9/28/82

BALTIMORE GAS AND ELECTRIC

CHARLES CENTER • P.O. BOX 1475 • BALTIMORE, MARYLAND 21203

ARTHUR E. LUNDVALL, JR.
VICE PRESIDENT
SUPPLY

August 13, 1982

U.S. Nuclear Regulatory Commission
Region I
631 Park Avenue
King of Prussia, PA 19406

SUBJECT: Calvert Cliffs Nuclear Power Plant
Unit Nos. 1 & 2; Docket Nos. 50-317 & 50-318
1982 Emergency Response Plan Exercise

ATTENTION: Mr. Ronald C. Haynes, Director

Gentlemen:

The 1982 Emergency Response Plan Exercise is scheduled for September 28, 1982. Attached is the scenario for this exercise. Plant parameters, and radiological conditions (Sections 4.0 and 5.0) will be available after September 14, 1982.

Should you have any questions regarding this matter, we would be pleased to discuss them with you.

Very truly yours,

A. E. Lundvall, Jr.

Vice President - Supply

AEL/TEF/gla

cc: J. A. Biddison, Esquire
G. F. Trowbridge, Esquire
D. H. Jaffe, NRC
R. E. Architzel, NRC

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CALVERT CLIFFS NUCLEAR POWER PLANT
1982 EMERGENCY RESPONSE EXERCISE
SEPTEMBER 28, 1982

TABLE OF CONTENTS

1.0 Introduction

2.0 Objectives & Guidelines

3.0 Scenario

4.0 Plant Parameters

5.0 Radiological Information

6.0 Controllers' Instructions

7.0 Evaluators' Instructions

8.0 Special Instructions & Supplementary Material

SUBMITTED: _____ / 8/11/82
Supervisor - Emergency Planning Unit — Date

APPROVED: J B Russell / 8/11/82
Plant Superintendent — Date

CALVERT CLIFFS NUCLEAR POWER PLANT
1982 EMERGENCY RESPONSE EXERCISE
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1.0 INTRODUCTION

1.1 To demonstrate the on-going preparedness capabilities of the Baltimore Gas & Electric Company, its personnel and equipment, for maintaining the safety of the public in the unlikely event of an emergency at the Calvert Cliffs Nuclear Power Plant, an annual exercise is conducted to test the adequacy and implementation of the Baltimore Gas & Electric Emergency Response Plan (ERP).

1.2 This document contains information necessary to conduct the 1982 Exercise:

Section 2. Objectives and Guidelines - This section defines the exercise objectives and sets forth guidelines for the conduct of the exercise to meet those objectives.

Section 3. Exercise Scenario - This section describes the postulated sequence of events occuring at the Calvert Cliffs Nuclear Power Plant which will require the various on-site and off-site emergency response organizations to respond.

Section 4. Plant Parameters - This section contains time-related information concerning plant conditions, which corresponds to the development of the exercise scenario.

Section 5. Radiological Information - This section contains time-related information concerning radiological conditions at various on-site and off-site locations. Also, included in this section is information concerning primary coolant radiochemistry, radiological release rates, and on-site emergency worker exposure and contamination.

Section 6. Controllers' Instructions - This section provides general instructions to the exercise controllers' for the conduct of the exercise.

Section 7. Evaluators' Instructions - This section provides general instructions and evaluation criteria to the exercise evaluators' for assessing the responses of the exercise participants and the progress of the exercise.

Section 8. Special Instructions and Supplementary Material - This section contains supplementary material for use by the exercise controllers during the course of the exercise. Any special instructions will also be included in this section.

1.3 The State of Maryland participated in Peachbex 1982, a major nuclear facility exercise, therefore, their participation in Calvert Cliffs 1982 Exercise, will be limited to tests of the communication links, emergency medical services, and public information programs. The Prompt Notification System sirens will be tested.

1.4 The exercise shall be conducted on Tuesday, September 28, 1982, commencing at approximately 0600 hours; and terminating at approximately 1600 hours.

1.5 Participating Baltimore Gas & Electric organizations include:

1.5.1 Nuclear Power Department

1.5.2 Production Maintenance Department

1.5.3 Real Estate & Office Services Department

1.5.4 Corporate Communications Department

1.5.5 Transportation Department

1.5.6 Purchasing & Stores Department

1.5.7 Project Management Department

1.5.8 Electric Engineering Department

1.6 Participating Organizations State/Local

1.6.1 Maryland Emergency Management & Civil Defense Agency (includes three (3) plume zone and ten (10) contiguous counties).

