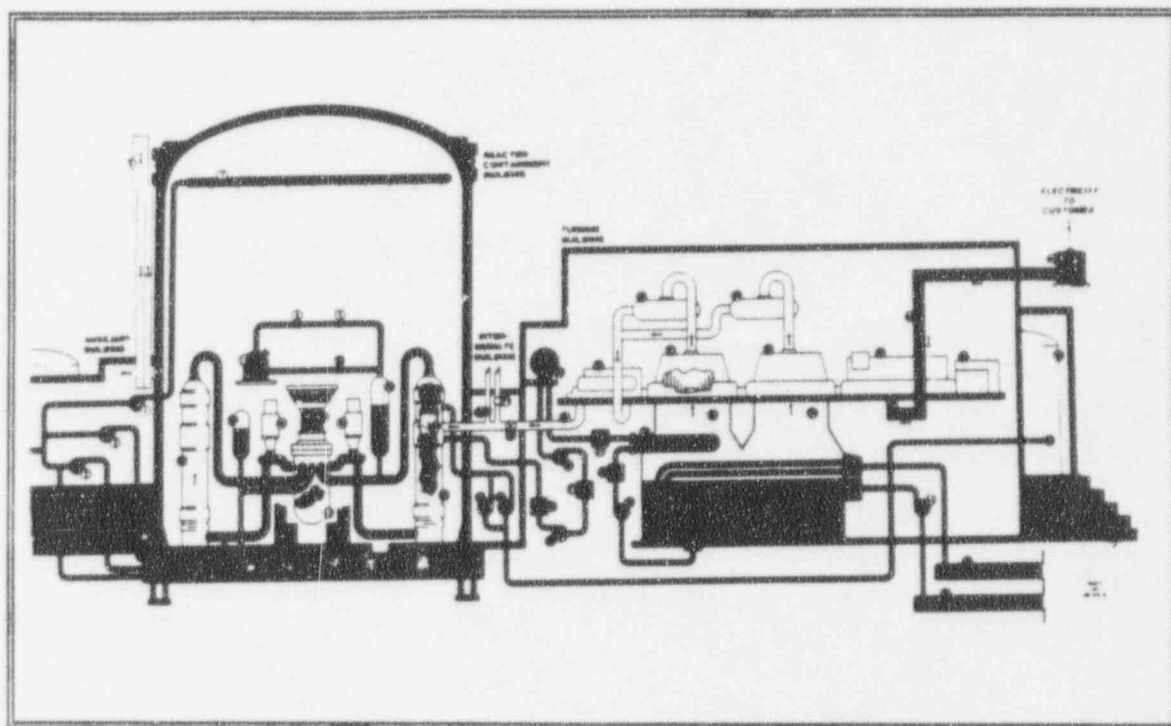
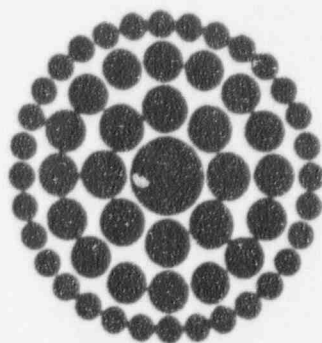


# FLORIDA POWER CORPORATION CRYSTAL RIVER UNIT 3

1992 RADIOLOGICAL EMERGENCY RESPONSE PLAN EXERCISE



NOVEMBER 5, 1992



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## EXERCISE OBJECTIVES

### GENERAL OBJECTIVES

1. Demonstrate the ability to alert and mobilize FPC emergency response personnel and to activate FPC emergency response centers in a timely manner.
2. Demonstrate the adequacy, operability, and effective use of emergency communications equipment.
3. Demonstrate the ability of FPC to support the State of Florida and local authorities in emergency response activities within the plume exposure pathway emergency planning zone.
4. Demonstrate that Areas Requiring Corrective Action observed in the 1991 Exercise have been corrected.

### OPERATIONS OBJECTIVES (Control Room)

1. Demonstrate the understanding of Emergency Action Levels (EAL's) and proficiency in recognizing and classifying emergency conditions.
2. Demonstrate accident assessment and mitigation in the Control Room, including recognition and evaluation of degrading plant conditions, and recommendation of specific corrective actions to stabilize the plant.
3. Demonstrate the ability to perform emergency notifications, as required, to the State of Florida, local authorities, and the Nuclear Regulatory Commission.
4. Demonstrate an effective turnover of Emergency Coordinator responsibilities between the Shift Supervisor and the Director, Nuclear Plant Operations or Man-On-Call.

### ON-SITE EMERGENCY RESPONSE ORGANIZATION OBJECTIVES

1. Demonstrate effective implementation of EM-206, "Emergency Plan Roster and Notification".
2. Demonstrate site (Protected Area) evacuation and provisions to warn all personnel within the Owner Controlled Area.
3. Demonstrate accident assessment and mitigation capabilities in the Technical Support Center (TSC).
4. Demonstrate adequate management and control of on-site emergency response capabilities.
5. Demonstrate an understanding of EAL's and proficiency in recognizing and classifying emergency conditions in the TSC.



6. Demonstrate the receipt and analysis of all field monitoring data and coordination of those results with non-FPC agencies at the Emergency Operations Facility (EOF).
7. Demonstrate an effective transfer of notification responsibilities from the Emergency Coordinator to the EOF Director when the Emergency Operations Facility is activated.
8. Demonstrate the effectiveness and control of the Emergency Repair Team.
9. Demonstrate the effectiveness and control of the Medical Emergency Team.
10. Demonstrate the effectiveness and control of the Plant Fire Brigade.
11. Demonstrate the effectiveness and control of the Emergency Sample Team (samples will be simulated).
12. Demonstrate the effectiveness and control of the Radiation Monitoring Team.
13. Demonstrate provisions and decision-making capability for utilization of evacuation routes.

#### **CORPORATE EMERGENCY RESPONSE ORGANIZATION OBJECTIVES**

1. Demonstrate effective implementation of REP-02, "Activation and Notification of the Corporate Emergency Response Organization".
2. Demonstrate the ability to establish and maintain appropriate communications with State and Federal emergency management representatives including the recommendation of protective actions.

#### **RADIOLOGICAL CONTROL OBJECTIVES**

1. Demonstrate the ability to perform radiological monitoring and assessment in the plant and site environs.
2. Demonstrate effective estimation and assessment of a (simulated) release of airborne radioactivity to the environment.
3. Demonstrate the ability to provide the Emergency Coordinator and the EOF Director, timely and sound emergency protective action recommendations.
4. Demonstrate the availability and operability of emergency supplies and equipment.
5. Demonstrate the ability to control radiological exposure to emergency workers and Generating Complex Personnel.
6. Demonstrate the capability of decontaminating relocated on-site personnel.

### **ENGINEERING OBJECTIVES**

1. Demonstrate the capability of ascertaining the need for, and requisitioning, parts and components that will be used during recovery and corrective maintenance of damaged equipment.

### **SECURITY OBJECTIVES**

1. Demonstrate the ability to perform accountability on-site (Protected Area) within 30 minutes of a site evacuation.
2. Demonstrate the capability of maintaining on-site security throughout an emergency at CR-3, including the capability of establishing and enforcing access control points.

### **INFORMATION SERVICES OBJECTIVES**

1. Demonstrate timely activation of the Emergency News Center.
2. Demonstrate the ability to obtain emergency related information.
3. Demonstrate the ability to disseminate timely, accurate, and appropriate emergency information.
4. Demonstrate the ability to coordinate the release of emergency related information with State and County Public Information Officers.

## EXERCISE GROUND RULES

The 1992 Exercise will be quite different than in the past. For the first time, FPC is performing its annual exercise using the Simulator. This will improve the realism of the exercise and allow for active participation of the operators. However, since the actions of the operators can not be totally predictable, problems that have not surfaced in past exercises may surface this exercise.

Computerized displays of plant parameters, driven by the simulator will be established in the EOF and TSC. The displays will update parameters every four minutes. Since the parameters are based on real time operator action in the simulator, they will be somewhat different than the parameters listed in the scenario.

As long as the simulator remains on line, many of the Message Cards will not be handed out to the participants (particularly Control Room cards). If the simulator should fail, all facilities will be contacted and the use of the Operations Message Cards will begin. It is important to realize that the parameters will change significantly during the transition. Hardcopy plant parameters will be handed out by Controllers in the TSC and EOF.

All Exercise **PARTICIPANTS** are required to observe the following ground rules during the Exercise. Questions concerning these rules should be resolved prior to the start of the Exercise.

1. If an actual emergency condition occurs during the conduct of this Exercise, all activities and communications related to the Exercise will be suspended.
2. If an unsafe condition arises, or exists, cognizant personnel must ignore the Exercise situation and take immediate actions to restore safety.
3. Manipulation of plant operating systems, valves, breakers, or controls in response to this Exercise are only to be simulated. Do not alter any plant operating equipment, systems, or circuits during the response to this Exercise.
4. No pressurization of fire hoses, discharging of fire extinguishers, or initiation of fire suppression systems should occur as part of the response to this Exercise.
5. All operation of motor vehicles that occurs in response to this Exercise must comply with State and local laws governing use of motor vehicles.
6. All telephone communications, radio transmissions, and public address announcements related to the Exercise must begin and end with the statement, "THIS IS A DRILL" or "THIS IS AN EXERCISE." If communication lines are kept open for an extended period of time, the statement should be repeated periodically (especially when transmitting messages over systems that are monitored by non-FPC personnel).
7. If on-site security actions are required as part of the response to this Exercise, Exercise participants must cooperate with Security

representatives. Security representatives must also be prudent and tolerant in their actions toward Exercise participants.

8. Meteorological, plant, and dose assessment data will be supplied by the Exercise Controllers. Real time data will be utilized only at the direction of a Controller.
9. If you believe that the Exercise has revealed deficiencies in emergency plans, procedures, training, or equipment, note it or inform a Controller. Do not trust that you will remember the problem later.
10. Assure that an FPC Controller is aware of your key actions and decisions. Do not assume that a simulated or unobserved action was noted.
11. Whenever collection of a sample (on-site or off-site) is deemed necessary, the samples must actually be collected, and their analysis conducted, if possible (except for PASS samples). (In some circumstances the Controller may stipulate that sample collection or analysis be simulated.) All survey teams will be accompanied by a Controller.
12. Do not improvise information. Use only information provided by a Controller, results from the Simulator actions taken, or derived from approved procedures. The Controller will provide only selected parameters and instrument readings. The selected information will be sufficient to make decisions in accordance with FPC plans and procedures.

#### ADDITIONAL PARTICIPANT RESPONSIBILITIES

1. Give all data collected, notes taken, procedures used to the Controller in your area.
2. Remain after the exercise for a "participant's" critique. Fill out the "Participant's Drill Critique Report" that will be given to you after the drill.

