Coordinator
IRF - Incident Report Form
MT - Meteorological Team
NESS - Nuclear Emergency Status System
NRC - Nuclear Regulatory Commission
NU - Northeast Utilities
PAB - Primary Access Building
PIR - Plant Information Report
RMT - Radiological Monitoring Team
OFIS - Offsite Information System

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MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
0:00	07:00 MNPS	Initial Conditions: **********:********** Known to players at start of the exercise: Unit 2 is shutdown and in the 10th day of a refueling outage. S/G nozzel dams installed in preparation of S/G U-tube inspection. Refuel Pool level at 36'6". Fuel Transfer tube open. Containment Equipment Hatch opened No fuel movement in progress. Unit 1 and 3 are operating at 100 percent power. Facility 2 outage in progress: Facility 2 shutdown cooling out of service "B"D/G in overhaul 24D bus out for PM's Facility 1 shutdown cooling is running.							

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MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
	MNPS	The Main Transformer and the Normal Station Services Transformer (NSST) are tagged out. And all oil has been drained from the Main Transformer. Station electrical loads have been placed on the Reserve Station Service Transformer (RSST).							
0:30	07:30 MNPS	A report from the Ctmt Coordinator at #2S/G indicates that normal leakage from the hot leg nozzel dams has increased drastically. Air pressure reading to the seals appears normal. Operators respond with AOP 2578 Loss of Refuel Pool and Spent Fuel Pool(SFP) level.							

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MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
0:35	07:35 MNPS	SS action as follows: Evacuates Containment and Spent Fuel Pool areas. Notifies the Duty Officer (DO; of plant conditions. Dispatches PEO & HP tech to the SFP area.							
0:45	07:45 MNPS	Control Room directs PEO in the SFP to close the Transfer Tube Isolation Valve (2-RW-280).							
1:05	08:05 MNPS	PEO in the SFP room reports attempts to shut the Fuel transfer tube isolation valve (2-RW-280)have failed. Valve operator is turning but no valve movement is occuring. It appears that the reach rod is broken just above where it goes into the valve.							
1:15	08:15 MNPS	A Spent Fuel Pool area rad monitor indicates > 1000 X normal readin for 5 minutes.							

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MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
1:20	08:20 MNPS	PEO/HP tech lower incore detectors to bottom of the Spent Fuel Pool.							
1:30	08:30 MNPS	** ALERT POSTURE CODE CHARLIE 1 DECLARED based on radiation levels > 1000 times normal for 5 minutes.	CR NOTE	08:30	***CONTROLLER NOTE*** Call controller command post to leave your phone number and to synchronize watches.				
1:40	08:40 MNPS	******** NOTE ******** This Step may occur based on the Shift Supervisors judgement that a threat to staff personel exists. OSS sounds station evacuation alarm and provides instructions. to station personnel. Predetermined evacuees proceed to the assembly areas.							

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MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
1:45	08:45 MNPS	SSSA transmits the radiopager message for ALERT CHARLIE 1	CEOC-1	08:45	***COMMAND*** Initial plant conditions: Unit 2 is shutdown in the 10th day of a refueling outage. S/G nozzel dams are installed in preparation of S/G U tube inspection. Refuel Pool and Spent Fuel at 36'6" level. Fuel Transfer tube and Containment equipment Hatch are opened. No fuel movement in progress. Unit 1 and Unit 3 are operating at 100 % power. Transmission and Distribution (T&D) electricians are performing maintenance in the switchyard area at this time. Station electrical loads have been placed on the Reserve Station Service Transformer (RSST).	CEOC EC	NUC OPS	08:45 CEOC PLAY-ERS	Receive radiopager notification of ALERT, posture code Charlie 1.

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MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
	MNPS	Reserve Staion Service Transformer fails due internal fault "A" D/G starts and loads.						DCEO	Receive radiopager notification of ALERT, posture code Charlie 1.
1:50	08:50							08:50 DCEO, DO	Telephone call-back system and complete Incident Report Form (IRF).
1:52	08:52							08:52 CEOC PLAY-ERS	Call in to code-a-phone system. Acknowledge notification. Report expected time of arrival.
2:00	09:00 MNPS	Director, Managers and support staff begin to arrive at the Emergency Operations facility (EOF) and the Corporate Emergency Operations Center (CEOC) to assume emergency response duties.							
	State Local	State and local officials begin activation of their EOC's and notification of their staff.							
2:15	09:15 MNPS	The EOF is fully activated . The DSEO relieves the SS of the DSEO responsibilities.						09:15 DO	Reviews call-in tape to verify notification of on-call staff. Makes backup phone calls as necessary.

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MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
	CEOC	***RUMOR*** This is the Hartford Courant. What is happening at MP. I heard a message on the scanner. Are you having a large unplanned release of radiation? Do you have a statement? What should the public do? ***RUMOR***							
2:20	09:20 CEOC	DCEO dispatches a NU executive representative and staff to go to the State EOC and provide State communication interface.	MET-1	09:20	***COMMAND*** Issue meteorological data sheet. **CONTROLLER NOTE*** Hand out meteorological data sheets for this and all previous time buffers at the time when the meteorological team arrives at the Corporate EOC and has accessed the appropriate data display/ printout from EDAN.	MT EC	MT	09:20 MT	Notifies Weather Services Corporation of Incident. Requests that they prepare forecasting information.
								MT	Obtain met. data.
2:25	09:25							09:25 DO	Makes calls to staff who have not responded afte checking cole-a-phones.

MP EXERCISE - DECEMBER 5,1990
CORPORATE EXERCISE CONTROLLER GUIDE

MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
								CMRCA	Obtains radiological data from station. Determine potential release rates and resulting radiological doses (CONI 4.01/4.04/4.08). Activates OFIS.
								FTDC	Sets up per CONI 4.05.
								CMTS	Obtains technical information from station. Coordinates the assessment of plant systems and supports the resolution of the incident.
2:30	09:30 State local	The State and Local EOC's are staffed and fully operational.						09:3r CEOC PLAY-ERS	Managers and support staff begin to arrive. Corporate EOC and work centers are staffed and activated.
	MNPS	Fire in "A" D/G room Fire Brigade responds Deluge system actuates Loss of all onsite and off site power. ***Controller Note*** All Offsite assistance will be simulated.							
	State	State begins coordination with local communities.							

MP EXERCISE - DECEMBER 5,1990
CORPORAT- EXERCISE CONTROLLER GUIDE

MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
2:35	09:35		MET-2	09:35	***COMMAND*** Issue meteorological data sheet.	MT EC	MT	09:35 MT	Obtain met. data. Obtains forecast from Weather Services Corporation.
2:40	09:40							09:40 DO	Obtains Information from the station concerning the time and status of safety equipment which may have been affected. Maintains the events chronology status board.
2:45	09:45 MNPS	Station Director declares a SITE AREA EMERGENCY, posture code Charlie-Two based Fire affecting safety systems or total loss of onsite and offsite power.						09:45 DO	Activates the computerized plant parameter status program. Obtains printout and distributes to the EOC staff (CONI 7.01).
								DCEO	Assumes control of Corporate emergency response organization. Notifies EOF that Corporate EOC is activated and requests an update on the situation.

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CORPORATE EXERCISE CONTROLLER GUIDE

MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
2:50	09:50		CMPI-1	09:50	****** RUMOR ******* This is the Hartford Courant. What is happening at MP. I heard a message on the scanner. Are you having a large un-planned release of radiation? Do you have a statement? What should the public do? NOTE: Brief Director on response. ****** RUMOR ******	CEOC	CMPI	09:50 CMPI	Responds to rumor.
			MET-3	09:50	***COMMAND*** Issue meteorological data sheet.	MT EC	MT	DCEO	Advises staff of station status.
								DCEO	Sets up communication with DSEO and State Armory.
								MT	Maintains Met. Status board in CEOC.

MP EXERCISE - DECEMBER 5,1990
CORPORATE EXERCISE CONTROLLER GUIDE

MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
3:00	10:00 MNPS	State DEP liason arrives at Site EOF.	CMPI-2	10:00	******* RUMOR ******* This is WFSB 3. We heard from several sources that there is something going on at MP and We need details for a story we are writing. NOTE: Brief Director on response. ****** RUMOR ******	CEOC EC	CMPI	10:00 CMPI	Responds to rumor.
	MNPS	SSSA transmits the radiopager message for SITE AREA EMERGENCY.						DO	Updates events chronology status boards.
	MNPS	An emergency repair team is manned and deployed to investigate the problem with the [illegible] cross-connect breaker which is not operating properly so that power may be restored to vital equipment.						DCEO	Dispatches an individual to the State Media Center and one to the State EOC at the same location in Hartford.
	MNPS	Loss of Plant Process Computer(PPC) and loss of Offsite Based Information System (OFIS)						CMPI	Obtains information and prepares news releases for use by the State Media Center (CONI 8.01).

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CORPORATE EXERCISE CONTROLLER GUIDE

MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
	CEOC	***RUMOR*** This is WFSB 3. We heard from special sources that there is something going on at MP and we need details for a story we are going to broadcast. ***RUMOR***						CMRCA	Obtains radiological data from station. Determine potential release rates and resulting radiological doses (CONI 4.01/4.04/4.08).
3:05	10:05 MNPS	***PUBLIC INQUIRY*** A local resident who knows someone at the plant has heard there are problems at MP and has started calling neighbors to warn them to the possibility of an evacuation of the area. One of the neighbors has called and wants to know if this is just a rumor or is something actually wrong. ***PUBLIC INQUIRY***	MET-4	10:05	***COMMAND*** Issue meteorological data sheet.	MT EC	MT	10:05 RAE	Begins to perform "What If" analyses of radiological consequences.
								MT	Obtain updated met. data.

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CORPORATE EXERCISE CONTROLLER GUIDE

MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
3:10	10:10 CEOC	***RUMOR*** This is WTIC. What is happening at MP? Is there an accident? What is NU doing? Have federal officials been notified? ***RUMOR*** ***CONTROLLER NOTE*** Be aware that at this time players may be considering upgrading the classification due to potential.	CMPI-3	10:10	****** RUMOR ******* This is WTIC. What is happening. Is there an accident? What is NU doing? Have federal officials been notified? NOTE: Brief Director on response. ****** RUMOR ******	CEOC EC	CMPI	10:10 DCEO	Informs senior NU management. Approves press release.
								CMEC CMOR	Arrive at Corporate EOC to carry out call-out duties.
								CMPI	Responds to Rumor.
3:15	10:15							10:15 CMEC	Obtains updated plant parameter data information from station.
								CMRCA	Obtains radiological data from station. Determine potential release rates and resulting radiological doses (CONI 4.01/4.04/4.05).
								FIDC	Assumes control of deployed off-site Emergency Monitoring Teams (EMTs). Corporate Field Team Data Coordinator directs off-site station EMTs by radio.

NP EXERCISE - DECEMBER 5,199*
CORPORATE EXERCISE CONTROLLER GUIDE

MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
3:20	10:20		MET-5	10:20	***COMMAND*** Issue meteorological data sheet.	MT EC	MT	10:20 DO	Updates events chronology status boards.
								MT	Obtain updated met data.
								FTDC	Discusses strategy for EMT sampling with Corporate Manager of Radiological Consequence Assessment.
3:22	10:22							10:22 CMRES	Determines any additional needs of the station in terms of personnel and equipment. Establishes a rotating staff schedule (CONI 6.01).
3:25	10:25							10:25 DCEO	Advises staff of station status.
3:30	10:30 MNPS	Emergency repair team fixes faulty cross-connect breaker and allows operators to close in and regain power to its vital electrical bus.	CMPI-4	10:30	***CONTINGENCY*** Prepare an initial news release. ***CONTROLLER NOTE** Issue only if initial news release has not been prepared for release.	CEOC EC	CMPI	10:30 CMEC	Obtains updated plant parameter data information from station.
	MNPS	Water Levels in the Spent Fuel Pool and Refuel Pool are at there lowest levels.							

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CORPORATE EXERCISE CONTROLLER GUIDE

MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
	State	***RUMOR*** Residents are calling in local & state officials that a "grayish blue" mist is coming from plant. Please verify. ***RUMOR***							
	MNPS CEOC	TSC and Corporate TSC discuss potential core damage and loss of containment if water level continues down.							
	MNPS CEOC	Corporate and Station EOC staff discuss possible options concerning the loss of power and the estimated time of its return.							
3:35	10:35		MET-6	14:35	***COMMAND*** Issue meteorological data sheet.	MT EC	MT	10:35 MT CMPCA	Obtain updated met. data. Sets up communication with DEP at State Armory and transfers data on event. Ensures MET data is sent to station & DEP at Armory.

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CORPORATE EXERCISE CONTROLLER GUIDE

MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
3:39	10:39 MNPS	***PUBLIC INQUIRY*** A local nursing home administrator calls to confirm a story heard on a news station that reported major nuclear fuel problems at the Millstone Nuclear Power Station "Which could result in health problems to the public". The report indicated that the information was received from a "Spokesperson" from one of the towns near the plant and that reports of the "accident" had not been confirmed, but that access to the nuclear plant had been stopped. Is this true? ***PUBLIC INQUIRY***							

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MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
3:45	10:45 CEOC	***RUMOR*** The wife of a construction worker calls to ask about her husband. She heard there is an accident and is very concerned. ***RUMOR***	CMPI-5	10:45	******** RUMOR ******* The wife of a construction worker calls to ask about her husband. She heard there is an accident and is very concerned. NOTE: Brief Director on response. ******** RUMOR *******	CEOC EC	CMPI	10:45 CMEC	Obtains updated plant parameter data information from station.
								CMPI	Responds to Rumor.
								CMRCA	Obtains radiological data from station. Determine potential release rates and resulting radiological doses (CONI 4.01/4.04/4.08).
3:50	10:50		MET-7	10:50	***COMMAND*** Issue meteorological data sheet.	MT EC	MT	10:50 MT	Obtain updated met. data. Obtains forecast from Weather Services Corporation.
3:55	10:55							10:55 OCEO	Advises staff of station status.
4:00	11:00 MNPS	There is a Reporter from the New London Day at the gate wanting access to the EOF.						11:00 OCEO	Discuss posible venting options.

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MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
	State	State sets up Media Center.						CMEC	Obtains updated plant parameter data information from station.
4:05	11:05		MET-8	11:05	***COMMAND*** Issue meteorological data sheet.	MT EC	MT	11:05 MT	Obtain updated met. data.
4:15	11:15							11:15 CMEC	Obtains updated plant parameter data information from station.
4:20	11:20		MET-9	11:20	***COMMAND*** Issue meteorological data sheet.	MT EC	MT	11:20 DCED	Advises staff of station status.
								MT	Obtain updated met. data.
4:30	11:30 CEOC	***RUMOR*** Radiation is being released and the plant is out of control. ***RUMOR***	CMPI-6	11:30	******* RUMOR ****** The radiation is being released and the plant is out of control. NOTE: Brief Director on response. ******* RUMOR ******	CEOC EC	CMPI	11:30 CMEC	Obtains updated plant parameter data information from station.
								CMPI	Responds to Rumor.

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MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
4:31	11:31 MNPS	***PUBLIC INQUIRY*** A local radio station called. They have received word that the access road to the plant has been blocked and cars are being turned away from the area. Has there been some type of accident and/or release of radiation that is being kept secret from the public? ***PUBLIC INQUIRY***							
4:35	11:35		MET-10	11:35	***COMMAND*** Issue meteorological data sheet.	MT EC	MT	11:35 MT	Obtain updated met. data.
4:45	11:45							11:45 CMEC	Obtains updated plant parameter data information from station.
								CMRCA	Obtains radiological data from station. Determine potential release rates and resulting radiological doses (CONI 4.01/4.04/4.08).
4:50	11:50		MET-11	11:50	***COMMAND*** Issue meteorological data sheet.	MT EC	MT	11:50 DCEO	Advises staff of station status.

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MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
								MT	Obtain updated met. data. Obtains forecast from Weather Services Corporation.
								CMRCA	Prepares an assessment of potential releases and offsite protective actions under certain assumptions.
5:00	12:00 MNPS	Emergency Repair Team is making preparations to install S/G manway so that Operators can regain lost water levels.						12:00 CMEC	Obtains updated plant parameter data information from station.
	State	NU & State discuss need for additional PARs or need to consider longer term extensions of PAZ distances.							
5:05	12:05		MET-12	12:05	***COMMAND*** Issue meteorological data sheet.	MT EC	MT	12:05 MT	Obtain updated met. data.

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MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
5:12	12:12 MNPS	***PUBLIC INQUIRY*** The wife of one of the employees has called in to inquire into the whereabouts of her husband. It seems that he was supposed to call her at 10:00 but hasn't. She wants to know his whereabouts and if anyone is unaccounted for at the plant. His name is Joe Smuts. ***PUBLIC INQUIRY***							
5:15	12:15 MNPS	#2 S/G hot leg manway covers are replaced & water level recovery can take place.	CMPI-7	12:15	******* RUMOR ******* A Waterford resident has heard Millstone employees speak about an accident at the plant. She wants to know what is going on and if it is safe to stay in the area. NOTE: Brief Director on response. ******* RUMOR *******	CEOC EC	CMPI	12:15 DCEO	Decisions on venting options discussed.

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MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
	CEOC	***RUMOR*** A Waterford resident has heard MP employees speak about an accident at the plant. She wants to know what is going on and if it is safe to stay in the area. ***RUMOR***						CMEC	Obtains updated plant parameter data information from station.
								CMPI	Responds to Rumor.
								CMRCA	Obtains radiological data from station. Determine potential release rates and resulting radiological doses (CONI 4.01/4.04/4.08).
5:17	12:17							12:17 DO	Telephone call-back system and complete Incident Report Form (IRF).
5:20	12:20 State	State & locals coordinate on protective action measures for public & coordinate issuance of EBS message.	MET-13	12:20	***COMMAND*** Issue meteorological data sheet.	MT EC	MT	12:20 DCEO	Advises staff of station status.
								MT	Obtain updated met. data.
5:30	12:30							12:30 CMEC	Obtains updated plant parameter data information from station.

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MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
5:35	12:35		MET-14	12:35	***COMMAND*** Issue meteorological data sheet.	MT EC	MT	12:35 MT	Obtain updated met. data.
5:45	12:45							12:45 CMEC	Obtains updated plant parameter data information from station.
								CMRCA	Obtains radiological data from station. Determine potential release rates and resulting radiological doses (CONT 4.01/4.04/4.08).
5:50	12:50		MET-15	12:50	***COMMAND*** Issue meteorological data sheet.	MT EC	MT	12:50 DCEO	Advises staff of station status.
								MT	Obtain updated met. data.
									Obtains forecast from Weather Services Corporation.
6:00	13:00 MNPS	Exercise is terminated.	CEOC-2	13:00	***COMMAND*** Stop Exercise play. Key players and controllers are to report to the Corporate EOC for a critique.	CEOC EC	ALL	13:00 CMEC	Obtains updated plant parameter data information from station.
								ALL KEY PLAY-ERS	Report to CEOC and commence critique.
6:05	13:05 MNPS	SSSA transmits the Exercise closeout message.							

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MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
7:00	14:00 MNPS	Exercise Critique in the EOF.							

APPENDIX B.3

STATE EXERCISE CONTROLLERS GUIDE (ECG)

ABBREVIATIONS AND ACRONYMS

CNG -	Connecticut National Guard
CPD -	Civil Preparedness Director
CSP -	Connecticut State Police
DEP -	Department of Environmental Protection
DEP,RCU, Dir. -	Department of Environmental Protection, Radiation Control Unit, Director
DOA -	Department of Agriculture
DOE -	Department of Energy
DOH -	Department of Health
DOT -	Department of Transportation
EBS -	Emergency Broadcast System
EC -	Exercise Controller
EOC -	Emergency Operations Center
EOF -	Emergency Operations Facility
EPZ -	Emergency Planning Zone
FDA -	Federal Drug Administration
FEMA -	Federal Emergency Management Agency
Gov -	Governor
Gov Off -	Governors Office
Hlth Ser -	Health Services
IRF -	Incident Report Form
KI -	Potassium Iodide
MA -	Massachusetts
MNPS -	Millstone Nuclear Power Station
NRC -	Nuclear Regulatory Commission
NU -	Northeast Utilities
NY -	New York
OCP -	Office of Civil Preparedness
PIO -	Public Information Officer
RCU -	Radiation Control Unit
ST -	State
State Wrng Point -	State Warning Point

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MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
0:00	07:00 MNPS	Initial Conditions: ********** Known to players at start of the exercise: Unit 2 is shutdown and in the 10th day of a refueling outage. 400 EFPD were logged prior to shutdown. S/G nozzel dams installed Refuel Pool level 36' Fuel Transfer tube ope Equipment Hatch opened No fuel movement in progress. Unit 1 and 3 are operating at 100 percent power. Facility 2 outage in progress: Facility 2 shutdown cooling out of service "B"D/G in overhaul 24D bus out for PM's Facility 1 shutdown cooling is running.							

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MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
	MNPS	Transmission and Distribution (T&D) electricians are performing maintenance in the switchyard area at this time. The Main Transformer and the Normal Station Services Transformer (NSST) are tagged out for PM's. Station electrical loads have been placed on the Reserve Station Service Transformer (RSST).							
0:30	07:30 MNPS	A report from the Ctmt Coordinator at #2S/G indicates that normal leakage from the hot leg nozzel dams has increased drastically. A check of air pressur to the seals appears normal. Operators respond with AOP 2578 Loss of Refuel Pool and Spent Fuel Pool level.(SFP)							
0:35	07:35 MNPS	SS notifies the Duty Officer (DO) of plant conditons.							

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MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
0:57	07:57 MNPS	PEO in the SFP room reports attempts to shut the Fuel transfer tube isolation valve (2-RW-280)have failed. Valve is physically bound up and the valve operator is stripped due to many attempts to free the valve up.							
1:00	08:00			08:00	Initial Message: ***CONTROLLER NOTE*** Player conditions of plant will be available to Corporate liason (initial cond) when he arrives at EOC.				
1:15	08:15 MNPS	A Spent Fuel Pool area rad monitor indicates > 1000 X normal readin for 5 minutes.							
	MNPS	PEO/HP cut rope and lo incore detectors to th bottom of the Spent Fu Pool.							

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MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
	MNPS	OSS sounds station evacuation alarm and provides insructions to station personnel. Predetermined evacuees proceed to the assembly areas.							
1:30	08:30 MNPS	** ALERT POSTURE CODE CHARLIE 1 DECLARED based on radiation levels > 1000 times normal.							
1:40	08:40 MNPS	Reserve Staion Service Transformer fails due internal fault "A" D/G starts and loads.							
1:45	08:45 MNPS	SSSA transmits the radiopager message for ALERT CHARLIE 1						08:45 Gov Off., CPD,	Receive radiopager notification of incident class ALERT Posture Code Charlie-One.
1:50	08:50							08:50 DEP RCU Dir.,	Telephone call-back system. Receive details of the incident.
								CSP Troops F&K,	Complete incident report form (IRF) based on information provided.