1.6.2 Department of Health and Mental Hygiene, Division of Radiation Control.

1.6.3 Department of Natural Resources, Power Plant Siting Group.

1.6.4 Department of Agriculture.

1.6.5 Maryland State Police.

1.6.6 State Fire Marshal.

1.6.7 Department of Human Resources.

1.6.8 Department of Transportation.

1.6.9 Department of Education.

1.6.10 Department of Economic and Community Development.

1.6.11 The Adjutant General.

1.6.12 Maryland Institute for Emergency Medical Services Systems.

1.6.13 American Red Cross, Baltimore Region, and the Chapter in the plume zone counties.

1.6.14 State Public Information Office.

1.6.15 Calvert Memorial Hospital.

1.6.16 Solomons Volunteer Rescue - Fire Department

1.7 Critique

1.7.1 BG&E - To be held Wednesday, September 29, 1982, 1000 hours at Calvert Cliffs Nuclear Power Plant, Warehouse #2, Security Training Classroom.

Attendance is requested for the following individuals:

a. Recovery Manager (or alternate)

b. Support Recovery Managers (or alternates)

c. Corporate Spokesperson (or alternates)

d. Site Emergency Coordinator (or alternates)

e. Plant Superintendent

f. Radioiogical Assessment Director

g. Radiological Protection Director

h. Technical Support Center Director

i. Operational Support Center Director

j. Director, Alternate Emergency Control Center

k. Shift Supervisor (or alternate)

l. Lead Evaluator

m. Lead Controller

n. Nuclear Regulatory Commission Representative

Any participant in the emergency exercise may attend the critique as an observer.

1.7.2 State/County - To be held Thursday, September 30, 1982, at 1000 hours at the Prince Frederick Volunteer Fire Department. BG&E will be represented by the Supervisor-Emergency Planning. Attendance is requested for the following:

a. Plume Zone Counties, Emergency Management and Civil Defense Agency Directors.

b. Maryland Emergency Management and Civil Defense Agency Director (or representative).

c. Nuclear Regulatory Commission Representative.

d. Federal Emergency Management Agency Representative.

1.8 Facilities

Due to scheduling conflicts with County activities at the Prince Frederick

Fairgrounds, an interim facility Media Communications Center will be established at the Prince Frederick Volunteer Fire Department. The Fire Department building is located about one mile south of the intersection of MD Routes 2/4 and 402 (Dares Beach Road).

1.9 Official Observers

1.9.1 Copies of this document are available in advance of the exercise by contacting:

Baltimore Gas & Electric Company
Supervisor - Emergency Planning
Calvert Cliffs Nuclear Power Plant
Lusby, MD 20657
(301) 269-4996

Copies less Section 4, "Plant Parameters," and Section 5, "Radiological Information," are available after August 13, 1982. Plant Parameters and Radiological Information will be available after September 14, 1982. Issue will be by mail, or personal distribution upon arrival at Calvert Cliffs Nuclear Power Plant and on a need to know basis.

1.9.2 Observers must contact the Supervisor-Emergency Planning, who will arrange authorization for entry to the emergency facilities. Official observers will be provided name tags identifying them as such.

CALVERT CLIFFS NUCLEAR POWER PLANT
1982 EMERGENCY RESPONSE EXERCISE
SEPTEMBER 28, 1982

2.0 OBJECTIVES & GUIDELINES

2.1 OBJECTIVES - BALTIMORE GAS & ELECTRIC COMPANY

2.1.1 Emergency Organization

a. Demonstrate the necessary understanding of Emergency Action Levels (EALs) and proficiency in recognizing and classifying emergency conditions.

b. Demonstrate proficiency in taking appropriate corrective action(s) in response to and recovery from an emergency.

c. Demonstrate effective and proper procedure for alerting, notifying, and reporting to the Federal, State, local, Corporate, and plant personnel.

d. Demonstrate proper procedure for on-site and off-site radiological monitoring to include collection and analysis of all sample media (e.g., water, vegetation, soil, and air) and provisions for communications and record keeping associated with these survey and monitoring activities.

e. Demonstrate timely and effective estimation and assessment of radiological releases. Also, demonstrate the radiological consequences of accidents or accidental releases.

f. Demonstrate familiarity with Radiological Emergency Protective Actions considered for use to protect people and other resources both in-plant and off-site.

g. Test and demonstrate the adequacy and effectiveness of plant emergency facilities, equipment, and communication networks.

h. Demonstrate proper procedure for first aid and handling of a contaminated accident victim.

i. Demonstrate proper procedure for emergency security measures to include control of access and egress, personnel accountability, etc.

j. Demonstrate precise and clear transfer of command responsibilities to the Recovery Organization (mandatory for Site Emergency & General Emergency).