#### CONTROLLERS

1. A controller who observes or becomes aware of an actual emergency is responsible for suspending Exercise response in his/her immediate area, and for informing the Exercise Manager of the situation.
2. A Controller who observes an Exercise participant undertake an action that would place either an individual or a component in an unsafe condition is responsible for intervening to terminate the unsafe activity immediately, and for informing the Controller of the occurrence.
3. Controllers must monitor telephone, radio, and public address communications to assure that each participant begins and ends his message with the statement, "THIS IS A DRILL" or "THIS IS AN EXERCISE." If this practice is not observed, it is the Controller's responsibility to remind the participant to follow this procedure.



4. A Controller who becomes aware of non-participating individuals who may have observed Exercise activities or overheard Exercise communications is responsible for assuring that these individuals are not misled into believing that an actual emergency exists.
5. Controllers are not required to protect themselves from simulated radiological hazards associated with the Exercise scenario. They are not, however, exempt from CR-3 radiological control procedures.

#### ADDITIONAL CONTROLLER RESPONSIBILITIES

1. Review appropriate procedures and evaluate the exercise performance on the basis of standards or requirements contained in the Radiological Emergency Response Plan and associated implementing procedures
2. Collect all data, notes taken and procedures used from the drill participants.
3. Hand out a "Participant's Drill Critique Report" to each participant. Conduct a "Participant's Critique" immediately following the exercise, documenting problems and concerns they identify.
4. Fill out the "Exercise Evaluation" for the area you observed. Make sure participants are named and each problem or deficiency (ARCA) identified has a recommended corrective action. Also identify any "Concerns" noted.
5. Attend Controller's Critique.

#### CONTROL ROOM/TSC/EOF LEAD CONTROLLER

1. Point of contact for facility.
2. Notify Exercise Manager of events that may alter scenario or cause the possible suspension of the exercise.
3. Coordinate emergency termination with Exercise Manager.

#### EXERCISE MANAGER

1. Upon notification of an actual emergency, the Exercise Manager will notify all Facility Lead Controllers to suspend Exercise-related activity.
2. Upon notification that an Exercise participant has undertaken an action that would place either an individual or a component in an unsafe condition, the Exercise Manager will determine whether to continue, place a temporary hold on, or terminate the Exercise.
3. The Lead Controllers and Exercise Manager must maintain cognizance of Exercise progression and may alter the flow of the Exercise to accommodate variance in the response times of the participants.
4. The Exercise Manager must coordinate exercise termination with state and local controllers to assure all exercise objectives have been tested prior to termination.

## CONTROLLER LOCATIONS

November 5, 1992

### SIMULATOR CONTROL ROOM (5)

- 2 - Instructor Booth
- 2 - Control Panel Area
- 1 - Rad/Met Panel

### CR-3 CONTROL ROOM (1)

- 1 - Controller Communicator

### CONTROL ROOM/OPERATIONAL SUPPORT CENTER (2)

### TECHNICAL SUPPORT CENTER (11)

- 1 - TSC Lead Controller
- 1 - Emergency Coordinator
- 1 - Dose Assessment/Chemistry
- 1 - Radiation Monitoring (Environmental) Team
- 5 - Emergency Repair/Radiation Monitoring Team
- 1 - Emergency Sample Team
- 1 - Communicator

### FIRE/MEDICAL SCENES (4)

- 2 - Fire Brigade
- 2 - Medical Emergency Team

### SECURITY (3)

- 1 - Central Alarm Station/In Plant
- 1 - Secondary Alarm Station
- 1 - TSC

### MAIN ASSEMBLY AREA (1)

### EMERGENCY OPERATIONS FACILITY (7)

- 1 - EOF Lead Controller
- 1 - EOF Director (Main Conference Room)
- 1 - FPC Main Conference Room
- 1 - Dose Assessment/DHRS Interface
- 3 - Emergency News Center

### EXERCISE MANAGER (1)

## 1992 RADIOLOGICAL EMERGENCY RESPONSE PLAN EXERCISE

### MISCELLANEOUS INFORMATION

#### SIMULATION:

The following events/notifications will be simulated:

1. Notification to offsite Law Enforcement Agencies.
2. Operation of the Post Accident Sampling System (PASS). Sample Team members will be required to step through appropriate procedures when samples are simulated.
3. Notification of off-site medical support (EMS, Hospitals)

#### MOCK-UPS:

The following mock-ups will be in place for the Exercise:

1. A mock-up will be in place for the failed Main Steam Safety Valve (MSV-33). It will be located immediately inside the entrance doors to the Intermediate Building.
2. A mock-up will be in place to simulate the crack in the Feedwater, exhaust trunk expansion joint (the crack will be indicated on the actual exhaust trunk).
3. A mock-up will be in place to simulate the leaking Cardox Valve on the 199' elevation of the Turbine Deck.
4. A mock-up will be in place to simulate the RM-A12 ratemeter in the CR-3 Control Room.
5. A smoke generator will be used at the fire scene.

## CONTROLLER GUIDELINES

November 5, 1992

### ALL CONTROLLERS: RECORD NAMES OF PARTICIPANTS IN YOUR AREA

Don Smith/Chuck Crosten/Chuck Arbuthnot/Paul Fleming

- 1) Report to the Simulator Control Room at 0630, begin review of Ground Rules with participants and distribute participant's badges.
- 2) Distribute Calling Cards with Simulator phone numbers to participants.
- 3) Give Ops Message Cards when appropriate or if simulator fails.
- 4) All onsite notifications will be made (including CR-1,2,4,&5 by commercial phones). State and NRC notifications will be made. All other offsite notifications (EMS, Hospital, etc.) will be simulated (the NRC Ops Center will likely ask for subsequent notifications to be simulated).
- 5) Establish contact with Tom Miller in the CR-3 Control Room to set up communications with plant operators on site to help assure dispatched operators have a Controller with them. If a Controller is not available provide the needed information at an appropriate time to the CR-3 Control Room.
- 6) Be prepared to remove the ANSS @ 0730 and @ 1010 to coincide with the ANSS being dispatched to the fire and medical scenes at the plant.
- 7) Distribute Participants Critique Forms at the end of the Exercise and conduct an in-place critique immediately following the Exercise.
- 8) Assure that the communications are switched back to "Simulator Only" after the Exercise.

Tom Miller

- 1) Report to the CR-3 Control Room at 0630, begin review of ground rules with participating operators and pass out participants badges and calling cards.
- 2) Provide an additional Operator in the CR-3 Control Room to make PA announcements, sound evacuation/fire alarms, and to provide CR-3 Control Room repair information to the simulator.
- 3) Establish communications with simulator controllers in the instructor booth.
- 4) Assure the CR-3 Control Room lets the 311 emergency phone ring a minimum of 4 times. Calls should be coming in at approximately 0735 and 1010.
- 5) Follow this procedure for implementing routine operator actions/surviellances:
  - a. Simulator operators contact NAOs to direct action.
  - b. Tom Miller waits an appropriate time, calls the simulator instructor booth (ext. 6283) informs them that the action has been taken.
  - c. Tom Miller tells the NAOs to radio the information to the Simulator control room.
- 6) A Turbine Building Operator should respond to the vacuum leak at 1040-1050 and receive info from Walt Pittman.
- 7) Distribute Participant Critique Forms at the end of the Exercise and give participants an opportunity to discuss problems.



Steve Chapin

- 1) Assure REDAS simulator is operational in the EOF.
- 2) Report to the Simulator at 0630.
- 3) Establish contact with Fuller in the TSC to set up TSC REDAS display.
- 4) Provide Rad/Met data when requested.
- 5) Assure the phone calls to the Simulator Control Room are made @ 0720 and 0815.
- 6) Terminate the Exercise at the direction of the Exercise Manager.

Marjie Williams

- 1) Report to the CR-3 Control Room at 0630 to assist Tom Miller.
- 2) Report to the TSC at 0730 to Observe Man-on-Call response including CR/TSC turnover.
- 3) Continue to observe EC in the TSC.

Ron Fuller

- 1) Report to the TSC at 0630.
- 2) Establish contact with Steve Chapin to set up TSC REDAS displays.
- 3) Provide hardcopy REDAS data to the TSC if necessary.
- 4) Evaluate Dose Assessment and control of field teams.
- 5) Provide Chemistry data as appropriate.

Ahmad Kazemfar

- 1) Report to the TSC at 0700.
- 2) Evaluate Environmental Survey Team response and utilize radio-controlled meters.
- 3) Be prepared to observe response to the 1145 Radwaste accident.

Walt Pittman

- 1) Assure mock-ups are in place prior to Exercise start for MSV-33, Exhaust trunk expansion joint, and the Cardox valve.
- 2) Report to the TSC at 0700.
- 3) Distribute calling cards to participants in your area.
- 4) Instruct Lead Maintenance person to notify you prior to dispatching any team from the TSC OR the OSC. Provide needed information for the Teams.
- 5) Be prepared to give additional info concerning the Feedwater Booster Pump 1A shaft seizure.
- 6) Accompany team to the Intermediate Bldg. to the MSV-33 mock-up at approx. 0900 and provide needed information. The Team may complete work anytime from 1000-1020. **CALL THE SIMULATOR INSTRUCTOR BOOTH (PAX 382) WHEN THE REPAIR IS COMPLETE BEFORE THE TEAM RADIOS BACK TO THE TSC.**
- 7) Report back to the TSC after the MSV repair is complete.

Walt Pittman (cont.)

- 8) Report to the Expansion Joint Mock-up at 1030 and provide operator with needed information and wait for the Repair Team (Pat Ezell will be with them). **CALL THE SIMULATOR INSTRUCTOR BOOTH (PAX 382) WHEN THE REPAIR IS COMPLETE BEFORE THE TEAM RADIOS BACK TO THE TSC.**
- 9) Report back to the TSC with the expansion joint repair team.
- 10) Accompany the repair team from the TSC to the leaking Cardox Valve. Repair time is not important to the scenario, after the repair is completed return to the TSC. **TEAM MAY RADIO INFO ANY TIME AFTER THE REPAIR.**

Dave Easter

- 1) Assure mock-ups are in place prior to Exercise start time for the TSC AHF-62 failure and the RM-A12 failure (RM-A12 mock-up needs to be outside the CR-3 control room in the hallway.
- 2) Report to TSC at 0700 and assist Pittman until 1100.
- 3) Be prepared to implement AHF-62 failure in the TSC at 1115.
- 4) Report to the OSC at 1330 to implement the RM-A12 repair to completion. **CALL THE SIMULATOR INSTRUCTOR BOOTH (PAX 382 OR EXT. 6283) WHEN THE REPAIR IS COMPLETE AND BEFORE THE TEAM REPORTS THAT RM-A12 IS REPAIRED.**

Bob Parker/George Cadwell/Pat Ezell

- 1) Report to the TSC or Chem-Rad at 0700, establish contact with Walt Pittman in the TSC. Provide Radiological Data for the teams dispatched (all dose rates are actuals prior to 0830). Assure participants have calling cards.
- 2) Report to the TSC if appropriate or when Chem-Rad re-locates.
- 3) Instruct H.P. to notify you before anyone is dispatched.
- 4) Coordinate with Walt Pittman and Dave Easter to assist them in controlling ERT or RMT activities.
- 5) **George Cadwell** - Stay with HP Planner and assure all teams have controllers.
- 6) **Bob Parker** - Report to the Security Operations Center @ 0830 to give the Message Card to two randomly-selected individuals during evacuation. Provide contamination info. and follow them back to the TSC. Ask the monitors to step through what they would do and assure the decon shower is operational.
- 7) **Pat Ezell** - Be prepared to accompany Repair Team to the Expansion Joint mockup at approximately 1040. Pittman will be there to implement the repair, assist him with communications with the simulator instructor booth.

