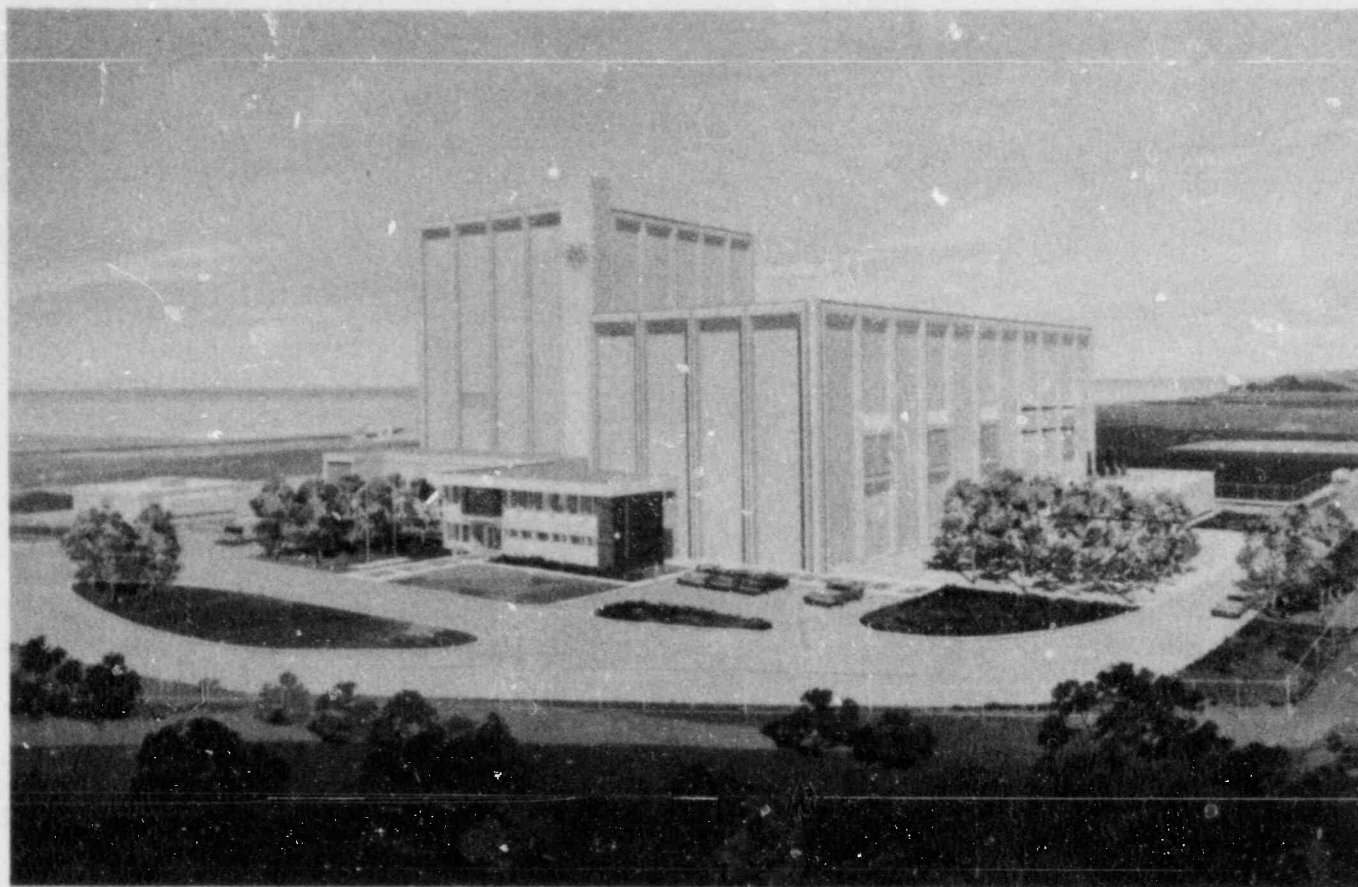


# PILGRIM NUCLEAR POWER STATION



## JOINT EMERGENCY PLAN EXERCISE

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**August 15, 1984**

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PILGRIM NUCLEAR POWER STATION

JOINT EMERGENCY PREPAREDNESS EXERCISE

AUGUST 15, 1984

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## INTRODUCTION

The Emergency Preparedness Program for the Pilgrim Nuclear Power Station (PNPS) consists of a PNPS Emergency Plan and off-site emergency plans to provide protection of plant personnel and the general public and for the prevention or mitigation of property damage that could result from an incident. Specifically, the purpose of the PNPS Emergency Plan and the Commonwealth of Massachusetts Comprehensive Emergency Response Plan is to assure that the following emergency planning objectives are achieved:

1. Effective coordination of emergency activities among all organizations having a response role.
2. Continued assessment of actual or potential consequences both on-site and off-site.
3. Effective implementation of emergency measures in the environs.
4. Continued maintenance of an adequate state of emergency preparedness.

The Emergency Plan for the PNPS is designed to be independent in its authority, implementation, accountability and responsibility of other emergency plans and procedures developed by the Company. Specific provisions of the Company's Major Emergency Plan of Operation are designated in appropriate procedures as backup to the Emergency Plan for PNPS where such backup is desirable.

The Pilgrim Nuclear Power Station (PNPS) is located on the western shore of Cape Cod Bay in the Town of Plymouth, Plymouth County, Massachusetts. The site contains approximately 528 acres owned by the Boston Edison Company. The nearest residences outside the site boundaries are approximately 2000 feet from the reactor to the northwest and southeast. The exclusion area boundary is posted and a security fence erected around the immediate station area.



The Pilgrim reactor is a boiling water reactor licensed at 1998 MW (th). A detailed description of the station and site is contained in the FSAR.

The detailed procedures implementing this plan are set forth in the PNPS Operations Manual which is the document used by plant personnel in the event of an emergency.

Other station procedures that may play a role in emergency situations include:

1. Station Abnormal Operation Procedures which describe the appropriate actions for operators in dealing with abnormal or accident situations affecting operation of the station.
2. Station Radiation Protection Procedures which provide the details to guide the emergency teams in performing tasks of radiation monitoring and control based on training of personnel in proper use of protective clothing, respiratory equipment and instrumentation. These procedures are also the basis for insuring operability and calibration of necessary equipment and instrumentation through periodic testing.
3. Unit I Safeguards Contingency Plan identifies procedures to accomplish specific, defined objectives in the event of threats or sabotage that could directly, or indirectly, endanger the public health and safety. If a sabotage operation were successful, resulting in a release of radiation, the PNPS Radiation Emergency Plan would be initiated per Federal Rule 73.55, Appendix C. The station security procedures set forth the duties of security personnel in emergency situations.

The following documents were used for guidance in development of the Emergency Plan: Provisions of 10CFR50.34; Regulatory Guide 1.70, "Standard Content and Format of Safety Analysis Reports for Nuclear Power Plants", Revision 3; Regulatory Guide 1.101, "Emergency Planning Review Guide Number

One-Revision One-Emergency Planning Acceptance Criteria for Licensed Nuclear Power Plants", dated September 7, 1979; and, "Basis for Emergency Action Levels for Nuclear Power Facilities", dated September 14, 1979; NUREG-0654, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness In Support of Nuclear Power Plants", dated November 1980.

The PNPS Joint Emergency Plan Exercise will be conducted in accordance with NRC rules to test the integrated capabilities of Boston Edison Company and Federal, State and local agencies in responding to an emergency at the Pilgrim Nuclear Power Station.

The Exercise will test the basic elements of each organization's preparedness plan by simulating an emergency resulting in off-site radiological releases which will require mobilization by the company and government agencies. The scenario is not known in advance by participants but will result in a steadily worsening situation and the declaration of all four levels of emergency classifications.

Local police, fire, civil defense, public works, selectmen and other officials have been trained in plans and procedures at sessions sponsored by Boston Edison Company for each of the involved communities. Those officials will be mobilized and local emergency operations centers will be activated.

Boston Edison Company expects that this Exercise will demonstrate the adequacy of overall emergency planning for PNPS and will provide valuable information which will be used to further improve the plans, procedures and facilities.

EXERCISE OBJECTIVES FOR PLANNED RESPONSE ACTIONS  
BY THE BOSTON EDISON  
EMERGENCY RESPONSE ORGANIZATION

BACKGROUND

Boston Edison has successfully tested integrated response to emergency conditions during full-scale joint exercises conducted in coordination with the Commonwealth of Massachusetts and eight towns in the Pilgrim Station area in 1982 and 1983.

The 1984 Joint Emergency Plan Exercise objectives have been designed to reflect the following circumstances, which will influence the nature of the scenario, and the conduct of the exercise:

- 1) Pilgrim Station will be in the ninth month of an outage which is currently scheduled to end in late September or early October;
- 2) Two new emergency response facilities (TSC and OSC) are scheduled for completion in early August; and
- 3) Agencies of the Commonwealth of Massachusetts will be fully participating in an exercise at Yankee Rowe during the week following the Pilgrim exercise. These agencies will not be taking credit for full-scale exercise participation, but will permit full-scale participation by municipalities in the Plume Exposure Emergency Planning Zone.

The primary objectives of the 1984 Joint Emergency Plan Exercise will be to test and exercise the adequacy of BECo personnel, procedures, equipment and training in the following areas:

- (1) Identification of plant conditions which correspond to the four (4) major Emergency Classifications based on Emergency Action Levels.
- (2) Response to abnormal in-plant conditions according to plant procedures.
- (3) Prompt activation of the Emergency Response Facilities (TSC, EOF, OSC).
- (4) Reliable communications between key plant personnel, state police, Civil Defense personnel, and Department of Public Health personnel according to procedure, and between the Emergency Response Facilities (Control Room, TSC, EOF and OSC).
- (5) Assessment of the impact on the public of a simulated release of radioactive material.
- (6) Recommendations to the Department of Public Health of appropriate protective actions for the public.

- (7) Response to a serious personnel injury on-site.
- (8) Ability to assess plant conditions from the TSC and to communicate with other Emergency Response Facilities.
- (9) Activation of the Media Center (Info Central) and simulated interface with the news media.
- (10) Activation of the Recovery Center.
- (11) Accountability of on-site personnel by the Security Force.
- (12) Re-entry to hostile and/or contaminated plant areas.
- (13) Notification, activation and mobilization of the U.S. Coast Guard.
- (14) Notification by Recovery Organization of INPO and other support organizations.
- (15) Evaluate logistical adequacy of the new TSC and OSC.
- (16) Activation of the AEOF, and ability to establish communications with EOF.
- (17) Demonstrate capability to develop and maintain manpower rosters for protracted operations.
- (18) Collection of environmental media for analysis.

#### Actions Not to be Tested

The following actions will not be tested during the course of the 1984 Joint Emergency Plan Exercise:

- (1) Decontamination of personnel/vehicles.
- (2) Demonstration of TLD backup capability.
- (3) Aerial plume tracking.
- (4) Post accident sampling and analysis.
- (5) ENS line communications from the TSC.



EXERCISE OBJECTIVES FOR PLANNED RESPONSE  
ACTIONS BY AGENCIES OF THE  
COMMONWEALTH OF MASSACHUSETTS

BACKGROUND

The Commonwealth of Massachusetts will be participating in a full-scale exercise with Yankee Rowe on August 22, 1984. The Pilgrim exercise will be used to prepare for the Yankee Rowe exercise. Direct participation in the Pilgrim exercise will be limited to the Massachusetts Civil Defense Agency (MCDA), the Massachusetts State Police (MSP) and the Massachusetts Department of Public Health (MDPH).

MDPH will test its ability to receive alert messages, and will deploy personnel to the EOF who will assure that a realistic test of the ability of Boston Edison engineers and MDPH radiation scientists to interface in the area of protective action recommendations can take place.

MCDA and MSP will thoroughly test alerting and communications functions. Additionally, MCDA will assure, through its Area II Headquarters, that adequate play is introduced into the off-site scenario to assure a meaningful exercise at the local level.

Actions to be Exercised--MDPH

- (1) Receipt of notification from State Police.
- (2) Mobilization and deployment of personnel to EOF.
- (3) Establishment of effective interface with MCDA, PNPS.
- (4) EOF assessment actions and development of protective action recommendations.

Actions not Planned to be Exercised--MDPH

- (1) Deployment of NIAT teams, field operations and field communications.
- (2) Ingestion pathway functions.
- (3) Dose record maintenance.
- (4) Recovery functions and stand-down procedures.
- (5) State/Federal interface.

Actions to be Exercised --MCDA/MSP

- (1) Demonstrate the receipt and verification of notification from the plant by the State Police and State Police notification to State and Locals.
- (2) Demonstrate communications capabilities between MCDA Area 2 and local EPZ communities.
- (3) Provide support to local exercise functions through Area 2 MCDA Headquarters.

Actions not Planned to be Exercised--MCDA/MSP

The balance of state emergency response functions, including EOF operations, support of reception center activities, coordination of state agency activities, mobilization of emergency personnel, command and control functions, and support of the prompt alert process including EBS activation will not be exercised.

EXERCISE OBJECTIVES FOR PLANNED RESPONSE  
ACTIONS BY AGENCIES OF LOCAL GOVERNMENT

ACTIONS PLANNED TO BE EXERCISED

- (1) Demonstrate exposure control for emergency personnel by proper use of equipment/instruments.
- (2) Demonstrate that local emergency response managers possess and utilize capability to assure that emergency activities are coordinated internally and with adjacent jurisdictions.
- (3) Demonstrate the effectiveness of EOC operations, including a capability to maintain effective communications with emergency forces and MCDA Area 2 Headquarters.

ACTIONS NOT PLANNED TO BE EXERCISED

- (1) Protracted operations.
- (2) Actual evacuation of the public or of special populations.
- (3) Activation of registration and monitoring capabilities in two reception centers.
- (4) Actual activation of siren system (A Federally monitored test of the siren system is scheduled for October 11, 1984).

PILGRIM NUCLEAR POWER STATION

1984 JOINT EMERGENCY PLAN EXERCISE SCHEDULE

Tuesday, August 14, 1984

10:00 AM - I&S Bldg.	Orientation for State, Federal and BECo controllers and observers
11:00 AM	Tour of Emergency Response Facilities.
12:00 Noon	Lunch.
1:30 PM	Presentation of exercise scenario and features by Boston Edison and State Officials.
2:30 PM	NRC, utility observers remain for review of Controller/Observer checklists. Detailed review of Emergency Procedures and facilities.
4:00 PM	Adjourn.

Wednesday, August 15, 1984

8:00 AM	Observers, Controllers on-site. Exercise commences.
3:00 PM (approximate)	Exercise termination.
4:00 PM	Utility Controllers/Observers and key participants assemble in I&S Bldg. for review and correlation of findings.



Thursday, August 16, 1984

9:00 AM

Utility Controllers/Observers and  
Emergency Center Supervisors assemble in  
I&S Bldg. for review of findings  
presentation.

1:00 PM

NRC Observers join utility officials.  
Utility presents summary of  
observations. NRC presents  
observations, summary of findings.

3:00 PM

Federal, State, local and Utility  
officials meet at Memorial Hall to  
summarize observations and present  
feedback.

## DEFINITIONS AND ABBREVIATIONS

### Functional Definitions:

Assessment Actions - those actions taken during or after an accident to obtain and process information that is necessary to make decisions to implement specific emergency measures.

Control Room Emergency Communicator - designated individual assigned by the Watch Engineer at the time of an emergency to make mandatory notifications to key personnel and off-site agencies.

Public Information Director - designated on-site individual responsible for providing information to the Public Information Manager On-Call at the off-site Media Center. The Public Information Director is assigned to the Emergency Operations Facility to allow intimate exposure to the station conditions.

Emergency Action Levels - radiological dose rates; specific contamination levels of airborne, waterborne or surface-deposited concentrations of radioactive materials; or specific instrument indications (including their rates of change) that may be used as thresholds for initiating such specific emergency measures as designating a particular class of emergency, initiating a notification procedure or initiating a particular protective action.

Emergency Classification - the characterization of several classes of emergency situations consisting of mutually exclusive groupings and includes the entire spectrum of possible radiological emergencies. The four classes of emergencies used in the Emergency Plan are (in order of increasing severity) (1) Unusual Event, (2) Alert, (3) Site Emergency, and (4) General Emergency. A fifth emergency class, Personnel Emergency, is not included in the activation/mobilization procedures because it has no potential for escalation to a more severe emergency.

Emergency Communications Coordinator - designated on-site individual responsible

for coordinating on-site and off-site communications from the Emergency Operations Facility and for assigning members of the emergency communications staff to man the various communications equipment as necessary. He will also direct the assignment of emergency telephones to individuals and groups as necessary.

Emergency Director - designated on-site individual having the responsibility and authority for classifying the emergency and implementing the Pilgrim Nuclear Power Station (PNPS) Emergency Plan and who will direct efforts to limit the consequences of the emergency and bring it under control.

Emergency Operations Facility (EOF) - a designated location from which the site emergency activities will be controlled. This near-site EOF is located in trailers and will have available space for designated State, Federal, local and other emergency response groups. The BECo Recovery Organization may elect to house a technical support group or other essential personnel at the near-site EOF.

Emergency Preparedness Coordinator - designated BECo individual having the responsibility as part of the Recovery Organization to assist in coordinating the activities at the Emergency Operations Facility, to interface with selected local, State and Federal Agencies that may become involved in the emergency, and to provide additional personnel and technical assistance from off-site BECo sources, as required by the Emergency Director, to cope with the emergency. The Emergency Preparedness Coordinator reports directly to the Recovery Manager.

Emergency Security Supervisor - designated individual responsible for implementing the PNPS Security Plan, performing personnel accountability and implementing access control to the site and the Control Room.

Exercise Controller - a BECo employee trained and authorized to observe the performance of exercise participants and provide simulated data as required. A Controller does not take part in the actions required by Emergency Plan Procedures.

Exercise Coordinator - the designated individual who is responsible for coordinating observations and information from BECo Exercise Controllers and Controller/Observers from off-site agencies. The Exercise Coordinator determines when each phase of the exercise should be initiated and has overall direction of the Exercise. It is the responsibility of the Exercise Coordinator to insure that all planned phases of the exercise are executed and all aspects of BECo and off-site plans exercised.

Exercise Observer - an individual who is authorized to observe the actions of exercise participants. An Observer is not allowed to participate in the exercise.

Exercise Participant - an individual who is a member of the BECo staff or an off-site agency who participates in the exercise as if he/she were involved in an actual emergency situation.

Implementing Procedures - specific procedures found in the Emergency Procedures Manual (Volume 5 of the Operations Manual) providing step-by-step actions to implement the Emergency Plan in order to assess, mitigate or terminate an emergency situation.

Manpower Coordinator - designated on-site individual responsible for assigning and allocating manpower to job functions required during emergency operations. The Manpower Coordinator is assigned to the Emergency Operations Facility.

Operations Support Center - a primary operations support area for shift personnel, allowing them to be in direct communication with the Control Room for assignment of duties in support of emergency operations.

Physicians Assistant Certified - on-site individual responsible for first aid treatment of injured persons.



Projected Dose - a calculated or estimated dose that would be received by individual(s) from radiation from a radioactive gaseous plume resulting from a radiological emergency if no protective actions were taken.

Protective Actions - those emergency measures taken for the purpose of preventing or minimizing radiological exposure.

Protective Action Guides (PAG) - projected radiological dose or dose commitment values to individuals in the general population that warrant protective action. Protective actions would be warranted provided the reduction in individual dose expected to be achieved by carrying out the protective action is not offset by excessive risks to individual safety in taking the protective action. The PAG does not include the dose that has unavoidably occurred prior to the assessment.

Public Information Manager On-Call - designated individual having the responsibility of managing activities at the off-site Media Center. Serves as direct interface between representatives of the news media and BECo personnel.

Radiological Emergency Team Coordinator - designated on-site individual having the responsibility for direction of actions performed to assess the off-site consequences of actual or projected releases of radioactive materials. This includes the calculation, estimation and measurement of dose rates and projected total doses to any off-site individual. The RETC is also responsible for controlling and limiting doses to on-site personnel during normal and accident conditions.

Recovery Manager - a designated BECo manager or corporate officer who will direct the emergency recovery effort, but may elect to move some of his organization to the EOF. The Recovery Manager ordinarily will coordinate the Nuclear Organization and other resources from a designated Recovery Center at Braintree.

Technical Support Center - a center outside of the Control Room that will supply technical information for use by technical and designated management personnel in support of reactor command and control functions during emergency conditions.

Watch Engineer - the on-shift individual in charge of plant operations.

Abbreviations:

Certain key participants are provided with colored and lettered hats to identify them easily.

The color/letter coding is as follows:

<u>Function</u>	<u>Letter Codes</u>	<u>Color</u>
<u>Participants</u>		
Watch Engineer	WE	Green
Control Room Emergency Communicator	CREC	Green
Technical Support Center Supervisor	TSC	Green
Operations Support Center Supervisor	OSC	Green
Emergency Director	ED	Green
Radiation Emergency Team Coordinator	RETC	Green
Emergency Communications Coordinator	ECC	Green
Emergency Security Supervisor	ESS	Green
Public Information Director	PID	Green
Manpower Coordinator	MC	Green
Physicians Assistant Certified	PAC	Green
Public Information Officer	PIO	Green
Public Information Manager On-Call	PIM	Green
Recovery Manager	RM	Green
<u>Controller</u>	No Code	Red
<u>Observers</u>	No Code	Blue
<u>NRC Observers</u>	NRC	Yellow
<u>FEMA Observers</u>	FEMA	Yellow
<u>MDPH Observers</u>	MDPH	Yellow
<u>MCDA Observers</u>	MCDA	Yellow

## EMERGENCY ORGANIZATION

Key positions and primary functions of the PNPS  
Emergency Organization are as follows:

### 1. Emergency Director

- a. The Emergency Director is responsible for overall direction of the PNPS emergency response effort.
- b. The Watch Engineer, initially acting as Emergency Director, is responsible for declaring and properly classifying an emergency.
- c. Following activation of the emergency organization, the Station Manager is normally the Emergency Director with the Chief Operations Engineer serving as the primary alternate.
- d. The Emergency Director is normally located in the Emergency Operations Facility (EOF).

### 2. Radiation Emergency Team Coordinator (RETC)

- a. The RETC is responsible for directing the various emergency teams and for directing the radiological assessment effort both in the environment and in the plant.
- b. The RETC reports to the Emergency Director.
- c. The RETC is normally the Chief Radiological Engineer with members of the Health Physics Management staff serving as alternates.
- d. If an emergency is declared outside normal work hours, the on-shift Health Physics Technician will function as the RETC until relieved by one of the above individuals.
- e. The RETC is normally located in the Emergency Operations Facility (EOF).

### 3. Emergency Communications Coordinator

- a. The Emergency Communications Coordinator is responsible for coordinating on-site and off-site communications from the Emergency Operations Facility and for assigning members of the emergency communications staff to man the various communications equipment as necessary. He shall also direct the assignment of emergency telephones to individuals and groups as necessary.
- b. The Emergency Communications Coordinator reports to the Emergency Director.
- c. The Emergency Communications Coordinator is normally the Nuclear Operations Support Manager with members of the emergency communications staff serving as alternates.
- d. The Emergency Communications Coordinator is normally located in the EOF.



4. Technical Support Center (TSC) Supervisor

- a. The TSC Supervisor is responsible for providing technical assistance to the Watch Engineer to eliminate or mitigate an emergency situation. He is responsible for providing direction to the TSC staff in order to perform this function. The TSC staff consists of 1 or more engineers from the various PNPS groups.
- b. The TSC Supervisor reports to the Emergency Director but interacts directly with the Watch Engineer.
- c. The TSC Supervisor ensures all on- and off-site calls to the Control Room are coordinated through the TSC and that the ENS line is maintained open.
- d. The TSC Supervisor is normally the On-Site Safety and Performance Group Leader, with the Chief Technical Engineer serving as primary alternate.
- e. The TSC Supervisor is normally located in the Technical Support Center during an emergency.

5. Watch Engineer

- a. The Watch Engineer is responsible for initially recognizing, declaring and properly classifying the emergency. Functioning initially as the Emergency Director, he is responsible for initiating the immediate response emergency procedures. He is always responsible for all activities taken to control and/or shutdown the reactor and directing the operating staff in these activities.
- b. The Watch Engineer reports to the Emergency Director.
- c. The Watch Engineer is normally located in the Control Room during an emergency.

6. Operations Support Center (OSC) Supervisor

- a. The OSC Supervisor is responsible for assigning the proper members of the OSC staff to perform functions as requested by the Watch Engineer. (The OSC staff consists of 1 or more technicians from the various plant groups).
- b. The OSC Supervisor reports to the Emergency Director but interacts directly with the Watch Engineer and Technical Support Center Supervisor as necessary.
- c. The OSC Supervisor is normally located in the Operations Support Center during an emergency.

## B. Recovery Organization

### 1. Recovery Manager

- a. The Recovery Manager is responsible for the overall direction of the emergency recovery effort.
- b. The Vice President-Nuclear Engineering & Quality Assurance is normally the Recovery Manager with the Nuclear Management Services Manager serving as the primary alternate.
- c. The Recovery Manager is normally located in the designated Recovery Center in Braintree.

### 2. Emergency Preparedness Coordinator

- a. The Emergency Preparedness Coordinator is responsible for initiating activation of the Recovery Organization, coordinating activities between the Recovery Center and the Emergency Operations Facility (EOF), and directing the Recovery Center Communicators.
- b. The Emergency Preparedness Coordinator reports to the Recovery Manager, and his alternate is the Senior Radiation Protection Engineer.
- c. The Emergency Preparedness Coordinator is normally located in the designated Recovery Center in Braintree.

### 3. Public Information Officer

- a. The Public Information Officer is responsible for acting as the Company spokesperson for policy and non-technical issues, and for coordinating the content of press releases with the Emergency Director, the State officials at the EOF and the Company's Chief Technical Spokesman.
- b. The Public Information Officer is normally the Vice President-Corporate Relations, and his alternate is the Public Information Department Manager (Public Information Director).

### 4. Public Information Director

- a. The Public Information Director is responsible for the coordination and timely distribution of information from the Emergency Operations Facility (EOF), through Information Central (the Media Center at Plymouth Memorial Hall) and Prudential Information (Public Information Department headquarters). He is also responsible for the overall coordination and efforts of the EOF, Information Central and Prudential Information.

- a. The Public Information Director is normally the Manager of the Public Information Department, and reports to the Public Information Officer.
  - c. The Public Information Director is normally located in the Emergency Operations Facility.
- 5. Chief Technical Spokesman
  - a. The Chief Technical Spokesman is responsible for acting as the Company spokesperson for technical and operational issues, and for coordinating the technical and operational content of news release with the Emergency Director and Public Information Officer.
  - b. The Chief Technical Spokesman is normally the Vice President-Nuclear Operations, and his alternate is the Staff Assistant to the Vice President-Nuclear Operations.
  - c. The Chief Technical Spokesman reports to the Public Information Officer.

## EMERGENCY FACILITIES

The PNPS Emergency Response Facilities consist of the Emergency Operations Facility (EOF), Technical Support Center (TSC), and Operations Support Center (OSC). In addition, the Media Center will be activated for an Alert (in certain instances), Site or General Emergency. These facilities are described below.

### A. Emergency Operations Facility (EOF)

1. The EOF consists of trailers located approximately 1500 feet west of the Reactor Building.
2. The EOF has accommodations for:
  - a. Emergency Director
  - b. Radiation Emergency Team Coordinator
  - c. BECo Environmental Assessment Engineers
  - d. Federal and State Environmental Assessment Engineers
  - e. Emergency Communications Coordinator and Staff
  - f. Public Information Director and Staff
  - g. Recovery Organization members and other off-site support personnel
  - h. NRC and FEMA officials
  - i. Medical support personnel
3. The EOF has facilities and equipment for:
  - a. Personnel and environmental monitoring teams
  - b. Primary and backup communications with off-site agencies and support groups
  - c. Off-site dose rate estimates and dose projections
  - d. First-aid
  - e. Personnel decontamination
  - f. Rest-rooms
  - g. Monitoring radiological conditions in the EOF

4. The EOF is where the on-site emergency response direction and environmental dose assessment will be performed.
5. The EOF may also function as a long-term recovery center.
6. If the EOF has to be evacuated, the staff goes to the Alternate Emergency Operations Facility (AEOF) located in the AREA II, Massachusetts Civil Defense Agency Headquarters in Bridgewater. (When the EOF is activated and fully manned, a site representative is dispatched to the AEOF to maintain communications with the Control Room and off-site agencies if the primary EOF is evacuated).

