

ENTERGY OPERATIONS, INC.
GRAND GULF NUCLEAR STATION
1993
EMERGENCY PREPAREDNESS
EVALUATED EXERCISE
AUGUST 25, 1993

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SECTION 1.0

INTRODUCTION

1.0 INTRODUCTION

The Grand Gulf Nuclear Station (GGNS), owned and operated by Entergy Operations, Inc., conducts an annual Emergency Preparedness Evaluated Exercise. The exercise is conducted for the purpose of assuring GGNS Emergency Response Personnel are adequately trained in the event of an actual Radiological Emergency at the plant.

The exercise is scheduled to be conducted as outlined in Section 7. It will include mobilization of GGNS resources, participating State and Local agencies and a NRC Incident Response team. The exercise should demonstrate the capability of these organizations to jointly respond to an emergency at the plant. The exercise should demonstrate that the emergency response organization is adequately trained to handle an actual radiological emergency according to current plans and procedures. Exercise participants will not have prior knowledge of the scenario.

The exercise will be evaluated by the NRC and evaluators assigned by the Emergency Preparedness department. A critique will be conducted following the exercise to discuss deficiencies and improvement items identified. The time schedule for the critique is identified in Section 6 and will be attended by exercise Controllers/Evaluators. Key exercise participants will be invited to attend the critique. All identified deficiencies will be documented and subsequent resolution of emergency preparedness deficiencies shall be assured by management. Federal Agency critique schedules are also listed in Section 6.

This manual has been prepared to assist exercise Controllers/Evaluators, and Observers in the conduct and evaluation of the exercise. This manual contains all the information and data necessary to properly conduct the exercise in an efficient and coordinated manner.

SECTION 2.0
SCOPE AND OBJECTIVES

2.0 SCOPE AND OBJECTIVES

2.1 SCOPE

This document provides guidance for the conduct of the 1993 Emergency Preparedness Evaluated Exercise at Grand Gulf Nuclear Station.

The scope of this exercise, with some exceptions, will endeavor to demonstrate by actual performance a number of primary emergency preparedness functions. At no time will the exercise be permitted to interfere with safe operations, and plant management may, at their discretion, suspend the exercise for any period of time necessary to assure this goal.

The August 25 exercise will include the appropriate notifications to Federal, State, Local and plant emergency personnel. Full participation by the states of Mississippi and Louisiana, Claiborne County and Tensas Parish is expected. The NRC Region II Incident Response team is also expected to participate. Limited participation from plant personnel may be requested on August 26 to support an Ingestion Exposure Pathway Exercise for the State of Mississippi.

2.2 GENERAL OBJECTIVES

The Grand Gulf Nuclear Station 1993 Emergency Preparedness Exercise program objectives are based on the Nuclear Regulatory Commission requirements delineated in 10CFR50.47 and 10CFR50 Appendix E. Additional guidance is provided in NUREG-0654, FEMA, REP-1, Rev. 1.

The primary objective of the 1993 Emergency Preparedness Exercise is to evaluate the adequacy of the emergency response organization during a simulated accident occurring during normal working hours. The scope of the exercise is sufficient to test the following emergency response capabilities:

1. The ability of Emergency Response Organization to classify actual or simulated emergencies through the understanding of Emergency Action Levels (EAL) and Initiating Conditions.
2. The ability of the Emergency Response Organization to activate the station emergency plan and procedures.
3. The ability of the Emergency Response Organization to respond to an emergency, make proper and timely notifications through each emergency classification (Notification of Unusual Event, Alert, Site Area Emergency, General Emergency), and activate the emergency response facilities in an efficient and timely manner.
4. The adequacy, effectiveness, and proper utilization of emergency response facilities and their emergency response equipment (Control Room, OSC, TSC, EOF).
5. The ability of Emergency Response Organization to formulate and make protective

action recommendations to protect station personnel and the general public based on plant parameters, in-plant and on-site field surveys, and/or off-site field monitoring information.

6. The ability of Emergency Response Organization to evaluate the source term and make dose projections based on plant parameters and field surveys.

C. SPECIFIC OBJECTIVES

The following specific objectives are broken down by emergency response facility or function. These objectives were used to develop an exercise scenario sufficient to realize the general objectives and provide an aid to drill observers evaluating the exercise.

1. Control Room

- a. Demonstrate the capability of the Control Room staff to classify emergencies in accordance with Emergency Action Levels and Initiating Conditions until the TSC is operational.
- b. Demonstrate the capability of the Control Room staff to notify the Federal, State and Local agencies in accordance with established protocols (Operational Hot Line (OHL), NRC Emergency Notification System (ENS)).
- c. Demonstrate the capability of the Control Room staff to activate the station emergency plan and make appropriate notifications to activate emergency response personnel during an emergency.
- d. Demonstrate the capability of the Control Room staff to communicate technical information to the Operations Support Center, Technical Support Center, Emergency Operation Facility, and the NRC.
- e. Demonstrate the ability of the Control Room staff to recognize operational symptoms and parameters indicative of degrading plant conditions.
- f. Demonstrate the ability of the Shift Superintendent and/or the Shift Supervisor to make timely and effective decisions to mitigate the consequences of the event and clearly demonstrate control of the response effort.
- g. Demonstrate the ability of the Control Room staff to adequately turn over control of the event upon activation of the Technical Support Center (TSC).

2. Operations Support Center (OSC)

- a. Demonstrate the capability of the appropriate staff to activate the OSC at the Alert emergency classification and be fully operational within approximately 1 hour after activation.
- b. Demonstrate the capability of the OSC coordinator to make timely and effective decisions and demonstrate clearly, effective command and control of the OSC and response teams.
- c. Demonstrate the capability of the OSC coordinator and OSC team leaders to organize, brief, and dispatch repair and corrective action teams in a timely manner.
- d. Demonstrate the capability of the health physics organization to maintain appropriate radiological controls throughout the course of the event.
- e. Demonstrate the ability of the OSC staff to communicate technical information with the Control Room, TSC, EOF and in-plant and on-site field teams.
- f. Demonstrate the ability to interact with the NRC Incident Response Team.

3. Technical Support Center (TSC)

- a. Demonstrate the capability of the appropriate staff to activate the TSC at the Alert emergency classification and be fully operational within approximately 1 hour after activation.
- b. Demonstrate the capability of the Emergency Director to make timely and effective decisions and demonstrate clearly, effective command and control of the TSC response effort.
- c. Demonstrate the ability of the TSC staff to communicate technical information with the Control Room, OSC, EOF and NRC.
- d. Demonstrate the ability of the TSC staff to notify the Federal, State and Local agencies in accordance with established protocols (OHL, ENS)
- e. Demonstrate the ability of the TSC staff to evaluate the source term and make dose projections based on plant parameters, meteorological data, or other simulated information made available by the exercise controllers.
- f. Demonstrate the ability to interact with the NRC Incident Response Team.

4. Emergency Operations Facility (EOF)

- a. Demonstrate the capability of the appropriate staff to activate the EOF at the Site Area Emergency classification or sooner and be fully operational within 1 hour after activation.
- b. Demonstrate the ability of the Offsite Emergency Coordinator to assume control of the event from the TSC staff, make timely decisions, and demonstrate clearly, effective command and control of the emergency response effort.
- c. Demonstrate the ability of the EOF staff to notify the Federal, State and Local levels of government in accordance with established protocols (OHL, ENS)
- d. Demonstrate the ability of the EOF staff to communicate technical information with the Control Room, OSC, TSC, ENMC, NRC and off-site agencies.
- e. Demonstrate the ability of the EOF staff to evaluate the source term and make dose projections based on plant parameters, on-site/off-site field survey information, meteorological data, or other simulated information made available by the exercise controllers.
- f. Demonstrate the ability of the EOF staff to make appropriate protective action recommendations to protect station personnel and the general public based on plant parameters, in-plant and on-site field surveys and/or off-site monitoring information.
- g. Demonstrate the ability to interact with the NRC Incident Response Team.

5. Off-site Monitoring Teams (OMT)

- a. Demonstrate the ability to mobilize Off-site Monitoring Teams within the required time limits of the GGNS Emergency Plan, Table 5-1.
- b. Demonstrate the ability of the Off-site Monitoring Teams to obtain radiation data, collect potentially radioactive contaminated air samples and determine Iodine concentration.
- c. Demonstrate the ability of the Off-site Monitoring Teams to communicate location and radiological field data to the EOF.

6. Security

- a. Demonstrate the ability of the security force to control site access and the protected area evacuation as directed by the emergency director.
- b. Demonstrate the ability of the security force to conduct accountability as necessary.

7. Emergency News Media Center (ENMC)

- a. Demonstrate the capability of the appropriate staff to activate the ENMC at the Site Area Emergency classification or sooner.
- b. Demonstrate the ability of the ENMC staff to communicate with the EOF.
- c. Demonstrate the ability of the ENMC to coordinate and assemble timely and accurate information at the ENMC.
- d. Demonstrate the capability of the ENMC to disseminate emergency information to the media and/or public (briefings, written statements) in a timely manner.
- e. Demonstrate the ability of the ENMC to respond to technical inquiries during media briefings.
- f. Demonstrate the ability to interact with the NRC Incident Response Team.

8. Emergency Information Center (EIC) / Media Monitor (MM)

- a. Demonstrate the capability of the EIC to respond directly to questions from the media and/or public concerning real or rumored events at GGNS.
- b. Demonstrate the capability of the EIC/MM to identify rumors and correct false information concerning events at GGNS.

9. Activities not Demonstrated

- a. Actual PASS samples will not be drawn.¹
- b. ERF's will not be evacuated.
- c. Backup ERFs will not be activated.
- d. Corrective action teams will not manipulate any plant systems or components.
- e. Actual decontamination of vehicles and personnel will not be demonstrated.
- f. Medical team response and transportation will not be demonstrated.¹
- g. SCBA's will be worn but will not be utilized.

¹ Requirement demonstrated through separate drills.

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- h. Shift turnover will not be demonstrated.

SECTION 3.0

EXERCISE INFORMATION

3.0 EXERCISE INFORMATION

3.1 CONDUCT OF THE EXERCISE

The exercise will simulate an abnormal radiological incident at the Grand Gulf Nuclear Station. The effectiveness of selected organizations, personnel and functions of the appropriate Emergency Plans and Implementing Procedures will be demonstrated. The simulated emergency will then terminate. The Recovery Phase will be initiated, and the exercise will then be terminated.

Emergency response actions during the simulated emergency will include: recognition and classification of emergency conditions; assessment of onsite/offsite radiological consequences; alert/notification and mobilization of emergency response organizations; implementation of in-plant corrective actions, activation/operation of emergency response facilities and equipment; preparation of reports, messages, and record keeping; recommendation of appropriate protective actions, and termination of the emergency condition and limited recovery/reentry discussions.

The Simulator will be the central point for ensuring that the exercise progresses on schedule. A wide variety of plant information will be provided to the exercise participants. At no time will messages prompt the players or provide undue assistance in recognition of events. Information available on SPDS will also be provided in the TSC and EOF where output consoles are located. SPDS information will be displayed on a computer terminal placed next to the real SPDS. The displayed information will be driven from the simulator. Contingency messages are available to ensure the exercise remains reasonably close to the projected time line. Radiological, meteorological data and information included in the supplemental scenarios will be disseminated by controllers when players demonstrate the capability to obtain the information from appropriate sources. At no time, unless noted specifically as an exception, will information be interjected at a point where it would not be available in a real emergency. The Lead controllers may interject other information or change a message to ensure that the exercise progresses as planned.

The exercise Players are expected to "free play" the scenario to the extent practical. Postulated corrective actions should be identified to the Lead controller in the affected facility. Guidance will be provided by the facility controller to ensure the scenario will progress as designed. Notifications of, and contact with, supervisors, plant management, and offsite agencies will be made in accordance with the Emergency Plan Procedures. No simulations are to be allowed unless specifically noted in the exercise Manual or directed by a controller for scenario purpose.

3.2 PRECAUTIONS AND LIMITATIONS

This section provides information for all exercise controllers and observers related to the rules and guidelines to be followed throughout the conduct of this exercise. Prior to initiation of the exercise, a pre-exercise briefing will be held to review the entire exercise process with all the exercise controllers and observers.

- o Should at any time during the course of this exercise, an actual emergency situation arise, all activities and communications related to the exercise will be suspended. It will be the responsibility of any exercise controller or observer that becomes aware of an actual emergency to suspend exercise response in his/her immediate area and to inform the lead exercise controller of the situation. Upon notification of an actual emergency, the lead exercise controller may notify all other controllers to suspend all exercise activities.
- o Should, at any time during the course of this exercise, an exercise controller or observer witness an exercise participant undertake any action which would, in the opinion of the controller, place either an individual or component in an unsafe condition, the controller is responsible for intervening in the individual's actions and terminating the unsafe activity immediately.
- o All repair activities associated with the scenario will be simulated with extreme caution emphasized around operating equipment. Manipulation of any plant operating systems, valves, breakers, or controls in response to this exercise is to be simulated. There is to be no alternation of any plant operating equipment, systems, or circuits during the response of this exercise. No pressurization of fire hoses, discharging of fire extinguishers, or initiation of any fire suppression systems will be allowed for the exercise.
- o All telephone communications, radio transmissions, and public address announcements related to the exercise must begin and end with the statement, "THIS IS A DRILL". Should a controller witness a exercise participant not observing this practice, it is the controller's responsibility to remind the individual of the need to follow this procedure.
- o Any motor vehicle response to this exercise, whether it be an ambulance, fire fighting equipment, police/security vehicles or field monitoring teams, should observe all normal motor vehicle operating laws including posted speed limits, stop lights/signs, one way streets, etc.

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- o All telephone communications, radio transmissions, and public address announcements related to the exercise must begin and end with the statement, "THIS IS A Exercise". Should a controller witness a exercise participant not observing this practice, it is the controller's responsibility to remind the individual of the need to follow this procedure.
- o Any motor vehicle response to this exercise, whether it be an ambulance, fire fighting equipment, police/security vehicles or field monitoring teams, should observe all normal motor vehicle operating laws including posted speed limits, stop lights/signs, one way streets, etc.

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- o Care must be taken to assure that any non-participating individuals who may observe exercise activities or overhear exercise communications are not misled into believing that an actual emergency exists. Any exercise controller who is aware of an individual or group of individuals in the immediate vicinity who may have become alarmed or confused about the situation, should approach that individual or group and explain the nature of the exercise and its intent.

SECTION 4.0

CONTROLLER INFORMATION

4.0 CONTROLLER INFORMATION

4.1 GENERAL INFORMATION

Each Controller should be familiar with the following:

- o The basic objectives of the exercise (Section 2.0).
- o The assumptions and precautions being taken (Section 3.0).
- o The exercise scenario, including the initiating events and the expected course of action to be taken (Section 7.0).
- o The various locations that will be involved and the specific items to be observed at those locations.
- o The evaluation checklists provided.

4.2 CONTROLLER INSTRUCTIONS

- o Controllers will position themselves at their assigned locations approximately 30 minutes prior to the activation of the facility for which they have responsibility.
- o Communication between controllers will be via the plant telephone system. Controller telephone numbers are provided in Section 4.4, Controller Assignments.
- o All Controllers will comply with instructions from the Lead Exercise Controller.
- o Each Controller will have copies of messages needed to control the progress of the exercise. No message shall be delivered out of sequence or other than as written unless specifically authorized by the Lead Exercise Controller.
- o Controllers will not provide information to the Players regarding scenario progression or resolution of problems encountered in the course of the simulated emergency. The exercise participants are expected to obtain information through their own organizations and exercise their own judgement in determining response actions and resolving problems.
- o Some Players may insist that certain parts of the scenario are unrealistic. The Controllers have the sole authority to clarify any questions regarding scenario content.

- o This exercise is conducted to provide periodic training of the Emergency Response Organization as well as evaluation. Controllers are expected to question and prompt player as necessary to ensure training objectives are met.

4.3 EVALUATION INSTRUCTIONS

Each Controller / Evaluator will take notes regarding the progress of the exercise and response of the exercise participants at their assigned locations. Each Controller / Evaluator should note the arrival and departure times of participants, the times when major activities or milestones occur, and problems areas encountered. Controller / Evaluator comments will be used to chronology reconstruct and prepare a written evaluation of the Exercise.

Evaluation forms will be distributed at the pre-Exercise controller / evaluator briefing.

4.4 CONTROLLER ASSIGNMENTS

Lead Controller	W. Russell	6160
Simulator Controller	To be assigned	6160
Simulator Operator	E. Diana	6160
TSC (Lead)	L. Moulder	2420
TSC (Rad)	To be assigned	2420
OSC (Lead)	T. Tinney	6326
OSC	To be assigned	
OSC	Maint Journeyman	
OSC	Maint Journeyman	
OSC	Maint Journeyman	
OSC	Maint Journeyman	
OSC	Maint Journeyman	
EOF (Lead)	To be assigned	6135
EOF	To be assigned	6135
OMT	To be assigned	Field
OMT	To be assigned	Field
ENMC	D. Townsend	437-8334
Security	C. Parker	

SECTION 5.0

PLAYER INFORMATION

5.0 PLAYER INFORMATION

5.1 GENERAL INFORMATION

This section provides information for all exercise players. These guidelines should be followed throughout the conduct of the Exercise. This information will be provided to the players prior to the exercise.

The success of the exercise is largely dependent on player performance. Appropriate reaction to simulated emergency conditions and demonstrated competence in the Emergency Plan and Implementing Procedures are the key criteria by which the players are evaluated. It is imperative, therefore, that all players actions and activities are witnessed by a Controller. Any actions that are to be simulated must be brought to the attention of the Controller to ensure that credit is awarded. The success of the exercise is based on the demonstration of the predetermined exercise objectives.

5.2 PLAYER GUIDELINES

- o Maintain a serious attitude throughout the exercise.
- o Maintain courtesy and professionalism at all times.
- o Teamwork is essential! Do your job and then help other people do theirs. For example, if you know certain information should be available, ask for it. This makes you look good and may reduce a deficiency for someone else.
- o Think! Brainstorm and look for all possible solutions or consequences of events. Maintain the "big picture" of what is happening.
- o Identify yourself by name and function to the Controller in your area. Always wear your identification badge.
- o If you are entering normal nuclear station radiation areas, observe all rules and procedures. No one (including Controllers) is exempt from normal station radiological practices and procedures.

NOTE: DO NOT ENTER HIGH RADIATION AREAS IN THE PLANT;
FOLLOW ALARA PRINCIPLES

- o Observe all normal security procedures. All normal security procedures are in effect without exception. If a security condition arises, obey immediately the directions of Security Guards.

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- o Elements of exercise play will be introduced through use of controlled exercise messages and by information generated by Players as a result of a particular emergency activity performed. Therefore, be responsible for initiating actions in accordance with instructions and responsibilities.
- o Communications should be concise and formal with use of abbreviations minimized. Always include "THIS IS A DRILL".
- o Use and demonstrate knowledge of the Emergency Plan and Implementing Procedures.
- o No response to an exercise situation will be simulated without Controller approval. No action will be taken that reduces the margin of safety in the plant.
- o Keep a list of items which you believe will improve the plan and/or procedures. Provide this to your Controller / Evaluator at the end of the Exercise.
- o Remember, one of the main purposes of an exercise is for you to assure yourself that you are adequately prepared. Areas for improvement or lessons learned, when identified, will improve your overall emergency preparedness.

SECTION 6.0
SCHEDULE OF EVENTS

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6.0

SCHEDULE OF EVENTS

<u>Date</u>	<u>Time</u>	<u>Event</u>
August 20, 1993	0900	Controller briefing (EOF)
August 24, 1993	1400	NRC Entrance (ESC Conference Room 1)
	1430	Controller briefing with NRC present (EOF)
August 25, 1993	0800	Exercise begins
	1500	Exercise is terminated
	1500	Individual Emergency Response Facility critiques (Individual ERF)
August 26, 1993	0900	GGNS controller/evaluator critique (EOF)
August 27, 1993	0800	FEMA Region VI Evaluator / RAC Chairman Critique (Natchez)
	0900	GGNS management critique (ESC Auditorium)
	0930	NRC Exit (ESC Auditorium)
	1000	FEMA Region IV / State / Local exercise critique (Jackson)
	1300	FEMA Region VI / State / Local exercise critique (Natchez)
	1400	Public Meeting (Port Gibson)
	1700	Public Meeting (St. Joseph)

SECTION 7.0

NARRATIVE SUMMARY AND SEQUENCE OF EVENTS

7.0 EXERCISE SCENARIO

INITIAL CONDITIONS

The 115KV transmission line from Port Gibson is out of service. A substation transformer was damaged by a lightning strike in a storm last night. Emergency repair crews are at the substation and have estimated that the line will be restored by 6:00 pm today.

DIV I D/G is out of service as a result of problems found during a surveillance run on the mid shift this morning. Scheduled maintenance includes an oil change and clean or replace all injectors.

Weather reports predict a 50% chance of rain as a low pressure area moves into the area this evening.

NARRATIVE SUMMARY

The exercise begins at approximately 0800.