Dave Worley

- 1) Report to the TSC at 0700.
- 2) Assure participants have calling cards.
- 3) Be prepared to accompany Sample Team and have the Team step through the appropriate procedure.
- 4) Coordinate with Cadwell and Fuller to provide assistance if necessary.

Bob Blume/Ken Linhart

- 1) Report to the plant at 0700.
- 2) Select and stage victim (member of Fire Brigade) and a partner in the Aux. Bldg. for the 0733 injury on 119' elevation.
- 3) Evaluate the medical response and terminate the drill once victim has been prepared for transport either at the scene or at the RCA exit.
- 4) Make it clear to participants, particularly Security that ambulance response is simulated.
- 5) Report to the Intermediate Bldg. entrance at 0930 and be prepared to implement the medical events. Randomly select a Repair Team member to give the Message Card to. Evaluate the medical response and terminate the drill once the victim has been adequately attended to.
- 6) Assist Walt Pittman with communications to the simulator instructor booth.
- 7) Ken - Report to the TSC to observe Dr. Kessler.  
Bob - Report to the ENC and check in with Mark Johnson.

Jim Frijouf

- 1) Report to the OSC/CR-3 Control Room at 0700 and distribute calling cards to participants as they arrive.
- 2) Assist Dave Easter in communication with the simulator instructors booth during RM-A12 repairs.
- 3) Assist Tom Miller in Ops Control.
- 4) Distribute Participant Critique Forms immediately after the Exercise.

Joan Bufe'-Carr

- 1) Report to the OSC @ 0700 and assist Frijouf.
- 2) Report to the Nuc. Admin Bldg @0830 and assist Bob Nicholas with observing Site Evacuation and accountability.
- 3) Call John Pelham @0905 and read Controller Instruction #19.
- 4) Report back to the OSC.

Jay Russell/Alan Arnold

- 1) Report to the "B" Diesel room at 0700 to prepare to implement fire.
- 2) Assure participants have calling cards for the simulator.
- 3) Provide appropriate info to the ANO at approx. 0725.
- 4) Provide info to FTL until 0800 (Fire begins at 0725) and then secure from drill.
- 5) Alan Arnold - Report to the TSC after fire drill and accompany Walt Pittman to the Intermediate Bldg. at 0900 to provide Rad Data.
- 6) Jay Russell - Report to the TSC and check in with Sam Mansfield to assist as a Controller when needed.
- 7) Alan Arnold - Report to the scene of the RadWaste accident at 1100 to provide Rad Info to FPC and County personnel.

Tom Neaman

- 1) Report to the TSC at 0700.
- 2) Evaluate Security response in TSC.
- 3) Assure the security Rep is aware that all actions associated with the bomb threat are simulated (Security should walk through their intended actions with the Controller).
- 3) After accountability is complete and has been announced in the TSC notify Al Engle and/or Bob Nicholas at the Security Operations Center.

Al Engle

- 1) Report to Security Operations Center at 0730 and assure participants receive calling cards for simulator.
- 2) Evaluate Security response at Security Operations Center.
- 3) Assure Security is aware that the ambulance response will be simulated.
- 4) Bob Nicholas and/or Joan Carr will verify with you that the Guardhouse is ready for personnel re-entry before allowing evacuated personnel to re-enter.

Ed Carver

- 1) Report to the "B" Diesel Room at 0700 and coordinate with Russell and Arnold to stage fire scene. Then report to medical scene with Blume and Linhart (assure that Security is aware that offsite ambulance response will be simulated when the ambulance is requested.)
- 2) Evaluate Security response for balance of plant.
- 3) Evaluate Security response to injury and fire.

Bob Nicholas

- 1) Report to the TSC at 0730.
- 2) Report to the Nuc Admin Bldg at 0815 prior to plant evacuation.
- 3) Observe Reed Clarke or Steve Rainwater (evacuation supervisor). You will be assisted by Joan Carr.
- 4) After accountability is complete, walk to the Security Operations Center and verify with Al Engle that Security is ready for personnel to re-enter.
- 5) Notify Clarke or Rainwater that personnel may return to the Protected Area.
- 6) Be prepared to follow assembled personnel to Warehouse Area, if they are moved based on the Bomb Threat.
- 7) After personnel have re-entered, report to the EOF/ENC to act as mock media (check in with Mark Johnson, Dom Salute, and Frieda Frando).



Sam Mansfield

- 1) Report to the TSC at 0700.
- 2) Assure TSC Controllers are in place.
- 3) Assure participants receive call cards for simulator.
- 4) Coordinate ERT/RMT Controllers with outgoing teams.
- 5) Terminate Exercise when directed by Exercise Manager.
- 6) Assure all documentation is collected when drill is terminated.
- 7) Distribute Participant Critique Forms immediately after the Exercise.
- 8) Lead the TSC Participants/Facility Critique.

Mike Laycock

- 1) Report to the EOF at 0700.
- 2) Assure set-up is completed properly:
  - FAX Machines
  - PAR Conf. Room
  - ENC Lobby (including signs outside)
  - TV Hooked up
  - Computers for PIO area, Main Conf. Room, RECALL Simulator, HRS Dose Assessment
- 3) DO NOT allow DEM or DHRS entry into the EOF Main Conference Room or other work areas until the EOF is operational (coordinate with the State Lead Controller.)
- 5) Terminate the Exercise when directed by the Exercise Manager.

Pete Ezzell

- 1) Report to the EOF at 0800.
- 2) Evaluate EOF Dose Assessment and interface with DHRS.

Ron Shires

- 1) Report to the EOF at 0800.
- 2) Evaluate activities in the EOF Main Conference Room, particularly all EOF Director Activities.

Blair Wunderly

- 1) Report to the EOF at 0800.
- 2) Evaluate activities in the FPC Conference Room (Assistant EOF Director, RECALL Operator, Engineering.
- 3) Distribute hard copy REDAS data to the RECALL Operator if necessary.

Mark Johnson/Dom Salute/Frieda Frando

- 1) Report to EOF at 0800.
- 2) Evaluate ENC activities including acting as media.
- 3) Coordinate with Blush to discuss plans for mock media (mock media should be implemented based on actual media response).

1992 RADIOLOGICAL EMERGENCY RESPONSE PLAN EXERCISE  
NARRATIVE SUMMARY

Initial Conditions:

- The unit has been operating at full power for 3 months.
- Primary to secondary leak rate is about three times normal (0.01 gpm in A-OTSG).
- A radwaste shipment carrying drums of compacted waste is exiting the protected area.

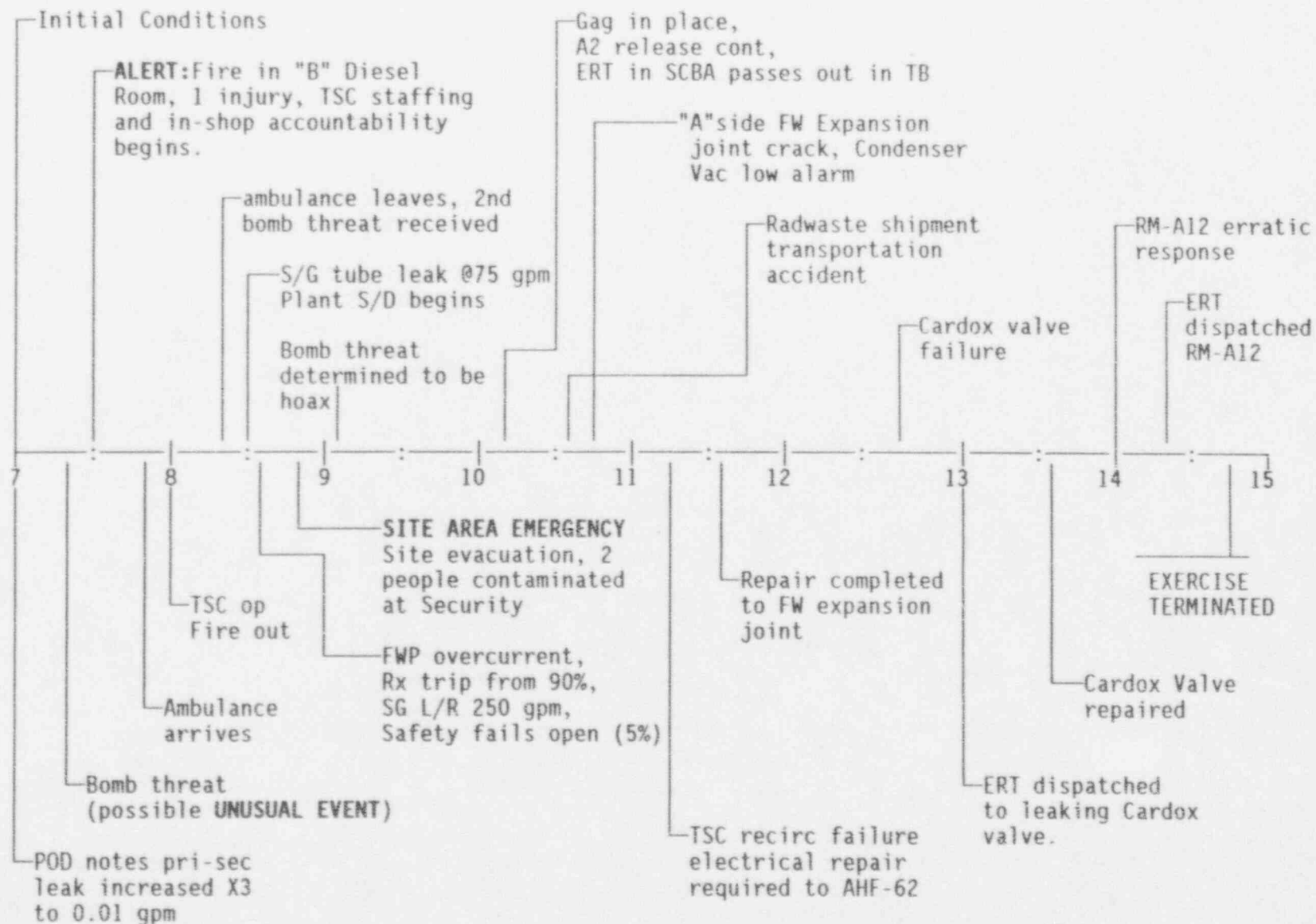
- 0700 The Initial Conditions are given to the Simulator Control Room operators.
- 0720 The Simulator Control Room receives a telephoned bomb threat stating that a bomb has been planted in the Nuclear Administration Building. No other details are known at this time.
- 0725 The AC Lube Oil Recirc Pump motor seizes/shorts causing oil to spray into the "B" Diesel Room and to ignite.
- 0726 The Simulator Control Room receives a fire alarm from the Emergency Diesel Generator Engine Room and sends an ANO to investigate.
- 0727 The Simulator Control Room receives verification of a Fire Pump Start and an alarm that the sprinkler system in the diesel has actuated.
- 0728 The ANO confirms that there is a fire in the "B" Diesel Generator Room. The Fire Brigade is dispatched to the scene.
- 0733 A fire brigade member hurrying to respond to the fire trips and falls down the stairs beside the elevator on the 119' elevation of the Auxiliary Building.
- 0735 The Assistant Shift Supervisor reports that there has been one injury and that an ambulance is required. The MET is dispatched to the scene and Citrus EMS is notified via 911. (SIMULATED)
- 0738 An ALERT is declared based on a fire lasting greater than 10 minutes. TSC staffing is initiated and in-shop accountability begins.
- 0747 The ambulance arrives on-site. (SIMULATED)
- 0800 The Assistant Shift Supervisor reports that the fire is out and that the governor motor and wires are burnt. The Diesel Lube Oil Recirc Pump and motor are also damaged. The "B" EDG is declared inoperable and the plant enters a 72 hour action statement.
- 0808 The TSC is declared operational.
- 0815 The Simulator Control Room receives a second bomb threat call.