2.1.2 Recovery Organization

a. Demonstrate that participating organizations can alert, notify, and mobilize emergency response personnel to respond to an emergency in a timely fashion.

b. Demonstrate primary functional responsibilities and/or problem solving capabilities.

c. Demonstrate proper procedure for communicating with state and local governments within the plume exposure emergency planning zone (10 mile EPZ).

d. Demonstrate the ability to perform radiological assessments, and off-site dose assessment projections necessary to provide advance warning to Local, State, and Federal agencies, and to the general public.

e. Demonstrate that decisions can be made with regard to protective measures for both the plume and ingestion exposure pathway emergency planning zones (EPZ).

f. Demonstrate the ability to integrate its activities with those of other participating emergency response organizations (County, State, and Federal).

g. Demonstrate capability to produce public information releases and handle public inquiries.

h. Demonstrate the ability to maintain continuity of command control throughout the exercise.

i. Demonstrate recovery techniques in the ability to deescalate (deactivate) corporate and site response activities and the general public.

j. Demonstrate proper procedure for preparation of reports, messages, and records.

k. Demonstrate the physical adequacy of the various emergency facilities for individual member working space and communication usage.

2.2 OBJECTIVES - STATE & COUNTIES

2.2.1 Demonstrate the adequacy of communication links.

2.2.2 Demonstrate an understanding of the emergency action levels.

2.2.3 Demonstrate the adequacy and effectiveness of procedures and equipment for handling a contaminated accident victim.

2.2.4 Demonstrate the ability to prepare reports, messages, and records associated with the emergency exercise.

2.2.5 Demonstrate the operability of the prompt notification system sirens.

2.2.6 Demonstrate the ability to implement the Public Information Program including the Emergency Broadcast System.

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2.3 GUIDELINES

The purpose of these guidelines is to define the "extent of play" by the exercise participants and to meet the aforementioned objectives.

2.3.1 Players will not possess prior knowledge of the exercise start time, all personnel will follow their normal routines for the day.

2.3.2 The exercise will commence with a postulated plant condition necessitating a declaration of an Unusual Event or higher level emergency.

2.3.3 The postulated accident conditions will result in a simulated radiological release which necessitates the consideration of protective actions for the general public. Meteorological conditions may be varied throughout the exercise.

2.3.4 Exercise participants will perform, as appropriate, radiological monitoring, dose assessment, and ingestion pathway sampling activities.

2.3.5 Radiological Monitoring Field Teams (including the BG&E Mobile Environmental Monitoring Laboratory as needed) will be dispatched for the pupose of testing response time, communications, and monitoring and sampling procedures. The field teams will gather sample media and simulate routing such samples to the appropriate laboratory facilities for analysis.

Radiological Monitoring Field Teams will be accompanied by a controller/evaluator team throughout the exercise. Each field team will rendevous with its controller/evaluator team at the location at which it obtains its emergency kits.

2.3.6 The Media Communications Center will be manned (see Section 1.0, Item 1.9) and perform its prescribed functions. Member(s) of the press in the area will be invited to participate in the exercise. Exercise press releases will be prepared and submitted to the media.

2.3.7 Medical facilities and their capabilities will be tested through the evacuation of a simulated injured power plant worker for treatment and decontamination. Monitoring and decontamination actions and procedures will be demonstrated at the receiving hospital.

2.3.8 The postulated accident conditions may warrant the assembly and evacuation of site personnel. If required by the exercise scenario, the site emergency alarm shall be sounded and personnel assembled/evacuated.

2.3.9 Participation by BG&E on-site personnel directly involved in responding to an emergency shall be carried out to fullest extent possible, including the deployment of radiological monitoring teams, emergency maintenance teams, and other emergency workers.

2.3.10 If required by the exercise scenario, alternate means of accessing the plant shall be simulated and not actually implemented. On-site security personnel should exercise their emergency procedures for restricting normal access to the site without actually redirecting incoming and outgoing personnel.

2.3.11 The exercise shall not be initiated until word is received from the Lead Controller who, after having received prior concurrence from the Plant Superintendent and Shift Supervisor, is confident that conditions are compatible for the safe performance of the exercise.

2.3.12 All emergency communications that relate to the exercise shall be identified as part of the drill. Verbal communications shall be initiated and closed by the statement, "This is a drill."

2.3.13 All communications that relate to an actual emergency shall be unequivocally identified as such. If at any time a real emergency occurs, or plant operations warrant, all actions relating to the exercise shall cease and response shall be directed to the actual operational needs.

CALVERT CLIFFS NUCLEAR POWER PLANT
1982 EMERGENCY RESPONSE EXERCISE
SEPTEMBER 28, 1982

3.0 EXERCISE SCENARIO

3.1 General Description

A. Casualty

The exercise will simulate a small loss of coolant accident complicated by a loss of all offsite AC power. The exercise will be initiated by Unit 2 Reactor Coolant activity being greater than Technical Specification limits, requiring the unit to be placed in a safe conditon within six hours (Shutdown). Personnel errors will create a coolant release path through the Pilot Operated Relief Valves (PORVs) and containment sump. The loss of AC power shall also affect Unit 1. Further complications will be introduced by the failure of the onsite diesel generators to operate as designed.