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MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
								State Wrng. Point, CPD	Acknowledge receipt of notification.
								Gov. Off., DEP RCU Dir.,	Receive radiopager notification of incident class ALERT Posture Code Charlie-One.
									Telephone call-back system.
								CSP Troop F&K,	Receive details of the incident.
								CPD, State Wrng.	Complete incident report form based on information provided.
								Point	Acknowledge receipt of notification.
								Gov. Off.	Receives backup telephone notification of incident class ALERT Posture Code Charlie-One from NU Public Information Officer.
1:55	08:55							08:55 Gov. Off.	Notifies Gov. of incident class ALERT, Posture Code Charlie-One.
								State Wrng. Point	Notifies CSP Commissioner of an incident class ALERT, Posture Code Charlie-One.
								CSP	Notify Governor of incident class ALERT, Posture Code Charlie-One using a State policeman.

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MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
								DEP RCU Dir.	Notifies DEP Commissioner of incident class ALERT, Posture Code Charlie-One.
								Gov. Off.	Notifies Gov. of incident class ALERT, Posture Code Charlie-One.
								State Wrnr. Pol	Notifies CSP Commissioner, Colonel, and District Manager of an incident class ALERT, Posture Code Charlie-One.
1:56	08:56							08:56 Gov. Off., DEP RCU Dir., CSP, State Wrng. Point, CPD	Stand by for further information.
2:00	09:00 MNPS	Director, Managers and support staff begin to arrive at the Emergency Operations facility (EOF) and the Corporate Emergency Operations Center (CEOC) to assume emergency response duties.						09:00 DEP RCU Dir.	Notifies DEP Commissioner of incident class ALERT, Posture Code Charlie-One.

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MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
	State Local	State and local officials will begin activation of their EOC's and notification of their staff.						Gov.	Directs that the State EOC be activated and State Commissioners report to State EOC.
								OEM	Operational Officer alerts EBS. Requests 24-hour coverage (simulate).
2:01	09:01							09:01 OEM	Notifies all State Commissioners of incident class ALERT, Posture Code Charlie-One and directs them to report to State EOC. Activates Civil Air Patrol.
2:02	09:02							09:02 State Comm.	Acknowledge order to report to State EOC.
2:03	09:03							09:03 OEM	State EOC is being staffed to support the incident class ALERT, Posture Code Charlie-One. Communications systems are tested with Area Coordinator posts and Northeast Utilities.
2:04	09:04							09:04 CPD	Directs that the Joint Media Center be activated and prepared to support operations.

MP EXERCISE - DECEMBER 5,1990
STATE EXERCISE CONTROLLER GUIDE

MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
								OEM	State EOC personnel begin to activate their support staff to assist in emergency response should plant conditions deteriorate.
2:06	09:06							09:06 DEP	Notifies states of NY, MA, and RI; also, notifies DOE, NRC, FDA, New England Interstate Radiation Assistance Plan, and Federal Radiological Monitoring and Assessment Plan.
2:08	09:08							09:08 EOC	Berlin EOC sets up formal communications with the State DEP for meteorological information, Rad information, etc.
2:10	09:10							09:10 EOC	Governor, or representative, arrives at State EOC.
2:11	09:11							09:11 EOF	State DEP representative arrives at EOF(Site) in order to establish communications with Site and report information directly to Hartford EOC DEP office.
2:15	09:15 MNPS	The EOF is fully activated . The DSEO relieves the SS of the DSEO responsibilities.						09:15 Area	State Area offices set up communications with EPZ communities within their responsibility.

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MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
	CEOC	***RUMOR*** This is the Hartford Courant. What is happening at MP. I heard a message on the scanner. Are you having a large unplanned release of radiation? Do you have a statement? What should the public do? ***RUMOR***							
2:30	09:30 State Local	The State and Local EOC's are staffed and fully operational.						09:30 State Local	State and local EOC's are fully operational.
	MNPS	Fire in "A" D/G room Fire Brigade responds Deluge system actuates Loss of all onsite and off site power.							
	State	State begins coordination with local communities. State DEP begins deployment of State Field Teams.							

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MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
2:45	09:45 MNPS	Station Director declares a SITE AREA EMERGENCY, posture code Charlie-Two based Fire affecting safety systens or total loss of onsite and offsite power.							
3:00	10:00 MNPS	State DEP liason arrives at Site EOF.						10:00 Gov Off., CPD,	Receive radiopager notification of incident class SITE AREA EMERGENCY Posture Code Charlie-Two.
	MNPS	SSSA transmits the radiopager message for SITE AREA EMERGENCY. Loss of Plant Process Computer(PPC) and loss of Offsite Based Information System (OFIS)							
	CEOC	DCEO dispatches a NU executive representative and staff to go to the State EOC and provide State communication interface.							

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MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
	CECC	***RUMOR*** This is WFSB 3. We heard from special sources that there is something going on at MP and we need details for a story we are going to broadcast. ***RUMOR***							
	MNPS	An emergency repair team is manned and deployed to investigate the problem with the Unit 1 cross-connect breaker which is not operating properly so that power may be restored to vital equipment.							

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MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
3:05	10:05 MNPS	***PUBLIC INQUIRY*** A local resident who knows someone at the plant has heard there are problems at MP and has started calling neighbors to warn them to the possibility of an evacuation of the area. One of the neighbors has called and wants to know if this is just a rumor or is something actually wrong. ***PUBLIC INQUIRY***						10:05 DEP RCU Dir.,	Telephone call-back system. Receive details of the incident.
								CSP Troops F&K,	Complete incident report form (IRF) based on information provided.
								State Wrng. Point, CPD	Acknowledge receipt of notification.

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MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
								Gov. Off., DEP RCU Dir.,	Receive radiopager notification of incident class SITE AREA EMERGENCY Posture Code Charlie-Two. Telephone call-back system.
								CSP Troop F&K, CPD, State Wrng. Point	Receive details of the incident. Complete incident report form based on information provided. Acknowledge receipt of notification.
								Gov. Off.	Receives backup telephone notification of incident class SITE AREA EMERGENCY Posture Code Charlie-Two from NU Public Information Officer.
3:10	10:10 CEOC	***RUMOR*** This is WTIC. What is happening at MP? Is there an accident? What is NU doing? Have federal officials been notified? ***RUMOR***						10:10 Gov. Off.	Notifies Gov. of incident class SITE AREA EMERGENCY, Posture Code Charlie-Two.
								State Wrng. Point	Notifies CSP Commissioner of an incident class SITE AREA EMERGENCY, Posture Code Charlie-Two.

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MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
								CSP	Notify Governor of incident class SITE AREA EMERGENCY, Posture Code Charlie-Two using a State policeman.
								DEP RCU Dir.	Notifies DEP Commissioner of incident class SITE AREA EMERGENCY, Posture Code Charlie-Two.
								Gov. Off.	Notifies Gov. of incident class SITE AREA EMERGENCY, Posture Code Charlie-Two.
								State Wrng. Point	Notifies CSP Commissioner, Colonel, and District Manager of an incident class SITE AREA EMERGENCY, Posture Code Charlie-Two.
3:11	10:11							10:11 Gov. Off., DEP RCU Dir., CSP, State Wrng. Point, CPD	Stand by for further information.
3:15	10:15							10:15 DEP RCU Dir.	Notifies DEP Commissioner of incident class SITE AREA EMERGENCY, Posture Code Charlie-Two.

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MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
								Gov.	Directs that the State EOC be activated and State Commissioners report to State EOC.
								OEM	Operational Officer alerts EBS.
3:16	10:16							10:16 OEM	Notifies all State Commissioners of incident class SITE AREA EMERGENCY, Posture Code Charlie-Two and directs them to report to State EOC.
3:17	10:17							10:17 State Comm.	Acknowledge order to report to State EOC.
3:20	10:20		SEOC-1	10:20	***CONTINGENCY*** Direct CPD to have State Commissioners report to State EOC.	SEOC EC	Gov.		
3:30	10:30 State	***RUMOR*** Residents are calling in local & state officials that a "grayish blue" mist is coming from plant. Please verify. ***RUMOR***						10:30 EOC	Nuclo representative to the State EOC arrives.

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MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIM.	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
	MNPS CEOC	TSC and Corporate TSC discuss potential core damage and loss of containment if water level continues down.						DEP	Deploys field monitoring teams based on CPD or DEP determination of affected areas.
	MNPS CEOC	Corporate and Station EOC staff discuss possible options concerning the loss of power and the estimated time of its return.							
	MNPS	Emergency repair team fixes faulty cross-connect breaker and allows operators to close in and regain power to its vital electrical bus.							
3:35	10:35							10:35 DEP	Sets up system for monitoring Plume and food pathways. Project food pathway doses.

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MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
3:39	10:39 MNPS	***PUBLIC INQUIRY*** A local nursing home administrator has called to confirm a story heard on a news station that reported major nuclear fuel problems at the Millstone Nuclear Power Station "Which could result in health problems to the public". The report indicated that the information was received from a "Spokesperson" from one of the towns near the plant and that reports of the "accident" had not been confirmed, but that access to the nuclear plant had been stopped. Is this true? ***PUBLIC INQUIRY***							

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MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIM	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
3:45	10:45 CEOC	***RUMOR*** The wife of a construction worker calls to ask about her husband. She heard there is an accident and is very concerned. ***RUMOR***							
4:00	11:00 MNPS	There is an FBI agent with proper I.D. at the gate wanting access to the EOF.						11:00 Gov. Off., DEP RCU Dir., CSP Troop F&K, CPD, State Wrng. Point	Receive radiopager notification of plant conditions update. Telephone call-back system. Receive details. Complete incident report form based on information provided.
	State	State sets up Media Center.							

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MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
4:05	11:05		SEOC-2	11:05	*** RUMOR ***** Residents are calling in local & state officials that a "grayish blue" mist is coming from plant. Please verify. *** RUMOR *****	SEOC EC	OEM	11:05 CPD	Identifies protective actions being taken by local communities by communicating with Area Coordinators. Determines protective actions appropriate for incident conditions: Control food/water/milk. Immediate take shelter/access control for 2-mile radius and 5 miles downwind. Extend to 10 miles downwind if necessary. Activates EBS and public warning as appropriate. Note: The Public Alerting will take place at 11:40 by pre-arrangement.
4:30	11:30 CEOC	***RUMOR*** Radiation is being released and the plant is out of control. ***RUMOR***	SEOC-3	11:30	***CONTROLLER NOTE*** Issue the following only if the indicated actions have not been carried out. ***CONTINGENCY*** Request Department of Public Safety to activate the State Media Center, including notifying Media Center Public Information Supervisors.	SEOC EC	OEM		

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MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
4:31	11:31 MNPS	***PUBLIC INQUIRY*** A local radio station called. They have received word that the access road to the plant has been blocked and cars are being turned away from the area. Has there been some type of accident and/or release of radiation that is being kept secret from the public? ***PUBLIC INQUIRY***							
4:35	11:35		SEOC-4	11:35	***COMMAND*** Inform State OEM to initiate steps to broadcast EBS message and to activate the local Public Alerting Systems by roll call. Special Note: Done offline from real event.	SEOC EC	OEM		
4:40	11:40							11:40 OEM Area Off.	Completes activation of actual test of PAS for local EPZ communities.

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MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
4:50	11:50		SEOC-5	11:50	***CONTINGENCY*** Direct CSP to prepare to set up access control at priority access control points for the 2-mile EPZ. As per State Police Plan.	SEOC EC	OEM		
5:00	12:00 MNPS	Emergency Repair Team is making preparations to install S/G manway so that Operators can regain lost water levels.							
	State	NU & State discuss need for additional PARs or need to consider longer term extensions of PAR distances.							

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MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
5:12	12:12 MNPS	***PUBLIC INQUIRY*** The wife of one of the employees has called in to inquire into the whereabouts of her husband. It seems that he was supposed to call her at 10:00 but hasn't. She wants to know his whereabouts and if anyone is unaccounted for at the plant. His name is Joe Smuts. ***PUBLIC INQUIRY***							
5:15	12:15 MNPS	#2 S/G hot leg manway covers are replaced & water level recovery can take place.						12:15 Gov. Off., DEP RCU Dir., CSP Troops F&K, CPD, State Wrng. Point	May receive pager notification of incident class GENERAL EMERGENCY, Posture Code Bravo. Telephone call-back system. Receive details of the incident. Complete incident report form based on information provided. Acknowledge receipt of notification.

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MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
	CEOC	***RUMOR*** A Waterford resident has heard MP employees speak about an accident at the plant. She wants to know what is going on ar. if it is safe to st y in the area. ***RUMOR***						Gov. Off.	Receives telephone notification of incident class GENERAL EMERGENCY, Posture Code Bravo from NU PIO.
								Gov. Off.	Notifies Governor of incident class GENERAL EMERGENCY, Posture Code Bravo.
5:20	12:20 State	State & locals coordinate on protective action measures for public & coordinate issuance of EBS message.						12:20 State PIO	Makes announcement and briefing to the Joint Media Center, including notification of media center public information supervisors.
5:30	12:30 MNPS	Repair team finishes replacement of S/G manway covers.	SEOC-6	12:30	***COMMAND*** FEMA has called asking for a full report on events. hava someone from your staff brief the State exercise controller.	SEOC EC	OEM	12:30 Gov.	Assess need to take action if FDA's preventive/PAG levels for food pathways are exceeded.
5:35	12:35							12:35 Gov.	Revie incident class GENERAL EMERGENCY, Posture Code Bravo.

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MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
5:40	12:40							12:40 CPD	Identifies protective actions being taken by local communities by communicating with Area Coordinators. Determinas protec-tiva actions appropriate for incident conditions: Monitor food/water/milk. Consider placing milk animals on stored feed. Alerts EBS. Simulates activation of public warning system once authorized. Note: The Public Alerting will take place at 11:40 by pre-arrangement.
								PIO, CPD	Prepare media announcement based on preliminary information.
								CSP	Issue dosimeters to CSP personnel. Personnel check and charge dosi-meters. Deliver emergency dosi-meters (token amounts).
								Gov.	Directs DEP, DOA and Health Services to prepare to sample water, air, produce and milk and to simulate placing milk animals on stored feed in downwind areas.
								PIO	Receive EBS message from local communities.
5:45	12:45		SEOC-7	12:45	***CONTINGENCY*** Issue dosimet-y to CSP personnel.	SEOC EC	CSP	12:45 Hlth. Ser., DOA, DEP	Direct key personnel to report to duty stations.

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MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
								DOT	Requests U.S. Coast Guard at New Haven and Harbor Masters to prepare to set up access control at 2-mile radius EPZ.
								OEM	Operations Officer calls Area Coordinator offices and State agencies to request staffing status and to test communications between the State EOC and Area Coordinator offices. Area Coordinator offices call EPZ towns to request staffing and operations status.
5:50	12:50							12:50 OEM	Directs CSP to prepare to set up access control at priority access control points for the 2-mile EPZ.
								PIO, CPD	Prepare media announcement based on informational updates.
								CPD	Notifies FEMA, Red Cross, and Salvation Army.
5:55	12:55		SEOC-8	12:55	***CONTINGENCY*** State should set up tabletop discussion on KI and inform local government of decisions. If KI is authorized for State workers, set up distribution policy.	SEOC EC	OEM		

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MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
			SEOC-9	12:55	***CONTINGENCY*** Request U.S. Coast Guard to set up access control on the Connecticut River.	SEOC EC	DOT		
5:56	12:56							12:56 DEP	Notifies states of NY, MA, and RI; also, notifies DOE, NRC, FDA, New England Interstate Radiation Assistance Plan, and Federal Radiological Monitoring and Assessment Plan. Telephones EBS to stand by (simulate).
								Hlth. Ser.	Direct the Director of Emergency Medical Services to report to health office. Commissioner mobilizes personnel. Personnel notified to report to duty stations, activate radio analysis lab, and prepare to analyze samples.
5:57	12:57							12:57 OEM Staff	Review current status of assignments of State personnel. Maintain communications with OEM Area Coordinators.
								CPD	Identifies protective actions being taken by local communities by communicating with Area Coordinators.
								OEM	Operations Officer determines staffing status of local communities.

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MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
5:58	12:58							12:58 Gov.	Directs Dept. of Consumer Protection to prepare appropriate controls on retail food and milk.
								OEM Admin. Off.	Plans for accommodating outside emergency personnel.
									Develops State EOC staffing plan, including shift change personnel, for all State agencies involved in the emergency.
								Hlth. Ser.	Maintain exposure record for emergency workers.
6:00	13:00 MNPS	Exercise is terminated.	SEOC-10	13:00	***COMMAND*** Stop Exercise play.	SEOC EC	All		
6:05	13:05 MNPS	SSSA transmits the Exercise closeout message.						13:05 Gov. Off., DEP RCU Dir., CSP Troop F&K, State Wrng. Point	Receive radiopager notification of exercise termination. Telephone call-back system. Receive details of the message. Acknowledge receipt of notification.
6:10	13:10							13:10 DEP RCU Dir.	Notifies DEP Commissioner of exercise termination.

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S. EXERCISE CONTROLLER GUIDE

MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
								CSP	Notifies States of NY, MA, and RI of exercise termination.
7:00	14:00 MNPS	Exercise Critique in the EOF.						14:00 ALL	Critique/discuss the exercise emergency response with evaluators.

APPENDIX B.4

LOCAL EXERCISE CONTROLLERS GUIDE (ECG)

ABBREVIATIONS AND ACRONYMS

CEO - Chief Executive Officer
CPD - Civil Preparedness Director
DEP - Department of Environmental Protection
EBS - Emergency Broadcast System
EOC - Emergency Operations Center
EPZ - Emergency Planning Zone
FC - Fire Chief
HD - Health Director
IRF - Incident Report Form
MGR - Manager
MNPS - Millstone Nuclear Power Station
OCP - Office of Civil Preparedness
PIO - Public Information Officer
RDO - Radiological Defense Officer
SLEO - Senior law Enforcement Officer

EL - East Lyme
FI - Fishers Island
GC - Groton City
GT - Groton Town
LD - Ledyard
PI - Plum Island
MV - Montville
NL - New London
OL - Old Lyme
OS - Old Saybrook
WF - Waterford

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MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
0:00	07:00 MNPS	Initial Conditions: ********** Known to players at start of the exercise: Unit 2 is shutdown and in the 10th day of a refueling outage. 400 EFPD were logged prior to shutdown. S/G nuzzel dams installed Refuel Pool level 36' Fuel Transfer tube ope Equipment Hatch opened No fuel movement in progress. Unit 1 and 3 are operating at 100 percent power. Facility 2 outage in progress: Facility 2 shutdown cooling out of service "B"D/G in overhaul 24D bus out for PM's Facility 1 shutdown cooling is running.							

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MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
	MNPS	Transmission and Distribution (T&D) electricians are performing maintenance in the switchyard area at this time. The Main Transformer and the Normal Station Services Transformer (NSST) are tagged out for PM's. Station electrical loads have been placed on the Reserve Station Service Transformer (RSST).							
0:30	07:30 MNPS	A report from the Ctmt Coordinator at #2S/G indicates that normal leakage from the hot leg nozzel dams has increased drastically. A check of air pressur to the seals appears normal. Operators respond with AOP 2578 Loss of Refuel Pool and Spent Fuel Pool level.(SFP)							
0:35	07:35 MNPS	SS notifies the Duty Officer (DO) of plant conditons.							

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MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
0:57	07:57 MNPS	PEO in the SFP room reports attempts to shut the Fuel transfer tube isolation valve (2-RW-280)have failed. Valve is physically bound up and the valve operator is stripped due to many attempts to free the valve up.							
1:00	08:00		All-1	08:00	***CONTROLLER NOTE*** The siren activation will occur at 11:40 as an independent test. Coordinated by the State OEM area offices. However, if public protective actions are taken, there should be a simulation of the siren activation at that time.	EC	CEO CPD		
1:15	08:15 MNPS	A Spent Fuel Pool area rad monitor indicates > 1000 X normal readin for 5 minutes.							
	MNPS	PEO/HP cut rope and lo incore detectors to th bottom of the Spent Fu Pool.							

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MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
	MNPS	OSS sounds station evacuation alarm and provides insructions to station personnel. Predetermined evacuees proceed to the assembly areas.							
1:30	08:30 MNPS	** ALERT POSTURE CODE CHARLIE 1 DECLARED based on radiation levels > 1000 tines normal.	GT-1 CL-1	08:30	***CONTROLLER NOTE*** The Town of Groton and Town of Old Lyme may do a access control drill. This will be done off-line from the scenario and no pre-established time has been set for these demonstrations.	EC	CEO CPD		
1:40	08:40 MNPS	Reserve Staion Service Transformer fails due internal fault "A" D/G starts and loads.							
1:45	08:45 MNPS	SSSA transmits the radiopager message for ALERT CHARLIE 1						08:45 CEO, (ALL) CEO (ALL)	Receive radiopager notification that an incident class ALERT, Posture Code Charlie-One is in progress at MP. Telephones MP to complete IRF and to acknowledge receipt of notification.

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MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
2:00	09:00 MNPS	Director, Managers and support staff begin to arrive at the Energency Operations facility (EOF) and the Corporate Emergency Operations Center (CEOC) to assume emergency response duties.						09:00 CEO (ALL)	Notify key agency heads that an ALERT, Posture Code Charlie-One is in progress at MP. May direct some personnel to report to the Town EOC, or to their duty stations.
	State Local	State and local officials will begin activation of their EOC's and notification of their staff.							
2:01	09:01							09:01 CEO (ALL)	Reports to and activates the town EOC. Notifies town officials.
2:06	09:06							09:06 CPD (ALL)	Direct Civil Preparedness and other applicable personnel to report to EOC/duty stations, issue dosimeters to emergency workers, and prepare radiological equipment for use.
2:11	09:11							09:11 Key Agency Heads (ALL)	Direct Constables, Fire Department Personnel, Ambulance Service Personnel, Highway Department, School Department and Health Department personnel to go on standby status.
2:12	09:12							09:12 CPD (ALL)	Initiates use of status boards in the EOCs.

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MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
2:13	09:13							09:13 CEO (ALL)	Consult with State EOC via Area Coordinator and the CPD to determine protective actions to be taken.
2:15	09:15 MNPS	The EOF is fully activated . The DSEO relieves the SS of the DSEO responsibilities.						09:15 CEO, CPD (ALL)	Local officials begin making call-outs for staff to support the EOC operations.
	CEOC	***RUMOR*** This is the Hartford Courant. What is happening at MP. I heard a message on the scanner. Are you having a large unplanned release of radiation? Do you have a statement? What should the public do? ***RUMOR***							
2:18	09:18							09:18 CEO, CPD (ALL)	Briefs arriving agency heads. Review and discuss specific duties and assignments.
2:30	09:30 State Local	The State and Local EOC's are staffed and fully operational.						09:30 Local State	State and local EOC's are fully operational.

MP EXERCISE - DECEMBER 5,1990
LOCAL EXERCISE CONTROLLER GUIDE

MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
	MNPS	Fire in "A" D/G room Fire Brigade responds Deluge system actuates Loss of all onsite and off site powar.							
	State	State begins coor-dination with local communities. State DEP begins deployment of State Field Teams.							
2:45	09:45 MNPS	Station Director declares a SITE AREA EMERGENCY, posture code Charlie-Two based Fire affecting safety systems or total loss of onsite and offsite power.							
3:00	10:00 MNPS	State DEP liason arrives at Site EOF.						10:00 CEO, (ALL)	Receive radiopager notification that an incident class SITE AREA EMERGENCY, Posture Code Charlie-Two is in progress at MP.