The control room will experience a loss of the running CRD pump. The control room crew will start the other CRD pump and restore the system to normal operating mode. Operators are expected to be dispatched to investigate the CRD pump breaker and to inspect the pump and motor. The breaker will have thermal overloads tripped. The pump will be very warm to the touch. When maintenance is sent to troubleshoot, the problem will be diagnosed as binding in the pump gear box.

At 0810 the control room will experience a loss of ESF-11 transformer. This will de-energize the associated ESF bus momentarily. The control room crew will ensure the emergency diesel generator starts and energizes the bus. Recovery will require transferring the bus to one of the remaining ESF transformers and securing the diesel generator. In addition numerous other systems will require restoration. When dispatched to investigate, operator will find sudden pressure lockouts.

At 0815 the Rad Waste reports that they have a high rad annunciator for the discharge in progress and the F355 valve appears to still be open. Control room is requested to close F355 valve. Rad waste will Have Chemistry sample the tank being discharged and flush the rad monitor pig. Control room is expected to dispatch an I&C Tech to investigate.

At 0825 the control room receives word from an outside operator that both main and backup met towers have lost power. The operator is unable to get the propane generator to start. Control room is expected to declare an Unusual Event based on "loss of all meteorological equipment" by approximately 0830.

At 0845 a loss of offsite power occurs. DIV II and III D/G start and energize their respective ESF busses. A reactor scram occurs due to the loss of offsite power.

At 0900 the Control Room is notified by Chemistry that sample results verify the ODCM LCO 3.11.11.1 release limits have been exceeded. The sample results will be approximately 15 times the LCO limit. The Control Room is expected to declare an Alert based on "Liquid release > 10 times the limit of LCO 3.11.1.1, in the Radiological Liquid Effluent section of ODCM Spec." at approximately 0915.

At 0935 the HPCS SSW pump breaker will trip. DIV III D/G will have to be secured due to lack of cooling water. When operators are sent to investigate, breaker will have an over-current flag showing and a smell of burnt insulation will be present around the pump motor.

At 1015 the DIV II D/G will develop oscillations in voltage and frequency. D/G will trip if Control Room fail to trip it. The plant is now in a station blackout condition. The TSC is expected to declare a Site Area Emergency based on "Loss of offsite power and all onsite D/G for > 15 minutes" at approximately 1030.

At 1045 a steam leak develops on the DIV I RPV reference leg. Control Room will see increasing Dry Well temperatures and pressure. RCIC is able to maintain RPV level.

At 1115 RCIC trips on isolation from high steam tunnel temperature. With loss of RPV injection, RPV level decreases. RPV level reaches top of active fuel at approximately 1135. Without injection, RPV pressure cannot be reduced to 0 psig. RPV vessel will stabilize at approximately 45 psig. This pressure is required to drive steam through the open SRVs and remove decay heat.

At 1145 a radiological release begins. Release path will be through the containment ventilation penetration. When the ventilation isolation valves were last closed, the O-ring seals were damaged. Valve indication will indicate that the valves are closed. Release will be indicated by increasing readings on the containment vent radiation monitor.

A General Emergency is expected to be declared by 1215. The exact timing and reason for declaring the General Emergency will depend on the actions of the participants. Radiation monitor indications will yield a dose calculation that exceeds 5 Rem Thyroid commitment. If the Offsite Monitoring team is in the correct place, field readings will be greater than 50 mrem/hr. Either of these two EALs may be used to declare the General Emergency. Due to the nature of plant indications, (the release path isolation valves indicate closed) it is not expected that the participants will immediately recognize that a release is in progress.

At 1315 DIV I D/G is repaired and turned over to the Control Room. The Control Room is expected to energize the ESF Bus, start ECCS pump(s) and restore RPV level. This will reduce reactor pressure to 0 psig. Following reduction of RPV pressure, containment pressure will decrease.

At 1345 containment pressure reaches 0 psig and the release terminates. Meteorological conditions change as follows: wind speed increases to approximately 10 mph and wind direction shift to from 240°. The ERO is expected to track the plume until it clears the EPZ. With termination of the release, discussions should begin on what actions will be needed for recovery.

At 1445 the plume will clear the EPZ.

At 1500 the exercise will be terminated.

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<u>SEQUENCE OF EVENTS</u>		
Actual Time	Scenario Time	Summary
0800	00:00	<u>Loss of running CRD pump</u> , control room is expected to start other CRD pump and dispatch operator to investigate. Maintenance is expected to also be called to troubleshoot. Maintenance will find problem in CRD pump gear box causing motor to be overloaded.
0810	00:10	<u>Loss of ESF-11</u> , control room is expected to recover lost electrical busses and restart equipment / systems as required. An operator is expected to be dispatched to investigate. Maintenance is also expected to be called to troubleshoot.
0815	00:15	Control Room will be notified by Radwaste Control Room to isolated the floor drain tank discharge that is in progress. The discharge radiation monitor alarmed in the Radwaste Control Room and the F355 valve failed to close. They are having Chemistry sample to determine if LCO limits have been exceeded.
0825	00:25	Control room receives word, from an outside operator, that both main and backup met towers have lost power. The operator is unable to get the propane generator to start.
0830	00:30	An <u>Unusual Event</u> should be declared based on "Loss of vital accident assessment equipment. Loss of all meteorological equipment." Control room is expected to call maintenance to troubleshoot and repair the propane generator.
0845	00:45	<u>A loss of offsite power</u> occurs. The reactor scrams. DIV II & III D/G start and energize their respective busses.
0900	01:00	Control Room is notified by chemistry that sample results from floor drain tank discharge verify that LCO 3.11.1.1 limit has been exceeded. During discussion, Control Room will be given results that indicate the LCO limit was exceeded by a factor of

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<u>SEQUENCE OF EVENTS</u>		
Actual Time	Scenario Time	Summary
		about 15.
0915	01:15	An <u>Alert</u> is declared due to liquid radiological release greater than 10 times the limit of LCO 3.11.1.1 in the Radioactive Liquid Effluent section of ODCM Spec.
0935	01:35	HPCS SSW pump breaker trips. Control Room is expected to secure DIV III D/G due to loss of cooling water. When operator is dispatched to investigate, breaker will have an over-current flag. When operator sent to investigate HPCS SSW motor, smell of burnt insulation around motor.
1015	02:15	TSC and OSC must be manned by this time
1015	02:15	DIV II D/G develops oscillations in voltage and current. Oscillations will continue to increase. D/G will trip if not tripped by Control Room.
1030	02:30	A <u>Site Area Emergency</u> is declared due to loss of offsite power and all onsite D/G for > 15 minutes.
1045	02:45	Steam leak develops on DIV I RPV reference leg. RPV level decreases do to loss of injection.
1100	03:00	The propane generator at the Met tower is repaired and returned to service.
1115	03:15	RCIC trips on high steam tunnel temperature isolation. RPV level decreases do to loss of injection.
1130	03:30	The EOF must be manned by this time
1135	03:35	RPV level reaches top of active fuel
1145	03:45	A radiological release starts
1215	04:15	A <u>General Emergency</u> is declared due to "Effluent monitor confirms release rate corresponding to a site boundary exposure of 5 Rem Thyroid dose

GRAND GULF NUCLEAR STATION

1993 EMERGENCY PREPAREDNESS EVALUATED EXERCISE

SEQUENCE OF EVENTS

Actual Time	Scenario Time	Summary
		commitment" or "Radiation monitoring team reports readings indicate > 50 mrem/hr at the site boundary."
1315	05:15	DIV 1 D/G is repaired and turned over to the control room. Control Room will start D/G and DIV 1 ECCS. RPV level will be restored to normal and pressure will decrease to 0 psig. Containment pressure will decrease to 0 psig following reduction in reactor pressure.
1345	05:45	The radiological release is terminated due to containment pressure reaching 0 psig. A wind shift of approximately 30° will occur and wind speed will increase due to a front entering the area. The EOF is expected to track the plume until it clears the EPZ.
1445	06:45	The radiological plume clears the EPZ
1500	07:00	The exercise is terminated

SECTION 8.0

MESSAGES AND PLANT STATUS INFORMATION

MESSAGES AND PLANT STATUS INFORMATION

Control Room (Simulator) Controller information.

The simulator will provide most of the information except in those areas beyond the capability of the simulator (ie. not simulated). The operators are expected to obtain desired data by actually reading panel indicators. Required plant information, beyond the capability of the simulator, will be provided to the simulator operators. This information should only be provided when the operator asks "What does this meter read?", "What is the condition of this light?", etc. to prevent leading the operator.

Special exercise phone lines have been provided in the simulator to allow the simulator operating crew to communicate with the actual plant as close to normal as possible. A radio is also installed to allow radio communication with operators and response teams in the plant.

In general, actual operators and maintenance personnel will be used throughout the exercise however unforeseen player actions may require some simulation in this area. No simulation of operator or maintenance personnel dispatch should be allowed without notifying the lead exercise controller.

GRAND GULF NUCLEAR STATION

1993 EMERGENCY PREPAREDNESS EVALUATED EXERCISE

Setup: Establish initial conditions of scenario.

1. Normal 100% power line-up (IC17)
2. 'A' CRD pump running (Swap CRD pumps)
3. DIV I D/G tagged out for maintenance (R19,57)(LCO,Tag out)
4. 115KV line de-energized (R20,218)(Tracking LCO)

Time: 0800

Insert CRD "A" pump trip fault (28A)

Time: 0810

Insert ESF-11 Lockout fault (134,11)

Time: 0830

(Information only: Unusual Event declared due to loss of power to met tower)

Time: 0845

Insert total loss of offsite power fault (135)

(If asked for nitrogen bottle installation) (R06,333)

(If asked for DIV III to DIV I cross tie) (HPCS Brkr R28,644)(LSS R20,217)

Time: 0915

(Information only: Alert declared due to liquid rad release > 10 time T.S.)

Time: 0935

HPCS SSW pump breaker trip ()

Time: 1012

DIV II D/G voltage & current meters begin to oscillate.
(Simulator controller will provide information on the floor)

Time: 1015

(If operators request DIV II D/G
to be placed in maintenance) (R19,517)

(If operators do not trip DIV II D/G) (141B)

Time: 1030

GRAND GULF NUCLEAR STATION

1993 EMERGENCY PREPAREDNESS EVALUATED EXERCISE

(Information only: A Site Area Emergency is declared due to loss of all AC > 15 min)

Time: 1045

Insert RPV reference leg steam leak ()

Time: 1045 - 1115

Insert Aux Bldg Steam Tunnel high temp
ann. to support RCIC trip at 1115 (160,601-19-E3)

(Insert one ann. approx every 5 min) (160,601-19-F3)

(160,601-19-F6)

(160,601-19-A3)

(160,601-19-A4)

(160,601-18-A3)

(160,601-18-A4)

Time: 1115

RCIC trip on High Steam Tunnel temp (46)

Time: 1115 - 1135

Control size of steam leak to make RPV level
reach TAF at approx 1135

Time: 1135

RPV level reaches TAF

Time: 1145

(Information only: A radiological release starts through the containment ventilation isolation valves)

Time: 1215

(Information only: A General Emergency is declared due to rad release)

Time:

GRAND GULF NUCLEAR STATION

1993 EMERGENCY PREPAREDNESS EVALUATED EXERCISE

Radiation Field Monitoring Team Controller information.

The expected time for the start of the radiological release is 1145. You will be notified if the release time is other than expected. The release is through the Containment Ventilation system. Field readings are provided for distances of 0.5 miles to 10 miles in 0.5 mile steps. A separate page is provided for each distance. A time line is provided which corresponds to the time that data is taken in the field. If field readings are taken in a location that falls between the distances provided, use the data from the sheet that is closest to the point of reading or sample.

GRAND GULF NUCLEAR STATION

1993 EMERGENCY PREPAREDNESS EVALUATED EXERCISE

(Contingency Message)

Time: 0845

Message for: Shift Superintendent

**** THIS IS A DRILL ****

Message: Declare an Unusual Event based on "Loss of vital assessment equipment. Loss of all meteorological equipment."

**** THIS IS A DRILL ****

GRAND GULF NUCLEAR STATION

1993 EMERGENCY PREPAREDNESS EVALUATED EXERCISE

(Contingency message)

Time = 0930

Message for: Shift Superintendent

**** THIS IS A DRILL ****

Message: Declare an Alert based on "Liquid radiological release greater than 10 times the limit of LCO 3.11.1.1 in the Radioactive Effluent section of the ODCM".

**** THIS IS A DRILL ****

GRAND GULF NUCLEAR STATION

1993 EMERGENCY PREPAREDNESS EVALUATED EXERCISE

(Contingency message)

Time = 1045

Message for: Emergency Director TSC

**** THIS IS A DRILL ****

Message: Declare a Site Area Emergency based on "Loss of all offsite power and all onsite D/G for > 15 min".

**** THIS IS A DRILL ****

GRAND GULF NUCLEAR STATION

1993 EMERGENCY PREPAREDNESS EVALUATED EXERCISE

(Contingency message)

Time = 1230

Message for: Offsite Emergency Coordinator

**** THIS IS A DRILL ****

Message: Declare a General Emergency based on "Effluent monitor confirms a release rate corresponding to a site boundary exposure of 5 Rem Thyroid dose commitment".

**** THIS IS A DRILL ****

GRAND GULF NUCLEAR STATION

1993 EMERGENCY PREPAREDNESS EVALUATED EXERCISE

(Contingency message)

Time = 1230

Message for: Offsite Emergency Coordinator

**** THIS IS A DRILL ****

Message: Declare a General Emergency based on "Radiation monitoring team reported reading indicating >50mrem/hr at the site boundary".

**** THIS IS A DRILL ****

GRAND GULF NUCLEAR STATION

1993 EMERGENCY PREPAREDNESS EVALUATED EXERCISE

Time = Approx. 1200

Message for: On-site field Radiation Monitoring Team

**** THIS IS A DRILL ****

Message: As you round the southwest corner of the fire water pump house you find a skunk. When the skunk sees you he charges toward you.

**** THIS IS A DRILL ****

GRAND GULF NUCLEAR STATION

1993 EMERGENCY PREPAREDNESS EVALUATED EXERCISE

Time = 1300

Message for: Offsite Monitoring Team

**** THIS IS A DRILL ****

Message: Your vehicle's left rear tire has gone flat.

**** THIS IS A DRILL ****

GRAND GULF NUCLEAR STATION

1993 EMERGENCY PREPAREDNESS EVALUATED EXERCISE

Time = 1500

Message for: Emergency Director

**** THIS IS A DRILL ****

Message: The exercise is terminated.

Make an announcement on the plant pager that the Emergency Preparedness
DRILL is terminated.

Begin TSC exercise critique.

**** THIS IS A DRILL ****

GRAND GULF NUCLEAR STATION

1993 EMERGENCY PREPAREDNESS EVALUATED EXERCISE

Time = 1500

Message for: OSC Coordinator

**** THIS IS A DRILL ****

Message: The exercise is terminated.

Make an announcement on the Admin Bldg pager that the Emergency Preparedness DRILL is terminated.

Begin OSC exercise critique.

**** THIS IS A DRILL ****

GRAND GULF NUCLEAR STATION

1993 EMERGENCY PREPAREDNESS EVALUATED EXERCISE

Time = 1500

Message for: Offsite Emergency Coordinator

**** THIS IS A DRILL ****

Message: The exercise is terminated.

Make an announcement on the ESC pager that the Emergency Preparedness
DRILL is terminated.

Begin EOF exercise critique.

**** THIS IS A DRILL ****

GRAND GULF NUCLEAR STATION

1993 EMERGENCY PREPAREDNESS EVALUATED EXERCISE

METEOROLOGICAL DATA

<u>TIME</u>	<u>ΔT</u> (°F)	<u>WIND SPEED</u> (MPH)	<u>WIND</u> <u>DIRECTION</u> (FROM) °
0800	-0.3	3 - 5	220 - 230
0830	-0.2	2.5 - 5.5	215 - 235
0900	-0.1	2 - 6	222 - 228
0930	0.0	3.5 - 4.5	219 - 231
1000	0.1	4	224 - 226
1030	.02	3 - 5	225
1100	.03	2 - 6	221 - 229
1130	0.4	2.5 - 5.5	215 - 235
1200	0.5	3.5 - 4.5	223 - 227
1230	0.6	2 - 6	220 - 230
1300	0.7	4	224 - 226
1330	0.8	4	222 - 228
1345	0.9	8 - 12	235 - 245
1400	1.0	7.5 - 12.5	237 - 243
1430	1.1	10	230 - 250

SECTION 9.0

INPLANT RADIOLOGICAL DATA

GRAND GULF NUCLEAR STATION

1993 EMERGENCY PREPAREDNESS EVALUATED EXERCISE

CONTAINMENT VENT RADIATION MONITORING INSTRUMENT DATA						
MONITOR	GE	SPING ch 5	SPING ch 7	SPING ch 9	AXM ch 3	AXM ch 4
TIME	CPM	CPM	CPM	CPM	CPM	CPM
11:45	0.0	0.00	0.00	0.00	0.00	0.00
11:50	PEGGED HIGH	PEGGED HIGH	9.21e+04	6.27e+03	6.27e+03	PEGGED HIGH
11:55	PEGGED HIGH	PEGGED HIGH	1.84e+05	1.25e+04	1.25e+04	PEGGED HIGH
12:00	PEGGED HIGH	PEGGED HIGH	2.76e+05	1.88e+04	1.88e+04	PEGGED HIGH
12:05	PEGGED HIGH	PEGGED HIGH	2.76e+05	1.88e+04	1.88e+04	PEGGED HIGH
12:10	PEGGED HIGH	PEGGED HIGH	2.76e+05	1.88e+04	1.88e+04	PEGGED HIGH
12:15	PEGGED HIGH	PEGGED HIGH	2.76e+05	1.88e+04	1.88e+04	PEGGED HIGH
12:20	PEGGED HIGH	PEGGED HIGH	2.76e+05	1.88e+04	1.88e+04	PEGGED HIGH
12:25	PEGGED HIGH	PEGGED HIGH	2.76e+05	1.88e+04	1.88e+04	PEGGED HIGH
12:30	PEGGED HIGH	PEGGED HIGH	2.76e+05	1.88e+04	1.88e+04	PEGGED HIGH
12:35	PEGGED HIGH	PEGGED HIGH	2.76e+05	1.88e+04	1.88e+04	PEGGED HIGH
12:40	PEGGED HIGH	PEGGED HIGH	2.76e+05	1.88e+04	1.88e+04	PEGGED HIGH
12:45	PEGGED HIGH	PEGGED HIGH	2.76e+05	1.88e+04	1.88e+04	PEGGED HIGH
12:50	PEGGED HIGH	PEGGED HIGH	2.76e+05	1.88e+04	1.88e+04	PEGGED HIGH
12:55	PEGGED HIGH	PEGGED HIGH	2.76e+05	1.88e+04	1.88e+04	PEGGED HIGH
13:00	PEGGED HIGH	PEGGED HIGH	2.76e+05	1.88e+04	1.88e+04	PEGGED HIGH
13:05	PEGGED HIGH	PEGGED HIGH	2.76e+05	1.88e+04	1.88e+04	PEGGED HIGH
13:10	PEGGED HIGH	PEGGED HIGH	2.76e+05	1.88e+04	1.88e+04	PEGGED HIGH
13:15	PEGGED HIGH	PEGGED HIGH	2.76e+05	1.88e+04	1.88e+04	PEGGED HIGH
13:20	PEGGED HIGH	PEGGED HIGH	2.76e+05	1.88e+04	1.88e+04	PEGGED HIGH
13:25	PEGGED HIGH	PEGGED HIGH	2.76e+05	1.88e+04	1.88e+04	PEGGED HIGH
13:30	PEGGED HIGH	PEGGED HIGH	2.76e+05	1.88e+04	1.88e+04	PEGGED HIGH
13:35	PEGGED HIGH	PEGGED HIGH	2.76e+05	1.88e+04	1.88e+04	PEGGED HIGH
13:40	PEGGED HIGH	PEGGED HIGH	1.84e+05	1.25e+04	1.25e+04	PEGGED HIGH
13:45	PEGGED HIGH	PEGGED HIGH	9.21e+04	6.27e+03	6.27e+03	PEGGED HIGH

GRAND GULF NUCLEAR STATION

1993 EMERGENCY PREPAREDNESS EVALUATED EXERCISE

TIME OF DATA	RESPONSE TEAM AREA RADIATION READINGS			NOTE: Aux Bldg readings are within one foot of the curved wall. As distance from the wall increases, the reading will decrease. EXAMPLE: If listed reading is 10 mr/hr, then at 5 feet the reading would be 2 mr/hr and at 10 feet the reading would be 1 mr/hr.
	AREA 1	AREA 2	AREA 3	
	R/HR	mr/hr	mr/hr	
11:45	0	0	0	
11:50	45	448	45	
11:55	89	887	89	
12:00	132	1320	132	
12:05	130	1300	130	
12:10	129	1290	129	
12:15	128	1280	128	
12:20	127	1270	127	
12:25	126	1260	126	
12:30	124	1240	124	
12:35	123	1230	123	
12:40	122	1220	122	
12:45	121	1210	121	
12:50	120	1200	120	
12:55	119	1190	119	
13:00	118	1180	118	
13:05	117	1170	117	
13:10	116	1160	116	
13:15	115	1150	115	
13:20	114	1140	114	
13:25	113	1130	113	
13:30	112	1120	112	
13:35	111	1110	111	
13:40	74	735	74	
13:45	37	365	37	