B. Technical Support Center (TSC)

1. The TSC is located on the ground floor of the new Administration Building.
2. The TSC has the capability to display plant status parameters and transmit this information to those individuals who are knowledgeable of and responsible for the engineering and management support of reactor operations in the event of an accident.
3. The TSC staff furnishes the Control Room staff with diagnostic and engineering assistance to better control and mitigate the consequences of an accident.
4. The TSC will be the primary communication link with the Control Room.
5. In the event the TSC must be evacuated, an area within the Control Room will be designated as the alternate TSC.
6. The TSC is staffed by engineers from the various PNPS groups.
7. The TSC has the facilities and capabilities for:
  - a. Accessing, displaying and printing various plant parameters via the process computer.
  - b. Trending various safety-related parameters.
  - c. Communications with all emergency response facilities and off-site support groups. This includes a dedicated link between



the TSC, Control Room, and Emergency Operations Facility.

- d. Transmitting (teletype) information to off-site support personnel.
  - e. Monitoring radiological conditions in the TSC.
  - f. Accessing PNPS P&ID's and procedures.
- c. Operations Support Center
- 1. The OSC is located on the ground floor of the new Administration Building adjacent to the TSC.
  - 2. The OSC staff consists of the OSC supervisor and technicians from various plant groups.
  - 3. The OSC staff supports station emergency operation and recovery functions as directed by the Watch Engineer.
  - 4. If the OSC has to be evacuated, an area adjacent to the Control Room may be designated as the alternate OSC.
  - 5. The OSC staff has ready access to:
    - a. Communications equipment;
    - b. Protective clothing;
    - c. Radiological monitoring equipment; and,
    - d. Maintenance shop, including tool storage area.
- D. Media Center
- 1. The Media Center is located in Plymouth Center at the Memorial Hall building.
  - 2. The Media Center staff consists of Boston Edison Public Information Department personnel.
  - 3. The Media Center has accommodations for:
    - a. Massachusetts Department of Public Health (MDPH) Public Information personnel;
    - b. Massachusetts Civil Defense Agency (MCDA) Public Information personnel;

- c. Nuclear Regulatory Commission (NRC) Public Information personnel; and,
  - d. News media personnel.
- 4. The Media Center staff receives factual and timely reports from the Public Information Director at the Emergency Operations Facility (EOF).
- 5. The Media Center functions as the central location where the news media can receive information concerning an emergency situation.
- 6. If the Media Center has to be evacuated, it is relocated to the Area II, Massachusetts Civil Defense Agency Headquarters in Bridgewater.
- 7. The Media Center has the following equipment to support communications and media operations:
  - a. Expandable telephone capabilities;
  - b. Telecopier capability to the EOF;
  - c. Reproduction capability;
  - d. Radio and television monitoring capabilities;
  - e. Power supplies for extensive electronic media needs; and,
  - f. Provisions for access control, credential validation, feeding and conduct of press conferences.

## NARRATIVE SCENARIO -- 1984 EXERCISE

### PRE-EXERCISE PLANT CONDITIONS

- A severe storm is occurring in Plymouth Bay.
- Unknown to the Watch Engineer, an interharbor tanker carrying #6 Bunker crude oil breaks up offshore and a large undiluted mass of oil is moving toward the PNPS intake structure.
- The operator is in the process of removing RHR Loop A from service for maintenance. All associated equipment has been tagged out except valve MOV 1001-29A. The control room has been requested to close this valve. The control room operator erroneously closes MOV 1001-29B which jams in the closed position causing an electrical fault which trips the feeder breaker from power center B6 to MCC B20. The Watch Engineer recognizes this error immediately and directs the operators to reopen MOV 1001-29B. This attempt fails. The Watch Engineer then directs the operator to restore Loop A to service. Operations is unable to restore the feed to MCC B20. Maintenance is called in to troubleshoot MCC B20.

### EXERCISE COMMENCES

- \*POA\* - The Watch Engineer declares an Unusual Event in accordance with Procedure 5.7.1.2 Item 4 f. (loss of ECCS systems requiring plant shutdown). The Watch Engineer assumes the duties of Emergency Director until relieved of such duties by higher authority.
- The Watch Engineer initiates plant shutdown according to Operating Procedure 2.1.5 section F.
- The operators restore RHR loop A to the extent possible but are unable to open the valves fed from the failed motor control center MCC B20.

NOTE: MCC B20 provides power to the following valves:

MOV 1001-28A and 1001-28B RHR injection valves  
MOV 1001-29A and 1001-29B RHR injection valves  
MOV 1001-63 Head spray inboard isolation valve  
MOV 1001-19 RHR crossconnect valve

- Oil enters the intake structure and is pumped through the seawater and salt service water pumps and adheres to heat transfer surfaces of the main condenser and salt service water system components resulting in reduced heat transfer capacity and resulting reduction of main condenser vacuum.

NOTE: POA = Probable Operator Action

- \*POA\* - The Emergency Director (Watch Engineer) upgrades the Unusual Event classification to an Alert classification in accordance with procedure 5.7.1.3 Item 4.d. (Natural phenomena that could potentially impair ECCS capability).
- A reactor scram occurs due to the reduction of main condenser vacuum.
- The turbine trips as a result of the reactor scram approximately 20 seconds later.
- \*POA\* - Operator recall is initiated. All operators return to the Control Room.
- \*POA\* - The operator controls reactor water level according to normal scram procedure
- The scram instrument volume drain valve jams in the open position and reactor water drains into the reactor building sump at a rate of approximately 100 gpm.
- The turbine bypass valves close due to continuing loss of main condenser vacuum (7 inches Hg indicated).
- \*POA\* - The operator will control pressure by using a safety relief valve or HPCI.
- Reactor Building Normal Range effluent monitor indicates 10,000 counts per second on both gaseous channels.
- \*POA\* - The Emergency Director (Watch Engineer) upgrades the Alert classification to a Site Area Emergency classification in accordance with procedure 5.7.1.4 Item 3 (offsite projected doses in excess of 1 Rem whole body or 5 Rem thyroid using actual meteorology).
- Reduction of RBCCW cooling capacity (due to oil blockage and fouling) results in high drywell temperature and pressure (greater than 2 1/2 psi)
- The Standby Gas Treatment Systems starts.
- Core Spray, RHR pumps, diesel generators (and HPCI, if not already running due to operator action) start on high drywell pressure. HPCI now injects water into the vessel.
- All systems served by RBCCW and TBCCW indicate increasing temperatures.
- Torus water temperature begins to rise due to steam addition and reduced cooling capacity of the RBCCW heat exchanger.

- The salt service water pumps trip out as a result of oil blockage in the pump discharge header.
- HPCI trips out on high reactor water level.
- The CRD pumps trip out as a result of loss of RBCCW cooling water to the pump thrust bearing coolers.
- The condensate pumps and instrument air compressors trip out or are unavailable due to loss of cooling to motor bearings and jacket cooling.
- The reactor feed pumps trip out or are unavailable due to insufficient NPSH.
- Reactor water level decreases slowly due to continued leakage from the scram discharge volume drain valve over a period of about 30 minutes.
- \*POA\* - The operator attempts to start RCIC but the steam inlet valve relay fails to open the valve.
- \*POA\* - The operator attempts to restart HPCI but is unable to due to elevated temperatures in the HPCI Quadrant resulting from steam leakage into the reactor building sump.
- \*POA\* - With high pressure systems unavailable for service, the operator depressurizes the reactor using the ADS system.
- The operating core spray pumps seize as a result of loss of cooling to the thrust bearings.
- \*POA\* - The Emergency Director upgrades the Site Emergency classification to a General Emergency classification in accordance with procedure 5.7.1.4 item 7b. (loss of ability to reliably maintain water over the reactor core).
- The reactor core is uncovered - fuel damage occurs.
- The operator attempts to put water into the reactor using alternate injection paths identified below but is unsuccessful for various reasons:
  - o Reactor pressure is high enough to prevent injection through the keepfill lines from the condensate transfer system.
  - o Attempts to inject water into the vessel Head Spray line fail because injection valve MOV 1001-63 is fed from failed MCC B20.
  - o Attempts to inject water using the standby liquid control system fail because both squib valves fail to fire when energized.



- o Time does not allow hooking up hoses to inject water using the fire water system
- All efforts are directed at restoring MCC B20 (23' el. - Reactor Building).

#### RESTORATION

- Maintenance corrects the feeder breaker fault and restores power to MCC B20.
  - The operator restores water level using the RHR system.
  - Releases terminate.
  - A decoagulant injected into the salt service water system causes the oil fouling to disperse and restores plant cooling capability.
- 

#### MEDICAL EMERGENCY PHASE

At some time during the general emergency phase of the Exercise, the Emergency Director will suffer a heart attack and become unavailable. In addition several slightly contaminated, but uninjured plant personnel will be brought to the EOF for decontamination.

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#### OFF-SITE ACTIVITIES

Dose projection based upon the above scenario should result in Bonton Edison recommending and off-site authorities directing protective actions for an area of at least 5 miles in three down-wind sectors. Simulated meteorology will be used to assure that projected dose estimates will warrant such actions. If assessment errors result in a situation which would preclude meaningful exercise by local agencies, EOF controllers will modify the situation on an "EOF-out" basis.

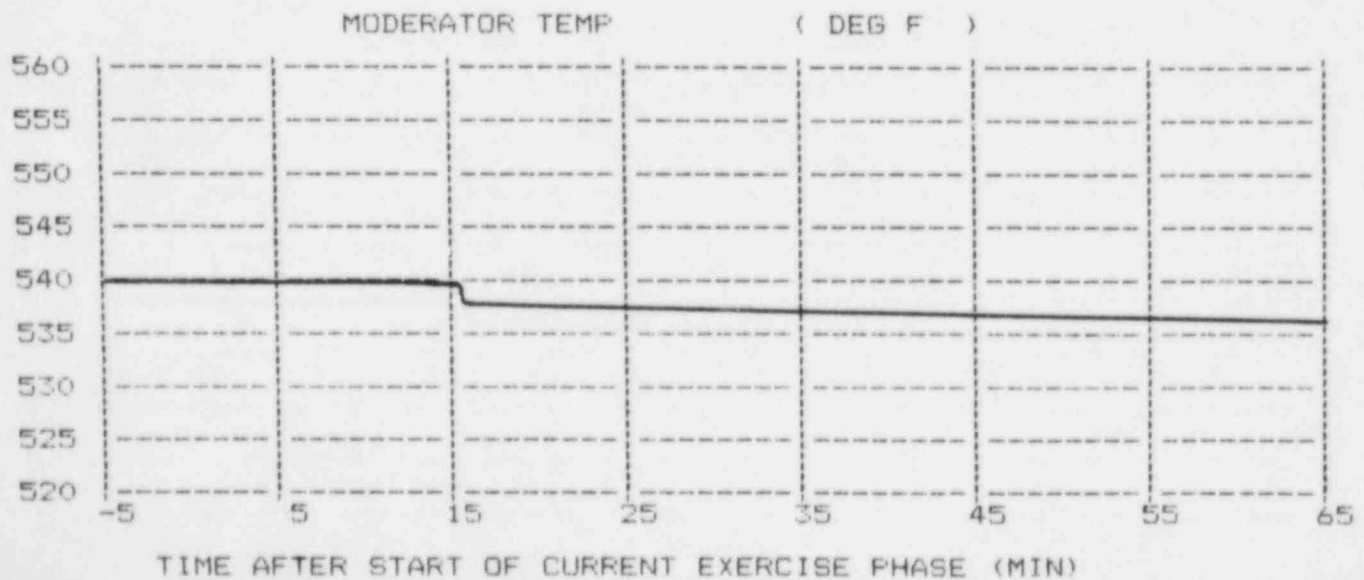
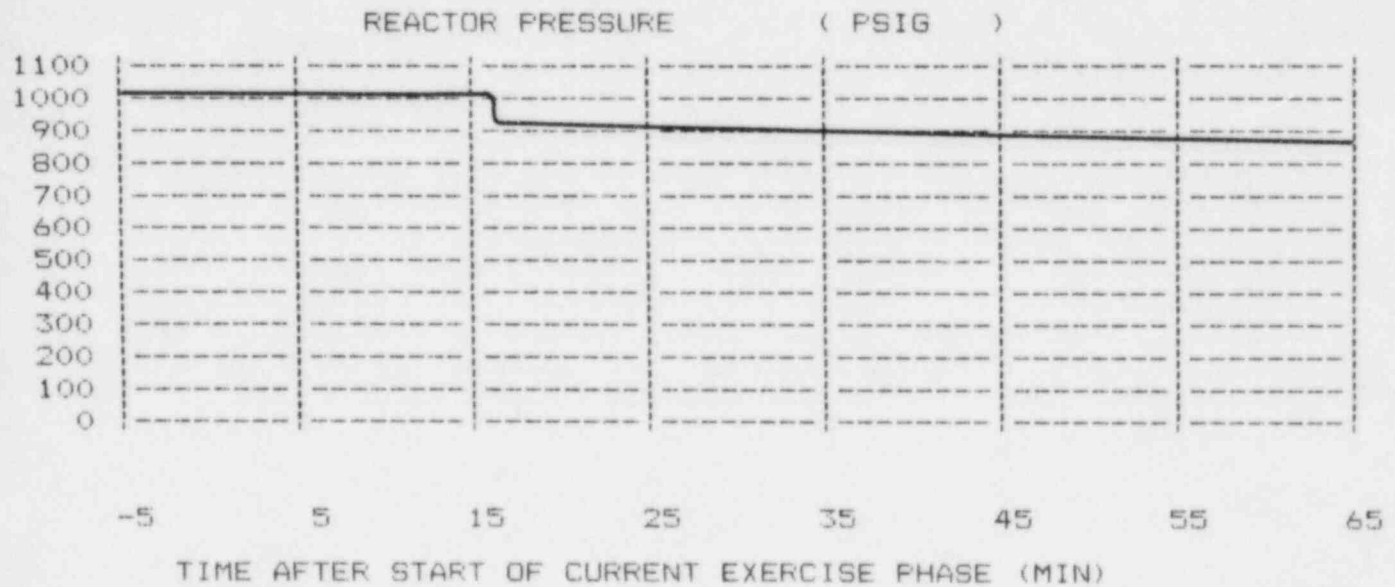
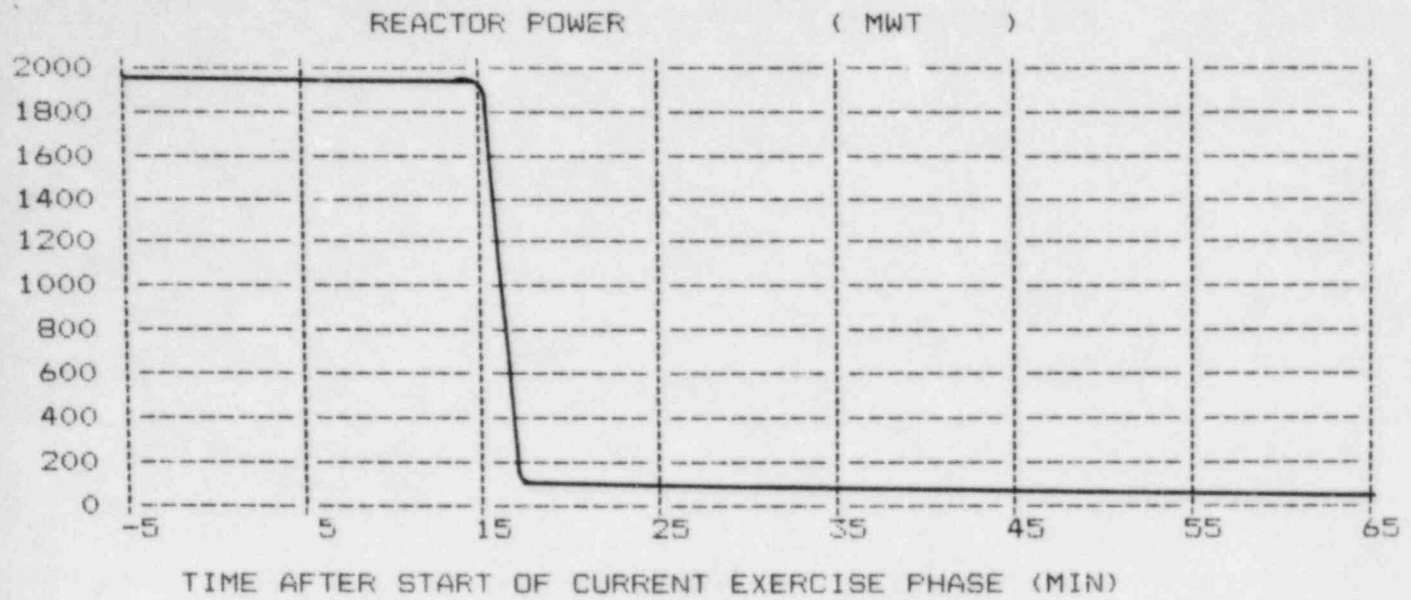
### SCENARIO PARAMETERS

1. Station Instrument Readings
2. Offsite Dose Maps
3. Emergency Action Levels

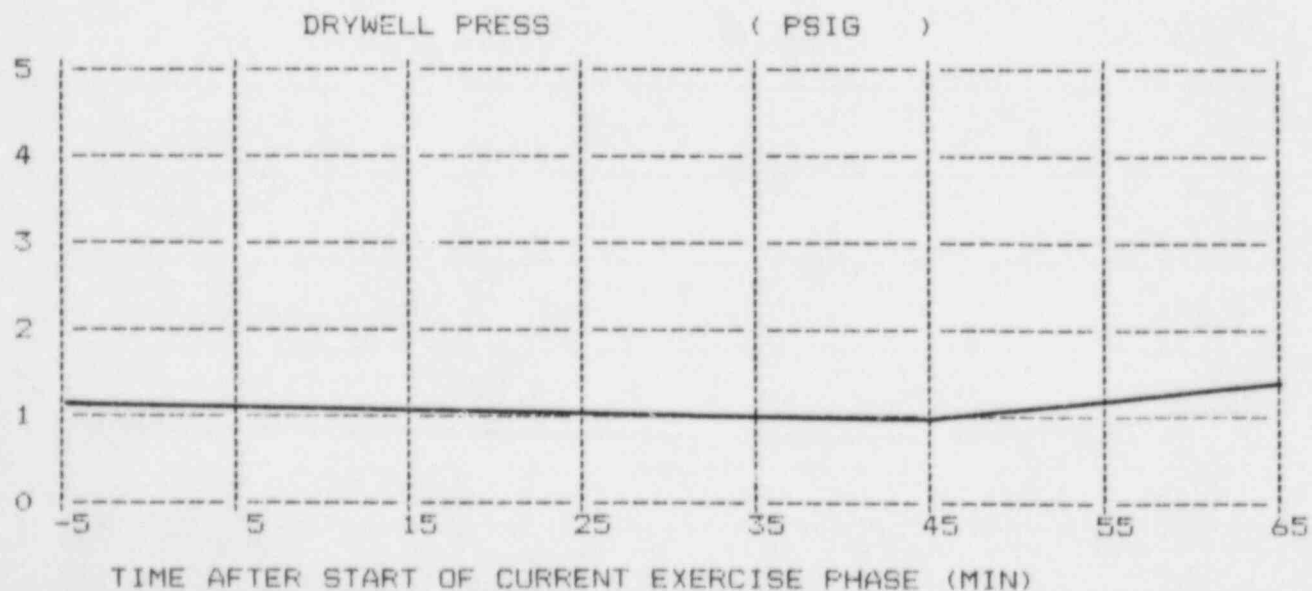
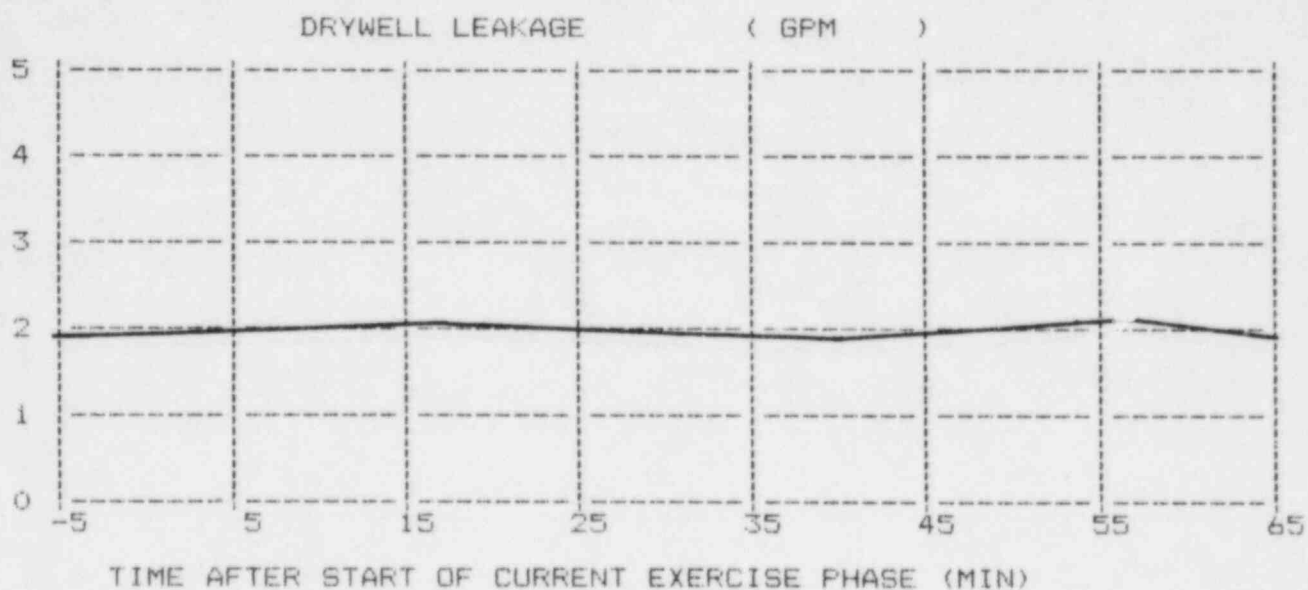
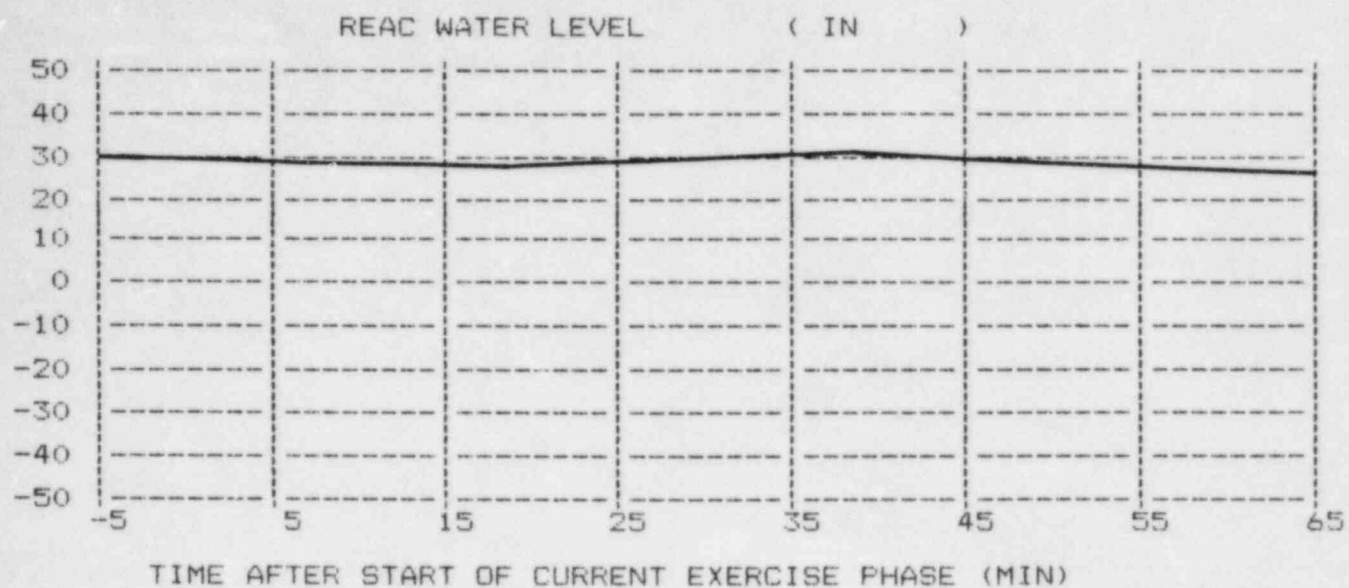
## 1. Station Instrument Readings

The following 20 pages present the station instrument readings in graphical format for each of the 6 phases of the exercise. In many cases, parameters are constant during a phase but are presented for consistency.

# PLANT PARAMETERS FOR EXERCISE PHASE 1-UNUSUAL EVENT

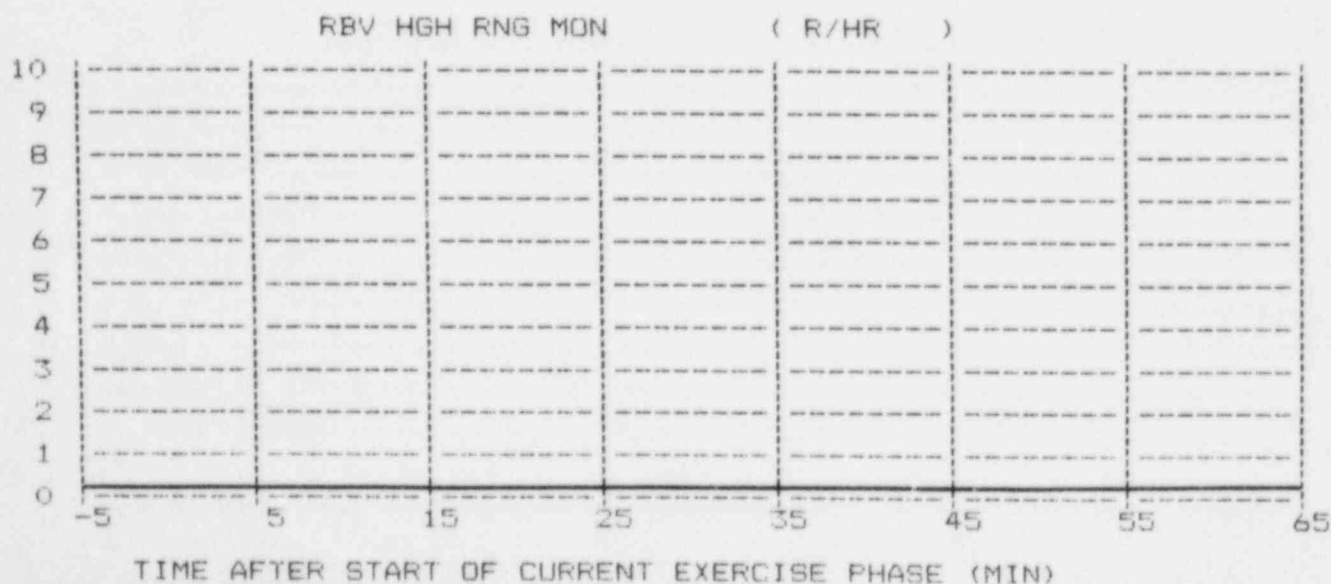
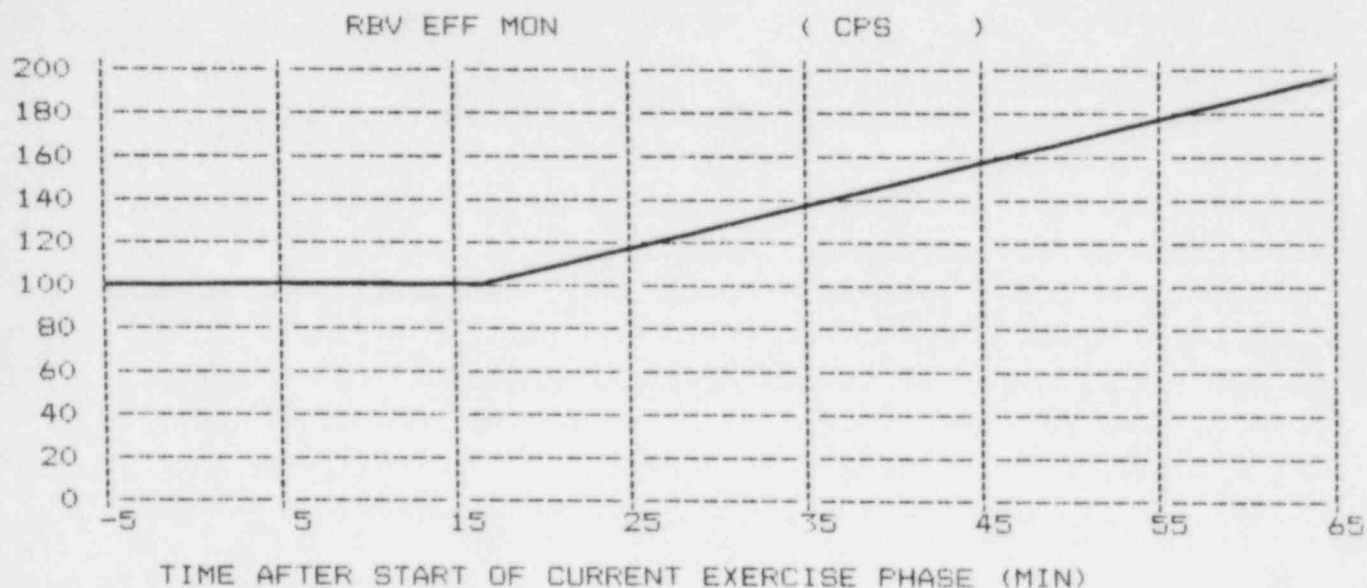
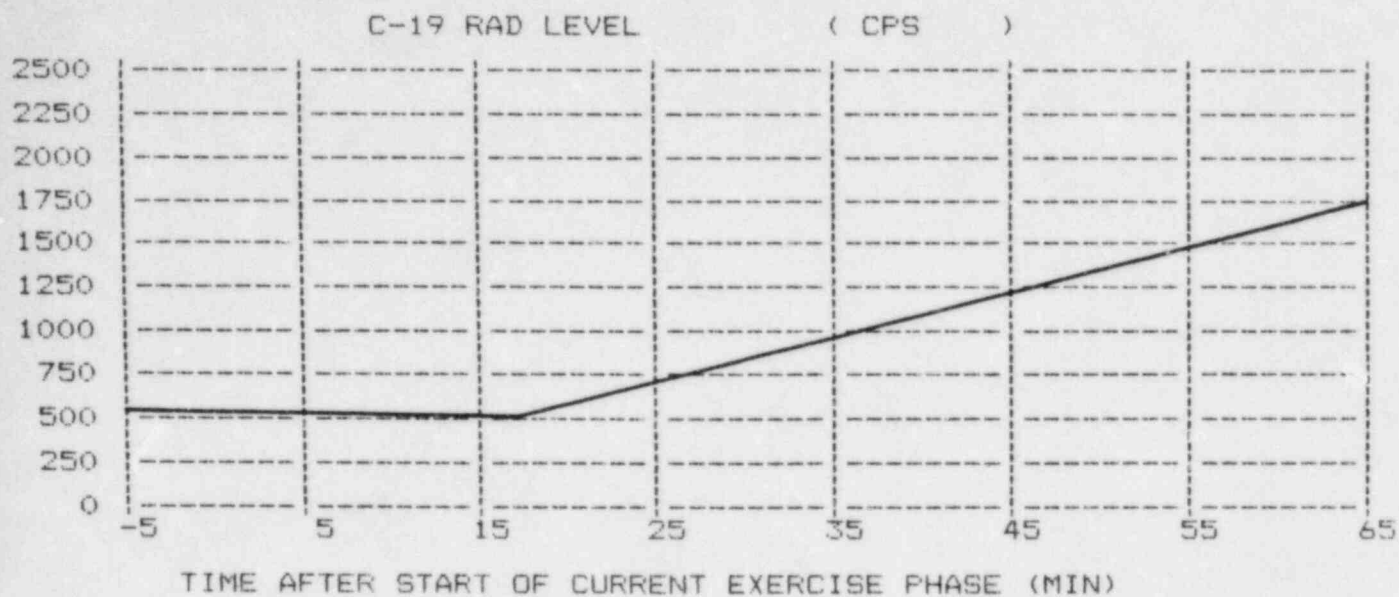