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MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
	MNPS	SSSA transmits the radiopager message for SITE AREA EMERGENCY. Loss of Plant Process Computer(PPC) and loss of Offsite Based Information System (OFIS)						CEO (ALL)	Telephones MP to complete IRF and to acknowledge receipt of notification.
	CEOC	DCEO dispatches a NU executive representative and staff to go to the State EOC and provide State communication interface.							
	CEOC	***RUMOR*** This is WFSB 3. We heard from special sources that there is something going on at MP and we need details for a story we are going to broadcast. ***RUMOR***							

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MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
	MNPS	An emergency repair team is manned and deployed to investigate the problem with the Unit 1 cross-connect breaker which is not operating properly so that power may be restored to vital equipment.							
3:05	10:05 MNPS	***PUBLIC INQUIRY*** A local resident who knows someone at the plant has heard there are problems at MP and has started calling neighbors to warn them to the possibility of an evacuation of the area. One of the neighbors has called and wants to know if this is just a rumor or is something actually wrong. ***PUBLIC INQUIRY***						10:05 CEO (ALL)	Notify key agency heads that an SITE AREA EMERGENCY, Posture Code Charlie-Two is in progress at MP. May direct some personnel to report to the Town EOC, or to their duty stations.

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LOCAL EXERCISE CONTROLLER GUIDE

MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
3:10	10:10 CEOC	***RUMOR*** This is WTIC. What is happening at MP? Is there an accident? What is NU doing? Have federal officials been notified? ***RUMOR***							
3:13	10:13							10:13 CEO (ALL)	Consult with State EOC via Area Coordinator and the CPD to determine protective actions to be taken.
3:30	10:30 State	***RUMOR*** Residents are calling in local & state officials that a "grayish blue" mist is coming from plant. Please verify. ***RUMOR***						10:30 CEO (ALL)	EPZ communities establish contact with adjacent communities and determine ways to deal with rumors. Maintain contact with State OEM.
	MNPS CEOC	TSC and Corporate TSC discuss potential core damage and loss of containment if water level continues down.							

MP EXERCISE - DECEMBER 5,1990
LOCAL EXERCISE CONTROLLER GUIDE

MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
	MNPS CEOC	Corporate and Station EOC staff discuss possible options concerning the loss of power and the estimated time of its return.							
	MNPS	Emergency repair team fixes faulty cross-connect breaker and allows operators to close in and regain power to its vital electrical bus.							

MP EXERCISE - DECEMBER 5,1990
LOCAL EXERCISE CONTROLLER GUIDE

MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
3:39	10:39 MNPS	***PUBLIC INQUIRY*** A local nursing home administrator has called to confirm a story heard on a news station that reported major nuclear fuel problems at the Millstone Nuclear Power Station "Which could result in health problems to the public". The report indicated that the information was received from a "Spokesperson" from one of the towns near the plant and that reports of the "accident" had not been confirmed, but that access to the nuclear plant had been stopped. Is this true? ***PUBLIC INQUIRY***	ALL-2	10:39	****** COMMAND ****** You have heard reports from local residents that a news report on WVIT is indicating that there is a massive accident at Millstone and that local officials are ordering the public to evacuate. The national guard is supposedly being mobilized.	EC	CEO	10:39 CEO (ALL)	Respond to rumor.

MP EXERCISE - DECEMBER 5,1990
LOCAL EXERCISE CONTROLLER GUIDE

MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
3:45	10:45 CEOC	***RUMOR*** The wife of a construction worker calls to ask about her husband. She heard there is an accident and is very concerned. ***RUMOR***							
4:00	11:00 MNPS	There is an FBI agent with proper I.D. at the gate wanting access to the EOF.	ALL-3	11:00	***COMMAND*** You have just been informed that an ABC and CBS news crew will be shortly arriving at your EOC. Set up your plan for handling the situation and coordination with the State.	EC	CEO	11:00 CEO (ALL)	Local communities receive updated information on plant status and current meteorology through State CEM.
	State	State sets up Media Center.							
4:25	11:25		ALL-4	11:25	***COMMAND*** Call the State EOC to ask if it is true that farm animals should be put on stored feed and that fields in the area must be decontaminated prior to planting.	EC	CEO	11:25 CEO (ALL)	Respond to rumor.

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LOCAL EXERCISE CONTROLLER GUIDE

MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
4:30	11:30 CEOC	***RUMOR*** Radiation is being released and the plant is out of control. ***RUMOR***	ALL-6	11:30	***COMMAND*** Establish contact with Area OCP HQ in order to synchronize activation of PAS at 11:40 a.m. and the issuance of EBS instructions.	EC	CEO		
4:31	11:31 MNPS	***PUBLIC INQUIRY*** A local radio station called. They have received word that the access road to the plant has been blocked and cars are being turned away from the area. Has there been some type of accident and/or release of radiation that is being kept secret from the public? ***PUBLIC INQUIRY***							
4:40	11:40							11:40 EBS	State EBS and activation of Public Alerting System takes place within EPZ.
5:00	12:00 MNPS	Emergency Repair Team is making preparations to install S/G manway so that Operators can regain lost water levels.						12:00 CEO (ALL)	Receive radiopager notification of updated plant information.

MP EXERCISE - DECEMBER 5,1990
LOCAL EXERCISE CONTROLLER GUIDE

MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
	State	NU & State discuss need for additional PARs or need to consider longer term extensions of PAR distances.							
5:12	12:12 MNPS	***PUBLIC INQUIRY*** The wife of one of the employees has called in to inquire into the whereabouts of her husband. It seems that he was supposed to call her at 10:00 but hasn't. She wants to know his whereabouts and if anyone is unaccounted for at the plant. His name is Joe Smuts. ***PUBLIC INQUIRY***							
5:15	12:15 MNPS	#2 S/G hot leg manway covers are replaced & water level recovery can take place.	ALL-5	12:15	***COMMAND*** Several residents have called you requesting to know if the evacuees are a radiation hazard and what is the Police doing to quarantene them. Please respond.	EC	CEO	12:15 CEO (ALL)	May receive pager notification of GENERAL EMERGENCY, Posture Code BRAVO, in progress at MP.

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LOCAL EXERCISE CONTROLLER GUIDE

MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
	CEOC	***RUMOR*** A Waterford resident has heard MP employees speak about an accident at the plant. She wants to know what is going on and if it is safe to stay in the area. ***RUMOR***						CEO (ALL)	Respond to rumor.
5:20	12:20 State	State & locals coordinate on protective action measures for public & coordinate issuance of EBS message.						12:20 CEO (ALL) CPD (ALL)	Telephone MP to obtain additional information, complete the IRF and acknowledge receipt of notification. Establish communications with town/city agencies, neighboring towns, and OEM Area Coordinator.
5:24	12:24							12:24 CEO (ALL) CPD (ALL)	Brief agency heads on new developments at MP. Confer with the State Area Coordinator and neighboring towns regarding protective actions.

MP EXERCISE - DECEMBER 5,1999
LOCAL EXERCISE CONTROLLER GUIDE

MASTER SCENARIO			CONTROLLER'S MESSAGE					PLAYER'S ACTION	
SCEN-ARIO TIME	CLOCK TIME/ PLACE	KEY EVENT	MSG #	TIME	MESSAGE CONTENT	FROM	TO	CLOCK TIME/ PLAYER	SUMMARY OF ACTIONS
5:30	12:30 MNPS	Repair team finishes replacement of S/G manway covers.						12:30 CEO	Take shelter within the two-mile EPZ. Simulate notifying the State Warning Point to issue prepared messages on the Emergency Broadcast System (EBS). Simulate notifying the public within the affected area via the Civil Preparedness Public Alerting System. Note: The actual test of the EBS and PAS will be at 11:40.
6:00	13:00 MNPS	Exercise is terminated.							
6:05	13:05 MNPS	SSSA transmits the Exercise closeout message.						13:05 CEO (ALL)	Receive radiopager message terminating the exercise.
7:00	14:00 MNPS	Exercise Critique in the EOF.						14:00 (All)	Critique/discuss exercise emergency response.

APPENDIX C.1

CONTROLLER MESSAGES

APPENDIX C.2

SUCCESS PATH GUIDE

EMERGENCY EXERCISE

SUCCESS PATH ACTIVITIES

Activity	Probable Start to Completion Times	Probable Repair/ERT Personnel	Scenario Activity/ Corrective Action Allowed	Success Path Comments	Responsible Controller
1. Unit 1 Emergency power cross-connect breaker (24E-A505)	09:30-10:30	2 - Electricians	Yes	• Will be major success path • Controllers will delay until 10:30	R. Halleck J. Heisler
2. S/G #2 Hot Leg Man Way	10:30-12:15	2 - Mechanics	Yes	• Will be a success path • Controllers will delay until 12:15	A. Gathy M. Piccarello
3. Containment Equipment Hatch	07:30 - 10:30	2 - Operators	Yes	• Controllers will delay until 10:30	B. Barron

EMERGENC EXERCISE

POTENTIAL SUCCESS PATH ACTIVITIES

	Activity	Probable Start to Completion Times	Probable Repair/ERT Personnel	Scenario Activity/ Corrective Action Allowed	Success Path Comments	Responsible Controller
1.	"B" Emergency Diesel Generator 13V	07:00-End	2 - Mechanics	No	• Will not be a success path • Out for duration of Exercise	Dave Clark
2.	"A" Emergency Diesel Generator 12V	09:30-End	2 - Mec'.anics	No	• Will not be a success path • Fire damage results in this piece of equipment being out for the duration of the Exercise .	Bob Barron
3.	Main Transformer, Normal Station Services Transformer (NSST)	07:00-End	2 - Construction Electricians	No	• Will not be a success path • Out for PM's, Oil has been drained. Not available for the duration of the Exercise	Dave Clark
4.	Reserve Station Services Transformer (RSST)	08:45-End	1 - Electrician	No	• Will not be a success path Internal fault cannot return to service	Dave Clark
5.	Transfer tube isolation valve 2-RW-280	07:30-End	1 - Operator 1 - Mechanic	No	• Will not be a success path • Cannot close for duration of Exercise	Bob Barron
6.	S/G #2 hot leg nozzle dam seals	07:30-End	1 - Operator 1 - Mechanic	No	• Will not be a success path • Seals physically degrade and fail.	Dave Clark

APPENDIX D

PLANT PARAMETER DATA

	SUMP LEVEL (FT)	HYDROGEN (%)	SUBCOOLIN (CET, DEG F)	CTMT HI RANGE RAD A	CTMT HI RANGE RAD B	PWR RANGE NI'S (% FULL PWR)	WIDE RANGE NI'S (%PWR)
ALARM L	-23.0	-1.0	-11	0	0	-1	-1.0E+00
ALARM H	-15.5	11.0	702	50	50	106	9.9E+20
SCALE L	-22.5	0.0	0	1	1	0	0.0E+00
SCALE H	-15.5	10.0	700	100000	100000	200	9.9E+20
07:00	-22.5	0.0	0	1	1	0	0.0E+00
07:15	-22.5	0.0	0	1	1	0	0.0E+00
07:30	-22.5	0.0	0	1	1	0	0.0E+00
07:35	-22.3	0.0	0	1	1	0	0.0E+00
07:40	-22.1	0.0	0	1	1	0	0.0E+00
07:45	-21.9	0.0	0	1	1	0	0.0E+00
08:00	-21.4	0.0	0	1	1	0	0.0E+00
08:15	-20.8	0.0		1	1	0	0.0E+00
08:20	-20.6	0.0	0	1	1	0	0.0E+00
08:30	-20.3	0.0	0	1	1	0	0.0E+00
08:45	-19.7	0.0		1	1	0	0.0E+00
09:00	-19.1	0.0	0	1	1	0	0.0E+00
09:15	-18.6	0.0	0	1	1	0	0.0E+00
09:30	-18.0	0.0	0	1	1	0	0.0E+00
09:45	-17.5	0.0	0	1	1	0	0.0E+00
10:00	-16.9	0.0	0	1	1	0	0.0E+00
10:15	-16.4	0.0	0	1	1	0	0.0E+00
10:3	-15.8	0.0	0	1	1	0	0.0E+00
10:45	-15.8	0.0	0	1	1	0	0.0E+00
11:00	-15.8	0.0	0	1	1	0	0.0E+00
11:15	-15.8	0.0	0	1	1	0	0.0E+00
11:30	-15.8	0.0	0	1	1	0	0.0E+00
11:35	-15.8	0.0	0	1	1	0	0.0E+00
11:45	-15.8	0.0	0	1	1	0	0.0E+00
12:00	-15.8	0.0	0	1	1	0	0.0E+00
12:15	-15.8	0.0	0	1	1	0	0.0E+00
12:20	-15.8	0.0	0	1	1	0	0.0E+00
12:30	-15.8	0.0	0	1	1	0	0.0E+00
12:45	-15.9	0.0	0	1	1	0	0.0E+00
13:00	-16.0	0.0	0	1	1	0	0.0E+00

	WIDE RANGE NI'S (CPS)	CORE THERMOCOU LE TEMP (DEG F)	ACTUATION SIGNAL SIAS	ACTUATION SIGNAL CIAS	ACTUATION SIGNAL CSAS	ACTUATION SIGNAL MSI	ACTUATION SIGNAL SRAS
ALARM L	-1.00E+00	31	0	0	0	0	0
ALARM H	2.00E+05	5502	9	9	9	9	9
SCALE L	0.00E+00	32	0	0	0	0	0
SCALE H	1.00E+05	5500	9	9	9	9	9
07:00	1.60E+00	5500	B	B	B	B	B
07:15	1.58E+00	5500	B	B	B	B	B
07:30	1.55E+00	5500	B	B	B	B	B
07:35	1.54E+00	5500	B	B	B	B	B
07:40	1.53E+00	5500	B	B	B	B	B
07:45	1.53E+00	5500	B	B	B	B	B
08:00	1.50E+00	5500	B	B	B	B	B
08:15	1.48E+00	5500	B	B	B	B	B
08:20	1.47E+00	5500	B	B	B	B	B
08:30	1.45E+00	5500	B	B	B	B	B
08:45	1.42E+00	5500	B	B	B	B	B
09:00	1.40E+00	5500	B	B	B	B	B
09:15	1.42E+00	5500	B	B	B	B	B
09:30	1.45E+00	5500	B	B	B	B	B
09:45	1.48E+00	5500	B	B	B	B	B
10:00	1.50E+00	5500	B	B	B	B	B
10:15	1.53E+00	5500	B	B	B	B	B
10:30	1.55E+00	5500	B	B	B	B	B
10:45	1.58E+00	5500	B	B	B	B	B
11:00	1.60E+00	5500	B	B	B	B	B
11:15	1.59E+00	5500	B	B	B	B	B
11:30	1.58E+00	5500	B	B	B	B	B
11:35	1.57E+00	5500	B	B	B	B	B
11:45	1.56E+00	5500	B	B	B	B	B
12:00	1.55E+00	5500	B	B	B	B	B
12:15	1.54E+00	5500	B	B	B	B	B
12:20	1.53E+00	5500	B	B	B	B	B
12:30	1.53E+00	5500	B	B	B	B	B
12:45	1.51E+00	5500	B	B	B	B	B
13:00	1.50E+00	5500	B	B	B	B	B

16:46 27-SEP-1990

	ACTUATION SIGNAL EBFAS	ACTUATION SIGNAL AEAS	HPSI A	LPSI A (S,R,NA)	CTMT SPRAY PMP A	SIT TANK 1 PRESSURE (PSIG)	SIT TANK 1 LEVEL (%)
ALARM L	0	0	0	0	0	200	55
ALARM H	9	9	9	9	9	245	59
SCALE L	0	0	0	0	0	0	0
SCALE H	9	9	9	9	9	250	100
07:00	N	N	N	R	N	0a	0a
07:15	N	N	N	R	N	0a	0a
07:30	N	N	N	R	N	0a	0a
07:35	N	N	Y	R	N	0a	0a
07:40	N	N	Y	R	N	0a	0a
07:45	N	N	Y	R	N	0a	0a
08:00	N	N	Y	R	N	0a	0a
08:15	N	Y	Y	R	N	0a	0a
08:20	N	Y	Y	R	N	0a	0a
08:30	N	Y	Y	R	N	0a	0a
08:45	N	Y	Y	R	N	0a	0a
09:00	N	Y	Y	R	N	0a	0a
09:15	N	Y	Y	R	N	0a	0a
09:30	N	Y	N	NA	N	0a	0a
09:45	N	Y	N	NA	N	0a	0a
10:00	N	Y	N	NA	N	0a	0a
10:15	N	Y	N	NA	N	0a	0a
10:30	N	Y	N	NA	N	0a	0a
10:45	N	Y	Y	R	N	0a	0a
11:00	N	Y	Y	R	N	0a	0a
11:15	N	Y	N	R	N	0a	0a
11:30	N	Y	N	R	N	0a	0a
11:35	N	Y	N	R	N	0a	0a
11:45	N	Y	N	R	N	0a	0a
12:00	N	Y	N	R	N	0a	0a
12:15	N	Y	N	R	N	0a	0a
12:20	N	Y	Y	R	N	0a	0a
12:30	N	Y	Y	R	N	0a	0a
12:45	N	Y	Y	R	N	0a	0a
13:00	N	Y	Y	R	N	0a	0a

	SIT TANK 2 PRESSURE (PSIG)	SIT TANK 2 LEVEL (%)	SIT TANK 3 PRESSURE (PSIG)	SIT TANK 3 LEVEL (%)	SIT TANK 4 PRESSURE (PSIG)	SIT TANK 4 LEVEL (%)	CTMT PRESSURE (PSIG)
ALARM L	200	55	200	55	200	55	-1.0
ALARM H	245	59	245	59	245	59	3.8
SCALE L	0	0	0	0	0	0	0.0
SCALE H	250	100	250	100	250	100	60.0
07:00	0a	0a	0a	0a	0a	0a	0.0
07:15	0a	0a	0a	0a	0a	0a	0.0
07:30	0a	0a	0a	0a	0a	0a	0.0
07:35	0a	0a	0a	0a	0a	0a	0.0
07:40	0a	0a	0a	0a	0a	0a	0.0
07:45	0a	0a	0a	0a	0a	0a	0.0
08:00	0a	0a	0a	0a	0a	0a	0.0
08:15	0a	0a	0a	0a	0a	0a	0.0
08:20	0a	0a	0a	0a	0a	0a	0.0
08:30	0a	0a	0a	0a	0a	0a	0.0
08:45	0a	0a	0a	0a	0a	0a	0.0
09:00	0a	0a	0a	0a	0a	0a	0.0
09:15	0a	0a	0a	0a	0a	0a	0.0
09:30	0a	0a	0a	0a	0a	0a	0.0
09:45	0a	0a	0a	0a	0a	0a	0.0
10:00	0a	0a	0a	0a	0a	0a	0.0
10:15	0a	0a	0a	0a	0a	0a	0.0
10:30	0a	0a	0a	0a	0a	0a	0.0
10:45	0a	0a	0a	0a	0a	0a	0.0
11:00	0a	0a	0a	0a	0a	0a	0.0
11:15	0a	0a	0a	0a	0a	0a	0.0
11:30	0a	0a	0a	0a	0a	0a	0.0
11:35	0a	0a	0a	0a	0a	0a	0.0
11:45	0a	0a	0a	0a	0a	0a	0.0
12:00	0a	0a	0a	0a	0a	0a	0.0
12:15	0a	0a	0a	0a	0a	0a	0.0
12:20	0a	0a	0a	0a	0a	0a	0.0
12:30	0a	0a	0a	0a	0a	0a	0.0
12:45	0a	0a	0a	0a	0a	0a	0.0
13:00	0a	0a	0a	0a	0a	0a	0.0

	CTMT TEMPERATURE (DEG F)	RWST LEVEL (%)	LETDOWN FLOW (GPM)	LETDOWN MONITOR WINDOW (CPM)	VCT LEVEL (%)	PWST LEVEL (%)	CHARGING FLOW (GPM)
ALARM L	-1	94.0	4	-1.0E+01	70	44	25
ALARM H	352	97.0	135	2.0E+06	90	95	141
SCALE L	0	0.0	0	1.0E+01	0	0	0
SCALE H	350	100.0	140	1.0E+06	100	100	140
07:00	75	16.0a	39	0.0E+00s	19a	90	0a
07:15	75	16.0a	39	0.0E+00s	19a	90	0a
07:30	75	16.0a	39	0.0E+00s	19a	90	0a
07:35	75	16.0a	39	0.0E+00s	19a	90	90
07:40	75	16.0a	39	0.0E+00s	19a	90	90
07:45	75	15.0a	39	0.0E+00s	19a	90	90
08:00	75	14.0a	39	0.0E+00s	19a	90	90
08:15	75	13.0a	39	0.0E+00s	19a	90	90
08:20	75	12.0a	39	0.0E+00s	19a	90	90
08:30	75	12.0a	39	0.0E+00s	19a	90	90
08:45	75	11.0a	39	0.0E+00s	19a	90	90
09:00	75	9.0a	39	0.0E+00s	19a	90	90
09:15	75	8.0a	39	0.0E+00s	19a	90	90
09:30	75	7.0a	0a	0.0E+00s	19a	90	0a
09:45	75	7.0a	0a	0.0E+00s	19a	90	0a
10:00	75	7.0a	0a	0.0E+00s	19a	90	0a
10:15	75	7.0a	0a	0.0E+00s	19a	90	0a
10:30	75	7.0a	0a	0.0E+00s	19a	90	0a
10:45	75	7.0a	39	0.0E+00s	19a	90	90
11:00	75	7.0a	39	0.0E+00s	19a	90	90
11:15	75	7.0a	39	0.0E+00s	19a	90	0a
11:30	75	7.0a	39	0.0E+00s	19a	90	0a
11:35	75	7.0a	39	0.0E+00s	19a	90	0a
11:45	75	7.0a	39	0.0E+00s	19a	90	0a
12:00	75	7.0a	39	0.0E+00s	19a	90	0a
12:15	75	7.0a	39	0.0E+00s	19a	90	0a
12:20	75	7.0a	39	0.0E+00s	19a	90	90
12:30	75	7.0a	39	0.0E+00s	19a	90	90
12:45	75	7.0a	39	0.0E+00s	19a	90	90
13:00	75	7.0a	39	0.0E+00s	19a	90	90

	CHARGING PUMP A	CHARGING PUMP B	CHARGING PUMP C	BORIC ACID TANK A LEVEL (%)	BORIC ACID TANK B LEVEL (%)	GRAVITY FEED VALVES (O,C)	BORIC ACID PUMP A
ALARM L	0	0	0	70	70	0	0
ALARM H	9	9	9	99	99	9	9
SCALE L	0	0	0	0	0	0	0
SCALE H	9	9	9	100	100	9	9
07:00	N	N	N	91	0a	C	0a
07:15	N	N	N	91	0a	C	0a
07:30	N	N	N	91	0a	C	0a
07:35	Y	Y	N	91	0a	C	0a
07:40	Y	Y	N	91	0a	C	0a
07:45	Y	Y	N	91	0a	C	0a
08:00	Y	Y	N	91	0a	C	0a
08:15	Y	Y	N	91	0a	C	0a
08:20	Y	Y	N	91	0a	C	0a
08:30	Y	Y	N	91	0a	C	0a
08:45	Y	Y	N	91	0a	C	0a
09:00	Y	Y	N	91	0a	C	0a
09:15	Y	Y	N	91	0a	C	0a
09:30	N	N	N	91	0a	C	0a
09:45	N	N	N	91	0a	C	0a
10:00	N	N	N	91	0a	C	0a
10:15	N	N	N	91	0a	C	0a
10:30	N	N	N	91	0a	C	0a
10:45	Y	Y	N	91	0a	C	0a
11:00	Y	Y	N	91	0a	C	0a
11:15	N	N	N	91	0a	C	0a
11:30	N	N	N	91	0a	C	0a
11:35	N	N	N	91	0a	C	0a
11:45	N	N	N	91	0a	C	0a
12:00	N	N	N	91	0a	C	0a
12:15	N	N	N	91	0a	C	0a
12:20	Y	Y	N	91	0a	C	0a
12:30	Y	Y	N	91	0a	C	0a
12:45	Y	Y	N	91	0a	C	0a
13:00	Y	Y	N	91	0a	C	0a