- 0820 The ambulance exits the protected area (simulated).
- 0830 An eroded tube in A-OTSG fails and begins leaking at 75 gpm.
- 0831 Plant shutdown begins by procedure.
- 0833 Feedwater Booster Pump 1A Shaft seizes and the pump is lost due to overcurrent. The reactor trips at about 90% power causing the tube leak to increase to 250 gpm. All main steam safety valves and atmospheric reliefs vent momentarily initiating an unmonitored environmental release. When the valves reseal, one valve (MSV-33) fails slightly open allowing the release to continue.
- 0838 A SITE AREA EMERGENCY is declared based on an OTSG leak greater than 200 gpm. EOF activation begins.
- 0839 A Nuclear Auxiliary Operator is dispatched to pop the safety valve. This has no effect.
- 0853 While exiting the Security Building during the site evacuation, two workers who had been in the Auxiliary Building, are found to be contaminated.
- 0858 A repair team is dispatched from the TSC to repair the leaking main steam safety valve.
- 0905 Corporate Security is notified that a suspect responsible for the bomb threats has been apprehended. It has been determined that the threats were a hoax.
- 0933 The EOF is declared operational
- 1010 The repair team installs a gag on the leaking safety valve stopping the unmonitored release. However a lower level release continues through the condenser and the Auxiliary Building vent. While exiting the Intermediate Building, one of the ERT members (wearing SCBA) passes out. The EC is notified and the MET is dispatched.
- 1025 The MET reports that the ERT member was overheated and is now conscious. He is being returned to the TSC.
- 1030 A report is received from the Florida Highway Patrol (FHP) that the radwaste truck has been involved in an accident. After exiting the protected area this morning, the driver stopped for breakfast and then took a short nap in his sleeper cab. While traveling north on US 19 in Levy County, a cement truck ran a stop sign striking the semi-trailer broadside causing it to jack-knife and flip onto its side. The doors of one of the sea/land containers came open and some of its contents spilled. The FHP confirms that one of the investigating officers has a meter and has detected radioactive materials strewn along the roadway. Immediate assistance is requested.

- 1041 The Exhaust Trunk Expansion Joint on the "A" Feedwater Pump Turbine cracks causing the Simulator Control Room to receive a Condenser Vacuum Low alarm. A one-inch per minute vacuum leak decreases condenser vacuum until the Backup Air Removal Pumps auto start.
- 1051 The Turbine Building Operator reports the location of the vacuum leak to the Simulator Control Room.
- 1056 A repair team from the TSC is dispatched to the Feedwater Pump.
- 1115 While in the recirc mode, Air Handling Fan - 62 (AHF-62) trips due to a blown fuse and causes the failure of the TSC ventilation.
- 1136 Repairs to the feedwater expansion joint are completed.
- 1233 A leaking Cardox Valve is observed at the Cardox Tank on 119' elevation of the Turbine Building, the Simulator Control Room is notified.
- 1253 A repair team from the TSC is dispatched to the leaking Cardox valve.
- 1335 The Cardox valve is repaired.
- 1400 RM-A12 begins to respond erratically, failing low and then returning upscale.
- 1415 An I&C repair team from the TSC is dispatched to RM-A12.
- 1445 The Exercise is terminated.



# 1992 RERP EXERCISE TIME LINE



THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL

FLORIDA POWER CORPORATION CRYSTAL RIVER UNIT 3  
1992 RADIOLOGICAL EMERGENCY RESPONSE PLAN EXERCISE

November 5, 1992

CONTROLLER INSTRUCTION

NO. 1

TIME: 0700

LOCATION: Simulator Control Room

CONTROLLER INSTRUCTIONS:

At the time designated above, perform the following:

Give Message Card No. 1 and the Exercise Plan of the Day to the Nuclear Shift Supervisor.

ADDITIONAL INSTRUCTIONS:

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL

FLORIDA POWER CORPORATION CRYSTAL RIVER UNIT 3  
1992 RADIOLOGICAL EMERGENCY RESPONSE PLAN EXERCISE

November 5, 1992

MESSAGE CARD

NO. 1

TIME: 0700

TO: Nuclear Shift Supervisor

MESSAGE: Initial Conditions

**PLANT STATUS:**

- The unit has been operating at full power for 3 months.
- Primary to secondary leak rate is about three times normal (0.01 gpm on OTSGA).

**EQUIPMENT STATUS:**

- Makeup Pump 1B is running
- Makeup Pumps 1A and 1C are selected for ES Service

**MAINTENANCE ACTIVITIES:**

- A radwaste shipment carrying drums of compacted waste is exiting the protected area.
- Routine SPs and PMs



**CRYSTAL RIVER UNIT 3**  
**DAILY PLANT STATUS REPORT**  
DAY THURSDAY DATE 11/05/92 TIME 0500

MODE 1 RATED POWER 100 MWTH 2542 MWE 879 MVAR 140 EFPD 98.2 FUEL 0.019  $\mu$ CI/ML  
RCS LEAKRATE (GPM) - IDENTIFIED 0.2 UNIDENTIFIED 0.1 PRIMARY/SECONDARY 0.01  
CONDENSER AIR IN-LEAKAGE: 5.0 SCFM CONDENSER INLET TEMPERATURE: 78.0°F  
VACUUM 28.0 "Hg RCS BORON (PPM) 1158  
OTSG OP LEVELS: A 82 % B 78 %  
CONDENSER O2: A 1.33 ppb B 4.71 ppb  
CONDENSER SODIUM: A 3.5 ppb B 2.0 ppb

**RC PUMP SEAL STAGE PRESSURES (PSIG)**

	RCP-1A	RCP-1B	RCP-1C	RCP-1D
2ND STAGE	1401	1407	1389	1472
3RD STAGE	664	691	738	800

**PLANT OUTPUT LIMITED BY:**

**SPECIAL PLANT PROBLEMS/SPECIAL REQUIREMENTS/UNUSUAL CONDITIONS**

0.01 GPM Primary/Secondary Leakage A - OTSG  
A shipment of RADWASTE will be trucked out today

**\*\*\*\* STS ACTION STATEMENTS IN EFFECT \*\*\*\***

STS	TITLE	ENTRY DATE/TIME	ACTION
3.7.12	Fire Barriers	03-01-90/ 1410	Hourly Roving Patrols

**\*\*\*\* PREVIOUS 24 HR GENERATION DATA (0000 - 2400) \*\*\*\***

CR3 MW Hours 20,874	System MW Hours 95,594
CR3 (% of Total) 21.8	Capacity Factor (% of 860 Mwe) 102.2

**CAPACITY FACTOR TO DATE:**

1992 GOAL: 78.1 %	FOR CYCLE: 96.0 %	FOR YEAR: 70.6%
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**SAFE, LEGAL, EFFICIENT**

FLORIDA POWER CORPORATION CRYSTAL RIVER UNIT 3  
1992 RADIOLOGICAL EMERGENCY RESPONSE PLAN EXERCISE

November 5, 1992

CONTROLLER INSTRUCTION

NO. 2

TIME: 0720

LOCATION: Simulator Control Room

CONTROLLER INSTRUCTIONS:

At the time designated above, perform the following:

Call the Simulator Control Room (via ext. 3933) and read the following message:

"THIS IS A DRILL. I have planted an explosive device in the Nuclear administration building. Hickie can kiss his office goodbye. I am fed up with Florida Power and the way they treat their employees. THIS IS A DRILL."

ADDITIONAL INSTRUCTIONS:

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL

FLORIDA POWER CORPORATION CRYSTAL RIVER UNIT 3  
1992 RADIOLOGICAL EMERGENCY RESPONSE PLAN EXERCISE

November 5, 1992

MESSAGE CARD

NO. 2

TIME: N/A

TO:

MESSAGE:

ADDITIONAL INFORMATION:

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL...



FLORIDA POWER CORPORATION CRYSTAL RIVER UNIT 3  
1992 RADIOLOGICAL EMERGENCY RESPONSE PLAN EXERCISE

November 5, 1992

CONTROLLER INSTRUCTION

NO. 3

TIME: 0725

LOCATION: Simulator Control Room

CONTROLLER INSTRUCTIONS:

At the time designated above, perform the following:

Give Message Card No. 3 to a Simulator Control Room Operator.

ADDITIONAL INSTRUCTIONS:

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL...

FLORIDA POWER CORPORATION CRYSTAL RIVER UNIT 3  
1992 RADIOLOGICAL EMERGENCY RESPONSE PLAN EXERCISE

November 5, 1992

MESSAGE CARD

NO. 3

TIME: 0725

TO: Simulator Control Room Operator

MESSAGE:

The Simulator Control Room receives the following alarm(s):

FIRE SYSTEM TROUBLE (F- )  
EMER DSL GEN ROOM FIF (A-5 .5 on Fire Panel)

ADDITIONAL INFORMATION:

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL...

FLORIDA POWER CORPORATION CRYSTAL RIVER UNIT 3  
1992 RADIOLOGICAL EMERGENCY RESPONSE PLAN EXERCISE

November 5, 1992

CONTROLLER INSTRUCTION

NO. 4

TIME: 0726

LOCATION: Simulator Control Room

CONTROLLER INSTRUCTIONS:

At the time designated above, perform the following:

Give Message Card No. 4 to a Simulator Control Room Operator.

ADDITIONAL INSTRUCTIONS:

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL...

FLOIRIDA POWER CORPORATION CRYSTAL RIVER UNIT 3  
1992 RADIOLOGICAL EMERGENCY RESPONSE PLAN EXERCISE

November 5, 1992

MESSAGE CARD

NO. 4

TIME: 0726

TO: Simulator Control Room Operator

MESSAGE:

The Simulator Control Room receives the following alarm(s):

FIRE PUMP 3A RUNNING (A-2-6 on Fire Panel)  
FIRE PUMP 3C RUNNING (A-2-14 on Fire Panel)  
FIRE PP HOUSE FAN TROUBLE (F-5-5)

ADDITIONAL INFORMATION:

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL...