GRAND GULF NUCLEAR STATION

1993 EMERGENCY PREPAREDNESS EVALUATED EXERCISE

TIME	HIGH RANGE RAD MONITOR DATA			
	DRYWELL		CONTAINMENT	
	R/hr	Ci/cc	R/hr	Ci/cc
11:45	0	0.0	0	0.0
11:50	45	2.6e-07	0	2.6e-07
11:55	89	5.3e-07	1	5.3e-07
12:00	132	7.9e-07	1	7.9e-07
12:05	130	7.9e-07	1	7.9e-07
12:10	129	7.9e-07	1	7.9e-07
12:15	128	7.9e-07	1	7.9e-07
12:20	127	7.9e-07	1	7.9e-07
12:25	126	7.9e-07	1	7.9e-07
12:30	124	7.9e-07	1	7.9e-07
12:35	123	7.9e-07	1	7.9e-07
12:40	122	7.9e-07	1	7.9e-07
12:45	121	7.9e-07	1	7.9e-07
12:50	120	7.9e-07	1	7.9e-07
12:55	119	7.9e-07	1	7.9e-07
13:00	118	7.9e-07	1	7.9e-07
13:05	117	7.9e-07	1	7.9e-07
13:10	116	7.9e-07	1	7.9e-07
13:15	115	7.9e-07	1	7.9e-07
13:20	114	7.9e-07	1	7.9e-07
13:25	113	7.9e-07	1	7.9e-07
13:30	112	7.9e-07	1	7.9e-07
13:35	111	7.9e-07	1	7.9e-07
13:40	74	5.3e-07	1	5.3e-07
13:45	37	2.6e-07	0	2.6e-07

GRAND GULF NUCLEAR STATION

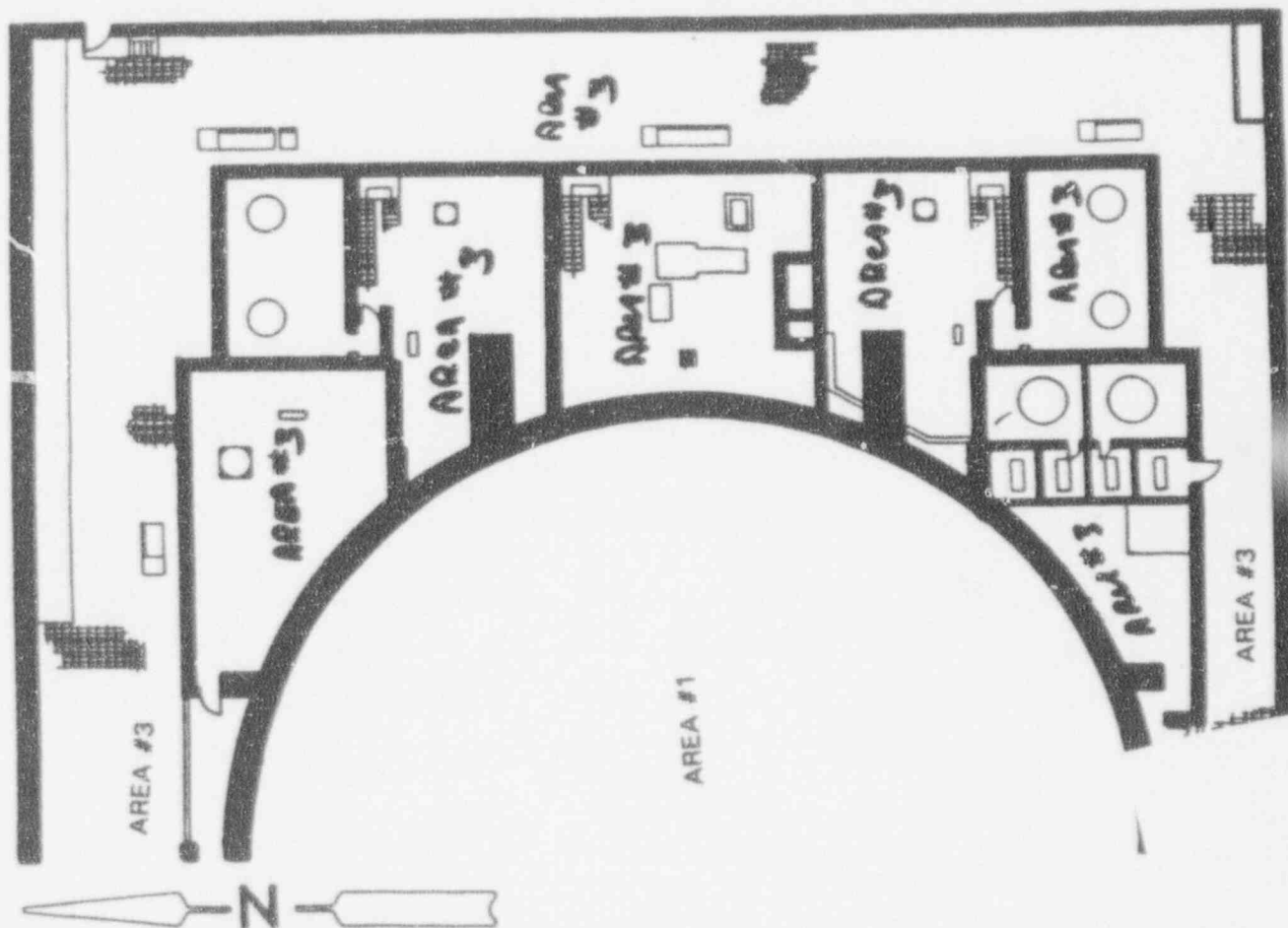
1993 EMERGENCY PREPAREDNESS EVALUATED EXERCISE

TIME OF RELEASE DATA	ONSITE MONITORING TEAM FIELD DATA						
	RADIATION LEVELS			AIR SAMPLE DATA			
				BKGND = 40 CPM		SAMPLE VOL = 10 FT3	
	CLOSED	OPEN	BETA DOSE RATE	PART	PART ACTIVITY	IODINE	IODINE ACTIVITY
	MREM/HR	MREM/HR	MRAD/HR	CPM	$\mu\text{Ci/cc}$	CPM	$\mu\text{Ci/cc}$
11:52	0	0	0	40	0.00	40	0.00
11:57	45	71	78	824	1.25e-08	9,683	1.71e-05
12:02	09	141	156	1,631	2.55e-08	19,410	3.44e-05
12:07	132	210	234	2,426	3.82e-08	29,307	5.20e-05
12:12	130	207	231	2,390	3.76e-08	29,476	5.23e-05
12:17	129	206	231	2,371	3.73e-08	29,645	5.26e-05
12:22	128	204	228	2,353	3.70e-08	29,730	5.28e-05
12:27	127	202	225	2,335	3.67e-08	29,899	5.31e-05
12:32	126	201	225	2,316	3.64e-08	30,068	5.34e-05
12:37	124	198	222	2,279	3.58e-08	30,153	5.35e-05
12:42	123	196	219	2,261	3.55e-08	30,322	5.38e-05
12:47	122	195	219	2,243	3.52e-08	30,491	5.41e-05
12:52	121	193	216	2,224	3.49e-08	30,576	5.43e-05
12:57	120	192	216	2,206	3.47e-08	30,745	5.46e-05
13:02	119	190	213	2,188	3.44e-08	30,829	5.47e-05
13:07	118	189	213	2,169	3.41e-08	30,999	5.50e-05
13:12	117	187	210	2,151	3.38e-08	31,083	5.52e-05
13:17	116	185	207	2,132	3.35e-08	31,252	5.55e-05
13:22	115	184	207	2,114	3.32e-08	31,422	5.58e-05
13:27	114	182	204	2,096	3.29e-08	31,506	5.59e-05
13:32	113	181	204	2,077	3.26e-08	31,675	5.62e-05
13:37	112	179	201	2,059	3.23e-08	31,760	5.64e-05
13:42	111	178	201	2,040	3.20e-08	31,845	5.65e-05
13:47	74	118	132	1,351	2.10e-08	21,356	3.79e-05
13:52	37	58	63	671	1.01e-08	10,698	1.89e-05

GRAND GULF NUCLEAR STATION

1993 EMERGENCY PREPAREDNESS EVALUATED EXERCISE

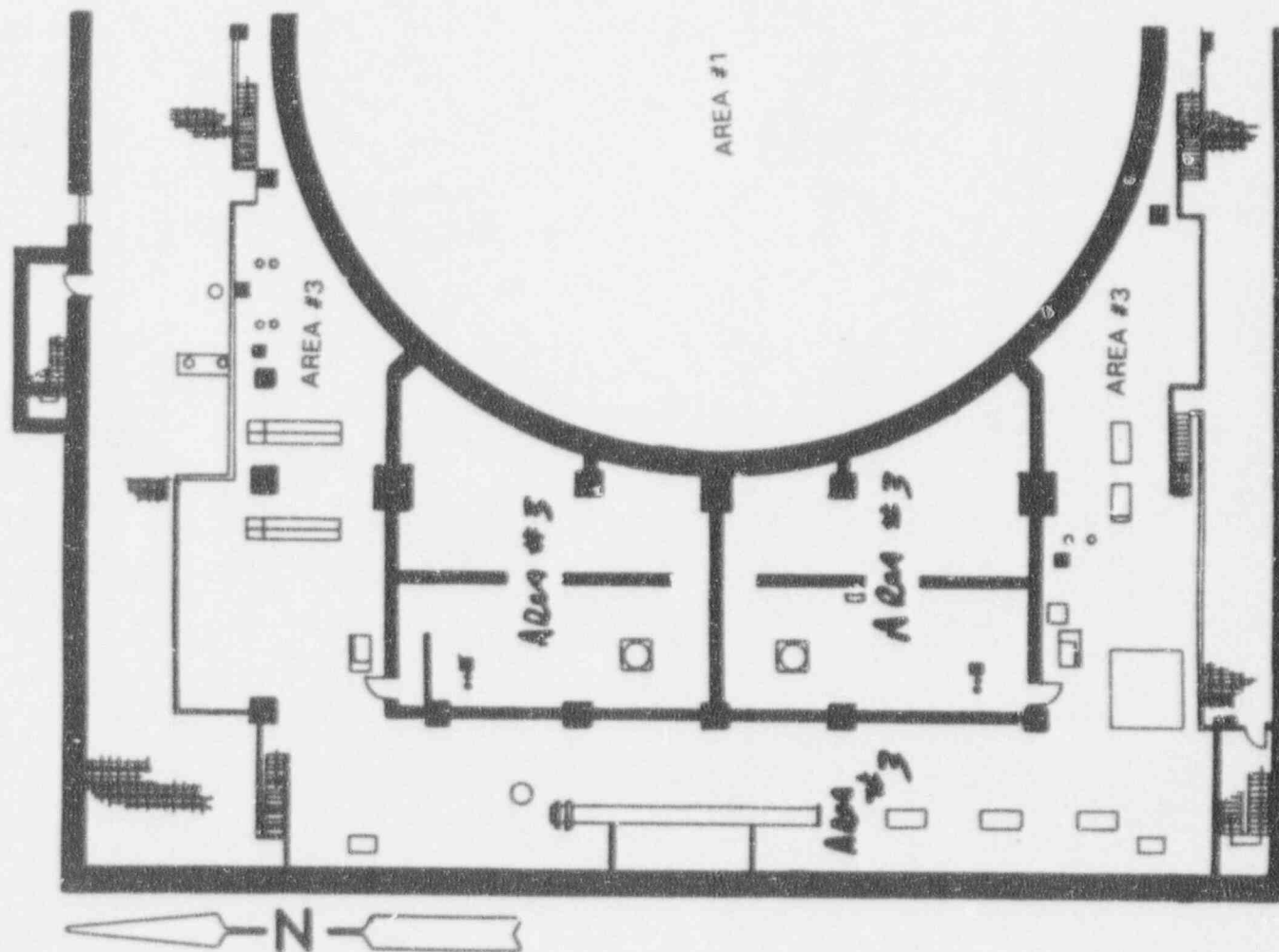
93' EAST AUXILIARY BLDG



GRAND GULF NUCLEAR STATION

1993 EMERGENCY PREPAREDNESS EVALUATED EXERCISE

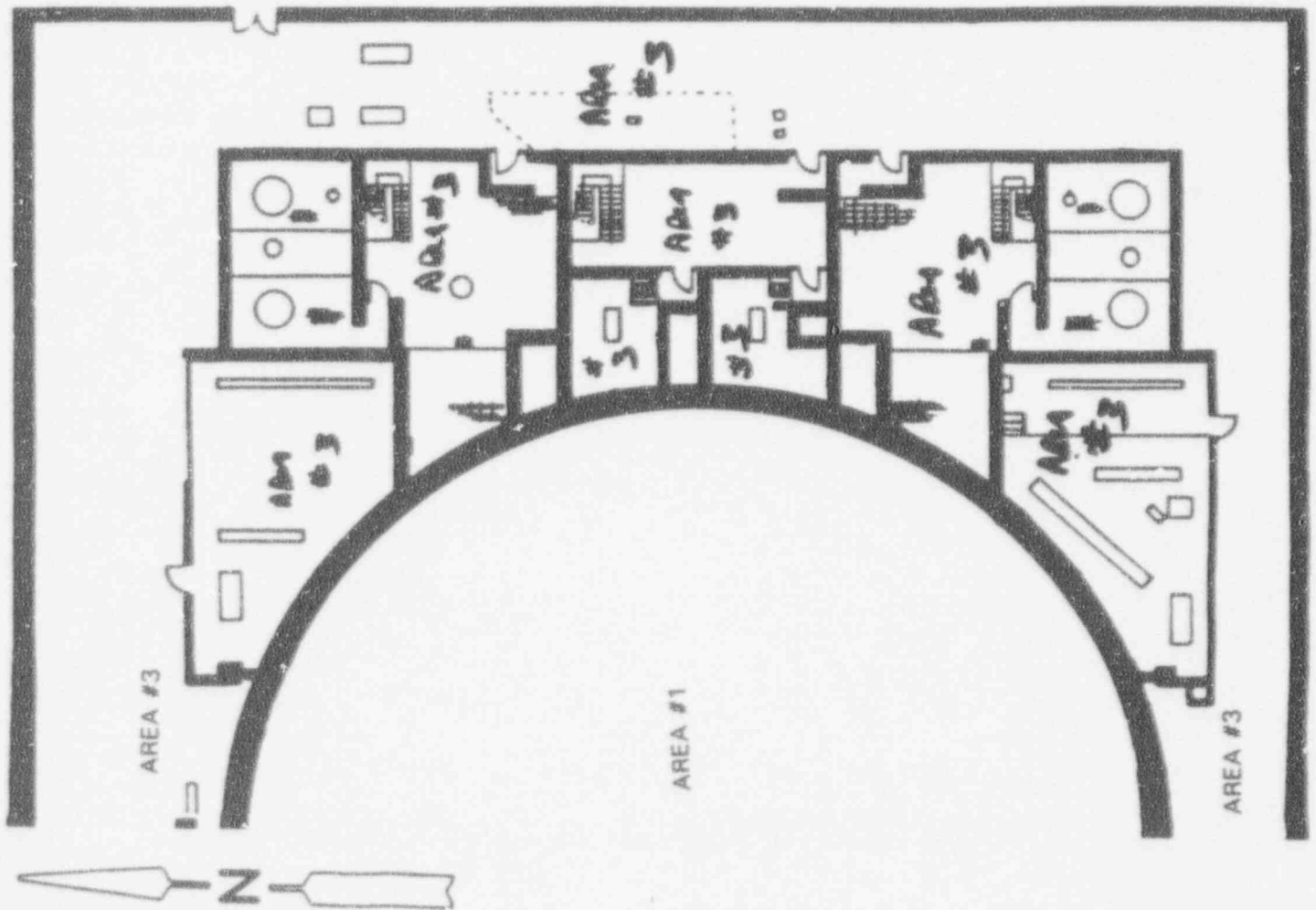
93' WEST AUXILIARY BLDG



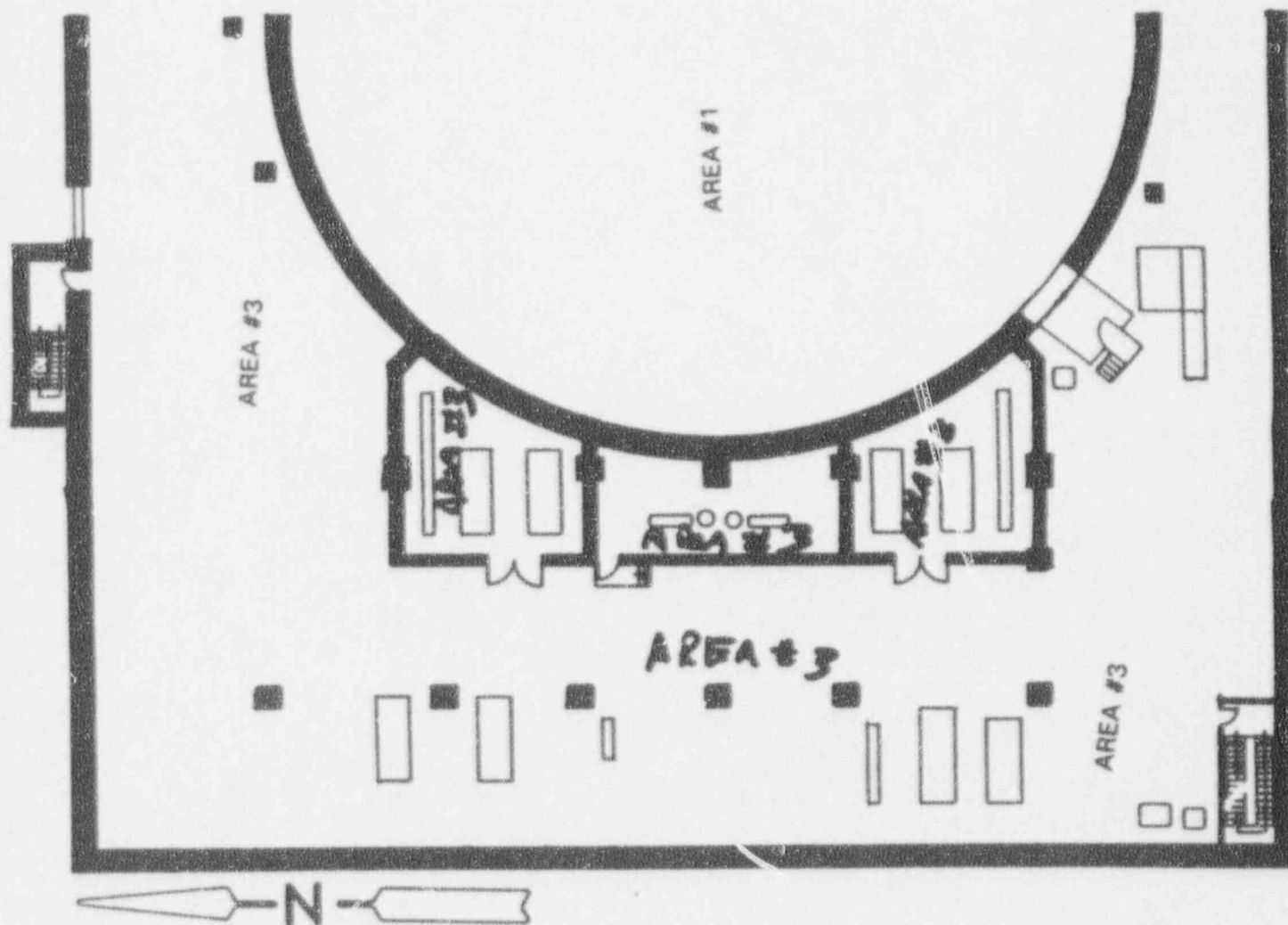
GP AND GULF NUCLEAR STATION

1993 EMERGENCY PREPAREDNESS EVALUATED EXERCISE

119' EAST AUXILIARY BLDG



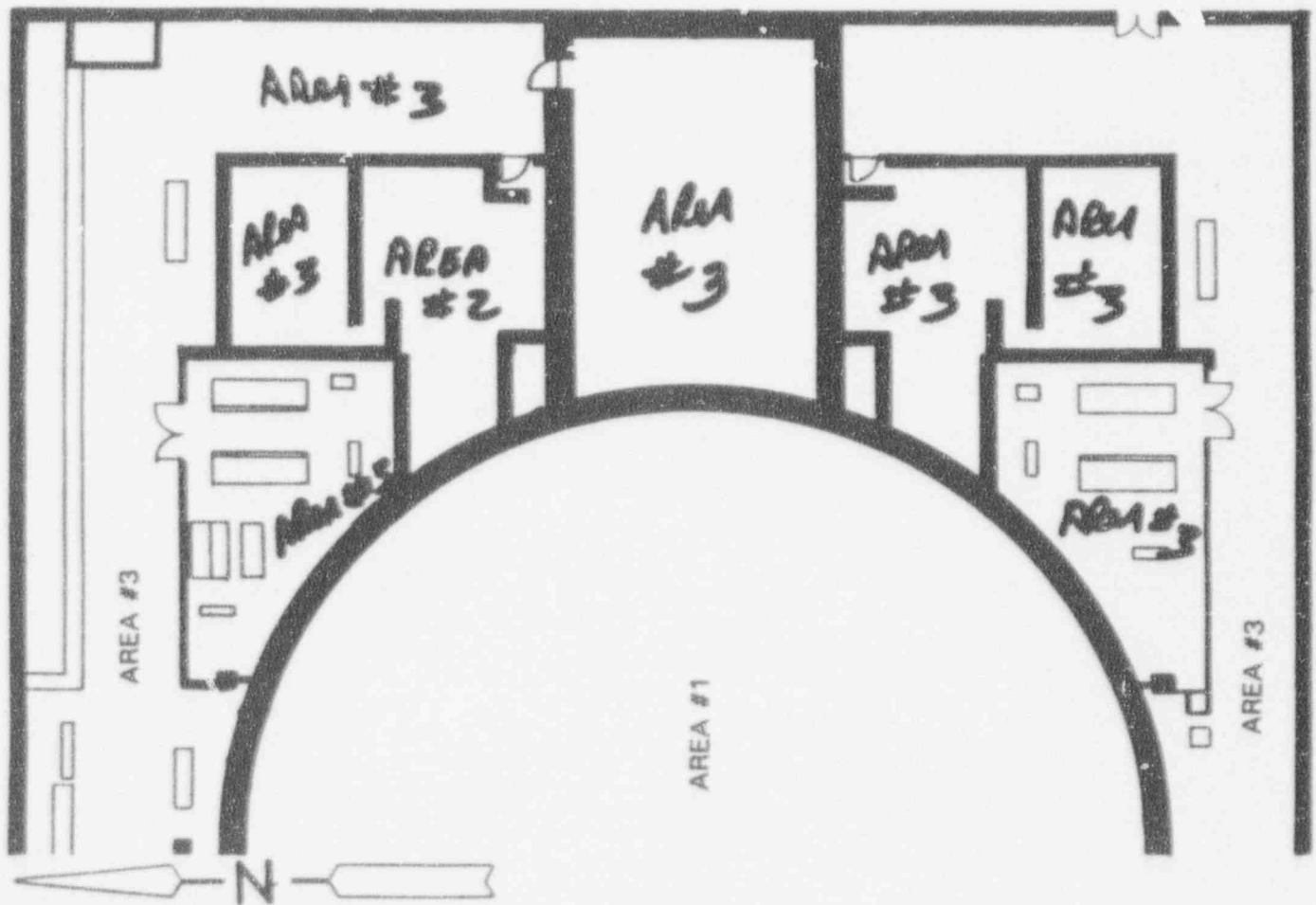
GRAND GULF NUCLEAR STATION
1993 EMERGENCY PREPAREDNESS EVALUATED EXERCISE
119' WEST AUXILIARY BLDG