	A HOT LEG TEMP (DEG F)	A COLD LEG TEMP (DEG F)	B HOT LEG TEMP (DEG F)	B COLD LEG TEMP (DEG F)	REACTOR COOLANT PUMP 1A (R,S,NA)	REACTOR COOLANT PUMP 1B (R,S,NA)	REACTOR COOLANT PUMP 2A (R,S,NA)
ALARM L	-1	-1	-1	-1	0	0	0
ALARM H	702	702	702	702	9	9	9
SCALE L	0	0	0	0	0	0	0
SCALE H	700	700	700	700	9	9	9
07:00	0	68	0	71	NA	NA	NA
07:15	0	68	0	71	NA	NA	NA
07:30	0	68	0	71	NA	NA	NA
07:35	0	68	0	71	NA	NA	NA
07:40	0	68	0	71	NA	NA	NA
07:45	0	68	0	71	NA	NA	NA
08:00	0	68	0	71	NA	NA	NA
08:15	0	68	0	71	NA	NA	NA
08:20	0	68	0	71	NA	NA	NA
08:30	0	68	0	71	NA	NA	NA
08:45	0	68	0	71	NA	NA	NA
09:00	0	68	0	71	NA	NA	NA
09:15	0	68	0	71	NA	NA	NA
09:30	0	68	0	71	NA	NA	NA
09:45	0	68		71	NA	NA	NA
10:00	0	68		.1	NA	NA	NA
10:15	0	68	0	71	NA	NA	NA
10:30	0	68	0	71	NA	NA	NA
10:45	0	68	0	71	NA	NA	NA
11:00	0	68	0	71	NA	NA	NA
11:15	0	68	0	71	NA	NA	NA
11:30	0	68	0	71	NA	NA	NA
11:35	0	68	0	71	NA	NA	NA
11:45	0	68	0	71	NA	NA	NA
12:00	0	68	0	71	NA	NA	NA
12:15	0	68	0	71	NA	NA	NA
12:20	0	68	0	71	NA	NA	NA
12:30	0	68	0	71	NA	NA	NA
12:45	0	68	0	71	NA	NA	NA
13:00	0	68	0	71	NA	NA	NA

	REACTOR COOLANT PUMP 2B (R,S,NA)	PRESSURIZER PRESSURE (PSIA)	PRESSURIZER LEVEL (%)	PRESSURIZER BLOCK VALVE 1 (O,C)	PRESSURIZER BLOCK VAVLE 2 (O,C)	QUENCH TANK LEVEL (%)	QUENCH TANK TEMPERATURE
ALARM L	0	2225	60	0	0	45	-1
ALARM H	9	2275	76	9	9	56	120
SCALE L	0	1500	0	0	0	0	0
SCALE H	9	2500	100	9	9	100	250
07:00	NA	22s	58a	O	O	50	67
07:15	NA	22s	58a	O	O	50	67
07:30	NA	22s	58a	O	O	50	67
07:35	NA	22s	56a	O	O	50	67
07:40	NA	22s	54a	O	O	50	67
07:45	NA	22s	52a	O	O	50	67
08:00	NA	21s	46a	O	O	50	67
08:15	NA	21s	41a	O	O	50	67
08:20	NA	21s	39a	O	O	50	67
08:30	NA	21s	35a	O	O	50	67
08:45	NA	20s	29a	O	O	50	67
09:00	NA	20s	23a	O	O	50	67
09:15	NA	20s	17a	O	O	50	67
09:30	NA	19s	12a	O	O	50	67
09:45	NA	19s	6a	O	O	50	67
10:00	NA	19s	0a	O	O	50	67
10:15	NA	18s	0a	O	O	50	67
10:30	NA	18s	0a	O	O	50	67
10:45	NA	18s	0a	O	O	50	67
11:00	NA	18s	0a	O	O	50	67
11:15	NA	18s	0a	O	O	50	67
11:30	NA	18s	0a	O	O	50	67
11:35	NA	18s	0a	O	O	50	67
11:45	NA	18s	0a	O	O	50	67
12:00	NA	18s	0a	O	O	50	67
12:15	NA	18s	0a	O	O	50	67
12:20	NA	18s	0a	O	O	50	67
12:30	NA	18s	0a	O	O	50	67
12:45	NA	18s	0a	O	O	50	67
13:00	NA	18s	0a	O	O	50	67

	QUENCH TANK PRESSURE (PSIG)	CEA POSITION STEPS	STEAM GENERATOR 1 PRESSURE (PSIG)	STEAM GENERATOR 1 LEVEL (%)	STEAM GENERATOR 2 PRESSURE (PSIG)	STEAM GENERATOR 2 LEVEL (%)	MAIN FLOW 1 (LBM/HR X E6)
ALARM L	-1	-1	600	60	600	60	-1.00
ALARM H	35	181	1001	70	1001	70	6.40
SCALE L	0	0	0	0	0	0	0.00
SCALE H	100	180	1000	100	1000	100	6.30
07:00	0	0	0a	0a	0a	0a	0.00
07:15	0	0	0a	0a	0a	0a	0.00
07:30	0	0	0a	0a	0a	0a	0.00
07:35	0	0	0a	0a	0a	0a	0.00
07:40	0	0	0a	0a	0a	0a	0.00
07:45	0	0	0a	0a	0a	0a	0.00
08:00	0	0	0a	0a	0a	0a	0.00
08:15	0	0	0a	0a	0a	0a	0.00
08:20	0	0	0a	0a	0a	0a	0.00
08:30	0	0	0a	0a	0a	0a	0.00
08:45	0	0	0a	0a	0a	0a	0.00
09:00	0	0	0a	0a	0a	0a	0.00
09:15	0	0	0a	0a	0a	0a	0.00
09:30	0	0	0a	0a	0a	0a	0.00
09:45	0	0	0a	0a	0a	0a	0.00
10:00	0	0	0a	0a	0a	0a	0.00
10:15	0	0	0a	0a	0a	0a	0.00
10:30	0	0	0a	0a	0a	0a	0.00
10:45	0	0	0a	0a	0a	0a	0.00
11:00	0	0	0a	0a	0a	0a	0.00
11:15	0	0	0a	0a	0a	0a	0.00
11:30	0	0	0a	0a	0a	0a	0.00
11:35	0	0	0a	0a	0a	0a	0.00
11:45	0	0	0a	0a	0a	0a	0.00
12:00	0	0	0a	0a	0a	0a	0.00
12:15	0	0	0a	0a	0a	0a	0.00
12:20	0	0	0a	0a	0a	0a	0.00
12:30	0	0	0a	0a	0a	0a	0.00
12:45	0	0	0a	0a	0a	0a	0.00
13:00	0	0	0a	0a	0a	0a	0.00

	MAIN FLOW 2 (LBM/HR X E6)	AUXILIARY FLOW 1 (GPM)	AUXILIARY FLOW 2 (GPM)	MAIN FEED WATER PUMP 1 (Y,N)	MAIN FEED WATER PUMP 2 (Y,N)	AUX FEED WATER PUMP A (Y,N)	AUX FEED WATER PUMP B (Y,N)
ALARM L	-1.00	-1	-1	0	0	0	0
ALARM H	6.40	602	602	9	9	9	9
SCALE L	0.00	0	0	0	0	0	0
SCALE H	6.30	600	600	9	9	9	9
07:00	0.00	0	0	N	N	N	N
07:15	0.00	0	0	N	N	N	N
07:30	0.00	0	0	N	N	N	N
07:35	0.00	0	0	N	N	N	N
07:40	0.00	0	0	N	N	N	N
07:45	0.00	0	0	N	N	N	N
08:00	0.00	0	0	N	N	N	N
08:15	0.00	0	0	N	N	N	N
08:20	0.00	0	0	N	N	N	N
08:30	0.00	0	0	N	N	N	N
08:45	0.00	0	0	N	N	N	N
09:00	0.00	0	0	N	N	N	N
09:15	0.00	0	0	N	N	N	N
09:30	0.00	0	0	N	N	N	N
09:45	0.00	0	0	N	N	N	N
10:00	0.00	0	0	N	N	N	N
10:15	0.00	0	0	N	N	N	N
10:30	0.00	0	0	N	N	N	N
10:45	0.00	0	0	N	N	N	N
11:00	0.00	0	0	N	N	N	N
11:15	0.00	0	0	N	N	N	N
11:30	0.00	0	0	N	N	N	N
11:35	0.00	0	0	N	N	N	N
11:45	0.00	0	0	N	N	N	N
12:00	0.00	0	0	N	N	N	N
12:15	0.00	0	0	N	N	N	N
12:20	0.00	0	0	N	N	N	N
12:30	0.00	0	0	N	N	N	N
12:43	0.00	0	0	N	N	N	N
13:00	0.00	0	0	N	N	N	N

	AUX FEED WATER PMP, STEAM	CONDENSAT STORAGE LEVEL (%)	CONDENSER VACUUM (INCHES)	ATMOSPHERIC DUMP VALVE A (%OPEN)	ATMOSPHERIC DUMP VALVE B (%OPEN)	CONDENSER BYPASS VALVE (%OPEN)	CONTAINMENT SUMP LEVEL (%)
ALARM L	0	70	-1.0	-1	-1	-1	7
ALARM H	9	99	5.0	1	1	1	78
SCALE L	0	0	0.0	0	0	0	0
SCALE H	9	100	30.0	100	100	100	100
07:00	N	0a	0.0	0	0	0	48
07:15	N	0a	0.0	0	0	0	48
07:30	N	0a	0.0	0	0	0	48
07:35	N	0a	0.0	0	0	0	100a
07:40	N	0a	0.0	0	0	0	100a
07:45	N	0a	0.0	0	0	0	100a
08:00	N	0a	0.0	0	0	0	100a
08:15	N	0a	0.0	0	0	0	100a
08:20	N	0a	0.0	0	0	0	100a
08:30	N	0a	0.0	0	0	0	100a
08:45	N	0a	0.0	0	0	0	100a
09:00	N	0a	0.0	0	0	0	100a
09:15	N	0a	0.0	0	0	0	100a
09:30	N	0a	0.0	0	0	0	100a
09:45	N	0a	0.0	0	0	0	100a
10:00	N	0a	0.0	0	0	0	100a
10:15	N	0a	0.0	0	0	0	100a
10:30	N	0a	0.0	0	0	0	100a
10:45	N	0a	0.0	0	0	0	100a
11:00	N	0a	0.0	0	0	0	100a
11:15	N	0a	0.0	0	0	0	100a
11:30	N	0a	0.0	0	0	0	100a
11:35	N	0a	0.0	0	0	0	100a
11:45	N	0a	0.0	0	0	0	100a
12:00	N	0a	0.0	0	0	0	100a
12:15	N	0a	0.0	0	0	0	100a
12:20	N	0a	0.0	0	0	0	100a
12:30	N	0a	0.0	0	0	0	100a
12:45	N	0a	0.0	0	0	0	100a
13:00	N	0a	0.0	0	0	0	100a

	CIRC WATER PUMP A (Y,N)	CIRC WATER PUMP B (Y,N)	CIRC WATER PUMP C (Y,N)	CIRC WATER PUMP D (Y,N)	REFUEL POOL VISUAL LEVEL (FT)	VENT FAN B OPERATING (Y,N)	NOT USED
ALARM L	0	0	0	0	0.0	0	0
ALARM H	9	9	9	9	38.0	9	9
SCALE L	0	0	0	0	0.0	0	0
SCALE H	9	9	9	9	38.0	9	9
07:00	Y	N	Y	N	37.0	NA	NA
07:15	Y	N	Y	N	35.0	NA	NA
07:30	Y	N	Y	N	33.0	NA	NA
07:35	Y	N	Y	N	32.0	NA	NA
07:40	Y	N	Y	N	31.0	NA	NA
07:45	Y	N	Y	N	31.0	NA	NA
08:00	Y	N	Y	N	29.0	NA	NA
08:15	Y	N	Y	N	27.0	NA	NA
08:20	Y	N	Y	N	26.0	NA	NA
08:30	Y	N	Y	N	25.0	NA	NA
08:45	Y	N	Y	N	23.0	NA	NA
09:00	Y	N	Y	N	21.0	NA	NA
09:15	Y	N	Y	N	19.0	NA	NA
09:30	Y	N	Y	N	17.0	NA	NA
09:45	N	N	N	N	14.0	NA	NA
10:00	N	N	N	N	13.0	NA	NA
10:15	N	N	N	N	13.0	NA	NA
10:30	N	N	N	N	13.0	NA	NA
10:45	Y	N	Y	N	13.0	NA	NA
11:00	Y	N	Y	N	13.0	NA	NA
11:15	Y	N	Y	N	13.0	NA	NA
11:30	Y	N	Y	N	13.0	NA	NA
11:35	Y	N	Y	N	13.0	NA	NA
11:45	Y	N	Y	N	13.0	NA	NA
12:00	Y	N	Y	N	13.0	NA	NA
12:15	Y	N	Y	N	13.0	NA	NA
12:20	Y	N	Y	N	13.0	NA	NA
12:30	Y	N	Y	N	13.0	NA	NA
12:45	Y	N	Y	N	13.0	NA	NA
13:00	Y	N	Y	N	14.0	NA	NA

	OFFSITE POWER (Y,N)	DIESEL GENERATOR 12U (S,R,N/A)	DIESEL GENERATOR 13U (S,R,NA)	S/G BLOW DOWN (CPM)	CONDENSAT AIR EJECTOR (CPM)	MP2 VENT GAS (CPM)	MP2 VENT HI RANGE (uCi/CC)
ALARM L	0	0	0	1.0E+03	1.00E+01	1.00E+01	0.0E+00
ALARM H	9	9	9	3.0E+05	1.00E+03	5.00E+02	2.0E-01
SCALE L	0	0	0	0.0E+00	0.00E+00	0.00E+00	0.0E+00
SCALE H	9	9	9	1.0E+06	1.00E+06	1.00E+06	1.0E+05
07:00	Y	S	NA	0.0E+00a	0.00E+00a	4.40E+01	0.0E+00a
07:15	Y	S	NA	0.0E+00a	0.00E+00a	4.40E+01	0.0E+00a
07:30	Y	S	NA	0.0E+00a	0.00E+00a	4.40E+01	0.0E+00a
07:35	Y	S	NA	0.0E+00a	0.00E+00a	4.40E+01	0.0E+00a
07:40	Y	S	NA	0.0E+00a	0.00E+00a	4.40E+01	0.0E+00a
07:45	Y	S	NA	0.0E+00a	0.00E+00a	4.40E+01	0.0E+00a
08:00	Y	S	NA	0.0E+00a	0.00E+00a	4.40E+01	0.0E+00a
08:15	Y	S	NA	0.0E+00a	0.00E+00a	4.40E+01	0.0E+00a
08:20	Y	S	NA	0.0E+00a	0.00E+00a	4.40E+01	0.0E+00a
08:30	Y	S	NA	0.0E+00a	0.00E+00a	4.40E+01	0.0E+00a
08:45	N	R	NA	0.0E+00a	0.00E+00a	4.40E+01	0.0E+00a
09:00	N	R	NA	0.0E+00a	0.00E+00a	4.40E+01	0.0E+00a
09:15	N	R	NA	0.0E+00a	0.00E+00a	4.40E+01	0.0E+00a
09:30	N	NA	NA	0.0E+00a	0.00E+00a	4.40E+01	0.0E+00*
09:45	N	NA	NA	0.0E+00a	0.00E+00a	4.40E+01	0.0E+00*
10:00	N	NA	NA	0.0E+00a	0.00E+00a	4.40E+01	0.0E+00*
10:15	N	NA	NA	0.0E+00a	0.00E+00a	4.40E+01	0.0E+00*
10:30	N	NA	NA	0.0E+00a	0.00E+00a	4.40E+01	0.0E+00a
10:45	N	NA	NA	0.0E+00a	0.00E+00a	4.40E+01	0.0E+00a
11:00	N	NA	NA	0.0E+00a	0.00E+00a	4.40E+01	0.0E+00a
11:15	N	NA	NA	0.0E+00a	0.00E+00a	4.40E+01	0.0E+00a
11:30	N	NA	NA	0.0E+00a	0.00E+00a	4.40E+01	0.0E+00a
11:35	N	NA	NA	0.0E+00a	0.00E+00a	4.40E+01	0.0E+00a
11:45	N	NA	NA	0.0E+00a	0.00E+00a	4.40E+01	0.0E+00a
12:00	N	NA	NA	0.0E+00a	0.00E+00a	4.40E+01	0.0E+00a
12:15	N	NA	NA	0.0E+00a	0.00E+00a	4.40E+01	0.0E+00a
12:20	N	NA	NA	0.0E+00a	0.00E+00a	4.40E+01	0.0E+00a
12:30	N	NA	NA	0.0E+00a	0.00E+00a	4.40E+01	0.0E+00a
12:45	N	NA	NA	0.0E+00a	0.00E+00a	4.40E+01	0.0E+00a
13:00	N	NA	NA	0.0E+00a	0.00E+00a	4.40E+01	0.0E+00a

	WIND SPEED 33 FT (MPH)	WIND SPEED 142 FT (MPH)	WIND SPEED 374 FT (MPH)	WIND DIRECTION 33 FT (DEG)	WIND DIRECTION 142 FT (DEG)	WIND DIRECTION 374 FT (DEG)	DELTA T 142 (DEG F)
ALARM L	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-11.00
ALARM H	101.0	101.0	101.0	541.0	541.0	541.0	19.00
SCALE L	0.0	0.0	0.0	0.0	0.0	0.0	-10.00
SCALE H	100.0	100.0	100.0	540.0	540.0	540.0	18.00
07:00	20.8	25.7	27.1	265.0	261.0	261.0	-0.90
07:15	20.8	25.7	27.1	265.0	261.0	261.0	-0.90
07:30	20.8	21.0	25.5	265.0	261.0	261.0	-0.90
07:35	20.8	21.0	25.5	265.0	261.0	261.0	-0.90
07:40	20.8	21.0	25.5	265.0	261.0	261.0	-0.90
07:45	19.9	19.9	24.2	266.0	262.0	262.0	-0.90
08:00	19.0	19.7	24.2	267.0	264.0	264.0	-0.90
08:15	19.5	19.9	23.7	269.0	266.0	267.0	-0.90
08:20	19.5	19.9	23.7	269.0	266.0	267.0	-0.90
08:30	20.6	21.0	23.1	270.0	267.0	269.0	-0.90
08:45	19.9	20.4	22.0	271.0	268.0	269.0	-0.90
09:00	20.4	21.0	22.8	269.0	267.0	269.0	-1.10
09:15	19.9	20.2	22.0	269.0	266.0	267.0	-0.90
09:30	17.7	18.1	19.3	268.0	266.0	268.0	-0.90
09:45	18.4	18.8	19.7	269.0	267.0	268.0	-0.90
10:00	20.4	20.6	21.0	273.0	271.0	273.0	-0.90
10:15	18.8	19.0	19.7	276.0	274.0	276.0	-0.90
10:30	17.9	18.4	19.3	278.0	275.0	277.0	-0.90
10:45	17.9	17.7	18.4	280.0	278.0	278.0	-0.90
11:00	17.0	16.6	18.4	279.0	276.0	276.0	-0.90
11:15	16.6	17.0	18.4	275.0	279.0	273.0	-0.90
11:30	16.8	17.2	18.8	274.0	272.0	274.0	-0.90
11:35	16.8	17.2	18.8	274.0	272.0	274.0	-0.90
11:45	17.7	17.9	19.5	274.0	273.0	274.0	-0.90
12:00	16.6	16.4	18.1	277.0	274.0	275.0	-0.90
12:15	15.0	14.8	17.2	271.0	269.0	270.0	-0.90
12:20	15.0	14.8	17.2	271.0	269.0	270.0	-0.90
12:30	12.8	13.0	15.0	272.0	268.0	269.0	-0.90
12:45	13.7	13.9	15.9	277.0	275.0	274.0	-0.90
13:00	16.8	16.6	18.4	269.0	267.0	268.0	-0.90

	DELTA T 374 (DEG F)	MPI STACK GAS (CPS)	MP1 STACK HI RANGE (uCi/CC)	MP1 STACK FLOW RATE (CFM)	HPSI B	CTNT SPRAY PMP B	BORIC ACID PUMP B
ALARM L	-11.00	-1.00E+00	-1.00E+00	-1	0	0	0
ALARM H	19.00	3.00E+01	1.00E-02	223002	9	9	9
SCALE L	-10.00	0.00E+00	1.00E-03	0	0	0	0
SCALE H	18.00	1.00E+06	1.00E+05	223000	9	9	9
07:00	-2.30	1.20E+01	2.50E-03	160000	N	N	N
07:15	-2.30	1.20E+01	2.50E-03	160000	N	N	N
07:30	-2.30	1.20E+01	2.50E-03	160000	N	N	N
07:35	-2.30	1.20E+01	2.50E-03	160000	N	N	N
07:40	-2.30	1.20E+01	2.50E-03	160000	N	N	N
07:45	-2.30	1.20E+01	2.50E-03	160000	N	N	N
08:00	-2.30	1.20E+01	2.50E-03	160000	N	N	N
08:15	-2.50	1.20E+01	2.50E-03	160000	N	N	N
08:20	-2.50	1.20E+01	2.50E-03	160000	N	N	N
08:30	-2.50	1.20E+01	2.50E-03	160000	N	N	N
08:45	-2.50	1.20E+01	2.50E-03	160000	N	N	N
09:00	-2.50	1.20E+01	2.50E-03	160000	N	N	N
09:15	-2.30	1.20E+01	2.50E-03	160000	N	N	N
09:30	-2.50	1.20E+01	2.50E-03	160000	N	N	N
09:45	-2.50	1.20E+01	2.50E-03	160000	N	N	N
10:00	-2.50	1.20E+01	2.50E-03	160000	N	N	N
10:15	-2.50	1.20E+01	2.50E-03	160000	N	N	N
10:30	-2.50	1.20E+01	2.50E-03	160000	N	N	N
10:45	-2.50	1.20E+01	2.50E-03	160000	N	N	N
11:00	-2.50	1.20E+01	2.50E-03	160000	N	N	N
11:15	-2.50	1.20E+01	2.50E-03	160000	N	N	N
11:30	-2.50	1.20E+01	2.50E-03	160000	N	N	N
11:35	-2.50	1.20E+01	2.50E-03	160000	N	N	N
11:45	-2.50	1.20E+01	2.50E-03	160000	N	N	N
12:00	-2.50	1.20E+01	2.50E-03	160000	N	N	N
12:15	-2.50	1.20E+01	2.50E-03	160000	N	N	N
12:20	-2.50	1.20E+01	2.50E-03	160000	N	N	N
12:30	-2.50	1.20E+01	2.50E-03	160000	N	N	N
12:45	-2.50	1.20E+01	2.50E-03	160000	N	N	N
13:00	-2.30	1.20E+01	2.50E-03	160000	N	N	N