FLORIDA POWER CORPORATION CRYSTAL RIVER UNIT 3  
1992 RADIOLOGICAL EMERGENCY RESPONSE PLAN EXERCISE

November 5, 1992

CONTROLLER INSTRUCTION

NO. 5

TIME: 0728

LOCATION: "B" Diesel Generator Room

CONTROLLER INSTRUCTIONS:

At the time designated above, perform the following:

Give Message Card No. 5 to the individual responding to the fire alarm.

ADDITIONAL INSTRUCTIONS:

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL

FLORIDA POWER CORPORATION CRYSTAL RIVER UNIT 3  
1992 RADIOLOGICAL EMERGENCY RESPONSE PLAN EXERCISE

November 5, 1992

MESSAGE CARD

NO. 5

TIME: 0728

TO: The individual responding to the fire alarm.

MESSAGE: You observe smoke and flames in the "B" Diesel Generator Engine Room. The sprinkler system is operating.

ADDITIONAL INFORMATION:

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL...



FLORIDA POWER CORPORATION CRYSTAL RIVER UNIT 3  
1992 RADIOLOGICAL EMERGENCY RESPONSE PLAN EXERCISE

November 5, 1992

CONTROLLER INSTRUCTION

NO. 6

TIME: 0730

LOCATION: Simulator Control Room

CONTROLLER INSTRUCTIONS:

At the time designated above, perform the following:

Assure the Fire Brigade is dispatched.

THE NUCLEAR ASSISTANT SHIFT SUPERVISOR (FIRE TEAM LEADER) MUST EXIT THE SIMULATOR CONTROL ROOM WHILE THE FIRE TEAM LEADER IS RESPONDING TO THE FIRE. COORDINATE THIS ACTIVITY WITH THE PLANT CONTROL ROOM CONTROLLER.

ADDITIONAL INSTRUCTIONS:

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL

FLORIDA POWER CORPORATION CRYSTAL RIVER UNIT 3  
1992 RADIOLOGICAL EMERGENCY RESPONSE PLAN EXERCISE

November 5, 1992

MESSAGE CARD

NO. 6

TIME: N/A

TO:

MESSAGE:

ADDITIONAL INFORMATION:

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL...

FLORIDA POWER CORPORATION CRYSTAL RIVER UNIT 3  
1992 RADIOLOGICAL EMERGENCY RESPONSE PLAN EXERCISE

November 5, 1992

CONTROLLER INSTRUCTION

NO. 7

TIME: 0733

LOCATION: 119' elevation Auxiliary Building Stairwell from 143' elevation.

CONTROLLER INSTRUCTIONS:

At the time designated above, perform the following:

Give Message Card No. 7 to a responding Fire Brigade Member.

ADDITIONAL INSTRUCTIONS:

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL

FLORIDA POWER CORPORATION CRYSTAL RIVER UNIT 3  
1992 RADIOLOGICAL EMERGENCY RESPONSE PLAN EXERCISE

November 5, 1992

MESSAGE CARD

NO. 7

TIME: 0733

TO: Responding Fire Brigade Member

MESSAGE:

While en route to the Fire Cart you have fallen down the stairs. You have severe pain in your back and left arm. You are conscious.

ADDITIONAL INFORMATION:

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL...

FLORIDA POWER CORPORATION CRYSTAL RIVER UNIT 3  
1992 RADIOLOGICAL EMERGENCY RESPONSE PLAN EXERCISE

November 5, 1992

CONTROLLER INSTRUCTION

NO. 8

TIME: 0733

LOCATION: 119' Aux. Bldg Stairs to 143' elevation.

CONTROLLER INSTRUCTIONS:

At the time designated above, perform the following:

Give Message Card No. 8 to a responding Fire Brigade Member at the same time Message Card #7 is given to the "injured person."

ADDITIONAL INSTRUCTIONS:

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL

FLORIDA POWER CORPORATION CRYSTAL RIVER UNIT 3  
1992 RADIOLOGICAL EMERGENCY RESPONSE PLAN EXERCISE

November 5, 1992

MESSAGE CARD

NO. 8

TIME: 0733

TO: Responding Fire Brigade Member (other than the injured person).

MESSAGE: You observe that a Fire Brigade Member has fallen down the stairs.

ADDITIONAL INFORMATION:

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL...



FLORIDA POWER CORPORATION CRYSTAL RIVER UNIT 3  
1992 RADIOLOGICAL EMERGENCY RESPONSE PLAN EXERCISE

November 5, 1992

CONTROLLER INSTRUCTION

NO. 9

TIME: Approx. 0735 (or when the victim survey is completed).

LOCATION: Injury Scene

CONTROLLER INSTRUCTIONS:

At the time designated above, perform the following:

Give Message Card No. 9 to the individual who performs the victim survey.

ADDITIONAL INSTRUCTIONS: Vital signs can be given verbally in lieu of Message Card #9.

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL

FLORIDA POWER CORPORATION CRYSTAL RIVER UNIT 3  
1992 RADIOLOGICAL EMERGENCY RESPONSE PLAN EXERCISE

November 5, 1992

MESSAGE CARD

NO. 9

TIME: Approx. 0735 (when the victim survey is completed).

TO: First Responder

MESSAGE: Vital signs will be provided by the Controller as they are monitored.

ADDITIONAL INFORMATION:

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL...

FLOKIDA POWER CORPORATION CRYSTAL RIVER UNIT 3  
1992 RADIOLOGICAL EMERGENCY RESPONSE PLAN EXERCISE

November 5, 1992

CONTROLLER INSTRUCTION

NO. 10

TIME: 0735

LOCATION: Simulator Control Room

CONTROLLER INSTRUCTIONS:

At the time designated above, perform the following:

Assure all necessary medical notifications have been made. **All offsite notifications to Ambulance and Hospitals will be simulated.** The drill will be terminated at the RCA exit point.

ADDITIONAL INSTRUCTIONS:

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL

FLORIDA POWER CORPORATION CRYSTAL RIVER UNIT 3  
1992 RADIOLOGICAL EMERGENCY RESPONSE PLAN EXERCISE

November 5, 1992

MESSAGE CARD

NO. 10

TIME: N/A

TO:

MESSAGE:

ADDITIONAL INFORMATION:

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL...

FLORIDA POWER CORPORATION CRYSTAL RIVER UNIT 3  
1992 RADIOLOGICAL EMERGENCY RESPONSE PLAN EXERCISE

November 5, 1992

CONTROLLER INSTRUCTION

NO. 11

TIME: 0738

LOCATION: Simulator Control Room

CONTROLLER INSTRUCTIONS:

At the time designated above, perform the following:

The fire has not been extinguished. Assure an ALERT is declared in a timely manner based on a fire >10 minutes in duration potentially affecting safety-related equipment (10 minutes from confirmation of fire).

Also assure TSC staffing is initiated.

ADDITIONAL INSTRUCTIONS:

Assure the beeper page system is activated.

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL

FLORIDA POWER CORPORATION CRYSTAL RIVER UNIT 3  
1992 RADIOLOGICAL EMERGENCY RESPONSE PLAN EXERCISE

November 5, 1992

MESSAGE CARD

NO. 11

TIME: N/A

TO:

MESSAGE:

ADDITIONAL INFORMATION:

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL...



FLORIDA POWER CORPORATION CRYSTAL RIVER UNIT 3  
1992 RADIOLOGICAL EMERGENCY RESPONSE PLAN EXERCISE

November 5, 1992

CONTROLLER INSTRUCTION

NO. 12

TIME: 0800

LOCATION: Fire Scene/Simulator Control Room

CONTROLLER INSTRUCTIONS:

At the time designated above, perform the following:

Give Message Card No. 12 to the Fire Team Leader

ADDITIONAL INSTRUCTIONS:

**SIMULATOR CONTROL ROOM CONTROLLER**

Assure "B" EDG is declared inoperable after initial damage assessment and that the plant enters a 72 hour action statement.

**TSC CONTROLLER**

Assure Repair Team is dispatched to "B" Diesel room to mock-up. Team should request appropriate parts to be gathered. Warehouse should pull the parts and hold.

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL

FLORIDA POWER CORPORATION CRYSTAL RIVER UNIT 3  
1992 RADIOLOGICAL EMERGENCY RESPONSE PLAN EXERCISE

November 5, 1992

MESSAGE CARD

NO. 12

TIME: 0800

TO: Fire Team Leader

MESSAGE:

The fire is out. The governor motor and wiring is burnt. The Diesel Lube Oil Recirc Pump and motor are also damaged.

ADDITIONAL INFORMATION:

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL...

FLORIDA POWER CORPORATION CRYSTAL RIVER UNIT 3  
1992 RADIOLOGICAL EMERGENCY RESPONSE PLAN EXERCISE

November 5, 1992

CONTROLLER INSTRUCTION

NO. 13

TIME: 0815

LOCATION: Simulator Control Room

CONTROLLER INSTRUCTIONS:

At the time designated above, perform the following:

Call the Simulator Control Room (via ext. 3933) and read the following message to whomever answers:

"THIS IS A DRILL. Well, I see the telephone still works, so the bomb hasn't gone off yet! Give up trying, you'll never find it. It's going off today. THIS IS A DRILL."

ADDITIONAL INSTRUCTIONS:

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL

FLORIDA POWER CORPORATION CRYSTAL RIVER UNIT 3  
1992 RADIOLOGICAL EMERGENCY RESPONSE PLAN EXERCISE

November 5, 1992

MESSAGE CARD

NO. 13

TIME: N/A

TO:

MESSAGE:

ADDITIONAL INFORMATION:

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL...

FLORIDA POWER CORPORATION CRYSTAL RIVER UNIT 3  
1992 RADIOLOGICAL EMERGENCY RESPONSE PLAN EXERCISE

November 5, 1992

CONTROLLER INSTRUCTION

NO. 14

TIME: 0830

LOCATION: Simulator Control Room

CONTROLLER INSTRUCTIONS:

When the operator goes to the Steam Line Monitors, perform the following:

Give Message Card No. 14 to a Simulator Control Room Operator.

ADDITIONAL INSTRUCTIONS:

Provide RM-G27 reading of 200 mr/hr when operator checks panel.

Assure shutdown procedures are initiated based on the OTSG leak.

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL...

FLORIDA POWER CORPORATION CRYSTAL RIVER UNIT 3  
1992 RADIOLOGICAL EMERGENCY RESPONSE PLAN EXERCISE

November 5, 1992

MESSAGE CARD

NO. 14

TIME: 0830

TO: Simulator Control Room Operator

MESSAGE: The Simulator Control Room receives the following alarm(s):

MN STM LINE A/B HIGH RAD MONITOR FAIL (H-1-5)

ADDITIONAL INFORMATION:

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL...