# PLANT PARAMETERS FOR EXERCISE PHASE 1-UNUSUAL EVENT

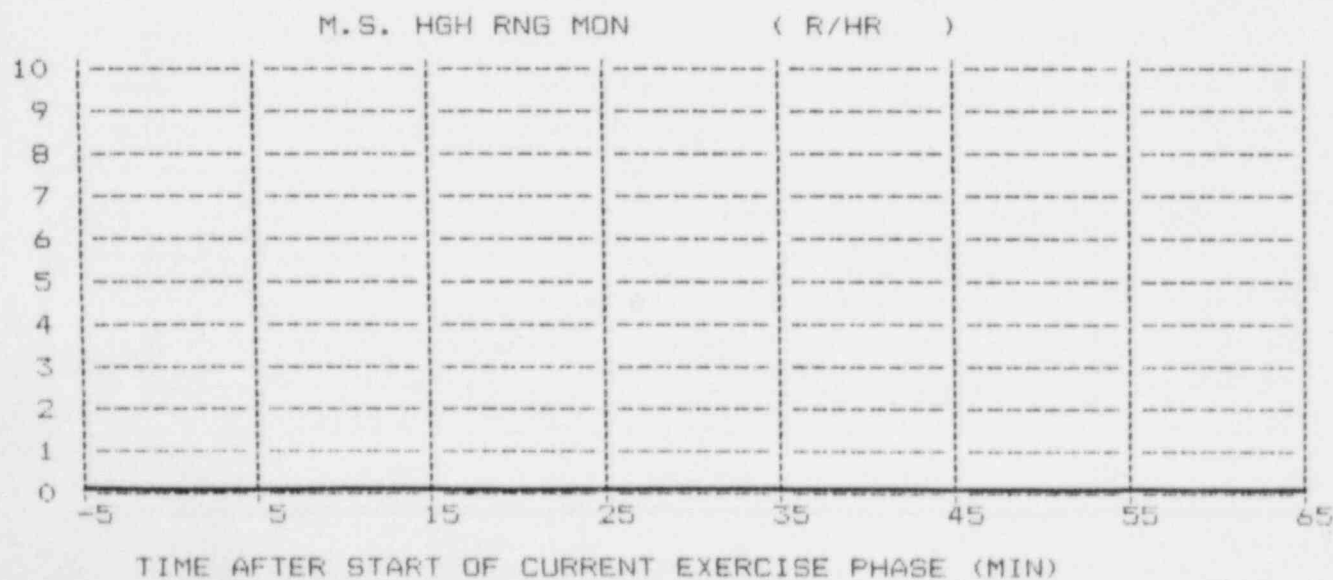
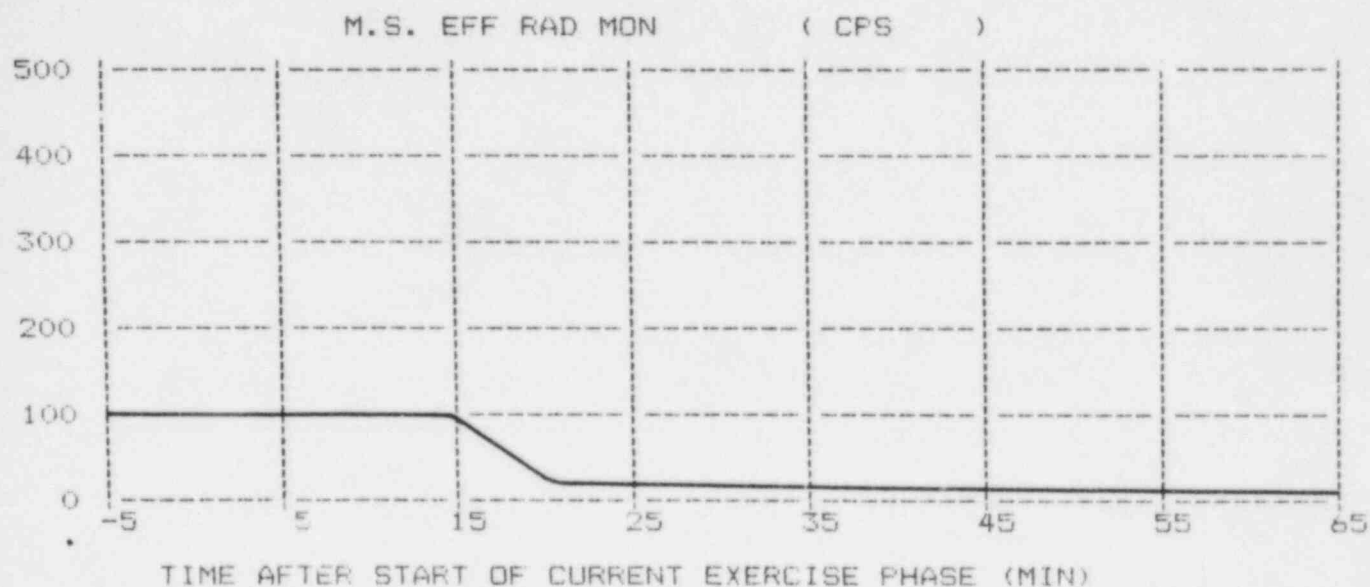
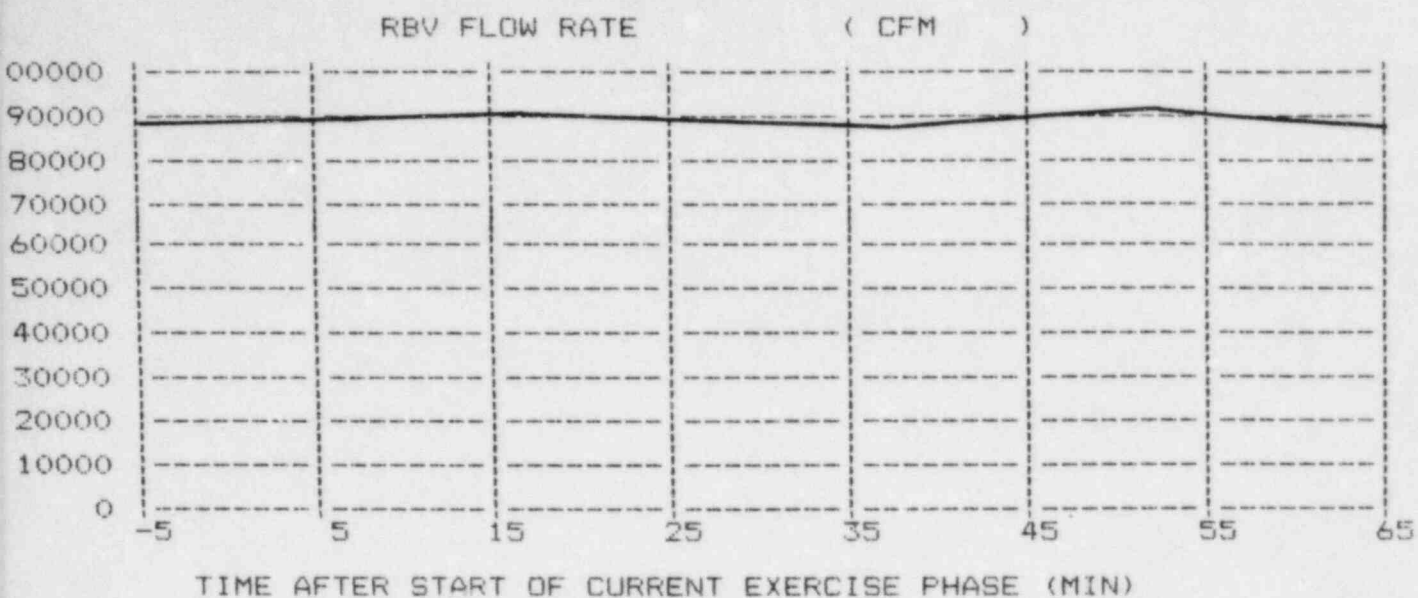




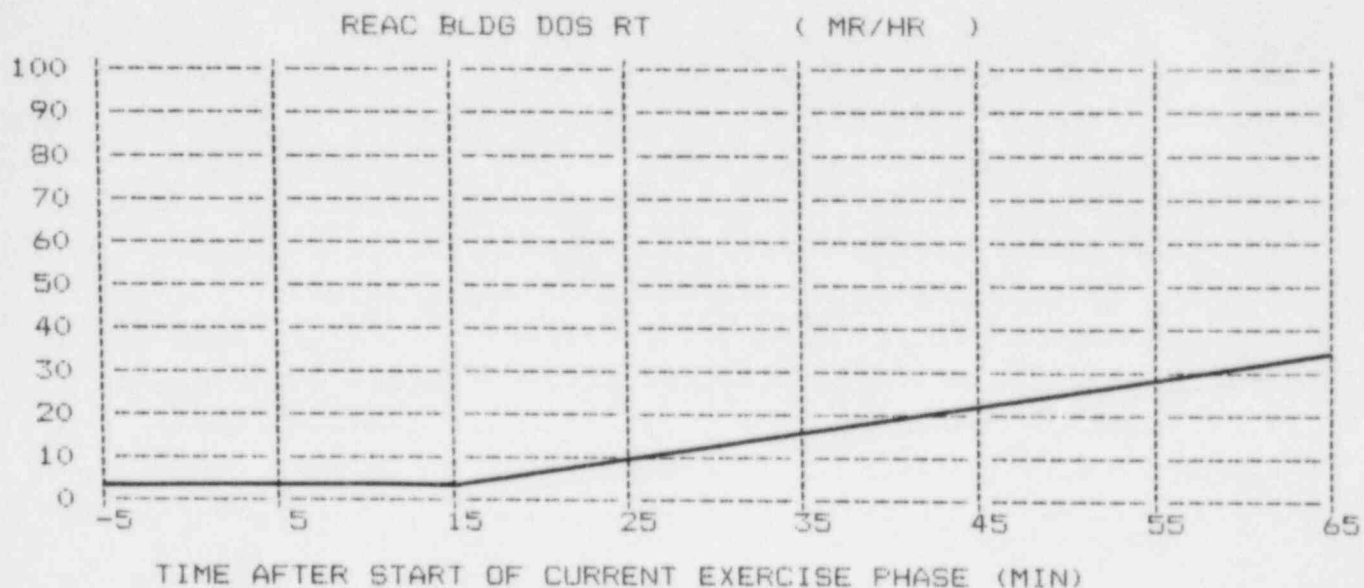
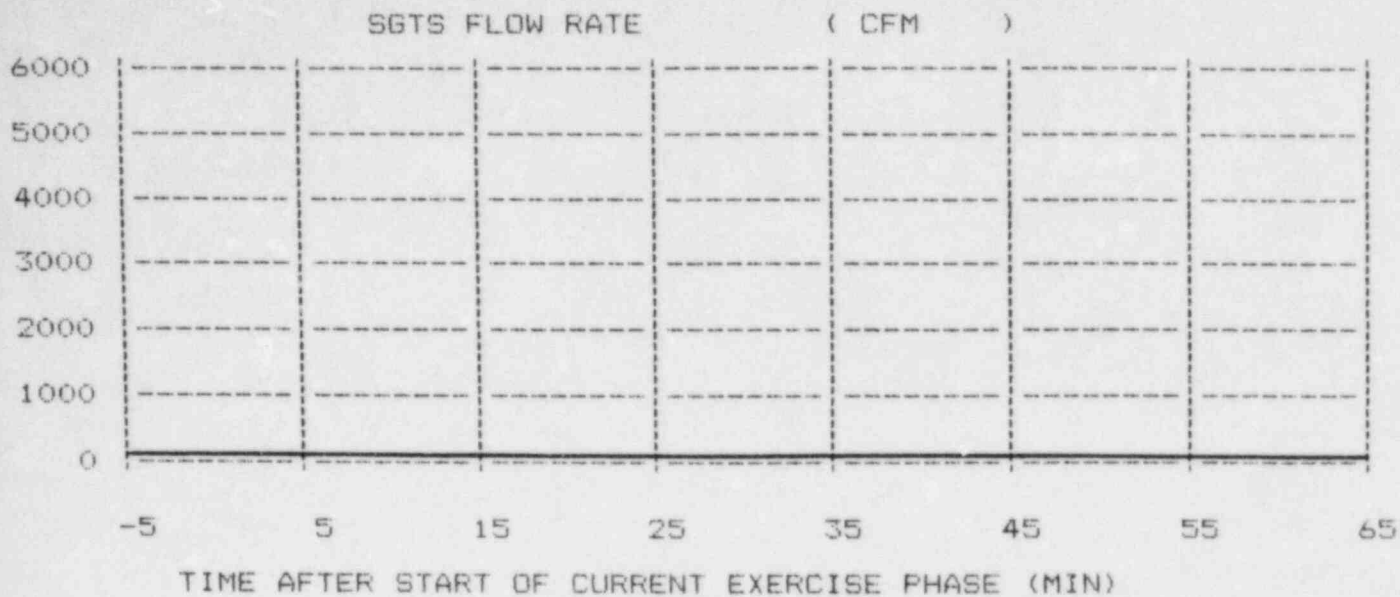
# PLANT PARAMETERS FOR EXERCISE PHASE 1-UNUSUAL EVENT



# PLANT PARAMETERS FOR EXERCISE PHASE 1-UNUSUAL EVENT

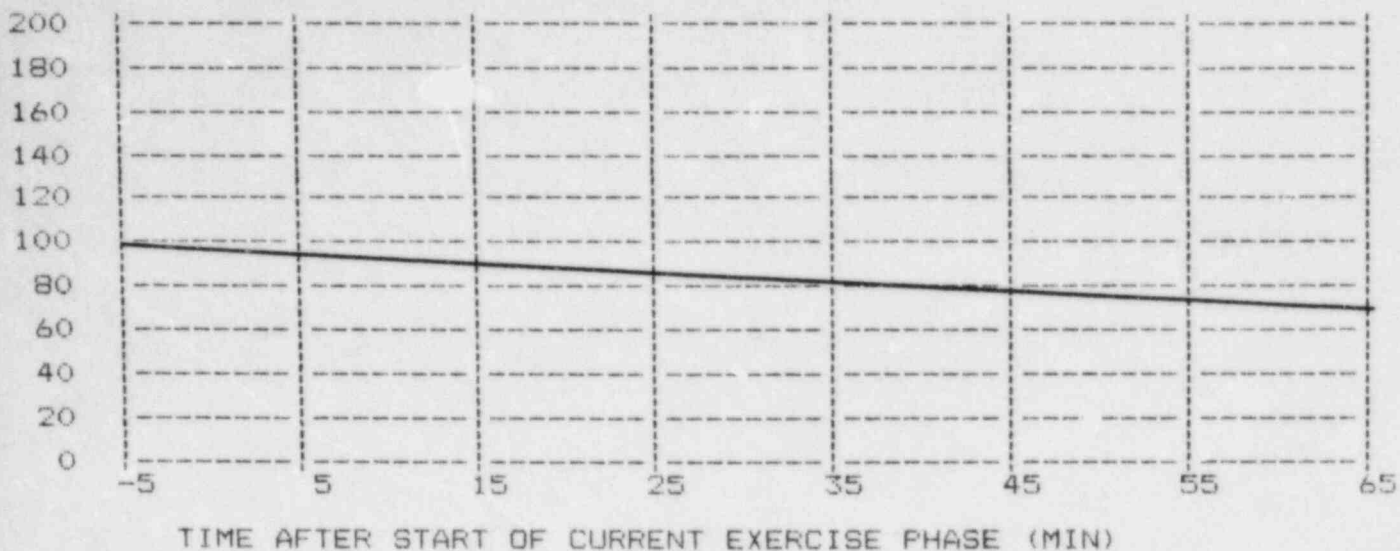


PLANT PARAMETERS FOR EXERCISE PHASE 1-UNUSUAL EVENT

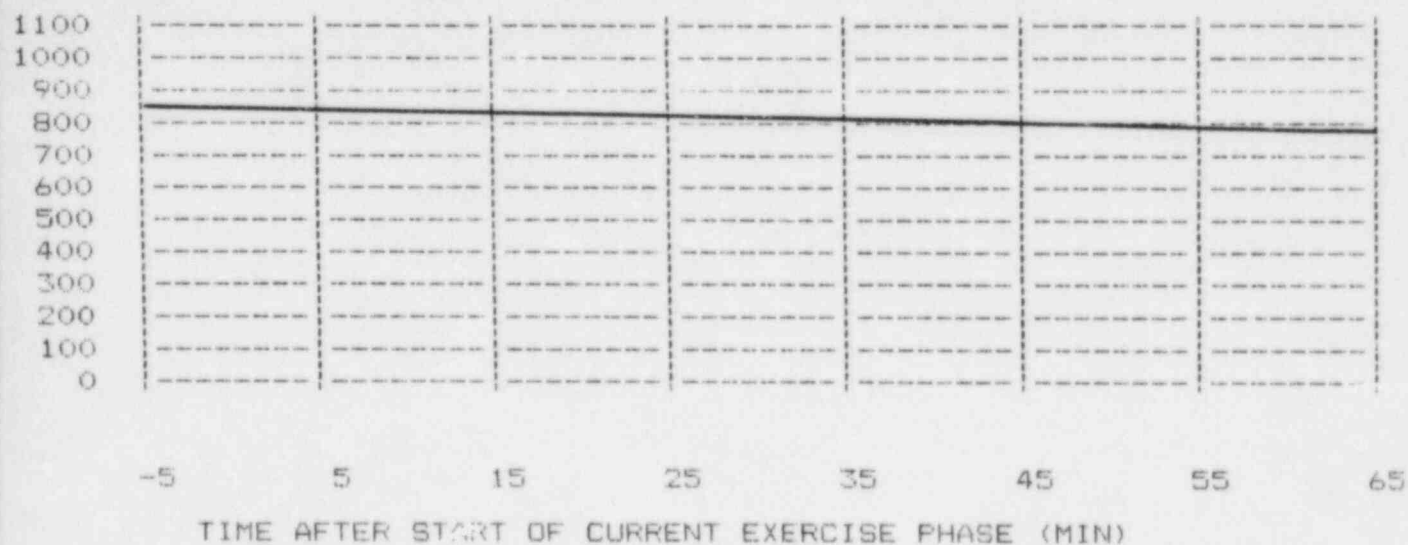


# PLANT PARAMETERS FOR EXERCISE PHASE 2-ALERT

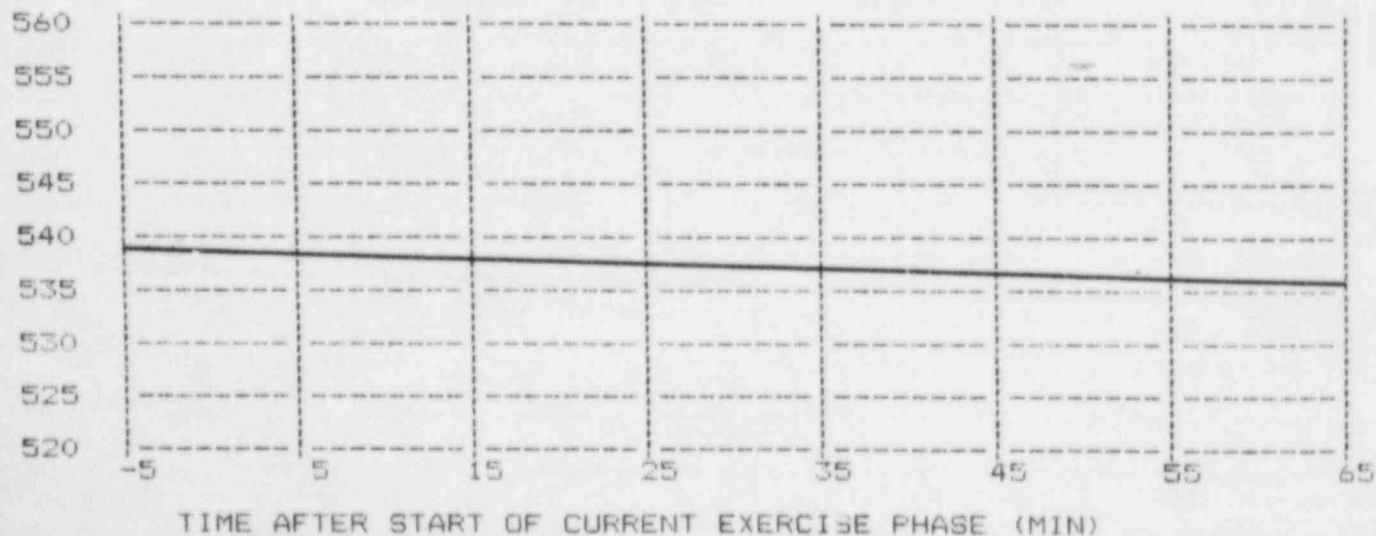
## REACTOR POWER ( MWT )



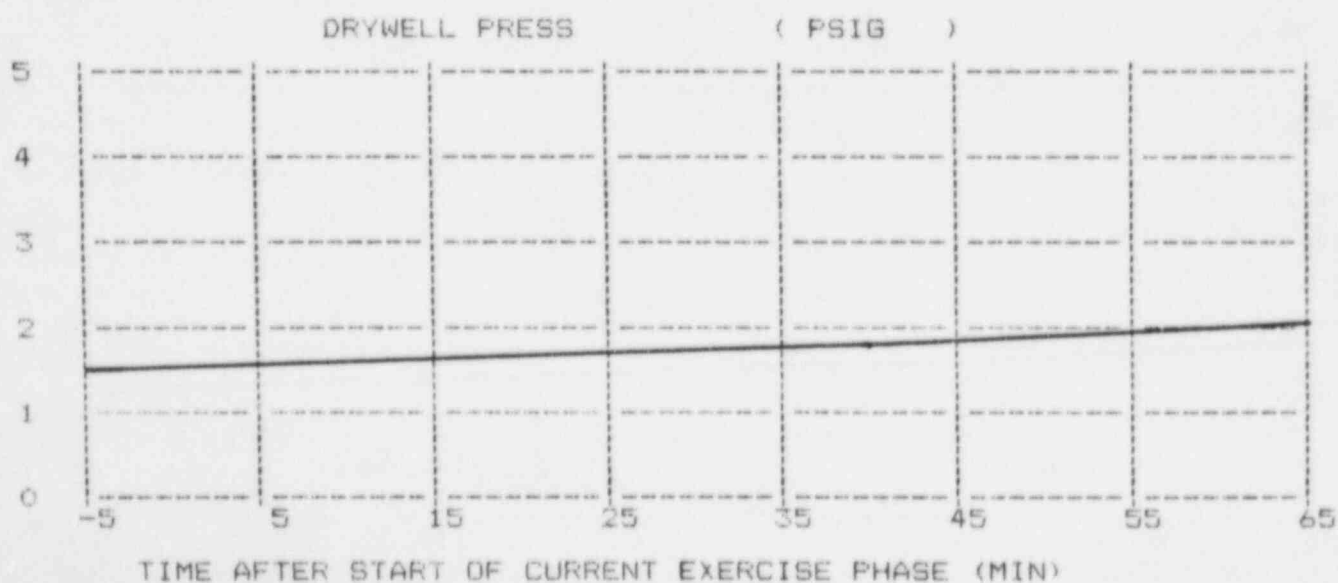
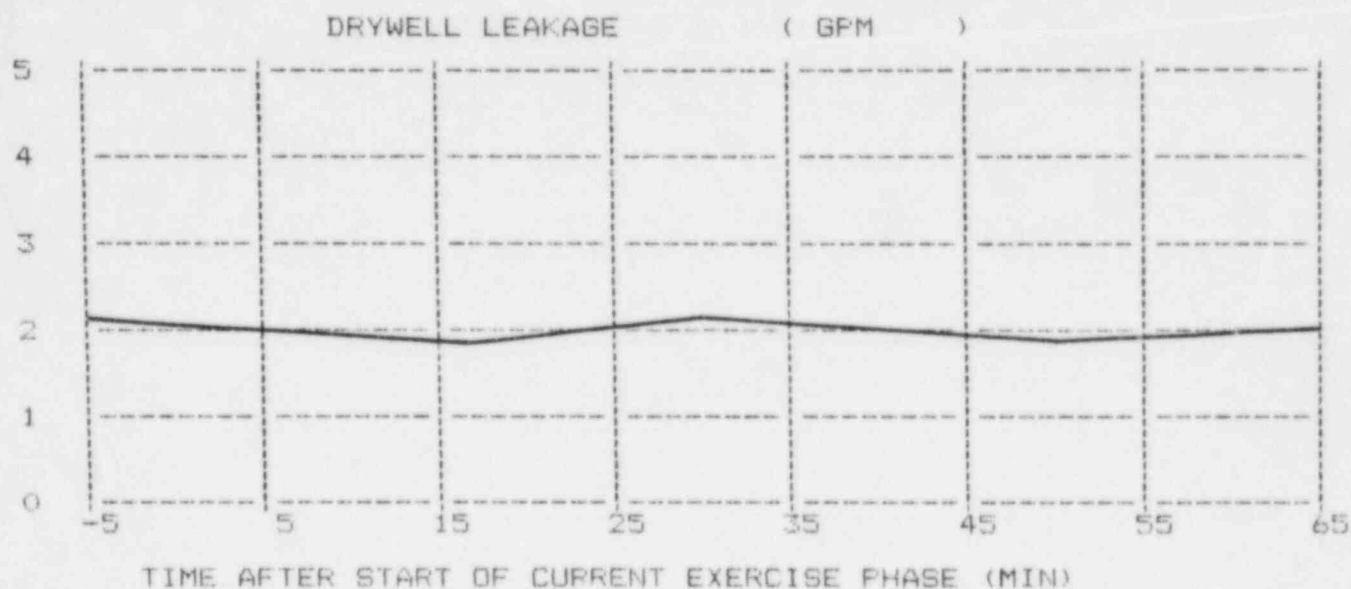
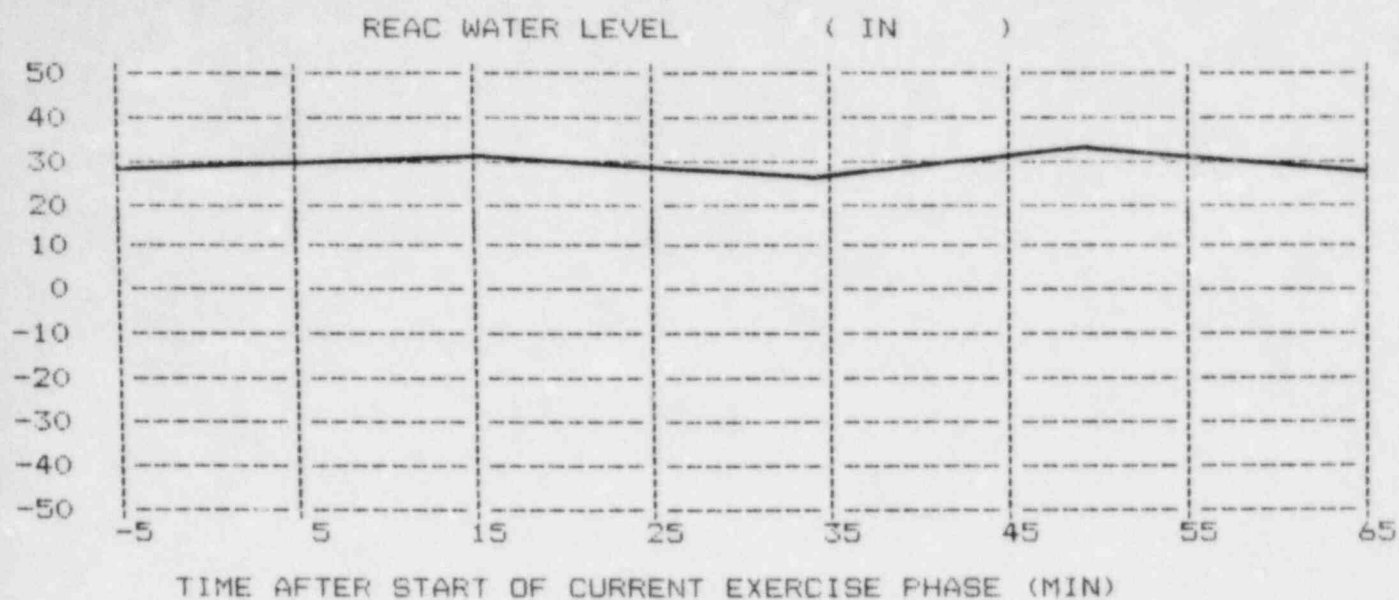
## REACTOR PRESSURE ( PSIG )