	LPSI B	HPSI C	RX VESSEL LEVEL (%)	SFP RAD MON (mR/hr)
ALARM L	0	0	-1	-1.0
ALARM H	9	9	102	50.0
SCALE L	0	0	0	0.0
SCALE H	9	9	100	10000.0
07:00	NA	N	0	0.3
07:15	NA	N	0	0.3
07:30	NA	N	0	0.3
07:35	NA	N	0	1.9
07:40	NA	N	0	3.5
07:45	NA	N	0	5.2
08:00	NA	N	0	10.0
08:15	NA	N	0	355.0a
08:20	NA	N	0	500.0a
08:30	NA	N	0	0.5
08:45	NA	N	0	0.5
09:00	NA	N	0	0.5
09:15	NA	N	0	0.6
09:30	NA	N	0	0.6
09:45	NA	N	0	0.6
10:00	NA	N	0	0.6
10:15	NA	N	0	5.0
10:30	NA	N	0	50.0a
10:45	NA	N	0	50.0a
11:00	NA	N	0	50.0a
11:15	NA	N	0	50.0a
11:30	NA	N	0	50.0a
11:35	NA	N	0	50.0a
11:45	NA	N	0	50.0a
12:00	NA	N	0	50.0a
12:15	NA	N	0	50.0a
12:20	NA	N	0	50.0a
12:30	NA	N	0	50.0a
12:45	NA	N	0	50.0a
13:00	NA	N	0	45.0

APPENDIX E.1

RADIOLOGICAL RELEASE DATA

NOTE:

NOT APPLICABLE

APPENDIX E.2

IN-PLANT RADIOLOGICAL DATA

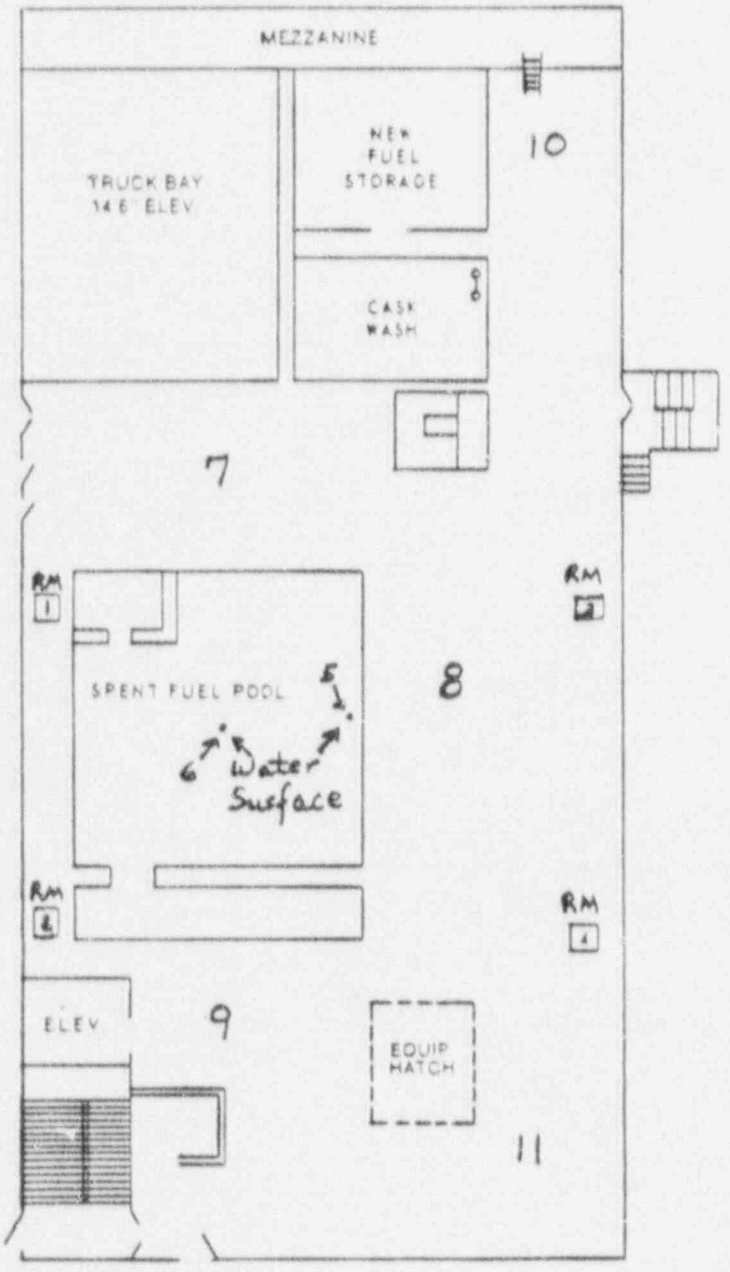
MILLSTONE NUCLEAR POWER STATION – RADIATION SURVEY FIGURE NO. 7 UNIT 2

OP2439 REV 6-86

DATE	TIME	SURVEY BY	REVIEWED BY	TYPE OF SURVEY
12/5/90	0700-0745			☐ ROUT. ☐ SPEC. ☐ RWP
DOSE RATE	**INST. TYPE**	**SERIAL NO.**	**REACTOR POWER**	**CAL. DUE DATE**

TYPE	CONT. SURVEY INST.	SERIAL NO.	I/EFF	BKG	CAL. DUE DATE
β/γ					
—					

38' 6" ELE SPENT FUEL POOL AREA



Survey Results	
POINT	mR/hr
RM1	0.3
RM2	0.3
RM3	0.3
RM4	0.3
5	1000
6	NA
7	0.3
8	0.3
9	0.3
10	0.3
11	0.3

NOTES: (1) DOSE RATE READINGS TAKEN AT WAIST LEVEL ARE TO BE INDICATED IN MR/HR AT LOCATION TAKEN.

(2) CONTAMINATION RESULTS ARE RECORDED IN DPM/100CM^2, INDICATE AND CIRCLE LOCATION ON SURVEY DIAGRAM.

(3) RECORD REACTOR POWER % IF RADIATION IS BEING PERFORMED.

(4) AREA RADIATION MONITOR LOCATION (SEE BACK OF SHEET).

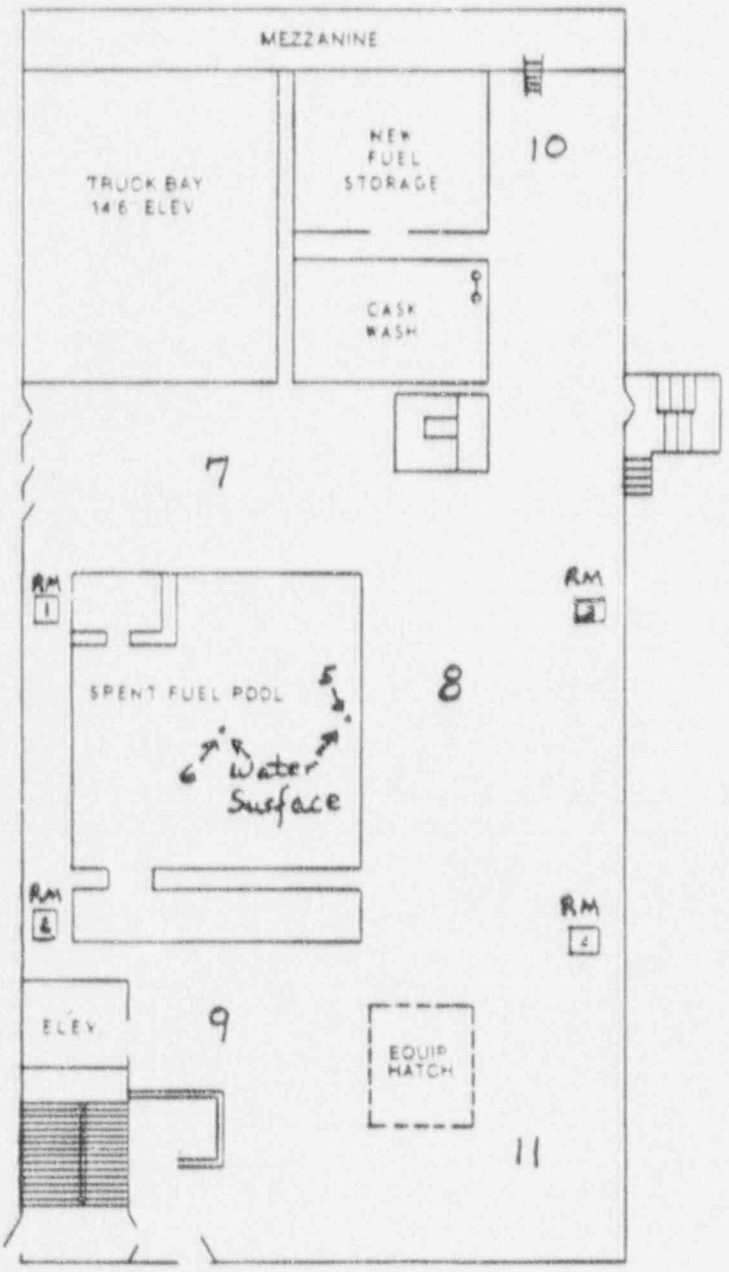
MILLSTONE NUCLEAR POWER STATION - RADIATION SURVEY FIGURE NO. 7 UNIT 2

OP2459 REV 6-86

DATE	TIME	SURVEY BY	REVIEWED BY	TYPE OF SURVEY
12/5/90	0745-0800			☐ ROUT. ☐ SPEC. ☐ RWP
DOSE RATE	INST. TYPE	SERIAL NO.	REACTOR POWER	CAL. DUE DATE

TYPE	CONT. SURVEY INST.	SERIAL NO.	1/EFF	BKG	CAL. DUE DATE
B Y					
∝					

38' 6" ELE SPENT FUEL POOL AREA



Survey Results	
POINT	mR/hr
RM 1	0.3
RM 2	0.3
RM 3	0.3
RM 4	0.3
5'	10000
6	NA
7	0.3
8	0.3
9	0.3
10	0.3
11	0.3

NOTES: (1) DOSE RATE READINGS TAKEN AT WAIST LEVEL ARE TO BE INDICATED IN MR/HR AT LOCATION TAKEN.

(2) CONTAMINATION RESULTS ARE RECORDED IN DPM/100CM^2. INDICATE AND CIRCLE LOCATION ON SURVEY DIAGRAM.

(3) RECORD REACTOR POWER % IF RADIATION IS BEING PERFORMED.

(4) AREA RADIATION MONITOR LOCATION (SEE BACK OF SHEET).

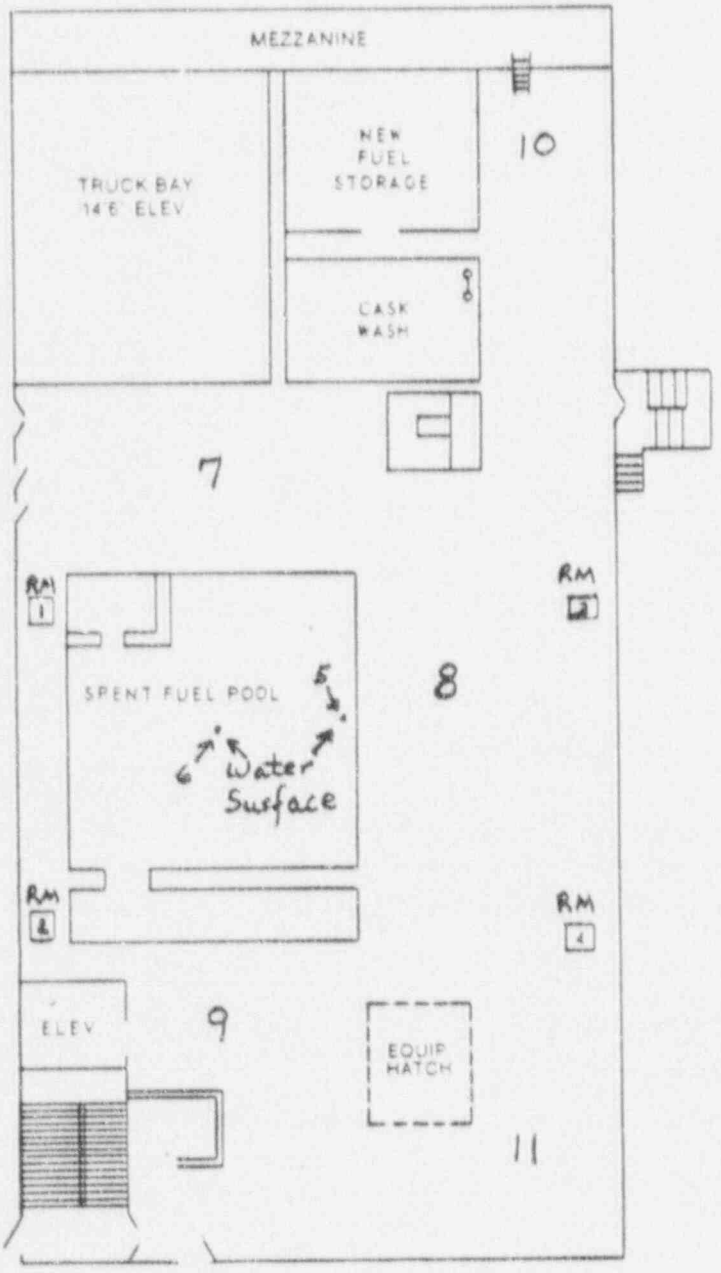
MILLSTONE NUCLEAR POWER STATION – RADIATION SURVEY FIGURE NO. 7 UNIT 2

OP2459 REV 6-86

DATE	TIME	SURVEY BY	REVIEWED BY	TYPE OF SURVEY
12/5/90	0800-0815			☐ ROUT. ☐ SPEC. ☐ RWP
DOSE RATE	**INST. TYPE**	**SERIAL NO.**	**REACTOR POWER**	**CAL. DUE DATE**

TYPE	CONT. SURVEY INST.	SERIAL NO.	1/EFF	BKG	CAL. DUE DATE
B/F					
—					

38' 6" ELE SPENT FUEL POOL AREA



Survey Results	
POINT	mR/hr
RM1	10
RM2	10
RM3	8
RM4	8
5	100,000
6	NA
7	5
8	4
9	5
10	5
11	5

NOTES: (1) DOSE RATE READINGS TAKEN AT WAIST LEVEL ARE TO BE INDICATED IN MR/HR AT LOCATION TAKEN.
(2) CONTAMINATION RESULTS ARE RECORDED IN DPM/100CM^2, INDICATE AND CIRCLE LOCATION ON SURVEY DIAGRAM.
(3) RECORD REACTOR POWER % IF RADIATION IS BEING PERFORMED.
(4) AREA RADIATION MONITOR LOCATION (SEE BACK OF SHEET).

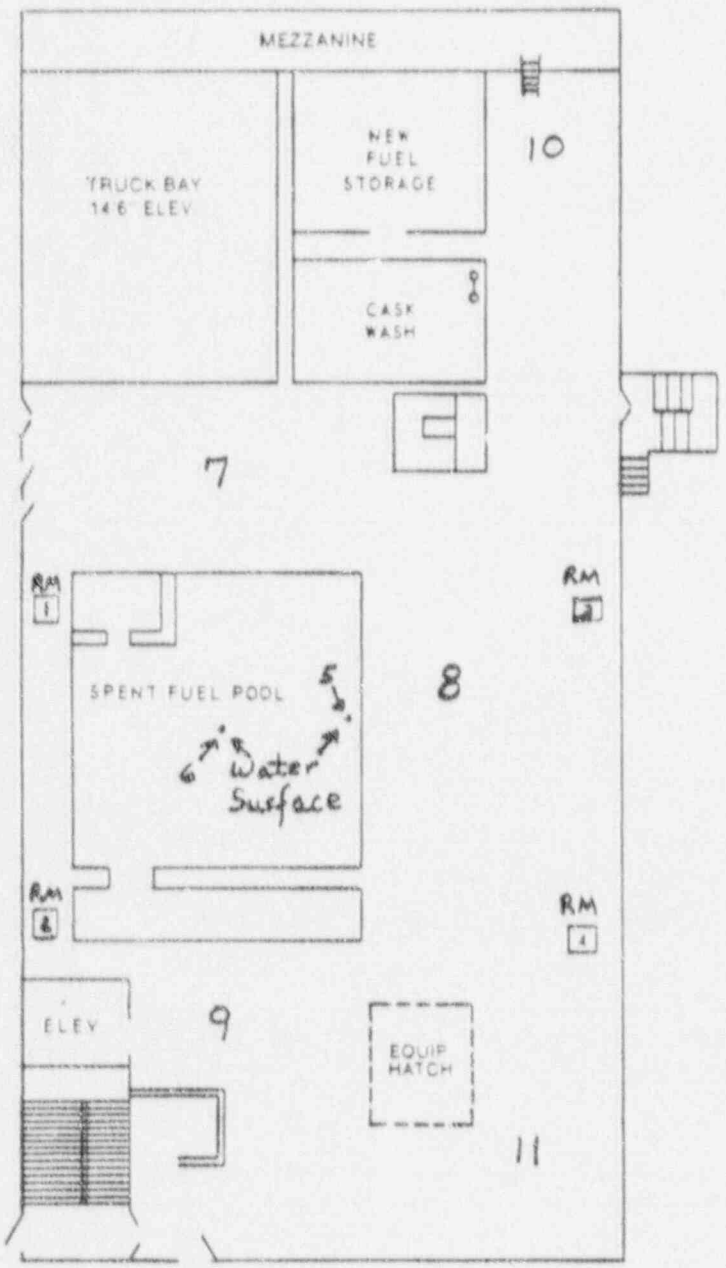
MILLSTONE NUCLEAR POWER STATION – RADIATION SURVEY FIGURE NO. 7 UNIT 2

DP2459 REV 6-86

DATE	TIME	SURVEY BY	REVIEWED BY	TYPE OF SURVEY
12/5/90	0815 - 0830			☐ ROUT. ☐ SPEC. ☐ RWP
DOSE RATE	INST. TYPE	SERIAL NO.	REACTOR POWER	CAL. DUE DATE

TYPE	CONT. SURVEY INST.	SERIAL NO.	1/EFF	BKG	CAL. DUE DATE
β γ					
∝					

38' 6" ELE SPENT FUEL POOL AREA



Survey Results	
POINT	mR/hr
RM1	355
RM2	355
RM3	80
RM4	80
5	1×10^6
6	NA
7	200
8	40
9	200
10	40
11	40

NOTES: (1) DOSE RATE READINGS TAKEN AT WAIST LEVEL ARE TO BE INDICATED IN MR/HR AT LOCATION TAKEN.

(2) CONTAMINATION RESULTS ARE RECORDED IN DPM/100CM^2, INDICATE AND CIRCLE LOCATION ON SURVEY DIAGRAM.

(3) RECORD REACTOR POWER % IF RADIATION IS BEING PERFORMED.

(4) AREA RADIATION MONITOR LOCATION (SEE BACK OF SHEET).

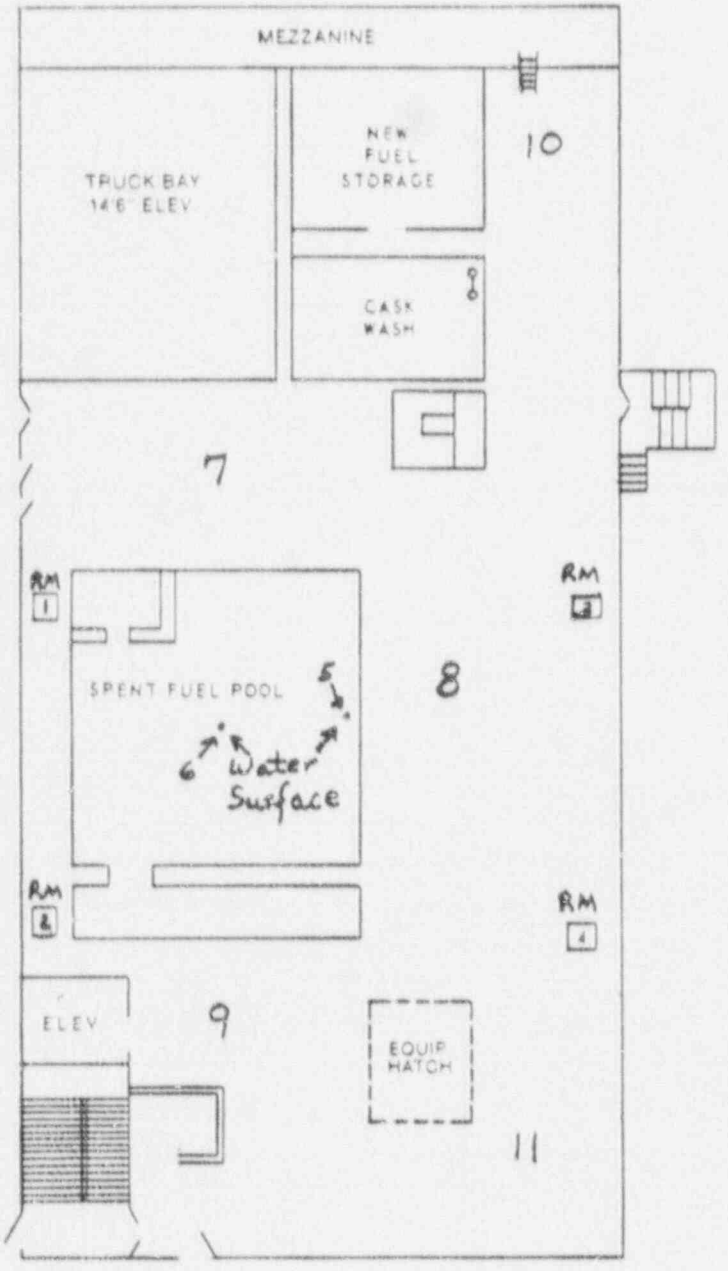
MILLSTONE NUCLEAR POWER STATION - RADIATION SURVEY FIGURE NO. 7 UNIT 2

OP2459 REV 6-86

DATE	TIME	SURVEY BY	REVIEWED BY	TYPE OF SURVEY
12/5/90	0830 - 1000			☐ ROUT. ☐ SPEC. ☐ RWP
DOSE RATE	INST. TYPE	SERIAL NO.	REACTOR POWER	CAL. DUE DATE

TYPE	CONT. SURVEY INST.	SERIAL NO.	1/EFF	BKG	CAL. DUE DATE
B/Y					
γ					

38' 6" ELE SPENT FUEL POOL AREA



Survey Results	
POINT	mR/hr
RM1	0.5
RM2	0.5
RM3	0.5
RM4	0.5
5	NA
6	NA
7	0.5
8	0.5
9	0.5
10	0.5
11	0.5

NOTES: (1) DOSE RATE READINGS TAKEN AT WAIST LEVEL ARE TO BE INDICATED IN MR/HR AT LOCATION TAKEN.

(2) CONTAMINATION RESULTS ARE RECORDED IN DPM/100CM^2, INDICATE AND CIRCLE LOCATION ON SURVEY DIAGRAM.

(3) RECORD REACTOR POWER % IF RADIATION IS BEING PERFORMED.

(4) AREA RADIATION MONITOR LOCATION (SEE BACK OF SHEET).