B. Meteorology Conditions will be controlled by this scenario. This will allow for preplanning of both the areas affected by the release. The actual meteorological conditions of the day of the exercise will not be used.

Initially the wind direction will be 135°, which will take the plume northwest over Prince Frederick in Calvert County. At 1500 the wind will shift 40° and stabilize at 175°.

C. This exercise will be conducted so as not to cause any change to actual plant conditions. During the exercise, only the Lead Controller (BG&E) may authorize changes. These shall include sequence, additions, or deletions. All changes must be requested in advance.

3.2 Initial Conditions

A. Unit 1

MODE 1, operating at approximately 96% power and increasing to 100% power. The unit is recovering from a Reactor Coolant Pump Seal Replacement Outage, which lasted approximately 5 days. Reactor Coolant System Activity is 0.1 μCi/cc Iodine^{131} Dose Equivalent. The unit is at the halfway point of its fuel cycle.

B. Unit 2

MODE 1, operating at approximately 85% power. Reactor Coolant System Activity has been fluctuating at approximately 1.5 μCi/cc Iodine^{131} Dose Equivalent for the past 100 hours. The activity has never decrease below 1.0 μCi/cc Iodine^{131} Dose Equivalent during this time frame. The unit is scheduled to start a refueling outage in 32 days.

C. Related Plant Operating Conditions

Routine Radwaste handling operations in progress on 45' Auxiliary Building.

MPT circuit test in progress per procedure STP-M-672B.

Routine lubrication of Motor Operated Valves in Emergency Core Cooling Pump Rooms.

Collapsed Intake Screen repair in progress.

New Fuel Receipt Inspection in progress in fuel pool area.

Liquid Waste Tanks at full capacity on both units.

TIME SCHEDULE

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TIME/ UNIT	EMERGENCY CLASSIFICATION	EVENT	PLANT EXPECTED ACTION
T=00:00	0600		
Unit 1	**NONE**	Routine 100% Power Operation	None
Unit 2	**UNUSUAL EVENT**	Due to Reactor Coolant System Activity being greater than 1.0 μCi/cc Iodine^{131} Dose Equivalent for 100 hours. 85% Power Operation. Wind Direction 135^{o}F Wind Avg. Band Width 30^{o} Wind Speed 10 mph Differential Temp -1^{o}F	Initiate Controlled Shutdown per Technical Specification 3.4.8, **MODE** change required. The Unit must be placed in **HOT STANDBY** (**MODE** 3 with Tavg - 500^{o}F) within 6 hours. Declare **UNUSUAL EVENT**
T=01:00	0700		
Unit 1	**NONE**	Routine 100% Power Operation	None
Unit 2	**UNUSUAL EVENT**	Controlled Shutdown Continues RCS = 2.3 μCi/cc Iodine^{131} Dose Equivalent	Continue RCS Sampling & Analysis
T=02:00	0800		
Unit 1	**NONE**	Routine 100% Power Operation	None
Unit 2	**UNUSUAL EVENT**	Controlled Shutdown Continues RCS = 4.1 μCi/cc Iodine^{131} Dose Equivalent	Continue RCS Sampling & Analysis

TIME SEQUENCE

TIME/ UNIT	EMERGENCY CLASSIFICATION	EVENT	PLANT EXPECTED ACTION
T=03:00	0900		
Unit 1	**NONE**	Routine 100% Power Operation	None
Unit 2	**UNUSUAL EVENT**	Controlled Shutdown Continues RCS Activity = 5.2 μCi/cc Iodine^{131} Dose Equivalent	Continue RCS Sampling & Analysis
T=04:00	1000		
Unit 1	**NONE**	Routine 100% Power Operation	None
Unit 2	**UNUSUAL EVENT**	Controlled Shutdown Continues RCS Activity = 6.7 μCi/cc Iodine^{131} Dose Equivalent	RCS Sampling & Analysis
T=04:50	1050		
Unit 1	**NONE**	Routine 100% Power Operation	
Unit 2	**UNUSUAL EVENT**	Unit is in **MODE 3, HOT STANDBY** Tavg = 532^{o}F. Modified Containment Vent initiated thru sump. MPT Circuit Control Loop checks in progress. RCS Activity - 10.1 μCi/cc Iodine^{131} Dose Equivalent	RCS Sampling & Analysis
T=04:59	1059		
Unit 2	**UNUSUAL EVENT**	Instrument & Control Technician working on MPT Circuit causes Pressure Spike and a PORV sticks open.	Attempt closing of PORVs.