## MODERATOR TEMP ( DEG F )

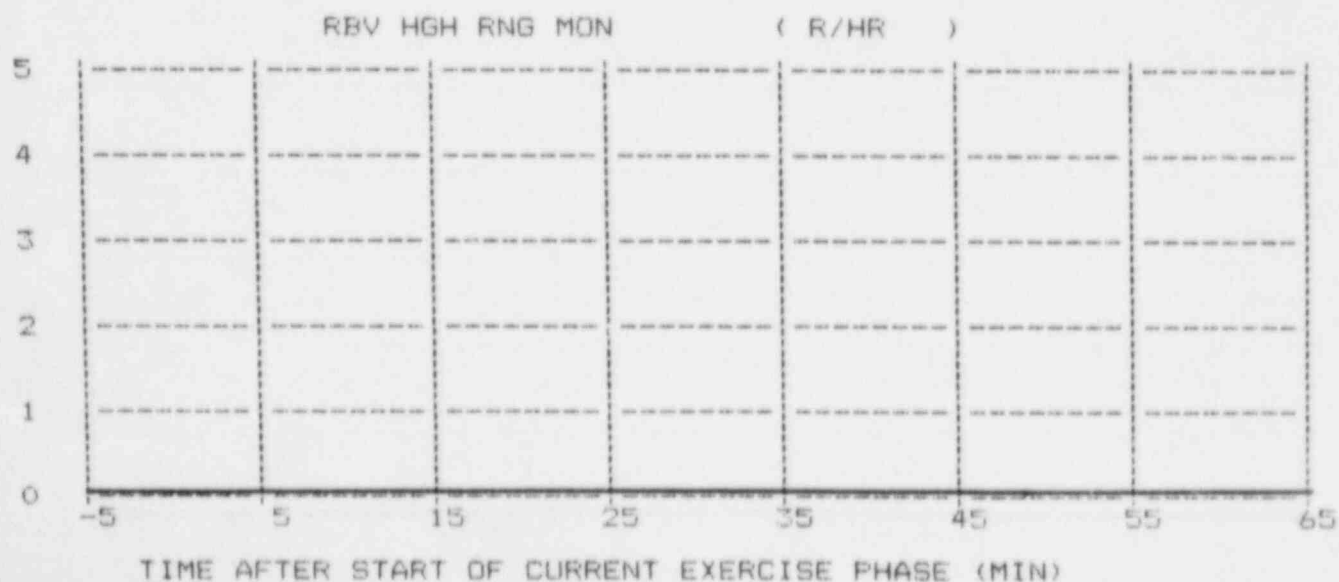
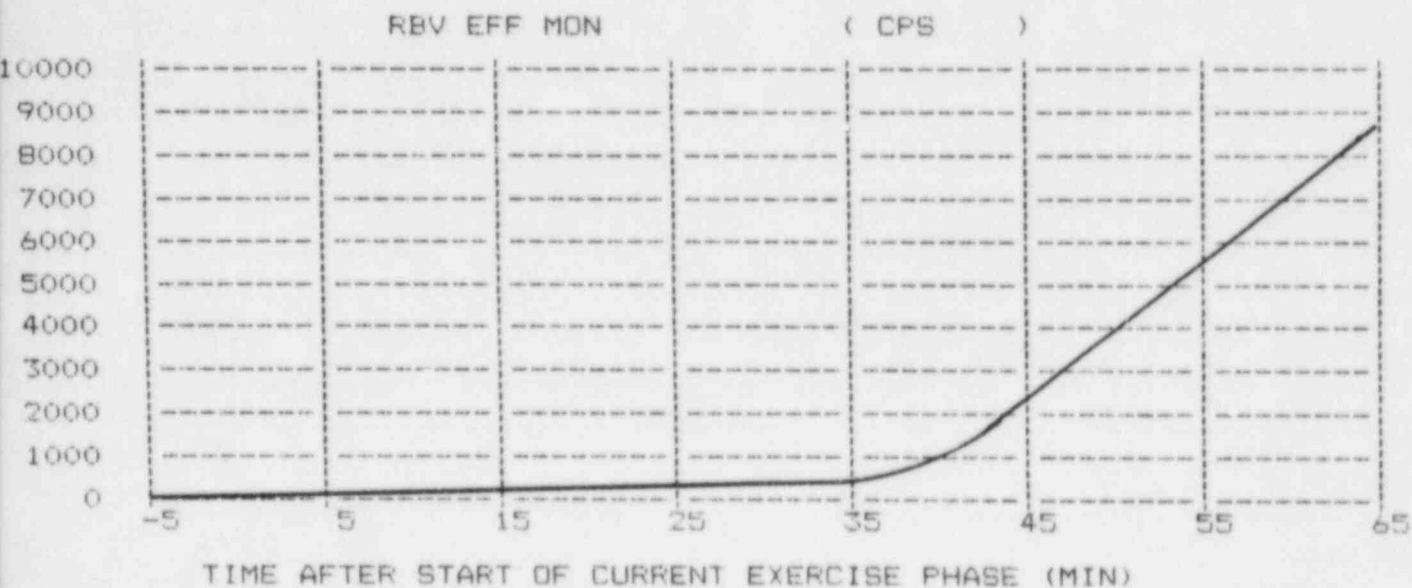
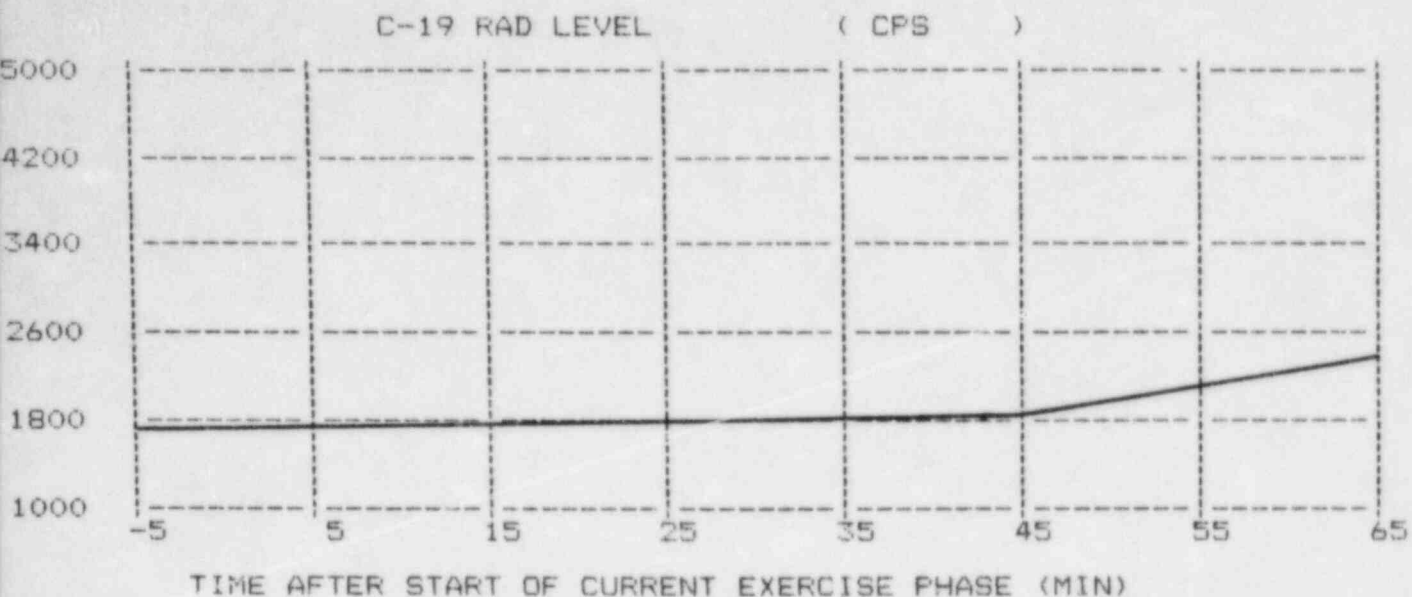


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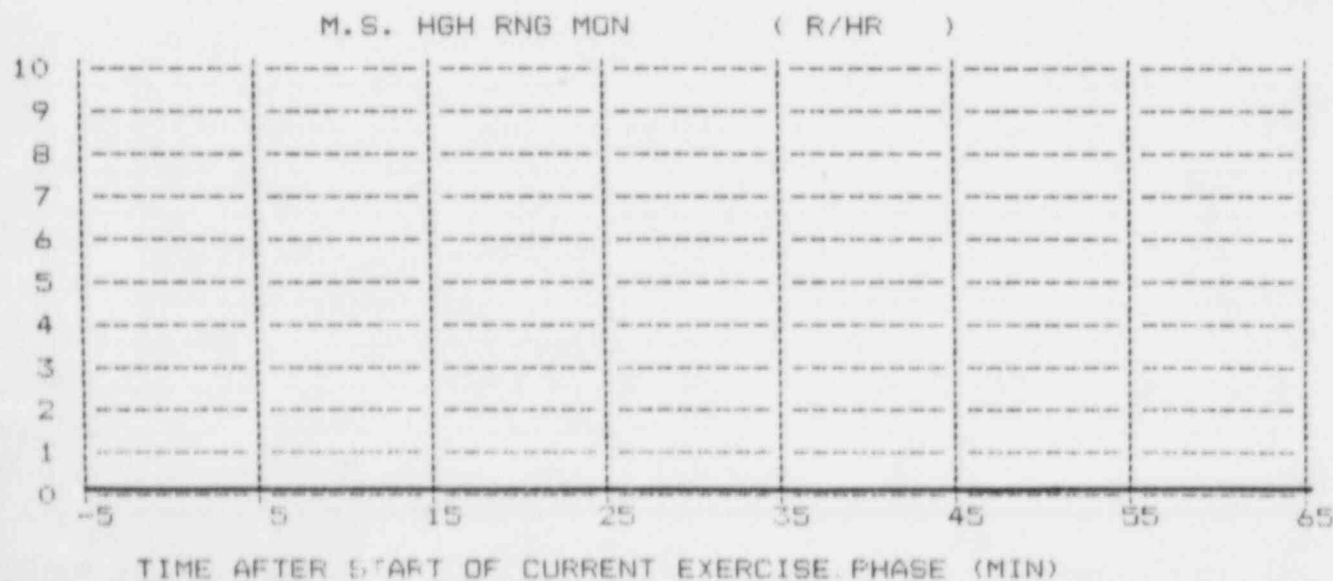
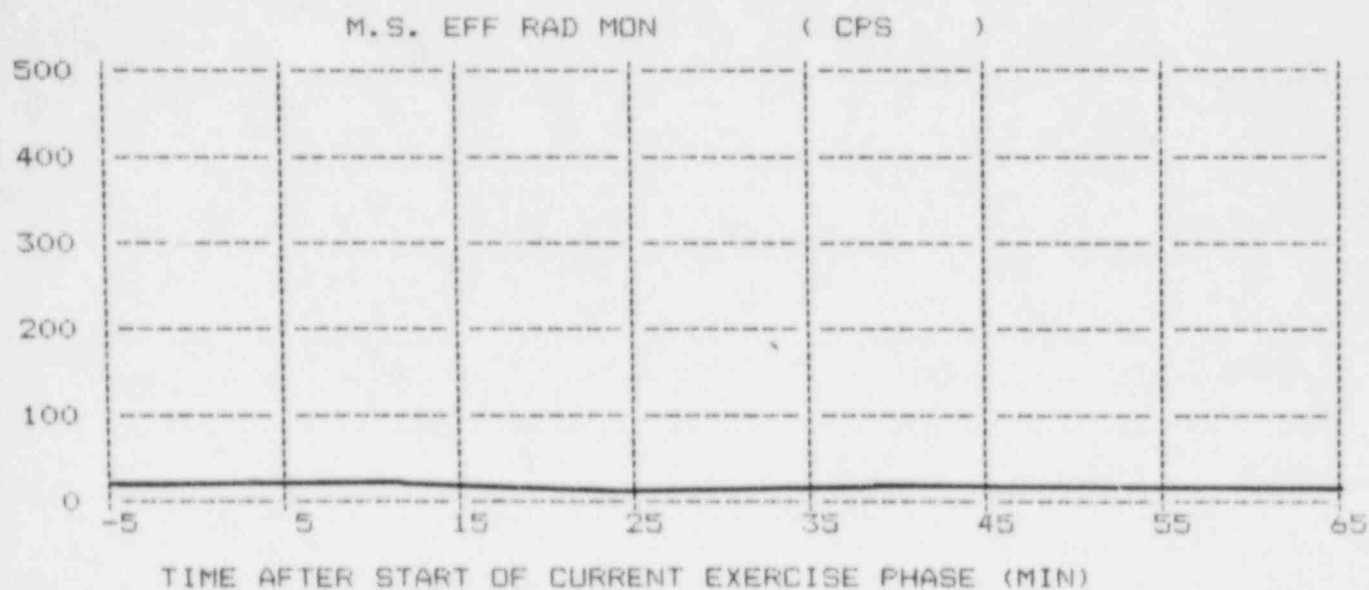
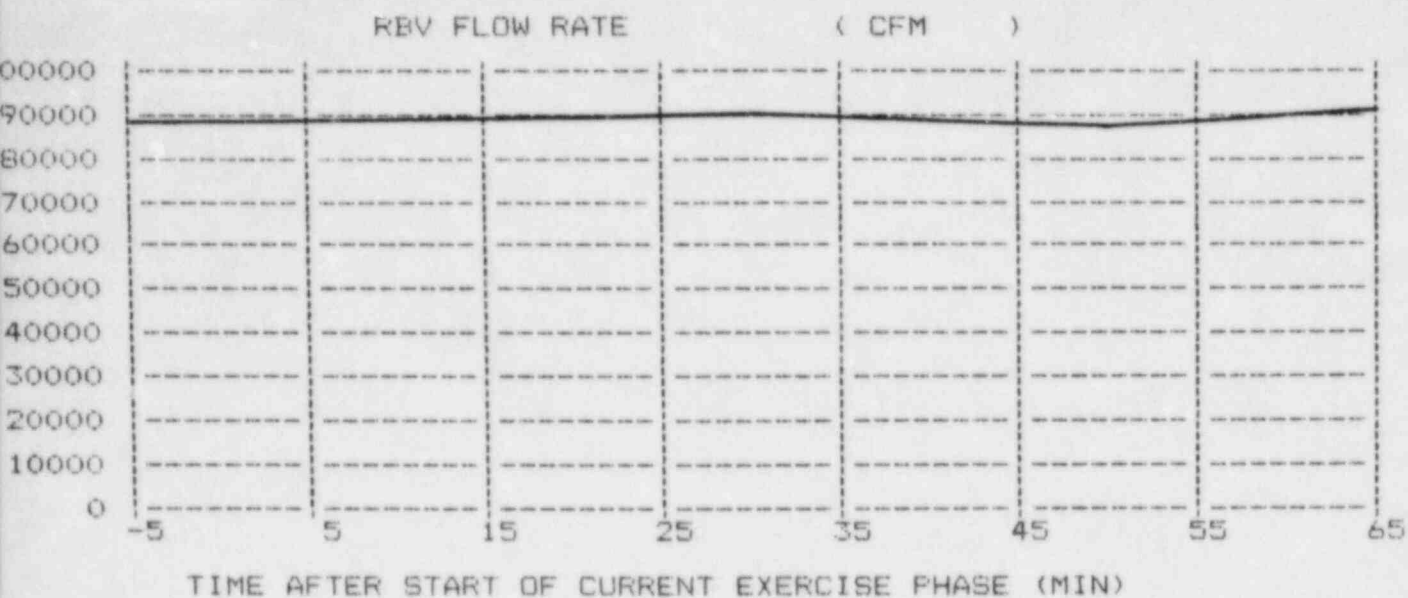




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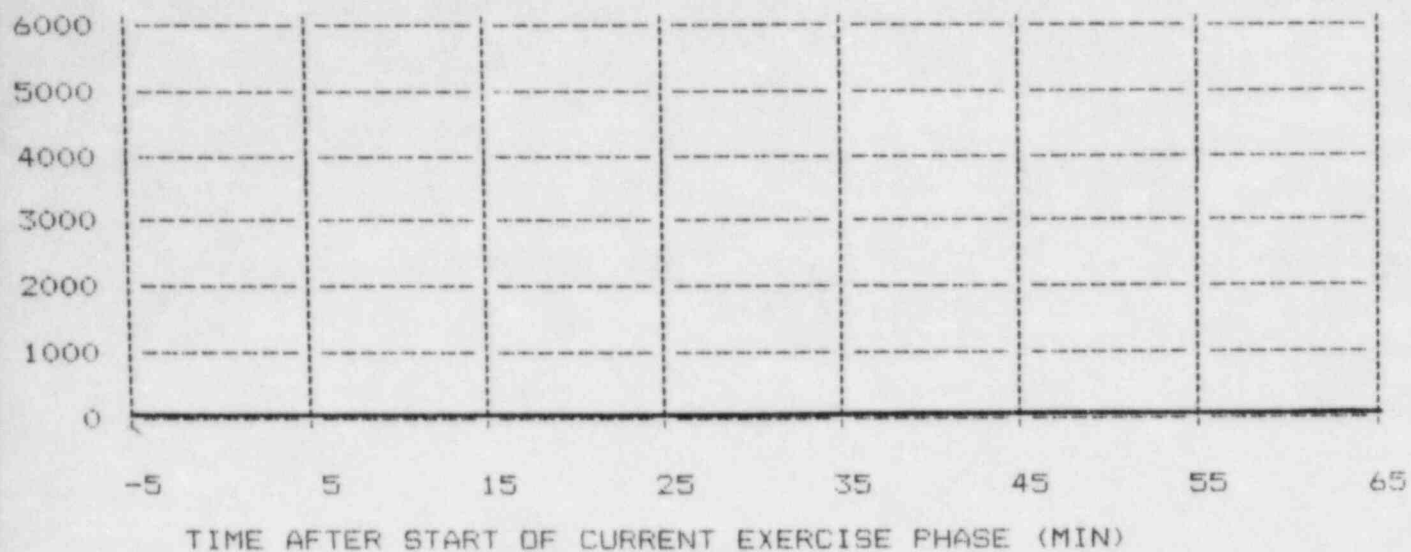


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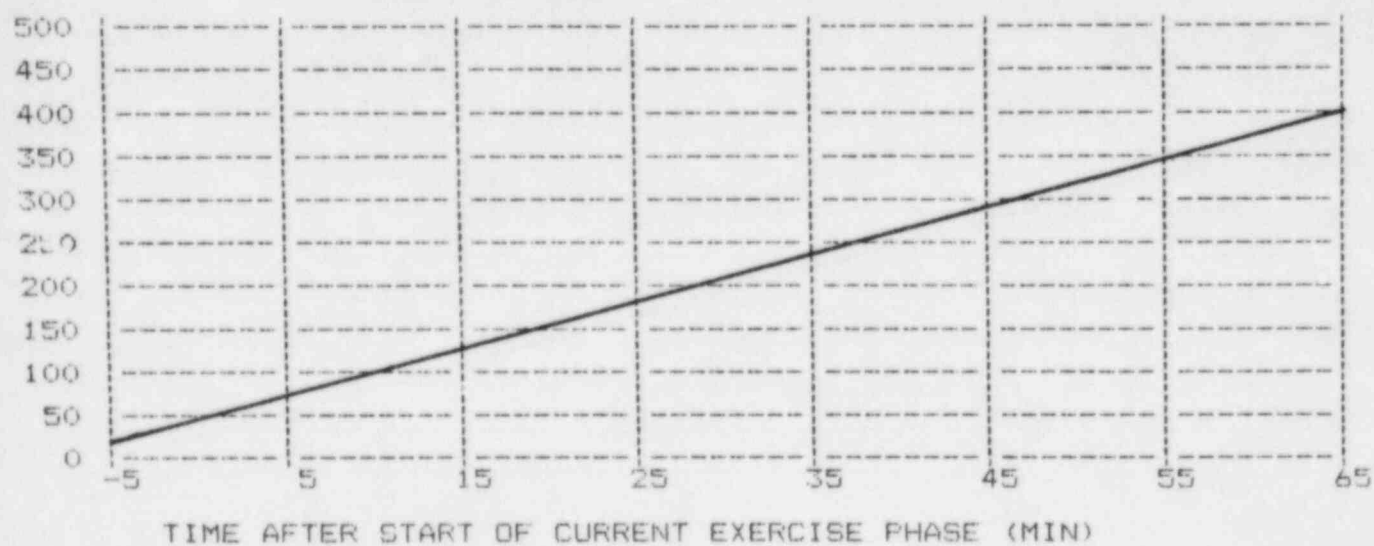


PLANT PARAMETERS FOR EXERCISE PHASE 2-ALERT

SGTS FLOW RATE ( CFM )

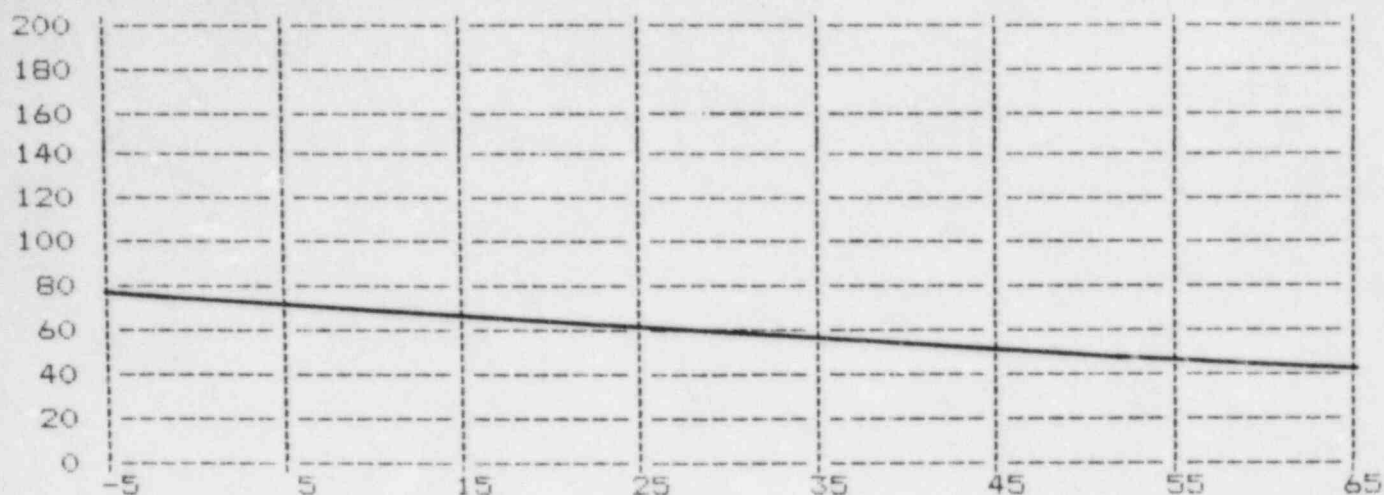


REAC BLDG DOS RT ( MR/HR )



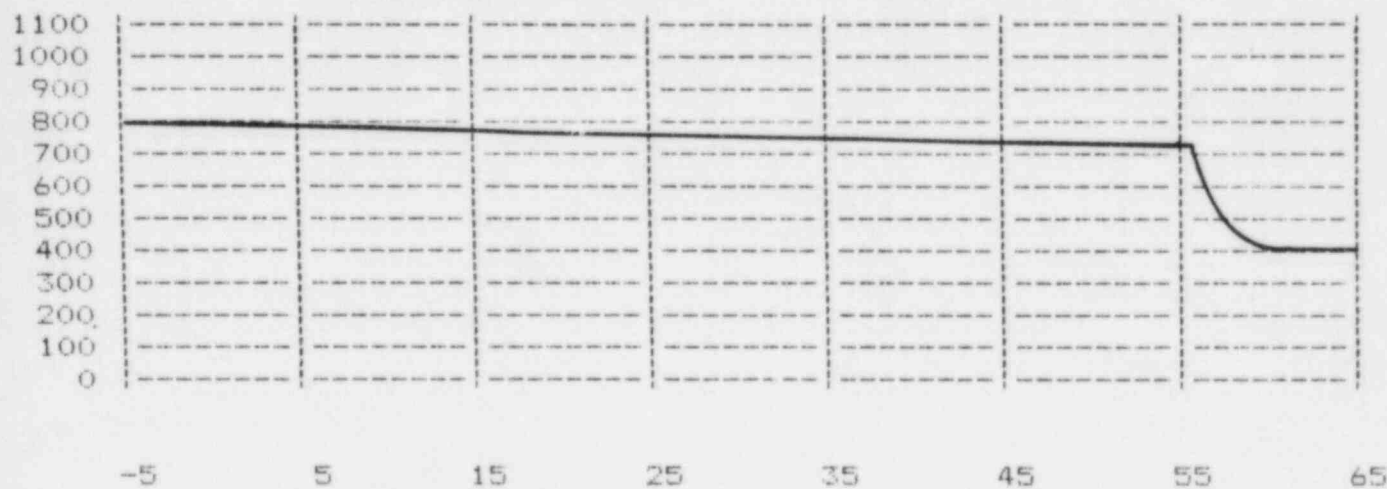
# PLANT PARAMETERS FOR EXERCISE PHASE 3-SITE EMERGENCY

## REACTOR POWER ( MWT )



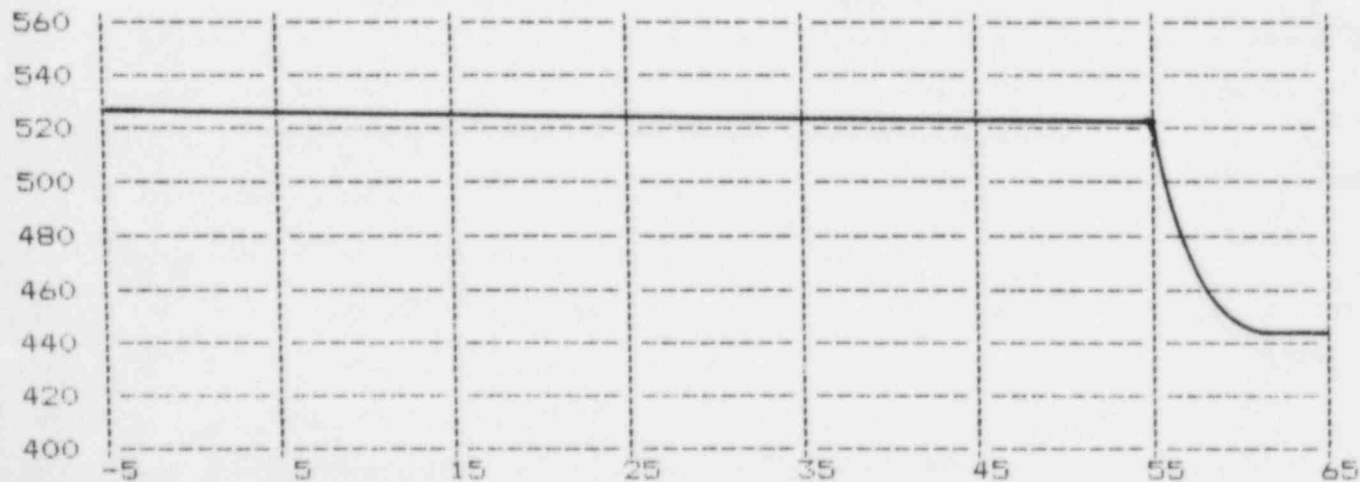
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## REACTOR PRESSURE ( PSIG )