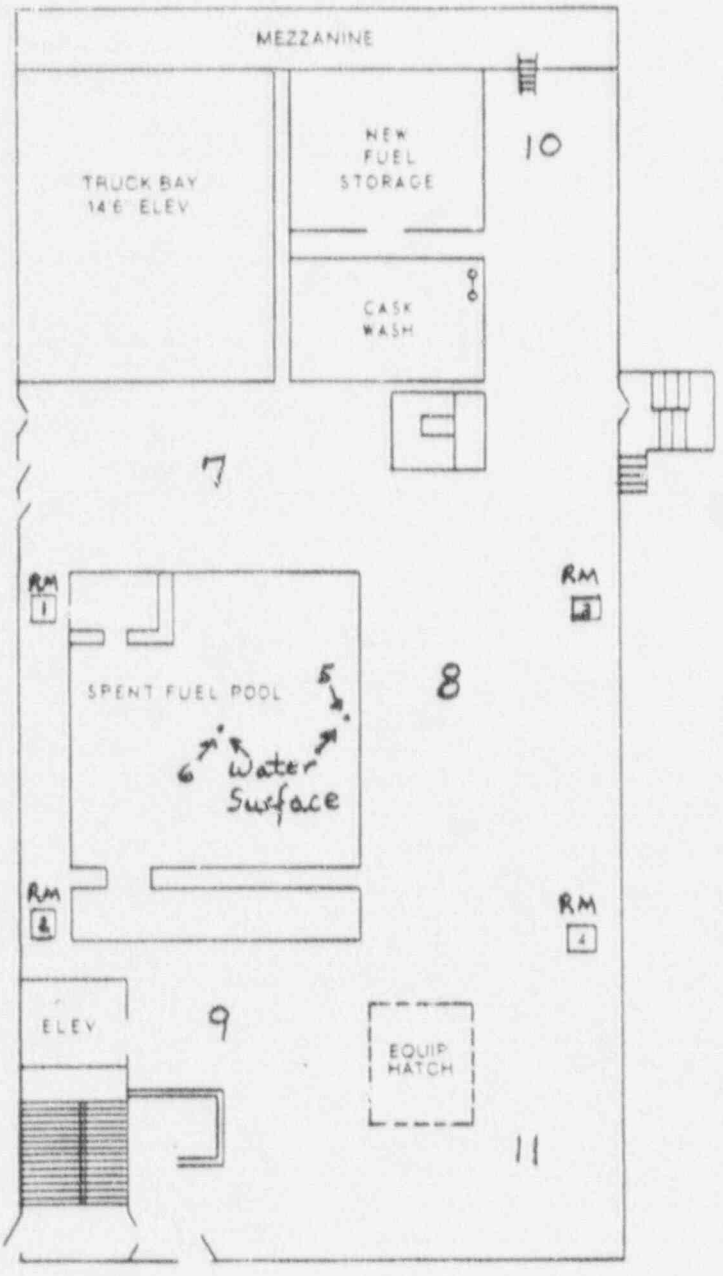
MILLSTONE NUCLEAR POWER STATION – RADIATION SURVEY FIGURE NO. 7 UNIT 2

OP2459 REV 6-86

DATE	TIME	SURVEY BY	REVIEWED BY	TYPE OF SURVEY
12/5/90	1000 - 1015			☐ ROUT. ☐ SPEC. ☐ RWP
DOSE RATE	INST. TYPE	SERIAL NO.	REACTOR POWER	CAL. DUE DATE

TYPE	CONT. SURVEY INST.	SERIAL NO.	1/EFF	BKG	CAL. DUE DATE
B/γ					
α					

38' 6" ELE. SPENT FUEL POOL AREA



Survey Results	
POINT	mR/hr
RM1	0.6
RM2	0.6
RM3	0.7
RM4	0.7
5	NA
6	1700
7	0.6
8	0.6
9	0.6
10	0.5
11	0.5

NOTES: (1) DOSE RATE READINGS TAKEN AT WAIST LEVEL ARE TO BE INDICATED IN MR/HR AT LOCATION TAKEN.

(2) CONTAMINATION RESULTS ARE RECORDED IN DPM/100CM^2, INDICATE AND CIRCLE LOCATION ON SURVEY DIAGRAM.

(3) RECORD REACTOR POWER % IF RADIATION IS BEING PERFORMED.

(4) AREA RADIATION MONITOR LOCATION (SEE BACK OF SHEET).

MILLSTONE NUCLEAR POWER STATION - RADIATION SURVEY FIGURE NO. 7

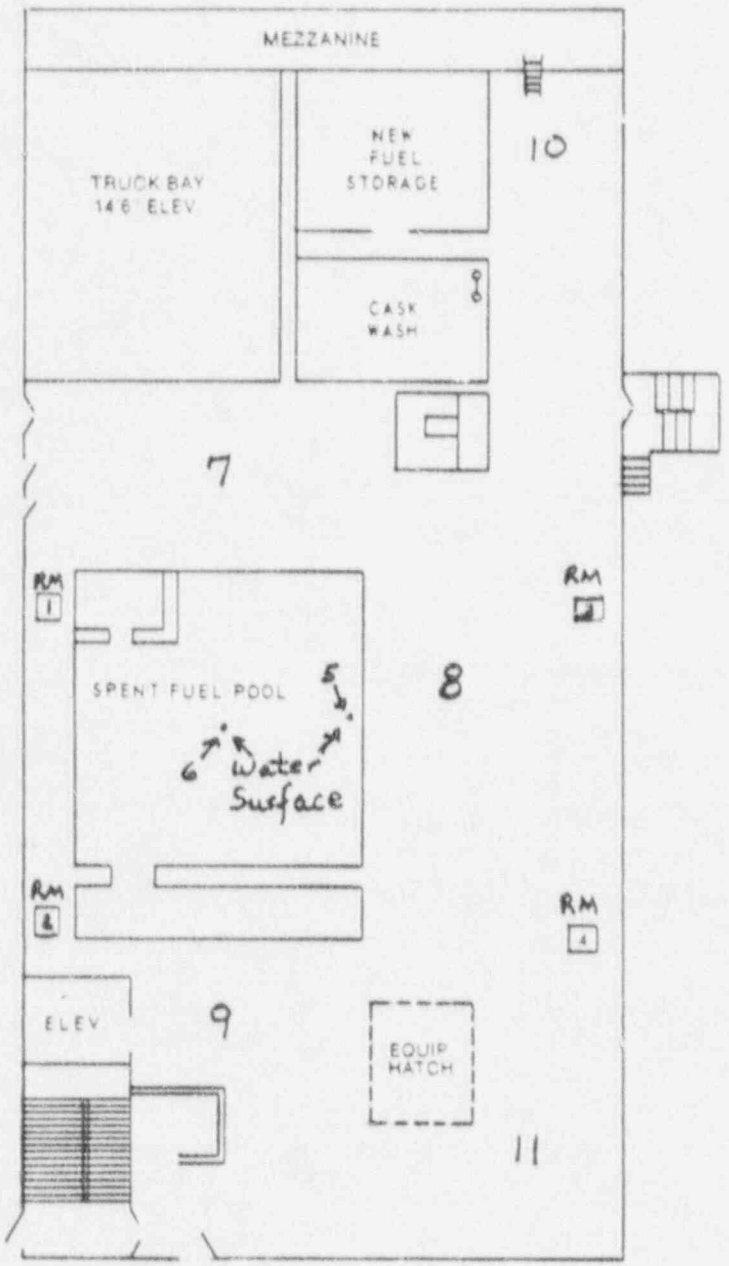
UNIT 2

OP2459 REV 6-86

DATE	TIME	SURVEY BY	REVIEWED BY	TYPE OF SURVEY
12/5/90	1015 - 1030			☐ ROUT. ☐ SPEC. ☐ RWP
DOSE RATE	**INST. TYPE**	**SERIAL NO.**	**REACTOR POWER**	**CAL. DUE DATE**

TYPE	CONT. SURVEY INST.	SERIAL NO.	1/EFF	BKG	CAL. DUE DATE
B'Y					
—					

38' 6" ELE. SPENT FUEL POOL AREA



Survey Results	
POINT	mR/hr
RM 1	5
RM 2	5
RM 3	10
RM 4	10
5	NA
6	100,000
7	5
8	5
9	5
10	7
11	8

NOTES: (1) DOSE RATE READINGS TAKEN AT WAIST LEVEL ARE TO BE INDICATED IN MR/HR AT LOCATION TAKEN.

(2) CONTAMINATION RESULTS ARE RECORDED IN DPM/100CM^2. INDICATE AND CIRCLE LOCATION ON SURVEY DIAGRAM.

(3) RECORD REACTOR POWER % IF RADIATION IS BEING PERFORMED.

(4) AREA RADIATION MONITOR LOCATION (SEE BACK OF SHEET).

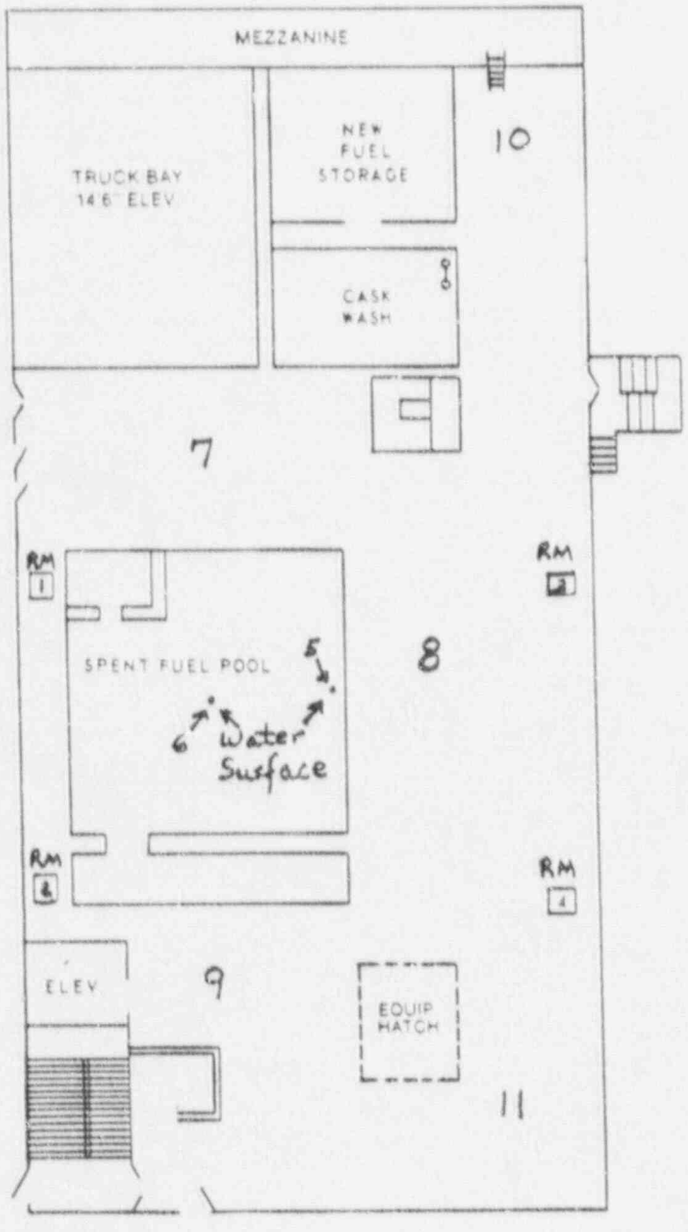
MILLSTONE NUCLEAR POWER STATION - RADIATION SURVEY FIGURE NO. 7 UNIT 2

OP2459 REV 6-86

DATE	TIME	SURVEY BY	REVIEWED BY	TYPE OF SURVEY
12/5/90	1030-1300			☐ ROUT. ☐ SPEC. ☐ RWP
DOSE RATE	INST. TYPE	SERIAL NO.	REACTOR POWER	CAL. DUE DATE

TYPE	CONT. SURVEY INST.	SERIAL NO.	1/EFF	BKG	CAL. DUE DATE
B/F					

38' 6" ELE SPENT FUEL POOL AREA



Survey Results	
POINT	mR/hr
RM1	50
RM2	50
RM3	100
RM4	100
5	NA
6	1×10^6
7	50
8	50
9	50
10	70
11	80

NOTES: (1) DOSE RATE READINGS TAKEN AT WAIST LEVEL ARE TO BE INDICATED IN MR/HR AT LOCATION TAKEN.
(2) CONTAMINATION RESULTS ARE RECORDED IN DPM/100CM^2, INDICATE AND CIRCLE LOCATION ON SURVEY DIAGRAM.
(3) RECORD REACTOR POWER % IF RADIATION IS BEING PERFORMED.
(4) AREA RADIATION MONITOR LOCATION (SEE BACK OF SHEET).

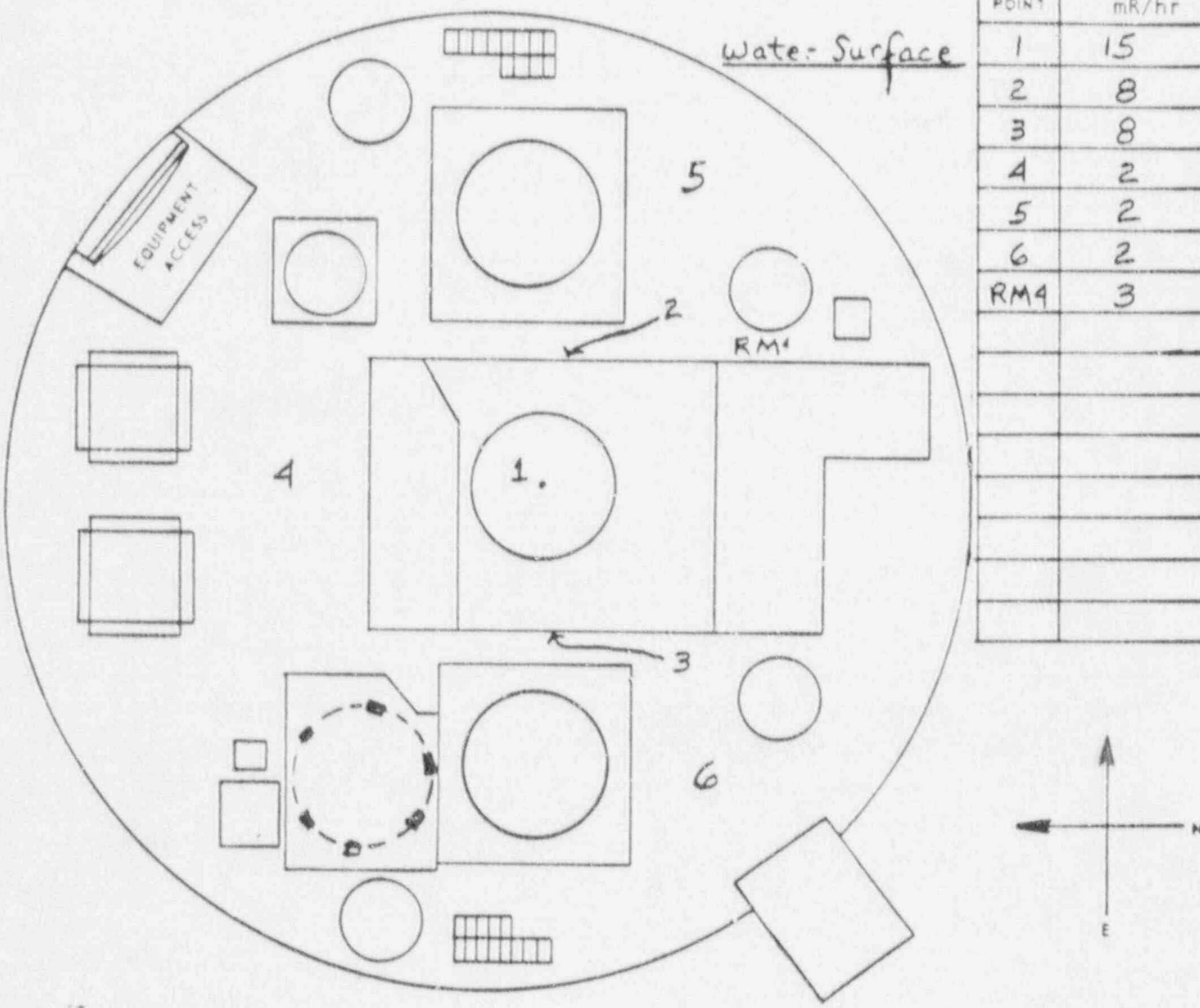
MILLSTONE NUCLEAR POWER STATION – RADIATION SURVEY FIGURE NO. 29 UNIT 2

OP 459 REV. 6-82

DATE	TIME	SURVEY BY	REVIEWED BY	TYPE OF SURVEY
12/5/90	0730-1045			☐ ROUT. ☐ SPEC. ☐ RWP
DOSE RATE	INST. TYPE	SERIAL NO.	REACTOR POWER	CAL. DUE DATE

TYPE	CONT. SURVEY INST.	SERIAL NO.	1/EFF	BKG	CAL. DUE DATE
β γ					
α					

+1 LEVEL CONTAINMENT (38' 6")



Survey Results	
POINT	mR/hr
1	15
2	8
3	8
4	2
5	2
6	2
RM4	3

NOTES: (1) DOSE RATE READINGS TAKEN AT WAIST LEVEL ARE TO BE INDICATED IN MR/HR AT LOCATION TAKEN.
(2) CONTAMINATION RESULTS ARE RECORDED IN DPM/100CM^2. INDICATE AND CIRCLE LOCATION ON SURVEY DIAGRAM.
(3) RECORD REACTOR POWER % IF RADIATION IS BEING PERFORMED.
(4) AREA RADIATION MONITOR LOCATION (SEE BACK OF SHEET).

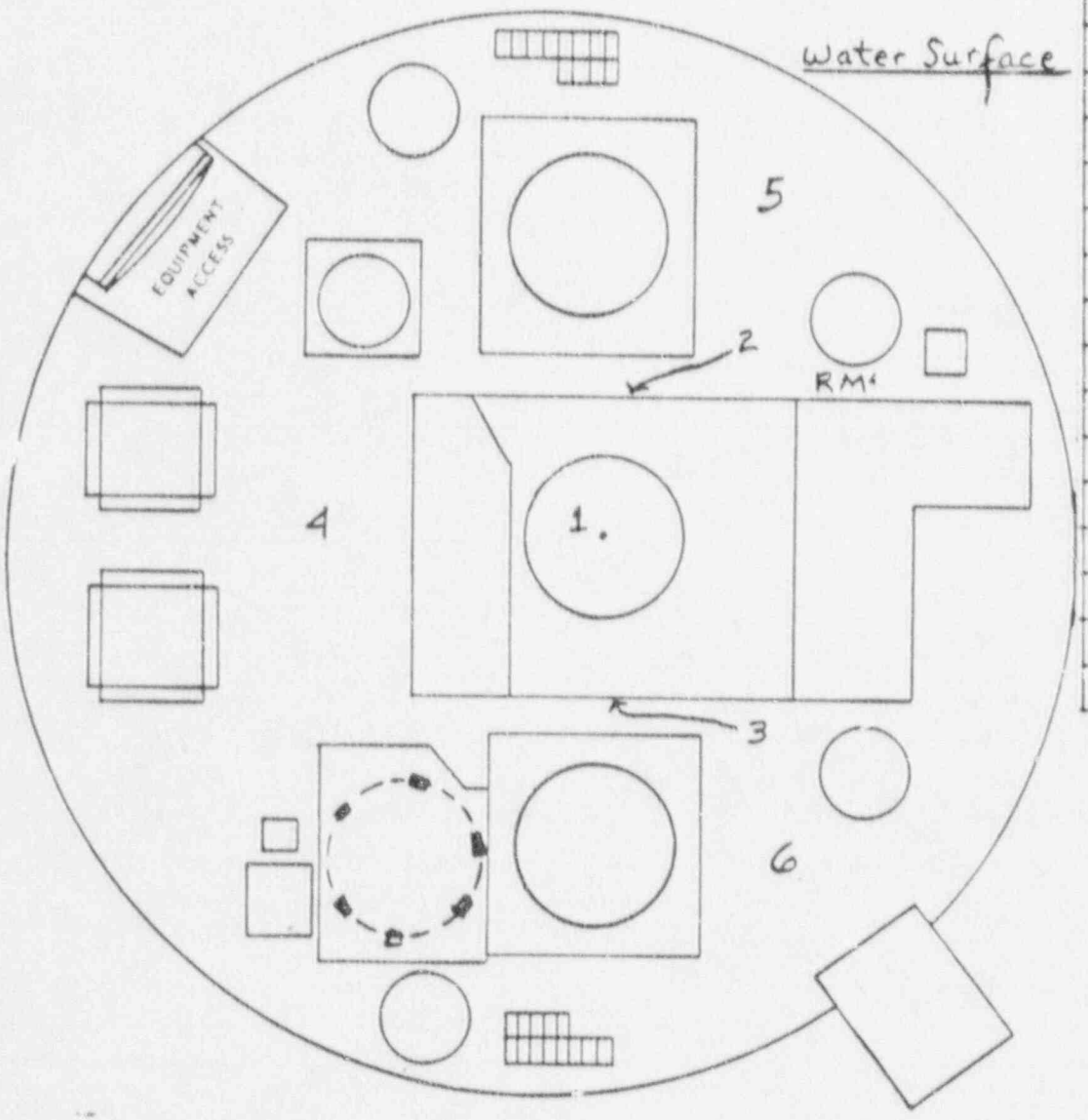
MILLSTONE NUCLEAR POWER STATION - RADIATION SURVEY FIGURE NO. 29 UNIT 2

OP2459 REV. 6-82

DATE	TIME	SURVEY BY	REVIEWED BY	TYPE OF SURVEY
12/5/90	1045-1100			☐ RCUT. ☐ SPEC. ☐ RWP
DOSE RATE	INST. TYPE	SERIAL NO.	REACTOR POWER	CAL. DUE DATE

TYPE	CONT. SURVEY INST.	SERIAL NO.	1/EFF	BKG	CAL. DUE DATE
B/Y					
GM					

+1 LEVEL CONTAINMENT (38' A")



Survey Results	
POINT	mR/hr
1	380
2	36
3	36
4	2
5	2
6	2
RM4	3

NOTES: (1) DOSE RATE READINGS TAKEN AT WAIST LEVEL ARE TO BE INDICATED IN MR/HR AT LOCATION TAKEN.

(2) CONTAMINATION RESULTS ARE RECORDED IN DPM/100CM^2, INDICATE AND CIRCLE LOCATION ON SURVEY DIAGRAM.

(3) RECORD REACTOR POWER % IF RADIATION IS BEING PERFORMED.

(4) AREA RADIATION MONITOR LOCATION (SEE BACK OF SHEET).