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TIME SEQUENCE

TIME/ UNIT	EMERGENCY CLASSIFICATION	EVENT	PLANT EXPECTED ACTION
T=05:00	1100		
Unit 1	**ALERT**	Loss of all offsite AC Power Main Generator, Turbine & Reactor Trip on Loss of Load.	Control Casualty
Unit 2	**ALERT**	Loss of all offsite AC Power	Control Casualty Declare **ALERT**
T=05:01	1101		
Unit 1	**ALERT**	Diesel Generator #11 fails to start	Control the Casualty
Unit 2	**ALERT**	Diesel Generator #12 fails to come up to speed or parallel.	Operators dispatched and Mechanics requested to Diesel Generator #12 to investigate problem. Operators dispatched to Remote Shutdown Panel 1C43, Auxiliary Feedwater started.
T=-5:02	1102		
Unit 1	ALERT		
Unit 2	**ALERT**	Quench Tank fills and Rupture Disc ruptures as designed. Coolant exits the Containment via Containment Sump Drain Pipe. Emergency Core Cooling Pump Room #102 (#22) is flooding.	Control Casualty

TIME/ UNIT	EMERGENCY CLASSIFICATION	EVENT	PLANT EXPECTED ACTION
T=05:02 Unit 1 Unit 2	1102 **ALERT** **ALERT**	Bulk load dispatcher notifies Calvert Cliffs that a fire is causing relay problems at Waugh Chapel. He will provide further information as it becomes available.	Operators dispatched to SMECO tie.
T=05:15	1115		
Unit 1	**SITE EMERGENCY**	Offsite AC Power not restored in	Declared **SITE EMERGENCY**
Unit 2	**SITE EMERGENCY**	Flooding of ECCS Pump Room continues	Calvert County initiates 2-mile Precautionary Evacuation.
T=05:20 Unit 1	1120 **ALERT**	Diesel Generator #11 started manually.	
Unit 2	**SITE EMERGENCY** Note: Unit #1 shall remain in **ALERT** until 1615	Mechanics (2) contaminated on 69' Auxiliary Building Radiological Control Egress Area. They were previously working in ECCS Pump Rooms, and left #102 (#22) ECCS Pump Room Door OPEN. Their Self-Reading Dosimeters are off-scale and contamination levels on Mechanics: Face: 10,000 dpm Clothes: 10,000-80,000 dpm Nasal: 4,000 dpm	Emergency First Aid & Decontamination Team activated to assist the Mechanics. Initiate Emergency Reentry Team (ERET) and operator for reentry to close the door. Dosimetry Team notified of dosimeters off-scale.

TIME SEQUENCE

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TIME/ UNIT	EMERGENCY CLASSIFICATION	EVENT	PLANT EXPECTED ACTION
T=05:30	1130 **ALERT**	#12 Diesel Generator manually paralleled by Operator. (Closing Coil Problem) **NOTE:** All dose rates are dependent upon operator action. Projected Dose rate at Site Boundary = 250 mrem/hr Whole Body	Recover the Unit. Shut PORV blocking valve and reestablish Containment Integrity. Downgrade Emergency Classification to **ALERT** for Unit 2. Dispatch offsite monitoring teams.
T=05:45	1145		
Unit 2	**ALERT**	Friskers alarming on 69' Auxiliary Building Projected Dose rate at Site Boundary - 68 mrem/hr Whole Body	Initiate Air Sampling for Noble Gases & Iodine Monitor the radioactive release.
T=06:00	12:00		
Unit 2	**ALERT**	SMECO Power Tied In Projected Dose rate at Site Boundary - 1.4 mrem/hr Whole body Bulk Load Dispatcher notifies Calvert Cliffs that emergency repairs are in-progress at Waugh Chapel and reconnection into the Grid is expected in approximately four (4) hours.	Continue the Recovery of both Units. Monitor the radioactive release.

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TIME SEQUENCE

TIME/ UNIT	EMERGENCY CLASSIFICATION	EVENT	PLANT EXPECTED ACTION
T=06:40	1240 **ALERT**	Projected Dose Rate at Site Boundary = 0.5 mrem/hr Whole boby	Monitor the radioactive release offsite.
T=07:00	1300 **ALERT**	ERET Team Reports that the ECCS Door is broken (pins sheared, door closed, but not locked). Also, that the Operator has fallen and broken his leg (compound femur).	Assemble the Emergency Repair & Damage Control Team to repair the door. Emergency First Aid and Decontamination Team activated. Calvert Memorial Hospital alerted, Solomons Rescue Squad notified.
T=07:30	1330 **ALERT**	Solomons Rescue Squad Arrives	Dosimetry Issued, Security Escort provided.
T=08:00	1400 **ALERT**	Injured victim egresses in ambulance to Calvert Memorial Hospital.	

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TIME SEQUENCE

TIME/ UNIT	EMERGENCY CLASSIFICATION	EVENT	PLANT EXPECTED ACTION
T=10:00	1600 **ALERT**	Bulk Load Dispatcher telephones that in 15 minutes power will be restored to Calvert Cliffs. Wind shift from 135° to 175° (from South), Band width = 45° Wind Speed = 5 mph T = -1.4°F	Prepare for picking up plant load requirements.
T-10:15 Both	1615 **NONE**	Normal offiste power restored. Waste Receiver Tank, High Level Alarm. Unless manually isolated, Number 15 Sump automatically pumps down the ECCS Pump Room Sump and overflows the Waste Receiver Tanks. This contaminates the entire -5' Elevation of the Auxiliary Building. Terminate Drill	Recover both Plant. Isolate sump and manually secure the pump.