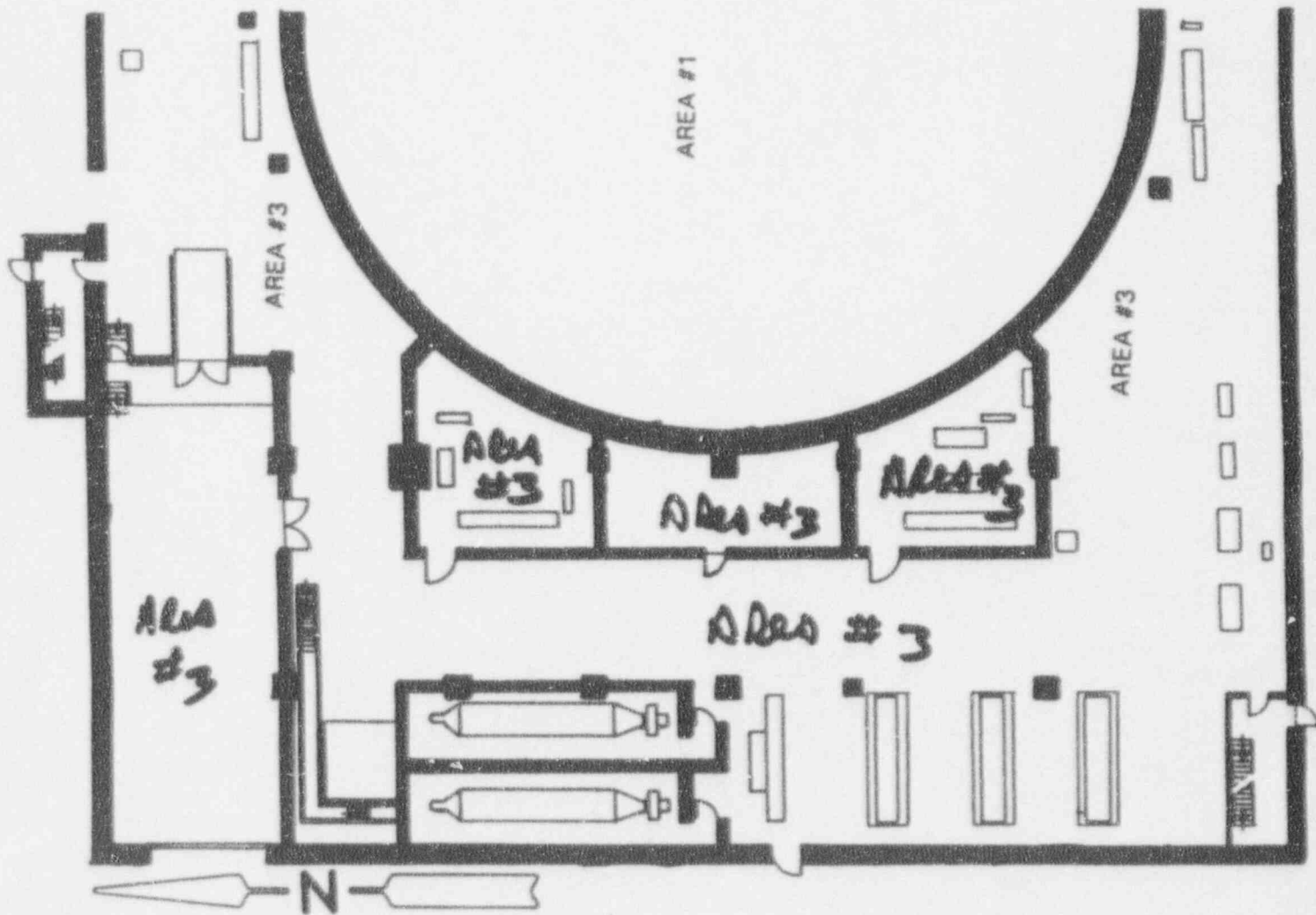
GRAND GULF NUCLEAR STATION

1993 EMERGENCY PREPAREDNESS EVALUATED EXERCISE

139' EAST AUXILIARY BLDG



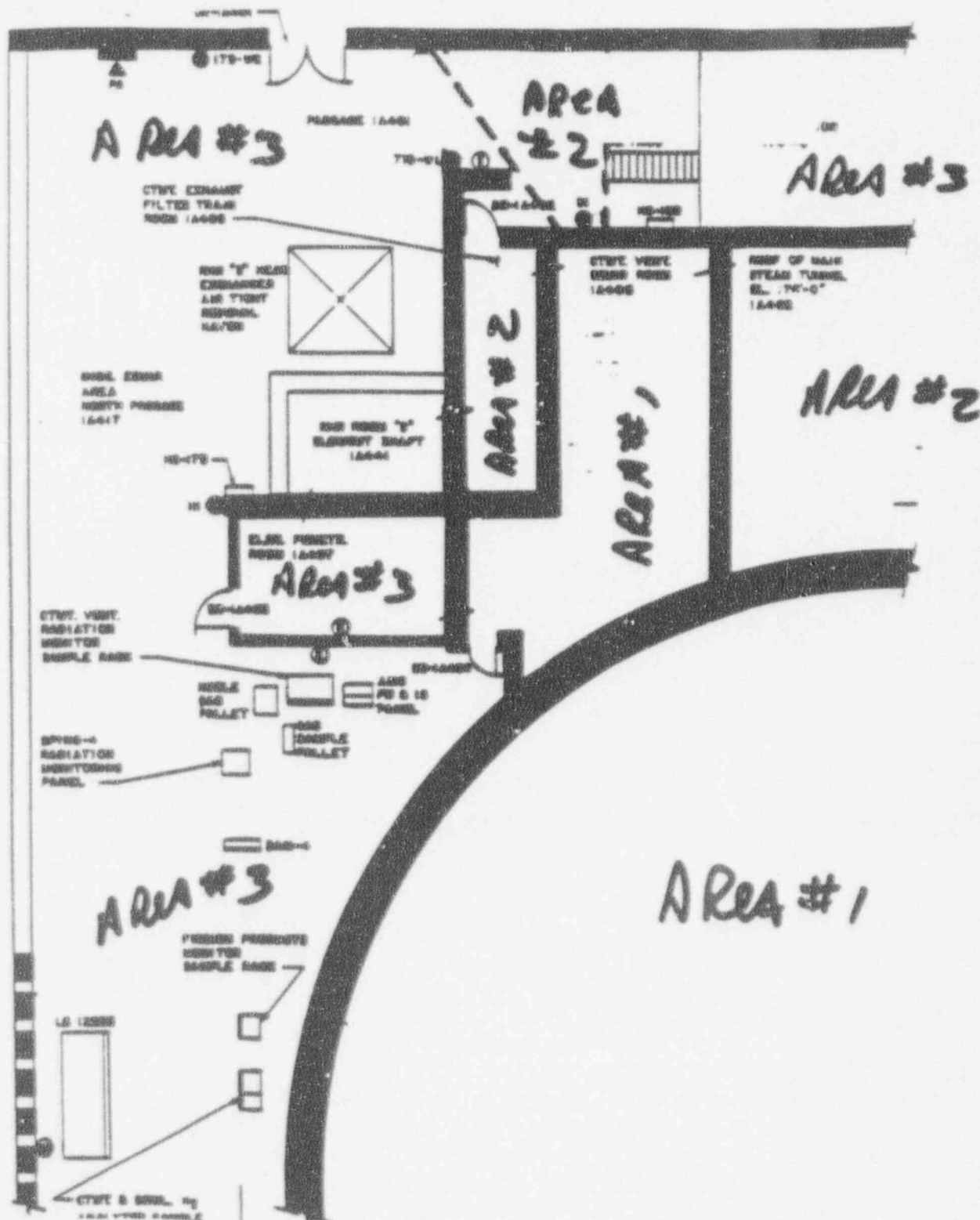
GRAND GULF NUCLEAR STATION
1993 EMERGENCY PREPAREDNESS EVALUATED EXERCISE
139' WEST AUXILIARY BLDG



GRAND GULF NUCLEAR STATION

1993 EMERGENCY PREPAREDNESS EVALUATED EXERCISE

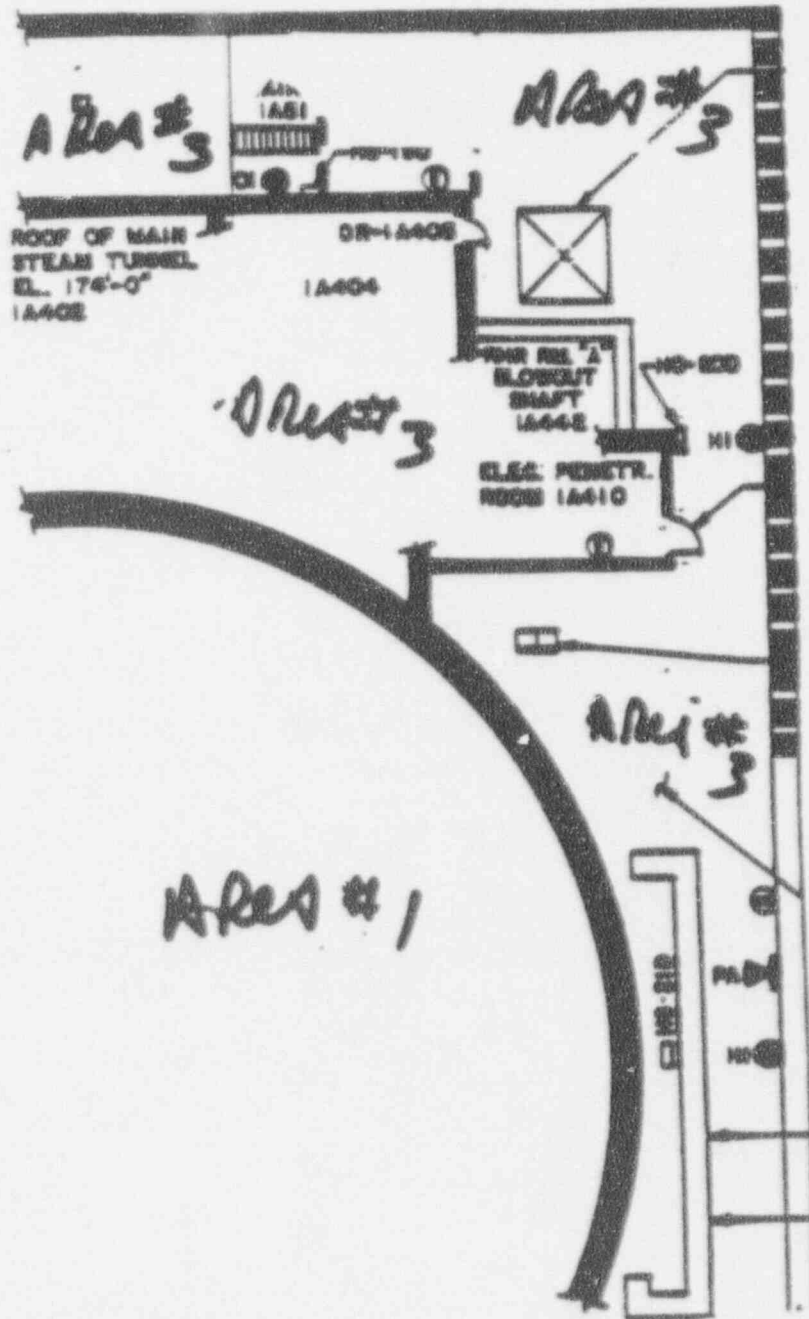
166' NORTHEAST AUXILIARY BLDG



GRAND GULF NUCLEAR STATION

1993 EMERGENCY PREPAREDNESS EVALUATED EXERCISE

166' SOUTHEAST AUXILIARY BLDG



SECTION 10.0

OFFSITE RADIOLOGICAL DATA

GRAND GULF NUCLEAR STATION
1993 EMERGENCY PREPAREDNESS EVALUATED EXERCISE

TIME OF RELEASE DATA	DOSE PROJECTION													
	SOURCE		SITE BOUNDARY			2 MI			5 MI			10 MI		
	NG	I	WB	SKIN	THY	WB	SKIN	THY	WB	SKIN	THY	WB	SKIN	THY
	CI/SEC	CI/SEC	MREM/HR	MREM/HR	MREM	MREM/HR	MREM/HR	MREM	MREM/HR	MREM/HR	MREM	MREM/HR	MREM/HR	MREM
11:45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11:50	5.00e-01	1.25e-01	3.08e-01	5.48e-01	1.58e-04	4.91e-00	8.75e-00	2.40e-03	1.22e-00	2.18e-00	6.02e-02	4.04e-01	7.31e-01	2.10e+02
11:55	1.00e+00	2.49e-01	6.10e-01	1.09e-02	3.14e-04	9.73e-00	1.73e-01	4.85e-03	2.42e-00	4.33e-00	1.21e-03	8.03e-01	1.45e+00	4.21e+02
12:00	1.50e+00	3.73e-01	9.05e-01	1.61e-02	4.73e-04	1.45e-01	2.58e-01	7.28e-03	3.60e-00	6.44e-00	1.83e-03	1.20e+00	2.17e+00	6.35e+02
12:05	1.50e+00	3.73e-01	8.98e-01	1.60e-02	4.75e-04	1.43e-01	2.56e-01	7.31e-03	3.57e-00	6.40e-00	1.83e-03	1.18e+00	2.16e+00	6.38e+02
12:10	1.50e+00	3.72e-01	8.89e-01	1.58e-02	4.78e-04	1.42e-01	2.54e-01	7.35e-03	3.54e-00	6.35e-00	1.84e-03	1.18e+00	2.15e+00	6.41e+02
12:15	1.50e+00	3.71e-01	8.81e-01	1.57e-02	4.80e-04	1.41e-01	2.52e-01	7.39e-03	3.51e-00	6.31e-00	1.85e-03	1.17e+00	2.14e+00	6.44e+02
12:20	1.50e+00	3.71e-01	8.73e-01	1.56e-02	4.82e-04	1.40e-01	2.49e-01	7.42e-03	3.49e-00	6.27e-00	1.86e-03	1.17e+00	2.12e+00	6.48e+02
12:25	1.50e+00	3.70e-01	8.65e-01	1.54e-02	4.85e-04	1.38e-01	2.47e-01	7.46e-03	3.46e-00	6.23e-00	1.87e-03	1.16e+00	2.11e+00	6.51e+02
12:30	1.50e+00	3.69e-01	8.57e-01	1.53e-02	4.87e-04	1.37e-01	2.46e-01	7.49e-03	3.43e-00	6.19e-00	1.88e-03	1.15e+00	2.10e+00	6.54e+02
12:35	1.50e+00	3.68e-01	8.49e-01	1.51e-02	4.89e-04	1.35e-01	2.44e-01	7.53e-03	3.41e-00	6.14e-00	1.89e-03	1.15e+00	2.09e+00	6.57e+02
12:40	1.50e+00	3.68e-01	8.42e-01	1.50e-02	4.91e-04	1.35e-01	2.42e-01	7.56e-03	3.38e-00	6.10e-00	1.90e-03	1.14e+00	2.08e+00	6.60e+02
12:45	1.50e+00	3.67e-01	8.34e-01	1.49e-02	4.94e-04	1.34e-01	2.40e-01	7.59e-03	3.36e-00	6.06e-00	1.91e-03	1.13e+00	2.07e+00	6.63e+02
12:50	1.50e+00	3.67e-01	8.27e-01	1.48e-02	4.96e-04	1.33e-01	2.38e-01	7.63e-03	3.33e-00	6.02e-00	1.92e-03	1.13e+00	2.06e+00	6.66e+02
12:55	1.50e+00	3.66e-01	8.20e-01	1.47e-02	4.98e-04	1.32e-01	2.36e-01	7.66e-03	3.31e-00	5.98e-00	1.92e-03	1.12e+00	2.05e+00	6.69e+02
13:00	1.50e+00	3.65e-01	8.13e-01	1.46e-02	5.00e-04	1.30e-01	2.35e-01	7.70e-03	3.29e-00	5.95e-00	1.93e-03	1.11e+00	2.04e+00	6.72e+02
13:05	1.50e+00	3.65e-01	8.08e-01	1.45e-02	5.02e-04	1.29e-01	2.33e-01	7.73e-03	3.26e-00	5.91e-00	1.94e-03	1.10e+00	2.03e+00	6.75e+02
13:10	1.50e+00	3.65e-01	7.99e-01	1.43e-02	5.04e-04	1.28e-01	2.31e-01	7.76e-03	3.24e-00	5.87e-00	1.95e-03	1.10e+00	2.02e+00	6.78e+02
13:15	1.50e+00	3.65e-01	7.92e-01	1.42e-02	5.06e-04	1.27e-01	2.30e-01	7.79e-03	3.21e-00	5.84e-00	1.96e-03	1.09e+00	2.01e+00	6.81e+02
13:20	1.50e+00	3.64e-01	7.85e-01	1.41e-02	5.08e-04	1.26e-01	2.28e-01	7.83e-03	3.19e-00	5.80e-00	1.96e-03	1.09e+00	2.00e+00	6.84e+02
13:25	1.50e+00	3.64e-01	7.78e-01	1.40e-02	5.10e-04	1.25e-01	2.26e-01	7.86e-03	3.17e-00	5.77e-00	1.97e-03	1.08e+00	1.99e+00	6.87e+02
13:30	1.50e+00	3.63e-01	7.72e-01	1.39e-02	5.13e-04	1.24e-01	2.25e-01	7.89e-03	3.15e-00	5.73e-00	1.98e-03	1.07e+00	1.98e+00	6.89e+02
13:35	1.50e+00	3.63e-01	7.68e-01	1.38e-02	5.14e-04	1.23e-01	2.23e-01	7.92e-03	3.12e-00	5.70e-00	1.99e-03	1.07e+00	1.97e+00	6.92e+02
13:40	1.00e+00	2.42e-01	5.08e-01	8.14e-01	3.44e-04	8.16e-00	1.48e-01	5.30e-03	2.07e-00	3.78e-00	1.33e-03	7.07e-01	1.31e+00	4.83e+02
13:45	1.00e-01	1.21e-01	2.51e-01	4.54e-01	1.73e-04	4.05e-00	7.34e-00	2.88e-03	1.03e-00	1.88e-00	8.88e-02	3.51e-01	6.52e-01	2.32e+02