FLORIDA POWER CORPORATION CRYSTAL RIVER UNIT 3  
1992 RADIOLOGICAL EMERGENCY RESPONSE PLAN EXERCISE

November 5, 1992

CONTROLLER INSTRUCTION

NO. 14(a)

TIME: 0831

LOCATION: Simulator Control Room

CONTROLLER INSTRUCTIONS:

At the time designated above, perform the following:

Provide the following operations data when requested by an operator:

LETDOWN FLOW = 60 GPM  
MAKEUP FLOW = 120 GPM  
SEAL INJECTION = 40 GPM  
PZR LEVEL = 200 inches trending upward slightly  
RM-A12 = Trending Upward

ADDITIONAL INSTRUCTIONS:

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL...

FLORIDA POWER CORPORATION CRYSTAL RIVER UNIT 3  
1992 RADIOLOGICAL EMERGENCY RESPONSE PLAN EXERCISE

November 5, 1992

MESSAGE CARD

NO. 14(a)

TIME: 0831

TO: N/A

MESSAGE:

ADDITIONAL INFORMATION:

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL...

FLORIDA POWER CORPORATION CRYSTAL RIVER UNIT 3  
1992 RADIOLOGICAL EMERGENCY RESPONSE PLAN EXERCISE

November 5, 1992

CONTROLLER INSTRUCTION

NO. 15

TIME: 0833

LOCATION: Simulator Control Room

CONTROLLER INSTRUCTIONS:

At the time designated above, perform the following:

Give Message Card No. 15 to a Simulator Control Room Operator.

ADDITIONAL INSTRUCTIONS:

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL...

FLORIDA POWER CORPORATION CRYSTAL RIVER UNIT 3  
1992 RADIOLOGICAL EMERGENCY RESPONSE PLAN EXERCISE

November 5, 1992

MESSAGE CARD

NO. 15

TIME: 0833

TO: Simulator Control Room Operator

MESSAGE: The Simulator Control Room receives the following alarm(s):

FWBP A TRIP (L-3-1)  
LOSS OF FW PP RUNBACK (K-4-1)

ADDITIONAL INFORMATION:

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL...

FLORIDA POWER CORPORATION CRYSTAL RIVER UNIT 3  
1992 RADIOLOGICAL EMERGENCY RESPONSE PLAN EXERCISE

November 5, 1992

CONTROLLER INSTRUCTION

NO. 15(A)

TIME: 0833.5

LOCATION: Simulator Control Room

CONTROLLER INSTRUCTIONS:

At the time designated above, perform the following:

Give Message Card No. 15(A) to a Simulator Control Room Operator.

ADDITIONAL INSTRUCTIONS:

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL...

FLORIDA POWER CORPORATION CRYSTAL RIVER UNIT 3  
1992 RADIOLOGICAL EMERGENCY RESPONSE PLAN EXERCISE

November 5, 1992

MESSAGE CARD

NO. 15(A)

TIME: 0833.5

TO: Simulator Control Room Operator

MESSAGE: The Simulator Control Room receives the following alarm(s):

RPS CHANNEL A TRIP (J-5-1)  
RPS CHANNEL B TRIP (J-5-2)  
RPS CHANNEL C TRIP (J-5-3)  
RPS CHANNEL D TRIP (J-5-4)  
RX TRIP (J-4-1)  
MAIN TURB TRIP (O-3-1)  
CRDM BREAKER OPEN (J-5-6)

ADDITIONAL INFORMATION:

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL...

FLORIDA POWER CORPORATION CRYSTAL RIVER UNIT 3  
1992 RADIOLOGICAL EMERGENCY RESPONSE PLAN EXERCISE

November 5, 1992

CONTROLLER INSTRUCTION

NO. 16

TIME: 0834

LOCATION: Simulator Control Room

CONTROLLER INSTRUCTIONS:

At the time designated above, perform the following:

Give Message Card No. 16 to a Simulator Control Room Operator.

ADDITIONAL INSTRUCTIONS:

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL

FLORIDA POWER CORPORATION CRYSTAL RIVER UNIT 3  
1992 RADIOLOGICAL EMERGENCY RESPONSE PLAN EXERCISE

November 5, 1992

MESSAGE CARD

NO. 16

TIME: 0834

TO: Simulator Control Room Operator

MESSAGE:

Video Monitors indicate that there is steam release continuing through one leaking Safety Valve.

The Simulator Control Room receives the following alarms:

RM-A12 WARNING  
RM-A12 HIGH  
RM-A2 GAS WARNING  
RM-A4 WARNING  
RM-A4 HIGH

ADDITIONAL INFORMATION:

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL...



FLORIDA POWER CORPORATION CRYSTAL RIVER UNIT 3  
1992 RADIOLOGICAL EMERGENCY RESPONSE PLAN EXERCISE

November 5, 1992

CONTROLLER INSTRUCTION

NO. 16A

TIME: 0839

LOCATION: 119' Intermediate Building

CONTROLLER INSTRUCTIONS:

At the time designated above, perform the following:

Give Message Card No. 16A to the NAO dispatched to pop the leaking safety valve.

ADDITIONAL INSTRUCTIONS:

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL

FLORIDA POWER CORPORATION CRYSTAL RIVER UNIT 3  
1992 RADIOLOGICAL EMERGENCY RESPONSE PLAN EXERCISE

November 5, 1992

MESSAGE CARD

NO. 16A

TIME: 0839

TO: NAO dispatched to pop the safety valve

MESSAGE:

Popping the safety valve has no effect.

ADDITIONAL INFORMATION:

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL...

FLORIDA POWER CORPORATION CRYSTAL RIVER UNIT 3  
1992 RADIOLOGICAL EMERGENCY RESPONSE PLAN EXERCISE

November 5, 1992

CONTROLLER INSTRUCTION

NO. 16B

TIME: 0840

LOCATION: Simulator Control Room

CONTROLLER INSTRUCTIONS:

At the time designated above, perform the following:

Provide the following operations data when requested by an operator:

LETDOWN FLOW = 10 GPM  
MAKEUP FLOW = >200 GPM  
SEAL INJECTION = 40 GPM  
PZR LEVEL = 70 inches slowly trending downward  
RM-A12 = Trending Upward rapidly

ADDITIONAL INSTRUCTIONS:

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL...

FLORIDA POWER CORPORATION CRYSTAL RIVER UNIT 3  
1992 RADIOLOGICAL EMERGENCY RESPONSE PLAN EXERCISE

November 5, 1992

MESSAGE CARD

NO. 16B

TIME: 0840

TO: N/A

MESSAGE:

ADDITIONAL INFORMATION:

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL...

FLORIDA POWER CORPORATION CRYSTAL RIVER UNIT 3  
1992 RADIOLOGICAL EMERGENCY RESPONSE PLAN EXERCISE

November 5, 1992

CONTROLLER INSTRUCTION

NO. 17

TIME: 0845

LOCATION: Technical Support Center

CONTROLLER INSTRUCTIONS:

- 1) Assure a Site Area Emergency is declared based on >200 gpm tube leak.  
Do not prompt the SAE.

NOTE: Allow sufficient time for leak rate calculations to be performed and for the results to be transmitted to the TSC.

- 2) Assure an Emergency Repair Team is dispatched to repair the safety valve.

ADDITIONAL INSTRUCTIONS:

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL

FLORIDA POWER CORPORATION CRYSTAL RIVER UNIT 3  
1992 RADIOLOGICAL EMERGENCY RESPONSE PLAN EXERCISE

November 5, 1992

MESSAGE CARD

NO. 17

TIME: N/A

TO:

MESSAGE:

ADDITIONAL INFORMATION:

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL...

FLORIDA POWER CORPORATION CRYSTAL RIVER UNIT 3  
1992 RADIOLOGICAL EMERGENCY RESPONSE PLAN EXERCISE

November 5, 1992

CONTROLLER INSTRUCTION

NO. 18

TIME: 0853

LOCATION: Security Operations Center

CONTROLLER INSTRUCTIONS:

At the time designated above, perform the following:

Give Message Card No. 18 to two randomly selected evacuees and Security Officers.

ADDITIONAL INSTRUCTIONS:

If personnel are monitored at the Security Operations Center assure the following contamination levels are given out:

Evacuee #1 - left arm on shirt = 300 cpm (RM-14)

Evacuee #2 - back of head, neck, and upper back of shirt = 200 cpm

Assure Health Physics in the TSC is notified.

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL

FLORIDA POWER CORPORATION CRYSTAL RIVER UNIT 3  
1992 RADIOLOGICAL EMERGENCY RESPONSE PLAN EXERCISE

November 5, 1992

MESSAGE CARD

NO. 18

TIME: 0853

TO: Two randomly selected evacuees and the Security Officer in the area of the portal monitor.

MESSAGE:

The Portal Monitor has just alarmed as you stepped through it.

ADDITIONAL INFORMATION:

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL...



FLORIDA POWER CORPORATION CRYSTAL RIVER UNIT 3  
1992 RADIOLOGICAL EMERGENCY RESPONSE PLAN EXERCISE

November 5, 1992

CONTROLLER INSTRUCTION

NO. 19

TIME: 0900

LOCATION: 1) TSC 2) Corporate Security

CONTROLLER INSTRUCTIONS:

At the time designated above, perform the following:

- 1) Assure proper decontamination techniques are performed on the contaminated individuals. The TSC shower system should be made operational.
- 2) Call Corporate Security (240-4376) and read the following message:

THIS IS A DRILL. The Citrus County Sheriff's Office has apprehended a suspect who was observed making the bomb threat calls to Florida Power. The calls have been determined to be a hoax. THIS IS A DRILL.

ADDITIONAL INSTRUCTIONS:

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL

FLORIDA POWER CORPORATION CRYSTAL RIVER UNIT 3  
1992 RADIOLOGICAL EMERGENCY RESPONSE PLAN EXERCISE

November 5, 1992

MESSAGE CARD

NO. 19

TIME: N/A

TO:

MESSAGE:

ADDITIONAL INFORMATION:

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL...

FLORIDA POWER CORPORATION CRYSTAL RIVER UNIT 3  
1992 RADIOLOGICAL EMERGENCY RESPONSE PLAN EXERCISE

November 5, 1992

CONTROLLER INSTRUCTION

NO. 20

TIME: 1010

LOCATION: Intermediate Building at the leaking Safety Valve (MSV-33)

CONTROLLER INSTRUCTIONS:

At the time designated above, perform the following:

Give Message Card No. 20 to the Emergency Repair Team Leader.

NOTE: If mock-up is used, the Message Card is not necessary.

ADDITIONAL INSTRUCTIONS:

CONTACT SIMULATOR CONTROLLER (PAX 382) IMMEDIATELY AFTER  
REPAIR IS COMPLETED (BEFORE REPORTING IT TO THE TSC)!

Assure repair status is reported back to the TSC.

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL

FLORIDA POWER CORPORATION CRYSTAL RIVER UNIT 3  
1992 RADIOLOGICAL EMERGENCY RESPONSE PLAN EXERCISE

November 5, 1992

MESSAGE CARD

NO. 20

TIME: 1010

TO: Emergency Repair Team Leader

MESSAGE: The repair effort is complete.

ADDITIONAL INFORMATION:

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL...