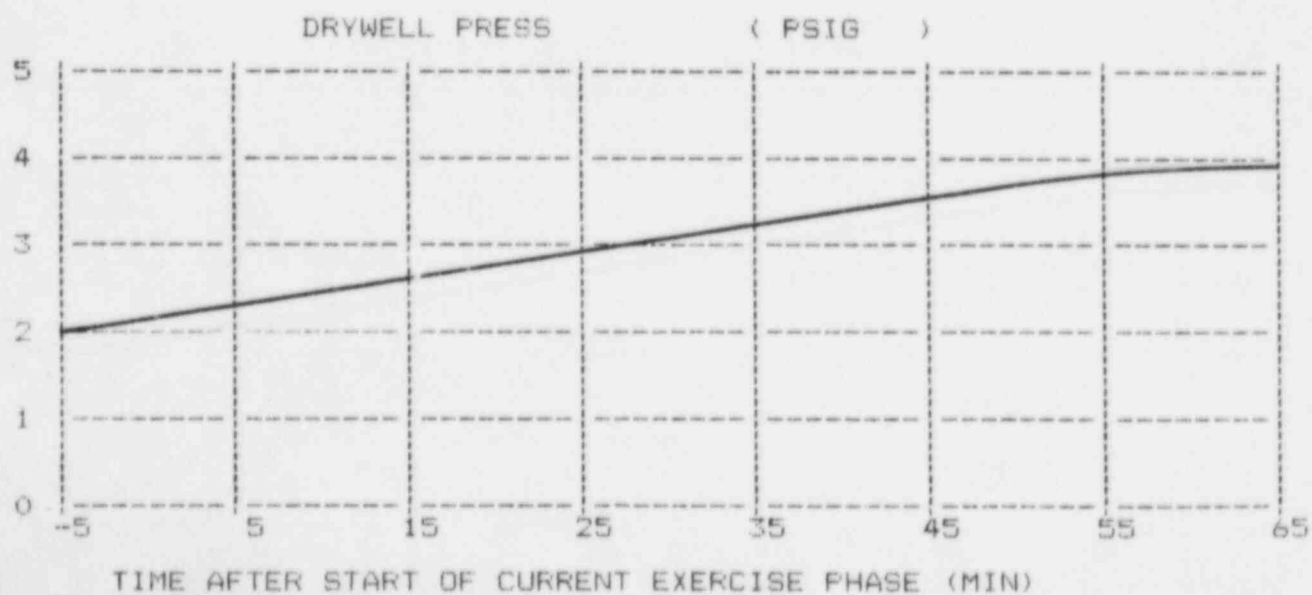
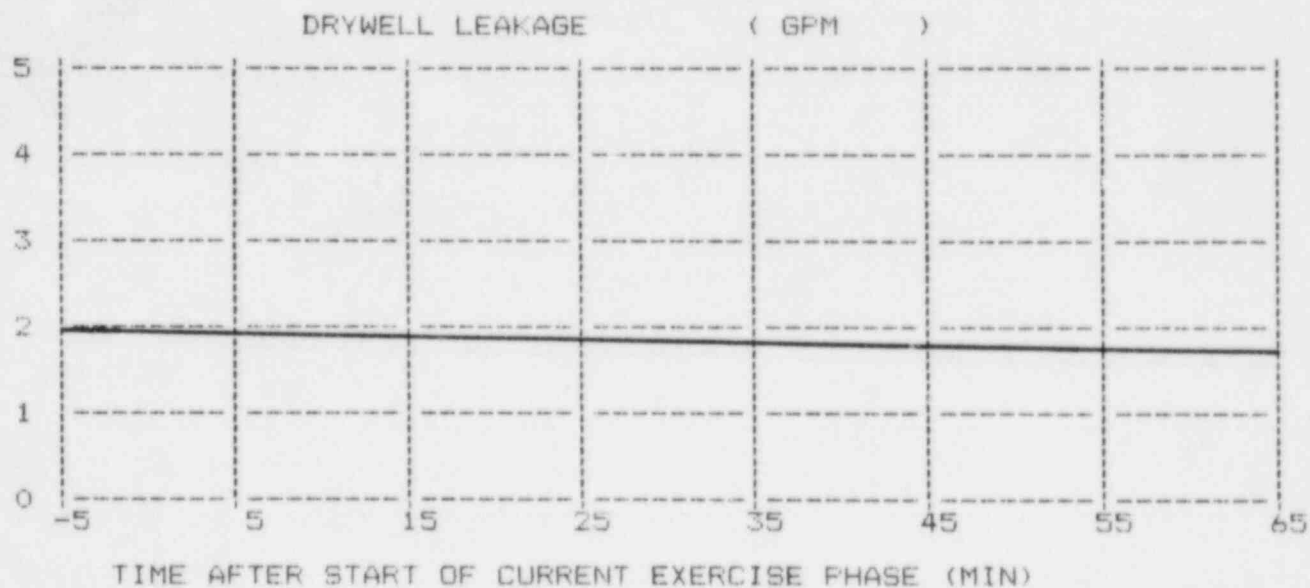
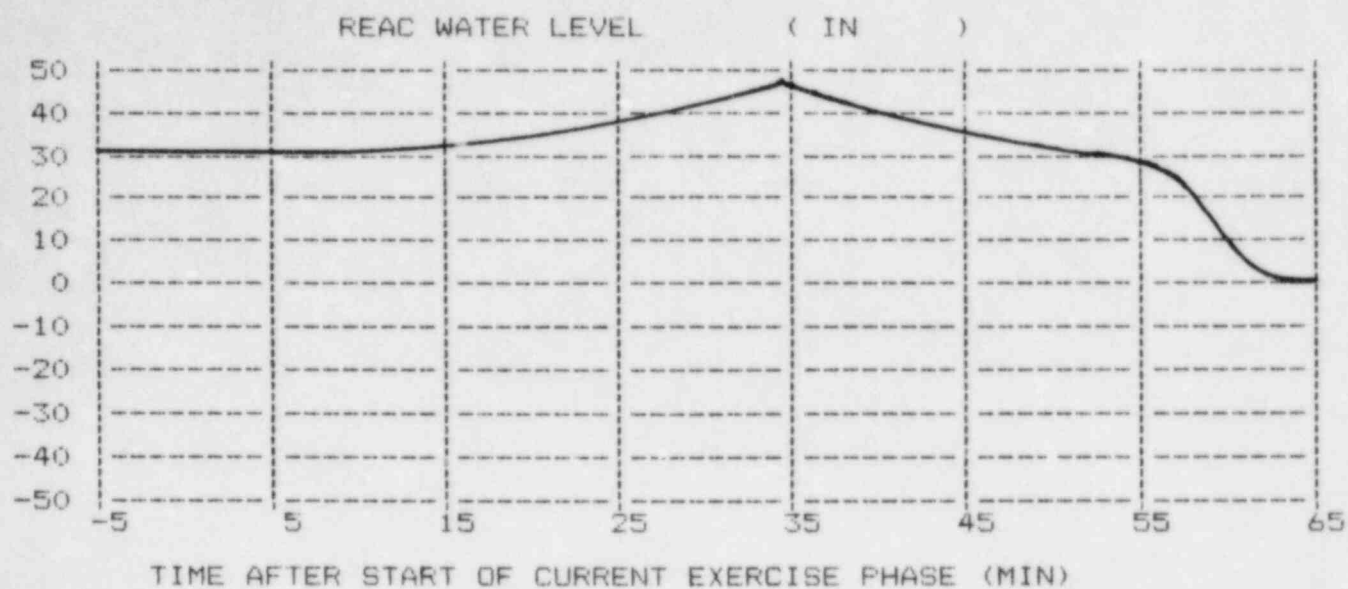
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## MODERATOR TEMP ( DEG F )



TIME AFTER START OF CURRENT EXERCISE PHASE (MIN)

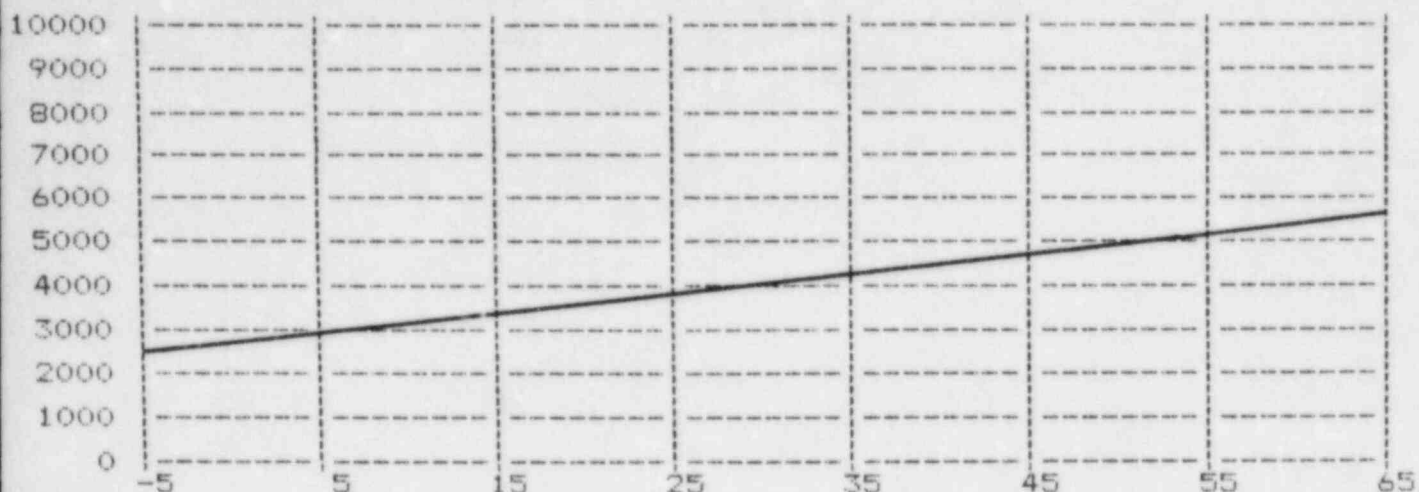
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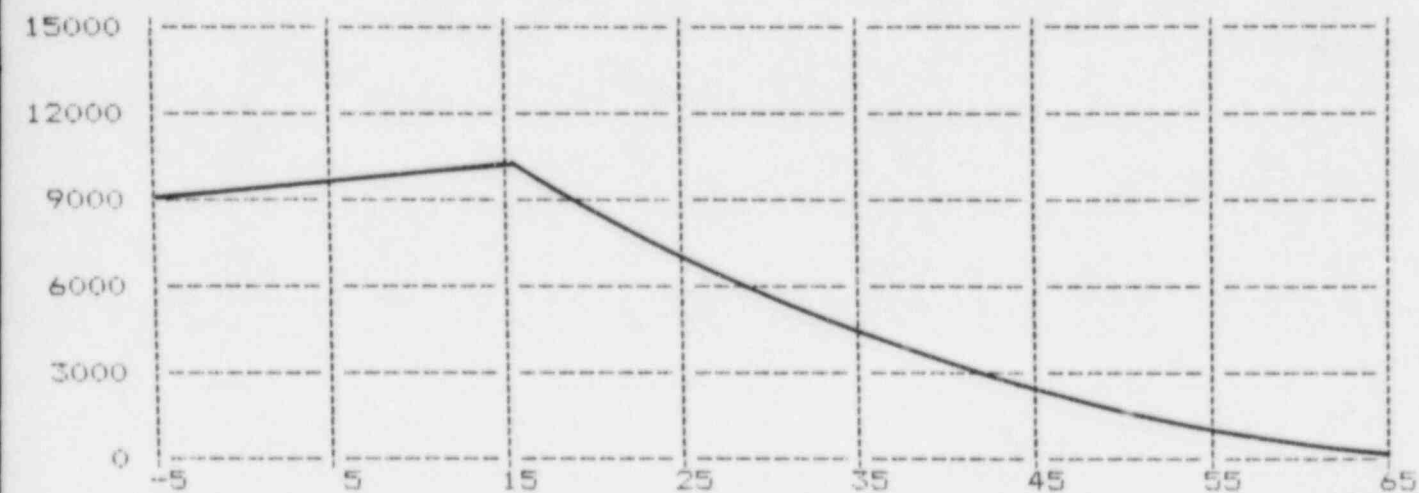
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C-19 RAD LEVEL ( CPS )



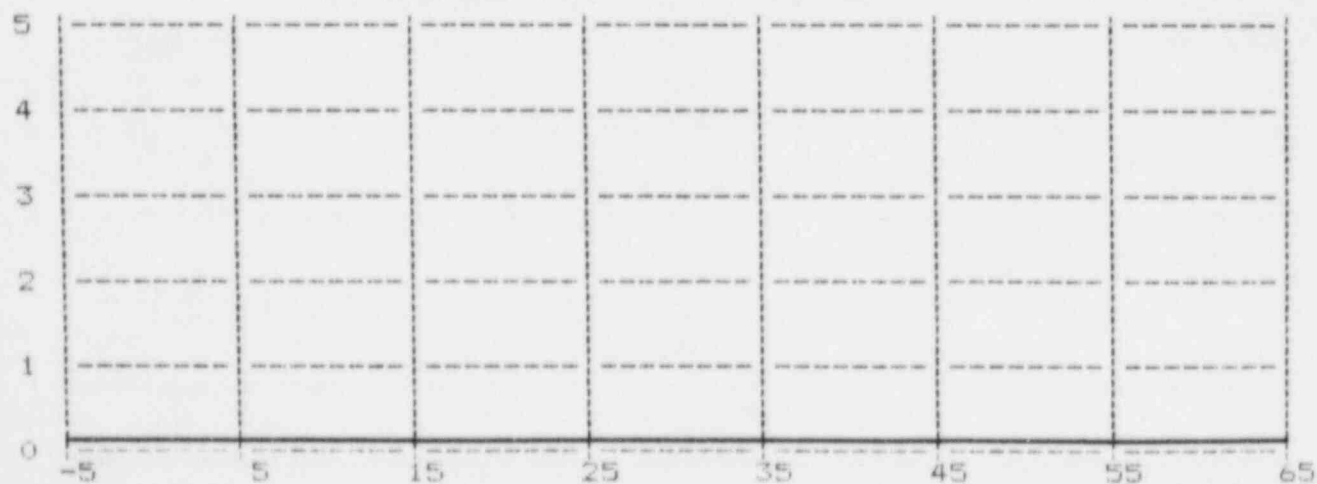
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RBV EFF MON ( CPS )



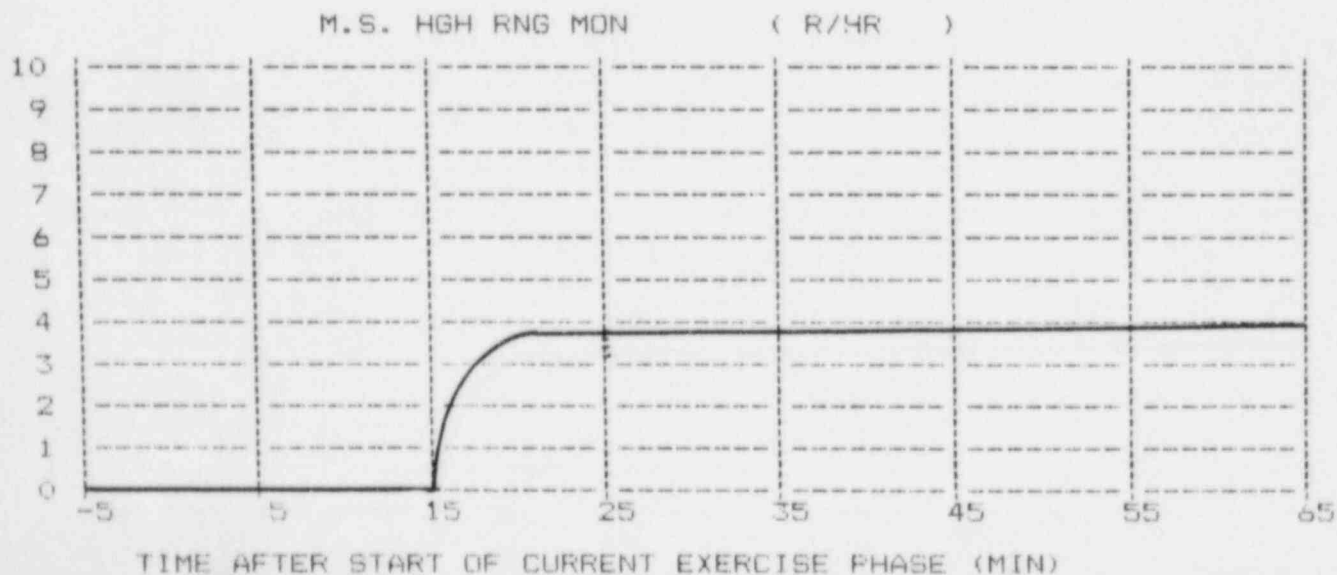
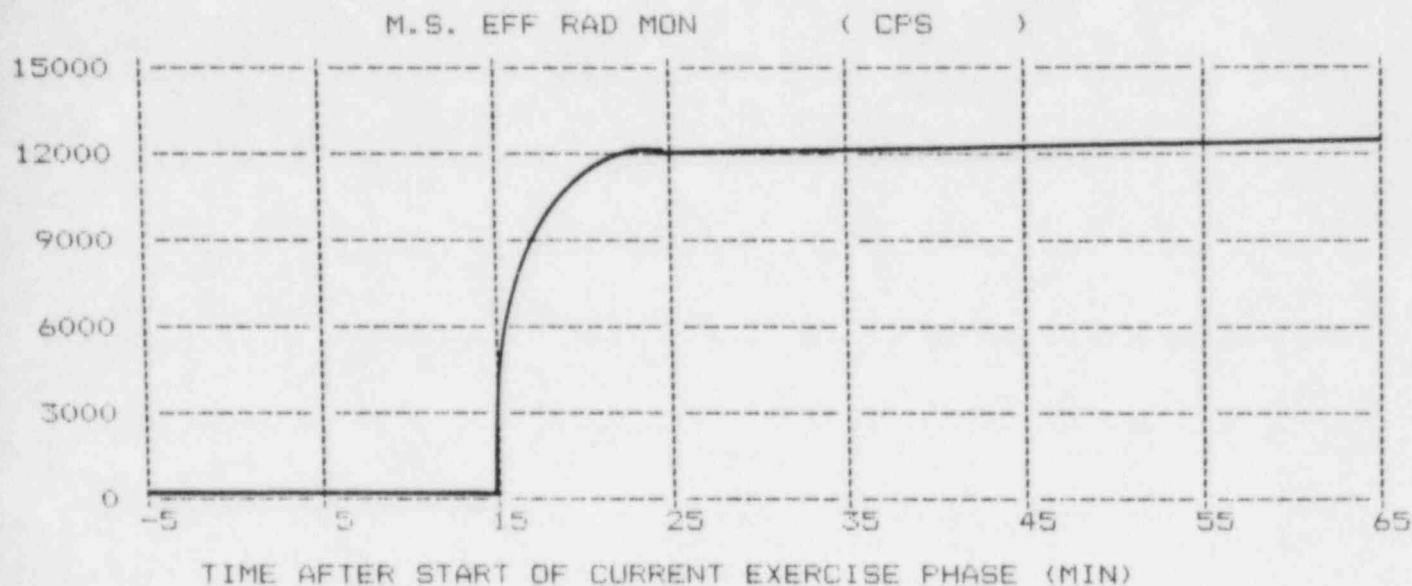
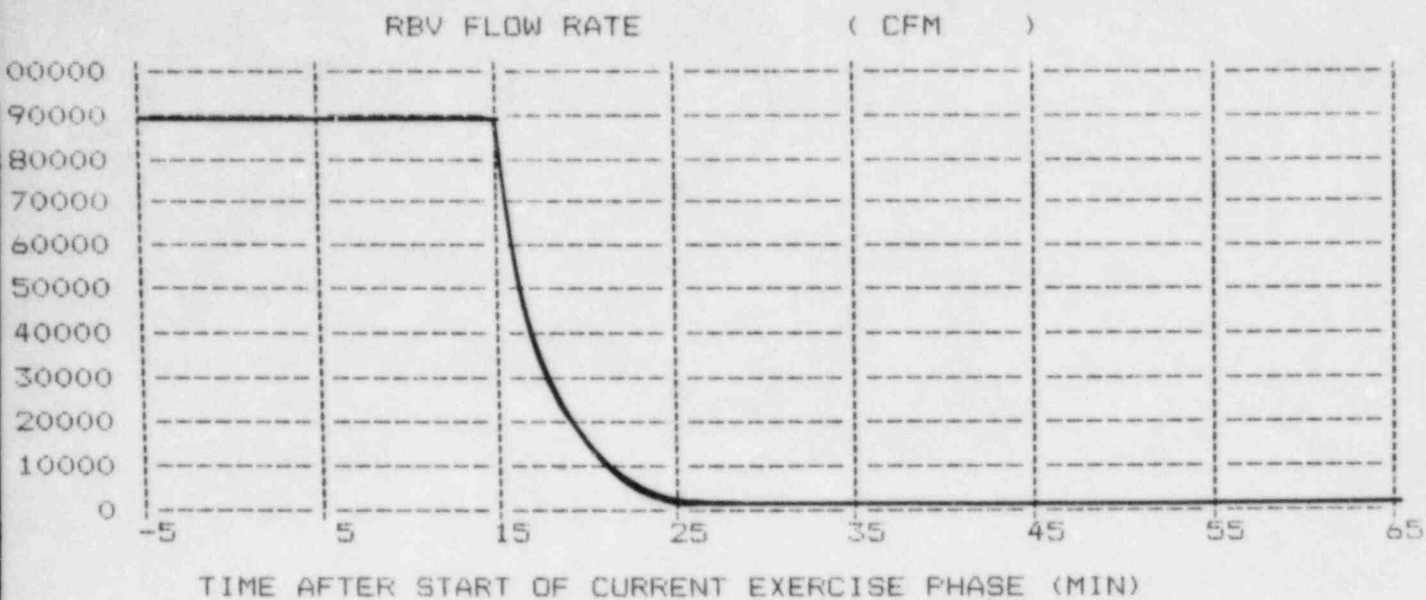
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RBV HGH RNG MON ( R/HR )

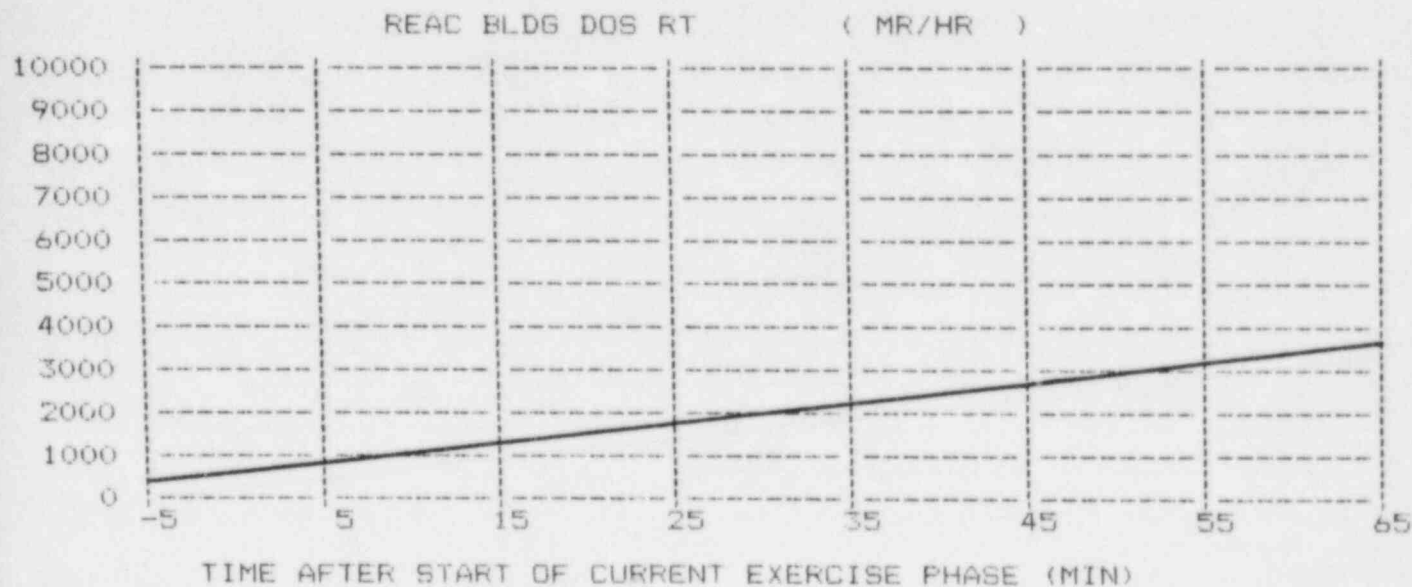
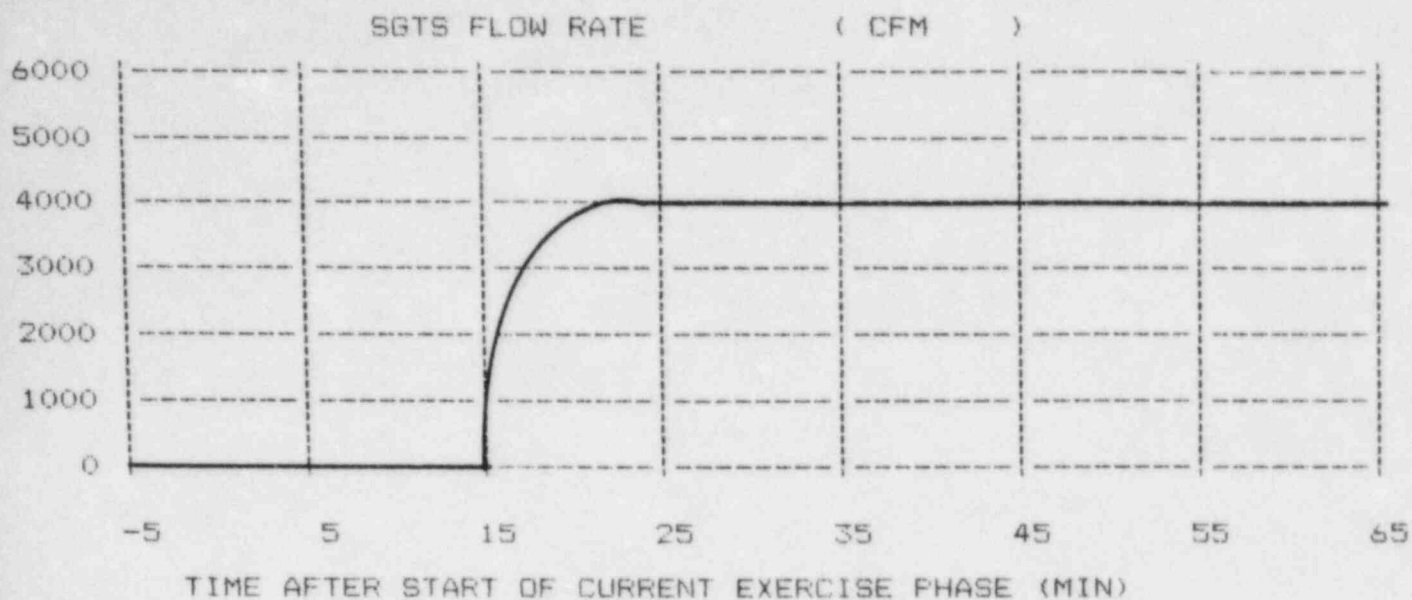