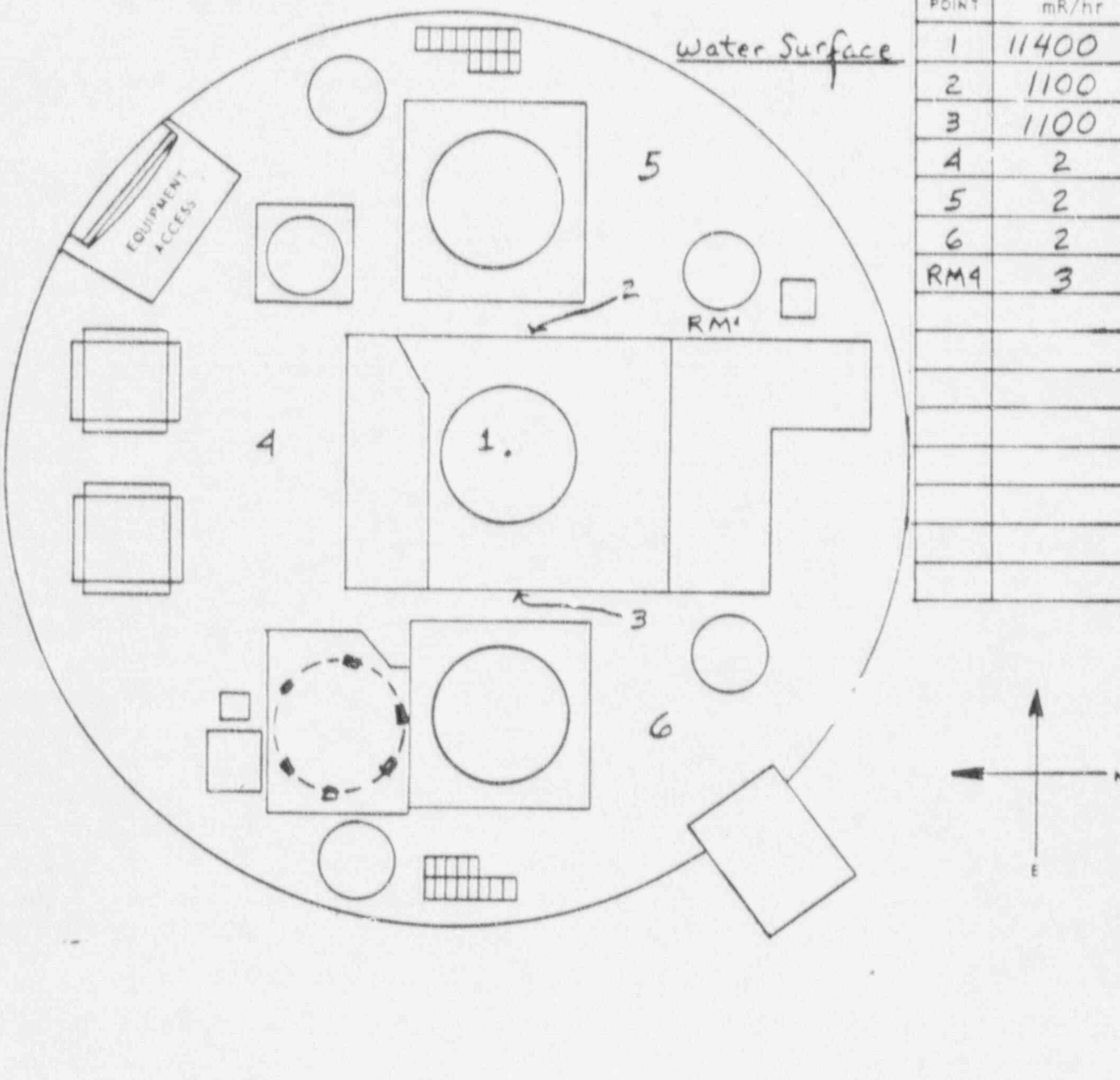
MILLSTONE NUCLEAR POWER STATION – RADIATION SURVEY FIGURE NO. 29 UNIT 2

OP2455 REV. 6-82

DATE	TIME	SURVEY BY	REVIEWED BY	TYPE OF SURVEY
12/5/90	1100-1115			☐ ROUT. ☐ SPEC. ☐ RWP
DOSE RATE	INST. TYPE	SERIAL NO.	REACTOR POWER	CAL. DUE DATE

TYPE	CONT. SURVEY INST.	SERIAL NO.	1/EFF	BKG	CAL. DUE DATE
β γ					
α					

+1 LEVEL CONTAINMENT (38'6")



Survey Results	
POINT	mR/hr
1	11400
2	1100
3	1100
4	2
5	2
6	2
RM4	3

NOTES: (1) DOSE RATE READINGS TAKEN AT WAIST LEVEL ARE TO BE INDICATED IN MR/HR AT LOCATION TAKEN.
(2) CONTAMINATION RESULTS ARE RECORDED IN DPM/100CM², INDICATE AND CIRCLE LOCATION ON SURVEY DIAGRAM.
(3) RECORD REACTOR POWER % IF RADIATION IS BEING PERFORMED.
(4) AREA RADIATION MONITOR LOCATION (SEE BACK OF SHEET).

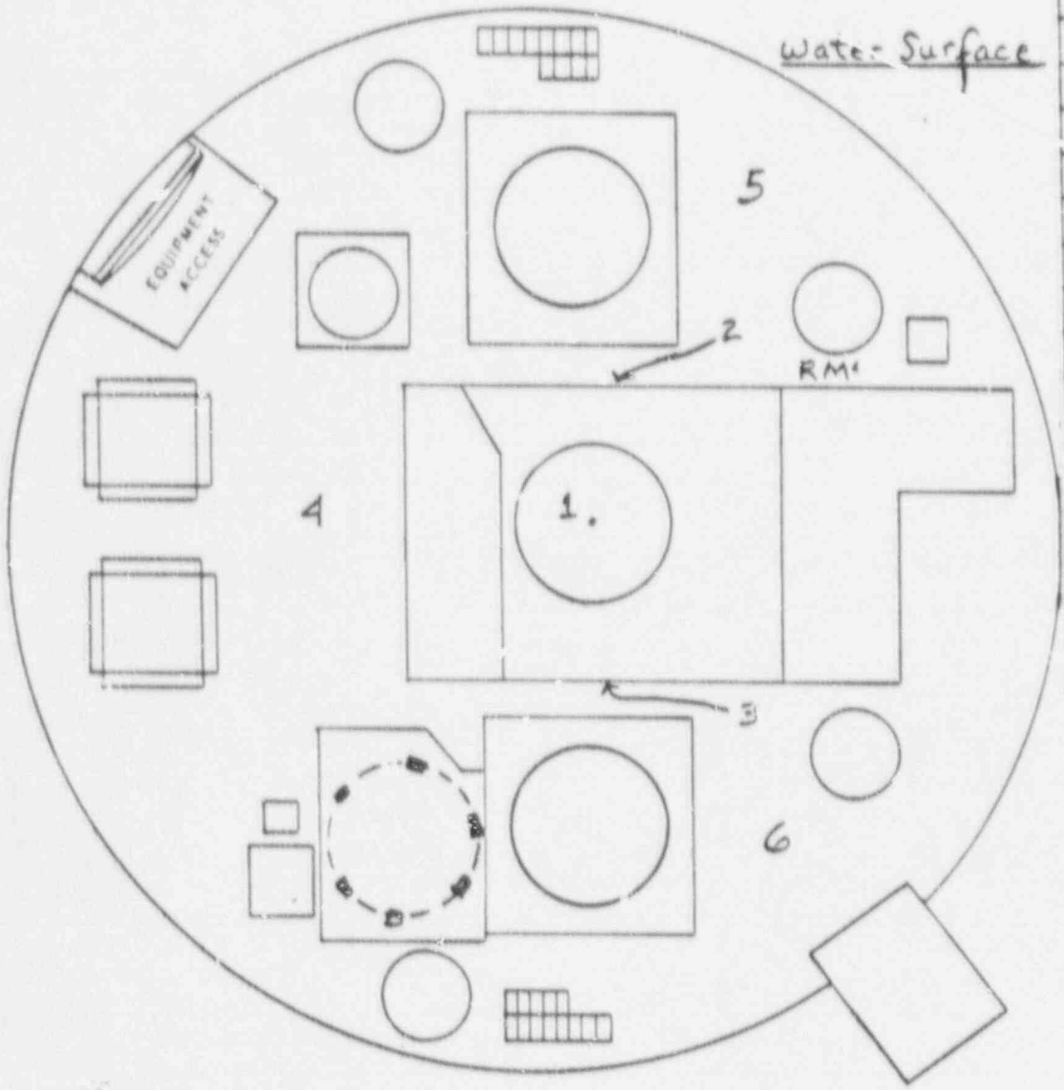
MILLSTONE NUCLEAR POWER STATION – RADIATION SURVEY FIGURE NO 29 UNIT 2

OP2455 REV. 6-82

DATE	TIME	SURVEY BY	REVIEWED BY	TYPE OF SURVEY
12/5/90	1115 - 1215			☐ ROUT. ☐ SPEC. ☐ RWP
DOSE RATE	INST. TYPE	SERIAL NO.	REACTOR POWER	CAL. DUE DATE

TYPE	CONT. SURVEY INST.	SERIAL NO.	1/EFF	BKG	CAL. DUE DATE
B-T					
—					

41 LEVEL CONTAINMENT (38' A")



Survey Results	
POINT	mR/hr
1	224000
2	21300
3	21300
4	4
5	4
6	4
RM4	5

NOTES: (1) DOSE RATE READINGS TAKEN AT WAIST LEVEL ARE TO BE INDICATED IN MR/HR AT LOCATION TAKEN.
(2) CONTAMINATION RESULTS ARE RECORDED IN DPM/100CM^2. INDICATE AND CIRCLE LOCATION ON SURVEY DIAGRAM.
(3) RECORD REACTOR POWER % IF RADIATION IS BEING PERFORMED.
(4) AREA RADIATION MONITOR LOCATION (SEE BACK OF SHEET).

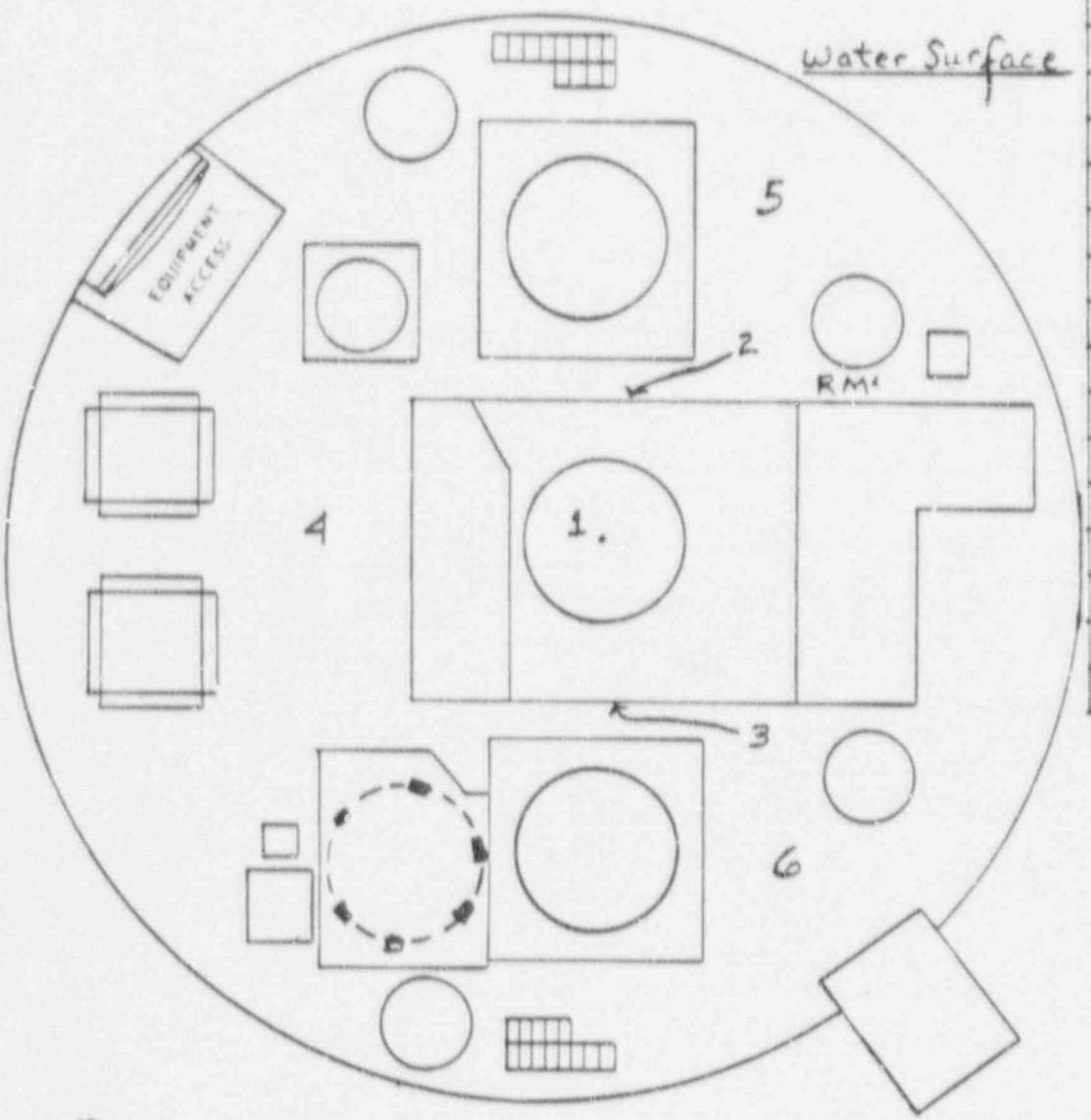
MILLSTONE NUCLEAR POWER STATION - RADIATION SURVEY FIGURE NO. 29 UNIT 2

DP2455 REV. 6-82

DATE	TIME	SURVEY BY	REVIEWED BY	TYPE OF SURVEY
12/5/90	1215 - 1230			☐ ROUT. ☐ SPEC. ☐ RWP
DOSE RATE	INST. TYPE	SERIAL NO.	REACTOR POWER	CAL. DUE DATE

TYPE	CONT. SURVEY INST.	SERIAL NO.	I/EFF	BKG	CAL. DUE DATE
B/F					
—					

+1 LEVEL CONTAINMENT (38' 4")



Survey Results	
POINT	mR/hr
1	11400
2	1100
3	1100
4	2
5	2
6	2
RM4	3

NOTES: (1) DOSE RATE READINGS TAKEN AT WAIST LEVEL ARE TO BE INDICATED IN MR/HR AT LOCATION TAKEN.

(2) CONTAMINATION RESULTS ARE RECORDED IN DPM/100CM^2, INDICATE AND CIRCLE LOCATION ON SURVEY DIAGRAM.

(3) RECORD REACTOR POWER % IF RADIATION IS BEING PERFORMED.

(4) AREA RADIATION MONITOR LOCATION (SEE BACK OF SHEET).

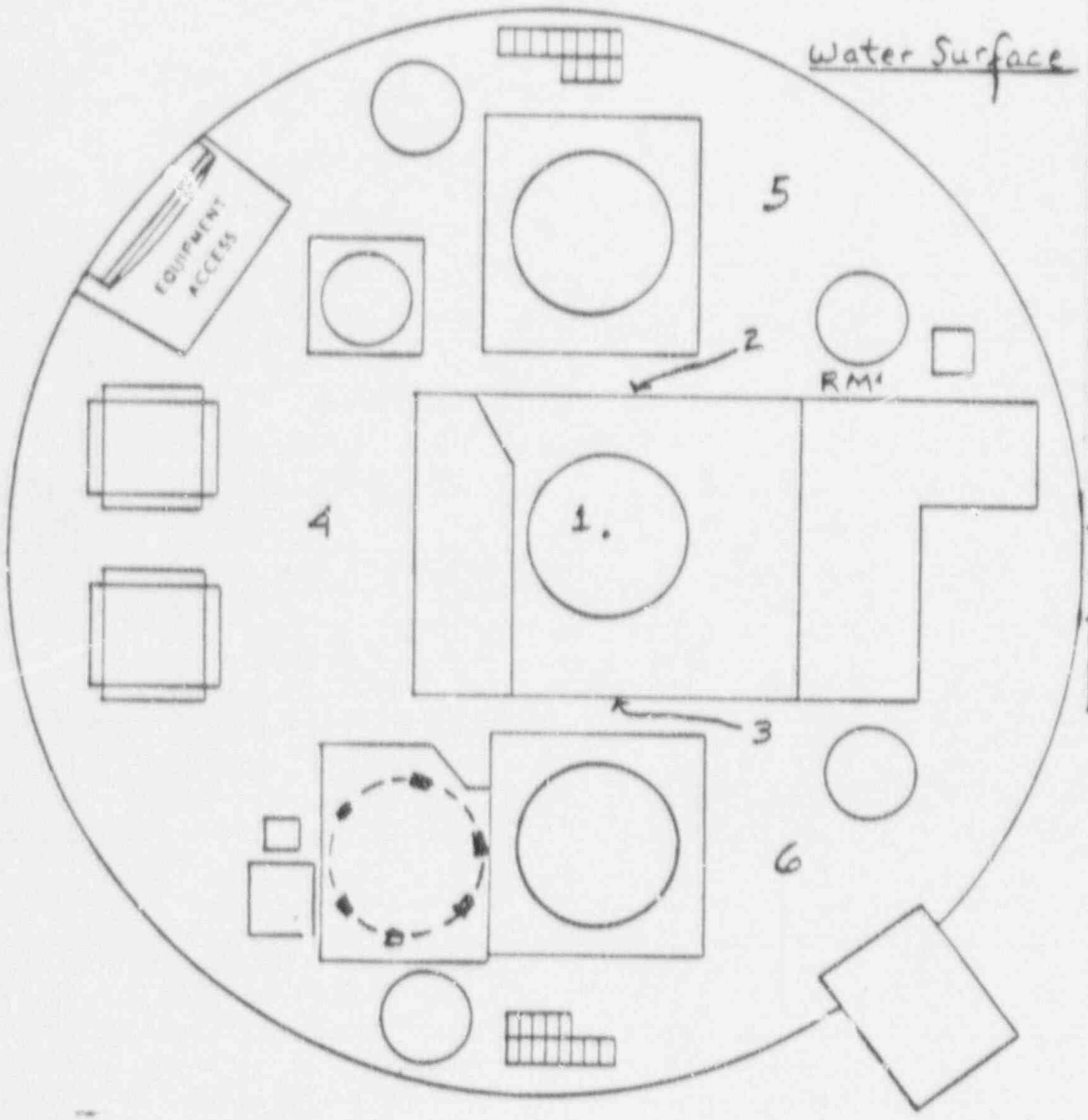
MILLSTONE NUCLEAR POWER STATION – RADIATION SURVEY FIGURE NO. 29 UNIT 2

OP2455 REV. 5-82

DATE	TIME	SURVEY BY	REVIEWED BY	TYPE OF SURVEY
12/5/90	1230 - 1300			☐ ROUT. ☐ SPEC. ☐ RWP
DOSE RATE	INST. TYPE	SERIAL NO.	REACTOR POWER	CAL. DUE DATE

TYPE	CONT. SURVEY INST.	SERIAL NO.	1/EFF	BKG	CAL. DUE DATE
B.F					
GM					

+1 LEVEL CONTAINMENT (38' A")



Survey Results	
POINT	mR/hr
1	380
2	36
3	36
4	2
5	2
6	2
RM4	3

NOTES: (1) DOSE RATE READINGS TAKEN AT WAIST LEVEL ARE TO BE INDICATED IN MR/HR AT LOCATION TAKEN.
(2) CONTAMINATION RESULTS ARE RECORDED IN DPM/100CM^2. INDICATE AND CIRCLE LOCATION ON SURVEY DIAGRAM.
(3) RECORD REACTOR POWER % IF RADIATION IS BEING PERFORMED.
(4) AREA RADIATION MONITOR LOCATION (SEE BACK OF SHEET).

APPENDIX E.3

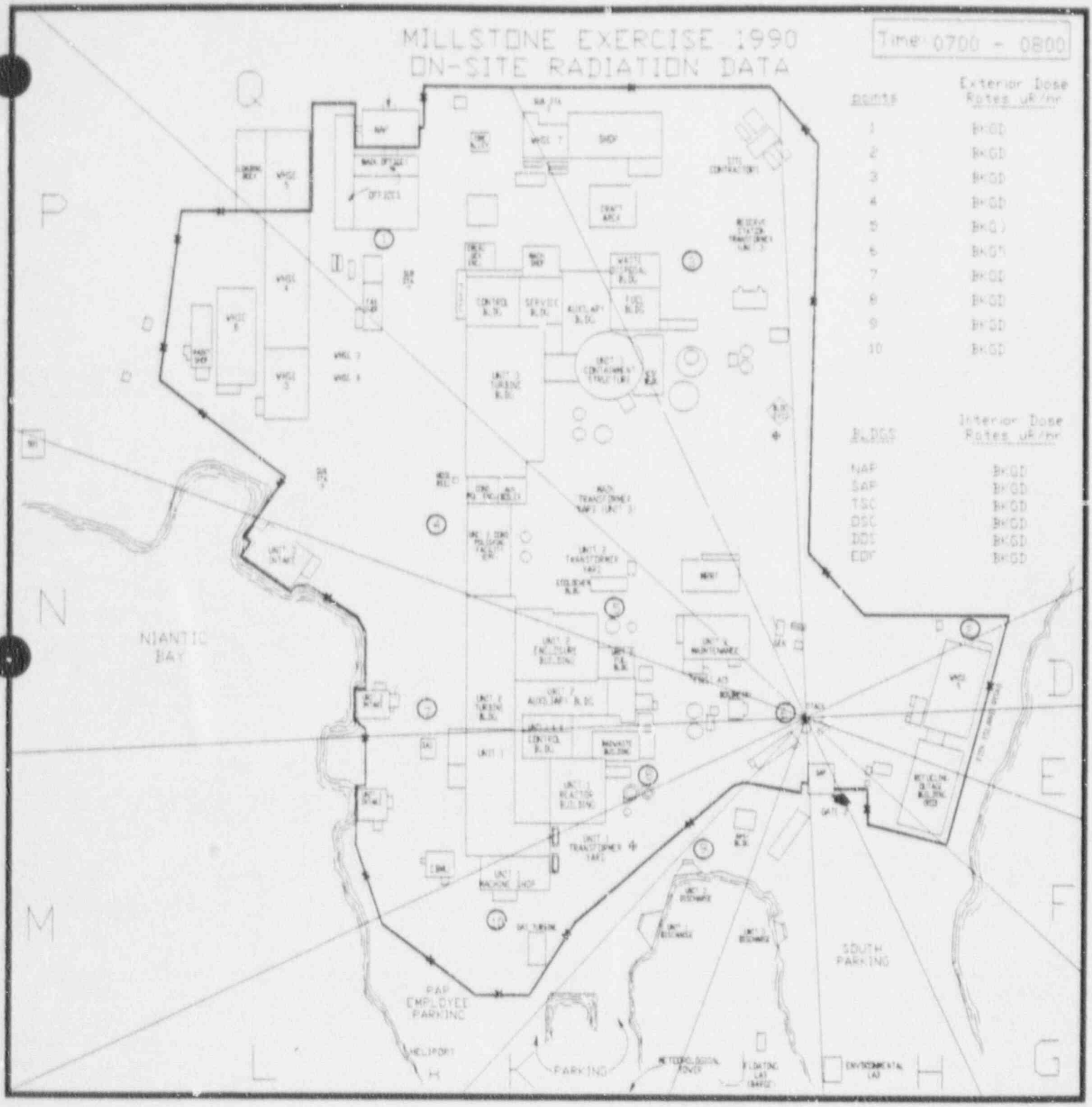
ONSITE RADIOLOGICAL DATA

MILLSTONE EXERCISE 1990
ON-SITE RADIATION DATA

Time: 0700 - 0800

Points	Exterior Dose Rates uR/hr
1	BKGD
2	BKGD
3	BKGD
4	BKGD
5	BKGD
6	BKGD
7	BKGD
8	BKGD
9	BKGD
10	BKGD