GRAND GULF NUCLEAR STATION

1993 EMERGENCY PREPAREDNESS GRADED EXERCISE

Assumptions used for dose projections:

1. Wind Speed: 4 mph (avg)
2. Wind Direction: 225° (from)
3. ΔT : 0°F (avg)
4. Time of Rx Shutdown: 0845
5. Release Point: Containment Vent
6. Effluent flowrate: 100 CFM
7. Assumed Accident: LOCA
8. Release Start Time: 1145
9. Release Stop Time: 1345

GRAND GULF NUCLEAR STATION
1993 EMERGENCY PREPAREDNESS EVALUATED EXERCISE

TIME OF RELEASE DATA	OFFSITE MONITORING TEAM FIELD DATA (0.5 MILE)						
	RADIATION LEVELS			AIR SAMPLE DATA			
				BKGND = 40 CPM		SAMPLE VOL. = 10 FT3	
	CLOSED	OPEN	BETA DOSE RATE	PART	PART ACTIVITY	IODINE	IODINE ACTIVITY
	MREM/HR	MREM/HR	MRAD/HR	CPM	$\mu\text{Ci/cc}$	CPM	$\mu\text{Ci/cc}$
11:52	0	0	0	40	0.00	40	0.00
11:57	45	71	78	824	1.25e-08	9,683	1.71e-05
12:02	89	141	156	1,631	2.55e-08	19,410	3.44e-05
12:07	132	210	234	2,426	3.82e-08	29,307	5.20e-05
12:12	130	207	231	2,390	3.75e-08	29,476	5.23e-05
12:17	129	206	231	2,371	3.73e-08	29,645	5.26e-05
12:22	128	204	228	2,353	3.70e-08	29,730	5.28e-05
12:27	127	202	225	2,335	3.67e-08	29,899	5.31e-05
12:32	126	201	225	2,316	3.64e-08	30,068	5.34e-05
12:37	124	198	222	2,279	3.58e-08	30,153	5.35e-05
12:42	123	196	219	2,261	3.55e-08	30,322	5.38e-05
12:47	122	195	219	2,243	3.52e-08	30,491	5.41e-05
12:52	121	193	216	2,224	3.49e-08	30,576	5.43e-05
12:57	120	192	216	2,206	3.47e-08	30,745	5.46e-05
13:02	119	190	213	2,188	3.44e-08	30,829	5.47e-05
13:07	118	189	213	2,169	3.41e-08	30,999	5.50e-05
13:12	117	187	210	2,151	3.38e-08	31,083	5.52e-05
13:17	116	185	207	2,132	3.35e-08	31,252	5.55e-05
13:22	115	184	207	2,114	3.32e-08	31,422	5.58e-05
13:27	114	182	204	2,096	3.29e-08	31,506	5.59e-05
13:32	113	181	204	2,077	3.26e-08	31,675	5.62e-05
13:37	112	179	201	2,059	3.23e-08	31,760	5.64e-05
13:42	111	178	201	2,040	3.20e-08	31,845	5.65e-05
13:47	74	118	132	1,351	2.10e-08	21,356	3.79e-05
13:52	37	58	63	671	1.01e-08	10,698	1.89e-05

GRAND GULF NUCLEAR STATION
1993 EMERGENCY PREPAREDNESS EVALUATED EXERCISE

TIME OF RELEASE DATA	OFFSITE MONITORING TEAM FIELD DATA (1.0 MILE)						
	RADIATION LEVELS			AIR SAMPLE DATA			
				BKGND = 40 CPM		SAMPLE VOL. = 10 FT ³	
	CLOSED	OPEN	BETA DOSE RATE	PART	PART ACTIVITY	IODINE	IODINE ACTIVITY
	MREM/HR	MREM/HR	MRAD/HR	CPM	$\mu\text{Ci/cc}$	CPM	$\mu\text{Ci/cc}$
12:00	0	0	0	40	0.00	40	0.00
12:05	24	43	57	446	6.50e-09	5,208	9.19e-06
12:10	48	86	114	883	1.35e-08	10,449	1.85e-05
12:15	71	127	168	1,311	2.03e-08	15,712	2.79e-05
12:20	71	126	165	1,299	2.01e-08	15,778	2.80e-05
12:25	70	124	162	1,286	1.99e-08	15,876	2.82e-05
12:30	69	124	165	1,275	1.98e-08	15,945	2.83e-05
12:35	69	123	162	1,264	1.96e-08	16,011	2.84e-05
12:40	68	121	159	1,252	1.94e-08	16,108	2.86e-05
12:45	67	121	162	1,240	1.92e-08	16,174	2.87e-05
12:50	67	119	156	1,229	1.90e-08	16,243	2.88e-05
12:55	66	118	156	1,219	1.89e-08	16,309	2.89e-05
13:00	66	117	153	1,208	1.87e-08	16,404	2.91e-05
13:05	65	117	156	1,198	1.85e-08	16,473	2.92e-05
13:10	65	116	153	1,188	1.84e-08	16,539	2.93e-05
13:15	64	115	153	1,177	1.82e-08	16,608	2.95e-05
13:20	63	114	153	1,167	1.80e-08	16,674	2.96e-05
13:25	63	113	150	1,157	1.79e-08	16,740	2.97e-05
13:30	62	112	150	1,147	1.77e-08	16,806	2.98e-05
13:35	62	111	147	1,137	1.76e-08	16,875	2.99e-05
13:40	61	110	147	1,128	1.74e-08	16,941	3.00e-05
13:45	61	110	147	1,118	1.72e-08	17,036	3.02e-05
13:50	60	109	147	1,109	1.71e-08	17,073	3.03e-05
13:55	40	72	96	733	1.11e-08	11,439	2.03e-05
14:00	20	36	48	364	5.18e-09	5,771	1.02e-05

GRAND GULF NUCLEAR STATION
1993 EMERGENCY PREPAREDNESS EVALUATED EXERCISE

TIME OF RELEASE DATA	OFFSITE MONITORING TEAM FIELD DATA (1.5 MILE)						
	RADIATION LEVELS			AIR SAMPLE DATA			
				BKGND = 40 CPM		SAMPLE VOL. = 10 FT3	
	CLOSED	OPEN	BETA DOSE RATE	PART	PART ACTIVITY	IODINE	IODINE ACTIVITY
	MREM/HR	MREM/HR	MRAD/HR	CPM	$\mu\text{Ci/cc}$	CPM	$\mu\text{Ci/cc}$
12:07	0	0	0	40	0.00	40	0.00
12:12	11	19	24	201	2.58e-09	2,330	4.07e-06
12:17	22	39	51	397	5.71e-09	4,661	8.22e-06
12:22	32	57	75	591	8.82e-09	6,986	1.23e-05
12:27	32	57	75	584	8.70e-09	7,015	1.24e-05
12:32	32	56	72	579	8.62e-09	7,056	1.25e-05
12:37	31	56	75	575	8.56e-09	7,090	1.25e-05
12:42	31	55	72	570	8.48e-09	7,119	1.26e-05
12:47	31	55	72	563	8.37e-09	7,160	1.27e-05
12:52	30	54	72	559	8.30e-09	7,189	1.27e-05
12:57	30	54	72	554	8.22e-09	7,223	1.28e-05
13:02	30	53	69	550	8.16e-09	7,252	1.28e-05
13:07	30	53	69	545	8.08e-09	7,288	1.29e-05
13:12	29	53	72	541	8.02e-09	7,322	1.29e-05
13:17	29	52	69	537	7.95e-09	7,351	1.30e-05
13:22	29	52	69	530	7.84e-09	7,385	1.31e-05
13:27	29	52	69	526	7.78e-09	7,414	1.31e-05
13:32	28	51	69	522	7.71e-09	7,443	1.32e-05
13:37	28	51	69	517	7.63e-09	7,472	1.32e-05
13:42	28	50	66	513	7.57e-09	7,507	1.33e-05
13:47	28	50	66	509	7.50e-09	7,536	1.33e-05
13:52	27	50	69	505	7.44e-09	7,571	1.34e-05
13:57	27	49	66	501	7.38e-09	7,593	1.34e-05
14:02	18	33	45	332	4.67e-09	5,095	8.99e-06
14:07	9	16	21	165	2.00e-09	2,579	4.51e-06

GRAND GULF NUCLEAR STATION

1993 EMERGENCY PREPAREDNESS EVALUATED EXERCISE

TIME OF RELEASE DATA	OFFSITE MONITORING TEAM FIELD DATA (2.0 MILE)						
	RADIATION LEVELS			AIR SAMPLE DATA			
				BKGND = 40 CPM		SAMPLE VOL. = 10 FT3	
	CLOSED	OPEN	BETA DOSE RATE	PART	PART ACTIVITY	IODINE	IODINE ACTIVITY
	MREM/HR	MREM/HR	MRAD/HR	CPM	$\mu\text{Ci/cc}$	CPM	$\mu\text{Ci/cc}$
12:15	0	0	0	40	0.00	40	0.00
12:20	5	8	9	90	8.00e-10	1,055	1.80e-06
12:25	10	15	15	179	2.22e-09	2,091	3.65e-06
12:30	15	23	24	267	3.63e-09	3,119	5.47e-06
12:35	14	23	27	263	3.57e-09	3,132	5.50e-06
12:40	14	23	27	261	3.54e-09	3,149	5.53e-06
12:45	14	23	27	259	3.50e-09	3,165	5.56e-06
12:50	14	22	24	257	3.47e-09	3,178	5.58e-06
12:55	14	22	24	254	3.42e-09	3,195	5.61e-06
13:00	14	22	24	252	3.39e-09	3,208	5.63e-06
13:05	14	22	24	250	3.36e-09	3,225	5.66e-06
13:10	14	22	24	248	3.33e-09	3,237	5.68e-06
13:15	13	21	24	246	3.30e-09	3,250	5.71e-06
13:20	13	21	24	244	3.26e-09	3,267	5.74e-06
13:25	13	21	24	243	3.25e-09	3,280	5.76e-06
13:30	13	21	24	239	3.18e-09	3,297	5.79e-06
13:35	13	21	24	237	3.15e-09	3,309	5.81e-06
13:40	13	21	24	235	3.12e-09	3,322	5.83e-06
13:45	13	20	21	233	3.09e-09	3,335	5.86e-06
13:50	13	20	21	232	3.07e-09	3,352	5.89e-06
13:55	13	20	21	230	3.04e-09	3,364	5.91e-06
14:00	12	20	24	228	3.01e-09	3,377	5.93e-06
14:05	12	20	24	226	2.98e-09	3,390	5.96e-06
14:10	8	13	15	150	1.76e-09	2,282	3.99e-06
14:15	4	6	6	74	5.44e-10	1,165	2.00e-06

GRAND GULF NUCLEAR STATION
1993 EMERGENCY PREPAREDNESS EVALUATED EXERCISE

TIME OF RELEASE DATA	OFFSITE MONITORING TEAM FIELD DATA (2.5 MILE)						
	RADIATION LEVELS			AIR SAMPLE DATA			
				BKGND = 40 CPM		SAMPLE VOL. = 10 FT ³	
	CLOSED	OPEN	BETA DOSE RATE	PART	PART ACTIVITY	IODINE	IODINE ACTIVITY
	MREM/HR	MREM/HR	MRAD/HR	CPM	$\mu\text{Ci/cc}$	CPM	$\mu\text{Ci/cc}$
12:22	0	0	0	40	0.00	40	0.00
12:27	4	7	9	72	5.12e-10	846	1.43e-06
12:32	8	14	18	142	1.63e-09	1,667	2.89e-06
12:37	11	20	27	211	2.74e-09	2,486	4.35e-06
12:42	11	20	27	209	2.70e-09	2,494	4.36e-06
12:47	11	20	27	207	2.67e-09	2,508	4.39e-06
12:52	11	20	27	206	2.66e-09	2,521	4.41e-06
12:57	11	20	27	204	2.62e-09	2,532	4.43e-06
13:02	11	20	27	201	2.58e-09	2,545	4.45e-06
13:07	11	20	27	200	2.56e-09	2,556	4.47e-06
13:12	11	19	24	199	2.54e-09	2,569	4.50e-06
13:17	11	19	24	197	2.51e-09	2,580	4.52e-06
13:22	11	19	24	196	2.50e-09	2,591	4.54e-06
13:27	11	19	24	194	2.46e-09	2,604	4.56e-06
13:32	10	19	27	193	2.45e-09	2,612	4.57e-06
13:37	10	19	27	190	2.40e-09	2,626	4.60e-06
13:42	10	19	27	189	2.38e-09	2,636	4.62e-06
13:47	10	18	24	187	2.35e-09	2,647	4.63e-06
13:52	10	18	24	186	2.34e-09	2,658	4.65e-06
13:57	10	18	24	184	2.30e-09	2,669	4.67e-06
14:02	10	18	24	183	2.29e-09	2,680	4.69e-06
14:07	10	18	24	181	2.26e-09	2,690	4.71e-06
14:12	10	18	24	180	2.24e-09	2,701	4.73e-06
14:17	6	12	18	119	1.26e-09	1,820	3.16e-06
14:22	3	6	9	59	3.04e-10	934	1.59e-06

GRAND GULF NUCLEAR STATION
1993 EMERGENCY PREPAREDNESS EVALUATED EXERCISE

TIME OF RELEASE DATA	OFFSITE MONITORING TEAM FIELD DATA (3.0 MILE)						
	RADIATION LEVELS			AIR SAMPLE DATA			
				BKGND = 40 CPM		SAMPLE VOL. = 10 FT ³	
	CLOSED	OPEN	BETA DOSE RATE	PART	PART ACTIVITY	IODINE	IODINE ACTIVITY
	MREM/HR	MREM/HR	MRAD/HR	CPM	$\mu\text{Ci/cc}$	CPM	$\mu\text{Ci/cc}$
12:30	0	0	0	40	0.00	40	0.00
12:35	3	6	9	57	2.72e-10	680	1.14e-06
12:40	6	11	15	112	1.15e-09	1,331	2.30e-06
12:45	9	16	21	168	2.05e-09	1,983	3.45e-06
12:50	9	16	21	166	2.02e-09	1,988	3.46e-06
12:55	9	16	21	164	1.98e-09	1,999	3.48e-06
13:00	9	16	21	163	1.97e-09	2,010	3.50e-06
13:05	9	16	21	162	1.95e-09	2,019	3.52e-06
13:10	9	16	21	160	1.92e-09	2,029	3.54e-06
13:15	9	16	21	159	1.90e-09	2,038	3.55e-06
13:20	9	15	18	158	1.89e-09	2,049	3.57e-06
13:25	9	15	18	156	1.86e-09	2,058	3.59e-06
13:30	8	15	21	155	1.84e-09	2,067	3.60e-06
13:35	8	15	21	154	1.82e-09	2,077	3.62e-06
13:40	8	15	21	153	1.81e-09	2,083	3.63e-06
13:45	8	15	21	151	1.78e-09	2,093	3.65e-06
13:50	8	15	21	150	1.76e-09	2,102	3.67e-06
13:55	P	15	21	149	1.74e-09	2,111	3.68e-06
14:00	8	15	21	148	1.73e-09	2,120	3.70e-06
14:05	8	14	18	147	1.71e-09	2,127	3.71e-06
14:10	8	14	18	145	1.68e-09	2,136	3.73e-06
14:15	8	14	18	144	1.66e-09	2,145	3.74e-06
14:20	8	14	18	143	1.65e-09	2,154	3.76e-06
14:25	5	9	12	95	8.80e-10	1,454	2.51e-06
14:30	3	5	6	47	1.12e-10	750	1.26e-06

GRAND GULF NUCLEAR STATION
1993 EMERGENCY PREPAREDNESS EVALUATED EXERCISE

TIME OF RELEASE DATA	OFFSITE MONITORING TEAM FIELD DATA (3.5 MILE)						
	RADIATION LEVELS			AIR SAMPLE DATA			
				BKGND = 40 CPM		SAMPLE VOL. = 10 FT ³	
	CLOSED	OPEN	BETA DOSE RATE	PART	PART ACTIVITY	IODINE	IODINE ACTIVITY
	MREM/HR	MREM/HR	MRAD/HR	CPM	$\mu\text{Ci/cc}$	CPM	$\mu\text{Ci/cc}$
12:37	0	0	0	40	0.00	40	0.00
12:42	2	4	6	45	8.00e-11	548	9.03e-07
12:47	5	9	12	89	7.84e-10	1,065	1.82e-06
12:52	7	13	18	133	1.49e-09	1,584	2.74e-06
12:57	7	13	18	131	1.46e-09	1,587	2.75e-06
13:02	7	13	18	130	1.44e-09	1,595	2.76e-06
13:07	7	13	18	129	1.42e-09	1,604	2.78e-06
13:12	7	12	15	128	1.41e-09	1,611	2.79e-06
13:17	7	12	15	127	1.39e-09	1,620	2.81e-06
13:22	7	12	15	126	1.38e-09	1,627	2.82e-06
13:27	7	12	15	125	1.36e-09	1,636	2.84e-06
13:32	7	12	15	124	1.34e-09	1,643	2.85e-06
13:37	7	12	15	123	1.33e-09	1,650	2.86e-06
13:42	7	12	15	122	1.31e-09	1,659	2.88e-06
13:47	7	12	15	122	1.31e-09	1,662	2.88e-06
13:52	7	12	15	120	1.28e-09	1,670	2.90e-06
13:57	6	12	18	119	1.26e-09	1,678	2.91e-06
14:02	6	12	18	118	1.25e-09	1,685	2.92e-06
14:07	6	12	18	117	1.23e-09	1,693	2.94e-06
14:12	6	11	15	117	1.23e-09	1,697	2.95e-06
14:17	6	11	15	116	1.22e-09	1,704	2.96e-06
14:22	6	11	15	115	1.20e-09	1,712	2.97e-06
14:27	6	11	15	114	1.18e-09	1,719	2.98e-06
14:32	4	7	9	76	5.76e-10	1,163	2.00e-06
14:37	2	4	6	40	0.00	604	1.00e-06

GRAND GULF NUCLEAR STATION
1993 EMERGENCY PREPAREDNESS EVALUATED EXERCISE

TIME OF RELEASE DATA	OFFSITE MONITORING TEAM FIELD DATA (4.0 MILE)						
	RADIATION LEVELS			AIR SAMPLE DATA			
				BKGND = 40 CPM		SAMPLE VOL. = 10 FT ³	
	CLOSED	OPEN	BETA DOSE RATE	PART	PART ACTIVITY	IODINE	IODINE ACTIVITY
	MREM/HR	MREM/HR	MRAD/HR	CPM	$\mu\text{Ci/cc}$	CPM	$\mu\text{Ci/cc}$
12:45	0	0	0	40	0.00	40	0.00
12:50	2	3	3	40	0.00	444	7.18e-07
12:55	4	7	9	44	6.40e-11	853	1.45e-06
13:00	6	10	12	66	4.16e-10	1,266	2.18e-06
13:05	6	10	12	66	4.16e-10	1,268	2.18e-06
13:10	6	10	12	65	4.00e-10	1,275	2.20e-06
13:15	6	10	12	65	4.00e-10	1,281	2.21e-06
13:20	6	10	12	64	3.84e-10	1,288	2.22e-06
13:25	5	10	15	64	3.84e-10	1,294	2.23e-06
13:30	5	10	15	63	3.68e-10	1,300	2.24e-06
13:35	5	10	15	63	3.68e-10	1,307	2.25e-06
13:40	5	10	15	62	3.52e-10	1,313	2.26e-06
13:45	5	10	15	62	3.52e-10	1,320	2.28e-06
13:50	5	10	15	61	3.36e-10	1,326	2.29e-06
13:55	5	9	12	61	3.36e-10	1,328	2.29e-06
14:00	5	9	12	60	3.20e-10	1,335	2.30e-06
14:05	5	9	12	60	3.20e-10	1,341	2.31e-06
14:10	5	9	12	60	3.20e-10	1,347	2.32e-06
14:15	5	9	12	59	3.04e-10	1,353	2.33e-06
14:20	5	9	12	59	3.04e-10	1,355	2.34e-06
14:25	5	9	12	58	2.88e-10	1,361	2.35e-06
14:30	5	9	12	58	2.88e-10	1,368	2.36e-06
14:35	5	9	12	57	2.72e-10	1,374	2.37e-06
14:40	3	6	9	38	3.20e-11	932	1.59e-06
14:45	2	3	3	40	0.00	488	7.96e-07