TIME AFTER START OF CURRENT EXERCISE PHASE (MIN)

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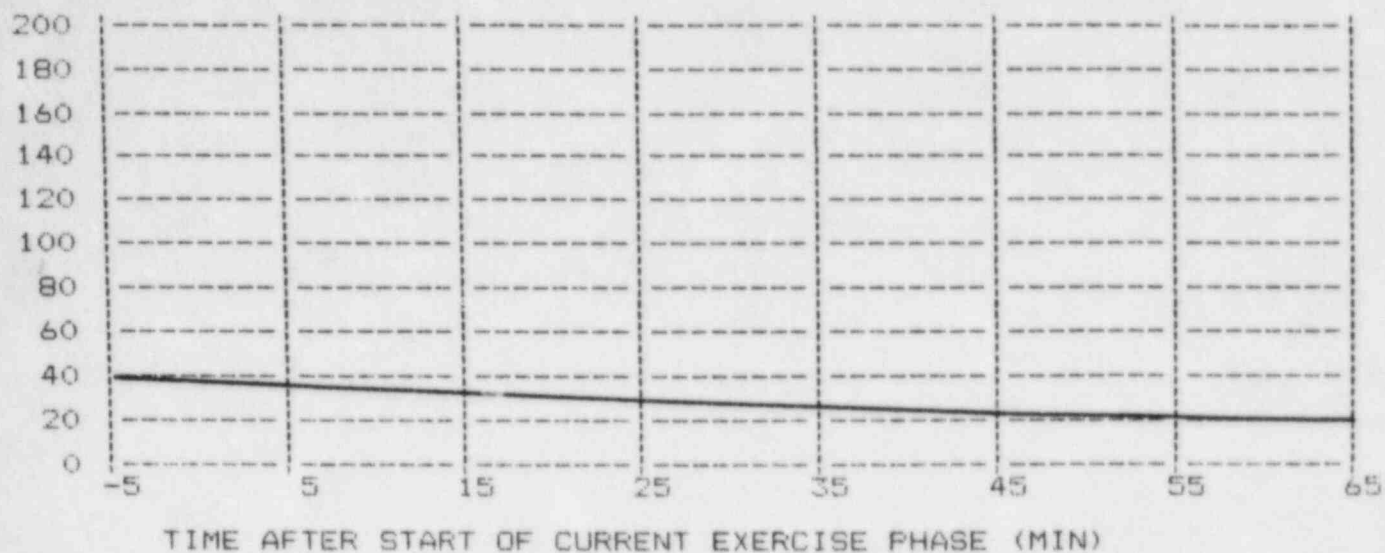


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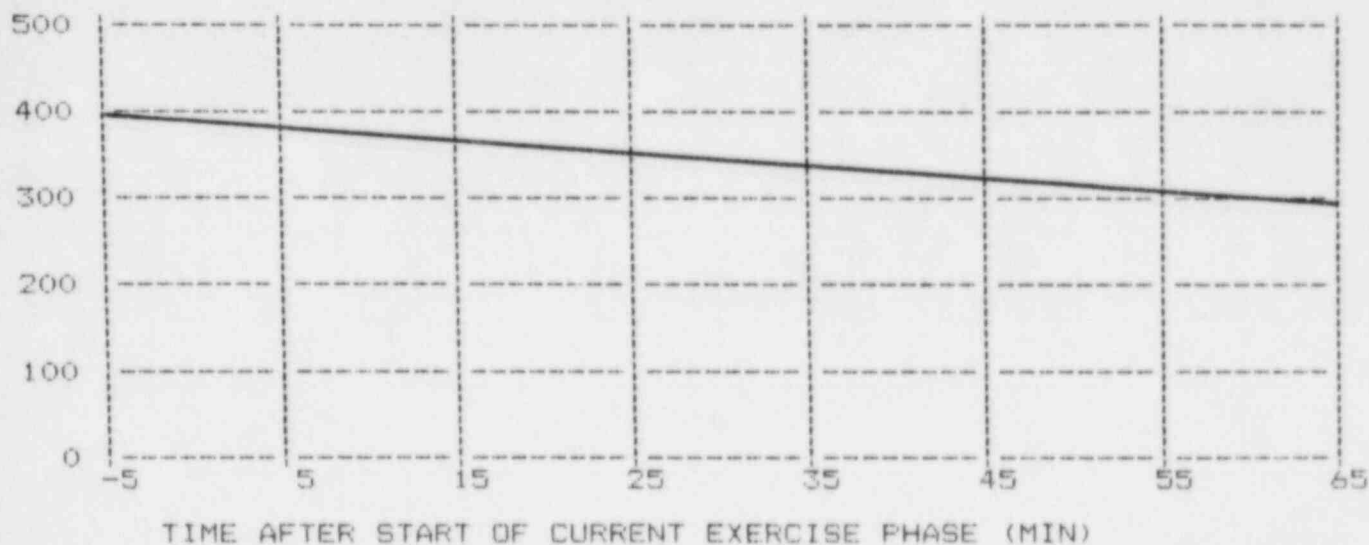


PLANT PARAMETERS FOR EXERCISE PHASE 4-GENERAL EMERGENCY

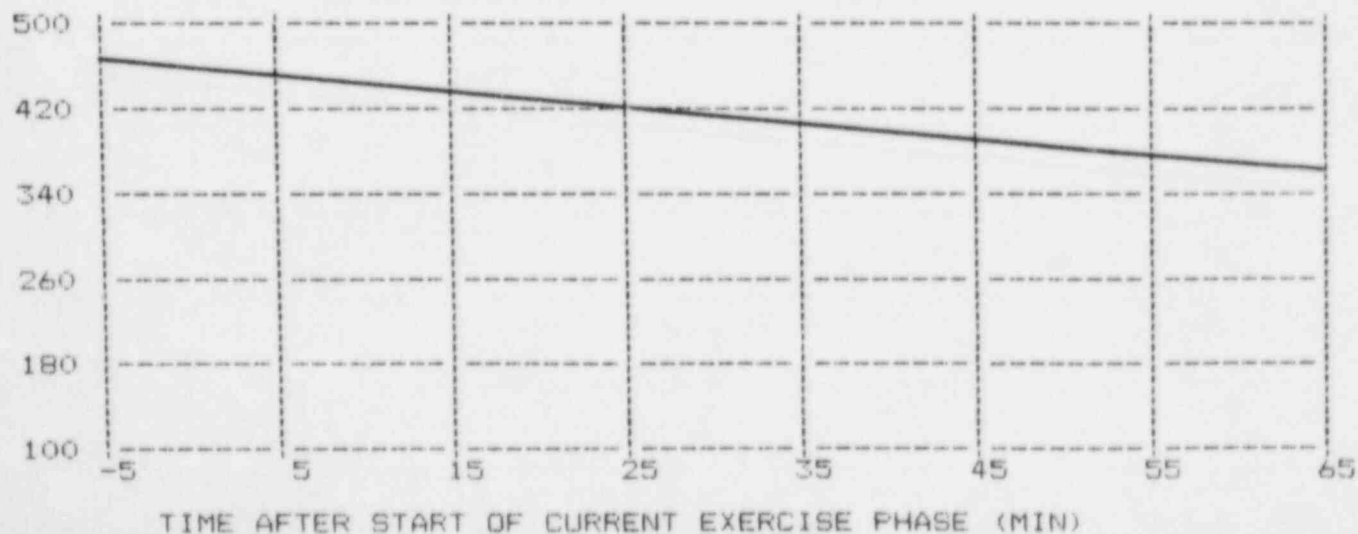
REACTOR POWER ( MWT )



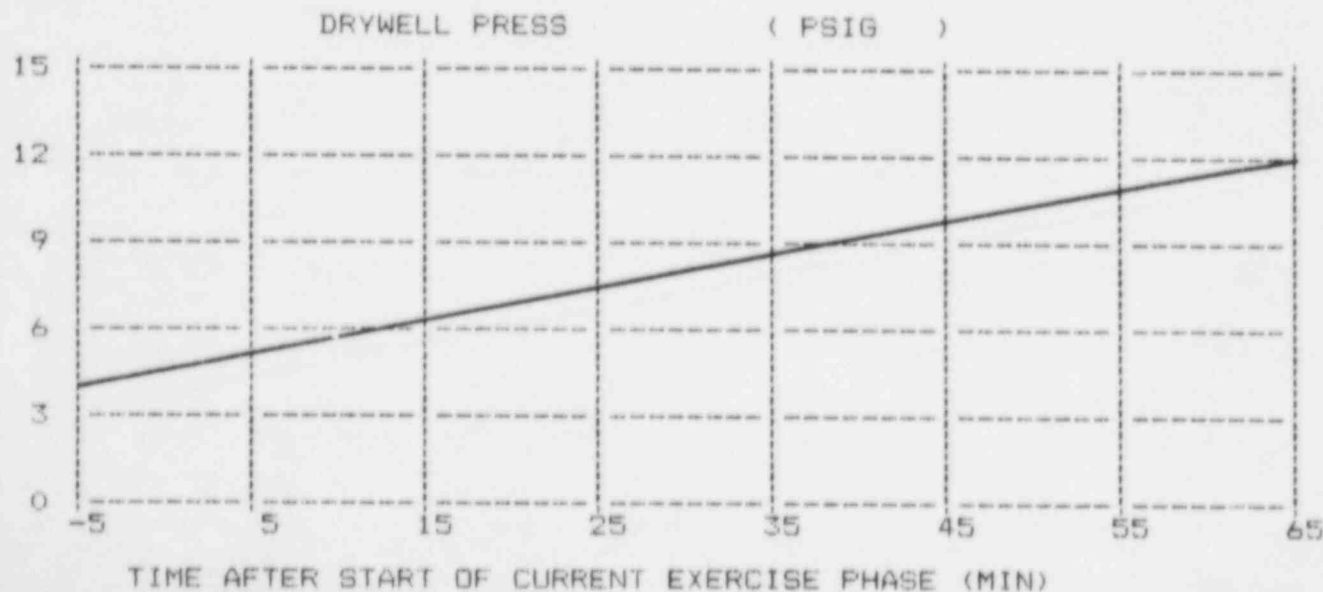
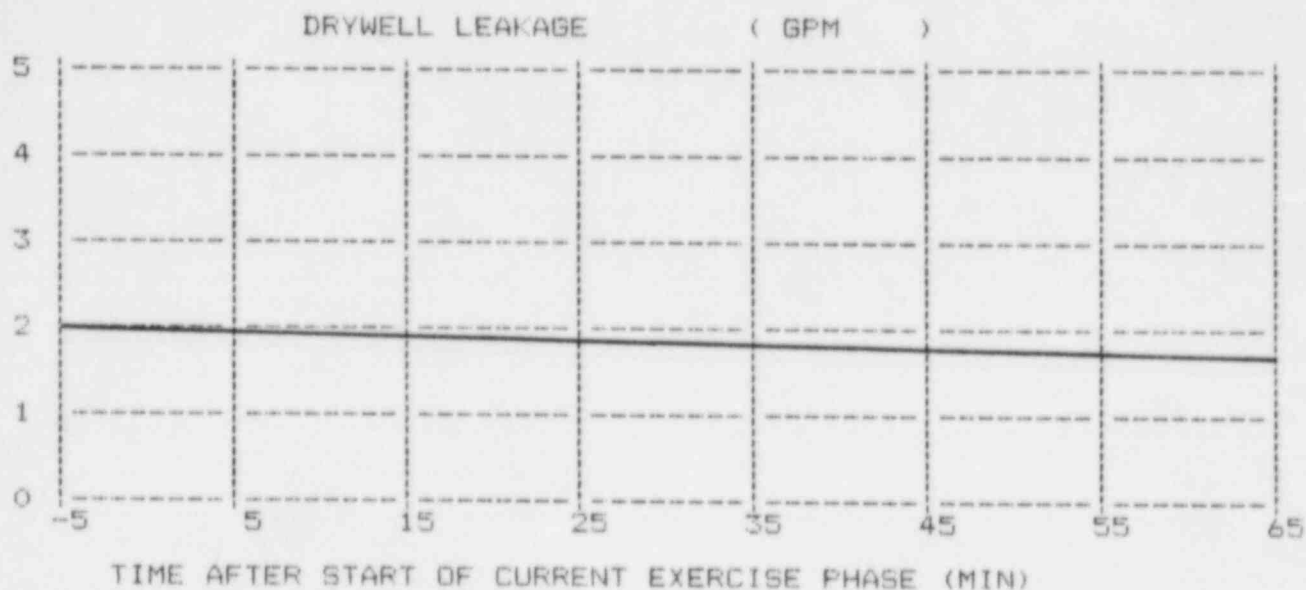
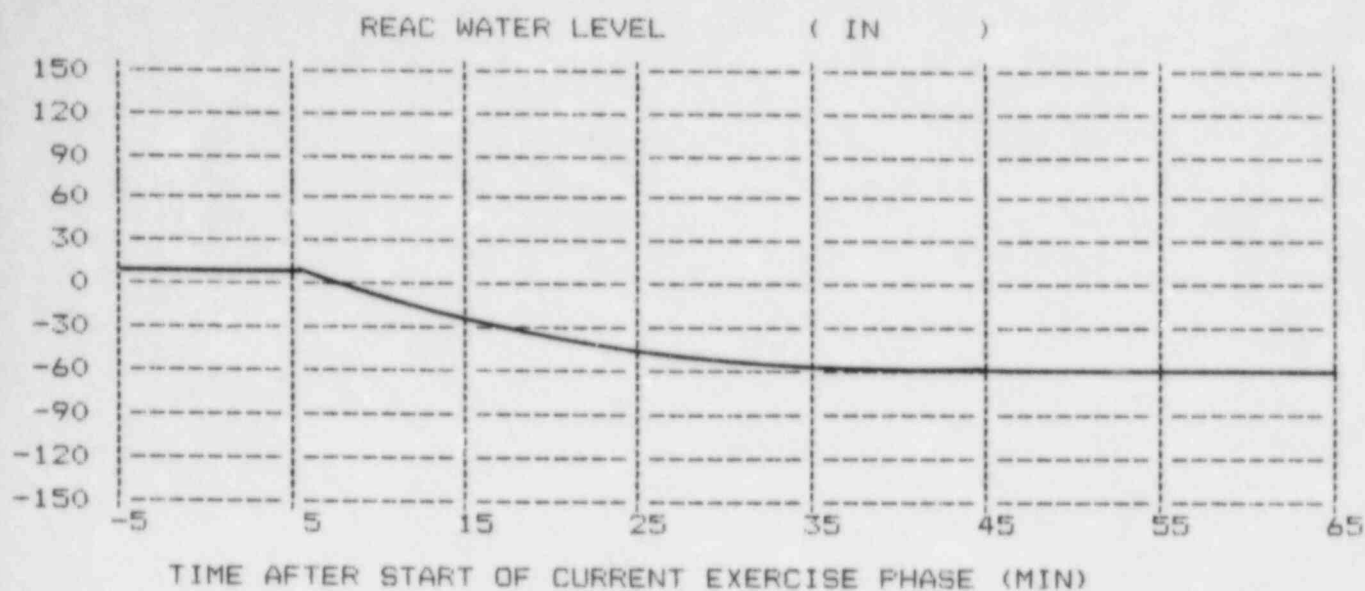
REACTOR PRESSURE ( PSIG )



MODERATOR TEMP ( DEG F )

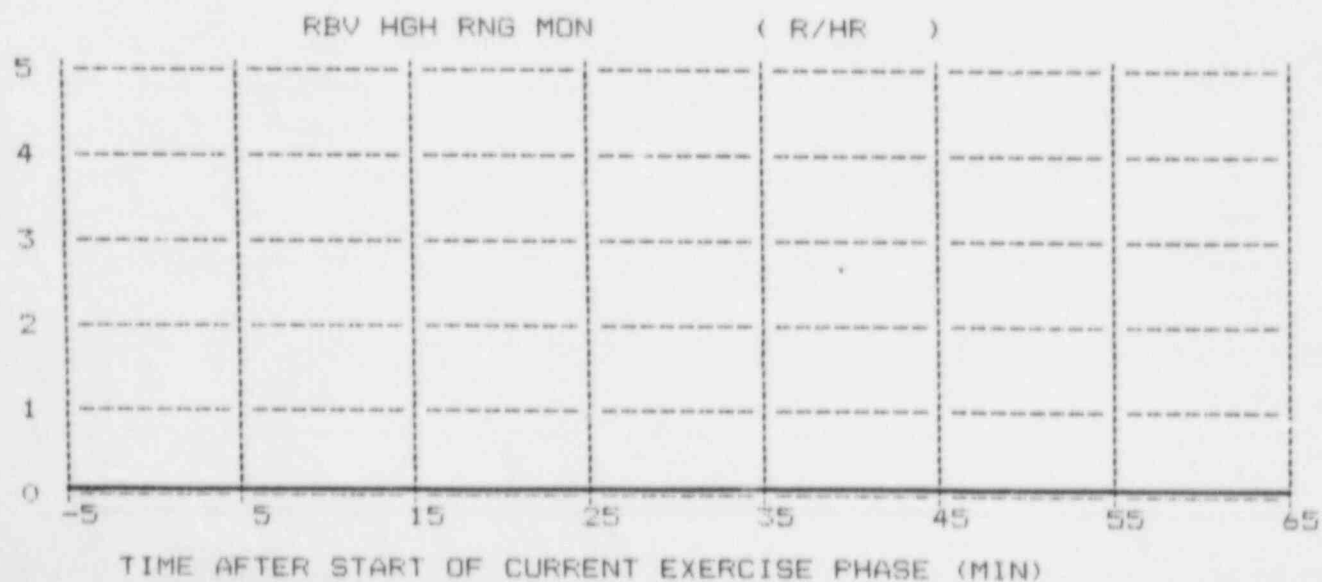
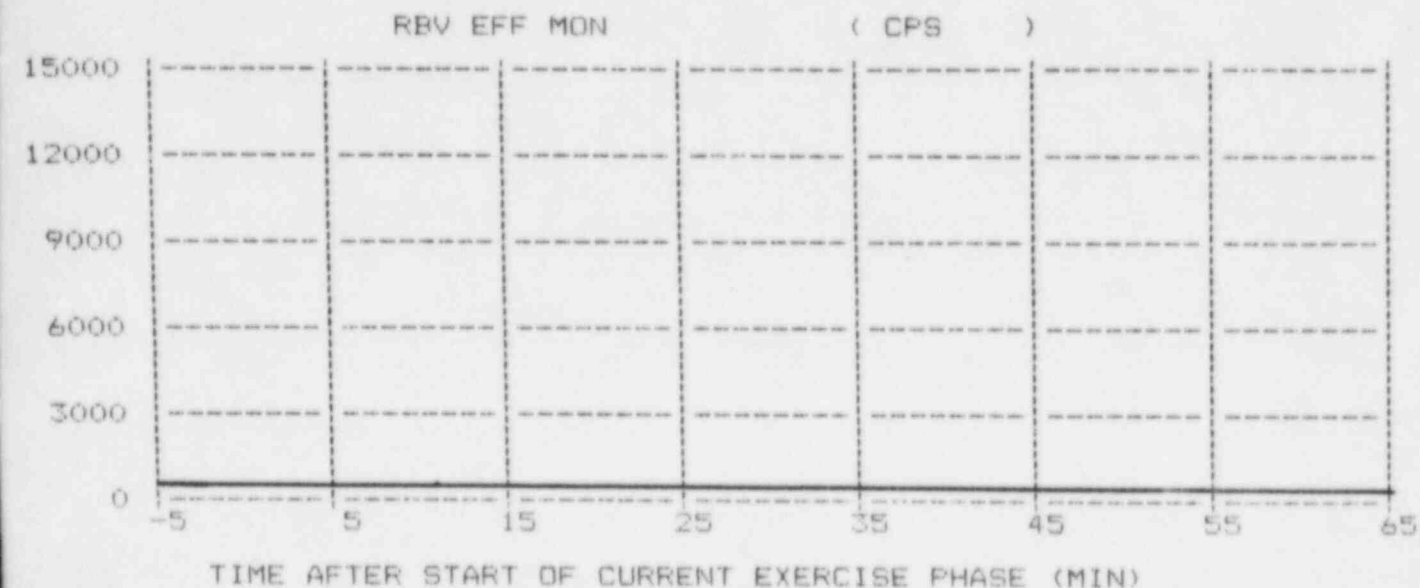
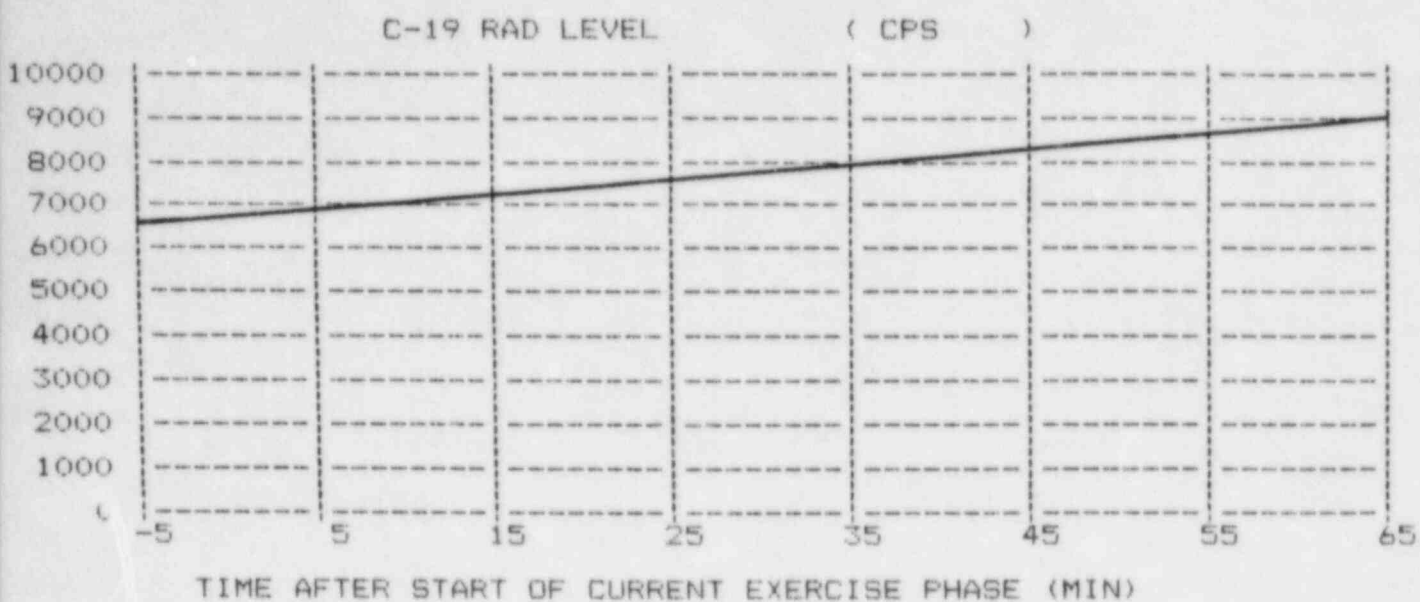


# PLANT PARAMETERS FOR EXERCISE PHASE 4-GENERAL EMERGENCY

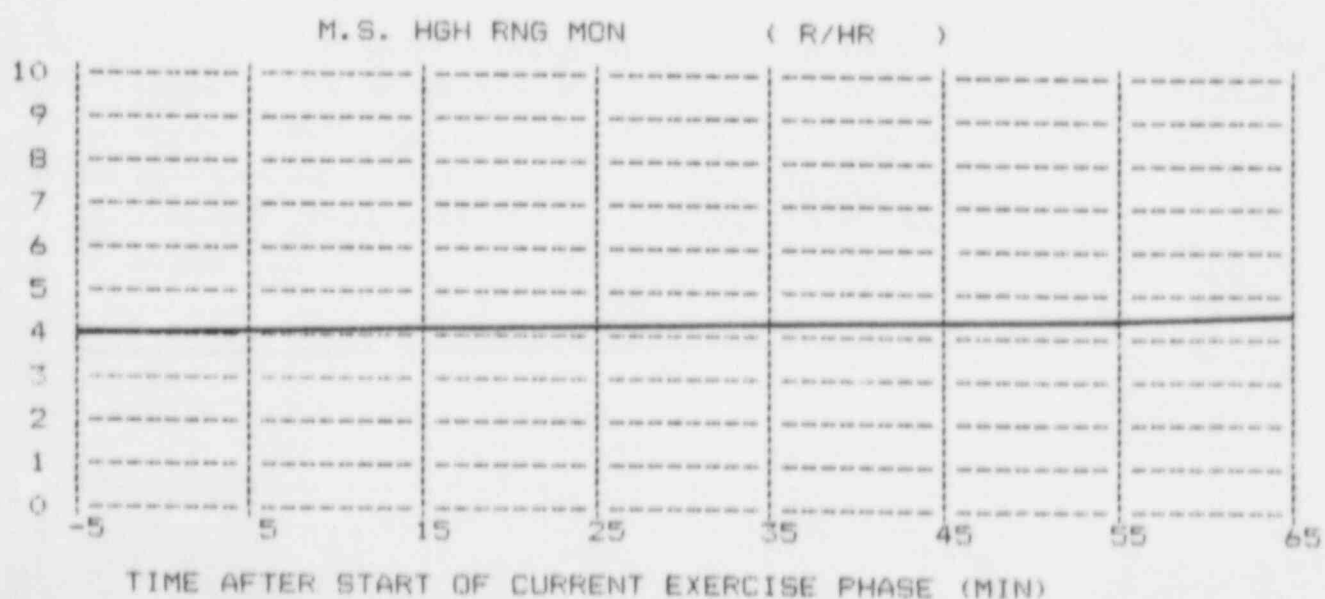
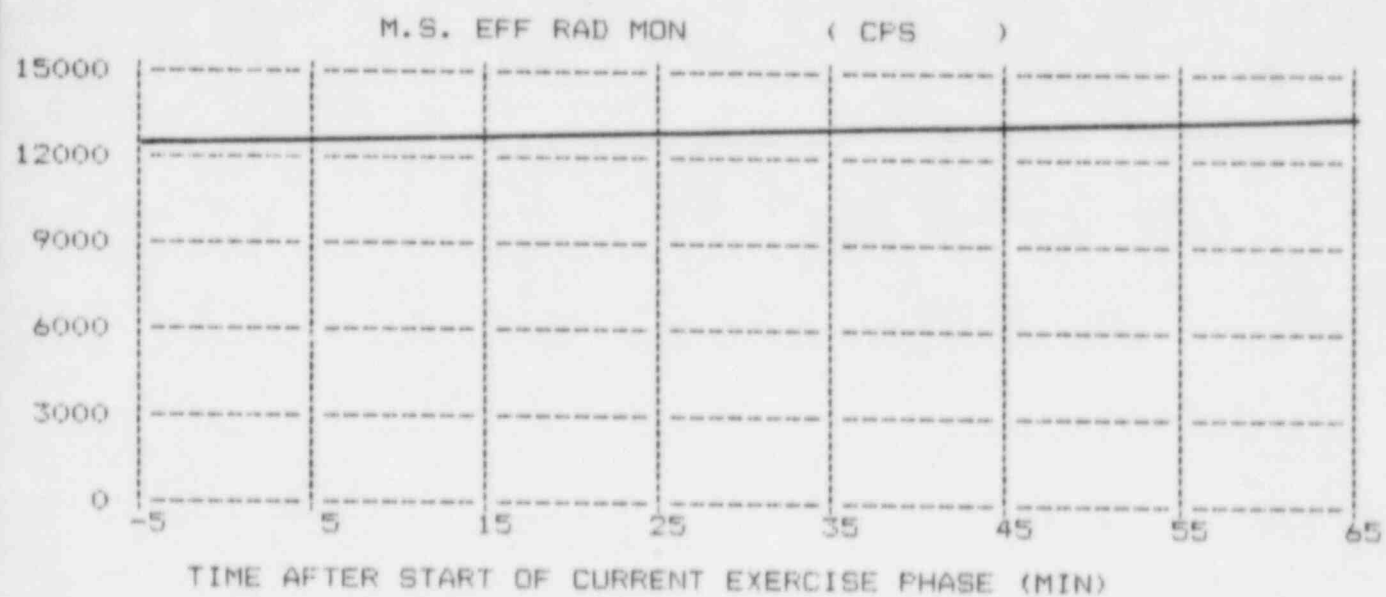
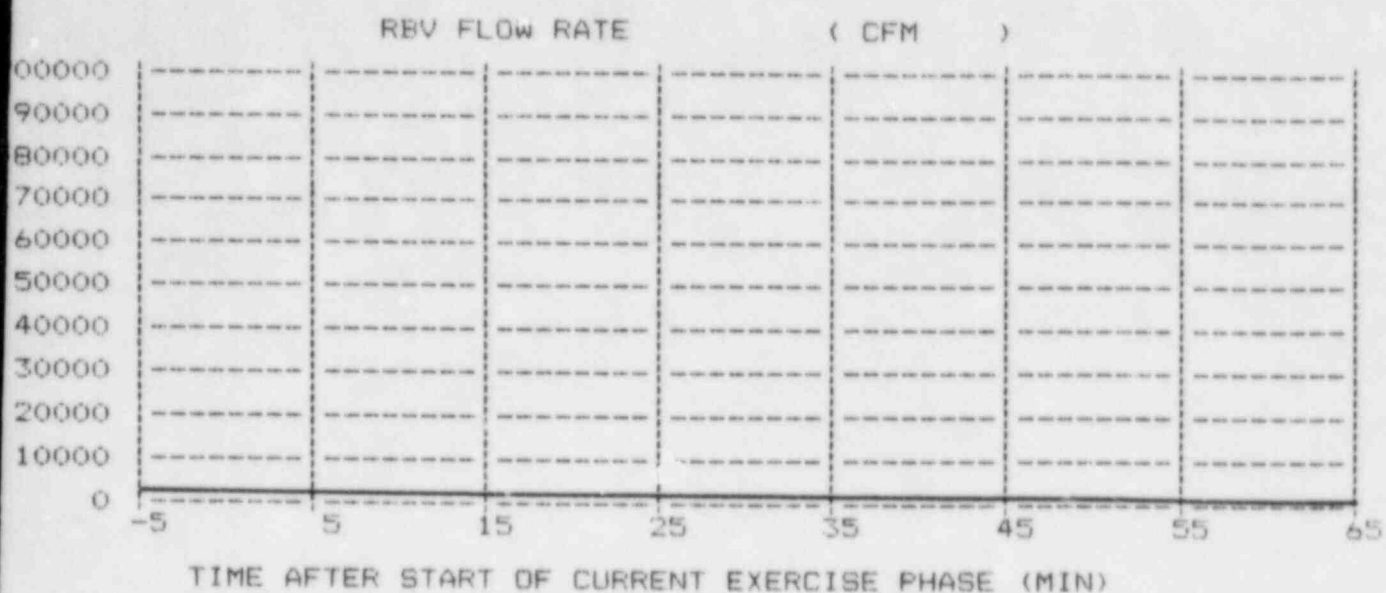