Bldgs	Interior Dose Rates uR/hr
NAP	BKGD
SAP	BKGD
TSC	BKGD
OSC	BKGD
EOF	BKGD

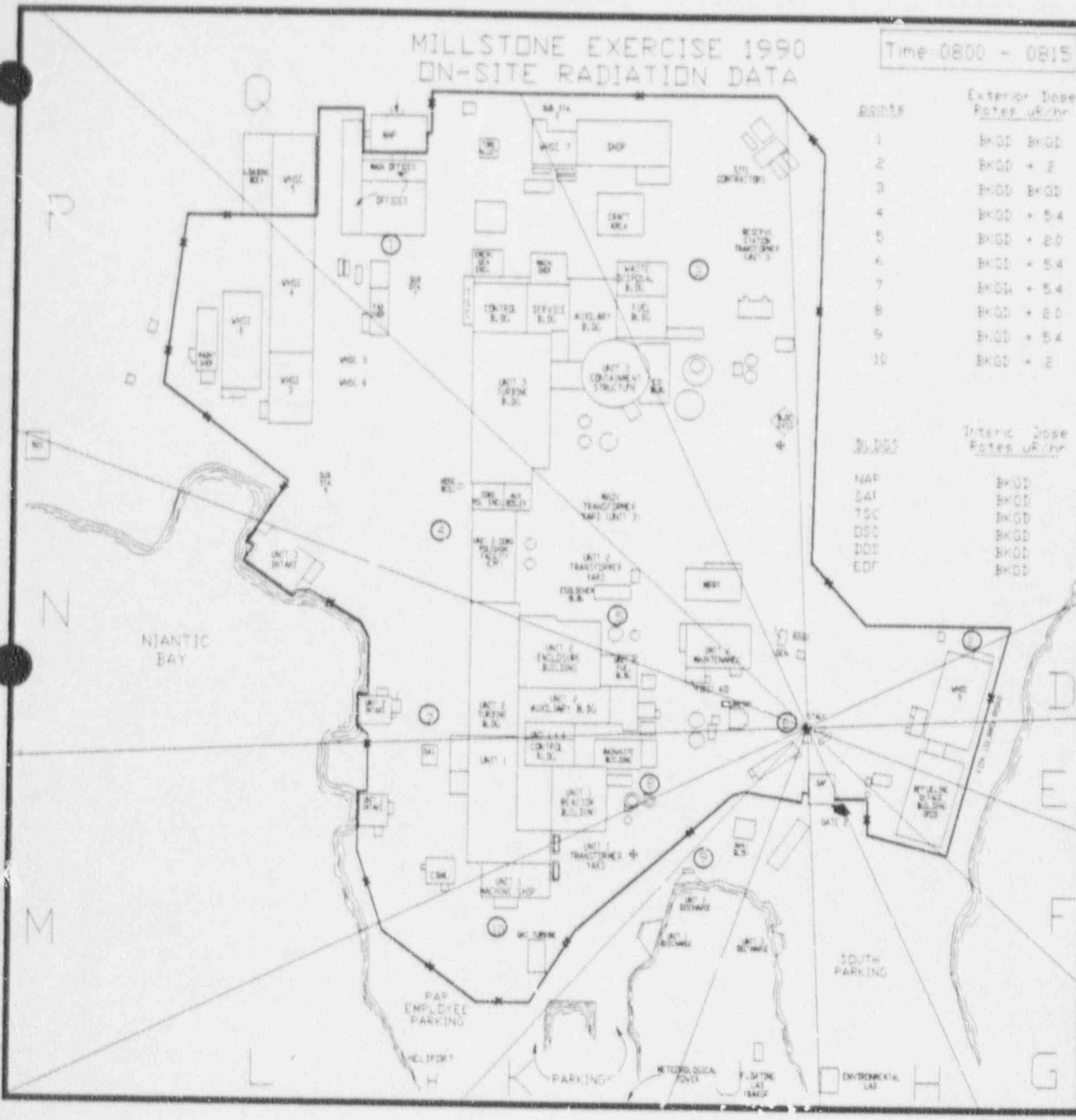


MILLSTONE EXERCISE 1990
ON-SITE RADIATION DATA

Time: 0800 - 0815

points	Exterior Dose Rates uR/hr
1	BKGD BKGD
2	BKGD + .2
3	BKGD BKGD
4	BKGD + 5.4
5	BKGD + 2.0
6	BKGD + 5.4
7	BKGD + 5.4
8	BKGD + 2.0
9	BKGD + 5.4
10	BKGD + .2

BLDGS	Interior Dose Rates uR/hr
NAP	BKGD
SAF	BKGD
TSC	BKGD
DSC	BKGD
DOS	BKGD
EOF	BKGD

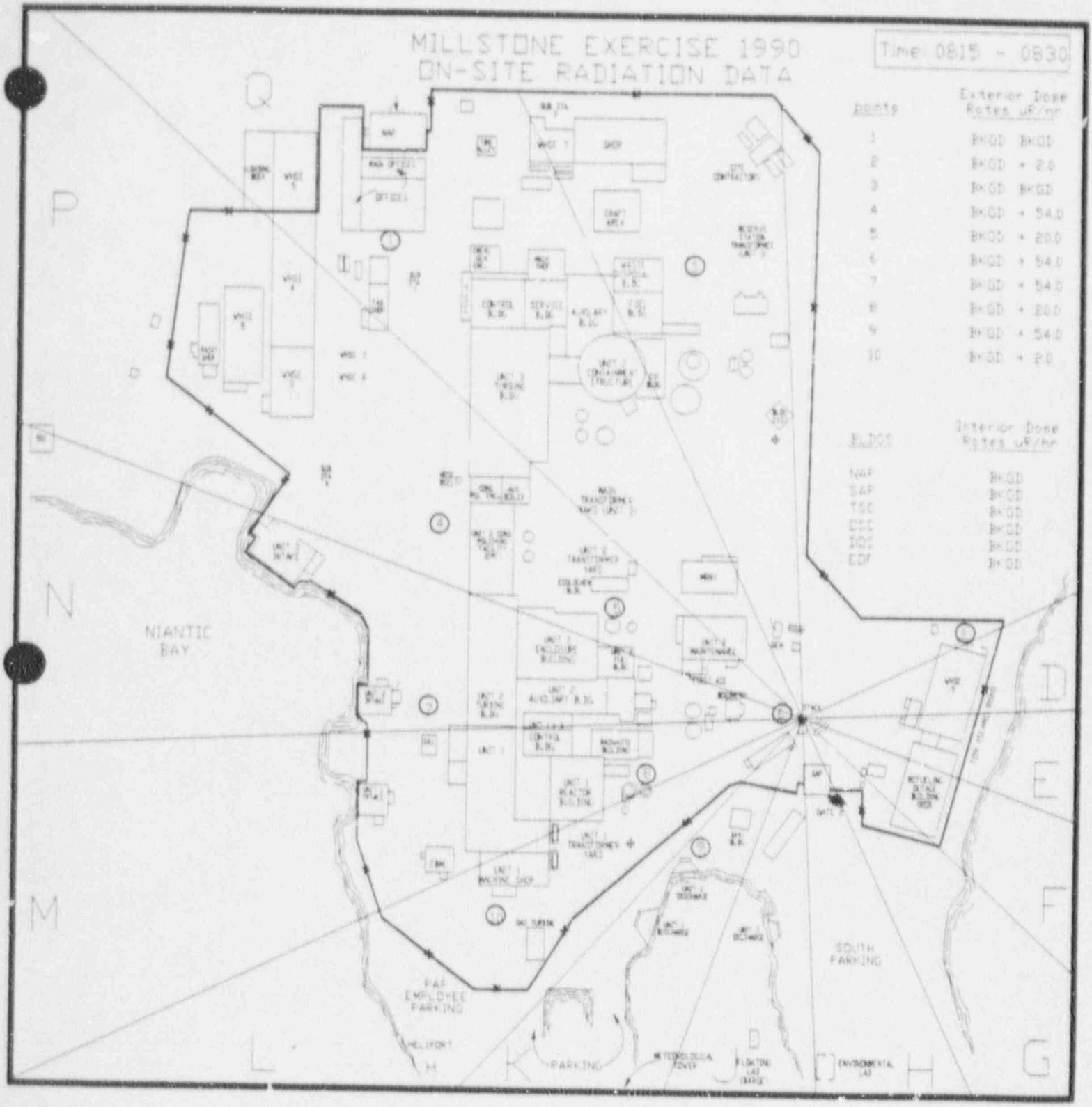


MILLSTONE EXERCISE 1990
ON-SITE RADIATION DATA

Time: 0815 - 0830

Points	Exterior Dose Rates uR/hr
1	BKGD
2	BKGD
3	BKGD
4	BKGD + 54.0
5	BKGD + 20.0
6	BKGD + 54.0
7	BKGD + 54.0
8	BKGD + 20.0
9	BKGD + 54.0
10	BKGD + 2.0

Buildings	Interior Dose Rates uR/hr
NAP	BKGD
SAP	BKGD
TSC	BKGD
OSC	BKGD
IOC	BKGD
EOF	BKGD

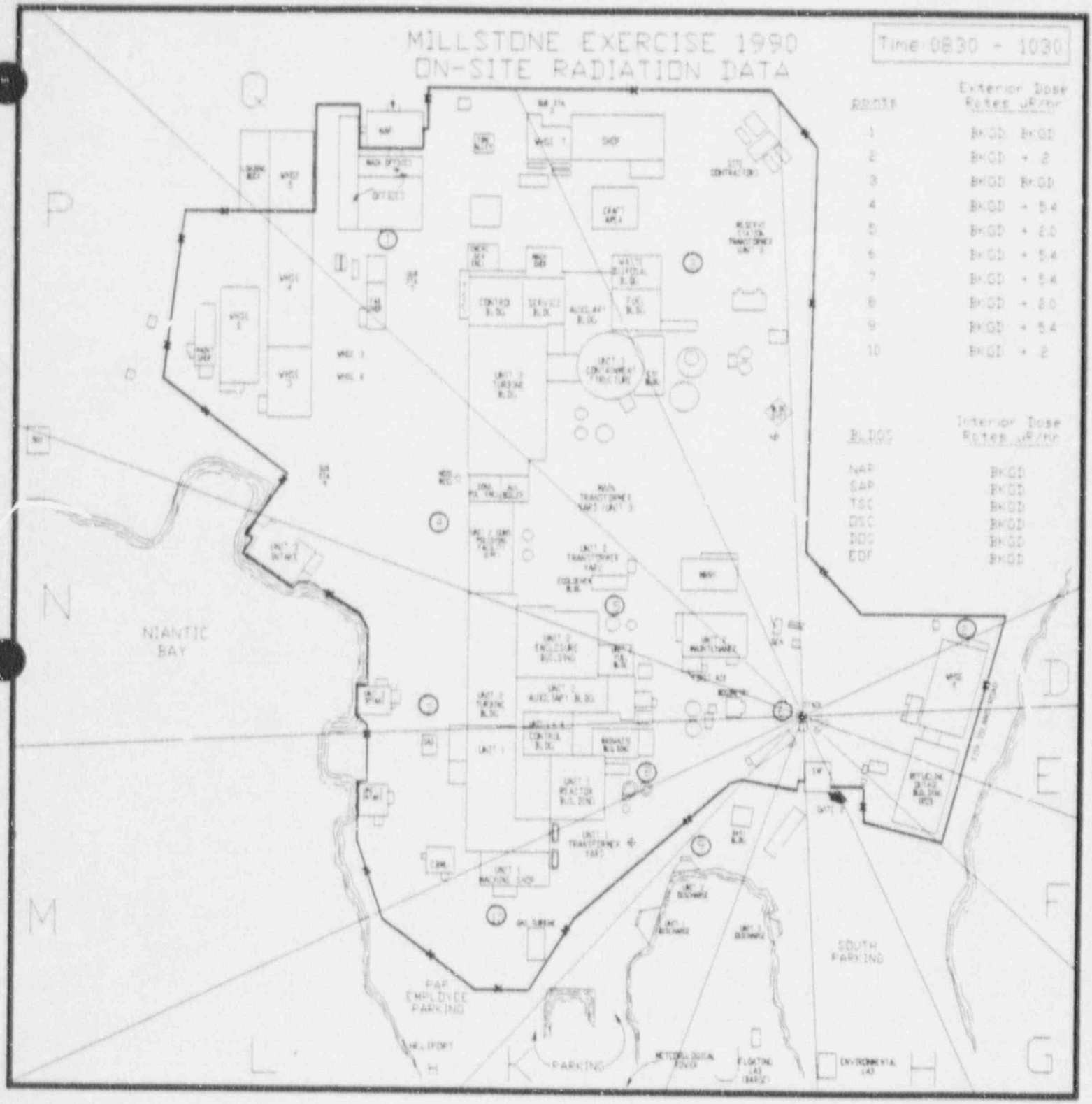


MILLSTONE EXERCISE 1990
ON-SITE RADIATION DATA

Time: 0830 - 1030

Points	Exterior Dose Rates µR/hr
1	BKGD BKGD
2	BKGD + .2
3	BKGD BKGD
4	BKGD + 5.4
5	BKGD + 2.0
6	BKGD + 5.4
7	BKGD + 5.4
8	BKGD + 2.0
9	BKGD + 5.4
10	BKGD + .2

Bldgs	Interior Dose Rates µR/hr
NAP	BKGD
SAP	BKGD
TSC	BKGD
OSC	BKGD
DOC	BKGD
EOF	BKGD

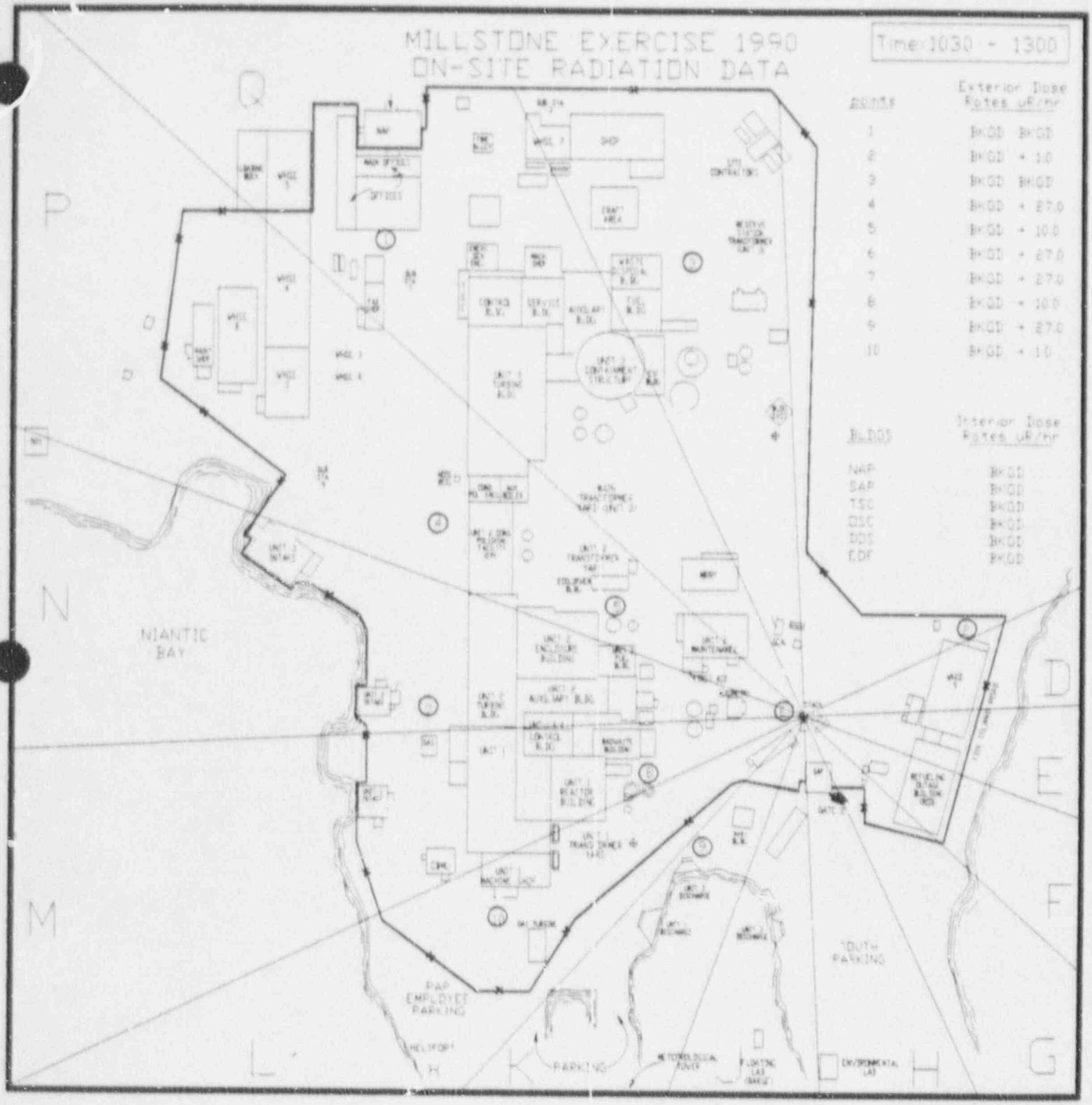


MILLSTONE EXERCISE 1990
ON-SITE RADIATION DATA

Time: 1030 - 1300

Points	Exterior Dose Rates uR/hr
1	BKGD BKGD
2	BKGD + 10
3	BKGD BKGD
4	BKGD + 27.0
5	BKGD + 10.0
6	BKGD + 27.0
7	BKGD + 27.0
8	BKGD + 10.0
9	BKGD + 27.0
10	BKGD + 10

Bldgs	Interior Dose Rates uR/hr
NAP	BKGD
SAP	BKGD
TSC	BKGD
OSC	BKGD
DDS	BKGD
EOF	BKGD



APPENDIX E.4

OFFSITE RADIOLOGICAL DATA

NOTE:

OFFSITE RADIOLOGICAL DATA

IS BACKGROUND FOR THE ENTIRE EXERCISE

APPENDIX F

METEOROLOGICAL DATA

MP MET TOWER														
HH:MM EST	JUL DAY	AT033 (C)	WD033 (DEG)	WS033 (M/S)	WD142 (DEG)	WS142 (M/S)	DT142 (C)	SC 142	WD374 (DEG)	WS374 (M/S)	DT374 (C)	SC 374	DWD 142	DWD 374
0715	339	4.1	264.7	9.3	261.2	11.5	-0.5	C/N	260.9	12.1	-1.3	D/N	E	E
0730	339	4.1	264.6	9.3	261.4	9.4	-0.5	C/N	261.2	11.4	-1.3	D/N	E	E
0745	339	4.0	265.6	8.9	261.8	8.9	-0.5	C/N	261.8	10.8	-1.3	D/N	E	E
0800	339	3.9	267.0	8.5	264.2	8.8	-0.5	C/N	264.0	10.8	-1.3	D/N	E	E
0815	339	3.8	268.8	8.7	266.3	8.9	-0.5	C/N	266.8	10.6	-1.4	D/N	E	E
0830	339	3.8	269.6	9.2	266.5	9.4	-0.5	C/N	269.2	10.3	-1.4	D/N	E	E
0845	339	3.6	271.2	8.9	268.4	9.1	-0.5	C/N	269.3	9.8	-1.4	D/N	E	E
0900	339	3.5	269.4	9.1	267.1	9.4	-0.6	B/U	268.5	10.2	-1.4	D/N	E	E
0915	339	3.3	268.9	8.9	265.8	9.0	-0.5	C/N	267.4	9.8	-1.3	D/N	E	E
0930	339	3.2	267.9	7.9	266.0	8.1	-0.5	C/N	267.6	8.6	-1.4	D/N	E	E
0945	339	3.1	269.1	8.2	267.4	8.4	-0.5	C/N	268.2	8.8	-1.4	D/N	E	E
1000	339	3.0	273.2	9.1	270.9	9.2	-0.5	C/N	272.6	9.4	-1.4	D/N	E	E
1015	339	2.9	276.4	8.4	274.4	8.5	-0.5	C/N	275.7	8.8	-1.4	D/N	E	E
1030	339	2.8	277.7	8.0	275.4	8.2	-0.5	C/N	276.6	8.6	-1.4	D/N	E	E
1045	339	2.7	280.0	8.0	278.1	7.9	-0.5	C/N	277.7	8.2	-1.4	D/N	E	E
1100	339	2.6	279.2	7.6	276.2	7.4	-0.5	C/N	275.9	8.2	-1.4	D/N	E	E
1115	339	2.5	274.6	7.4	271.9	7.6	-0.5	C/N	272.7	8.2	-1.4	D/N	E	E
1130	339	2.4	274.1	7.5	272.0	7.7	-0.5	C/N	273.8	8.4	-1.4	D/N	E	E
1145	339	2.3	274.2	7.9	272.5	8.0	-0.5	C/N	273.7	8.7	-1.4	D/N	E	E
1200	339	2.2	276.5	7.4	274.1	7.3	-0.5	C/N	274.7	8.1	-1.4	D/N	E	E
1215	339	2.0	270.7	6.7	268.9	6.6	-0.5	C/N	269.9	7.7	-1.4	D/N	E	E
1230	339	1.8	271.7	5.7	268.4	5.8	-0.5	C/N	269.0	6.7	-1.4	D/N	E	E
1245	339	1.7	276.6	6.1	275.1	6.2	-0.5	C/N	273.7	7.1	-1.4	D/N	E	E
1300	339	1.7	268.9	7.5	266.6	7.4	-0.5	C/N	267.6	8.2	-1.3	D/N	E	E
1315	339	1.6	272.5	6.6	269.4	6.7	-0.5	C/N	270.7	7.4	-1.4	D/N	E	E

APPENDIX G

CHEMISTRY DATA

Millstone 2
Reactor Coolant
Chemistry

Date	12/05/80	
% Pwr	0	
Tave	100	°F
Mode	6	
Sp.Cond.	7.7	umho/cm
TSS	100	ppb
pH	8.24	
Boron	2007	ppm
Lithium	0.38	ppm
Chloride	21.8	ppb
Fluoride	8.4	ppb
DGA	2.80E-02	uCi/mL

Activity

Cr-51	1.78E-03	uCi/mL
Mn-54	7.05E-05	uCi/mL
Co-58	1.93E-02	uCi/mL
Co-60	7.48E-04	uCi/mL
Mo-99	3.18E-04	uCi/mL
Tc-99m	3.54E-04	uCi/mL
Sb-124	6.28E-04	uCi/mL
I-131	1.36E-03	uCi/mL
I-132	8.89E-04	uCi/mL
Cs-134	4.89E-04	uCi/mL
Cs-137	5.92E-04	uCi/mL
Xe-133	1.00E-03	uCi/mL
H-3	1.43E-02	uCi/mL

APPENDIX H

STATE AND/OR TOWN EVENTS

State Events

Scenario Time	Clock Time	Event Description
04:40	11:40	State activates EBS and Public Warning System

Town Events

Scenario Time	Clock Time	Event Description
01:00	08:00	Old Lyme and Groton Town may do access control offline from the scenario
04:40	11:40	All local communities within a 10-mile EPZ will activate their Public Alerting System (PAS)

APPENDIX I

EVALUATION FORMS