FLORIDA POWER CORPORATION CRYSTAL RIVER UNIT 3  
1992 RADIOLOGICAL EMERGENCY RESPONSE PLAN EXERCISE

November 5, 1992

CONTROLLER INSTRUCTION

NO. 21

TIME: 1012 (or upon ERT exit from Intermediate Building)

LOCATION: Intermediate Building Exit door.

CONTROLLER INSTRUCTIONS:

At the time designated above, perform the following:

Give Message Card No. 21 to an Emergency Repair Team Member.

ADDITIONAL INSTRUCTIONS:

Assure the Simulator Control Room is contacted (ext 3933) with injury information.

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL

FLORIDA POWER CORPORATION CRYSTAL RIVER UNIT 3  
1992 RADIOLOGICAL EMERGENCY RESPONSE PLAN EXERCISE

November 5, 1992

MESSAGE CARD

NO. 21

TIME: 1012 (or upon exit from Intermediate Building)

TO: ERT Member

MESSAGE:

After feeling hot and light headed, you pass out. Lie on the floor. The Controller will instruct you as to when you will regain consciousness.

ADDITIONAL INFORMATION:

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL..

FLORIDA POWER CORPORATION CRYSTAL RIVER UNIT 3  
1992 RADIOLOGICAL EMERGENCY RESPONSE PLAN EXERCISE

November 5, 1992

CONTROLLER INSTRUCTION

NO. 22

TIME: 1015 or upon arrival of Medical Emergency Team (MET)

LOCATION: Injury Scene

CONTROLLER INSTRUCTIONS:

At the time designated above, perform the following:

Provide vital signs on the attached Message Card when appropriate.

ADDITIONAL INSTRUCTIONS:

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL

FLORIDA POWER CORPORATION CRYSTAL RIVER UNIT 3  
1992 RADIOLOGICAL EMERGENCY RESPONSE PLAN EXERCISE

November 5, 1992

MESSAGE CARD

NO. 22

TIME: 1015 (or after victim survey)

TO: MET member

MESSAGE: Vital Signs to be provided by the Controller as they are monitored.

ADDITIONAL INFORMATION:

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL...



FLORIDA POWER CORPORATION CRYSTAL RIVER UNIT 3  
1992 RADIOLOGICAL EMERGENCY RESPONSE PLAN EXERCISE

November 5, 1992

CONTROLLER INSTRUCTION

NO. 22A

TIME: 1030

LOCATION: Simulator Control Room

CONTROLLER INSTRUCTIONS:

At the time designated above, perform the following:

Assure request from the State to assist in the Transportation Accident is relayed to the TSC.

ADDITIONAL INSTRUCTIONS:

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL

FLORIDA POWER CORPORATION CRYSTAL RIVER UNIT 3  
1992 RADIOLOGICAL EMERGENCY RESPONSE PLAN EXERCISE

November 5, 1992

MESSAGE CARD

NO. 22A

TIME: N/A

TO:

MESSAGE:

ADDITIONAL INFORMATION:

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL...

FLORIDA POWER CORPORATION CRYSTAL RIVER UNIT 3  
1992 RADIOLOGICAL EMERGENCY RESPONSE PLAN EXERCISE

November 5, 1992

CONTROLLER INSTRUCTION

NO. 23

TIME: 1041

LOCATION: Simulator Control Room

CONTROLLER INSTRUCTIONS:

At the time designated above, perform the following:

Give Message Card No. 23 to a Simulator Control Room Operator.

ADDITIONAL INSTRUCTIONS:

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL...

FLORIDA POWER CORPORATION CRYSTAL RIVER UNIT 3  
1992 RADIOLOGICAL EMERGENCY RESPONSE PLAN EXERCISE

November 5, 1992

MESSAGE CARD

NO. 23

TIME: 1041

TO: Simulator Control Room Operator

MESSAGE: The Simulator Control Room receives the following alarm(s):

TURB VACUUM PRETRIP (O-3-2)  
CONDENSER VAC PUMP TROUBLE (N-1-3)

ADDITIONAL INFORMATION:

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL...

FLORIDA POWER CORPORATION CRYSTAL RIVER UNIT 3  
1992 RADIOLOGICAL EMERGENCY RESPONSE PLAN EXERCISE

November 5, 1992

CONTROLLER INSTRUCTION

NO. 24

TIME: 1051 (or upon arrival of operator)

LOCATION: Feedwater Pump area

CONTROLLER INSTRUCTIONS:

At the time designated above, perform the following:

Give Message Card No. 24 to operator sent to Feedwater Pump area.

ADDITIONAL INSTRUCTIONS:

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL

FLORIDA POWER CORPORATION CRYSTAL RIVER UNIT 3  
1992 RADIOLOGICAL EMERGENCY RESPONSE PLAN EXERCISE

November 5, 1992

MESSAGE CARD

NO. 24

TIME: 1051

TO: Operator dispatched to Feedwater Pump 2A.

MESSAGE:

You observe a crack in the expansion joint on the "A" Feedwater Pump Turbine exhaust.

ADDITIONAL INFORMATION:

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL...

FLORIDA POWER CORPORATION CRYSTAL RIVER UNIT 3  
1992 RADIOLOGICAL EMERGENCY RESPONSE PLAN EXERCISE

November 5, 1992

CONTROLLER INSTRUCTION

NO. 25

TIME: 1055

LOCATION: TSC

CONTROLLER INSTRUCTIONS:

At the time designated above, perform the following:

Assure an ERT is dispatched to "A" side Feedwater Pump Turbine expansion joint.

ADDITIONAL INSTRUCTIONS:

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL

FLORIDA POWER CORPORATION CRYSTAL RIVER UNIT 3  
1992 RADIOLOGICAL EMERGENCY RESPONSE PLAN EXERCISE

November 5, 1992

MESSAGE CARD

NO. 25

TIME: N/A

TO:

MESSAGE:

ADDITIONAL INFORMATION:

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL..



FLORIDA POWER CORPORATION CRYSTAL RIVER UNIT 3  
1992 RADIOLOGICAL EMERGENCY RESPONSE PLAN EXERCISE

November 5, 1992

CONTROLLER INSTRUCTION

NO. 26

TIME: 1115

LOCATION: TSC

CONTROLLER INSTRUCTIONS:

At the time designated above, perform the following:

Give Message Card No. 26 to the Emergency Coordinator.

ADDITIONAL INSTRUCTIONS:

ASSURE THE TSC VENTILATION IS IN THE RECIRC (EMERGENCY) MODE  
PRIOR TO HANDING OUT MESSAGE CARD #26.

Controller will provide symptoms to Repair Team (AHF-62 failure due to blown fuse).

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL

THIS IS A DRILL. THIS IS A DRILL...THIS IS A DRILL

FLORIDA POWER CORPORATION CRYSTAL RIVER UNIT 3  
1992 RADIOLOGICAL EMERGENCY RESPONSE PLAN EXERCISE

November 5, 1992

MESSAGE CARD

NO. 26

TIME: 1115

TO: Emergency Coordinator

MESSAGE:

The TSC Ventilation System has just shut down.

ADDITIONAL INFORMATION:

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL...

FLORIDA POWER CORPORATION CRYSTAL RIVER UNIT 3  
1992 RADIOLOGICAL EMERGENCY RESPONSE PLAN EXERCISE

November 5, 1992

CONTROLLER INSTRUCTION

NO. 27

TIME: 1136

LOCATION: Feedwater Pump 2A

CONTROLLER INSTRUCTIONS:

At the time designated above, perform the following:

Give Message Card No. 27 to the ERT Leader.

NOTE: If a mock-up is used, Message Card # 27 is not necessary.

ASSURE SIMULATOR CONTROLLER IS NOTIFIED (PAX 382) IMMEDIATELY  
AFTER REPAIR IS COMPLETED (PRIOR TO REPORTING IT TO THE  
SIMULATOR CONTROL ROOM).

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL

FLORIDA POWER CORPORATION CRYSTAL RIVER UNIT 3  
1992 RADIOLOGICAL EMERGENCY RESPONSE PLAN EXERCISE

November 5, 1992

MESSAGE CARD

NO. 27

TIME: 1136

TO: ERT Leader

MESSAGE:

Repairs to FWP-2A expansion joint are complete.

ADDITIONAL INFORMATION:

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL...

FLORIDA POWER CORPORATION CRYSTAL RIVER UNIT 3  
1992 RADIOLOGICAL EMERGENCY RESPONSE PLAN EXERCISE

November 5, 1992

CONTROLLER INSTRUCTION

NO. 28

TIME: CARD DELETED

LOCATION:

CONTROLLER INSTRUCTIONS:

At the time designated above, perform the following:

ADDITIONAL INSTRUCTIONS:

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL

FLORIDA POWER CORPORATION CRYSTAL RIVER UNIT 3  
1992 RADIOLOGICAL EMERGENCY RESPONSE PLAN EXERCISE

November 5, 1992

MESSAGE CARD

NO. 28

TIME: CARD DELETED

TO:

MESSAGE:

ADDITIONAL INFORMATION:

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL...

FLORIDA POWER CORPORATION CRYSTAL RIVER UNIT 3  
1992 RADIOLOGICAL EMERGENCY RESPONSE PLAN EXERCISE

November 5, 1992

CONTROLLER INSTRUCTION

NO. 29

TIME: 1233

LOCATION: Simulator Control Room

CONTROLLER INSTRUCTIONS:

At the time designated above, perform the following:

Call the Simulator Control Room (PAX 380) and report a valve leak in the Cardox System on the 119' Elevation of the Turbine Building.

ADDITIONAL INSTRUCTIONS:

Assure TSC is notified and that a Repair Team is sent to the Cardox Valve to repair leak.

Controller to provide repair information at the scene (using mock-up).

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL...

FLORIDA POWER CORPORATION CRYSTAL RIVER UNIT 3  
1992 RADIOLOGICAL EMERGENCY RESPONSE PLAN EXERCISE

November 5, 1992

MESSAGE CARD

NO. 29

TIME: 1233

TO: N/A

MESSAGE:

ADDITIONAL INFORMATION:

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL...



FLORIDA POWER CORPORATION CRYSTAL RIVER UNIT 3  
1992 RADIOLOGICAL EMERGENCY RESPONSE PLAN EXERCISE

November 5, 1992

CONTROLLER INSTRUCTION

NO. 30

TIME: 1400

LOCATION: Simulator Control Room

CONTROLLER INSTRUCTIONS:

At the time designated above, perform the following:

Give Message Card No. 30 to the Rad/Met reader in the Simulator Control Room.

ADDITIONAL INSTRUCTIONS:

Assure the Simulator Control Room Operator is notified.

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL...

FLORIDA POWER CORPORATION CRYSTAL RIVER UNIT 3  
1992 RADIOLOGICAL EMERGENCY RESPONSE PLAN EXERCISE

November 5, 1992

MESSAGE CARD

NO. 30

TIME: 1400

TO: Simulator Control Room Rad/Met Reader

MESSAGE:

RM-A12 is responding erratically.

ADDITIONAL INFORMATION:

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL...