CALVERT CLIFFS NUCLEAR POWER PLANT
1982 EMERGENCY RESPONSE EXERCISE
SEPTEMBER 28, 1982

4.0 PLANT PARAMETERS

CALVERT CLIFFS NUCLEAR POWER PLANT
1982 EMERGENCY RESPONSE EXERCISE
SEPTEMBER 28, 1982

5.0 RADIOLOGICAL INFORMATION

CALVERT CLIFFS NUCLEAR POWER PLANT
1982 EMERGENCY RESPONSE EXERCISE
SEPTEMBER 28, 1982

6.0 CONTROLLER'S INSTRUCTIONS

6.1 Controller Organization

	Name	Assignment
	S. E. Jones, Jr.	Lead Controller - Alternate ECC
	J. R. Hill	Control Room
	J. M. Yoe	Control Room
	P. A. Pieringer	Control Room/Technical Support Center
	W. L. Whitaker	Maintenance Team (Mechanical)
	M. L. Coon	Maintenance Team (Electrical)
*	A. M. Vogel	On-Site Radiological Field Monitoring Team
*	A. A. Barth	Off-Site Radiological Field Monitoring Team #1
*	C. H. Griffin	Off-Site Radiological Field Monitoring Team #2
*	D. J. Drinkwater	Off-Site Radiological Field Monitoring Team #3
	G. F. Wall	Emergency Control Center
*	G. T. Moses	Emergency Security Team
*	J. Peterson	Emergency Medical Team
*	T. E. Forgette	Floater

* Dual Responsibility Position (Controller & Evaluator)

6.2 Controller Instructions

6.2.1 All controllers shall meet at Calvert Cliffs Nuclear Power Plant, South Service Building, Classroom #3, at 0900 hours, September 27, 1982, for a pre-exercise briefing by the Lead Controller.

6.2.2 All controllers will comply with instructions from the Lead Controller.

6.2.3 All controllers shall synchronize their watches to ensure that messages are delivered at the proper time. Times on messages are set relative to the beginning of the exercise, "T+00:00."

6.2.4 Each controller will have copies of the messages controlling the progress of the exercise scenario. No message shall be delivered out of time sequence unless specifically instructed by the Lead Controller.

NOTE: All messages controlling the progress of the exercise scenario are noted with a number. All contingency messages are noted with a number followed by the letter "C" (e.g., "7C").

6.2.5 Each controller will have copies of time-related plant and radiological parameters corresponding to the development of the exercise scenario. This information should be issued only upon request to the appropriate exercise participants by either the Control Room Controller or controllers accompanying the radiological monitoring field teams.

6.2.6 Controllers shall <u>not</u> provide information to the exercise participants regarding scenario development. The exercise participants are expected to obtain information through their own organizations and exercise their own judgement in determining response actions and resolving problems.

6.2.7 Some exercise participants may insist that certain parts of the scenario are unrealistic. The Lead Controller has the sole authority to clarify any questions regarding scenario content.

6.3 Communications

Controller communications are listed on Attachment 1.

ATTACHMENT I

CONTROLLER COMMUNICATIONS

CONTROLLER	PHONE NUMBERS	ASSIGNED LOCATIONS
S. E. Jones, Jr. (Lead Controller)	4422 (4451) * Radio	Alternate ECC-Status Room Alternate ECC-Dose Assmt.
J. R. Hill/ J. M. Yoe	4731 (4732)	Plant Control Room
P. A. Pieringer	4991 (4992)	Technical Support Center
G. F. Wall	4942 (4943)	Plant Emergency Control Center
x A. A. Barth x C. H. Griffin x D. J. Drinkwater	+ Radio	Off-Site Radiological Monitoring Teams
W. L. Whitaker M. L. Coon x G. T. Moses x J. Peterson x A. M. Vogel x T. E. Forgette	Establish contact through Control Room, Tech Support Center, or Emergency Control Center via Plant Paging System & Telephone	Various; On/Off-Site, In/Out of Plant

x Dual responsibility (Evaluator & Controller)

* Establish contact through Dose Assessment Radio Operator (Health Physics Frequency Only)

+ Establish contact through Field Team Radio Operator (Health Physics Frequency Only)

CALVERT CLIFFS NUCLEAR POWER PLANT
1982 EMERGENCY RESPONSE EXERCISE
SEPTEMBER 28, 1982

7.0 EVALUATOR'S INSTRUCTIONS

7.1 Evaluator Organization

T. N. Pritchett	(Lead Evaluator)-Alternate ECC
P. H. Elliott	(Assistant Lead Evaluator)
C. A. Andrews	Technical Support Center
J. F. Shire	Control Room
B. A. Tilley	Maintenance Team (Mechanical)
J. E. Owens	Maintenance Team (Electrical)
B. A. Watson	Radiological Protection Director-ECC
J. L. Hoppa	Media Communications Center

Evaluators shall meet at Calvert Cliffs Nuclear Power Plant, South Service Building, Classroom #2 at 1300 hours, September 27, 1982, for a pre-exercise briefing with the Lead Evaluator.