GRAND GULF NUCLEAR STATION
1993 EMERGENCY PREPAREDNESS EVALUATED EXERCISE

TIME OF RELEASE DATA	OFFSITE MONITORING TEAM FIELD DATA (4.5 MILE)						
	RADIATION LEVELS			AIR SAMPLE DATA			
				BKGND = 40 CPM		SAMPLE VOL. = 10 FT3	
	CLOSED	OPEN	BETA DOSE RATE	PART	PART ACTIVITY	IODINE	IODINE ACTIVITY
	MREM/HR	MREM/HR	MRAD/HR	CPM	$\mu\text{Ci/cc}$	CPM	$\mu\text{Ci/cc}$
12:52	0	0	0	40	0.00	40	0.00
12:57	2	3	3	40	0.00	361	5.71e-07
13:02	3	5	6	56	2.56e-10	685	1.15e-06
13:07	5	8	9	83	6.88e-10	1,014	1.73e-06
13:12	4	8	12	83	6.88e-10	1,015	1.73e-06
13:17	4	8	12	82	6.72e-10	1,020	1.74e-06
13:22	4	8	12	81	6.56e-10	1,026	1.75e-06
13:27	4	8	12	81	6.56e-10	1,031	1.76e-06
13:32	4	8	12	80	6.40e-10	1,036	1.77e-06
13:37	4	8	12	79	6.24e-10	1,041	1.78e-06
13:42	4	8	12	79	6.24e-10	1,046	1.79e-06
13:47	4	8	12	78	6.08e-10	1,052	1.80e-06
13:52	4	8	12	78	6.08e-10	1,057	1.81e-06
13:57	4	8	12	77	5.92e-10	1,062	1.82e-06
14:02	4	8	12	77	5.92e-10	1,063	1.82e-06
14:07	4	7	9	76	5.76e-10	1,068	1.83e-06
14:12	4	7	9	75	5.60e-10	1,073	1.84e-06
14:17	4	7	9	75	5.60e-10	1,078	1.85e-06
14:22	4	7	9	74	5.44e-10	1,083	1.85e-06
14:27	4	7	9	74	5.44e-10	1,084	1.86e-06
14:32	4	7	9	73	5.28e-10	1,089	1.86e-06
14:37	4	7	9	73	5.28e-10	1,094	1.87e-06
14:42	4	7	9	72	5.12e-10	1,100	1.88e-06
14:47	3	5	6	48	1.28e-10	748	1.26e-06
14:52	1	2	3	40	0.00	396	6.33e-07

GRAND GULF NUCLEAR STATION
1993 EMERGENCY PREPAREDNESS EVALUATED EXERCISE

TIME OF RELEASE DATA	OFFSITE MONITORING TEAM FIELD DATA (5.0 MILE)						
	RADIATION LEVELS			AIR SAMPLE DATA			
				BKGND = 40 CPM		SAMPLE VOL. = 10 FT3	
	CLOSED	OPEN	BETA DOSE RATE	PART	PART ACTIVITY	IODINE	IODINE ACTIVITY
	MREM/HR	MREM/HR	MRAD/HR	CPM	$\mu\text{Ci/cc}$	CPM	$\mu\text{Ci/cc}$
13:00	0	0	0	40	0.00	40	0.00
13:05	1	2	3	40	0.00	295	4.53e-07
13:10	2	4	6	44	6.40e-11	552	9.10e-07
13:15	4	6	6	66	4.16e-10	814	1.38e-06
13:20	4	6	6	66	4.16e-10	814	1.38e-06
13:25	4	6	6	65	4.00e-10	818	1.38e-06
13:30	4	6	6	65	4.00e-10	822	1.39e-06
13:35	3	6	9	64	3.84e-10	827	1.40e-06
13:40	3	6	9	64	3.84e-10	831	1.41e-06
13:45	3	5	6	63	3.68e-10	835	1.41e-06
13:50	3	5	6	63	3.68e-10	839	1.42e-06
13:55	3	5	6	62	3.52e-10	844	1.43e-06
14:00	3	5	6	62	3.52e-10	848	1.44e-06
14:05	3	5	6	61	3.36e-10	852	1.44e-06
14:10	3	5	6	61	3.36e-10	852	1.44e-06
14:15	3	5	6	60	3.20e-10	856	1.45e-06
14:20	3	5	6	60	3.20e-10	860	1.46e-06
14:25	3	5	6	60	3.20e-10	865	1.47e-06
14:30	3	5	6	59	3.04e-10	869	1.47e-06
14:35	3	5	6	59	3.04e-10	869	1.47e-06
14:40	3	5	6	58	2.88e-10	873	1.48e-06
14:45	3	5	6	58	2.88e-10	877	1.49e-06
14:50	3	5	6	57	2.72e-10	882	1.50e-06
14:55	2	3	3	40	0.00	603	1.00e-06
15:00	1	2	3	40	0.00	323	5.03e-07

GRAND GULF NUCLEAR STATION
1993 EMERGENCY PREPAREDNESS EVALUATED EXERCISE

TIME OF RELEASE DATA	OFFSITE MONITORING TEAM FIELD DATA (5.5 MILE)						
	RADIATION LEVELS			AIR SAMPLE DATA			
				BKGND = 40 CPM		SAMPLE VOL. = 10 FT3	
	CLOSED	OPEN	BETA DOSE RATE	PART	PART ACTIVITY	IODINE	IODINE ACTIVITY
	MREM/HR	MREM/HR	MRAD/HR	CPM	$\mu\text{Ci/cc}$	CPM	$\mu\text{Ci/cc}$
13:07	0	0	0	40	0.00	40	0.00
13:12	1	2	3	40	0.00	269	4.07e-07
13:17	2	4	6	40	0.00	500	8.18e-07
13:22	3	6	9	59	3.04e-10	736	1.24e-06
13:27	3	6	9	59	3.04e-10	737	1.24e-06
13:32	3	6	9	58	2.88e-10	740	1.24e-06
13:37	3	6	9	58	2.88e-10	744	1.25e-06
13:42	3	6	9	58	2.88e-10	748	1.26e-06
13:47	3	6	9	57	2.72e-10	752	1.27e-06
13:52	3	6	9	57	2.72e-10	755	1.27e-06
13:57	3	6	9	56	2.56e-10	759	1.28e-06
14:02	3	5	6	56	2.56e-10	763	1.29e-06
14:07	3	5	6	55	2.40e-10	767	1.29e-06
14:12	3	5	6	55	2.40e-10	770	1.30e-06
14:17	3	5	6	55	2.40e-10	771	1.30e-06
14:22	3	5	6	54	2.24e-10	775	1.31e-06
14:27	3	5	6	54	2.24e-10	778	1.31e-06
14:32	3	5	6	53	2.08e-10	782	1.32e-06
14:37	3	5	6	53	2.08e-10	786	1.33e-06
14:42	3	5	6	53	2.08e-10	786	1.33e-06
14:47	3	5	6	52	1.92e-10	790	1.33e-06
14:52	3	5	6	52	1.92e-10	794	1.34e-06
14:57	3	5	6	52	1.92e-10	797	1.35e-06
15:02	2	3	3	40	0.00	546	9.00e-07
15:07	1	2	3	40	0.00	294	4.52e-07

GRAND GULF NUCLEAR STATION
1993 EMERGENCY PREPAREDNESS EVALUATED EXERCISE

TIME OF RELEASE DATA	OFFSITE MONITORING TEAM FIELD DATA (6.0 MILE)						
	RADIATION LEVELS			AIR SAMPLE DATA			
				BKGND = 40 CPM		SAMPLE VOL. = 10 FT3	
	CLOSED	OPEN	BETA DOSE RATE	PART	PART ACTIVITY	IODINE	IODINE ACTIVITY
	MREM/HR	MREM/HR	MRAD/HR	CPM	$\mu\text{Ci/cc}$	CPM	$\mu\text{Ci/cc}$
13:15	0	0	0	40	0.00	40	0.00
13:20	1	2	3	40	0.00	246	3.66e-07
13:25	2	3	3	40	0.00	454	7.36e-07
13:30	3	5	6	53	2.08e-10	666	1.11e-06
13:35	3	5	6	53	2.08e-10	667	1.11e-06
13:40	3	5	6	52	1.92e-10	670	1.12e-06
13:45	3	5	6	52	1.92e-10	674	1.13e-06
13:50	3	5	6	52	1.92e-10	677	1.13e-06
13:55	3	5	6	51	1.76e-10	680	1.14e-06
14:00	3	5	6	51	1.76e-10	684	1.14e-06
14:05	3	5	6	50	1.60e-10	687	1.15e-06
14:10	3	5	6	50	1.60e-10	690	1.16e-06
14:15	3	5	6	50	1.60e-10	694	1.16e-06
14:20	3	5	6	49	1.44e-10	697	1.17e-06
14:25	3	5	6	49	1.44e-10	698	1.17e-06
14:30	3	5	6	49	1.44e-10	701	1.18e-06
14:35	3	5	6	48	1.28e-10	704	1.18e-06
14:40	3	5	6	48	1.28e-10	708	1.19e-06
14:45	3	5	6	48	1.28e-10	711	1.19e-06
14:50	3	5	6	47	1.12e-10	712	1.19e-06
14:55	3	5	6	47	1.12e-10	715	1.20e-06
15:00	3	5	6	47	1.12e-10	718	1.21e-06
15:05	3	5	6	46	9.60e-11	721	1.21e-06
15:10	2	3	3	40	0.00	495	8.09e-07
15:15	1	2	3	40	0.00	269	4.07e-07

GRAND GULF NUCLEAR STATION
1993 EMERGENCY PREPAREDNESS EVALUATED EXERCISE

TIME OF RELEASE DATA	OFFSITE MONITORING TEAM FIELD DATA (6.5 MILE)						
	RADIATION LEVELS			AIR SAMPLE DATA			
				BKGND = 40 CPM		SAMPLE VOL. = 10 FT ³	
	CLOSED	OPEN	BETA DOSE RATE	PART	PART ACTIVITY	IODINE	IODINE ACTIVITY
	MREM/HR	MREM/HR	MRAD/HR	CPM	$\mu\text{Ci/cc}$	CPM	$\mu\text{Ci/cc}$
13:22	0	0	0	40	0.00	40	0.00
13:27	1	2	3	40	0.00	226	3.31e-07
13:32	2	3	3	40	0.00	413	6.63e-07
13:37	3	5	6	48	1.28e-10	603	1.00e-06
13:42	3	5	6	47	1.12e-10	604	1.00e-06
13:47	3	5	6	47	1.12e-10	607	1.01e-06
13:52	3	5	6	46	9.60e-11	610	1.01e-06
13:57	3	5	6	46	9.60e-11	613	1.02e-06
14:02	2	5	9	46	9.60e-11	616	1.02e-06
14:07	2	4	6	45	8.00e-11	619	1.03e-06
14:12	2	4	6	45	8.00e-11	622	1.03e-06
14:17	2	4	6	45	8.00e-11	625	1.04e-06
14:22	2	4	6	45	8.00e-11	628	1.05e-06
14:27	2	4	6	44	6.40e-11	631	1.05e-06
14:32	2	4	6	44	6.40e-11	632	1.05e-06
14:37	2	4	6	44	6.40e-11	635	1.06e-06
14:42	2	4	6	43	4.80e-11	638	1.06e-06
14:47	2	4	6	43	4.80e-11	641	1.07e-06
14:52	2	4	6	43	4.80e-11	644	1.07e-06
14:57	2	4	6	42	3.20e-11	644	1.07e-06
15:02	2	4	6	42	3.20e-11	647	1.08e-06
15:07	2	4	6	42	3.20e-11	650	1.08e-06
15:12	2	4	6	42	3.20e-11	653	1.09e-06
15:17	1	3	6	40	0.00	450	7.29e-07
15:22	1	1	0	40	0.00	246	3.66e-07

GRAND GULF NUCLEAR STATION
1993 EMERGENCY PREPAREDNESS EVALUATED EXERCISE

TIME OF RELEASE DATA	OFFSITE MONITORING TEAM FIELD DATA (7.0 MILE)						
	RADIATION LEVELS			AIR SAMPLE DATA			
				BKGND = 40 CPM		SAMPLE VOL. = 10 FT3	
	CLOSED	OPEN	BETA DOSE RATE	PART	PART ACTIVITY	IODINE	IODINE ACTIVITY
	MREM/HR	MREM/HR	MRAD/HR	CPM	$\mu\text{Ci/cc}$	CPM	$\mu\text{Ci/cc}$
13:30	0	0	0	40	0.00	40	0.00
13:35	1	1	0	40	0.00	207	2.97e-07
13:40	2	3	3	40	0.00	375	5.96e-07
13:45	2	4	6	43	4.80e-11	547	9.01e-07
13:50	2	4	6	42	3.20e-11	548	9.03e-07
13:55	2	4	6	42	3.20e-11	550	9.07e-07
14:00	2	4	6	42	3.20e-11	553	9.12e-07
14:05	2	4	6	41	1.60e-11	556	9.17e-07
14:10	2	4	6	41	1.60e-11	559	9.23e-07
14:15	2	4	6	41	1.60e-11	561	9.26e-07
14:20	2	4	6	41	1.60e-11	564	9.32e-07
14:25	2	4	6	40	0.00	566	9.35e-07
14:30	2	4	6	40	0.00	569	9.40e-07
14:35	2	4	6	40	0.00	572	9.46e-07
14:40	2	4	6	40	0.00	573	9.48e-07
14:45	2	4	6	40	0.00	575	9.51e-07
14:50	2	4	6	40	0.00	578	9.56e-07
14:55	2	4	6	40	0.00	580	9.60e-07
15:00	2	4	6	40	0.00	583	9.65e-07
15:05	2	4	6	40	0.00	584	9.67e-07
15:10	2	4	6	40	0.00	587	9.72e-07
15:15	2	4	6	40	0.00	589	9.76e-07
15:20	2	4	6	40	0.00	592	9.81e-07
15:25	1	2	3	40	0.00	409	6.56e-07
15:30	1	1	0	40	0.00	225	3.29e-07

GRAND GULF NUCLEAR STATION
1993 EMERGENCY PREPAREDNESS EVALUATED EXERCISE

TIME OF RELEASE DATA	OFFSITE MONITORING TEAM FIELD DATA (7.5 MILE)						
	RADIATION LEVELS			AIR SAMPLE DATA			
				BKGND = 40 CPM		SAMPLE VOL. = 10 FT3	
	CLOSED	OPEN	BETA DOSE RATE	PART	PART ACTIVITY	IODINE	IODINE ACTIVITY
	MREM/HR	MREM/HR	MRAD/HR	CPM	$\mu\text{Ci/cc}$	CPM	$\mu\text{Ci/cc}$
13:37	0	0	0	40	0.00	40	0.00
13:42	1	1	0	40	0.00	190	2.67e-07
13:47	1	3	8	40	0.00	342	5.37e-07
13:52	2	4	6	40	0.00	496	8.11e-07
13:57	2	4	6	40	0.00	497	8.12e-07
14:02	2	4	6	40	0.00	499	8.16e-07
14:07	2	4	6	40	0.00	502	8.21e-07
14:12	2	4	6	40	0.00	504	8.25e-07
14:17	2	4	6	40	0.00	507	8.30e-07
14:22	2	4	6	40	0.00	509	8.34e-07
14:27	2	4	6	40	0.00	511	8.37e-07
14:32	2	4	6	40	0.00	514	8.43e-07
14:37	2	4	6	40	0.00	516	8.46e-07
14:42	2	4	6	40	0.00	518	8.50e-07
14:47	2	4	6	40	0.00	519	8.52e-07
14:52	2	3	3	40	0.00	522	8.57e-07
14:57	2	3	3	40	0.00	524	8.60e-07
15:02	2	3	3	40	0.00	526	8.64e-07
15:07	2	3	3	40	0.00	529	8.69e-07
15:12	2	3	3	40	0.00	530	8.71e-07
15:17	2	3	3	40	0.00	532	8.75e-07
15:22	2	3	3	40	0.00	534	8.78e-07
15:27	2	3	3	40	0.00	536	8.82e-07
15:32	1	2	3	40	0.00	372	5.90e-07
15:37	1	1	0	40	0.00	206	2.95e-07

GRAND GULF NUCLEAR STATION
1993 EMERGENCY PREPAREDNESS EVALUATED EXERCISE

TIME OF RELEASE DATA	OFFSITE MONITORING TEAM FIELD DATA (8.0 MILE)						
	RADIATION LEVELS			AIR SAMPLE DATA			
				BKGND = 40 CPM		SAMPLE VOL. = 10 FT ³	
	CLOSED	OPEN	BETA DOSE RATE	PART	PART ACTIVITY	IODINE	IODINE ACTIVITY
	MREM/HR	MREM/HR	MRAD/HR	CPM	$\mu\text{Ci/cc}$	CPM	$\mu\text{Ci/cc}$
13:45	0	0	0	40	0.00	40	0.00
13:50	1	1	0	40	0.00	175	2.40e-07
13:55	1	2	3	40	0.00	312	4.84e-07
14:00	2	3	3	40	0.00	450	7.29e-07
14:05	2	3	3	40	0.00	451	7.31e-07
14:10	2	3	3	40	0.00	453	7.34e-07
14:15	2	3	3	40	0.00	455	7.38e-07
14:20	2	3	3	40	0.00	458	7.43e-07
14:25	2	3	3	40	0.00	460	7.47e-07
14:30	2	3	3	40	0.00	462	7.50e-07
14:35	2	3	3	40	0.00	464	7.54e-07
14:40	2	3	3	40	0.00	466	7.57e-07
14:45	2	3	3	40	0.00	468	7.61e-07
14:50	2	3	3	40	0.00	470	7.64e-07
14:55	2	3	3	40	0.00	471	7.66e-07
15:00	2	3	3	40	0.00	473	7.70e-07
15:05	2	3	3	40	0.00	475	7.73e-07
15:10	2	3	3	40	0.00	478	7.79e-07
15:15	2	3	3	40	0.00	480	7.82e-07
15:20	2	3	3	40	0.00	481	7.84e-07
15:25	2	3	3	40	0.00	483	7.88e-07
15:30	2	3	3	40	0.00	484	7.89e-07
15:35	2	3	3	40	0.00	487	7.95e-07
15:40	1	2	3	40	0.00	339	5.32e-07
15:45	1	1	0	40	0.00	190	2.67e-07

GRAND GULF NUCLEAR STATION
1993 EMERGENCY PREPAREDNESS EVALUATED EXERCISE

TIME OF RELEASE DATA	OFFSITE MONITORING TEAM FIELD DATA (8.5 MILE)						
	RADIATION LEVELS			AIR SAMPLE DATA			
				BKGND = 40 CPM		SAMPLE VOL. = 10 FT3	
	CLOSED	OPEN	BETA DOSE RATE	PART	PART ACTIVITY	IODINE	IODINE ACTIVITY
	MREM/HR	MREM/HR	MRAD/HR	CPM	$\mu\text{Ci/cc}$	CPM	$\mu\text{Ci/cc}$
13:52	0	0	0	40	0.00	40	0.00
13:57	1	1	0	40	0.00	162	2.17e-07
14:02	1	2	3	40	0.00	284	4.34e-07
14:07	2	3	3	40	0.00	409	6.56e-07
14:12	2	3	3	40	0.00	410	6.58e-07
14:17	2	3	3	40	0.00	412	6.61e-07
14:22	2	3	3	40	0.00	414	6.65e-07
14:27	2	3	3	40	0.00	416	6.68e-07
14:32	2	3	3	40	0.00	418	6.72e-07
14:37	2	3	3	40	0.00	420	6.76e-07
14:42	2	3	3	40	0.00	422	6.79e-07
14:47	2	3	3	40	0.00	423	6.81e-07
14:52	2	3	3	40	0.00	425	6.84e-07
14:57	2	3	3	40	0.00	427	6.88e-07
15:02	2	3	3	40	0.00	428	6.90e-07
15:07	2	3	3	40	0.00	430	6.93e-07
15:12	2	3	3	40	0.00	432	6.97e-07
15:17	2	3	3	40	0.00	434	7.00e-07
15:22	2	3	3	40	0.00	436	7.04e-07
15:27	2	3	3	40	0.00	437	7.06e-07
15:32	1	3	6	40	0.00	439	7.09e-07
15:37	1	3	6	40	0.00	440	7.11e-07
15:42	1	3	6	40	0.00	442	7.15e-07
15:47	1	2	3	40	0.00	309	4.78e-07
15:52	0	1	3	40	0.00	175	2.40e-07

GRAND GULF NUCLEAR STATION
1993 EMERGENCY PREPAREDNESS EVALUATED EXERCISE

TIME OF RELEASE DATA	OFFSITE MONITORING TEAM FIELD DATA (9.0 MILE)						
	RADIATION LEVELS			AIR SAMPLE DATA			
				BKGND = 40 CPM		SAMPLE VOL. = 10 FT3	
	CLOSED	OPEN	BETA DOSE RATE	PART	PART ACTIVITY	IODINE	IODINE ACTIVITY
	MREM/HR	MREM/HR	MRAD/HR	CPM	$\mu\text{Ci/cc}$	CPM	$\mu\text{Ci/cc}$
14:00	0	0	0	40	0.00	40	0.00
14:05	1	1	0	40	0.00	150	1.96e-07
14:10	1	2	3	40	0.00	260	3.91e-07
14:15	1	3	6	40	0.00	372	5.90e-07
14:20	1	3	6	40	0.00	373	5.92e-07
14:25	1	3	6	40	0.00	375	5.96e-07
14:30	1	3	6	40	0.00	376	5.97e-07
14:35	1	3	6	40	0.00	378	6.01e-07
14:40	1	3	6	40	0.00	380	6.04e-07
14:45	1	3	6	40	0.00	382	6.08e-07
14:50	1	3	6	40	0.00	383	6.10e-07
14:55	1	3	6	40	0.00	385	6.13e-07
15:00	1	3	6	40	0.00	386	6.15e-07
15:05	1	3	6	40	0.00	388	6.19e-07
15:10	1	3	6	40	0.00	389	6.20e-07
15:15	1	3	6	40	0.00	391	6.24e-07
15:20	1	3	6	40	0.00	393	6.28e-07
15:25	1	3	6	40	0.00	394	6.29e-07
15:30	1	2	3	40	0.00	396	6.33e-07
15:35	1	2	3	40	0.00	397	6.35e-07
15:40	1	2	3	40	0.00	399	6.38e-07
15:45	1	2	3	40	0.00	400	6.40e-07
15:50	1	2	3	40	0.00	402	6.44e-07
15:55	1	2	3	40	0.00	282	4.30e-07
16:00	0	1	3	40	0.00	161	2.15e-07