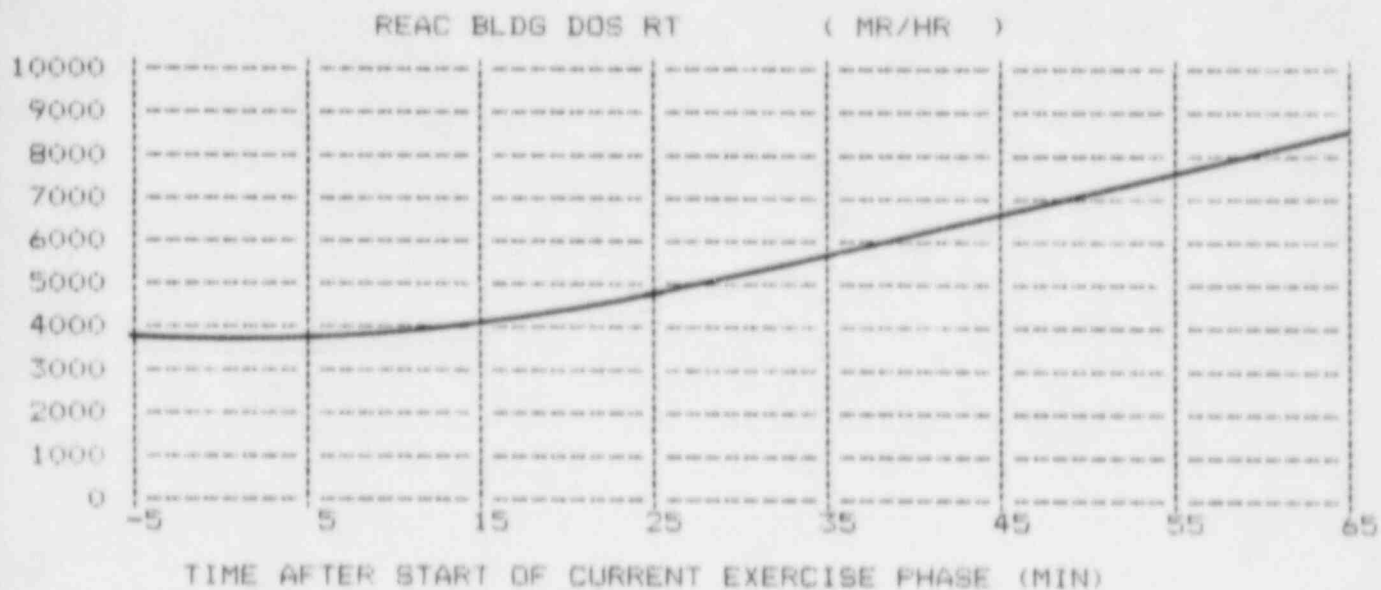
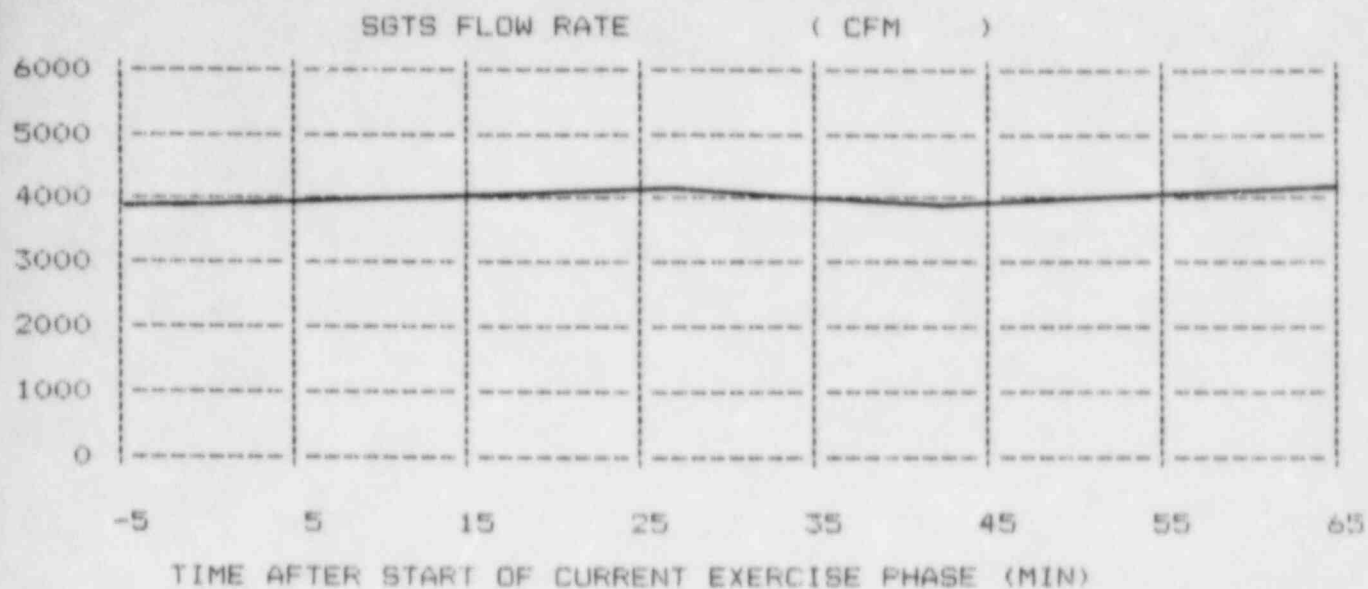
# PLANT PARAMETERS FOR EXERCISE PHASE 4--GENERAL EMERGENCY



# PLANT PARAMETERS FOR EXERCISE PHASE 4-GENERAL EMERGENCY



# PLANT PARAMETERS FOR EXERCISE PHASE 4-GENERAL EMERGENCY



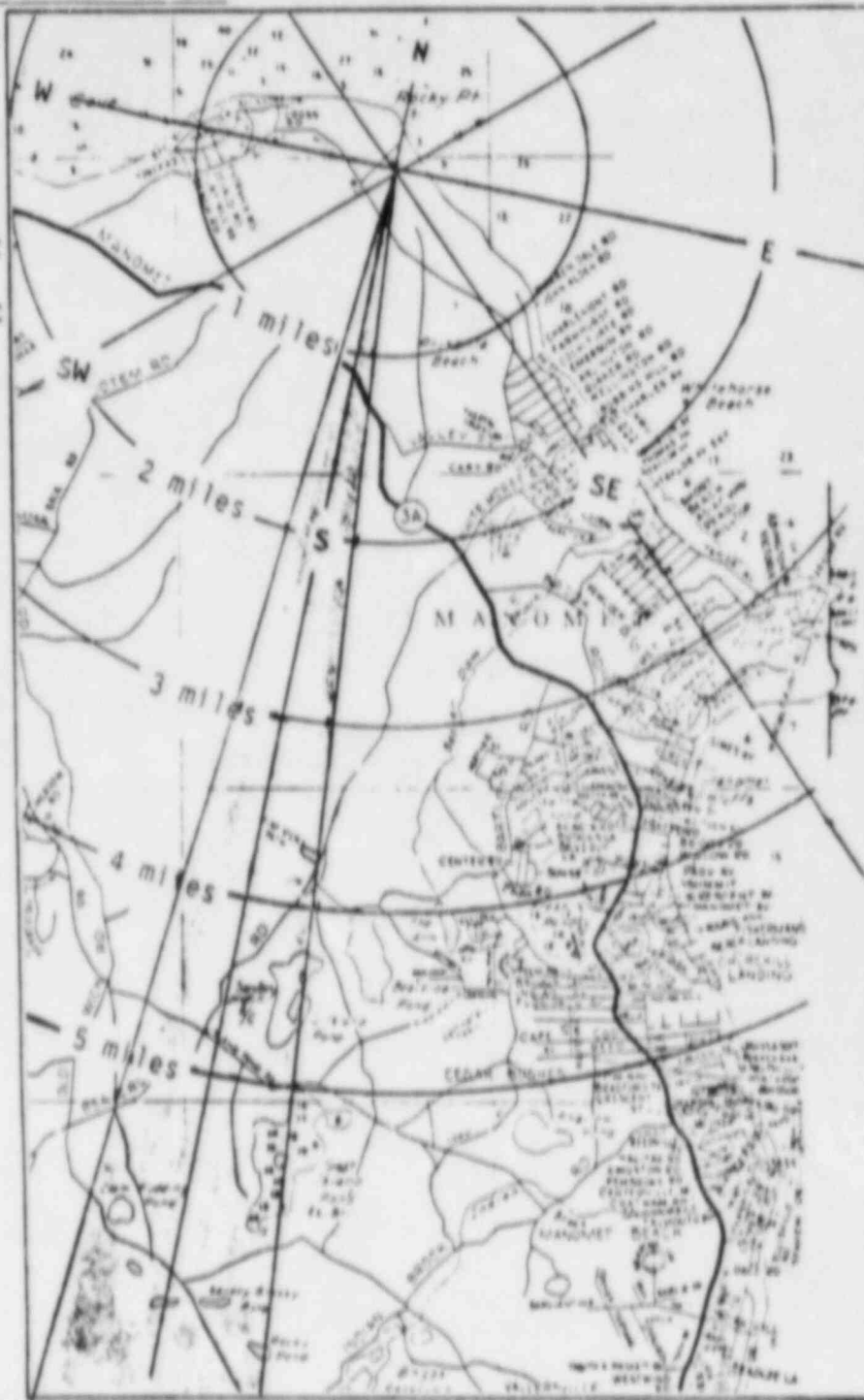
## 2. Offsite Dose Maps

The following 2 pages present radiological consequence information including release rates, meteorological data, dose rates and projected doses.

Three different sets of meteorological conditions and radioactive material release rates will be simulated during the exercise.

# ENVIRONMENTAL RADIATION LEVELS

HASE Site Emergency  
 MONITOR READING 10,000 cps  
 EFFLUENT FLOW RATE 100,000 SCFM  
 GROSS RELEASE RATE  $7 \times 10^4$  uCi/Sec  
 HALOGEN RELEASE RATE  $2 \times 10^4$  uCi/Sec  
 WIND DIRECTION 0 DEGREES (wind from)  
 AFFECTED SECTOR S  
 WIND SPEED 2 MPH  
 DELTA TEMP +2.5 DEG F  
 STABILITY CLASS F  
 WIND DIRECTION PERSISTENCE 9 HOURS



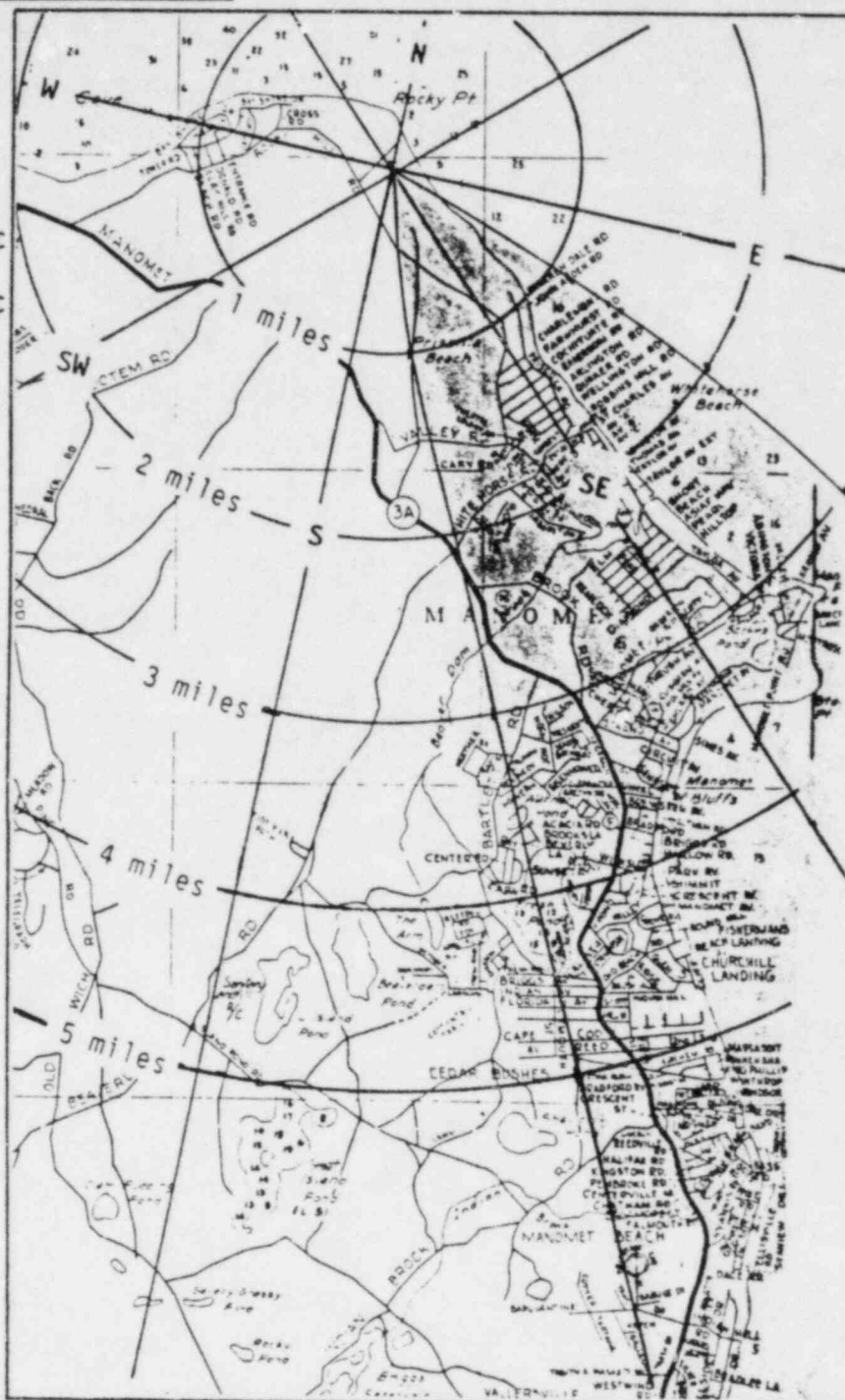
DISTANCE (MILES)	GAMMA DOSE RATE (Mr/Hr)	CHILD THYROID DOSE RATE (Mr/Hr)	PROJECTED GAMMA DOSE (Rem)	PROJECTED CHILD THYROID DOSE (Rem)	GROUND LEVEL HALOGEN CONCENTRATION (uCi/cc)
1.0	<u>0.5</u>	<u>2,000</u>	<u>.004</u>	<u>19</u>	<u><math>5 \times 10^{-6}</math></u>
2.0	<u>0.2</u>	<u>900</u>	<u>.002</u>	<u>8</u>	<u><math>2 \times 10^{-6}</math></u>
3.0	<u>0.15</u>	<u>536</u>	<u>.001</u>	<u>5</u>	<u><math>1 \times 10^{-6}</math></u>
4.0	<u>0.11</u>	<u>385</u>	<u>&lt; .001</u>	<u>3.5</u>	<u><math>8 \times 10^{-7}</math></u>
5.0	<u>0.09</u>	<u>290</u>	<u>&lt; .001</u>	<u>2.6</u>	<u><math>6 \times 10^{-7}</math></u>

NOTE: Plume dimensions reflect 3 Sigma decrease in concentration



# ENVIRONMENTAL RADIATION LEVELS

PHASE General Emergency  
 MONITOR READING 4 R/hr  
 EFFLUENT FLOW RATE 4,000 SCFM  
 GROSS RELEASE RATE  $5.8 \times 10^7$  uCi/Sec  
 HALOGEN RELEASE RATE < 10 uCi/Sec  
 WIND DIRECTION 325 DEGREES (wind from)  
 AFFECTED SECTOR SE  
 WIND SPEED 5 MPH  
 DELTA TEMP -1.7 DEG F  
 STABILITY CLASS B  
 WIND DIRECTION PERSISTANCE 17 HOURS



DISTANCE (MILES)	GAMMA DOSE RATE (Mr/Hr)	CHILD THYROID DOSE RATE (Mr/Hr)	PROJECTED GAMMA DOSE (Rem)	PROJECTED CHILD THYROID DOSE (Rem)	GROUND LEVEL HALOGEN CONCENTRATION (uCi/cc)
1.0	<u>23</u>	<u>&lt; 1</u>	<u>.4</u>	<u>&lt; .1</u>	<u><math>&lt; 1 \times 10^{-10}</math></u>
2.0	<u>4</u>	<u>&lt; 1</u>	<u>.07</u>	<u>&lt; .1</u>	<u><math>&lt; 1 \times 10^{-10}</math></u>
3.0	<u>2.5</u>	<u>&lt; 1</u>	<u>.04</u>	<u>&lt; .1</u>	<u><math>&lt; 1 \times 10^{-10}</math></u>
4.0	<u>2</u>	<u>&lt; 1</u>	<u>.03</u>	<u>&lt; .1</u>	<u><math>&lt; 1 \times 10^{-10}</math></u>
5.0	<u>1.5</u>	<u>&lt; 1</u>	<u>.025</u>	<u>&lt; .1</u>	<u><math>&lt; 1 \times 10^{-10}</math></u>

NOTE: Plume dimensions reflect 3 Sigma decrease in concentration

EMERGENCY ACTION LEVELS

CONDITION	UNUSUAL EVENT Follow Procedure 5.7.1.2	ALERT Follow Procedure 5.7.1.3	SITE EMERGENCY Follow Procedure 5.7.1.4	GENERAL EMERGENCY Follow Procedure 5.7.1.5
LOGICAL	Release rate of airborne or liquid radioactive effluent exceeds technical specification for 15 minutes or more as indicated by the Main Stack Reactor Building Vent or Liquid Waste Discharge Radioactive Effluent Monitor	Release rate of airborne or liquid radioactive effluents in excess of technical specification for 15 minutes or more as indicated by the Main Stack Reactor Building Vent or Liquid Waste Discharge Radioactive Effluent Monitor  -OR- Direct radon levels observed in the plant which increase by a factor of 1000 over a period of 1 hour or less. (Excluding the results of controlled processes such as mobile neutron detector withdrawals into the TRU room.)	An airborne radioactive effluent release which results in a calculated dose rate at any offsite location greater than 500 mrem/hr for 2 minutes to the whole body or 2500 mrem/hr to the thyroid under adverse meteorology as indicated by a level of $5 \times 10^4$ cps on the Main Stack or Reactor Building Vent Radioactive Effluent Monitor  -OR- An airborne radioactive effluent release which results in a calculated projected dose at any offsite location in excess of 1 Rem whole body or 5 Rem thyroid using actual meteorology  -OR- Drywell high range monitor reading in excess of 10R R/hr (equivalent to 1 Rem whole body at the site boundary in 10 hours)  -OR- Results of environmental measurements that indicate projected doses in excess of the EPA Protective Action Guides of 1 Rem whole body and/or 5 Rem thyroid for the expected duration of the event	A sustained (one hour) airborne radioactive effluent release which results in a calculated dose rate at any location offsite in excess of 1 rem/hr whole body and/or 5 rem/hr thyroid under actual meteorological conditions  -OR- Drywell high range monitor reading in excess of 10R R/hr (equivalent to 5 Rem whole body at the site boundary in 10 hours)  -OR- Results of environmental measurements that indicate projected doses in excess of 5 Rem whole body and 25 Rem thyroid  -OR- Radiation level on Main Stack high range monitor in excess of 5 R/hr (2)
DAMAGE	Greater than 500,000 uCi/sec at an reactor for 15 minutes or more or an increase of 100,000 uCi/sec within a 30 minute period using the most recently calculated conversion constant from mrem/hr to uCi/sec  -OR- Greater than 20 uCi/ml of total iodine in reactor water (confirmed)	Greater than 5 Ci/sec at an reactor for 15 minutes or more using the most recently calculated conversion constant from mrem/hr to uCi/sec  -OR- Greater than 200 uCi/ml of total iodine in reactor water (confirmed)	High alarm on at least two refueling floor process radiation monitors for 10 minutes or more caused by an actual release of radioactive material from a fuel bundle (a)	Greater than 200 uCi/ml of $I-131$ (confirmed) in reactor water (2)  -OR- Greater than 5 Ci/sec (corrected for a 30 minute decay) at an reactor using the most recently calculated conversion constant from mrem/hr to uCi/sec (2)  -OR- High radiation level trip on main steam line monitors (2 out of 4) caused by fuel failure (2)
LOSS OF COOLANT	Reactor coolant system undetected leakage greater than 5 GPM and total leakage greater than 25 GPM when averaged over a 24 hour period as indicated by drywell sump flow integrators. (1)  -OR- Reactor coolant pressure in excess of technical specification safety limits. (1)  -OR- Failure of a safety relief valve to properly close after reduction of applicable pressure as indicated by thermocouple or acoustic monitors. (1)	Reactor coolant system total leakage in excess of 50 gpm average over one hour as indicated by the drywell sump flow integrators. (1)  -OR- Failure of the reactor protection system to properly shutdown the reactor on valid trip signals after immediate and reasonable corrective actions. (1)  -OR- Loss of all control room annunciators for 15 minutes or more. (1)  -OR- Complete loss of safety related systems required by Technical Specifications necessary to maintain the reactor in a cold shutdown condition	Reactor vessel water level below the top of core (10 inches on 903 panel) and decreasing. (1)  -OR- Main steam line rupture outside primary containment that is not isolatable	Reactor vessel water level below the top of the core (10 inches indicated on 903 panel) for 15 minutes or more. (2)  -OR- Drywell atmosphere monitor reading in excess of 100 R/hr (2)  -OR- Drywell pressure greater than 10 PSIG and increasing. (2)  -OR- Reactor vessel water level below 2-3 core coverage ( $\pm 48$ inches indicated on 903 panel) and decreasing. (1)
FAILURE OF A SYSTEM EQUIPMENT	Primary containment isolation valves inoperable requiring shutdown according to technical specifications. (1)  -OR- Loss of ECCS or fire protection systems requiring plant shutdown according to technical specifications. (1)  -OR- Loss of indication and annunciation on any safety related system requiring plant shutdown according to technical specifications. (1)	Loss or potential loss of habitability of Control Room as witnessed by physical indicators (e.g. smoke, heat). (1)  -OR- Failure of the reactor protection system to properly shutdown the reactor on valid trip signals after immediate and reasonable corrective actions. (1)  -OR- Loss of all control room annunciators for 15 minutes or more. (1)  -OR- Complete loss of safety related systems required by Technical Specifications necessary to maintain the reactor in a cold shutdown condition	Failure of the reactor to shutdown on manual initiation within 15 minutes with MSIV's open. (1)  -OR- Loss of all communications coincident with any Alert Emergency Action Level. (1)  -OR- Evacuation of the main Control Room without establishing the ability within 15 minutes to begin shutdown procedures. (1)  -OR- Loss of physical control of the main control room by the Boston Edison Operators	Failure of any inboard and outboard isolation valve in series to close when an isolation signal is present. (2)  -OR- Drywell pressure in excess of 56 PSIG and increasing. (2)  -OR- Failure of the reactor to shutdown on manual initiation within 15 minutes with MSIV's closed  -OR- Any combination of events or failures that are likely to result in the loss of any of the following functions within 24 hours after reactor shutdown. (1) a) Ability to reliably maintain water over the reactor core b) Ability to reliably remove decay heat from the reactor core c) Ability to reliably export decay heat to the ultimate heat sink  -OR- Loss of physical control of the Reactor Building by Boston Edison operators or security personnel
LOSS OF POWER	Loss of all onsite AC power capability. (1)  A fire onsite that is not controlled within 20 minutes after fire fighting efforts have begun. (1)	Loss of all onsite D.C. power (24, 125 and 250 VDC) for 15 minutes or less. (1)  -OR- Loss of all offsite power coincident with loss of both emergency diesel generators. (1)  A fire within any process building that has the potential to affect safety systems within one hour or less if not controlled. (1)	Loss of both offsite power and onsite AC power for more than 15 minutes at loss of Line 342 and 355 and shutdown transformer and both diesel generators. (1)  Loss of all onsite DC power (24, 124 and 250 VDC) for 15 minutes or more. (1)	
NATURAL PHENOMENON	An earthquake that causes observed station damage  -OR- Confirmation of a tornado touching ground onsite  -OR- A hurricane with sustained (> 15 minutes) wind speed greater than 90 mph at the site	An earthquake that causes substantial observed process building damage  -OR- Any natural phenomena that could potentially impair ECCS capability. (1)		
SECURITY	Transportation of an injured person offsite for emergency medical treatment with evidence of internal or external contamination. Refer to proc. 4.5.6.1			
OTHER	Onsite airplane crash  -OR- Unplanned explosion onsite  -OR- Notification of release of toxic gases within 1 mile of site boundary  -OR- Attempted entry onsite with evidence of intent to sabotage	Airplane crash onsite that causes substantial observed damage to process buildings or switchyards  -OR- An ongoing security compromise requiring assistance by an offsite security force  -OR- Any other plant condition which in the judgment of the Reactor Engineer warrants increased awareness by offsite agencies		

(1) Inhabited fuel in the vessel and reactor coolant greater than 212°F

(2) Refer to proc. 4.5.7.1.3a 1 event 4a303(c)

## PNPS Emergency Response

The PNPS Emergency Organization will take specific actions as each Phase of the emergency is instituted.

The expected response of key personnel at each phase of the exercise as required by the Emergency Plan Implementing Procedures is as follows:

### A. UNUSUAL EVENT

#### 1. Watch Engineer

In response to the failure of restoring the feed to MCC B20 from RHR Loop A, the Watch Engineer should:

- Correctly identify and declare an Unusual Event (5.7.1.2).
- Designate a Control Room Emergency Communicator.
- Notify Station Manager of Unusual Event.
- Ensure Control Room Emergency Communicator implemented Procedure 5.7.2.8.
- Initiate plant shutdown according to Operating Procedure Volume 5.

#### 2. Control Room Emergency Communicator

The Control Room Emergency Communicator should:

- Notify the Mass. State Police of an Unusual Event within 15 minutes.
- Notify the Plymouth Police of an Unusual Event within 15 minutes.
- Notify the Nuclear Management Services Manager of an Unusual Event within 15 minutes.
- Notify the BECo Public Information Officer of an Unusual Event within 15 minutes.
- Notify the NRC of an Unusual Event within 15 minutes.
- Inform Watch Engineer (WE) when notifications were completed.
- Inform WE of which agencies and individuals called back to Control Room for verification.
- Begin and end each notification with "This is a drill."