7.2 Evaluation Instructions

Each evaluator shall take detailed notes regarding the progress of the exercise and the responses of the exercise participants at their respective assigned locations. Each evaluator should carefully note the arrival and departure times of exercise participants, the times at which major activities or milestones occur, and problem areas encountered. As appropriate, evaluators' comments should consider the following evaluation elements:

7.2.1 Notification, alerting, and mobilization of emergency response personnel:

a. Procedures for communications logging and verfication.

b. Alerting procedures for each emergency action level.

c. Timely activiation and staffing of emergency response facilities.

d. Utilization of alternate communications systems.

e. Accurate and timely determination of emergency action levels.

7.2.2 Communications capabilities among on-site and off-site emergency response facilities:

a. Adequate communications with field teams.

b. Use of primary and back-up communications systems.

c. Message handling and communications logging procedures.

d. Adequate communications between emergency response facilities.

7.2.3 Alternate Emergency Control Center

a. Timely activation.

b. Staffed by personnel as prescribed in the various plans.

c. Adequacy of internal information systems (displays, status boards, maps, message handling, etc.).

d. Adequacy of security and access control.

7.2.4 Direction and Control

a. Decisions made are based on correct technical assessments , and are properly coordinated and implemented in a timely manner.

b. Coordination between local officials and Federal, State, and BG&E representatives demonstrated.

7.2.5 Emergency Preparedness Plans and Procedures

a. Assigned personnel demonstrate familiarity with their plans and procedures.

b. Plans and procedures are followed.

7.2.6 Public Information

a. Capability to provide the Media Communications Center information on an on-going basis.

b. Timely activation of the Media Communications Center.

c. Media Communications Center staffed with individuals as prescribed in the various plans and procedures.

d. Adequacy of communications in Media Centers.

e. Reporting of status of emergency action levels and protective action recommendations.

f. Ability to coordinate the release of information with the media.

g. Adequacy of interface with the media.

h. Coordination of public information releases with other affected jurisdictions.

7.2.7 Radiological Monitoring Field Teams

a. Radiological monitoring equipment and emergency kits are adequate, readily available, and properly utilized.

b. Timely deployment of Radiological Monitoring Teams.

c. Collection of sample media (water, vegetation, milk, air, etc.) and routing of samples to appropriate laboratories.

d. Plume pathway monitoring.

e. A central point for receipt of radiological monitoring data is designated and adequate communications with field teams demonstrated.

f. Use of properly calibrated instruments demonstrated by field teams.

g. Reporting of simulated data through appropriate and prescribed channels demonstrated.

7.2.8 Accident Assessment

a. Demonstrated timely interchange of information between Federal, State, County, and BG &E assessment points.

b. Evidence of use of meteorological data provided.

c. BG &E's abilities to assess plant conditions, classify the incident, develop initial protective action recommendations and notify off-site authorities in an accurate and timely manner demonstrated.

d. Demonstrated ability to control radiological monitoring field teams for plume tracking.

e. Demonstrated ability to process field samples at mobile and fixed laboratories to obtain results in a timely manner. This should be demonstrated for plume exposure pathway procedures.

f. Demonstrated ability to perform dose calculations and dose projections for the general public to formulate protective action recommendations.

g. Demonstrated ability to develop recommendations for recovery and reentry field procedures.

7.2.9 Protective Actions

a. Demonstrated timely and accurate decisions for protective actions for the plume exposure pathway emergency planning zones.

b. Instructions to the public for sheltering and/or evacuation are timely, adequate, and clearly understood.

c. Demonstrated ability to provide radiation exposure control for emergency workers.

d. Actions, if any, taken to authorize emergency workers to incur radiation exposures in excess of EPA guidelines for the public.

e. Ability of the County to dispatch appropriate personnel and equipment to appropriate points.

f. Provision for the use of potassium iodine (KI) on the public and/or emergency workers demonstrated.

7.2.10 Medical Emergency

a. Adequacy of transportation of a simulated contaminated person to a local hospital.

b. Ability of hospitals to deal with a radiological emergency demonstrated.

7.2.11 Reentry and Recovery

a. Adequacy of decision-making process for authorizing reentry into the evacuated areas.

b. Adequacy of the basis for making the reentry decision.