GRAND GULF NUCLEAR STATION

1993 EMERGENCY PREPAREDNESS EVALUATED EXERCISE

TIME OF RELEASE DATA	OFFSITE MONITORING TEAM FIELD DATA (10.0 MILE)						
	RADIATION LEVELS			AIR SAMPLE DATA			
				BKGND = 40 CPM		SAMPLE VOL. = 10 FT3	
	CLOSED	OPEN	BETA DOSE RATE	PART	PART ACTIVITY	IODINE	IODINE ACTIVITY
	MREM/HR	MREM/HR	MRAD/HR	CPM	$\mu\text{Ci/cc}$	CPM	$\mu\text{Ci/cc}$
14:15	0	0	0	40	0.00	40	0.00
14:20	0	1	3	40	0.00	129	1.58e-07
14:25	1	1	0	40	0.00	218	3.16e-07
14:30	1	2	3	40	0.00	309	4.78e-07
14:35	1	2	3	40	0.00	310	4.80e-07
14:40	1	2	3	40	0.00	311	4.82e-07
14:45	1	2	3	40	0.00	312	4.84e-07
14:50	1	2	3	40	0.00	314	4.87e-07
14:55	1	2	3	40	0.00	315	4.89e-07
15:00	1	2	3	40	0.00	317	4.92e-07
15:05	1	2	3	40	0.00	318	4.94e-07
15:10	1	2	3	40	0.00	319	4.96e-07
15:15	1	2	3	40	0.00	320	4.98e-07
15:20	1	2	3	40	0.00	322	5.01e-07
15:25	1	2	3	40	0.00	323	5.03e-07
15:30	1	2	3	40	0.00	324	5.05e-07
15:35	1	2	3	40	0.00	325	5.07e-07
15:40	1	2	3	40	0.00	327	5.10e-07
15:45	1	2	3	40	0.00	328	5.12e-07
15:50	1	2	3	40	0.00	329	5.14e-07
15:55	1	2	3	40	0.00	331	5.17e-07
16:00	1	2	3	40	0.00	331	5.17e-07
16:05	1	2	3	40	0.00	333	5.21e-07
16:10	1	1	0	40	0.00	236	3.48e-07
16:15	0	1	3	40	0.00	138	1.74e-07

SECTION 11.0

PUBLIC INFORMATION QUESTIONS

PUBLIC INFORMATION QUESTIONS

A significant aspect of emergency response is the ability to provide area citizens and the news media with accurate and timely information about the incident. Public perception and reaction are influenced by the information relayed to them. To ensure that the Grand Gulf Nuclear Station (GGNS) Emergency Response Organization is prepared to deal with inquiries during an incident at GGNS, this exercise provides certain elements that test Public Information activities. During the course of this exercise, the GGNS Emergency Information Center of the Corporate Emergency Center will be activated and exercised.

Special Exercise Controllers have been selected to test the Rumor Control Staff. Controllers will act as concerned citizens, employees, and as members of the media, posing questions to the staff. Controllers can make up a name(s) for use, but controllers must keep track if call backs are requested.

When placing calls, controllers must always precede questions with "This is a drill."

The following pages denote questions that the controllers can use. The questions are grouped by time in relation to the events specified in the exercise scenario. Controllers are allowed to use questions previously listed, but may NOT jump ahead. Controllers can ask more than one question per call if appropriate. Additionally, controllers should ask questions about Entergy, the state or counties, background on GGNS, radiation, the state/county/utility interface, protective actions, etc. Free play is encouraged provided questions are realistic and relevant.

The lead Public Information/Corporate Emergency Center Controller shall verify that the exercise is adhering to schedule. Time adjustments will be made as necessary. Space is provided for controllers to make notes on the response.

Some Controller points to consider:

- o EIC Staff should direct questions about offsite response to appropriate participating state or county agencies.
- o EIC Staff should encourage local media to come to the Emergency Information Center
- o Keep track of information provided on PUBLIC INFORMATION QUESTION TRACKING FORM. Is it clear? Accurate? Timely?
- o Keep track of callbacks. Were they accurate? Timely? Appropriate?

GRAND GULF NUCLEAR STATION

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- o Ask the same question over and over. This imitates real life wherein several media outlets/citizens will ask similar questions.

Relevant telephone numbers will be distributed at the Pre-exercise Controllers Briefing.

GRAND GULF NUCLEAR STATION

1993 EMERGENCY PREPAREDNESS EVALUATED EXERCISE

- 1 This is Jane Greene with the Jackson Daily News. I understand you have an emergency going on at the Grand Gulf Nuclear Station. What is the status of the plant? Have there been any injuries?
- 2 What is my EBS station?
- 3 What are you doing to fix the problem?
- 4 Are there any precautions I should be taking for my dairy cows?
- 5 Is the plant stable? What's going on?
- 6 Has the safety of the plant been jeopardized and are the citizens in any danger?
- 7 Is the reactor shut down? Are we in danger?
- 8 Why did you declare an emergency? Is this like Chernobyl?
- 9 What will happen if I go pick up my kids from school? You can't stop me, can you?
- 10 I was looking at my calendar. Should I Shelter in Place?
- 11 What is the latest on the accident? Who is in charge?
- 12 What are the operators doing about this?
- 13 I hear a siren, what should I do? I live in _____.
- 14 What radio station am I suppose to be listening to?
- 15 I just heard about the emergency and I want to know where my husband is and if he's okay. He works at the plant.
- 16 Have employees been sent home yet? How bad is this thing?
- 17 Are we going to have a meltdown? Is this the China Syndrome?
- 18 Can you shut the reactor down? Are you in control of the plant?
- 19 How many people work at the plant? Are they all accounted for?

GRAND GULF NUCLEAR STATION

1993 EMERGENCY PREPAREDNESS EVALUATED EXERCISE

- 20 I can't find my emergency calendar. What should I do?
- 21 My brother works at Grand Gulf. How can I find out if he's ok? We heard on the news that the accident is pretty serious.
- 22 Is my family in any danger? Should we evacuate? How will you tell me to evacuate?
- 23 Are my livestock in danger? What should I do?
- 24 You're live on talk radio 88.5. Can you tell us just what is going on at the nuclear plant, and what people should be doing?
- 25 Can't you just shut a valve or turn a switch or something? Is the reactor out of control?
- 26 Have any employees been exposed to radiation? Are you releasing any radiation to the environment?
- 27 How much radiation is being released from the plant?
- 28 What radio station should I listen to?
- 29 If I have to evacuate, what should I take with me?
- 30 Has the radiation leak been stopped?
- 31 I live in _____. Where should I evacuate to?
- 32 What is the status of the Grand Gulf plant? How serious is the accident?
- 33 What am I supposed to do? I'm afraid to leave my house. Won't I be exposed to radiation?
- 34 I lost my Emergency Calendar! What am I going to do?
- 35 Has the NRC been notified of the emergency? What are they doing?
- 36 What will happen if I bring my dog with me to the evacuation center?
- 37 Are my vegetables in the garden ruined? How do I know?
- 38 How many people were exposed to radiation? Was it alpha or beta radiation?

GRAND GULF NUCLEAR STATION

1993 EMERGENCY PREPAREDNESS EVALUATED EXERCISE

- 39 What are the State and local officials doing about the emergency?
- 40 This is Bob Blue, WLBT. We understand you have an emergency that's getting worse at Grand Gulf facility. Does Entergy have insurance to cover a situation like this? How much coverage do you have?
- 41 How much radiation is out there? Are the levels dangerous?
- 42 Why didn't the "Safety features" work? I thought radiation couldn't get out.
- 43 How is the reactor being cooled? Is it going to meltdown?
- 44 I live in # 8 on the map in the calendar. Should I evacuate?
- 45 How much radiation is being releases? How much dangers are the citizens in?
- 46 Is the water safe to drink?
- 47 Which way is the radiation going? I live in _____;
- 48 Who did you take to the hospital? How was it?
- 49 I hear the SEC has suspended trading of your stock. Any comments?
- 50 How much radiation was released?
- 51 Should I sell my Entergy stocks?
- 52 Is this accident going to affect your earnings?
- 53 I heard the Reactor has large cracks.
- 54 Are we in danger of a "Brownout" or even a "Blackout" from this loss of power to the grid?
- 55 What's to blame for the accident? Is there any evidence of sabotage concerning the emergency?
- 56 This Beth Rock with the Mississippi Express. Can you give me an update on the accident?

GRAND GULF NUCLEAR STATION

1993 EMERGENCY PREPAREDNESS EVALUATED EXERCISE

- 57 I hear a really bad storm is on its way. What will this do to your efforts? What about all the people who are leaving the area?
- 58 This is Nancy Simpson, Associated Press. How many people do you estimate have been exposed to radiation?
- 59 How did you stop the release of radiation to the environment?
- 60 Are you investigating the cause of the accident?
- 61 How long will the plant be shut down?
- 62 How many injured at the plant?
- 63 Who pays for the cleanup and lost electricity from this accident?
- 64 Are you sending workers home because of the accident at the Grand Gulf plant this morning? Does your employee insurance cover them in case of injury or health problems as a result of an accident like this?
- 65 How long will the reactor remain shut down? Can you estimate the percent of damage to the reactor core?
- 66 Will anyone get cancer from this accident? What is the increase in health risks going to be?
- 67 Are your other plants all running? How much replacement fuel will you need to purchase? At what cost?
- 68 Will the plant be restarted? Do you anticipate a significant NRC fine?
- 69 Are you going to have to slaughter all the animals in the area, like the reindeer in Sweden?
- 70 This is Nancy Simpson, Associated Press. How many people do you estimate have been exposed to radiation? What do you expect to happen to Entergy stock? Would you say this is the worst accident in US history?
- 71 How long will the plant be off the grid?
- 72 How much will this cost the ratepayers?
- 73 What instructions do you have for plant employees who were sent home? Should they return to the plant now?

GRAND GULF NUCLEAR STATION

1993 EMERGENCY PREPAREDNESS EVALUATED EXERCISE

- 74 Is the permanent closing of Grand Gulf being considered?
- 75 How would you compare this accident to the Chernobyl disaster? TMI?
- 76 This is Ben Franklin, Washington Post. Can you explain in layman's terms just what exactly happened today? Can I tape this conversation?
- 77 Now that it's over, what are you going to do to keep something like this from happening again?
- 78 This is Pauline VanKlompenberg, with USA Today. Can you give me a summary of today's events?
- 79 How long will clean up take? Do you expect to get back on line by the end of the year?
- 80 I think my farm has been contaminated. It may not ever produce again! Is Entergy going to pay me for the land you have destroyed?
- 81 I understand this accident could cause a permanent shut down of the Grand Gulf Plant. How dependent is Entergy on that operation? Are your investors going to have to pay for this accident?
- 82 How much of the cost of this disaster will be passed on to the consumer?
- 83 I understand representatives of FEMA have been sent in to handle damage and injury claims. Is that true? What company is it? How and where do people file claims?
- 84 Do you know what this accident is going to cost Entergy? Will you need a rate hike to pay for it?
- 85 Will my property value drop from this accident? I live near _____ and I've been trying to sell my farm.
- 86 Describe the sequence of events which caused the emergency declaration. What failed and why?
- 87 What happened to all of the redundant safety systems?
- 88 Was the accident the result of mechanical failure or human error following the earthquake.
- 89 Will workers be exposed to high radiation levels while making repair attempts? Is

GRAND GULF NUCLEAR STATION

1993 EMERGENCY PREPAREDNESS EVALUATED EXERCISE

containment still secure?

- 90 Can this incident be compared to Chernobyl? Is it worse?
- 91 If you (do/did) evacuate people near GGNS, will you evacuate all of them within 10 miles? Why or why not?
- 92 What is a safe dose of radiation? Is there really such a thing as a safe dose?
- 93 What is KI (Potassium Iodide)? Will it or has it been given to emergency workers? Will it be given to the public? Why or why not?
- 94 Do you plan to have a release? Is there a best time of the day to release radiation? Don't you release radiation from the plant every night like they did at Rocky Flats in Colorado?
- 95 How much is this accident going to cost rate payers? In terms of dollars and years off their lives?
- 96 Will GGNS be repaired and restarted? Or will they just mothball the plant? Could it be turned into a Low Level Waste Site?
- 97 Is the NRC going to take over the operations of the plant?
- 98 Who made the determination that radiation may be released?
- 99 Won't there be quite a bit of radioactive garbage created while fixing the problem? What will be done with the waste? Isn't it true that GGNS dumps waste in the river?
- 100 There are several agencies represented at the Media Release Center. WHO is in charge? Where does the information you are giving us come from?
- 101 Do the State representatives believe everything the utility tells them? Why are the states even involved with this and not focusing on the earthquake?
- 102 Where are the Governors of Mississippi and Louisiana? Do they know about the situation? Will they be coming to the ENMC to make any statements?
- 103 What about insurance for this type of event? Does GGNS have any? Where will people go to turn in claims?

GRAND GULF NUCLEAR STATION

1993 EMERGENCY PREPAREDNESS EVALUATED EXERCISE

- 104 Can we get reporting teams inside the plant? Can we talk to people at the plant?
- 105 You won't let us in the plant because you are hiding something, aren't you?
- 106 Has there been or will there be any radiation released from the plant?
- 107 When will the release be terminated?
- 108 How many emergency classification levels are there? What do they mean? What happens at each level?
- 109 If the nuclear industry thought far enough ahead to be able to classify emergencies, doesn't that mean they knew that there would be accidents?
- 110 Do you believe nuclear power is really safe? Even after today's incident at GGNS? (Ask this of the utility and the States)
- 111 Can you give us a chronology of events at GGNS this morning?
- 112 Do you have any background information available on the GGN Station? Where?
- 113 We heard that there were several people injured and contaminated at the plant. How many? Where are they now? Will they die?
- 114 Is this the first accident you have had at GGNS? Or is this the first one that was so bad you couldn't hid it?
- 115 What is the SALP report? Didn't you get a low rating in Quality Assurance on the last one? Is GGNS a poor quality plant or does it just have poor quality people?
- 116 What are the States doing to protect the people?
- 117 What are protective actions and who decides what they are? Who is responsible for carrying them out?
- 118 How many people have been evacuated? What areas have been evacuated? (Ask each State representative)
- 119 The Emergency Planning Booklet states that a Public Assistance Hotline Number will be made available. What is that number? Why isn't it published in this book?

GRAND GULF NUCLEAR STATION

1993 EMERGENCY PREPAREDNESS EVALUATED EXERCISE

- 120 Where are the Reception Centers in Mississippi? In Louisiana? What goes on at a Reception Center?
- 121 What is In-House Shelter? Are there any specific things people should do if In-House Shelter is recommended?
- 123 What about evacuation. Are there any specific things people should do if they are told to evacuate?
- 124 Do the States handle this like any other disaster? Will the National Guard be involved? How?
- 125 Will anything be done to prevent looting of the homes that have been evacuated? What?
- 126 We have reports of vehicles driving around in the vicinity of the plant with instruments and gadgets hanging out of the windows. The people in these vehicles have also been seen taking some sort of samples. Do you know who they are and what they are doing?
- 127 When will it be safe for people to return to their homes? What happens if they can never return?
- 128 What affects will the radiation have on livestock and crops? Can the livestock and crops in the area be sold or will they have to be destroyed?
- 129 Will the States reimburse the local farmers for any losses of crops and livestock?
- 130 How are/were people in the vicinity of GGNS notified that something was wrong?
- 131 Is this the worst nuclear accident to date in the U.S.? Was the cause of the accident a generic problems? Could it happen at other BWR plants?
- 132 Will schools in the GGNS area be open tomorrow? How will parents be notified?
- 133 The cost of this accident will be passed directly to the ratepayers. Is that really fair? How will GGNS replace the lost generating capacity?
- 134 A recent report from Chernobyl stated that certain forms of animal life have shown physiological changes as a result of the radiation levels (i.e. larger rats). Can this be expected to happen in the GGNS area?

GRAND GULF NUCLEAR STATION

1993 EMERGENCY PREPAREDNESS EVALUATED EXERCISE

- 135 How many people can the Reception Centers handle in Mississippi and Louisiana? What happens to any contaminated individuals that may show up at a Reception Center?
- 136 Are there any nursing homes, hospitals, or handicapped individuals in the affected areas?
- 137 Is there any assistance available for handicapped persons who may not be able to evacuate themselves from the affected areas?
- 138 Can the contamination in the area be picked up by migratory wildlife or game animals in the GGNS area? Is it safe to eat any game or fish taken in the area?
- 139 This is Earl Newman; Hey there! This is Earl Newman and I want to know just what's going on. (Keep talking really fast so they can't interrupt you.) My lights are flashing on and off and now I'm hearing some kind of stuff on my radio about power problems at that Grand Gulf plant. You people going to blow or something? (If they say it's just a drill...) Just a drill? Try telling that to my wife. She's trying to watch her soaps and the power keeps going off. What are we suppose to do?
- 140 This is Stella Robbins; I need some help! What with this emergency going on, everybody in my department is leaving. I just called my car pool and they've all gone! Are you arranging one of those Grand Gulf vans to take people back to Vicksburg who get stuck here? Am I safe? Who should I call to get a ride home?
- 141 This is Larry Johnson; Hey--I live right under one of those Civil Defense sirens of yours and it hasn't gone off yet. Aren't you evacuating the Grand Gulf area yet? Don't you care about the people you serve? I thought if there was the kind of emergency I thought if there was the kind of emergency going on that the news is talking about, you would evacuate. I have to listen to that thing the first Monday of every month--why haven't I heard it now that it counts?
- 142 This is Kathrynne Bennett; Hello, I'm covering the Grand Gulf nuclear emergency for the Memphis Star and thought perhaps you could answer a few questions from a power perspective. I hear there were blackouts at the plant--did the communities around Grand Gulf experience blackouts as well? What areas are served by the plant? Will loss of power hinder evacuation efforts? How quickly was electricity restored to the plant? Do you know the cause of the power failure?
- 143 This is Larry Enos; Hey! What's going on down at that Grand Gulf Station? I just heard they got some kind of emergency declared, but not one told me to evacuate. Is this because of the tornado? What am I supposed to take with me? (If told it is a drill, not to evacuate...) Are you sure? I thought "emergency" meant something terrible's going on.

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1993 EMERGENCY PREPAREDNESS EVALUATED EXERCISE

Boy, if I get stuck here and it's too late to leave, am I ever going to sue that power company.

- 145 This is Charlie Sessums; (Talk fast.) Boy, am I glad I finally got a hold of you. I hear you fellahs are releasing all kinds of radiation, what with the power going out and all. And from what I hear on the radio, I'm right in the path of the cloud. How much has been released? What level does it get to before people start getting hurt? Am I okay inside this brick house?
- 146 This is Joan Hunt; Hello, I'm calling about the accident at your nuclear power plant. I live about eight miles from your plant and I'm pregnant. If there's radiation coming out of that tower, I want to know so I can catch a bus out of town. Will Mississippi Power & Light pay for my ticket? (Keep arguing about protecting your baby.) I'm not doing this for myself, mind you. I'm only thinking about this baby--I don't care what you say, I don't want to take any chances. Are you saying I'm in danger, too?
- 147 This is Richard Cummings; This is Richard Cummings and I'm like you to answer a few questions for me. I'm trying to convince my high school students that if we need to take cover, the Civil Defense department will take care of us. I heard someone from Grand Gulf was coming to teach a class or two, but since they haven't made it yet, what should I tell the kids to calm them down? All this excitement about Grand Gulf has them pretty upset, although I think some of them just want to go home early. How can I convince them the plant won't blow up?
- 148 This is Helen Ferguson; Hello. I certainly hope you can help me. (Sound nervous.) I've been reading all this in the paper about blackouts making Grand Gulf melt down, and now all my lights keep blacking out. Is everything under control at that plant? You're sure I'm safe? Nothing's going to happen to that reactor? What if a tornado hits it? (Don't be easily convinced. Continue asking safety questions as long as they will let you.) Have they shut the plant down already? Is that why my lights went out?
- 149 This is John Rich; Hello. This is John Rich with CCN-TV. I understand an emergency event is taking place at the Grand Gulf plant. We're sending out a camera crew. Who can I speak with about getting them through security at the plant gate.
- 150 This is Larry Johnson; Hey--I live right under one of those Civil Defense sirens of yours and it hasn't gone off yet. Aren't you evacuating the Grand Gulf area yet? Don't you care about the people you serve? I thought if there was the kind of emergency going on that the news is talking about, you would evacuate. If have to listen to that thing the first Monday of every month--why haven't I heard it now that it counts?