3. Nuclear Management Services Manager

The Nuclear Management Services Manager should:

- Notify the Recovery Manager.
- Fill out Exhibit A to Procedure 23.01, Emergency Plan Incident Record.
- Notify the Nuclear Engineering Dept. Manager of an Unusual Event for informational purposes.
- Notify the Quality Assurance Dept. Manager of an Unusual Event for informational purposes.
- Notify the Pilgrim 2 Project Dept. Manager of an Unusual Event for informational purposes.
- Notify the Planning, Scheduling & Cost Control Dept. Manager of an Unusual Event for informational purposes.
- Notify agencies specified on Exhibit B to Procedure 23.01, Required Notification List.

B. ALERT CONDITION

1. Watch Engineer

As a result of plant conditions which occur during Phase 2 of the Exercise, the Watch Engineer should:

- Properly identify the event as an Alert Condition.
- Activate the Control Room monitor.
- Designate a Control Room Emergency Communicator.
- Instruct Security Supervisor to implement the Control Room Emergency Access List.
- Notify the Station Manager and brief him.
- Make the "Alert Announcement" over the plant page.
- Instruct the Technical Support Center (TSC) Supervisor to activate the TSC.
- Request the EOF Communications Coordinator to report to the EOF.
- Ensure Control Room Emergency Communicator implemented Procedure 5.7.2.8.



- Periodically update the TSC Supervisor on plant status.

2. Control Room Emergency Communicator

The Control Room Emergency Communicator should:

- Notify the Mass. State Police of an Alert within 15 minutes.
- Notify the Plymouth Police of an Alert within 15 minutes.
- Notify the Coast Guard of an Alert within 15 minutes.
- Notify the Nuclear Management Services Manager of an Alert within 15 minutes.
- Notify the BECo Public Information Officer of an Alert within 15 minutes.
- Notify the NRC of an Alert within 15 minutes.
- Inform Watch Engineer (WE) when notifications are completed.
- Inform W. E. of which agencies and individuals called back to Control Room for verification.
- Begin and end each notification with "This is a drill".
- Transfer communications with NRC on ENS line to Technical Support Center.

3. Technical Support Center

The Technical Support Center Supervisor should:

- Report to and activate the TSC.
- Establish communications with the Control Room.
- Establish communications with the EOF.
- Ensure that the TSC is staffed as necessary.
- Ensure the slave computer console is properly activated.
- Ensure the closed circuit TV monitor is properly activated.
- Notify the Watch Engineer that the TSC was activated.
- Notify the Emergency Security Supervisor of the names of people present in the TSC.

- Ensure that the ENS line to the NRC was taken over by the TSC from the Control Room.
- Maintain a list of individuals leaving and/or entering the TSC.
- Maintain communications with the Emergency Director.
- Periodically brief the TSC staff.

4. Emergency Security Supervisor

The Emergency Security Supervisor and staff should:

- Ensure Security personnel are aware that an Alert is in effect.
- Initiate Emergency Control Room Access List if requested.
- Assign Security Officer to Main Gate Parking Lot entrance gate and alternate access parking lot entrance gate.
- Assign Security officer to unlock Emergency Operations Facility, and remain at that post.
- Ensure that the Shorefront is closed.

5. Emergency Communications Coordinator

The Emergency Communications Coordinator should:

- Report to the EOF.
- Ensure that all offsite notifications have been made.
- Maintain a written copy of significant incoming and outgoing messages.

6. District Manager, Plymouth

The District Manager, Plymouth should:

- Report to the Media Center (Info Central).
- Contact the Public Information Officer Manager On-Call.
- Make news media calls directed by the Public Information Manager On-Call.
- Establish and maintain communications with the Public Information personnel at the EOF.
- Establish and maintain communications with Pru Info.

- Effectively assume duties of the Public Information Manager On-Call until the arrival of the Information Services Division Head.

7. Public Information Director

The Public Information Director should:

- Report to the EOF.
- Initiate & continue to seek pertinent information of the emergency conditions by interfacing with the EOF, ECC & Emergency Director.
- Periodically brief & update the Public Information Manager On-Call on essential events during the course of the emergency.
- Periodically brief & update the Public Information Executive at Pru Control on essential events during the course of an emergency.

8. Public Information Manager On-Call

The Public Information Manager On-Call should:

- Report to Information Central.
- Inform the Public Information Director and Pru Info of his arrival at Info Central.
- Direct the activities of the Info Central Staff.
- Ensure that the activities at Info Central could be maintained for a sustained emergency situation.
- Interface with NRC, MDPH and MCDA public information personnel for the duration of the emergency.
- Receive information from the EOF frequently.
- Keep the news media well informed throughout the emergency.
- Communicate with the news media frequently.

9. Nuclear Management Services Manager

The Nuclear Management Services Manager should:

- Notify the Recovery Manager (RM).
- Notify Nuclear Management Services Department (NMSD) Group Leaders.

- Notify agencies specified on Exhibit B to Procedure 23.01, Required Notification List.
- Inform Nuclear Management Services (NMS) Confidential Secretary to report to Recovery Center.
- Respond to the Recovery Center (Conf. Rm. South #1 & 2).
- Ensure NMSD Group Leaders & group members are available for the duration of the emergency.
- Ensure that all requests for non-BECO technical support are coordinated through the individual designated by the V. P. - Nuclear Engineering & Quality Assurance.
- Keep NMS personnel informed of emergency conditions.
- Coordinate assignments from the Recovery Manager to NMSD.

10. Recovery Manager

The Recovery Manager should:

- Contact the Emergency Preparedness Coordinator (EPC).
- Direct the EPC to activate the Recovery Organization.
- Contact the Chief Executive Officer (CEO).
- Provide for support personnel for the duration of the emergency, if requested.
- Establish and maintain communications with the NMSM.
- Establish and maintain communications with the Emergency Director.
- Establish and maintain communications with the Executive VP-Corporate Relations, etc.
- Ensure that the CEO is informed of escalating and deescalating plant conditions.
- Ensure that all recovery actions are fully documented.
- Respond in a timely manner to requests from the Emergency Director.



D. SITE & GENERAL EMERGENCY

In addition to the following actions, functions initiated under an Alert Condition should continue for the duration of the emergency exercise.

1. Watch Engineer

As a result of plant conditions which occur during Phases 3 and 4 of the Exercise the Watch Engineer should:

- Identify the events as a Site Emergency or General Emergency. He may or may not be the Emergency Director at this time. The Emergency Director will make the decision to escalate.
- Instruct the Emergency Security Supervisor to implement the Control Room Emergency Access List.
- Sound Station Evacuation Alarm.
- Announce the "Site Emergency" or "General Emergency" message over the Public Address System.
- Notify the Station Manager if Watch Engineer is still the Emergency Director.
- Ensure the Control Room Emergency Coordinator or the EOF Communications Staff implemented Procedure 5.7.2.8.
- Inform Emergency Security Supervisor of Control Room personnel accountability.
- Transfer the responsibility of Emergency Director to the Station Manager if not done at the ALERT level.
- Periodically update the Technical Support Center (TSC) Supervisor on plant status.
- Direct the activities of the Operations Support Center (OSC) as needed.

In response to the personnel injury, the Watch Engineer should:

- Notify the On-Call H. P. Supervisor of the injury.
- Ensure Attachment B to Procedure 5.61 is completed and sent with injured person to hospital.
- Instruct Security Supervisor to provide an escort for the ambulance.

- Notify Jordan Hospital and request activation of the Hospital Emergency Plan and give accident details.
- Dispatch an H. P. Tech with the injured person.
- Notify Dr. R. Olson or Dr. T. Wattuck at Jordan Hospital.
- Notify J. Palfrey (PNPS Physician's Assistant).
- Notify Chief Radiological Engineer.
- Notify Station Manager.
- Notify BECo Reports Dispatcher of personnel injury.
- Initiate an Accident Report (BECo Form 1119).

2. Control Room Emergency Communicator or EOF Communications Staff

The Control Room Emergency Communicator or EOF Communications Staff should:

- Notify the Mass. State Police of a Site or General Emergency within 15 minutes.
- Notify the Plymouth Police of a Site or General Emergency within 15 minutes.
- Notify Coast Guard of a Site or General Emergency within 15 minutes.
- Notify the Nuclear Management Services Manager of a Site or General Emergency within 15 minutes.
- Notify the BECo Public Information of a Site or General Emergency within 15 minutes.
- Notify the NRC of a Site or General Emergency within 15 minutes.
- Inform Watch Engineer (WE) or Emergency Director when notifications are completed.
- Inform W. E. or Emergency Director of which agencies and individuals called back to Control Room for EOF for verification.
- Begin and end each notification with "This is a drill".
- Transfer communications with NRC on ENS line to Technical Support Center, if not done under the Alert.



3. Technical Support Center

The Technical Support Center Supervisor should:

- Maintain communications with the Control Room.
- Maintain communications with the EOF.
- Ensure that the ENS line to the NRC was taken over by the TSC from the Control Room.
- Maintain a list of individuals leaving and/or entering the TSC.
- Periodically brief the TSC staff.
- Periodically update the OSC on the course of the emergency.

4. Operations Support Center Supervisor

The Operations Support Center Supervisor should:

- Report to the OSC promptly.
- Ensure that the OSC is staffed appropriately.
- Inform the Watch Engineer that the OSC was activated.
- Inform the Emergency Security Supervisor of the names of people present in the OSC.
- Maintain accountability of people entering and/or leaving the OSC.
- Establish and maintain communications with TSC.
- Establish and maintain communications with the Control Room.

5. Emergency Security Supervisor

The Emergency Security Supervisor and staff should:

- Ensure Security personnel are aware that a Site or General Emergency is in effect.
- Continue to implement the Emergency Control Room Access List.
- Assign a Security Officer to the Operations Support Center, if requested.
- Request Plymouth Police response to assist with traffic, if needed.

- Process BECo personnel, contractors and visitors through the Main Guardhouse to the I&S Building.
- Assign Security Officers to record departing personnel on access control list.
- Assign Security Officers to punch personnel out at turnstiles, using collected access/ID cards.
- Obtain accountability list within 30 minutes.
- Obtain "unaccounted list" and last location.
- Notify "unaccounted for" person's supervisor by radio or page to obtain last known location.
- Notify Emergency Director of accountability list completion and names and last location of those "unaccounted for".
- Provide TLDs for ambulance personnel.
- Provide vehicle access for responding ambulance.
- Provide escort of ambulance to area nearest to location of injured person.
- Provide egress for departing ambulance.

6. Emergency Director

Emergency Director should:

- Ensure that site evacuation has occurred and that personnel accountability has been implemented.
- Ensure that access control to the site and process buildings is in effect.
- Ensure that monitoring teams have been dispatched.
- Ensure that the Recovery Organization has been activated.
- Evaluate projected doses and make recommendations to the Mass. Department of Public Health for protective actions for the general public.
- Coordinate with the Public Information Director and ensure that all information sent to the Info Central is accurate.
- Coordinate press releases with the Public Information Officer, Chief Technical Spokesman, and State representatives.

- Escalate the event as conditions become more serious and ensure appropriate notifications are made.
- Make immediate recommendations for protective actions for the general public when the General Emergency is declared to the MDPH.
- Deescalate the event as conditions improve and ensure appropriate notifications are made.
- Evaluate the conditions under which Re-entry could be performed (for sampling, etc) and coordinate this with the RETC.
- Monitor exposure conditions for the Emergency Response Facilities (thru the RETC) and evaluate the need for evacuation.

7. Radiological Emergency Team Coordinator

The Radiological Emergency Team Coordinator should:

- Consult with the Emergency Director (ED) on conditions and environmental impact on a continuing basis.
- Take charge of all emergency monitoring team personnel.
- Ensure that personnel are assigned to dose assessment.
- Ensure that the Emergency Personnel Assignment Sheet is completed.
- Brief, dispatch, and direct the activities of the environmental and personnel monitoring teams.
- Evaluate the need to activate the Yankee Atomic Environmental Laboratory (YAEL) Mobile Van.
- Ensure that environmental data and dose projections are properly recorded.
- Keep the ED properly informed.
- Properly identify the need for Yellow, Red, Blue, Green, and Brown survey teams.
- Evaluate radiological conditions at the Assembly Area, EOF, TSC, OSC, & Control Room.
- Assist the E.D. in evaluating radiological conditions.
- Make recommendations for protective actions for the general public to the Emergency Director.

8. Environmental Dose Assessment Engineers

The Environmental Dose Assessment Engineers should:

- Make initial dose estimates available within 15 minutes.
- Make dose estimates repeatedly during the event.
- Convey dose estimates promptly and accurately to the Radiological Emergency Team Coordinator (RETC).
- Continue to monitor meteorological conditions for changes (e.g. wind shift).
- Assist the RETC in evaluating recommended protective actions for the general public.
- Properly document all evaluations.
- Continue to monitor radiological conditions at the EOF.

9. Red, Blue and Green Environmental Monitoring Teams

The Red, Blue and Green Monitoring Team Leaders and teams should:

- Assemble promptly after declaration of Site Emergency.
- Receive a monitoring team procedure from the Radiation Emergency Team Coordinator (RETC), if not available in the Team Kit.
- Don a TLD badge and dosimeter.
- Obtain a walkie talkie from the EOF.
- Perform a communications check with EOF.
- Obtain a battery powered air sampler (12V dc).
- Obtain a Sam-2 System.
- Check out all instruments and materials in Team Kits prior to leaving EOF.
- Report to the RETC for briefing and assignment.
- Synchronize watches with the EOF clock(s).
- Monitor dose rates while enroute to sampling location.
- Record the highest and lowest dose rates encountered.

- Perform a dose rate survey upon arrival at sampling location.
- Report survey results back to the EOF immediately.
- Verify threshold and window settings on Sam-2.
- Collect a 10 minute air sample and count it.
- Do a one minute background count using Sam-2.
- Radio the information required back to the EOF.
- Request additional instructions from the RETC.

10. Yellow and Brown Personnel Monitoring Teams

The Yellow and Brown Monitoring Team Leaders and Team members should:

- Each have a TLD.
- Each have a Dosimeter.
- Have an E-400 Survey instrument with earphone or equivalent.
- Each have cotton or plastic gloves.
- Have a "Bull" horn.
- Have a walkie talkie.
- Be able to communicate clearly with the EOF.
- Take a background reading at the assembly area and report it to the RETC.
- Yellow Team to assemble all evacuees at the I&S Building.
- Brown Team to assemble general public at intersection of Rocky Hill Road and the Shorefront Road.
- Perform personnel surveys on all assembled persons.
- Report the findings to the EOF.
- Establish good crowd control.



11. Nuclear Management Services Manager

The Nuclear Management Services Manager should:

- Keep Nuclear Management Services (NMS) personnel informed of escalating and deescalating emergency conditions.
- Ensure NMS personnel are available for the duration of the emergency conditions.
- Ensure that all requests for non-BECO technical support are coordinated through the individual designated by the V. P. - Nuclear Engineering and Quality Assurance.
- Coordinate assignments from the Recovery Manager to NMSD.
- Fill out Exhibit A to Procedure 23.01, Emergency Plan Incident Record.
- Notify agencies specified on Exhibit B to Procedure 23.01, Required Notification List.

E. STABILIZATION/DEESCALATION

1. Watch Engineer

As a result of plant conditions, which occur during Phase 5 of the Exercise, the Watch Engineer should:

- Recognize that the improving plant parameters were indicative of potential deescalation from the General Emergency.
- Notify the Emergency Director.
- Ensure Control Room Emergency Communicator or EOF Communications Staff implemented Procedure 5.7.2.8.
- Inform and brief the Technical Support Center (TSC) directly.

2. Control Room Emergency Communicator or EOF Communications Staff

The Control Room Emergency Communicator or EOF Communications Staff should:

- Notify the Mass. State Police of a Deescalation (Classification) within 15 minutes.
- Notify the Plymouth Police of a Deescalation (Classification) within 15 minutes.



- Notify the Coast Guard of Deescalation (Classification) within 15 minutes.
- Notify the Nuclear Management Services Manager of a Deescalation (Classification) within 15 minutes.
- Notify the BECo Public Information of a Deescalation (Classification) within 15 minutes.
- Notify the Nuclear Regulatory Commission of Deescalation (Classification) within 15 minutes.
- Inform Watch Engineer (WE) or Emergency Director when notifications were completed.
- Inform WE or Emergency Director of which agencies and individuals called back to Control Room or EOF for verification.
- Begin and end notification with "This is a drill".

F. TERMINATION

1. Watch Engineer

As a result of plant conditions which occur during Phase 6 of the Exercise the Watch Engineer should:

- Recognize that the stable plant conditions should result in deescalation and termination of the Emergency.
- Notify the Emergency Director and recommend termination of the emergency situation.

2. Control Room Emergency Communicator or EOF Communications Staff

The Control Room Emergency Communicator or EOF Communications Staff should:

- Notify the Mass. State Police of Termination within 15 minutes.
- Notify the Plymouth Police of Termination within 15 minutes.
- Notify the Nuclear Management Services Manager of Termination within 15 minutes.
- Notify the BECo Public Information of Termination within 15 minutes.

- Notify the Coast Guard of Termination within 15 minutes.
- Notify the NRC of Termination within 15 minutes.
- Inform Watch Engineer (WE) or Emergency Director when notifications are completed.
- Begin and end each notification with "This is a drill".

3. Emergency Director/Recovery Manager

- The termination of an emergency (Alert thru General) requires a joint decision by the Emergency Director and Recovery Manager.
- The criteria for terminating an emergency situation and beginning a recovery phase include (but are not limited to):
  - o EALs for any emergency category are no longer being reached or exceeded.
  - o Radiation levels in all in-plant areas are stable or are decreasing with time.
  - o Releases of radioactive material to the environment from the plant are under control or have ceased.
  - o Any fire, flooding, or similar emergency conditions are controlled or have ceased.

## STATE AND LOCAL (OFF-SITE) RESPONSE

### BACKGROUND

Off-site scenario development, and coordination of exercise development is the responsibility of the Massachusetts Civil Defense Agency (MCDA). This responsibility is shared with the Massachusetts Department of Public Health (MDPH) in the area of accident assessment, radiological protection, medical and public health, and protection of the food chain. Exercise objectives and standards are worked out in close coordination with the utility. However, off-site authorities have no knowledge of the details of the scenario.

In 1982 and 1983, State and local authorities tested all major components of their respective radiological emergency response plans on an integrated basis. Massachusetts State agencies have also exercised successfully in 1982 and 1983 with both the Vermont Yankee and Yankee Rowe Nuclear Power Stations.

In 1984, as indicated in the "Objectives" section, state participation in the PNPS exercise will be more limited. (Massachusetts will be participating in an exercise with Yankee Rowe on August 22, 1984). Massachusetts will activate its Civil Defense Area II Headquarters at Bridgewater, and will assure that enough exercise "play" is introduced to assure a meaningful exercise at the local level.

The Prompt Alert and Notification System is scheduled for evaluation later in 1984. Accordingly, neither the siren system nor the EBS system will be activated during the 1984 exercise.

The Massachusetts Department of Public Health (MDPH) is responsible for assessing the consequences of radiological accidents and recommending protective actions for the public. To assure a realistic exercise environment for EOF personnel, MDPH will deploy assessment personnel to the EOF. Members of the MDPH Nuclear Incident Advisory Team (NIAT) will not be deployed to the field.

Local Governments will participate in the exercise extensively. Each of the five communities in the plume exposure EPZ (Plymouth, Kingston, Duxbury, Marshfield and Carver) and three communities which would operate reception centers (Taunton, Bridgewater and Hanover) will receive an initial alert over an encoded system using County Police Network frequencies. Each will mobilize local operating officials and activate local EOC's. The Towns of Plymouth, Kingston, Duxbury, Marshfield and Hanover will also exercise various further response capabilities based upon situations called for in the State's off-site response scenario.

Public Information. The Media Center at Memorial Hall in Plymouth (Info Central) will be activated and staffed by BECo officials. Information on plant status will be developed and coordinated at the EOF and transmitted to the Media Center for release. Press releases on the nature and status of the exercise will be released to the media at Info Central, and briefings to the media will occur there.

Based upon the extent of State and local participation in the joint exercise, a total of 12 potential observer locations are suggested. These locations encompass both primary locations requiring full-time observation and secondary locations where part-time observation would be adequate due to the limited involvement of the participants based upon the exercise scenario.

A Table identifying each observer location, the observer role during the exercise, and the elements that should be reviewed appears as Attachment A to this Section. Attachments B and C represent samples of questions that will be telephoned to appropriate operations points by controllers operating from the State EOC in Framingham, or passed to local operations officers by State observers located in the local EOC's.



TABLE OF SUGGESTED OBSERVER LOCATIONS

<u>Observer Location</u>	<u>Role/Responsibilities</u>	<u>Elements of Observer Focus</u>
1. Area EOC-MCDA (Bridgewater)	Coordination of area/local resources, emergency response, Reception Center activities and support.	<ul style="list-style-type: none"> <li>o Notifications and communications/backup.</li> <li>o Emergency action levels and response.</li> <li>o EOC operations and organization.</li> <li>o Coordination of area/local response.</li> <li>o Reception Center activation and support (shelters).</li> </ul>
2. State Police (Middleborough)	Emergency notification and traffic control.	<ul style="list-style-type: none"> <li>o Notification and communication.</li> <li>o Traffic control.</li> </ul>
3. EOF (Pilgrim)		
- MCDA Representative	Coordination of protective actions, media releases, and State-utility interface.	<ul style="list-style-type: none"> <li>o Interface and decision-making.</li> <li>o Media releases.</li> <li>o Recovery and re-entry.</li> </ul>
- MDPH Representative	Monitoring and accident assessment, determination of protective actions, State-utility interface.	<ul style="list-style-type: none"> <li>o NIAT assessment.</li> <li>o Interface and decision-making.</li> <li>o Recovery and re-entry.</li> <li>o Exposure control.</li> </ul>
4. Plymouth EOC (Memorial Hall)	Local emergency response, public alerting and protective actions.	<ul style="list-style-type: none"> <li>o Notifications and communications.</li> <li>o EOC operations and organization.</li> <li>o EAL response.</li> <li>o Command and decision-making.</li> <li>o Traffic control.</li> <li>o Protective actions.</li> <li>o Public alerting.</li> <li>o Media releases.</li> </ul>
5. Media Center (Memorial Hall, Plymouth)	Media briefings and news releases.	<ul style="list-style-type: none"> <li>o State-local-utility interface, coordination.</li> <li>o Media briefings.</li> <li>o News releases.</li> </ul>

TABLE OF SUGGESTED OBSERVER LOCATIONS

<u>Observer Location</u>	<u>Role/Responsibilities</u>	<u>Elements of Observer Focus</u>
6. Kingston EOC (Fire Station)* 7. Carver EOC (Police Station)* 8. Duxbury EOC* 9. Marshfield EOC*	(Same as Plymouth)	(Same as Plymouth)
10. Hanover EOC	Standby for possible Reception Center activation; support of Reception Center activities.	<ul style="list-style-type: none"> <li>o Notifications and communications.</li> <li>o Coordination with Area 2 MCDA.</li> <li>o Activation of Reception Center.</li> <li>o Traffic control.</li> </ul>
11. Taunton EOC* 12. Bridgewater EOC*	(Same as Hanover)	(Same as Hanover)

\*Secondary observer locations for which part-time observation would be adequate.



SAMPLE CALL IN QUESTIONS FOR LOCA EOC'S

My laundry was hanging on the clothesline outdoors. Is my laundry radioactive?

\_\_\_\_\_

Is it safe for me to go to the store? If it is safe to go to the store, will any food I buy be safe to eat?

\_\_\_\_\_

It is time for me to milk my cows. Should I throw the milk away?

\_\_\_\_\_

The patients at my nursing home are becoming very nervous, apprehensive, and agitated. I am certain that within the next few hours I will be required to move them away from here to allay their fears. Can you help me?

\_\_\_\_\_

My television isn't working. Is it because of the radioactivity in the air?

\_\_\_\_\_

Do you need help in manning road blocks?

\_\_\_\_\_

I understand that you cannot hear, see, taste or smell radiation. I have one small child and I am pregnant. Who is going to tell me what I can do to save myself and my child?

\_\_\_\_\_

I have been told that I may be required to evacuate to \_\_\_\_\_ from here.

\_\_\_\_\_

I heard a rumor that we will have to evacuate. What will I do with my horse, two dogs, and cat?

\_\_\_\_\_

I know what I am supposed to do. Where is the Civil Defense Headquarters and what can I do to help?

\_\_\_\_\_

I live in \_\_\_\_\_. I have been told by my neighbor that alpha particles are in the environment. What does that mean?

\_\_\_\_\_

I have been told that protective actions may be ordered by the Governor. What does this mean? What should I do?

\_\_\_\_\_

I heard on the radio just now that I may be required to evacuate my house. I have a shotgun and I will shoot anyone who tries to move my wife and I.

\_\_\_\_\_

Where can I get some potassium iodide?

\_\_\_\_\_

I have been told that I might have to evacuate my home.

\_\_\_\_\_

Why has the \_\_\_\_\_ School started to evacuate its students?

\_\_\_\_\_

Need list of all deaf people in your community. Also ascertain whether or not they have teletypewriters.

\_\_\_\_\_

Are there any homes in your community without heat due to electric power outage due to effects of ice or wind from the last winter storm?

\_\_\_\_\_

Four car accident at the intersection of \_\_\_\_\_ Street and \_\_\_\_\_.

\_\_\_\_\_

How many ham radio operators are now operating in your community?

\_\_\_\_\_

### EVALUATION

Information obtained by the Exercise Coordinator, Controllers and Observers, primarily from the Exercise checklists, will be used by Boston Edison Company (BECo) to evaluate the performance of BECo personnel relative to the PNPS Emergency Plan Implementing Procedures. This evaluation will compare actual actions taken to those actions required by applicable procedures and the appropriateness and effectiveness of such actions.

This assessment will be conducted and/or reviewed by the Emergency Preparedness Coordinator, Vice President-Nuclear Operations and Environmental and Radiological Health & Safety Group Leader and Staff.

As a result of this evaluation, improvements in the areas of procedures, facilities, equipment and training which would result in a greater degree of emergency preparedness may be identified.

An Exercise Evaluation report will be issued which presents the findings of the evaluation and includes recommendations for improvements in any and all of the above areas.

SAMPLE CALLS TO AREA EOC OPERATIONS SECTIONS

This is Chief Jones in Norwell. We're getting a lot of traffic through here, and can use some help with traffic control. How about it?

---

This is Dana Harriman, the Fire Chief in Carver. Our Police Department reports that a truck bearing radiation markings is abandoned at the junction of Routes 58 and 44 here in town. Who should I call?

---

This is the Governor's Area Office. We've had some inquiries regarding the safety of drinking water. Is it safe? Can we tell the press that samples are being taken?

---

Bob Mulliken here, CD Director in Kingston. I can't get through to Frank Willard. Look, I've got two nursing homes here I might have to evacuate. Can you guys or the Department of Public Health round me up some ambulances?

---

This is the Boston Globe. We were referred to you by the Governor's office. We've received numerous calls asking if water is safe to drink because of the accident. Is it?

---

This is Sergeant Fallon, Sandwich Police Department. Should we be looking for any heavy traffic here? Is there anything we can do?

---

This is Captain Sullivan in Marshfield. A car took a pole out front with a transformer on it. Our generator won't start, and we're operating in the basement EOC on emergency power. How soon can you get me a portable generator hook-up?

---

Inform us as soon possible of status of heat fuel supplies in your community.  
List homes in need of emergency resupply of coal or oil.

\_\_\_\_\_  
Truck loaded with epichlorohydrin has overturned on \_\_\_\_\_ Street.  
Fire has started.

\_\_\_\_\_  
School bus and truck have collided on street.

\_\_\_\_\_  
Notify \_\_\_\_\_ Hospital of potential receipt of injured from school  
bus accident.

\_\_\_\_\_  
How many cots and blankets are available at the \_\_\_\_\_ School?

\_\_\_\_\_  
Prepare plans to relocate your fire trucks and personnel if required by  
increased release from the power plant.

\_\_\_\_\_  
If evacuation is required, how many tow trucks are available in your  
community? How many tow trucks can you acquire from the adjacent communities?

\_\_\_\_\_  
If the electric power failed right now, how would you get your radio to  
operate?

\_\_\_\_\_  
Can the radioactive plume affect our water supply?

\_\_\_\_\_  
How many gallons of regular gas, unleaded gas, and diesel fuel are stored at  
service centers in your community? If the power fails due to the winter  
storm, how will you pump the fuel? Identify those locations who have  
emergency power supplies to pump fuel.

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