7.2.12 Overall adequacy of the scenario to test the various emergency preparedness plans and procedures.

7.2.13 Benefit of the exercise to its participants.

7.2.14 Capabilities and procedures of observed emergency response organizations to execute their plans to protect the public.

7.3 Evaluators shall use Exhibit 5.5-A (Attached) as a cover sheet for their exercise notes. Notes shall be submitted to the Lead Evaluator at the post-exercise critique. At the completion of the critique, all notes shall be given to the Supervisor-Emergency Planning.

7.4 Evaluators shall position themselves at their respective stations at T-00:15. Watches shall be syncronized with the corresponding station "Controller."

ATTACHMENT 1

EXHIBIT 5.5-A

EMERGENCY PLAN DRILL CRITIQUE FORM

_____
Date

Observer: _____ / _____
NAME DATE

Exercise Title: _____

Exercise Start: _____ Time Initial Required Action Initiated: _____

Location of Observer: _____

_____

_____

Time Information Provided: _____

Observations: (Proper use of equipment, corrective procedures, effectiveness of individual and group actions, etc.)

_____

_____

_____

Comments and Recommendations:

(Specific): _____

_____

_____

_____

_____

Use additional pages as required.

_____ _____
Signature Date

CALVERT CLIFFS NUCLEAR POWER PLANT
1982 EMERGENCY RESPONSE EXERCISE
SEPTEMBER 28, 1982

8.0 SPECIAL INSTRUCTIONS

8.1 Injured Person

8.2 Player's Instructions & Rules

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CALVERT CLIFFS NUCLEAR POWER PLANT
1982 EMERGENCY RESPONSE EXERCISE
SEPTEMBER 28, 1982

8.1 Injured Person #1

1.0 Situation: You were lubricating a pump in the ECCS Pump Room, Unit 2, when the lights went off. In haste to leave the Auxiliary Building, you fall and break your leg and injure your head.

2.0 Clothing Requirements: Don the following anti-containmination clothing:

(This may be more than what is listed on the RWP/SWP listed in 3.0) _____

_____

_____

3.0 At _____ enter the Auxiliary Building under RWP/SWP _____

NOTE: OBSERVE EXISTING RAD-SAFETY REQUIREMENTS

4.0 Go to -15' Elevation and lie on the floor outside of the ECCS Pump Room door.

5.0 If asked, you may tell the rescue workers only the information on this sheet.

8.2 Players Instructions & Rules

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

8.2.1 Remember there are two clocks, the scenario time and the actual clock time. The scenario time is more important to you. Track both times on your status boards, if necessary. This is particularly important if the exercise becomes delayed for any reason.

8.2.2 Know the overall Controllers organization. Identify your Controller by his Identification Badge (See attached Controller Chart).

8.2.3 There are NRC/FEMA (Federal Agencies) Evaluators and Company Evaluators present. Identify them by their Identification Badges. They are here to judge your performance and approve our emergency plan.

8.2.4 There may be visitors present. Identify them by their Identification Badges.

8.2.5 Identify yourself by name and function to the Exercise Controllers and Evaluators. This will be a big help. Always wear your Identification Badge.

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

8.2.7 Identify your actions to the Controller and Evaluator. State whether you are going to play them out or simulate them. For your own benefit, it is recommended that you play out your actions as much as possible. It is to your advantage to exercise as many of your actions as possible.

8.2.8 Periodically speak out loud, identifying your key actions and decisions to the Controller and Evaluator. This may seem artifical, but it will assist in the Evaluation Process, and is to your benefit.

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

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

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

8.2.12 If you disagree with your Controller, you can ask him to reconsider or consult with the Lead Controller as time permits. You must, however, accept his/her word as final and proceed.

8.2.13 Respond to the Controller's questions.

8.2.14 You must not accept any messages/instructions from the Evaluators. If they want to initiate actions, test your abilities, or give you "surprises", they must work through your Controller. **This is essential to the overall success of the exercise.**

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

8.2.16 The Controllers and Evaluators are not subject (they are exempt) from acting as if radiation levels from the emergency exercise are present. Do not let them confuse you or cause you to act unwisely.

8.2.17 If you are entering normal power plant radiation areas, observe all rules and procedures. No one (even the Controller and Evaluators) is exempt from normal plant radiological practices and procedures.

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

8.2.18 Demonstrate knowlege of your emergency plan, emergency operations, and procedures.

8.2.19 Utilize Status Boards, Log Books, 3-Part Interoffice Memo's, etc., as much as possible to document and record your actions, instructions, and reports to your co-players. This is very important. Remember, "Put it in writing."

8.2.20 Do not enter into conversations with the Visitors.

8.2.21 You may answer questions directed at you by Evaluators. If the question is misdirected to you or you do not know the answer, refer them to your lead player or the Controller.

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

8.2.23 A critique of the exercise will occur after the exercise is terminated. Provide your input to your lead player for presentation at the critique.