GRAND GULF NUCLEAR STATION

1993 EMERGENCY PREPAREDNESS EVALUATED EXERCISE

- 151 This is Sam Jacobs; Yeah, this is Sam Jacobs. I've been hearing about the emergency you got going on down there and just found out the state is giving out potassium iodine pills to protect the workers against all the radiation. Don't you think we citizens have a right to those pills, too? How can I get a supply? I'd even be willing to pay for them in this case--can I buy them from the drugstore? How much will it set me back? Say, by the way, are the stores in Port Gibson closed down already because of your emergency?
- 152 This is Ruby Lang; Hello. I have some friends in Claiborne County I'm trying to locate to make sure they're okay. Can you tell me where the evacuation centers are and their phone numbers? Can I reach them there? I heard they were evacuated because of the tornado, then someone else said there was some kind of emergency at Grand Gulf--which is it?
- 153 This is Alan King; Hello, this is Alan King with NBC news. I'm on my way down to Grand Gulf from our regional office and I'll be arriving by helicopter. Where is the landing pad you are directing reporters to? Is the Emergency Operations Facility the best place to report for information? Do I need to warn my pilot of any potential flight dangers in the area? How's the tornado situation looking?
- 154 This is Wendy Jones; Hello, I'm Wendy Jones with EEI. We have started getting national media calls about the Grand Gulf situation. What is the current status at the plant? What would you like us to tell callers? We'd like to be of any assistance we can be--could we send a few people to help out your informational services staff? Where should they report?
- 155 This is Melanie Wilson; I've been hearing all kinds of stories about an emergency going on at Grand Gulf. I'm dying to hear what's happening, but I sure hated to bother anybody down there. Is everything okay? Have they really blown up? Is that why my power's off?
- 156 Hey there! This is Earl Newman and I want to know just what's going on. (Keep talking really fast so they can't interrupt you.) My lights are flashing on and off and now I'm hearing some kind of stuff on my radio about power problems at that Grand Gulf plant. You people going to blow or something? (If they say it's just a drill...) Just a drill? Try telling that to my wife. She's trying to watch her soaps and the power keeps going off. What are we suppose to do?
- 157 I need some help! What with this emergency going on, everybody in my department is leaving. I just called my car pool and they've all gone! Are you arranging one of those Grand Gulf vans to take people back to Vicksburg who get stuck here? Am I safe? Who should I call to get a ride home?
- 158 Hey--I live right under one of those Civil Defense sirens of yours and it hasn't gone off yet.

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Aren't you evacuating the Grand Gulf area yet? Don't you care about the people you serve? I thought if there was the kind of emergency I thought if there was the kind of emergency going on that the news is talking about, you would evacuate. I have to listen to that thing the first Monday of every month--why haven't I heard it now that it counts?

- 159 Hello, I'm covering the Grand Gulf nuclear emergency for the Memphis Star and thought perhaps you could answer a few questions from a power perspective. I hear there were blackouts at the plant--did the communities around Grand Gulf experience blackouts as well? What areas are served by the plant? Will loss of power hinder evacuation efforts? How quickly was electricity restored to the plant? Do you know the cause of the power failure?
- 160 Hey! What's going on down at that Grand Gulf Station? I just heard they got some kind of emergency declared, but not one told me to evacuate. Is this because of the tornado? What am I supposed to take with me? (If told it is a drill, not to evacuate...) Are you sure? I thought "emergency" meant something terrible's going on. Boy, if I get stuck here and it's too late to leave, am I ever going to sue that power company.
- 161 (Talk fast.) Boy, am I glad I finally got a hold of you. I hear you fellahs are releasing all kinds of radiation, what with the power going out and all. And from what I hear on the radio, I'm right in the path of the cloud. How much has been released? What level does it get to before people start getting hurt? Am I okay inside this brick house?

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- 162 Hello, I'm calling about the accident at your nuclear power plant. I live about eight miles from your plant and I'm pregnant. If there's radiation coming out of that tower, I want to know so I can catch a bus out of town. Will Mississippi Power & Light pay for my ticket? (Keep arguing about protecting your baby.) I'm not doing this for myself, mind you. I'm only thinking about this baby--I don't care what you say, I don't want to take any chances. Are you saying I'm in danger, too?
- 163 This is Richard Cummings and I'm like you to answer a few questions for me. I'm trying to convince my high school students that if we need to take cover, the Civil Defense department will take care of us. I heard someone from Grand Gulf was coming to teach a class or two, but since they haven't made it yet, what should I tell the kids to calm them down? All this excitement about Grand Gulf has them pretty upset, although I think some of them just want to go home early. How can I convince them the plant won't blow up?
- 164 Hello. I certainly hope you can help me. (Sound nervous.) I've been reading all this in the paper about blackouts making Grand Gulf melt down, and now all my lights keep blacking out. Is everything under control at that plant? You're sure I'm safe? Nothing's going to happen to that reactor? What if a tornado hits it? (Don't be easily convinced. Continue asking safety questions as long as they will let you.) Have they shut the plant down already? Is that why my lights went out?
- 165 Hello. This is John Rich with CCN-TV. I understand an emergency event is taking place at the Grand Gulf plant. We're sending out a camera crew. Who can I speak with about getting them through security at the plant gate.
- 166 Hey--I live right under one of those Civil Defense sirens of yours and it hasn't gone off yet. Aren't you evacuating the Grand Gulf area yet? Don't you care about the people you serve? I thought if there was the kind of emergency going on that the news is talking about, you would evacuate. If have to listen to that thing the first Monday of every month--why haven't I heard it now that it counts?
- 167 Yeah, this is Sam Jacobs. I've been hearing about the emergency you got going on down there and just found out the state is giving out potassium iodine pills to protect the workers against all the radiation. Don't you think we citizens have a right to those pills, too? How can I get a supply? I'd even be willing to pay for them in this case--can I buy them from the drugstore? How much will it set me back? Say, by the way, are the stores in Port Gibson closed down already because of your emergency?

GRAND GULF NUCLEAR STATION

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- 168 Hello. I have some friends in Claiborne County I'm trying to locate to make sure they're okay. Can you tell me where the evacuation centers are and their phone numbers? Can I reach them there? I heard they were evacuated because of the tornado, then someone else said there was some kind of emergency at Grand Gulf--which is it?
- 169 Hello, this is Alan King with NBC news. I'm on my way down to Grand Gulf from our regional office and I'll be arriving by helicopter. Where is the landing pad you are directing reporters to? Is the Emergency Operations Facility the best place to report for information? Do I need to warn my pilot of any potential flight dangers in the area? How's the tornado situation looking?
- 170 Hello, I'm Wendy Jones with EEL. We have started getting national media calls about the Grand Gulf situation. What is the current status at the plant? What would you like us to tell callers? We'd like to be of any assistance we can be--could we send a few people to help out your informational services staff? Where should they report?
- 171 I've been hearing all kinds of stories about an emergency going on at Grand Gulf. I'm dying to hear what's happening, but I sure hated to bother anybody down there. Is everything okay? Have they really blown up? Is that why my power's off?
- 172 Oh, hello. My daughters live in Port Gibson and I have been trying to reach them ever since I first about that emergency at Grand Gulf. Have people down there been set somewhere? Is everyone alright? I'm worried sick about them. Is there any way to have them paged? How soon before this emergency is all over?
- 173 (Sound disgusted, fed up.) Well, I see Grand Gulf and MP&L are in the news again. I live in Brandon and I guess this means we'll be seeing the rates go up again, huh? I want to know why I have to pay every time somebody down there makes a mistake!? What was the problem this time? Will I at least get a rebate for the time the plant isn't running?
- 174 Hello, this is Linda Moody with KBAA in Baton Rouge. We are sending a crew to the emergency news center to cover the Grand Gulf emergency and need directions. What's the fastest route? How long should we plan on the trip taking? Is there some place to check in when we arrive?

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- 175 (Talk with forced politeness). I pay my electric bill on time every month and I expect answers when my money gets flushed down the toilet like this? Could you please transfer me to someone who can straighten out this Grand Gulf emergency situation for me? (Continue, raising your voice.) Just what is going on out there? I just heard on the radio that there is an emergency, and if it's an emergency at a nuclear power plant, it has got to be serious! What were you doing to lose power--horsing around with the power lines?
- 176 Thank goodness someone's there. My husband left early this morning to go hunting and hasn't made it back yet. Is he safe in the woods near Port Gibson? He's always back by 11:00 or so for lunch--can you check and make sure he didn't get hurt in the storm? How could he take cover if he's out in the woods? Where would he go? He doesn't have any protection from that radiation, does he? Should I go looking for him >
- 177 (Talk breathless, hurried.) I sure hope you're the right person to call. I don't think I have much time. I have looked everywhere for that calendar you guys sent me and I must have used it to line the cat's box or something because I can't find it. Do I leave my door unlocked so the police can make sure I'm gone? Will they look for me?
- 178 Hello, I'm covering the Grand Gulf nuclear emergency for the Memphis Star and thought perhaps you could answer a few questions from a power perspective. I hear there were blackouts at the plant--did the communities around Grand Gulf experience blackouts as well? What areas are served by the plant? Will loss of power hinder evacuation efforts? How quickly was electricity restored to the plant? Do you know the cause of the power failure?
- 179 I've been listening to the radio all morning long and I want to know what is happening down at that nuclear plant of yours! (Keep talking fast--don't give them a chance to answer.) I always knew something like this was going to happen. I have been in my basement, figuring this is the safest place, but I'm sick of it and I want some answers now! (Keep arguing with any response they give you.)
- 180 Can I speak with someone, I don't care who, about that emergency going on at the site? I've tried several numbers and called the newspaper in Port Gibson, and I keep hearing different stories without getting any straight answers. I called two radio stations who said completely opposite things. Isn't there someone who handles this sort of thing? Just how much emergency is there? What do I do? (When they give you the Emergency Information Center phone number, complain about it being a long distance call.)
- 181 My husband works down there at Grand Gulf, but I can't get anyone to answer the phones. I'm trying to find out if I should expect him home at the regular time or if you'll have people working all night on the problem. How is it looking now? Is he safe down there? Can I reach him?

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- 182 I've been hearing all kinds of stories about an emergency going on at Grand Gulf. I'm dying to hear what's happening, but I sure hated to bother anybody down there. Is everything okay? Have they really blown up? My power's not going to go off, is it?
- 183 This is Grant Leist of USA Today. We would like to talk with some of the people who were at Grand Gulf when the emergency started this morning--just for some background perspective. Could you give us a few names of employees willing to be interviewed? (If they refuse, accuse them of trying to cover something up.) Have you put a muzzle on all your people? This is the third number I've called. I'd think about the Fifth Amendment if I were you, Bud. You know there's nothing stopping us from just coming on down to that plant and talking to anyone we see, so you'd be wise to go ahead and give us some names.
- 184 Good morning, this is Congressman Espy. I'm calling about the problem we're picking up about Grand Gulf and need information so I can brief the president tomorrow morning. Is it as serious as it sounds? If the public is told to evacuate, how much time will they have to get out of the area? How much higher could radiation levels go before you get this thing under control? Who should I call for follow-up details?
- 185 Hello. This is Thomas Reynolds and I own stock in Middle South. Nobody seems to be in the business office, so I thought you might could explain what's going on down there. Don't bother trying to tell me this won't affect my stock. Just tell me how long the plant will be down and I'll figure out for myself how much of a beating my investment is going to take. I should have listened to my wife and bought Wal-Mart stock.
- 186 Can you help me? I just don't know what to do. I sent my kids to school this morning and now all the sudden I'm hearing all this about an emergency at Grand Gulf. Am I supposed to evacuate and leave my children? Will the school take care of them? (If told not to evacuate...) How do I know this isn't the real thing? What do I do if this becomes a real emergency? Should I go get my kids?

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- 187 I represent Accident Cleanup Technology Company. I heard about your diesel generator problems on television and am sure you will need assistance with recovery and cleaning up any spilled fuel. I am sending three health physicists and two chemists to your site tomorrow morning. What time should they be there? Where do they go when they enter the plant?
- 188 Hey, this is Rumor Control. We're really starting to get a lot of calls in here and of course we're feeding them the stand lines, but my supervisor told me to call and see what the status of the situation actually is. (Keep talking as long as you can, trying to find out info you normally wouldn't be told.) How much radiation has been released? Is anyone in danger yet? What are the prospects of upgrading the emergency classifications? Is the plant in as bad a shape as it sounds?
- 189 You people are determined to put me on welfare, aren't you? First you jack my bills up so high, I can hardly pay them. Now with that emergency I heard about at Grand Gulf, the radiation's probably going to kill this year's crop, won't it? Is it too late now to save any of the crops? I plant mostly cotton, so I don't have to worry about anyone eating what I grow, but how much radiation does it take to kill the cotton plants?
- 190 I am Carla Burns of the Washington Post. I have talked with your Public Information people, but they just keep giving me pat answers without really addressing my questions. I have a story to write--who really knows what's going on down there? Has anyone been hurt yet? Are you releasing radiation? Is this as bad as Three Miles Island?
- 191 (Talk loud and sound efficient.) Hello there! This is Richard Lee with The Journal here in Memphis. I've been trying for half an hour to get some firsthand information from your media center people, and I don't think they know what's going on. I've heard you've got everything going on down there from tornadoes to blackouts to meltdowns. Are you evacuating people yet? What can you give me?
- 192 Hello, my name is Jeanne Burrow. I was supposed to report to Entergy for my first day of work tomorrow and I'm trying to find out if I still need to go. I'll be at One Jackson Place, so I didn't think any radiation from Grand Gulf would go that far, but I wanted to double check.
- 193 Hello, I'm calling from WPXI, Atlanta radio. We've gotten word about an accident in your Mississippi plant and I'm trying to get details. How much radiation has been released? Is there any chance of the contamination spreading to Atlanta? Is there some way of setting up communications so we can stay abreast of your situation? By the way, do you mind if I use your comments on the radio--I've recorded our conversation.

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- 194 You people are determined to put me on welfare, aren't you? First you jack my bills up so high, I can hardly pay them. Now with that emergency I heard about at Grand Gulf, the radiation's probably going to kill this year's crop, won't it? Is it too late now to save any of the crops? I plant mostly cotton, so I don't have to worry about anybody eating what I grow, but how much radiation does it take to kill the cotton plants?
- 195 Hey, I just drove in from Memphis and starting picking up on my radio all the problems going on down at Grand Gulf. What's all this about? It's starting to sound like I should have stayed put in Memphis. Do I have time to go back in my truck and head back north? How far is the radiation going? I got friends in the plant--are they okay?
- 196 I'm Paul Marshall, calling from ABC-TV. We have a helicopter headed to Grand Gulf now. Can you give permission for our pilot to make a pass over the site? Also, can you tell me which direction the tornado is headed so the pilot can avoid it? Radiation levels are lower when you're higher in the atmosphere, aren't they?
- 197 (Sounds disgusted, fed up.) Well I see Grand Gulf and MP&L are in the news again. I live in Brandon and I guess this means we'll be seeing the rates go up again, huh? I want to know why I have to pay every time somebody down there makes a mistake!? What was the problem this time? Will I at least get a rebate for the time the plant isn't running?
- 198 Hey--I sure hope I can get a straight answer from you. This is Annie Thomas. I work at Grand Gulf and I want to know just how dangerous those radiation fumes are going to be in the office when we get back. People keep telling me I get more radiation from living in a brick house, but I just don't believe there'd be that many brick houses if that were the truth. (Keep talking, even if she tried to transfer you.) They will pay us for this time we can't come to work, won't they? You see, I just had a baby months ago and that makes the bills really pile up. Can you tell me how soon before all this clears up?
- 199 Yeah. I just got all my cloths and food together and I'm already to clear out, but now I don't know where to go. (If told not to evacuate...) I ain't listenin' to that "stay put" garbage. You ain't tellin' me nothin's really going on. Ain't there someplace where the Red Cross got one of them flood centers open for people who got no relatives nearby? Where do I go if it gets worse >

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- 200 Is this Grand Gulf? Oh, please help me. I have been trying since noon to find out my son who works at Grand Gulf. His name is Earl Summers. Have any employees been injured? Can you tell me anything about the safety of the people down at the plant right now? How can I get in touch with Earl? You will notify the parents immediately if anything goes wrong, won't you?
- 201 Hello, I'm Joan Walton with the Wall Street Journal, and I have a few questions about Grand Gulf Nuclear Station and the current emergency situation. Do you have any prognosis on what this event is going to do to the utility? What effects will it have on Middle South Utilities or Entergy? What sort of insurance does the company have to cover this kind of thing?
- 202 Hello, I'm calling about the accident at your nuclear power plant. I live about eight miles from your plant and I'm pregnant. If there's radiation coming out of that tower, I want to know so I can catch a bus out of town. Will Entergy pay for my bus ticket? (Keep arguing about protecting your baby.) (I'm not doing this for myself, mind you. I'm only thinking of this baby--I don't care what you say, I don't want to take any chances. Are you saying I'm in danger, too?)
- 203 Hello, this is Ron Forsythe calling from United Press International. I got a call a few moments ago from a public information specialist at Grand Gulf who said there was an emergency at the plant. Can you confirm this and give me more details? (If they feed you any info, keep firing follow-up questions. If they transfer you, start your line over again.)
- 204 Can I speak with someone, I don't care who, about that emergency going on at the site? I've tried several numbers and called the newspaper in Port Gibson, and I keep hearing different stories without getting any straight answers. I called two radio stations who said completely opposite things. Isn't there someone who handles this sort of thing? Just how much emergency is there? What do I do?
- 205 I'm Patrick O'Hare, a reporter for KBAA here in Baton Rouge and I thought perhaps you could answer a few quick questions about the emergency at your plant. What are the people in the area supposed to do? How are you getting information to them? Does the situation seem to be escalating? How long will Grand Gulf be shut down? (Keep asking questions as long as they'll answer--be as persistent as possible.)

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- 206 Hey--now that you folks managed to get that plant shutting down, will you tell me just what I'm supposed to do with my cows? I heard about your emergency going on and I don't want them poisoned by any of that stuff you're sending out. I want to know how much of that radiation my cows can stand. How much has been released? Will their milk be okay to drink? Can I cover them up with something to protect them?
- 207 Hello, I am Nancy Regin with the local CBS affiliate working on the Grand Gulf story. I understand that when such an emergency is declared at one of the country's nuclear plants, field monitoring teams are sent to measure radiation in the area. We want to send a camera crew to film one of those teams. Where will they be monitoring next and when? Can we catch up to them?
- 208 Hello, this is Laurie Reynolds. The Vicksburg Evening Post is about to go to press with a special edition on today's disaster at Grand Gulf and I wanted to verify the latest figures on radiation released, personnel evacuated, and so forth. What time was the current data taken? Is there someone I can call for regular updates?
- 209 I am Lorraine Wright of the Tampa Tribune. At this point, is there a good assessment of what caused the power outage at Grand Gulf this morning? I have been seeing reports of operator training problems at plants across the country--was operator error involved today? What kind of qualifications do your operators have? Is there some type of special college degree they receive?
- 210 You're just the person I needed. This is Bob Grant down in I&C. I left the plant when the emergency was declared this morning but I left behind some medicine I need to take. Are they allowing people back into the plant yet? How will I be notified when it's safe to return? If I can't get back in, could someone find my prescription on my desk and tell me the number so I can get a refill?
- 211 Hello, I'm David Phillips with AP&L. What can you tell me about the emergency events going on? Does the situation seem to be winding down yet? Maybe there's something we can do to help out in the communications area...We'll be glad to send some people over; just say the word.
- 212 Hello, I'm calling from ABC News and we have a team on its way to cover the events at the nuclear station. Have you held a news conference yet? When is the next one scheduled? Do you have any available video footage inside the plant? What sort of clearance will our photographer need to enter the plant?
- 213 Hello, I'm calling from the Mississippian. I was just talking with a friend who works down at your nuclear plant and he told me the emergency you're wrestling with might get worse.

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Will you be releasing new information soon? He said there is a serious radiation problem. Is this true? Was the public evacuated? (Be persistent).

- 214 Could you tell me what in the world is going on at your nuclear plant? I called this number earlier and was assured that everything was under control. Now, from what I'm hearing on the news, it certainly doesn't seem to be that way. Who can I talk to and find out what really happened? What's the best radio station to keep up with what's going on? Is there any way to check for radiation around my house?
- 215 Hi, this is Linda Moore. I just called into the Grand Gulf plant and was talking with someone in your Emergency News Media Center when I was cut off. I have tried to call back, but cannot get through at all. Can you please connect me?
- 216 I am Jodi Sayres and I work for Entergy. There is a rumor going around that maybe you will want to know about. I have had half a dozen people tell me that the Nuclear Regulatory Commission has taken over the Grand Gulf plant. Is there any truth to this?

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PUBLIC INFORMATION QUESTION TRACKING FORM

Time: _____

Facility contacted: _____

Person contacted: _____

*** THIS IS A DRILL ***

Message number: _____

Information received (comments):

*** THIS IS A DRILL ***