FLORIDA POWER CORPORATION CRYSTAL RIVER UNIT 3  
1992 RADIOLOGICAL EMERGENCY RESPONSE PLAN EXERCISE

November 5, 1992

CONTROLLER INSTRUCTION

NO. 31

TIME: 1415

LOCATION: Simulator Control Room

CONTROLLER INSTRUCTIONS:

At the time designated above, perform the following:

Provide RM-A12 repair information to ERT as appropriate.

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL

FLORIDA POWER CORPORATION CRYSTAL RIVER UNIT 3  
1992 RADIOLOGICAL EMERGENCY RESPONSE PLAN EXERCISE

November 5, 1992

MESSAGE CARD

NO. 31

TIME: N/A

TO:

MESSAGE:

ADDITIONAL INFORMATION:

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL...

FLORIDA POWER CORPORATION CRYSTAL RIVER UNIT 3  
1992 RADIOLOGICAL EMERGENCY RESPONSE PLAN EXERCISE

November 5, 1992

CONTROLLER INSTRUCTION

NO. 32

TIME: 1445

LOCATION: Simulator Control Room, TSC, EOF

CONTROLLER INSTRUCTIONS:

At the time designated above and after concurrence with the Exercise Manager, perform the following:

Give Message Card No. 32 to SSOD, EC, and EOF Director.

ADDITIONAL INSTRUCTIONS:

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL

FLORIDA POWER CORPORATION CRYSTAL RIVER UNIT 3  
1992 RADIOLOGICAL EMERGENCY RESPONSE PLAN EXERCISE

November 5, 1992

MESSAGE CARD

NO. 32

TIME: 1445

TO: SSOD, EC, and EOF Director

MESSAGE: The Exercise is terminated. Restore all facilities to pre-Exercise status.

ADDITIONAL INFORMATION:

THIS IS A DRILL...THIS IS A DRILL...THIS IS A DRILL...

1992 EXERCISE OPS TABLE	0825	0830	0835	0840	0845	0850	0855	0900	0905	0910
REX1	2	3	4	5	6	7	8	9	10	
T-COLD WR A DEG F	557	557	556	550	532	512	495	488	480	473
T-COLD WR B DEG F	557	557	556	551	533	515	498	491	483	476
T-AVE DEG F	580	579	556	551	533	520	520	520	520	520
RC PRES WR A PSIG	2162	2155	1922	2038	1764	1571	1412	1274	1153	1058
STEAM TEMP OUT A DEG F	593	591	548	552	534	515	501	492	485	477
STEAM TEMP OUT B DEG F	593	591	548	551	533	515	500	493	486	478
STEAM PRES OUT A PSIG	908	916	1014	989	800	665	601	552	515	480
STEAM PRES OUT B PSIG	908	916	1011	985	819	699	619	573	534	498
TURB HDR PRES A PSIA	895	905	1014	990	800	665	601	600	600	600
TURB HDR PRES B PSIA	895	905	1011	986	819	699	619	600	600	600
RC PRES WR B PSIG	2162	2156	1924	2039	1763	1547	1389	1250	1129	1034
PZR LEVEL CMP IN.	221.7	209.2	96.5	124.5	116.2	121.3	113.8	107.1	100.0	106.7
OTSG A SU LEVEL IN.	238.6	223.3	38.1	51.7	32.8	32.2	33.6	32.2	32.1	32.1
OTSG A OP LEVEL %	89.9	81.9	5.5	6.2	4.7	4.2	3.4	3.3	3.2	3.0
OTSG B SU LEVEL IN.	238.8	223.4	32.9	33.1	32.1	32.1	32.1	32.2	32.2	32.5
OTSG B OP LEVEL %	89.9	82.0	5.3	4.9	4.7	4.1	3.1	3.2	3.0	2.8
RC FLOW A CM MLB/HR	72.5	72.7	72.6	73.2	74.1	31.2	32.0	32.0	32.2	32.4
RC FLOW B CM MLB/HR	73.2	73.4	73.3	73.9	75.0	80.1	80.1	80.1	80.1	80.1
SU FW FLOW A KLB/HR	1.6E-03	1.2E-03	4.4E-03	6.7E-05	9.2E-03	5.1E-03	9.6E-05	1.1E-03	8.6E-04	6.5E-04
SU FW FLOW B KLB/HR	1.6E-03	1.3E-03	8.0E-03	5.7E-03	2.1E-02	1.6E-02	3.9E-03	6.8E-03	5.9E-03	5.2E-03
MAKEUP FLOW GPM	27	172	0	0	0	0	0	0	0	20
LETDOWN FLOW GPM	61	61	0	0	0	0	0	0	0	0
BWST LEVEL FT	45.8	45.8	45.6	45.4	45.1	44.8	44.6	44.4	44.2	44.1
MAKEUP TANK LEVEL IN.	71.4	67.7	79.3	85.3	84.3	84.9	86.0	87.7	88.0	83.1
OTSG WR A LEVEL IN.	299.8	279.0	43.2	50.3	40.0	40.0	40.0	40.0	40.0	40.0
OTSG WR B LEVEL IN.	300.8	278.9	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
TURB BYPASS VLV A POS %	0.0	0.0	14.6	14.7	28.2	30.8	20.9	24.0	24.0	24.0
TURB BYPASS VLV B POS %	0.0	0.0	12.6	9.3	22.8	26.1	16.3	19.1	19.1	19.1
T-HOT (X) IM008H	611	606	559	553	534	515	499	490	483	475
RC PRES WR A PSIG	2162	2159	1927	2039	1759	1565	1410	1270	1150	1054
RC PRES WR B PSIG	2162	2159	1927	2039	1759	1543	1387	1248	1127	1032
T-HOT WR (RECORDED)	602	600	557	551	533	515	499	491	484	476
SATURATION MARGIN DEG F	45.7	47.5	74.7	87.9	85.6	86.0	88.4	82.0	76.8	73.4
PZR TEMPERATURE DEG F	648	648	630	629	621	605	591	578	565	554
FEEDWATER TEMP A DEG F	456	455	392	362	341	322	311	308	304	300
FEEDWATER TEMP B DEG F	456	455	382	361	330	312	302	297	292	287
EFP-1 TO B OTSG	0	0	0	0	0	0	0	0	0	0
EFP-1 TO A OTSG	0	0	0	0	0	0	0	0	0	0
EFP-2 TO B OTSG	0	0	0	0	0	0	0	0	0	0
EFP-2 TO A OTSG	0	0	0	0	0	0	0	0	0	0
SRC RANGE NI-1 CPS (LOG)	-1	-1	-1	5.17284	3.44012	1.84001	1.25784	1.21003	1.18041	1.14806
SRC RANGE NI-2 CPS (LOG)	-1.03567	-1.03567	-1.03567	5.14778	3.41409	1.81192	1.22723	1.17902	1.1493	1.11669
INT RANGE NI-3 AMP	-4.25841	-4.28422	-7.93246	-9.65191	-11	-11	-11	-11	-11	-11
INT RANGE NI-4 AMP	-4.24936	-4.27499	-7.8972	-9.66221	-11	-11	-11	-11	-11	-11
OTSG A RC TEMP DIFF	45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0
OTSG B RC TEMP DIFF	45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6
OTSG A RC TEMP DIFF	45	43	1	1	2	8	24	31	39	46
OTSG B RC TEMP DIFF	45	44	1	1	1	5	22	29	37	45
EFT LEVEL FT	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8
CONDENSER VAC IN. HG	2.9	2.8	1.5	1.5	1.8	1.8	1.6	1.7	1.7	1.7
MAIN FW FLOW A KLB/HR	5325.0	4846.9	70.7	8.7	122.0	99.6	9.8	41.0	39.4	34.4
MAIN FW FLOW B KLB/HR	5343.4	4872.9	118.0	87.3	170.7	160.7	84.6	99.8	93.2	90.1

[illegible]



1992 EXERCISE OPS TABLE	0915	0920	0925	0930	0935	0940	0945	0950	0955	1000
	11	12	13	14	15	16	17	18	19	20
T-COLD WR A DEG F	465	459	451	444	439	429	424	417	412	406
T-COLD WR B DEG F	469	462	455	447	441	432	425	418	412	406
T-AVE DEG F	520	520	520	520	520	520	520	520	520	520
RC PRES WR A PSIG	967	889	817	756	685	634	587	548	515	486
STEAM TEMP OUT A DEG F	470	464	457	450	443	434	427	420	414	408
STEAM TEMP OUT B DEG F	471	465	457	450	444	435	422	414	407	398
STEAM PRES OUT A PSIG	447	416	385	358	328	300	317	293	274	257
STEAM PRES OUT B PSIG	464	433	399	370	343	311	268	248	232	216
TURB HDR PRES A PSIA	600	600	600	600	600	600	600	600	600	600
TURB HDR PRES B PSIA	600	600	600	600	600	600	600	600	600	600
RC PRES WR B PSIG	943	866	794	732	661	610	563	525	491	461
PZR LEVEL CMP IN.	106.7	111.8	112.7	120.6	98.4	109.9	107.8	108.7	108.6	108.5
OTSG A SU LEVEL IN.	32.1	32.2	32.2	32.5	31.9	32.0	57.1	82.9	102.3	119.5
OTSG A OP LEVEL %	3.0	3.0	2.9	2.8	3.1	2.9	2.1	3.0	6.9	7.5
OTSG B SU LEVEL IN.	32.2	32.2	32.3	32.2	32.2	32.3	32.2	32.3	32.3	32.3
OTSG B OP LEVEL %	2.8	2.8	2.8	2.7	2.8	2.7	4.9	4.8	4.7	4.9
RC FLOW A CM MLB/HR	32.6	32.9	33.1	33.4	33.6	33.9	34.7	34.9	35.0	35.2
RC FLOW B CM MLB/HR	80.1	80.1	80.1	80.1	80.1	80.1	80.1	80.1	80.1	80.1
SU FW FLOW A KLB/HR	8.0E-04	1.5E-03	1.0E-03	9.6E-04	2.1E-03	9.4E-04	2.5E-05	2.6E-05	2.7E-05	2.8E-05
SU FW FLOW B KLB/HR	5.1E-03	6.6E-03	6.5E-03	5.8E-03	6.8E-03	5.6E-03	3.3E-02	2.8E-02	2.5E-02	2.6E-02
MAKEUP FLOW GPM	68	21	21	22	170	200	199	190	175	171
LETDOWN FLOW GPM	0	0	0	0	0	0	0	0	0	0
BWST LEVEL FT	43.9	43.7	43.6	43.4	43.3	43.2	43.0	42.9	42.8	42.7
MAKEUP TANK LEVEL IN.	82.9	83.1	83.2	83.1	85.0	83.0	84.4	84.3	84.5	84.6
OTSG WR A LEVEL IN.	40.0	40.0	40.0	40.0	40.0	40.0	50.0	65.1	77.0	88.0
OTSG WR B LEVEL IN.	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
TURB BYPASS VLV A POS %	25.2	27.0	27.8	27.8	32.8	31.8	0.0	0.0	0.0	0.0
TURB BYPASS VLV B POS %	20.3	22.9	24.6	24.6	27.3	28.1	100.0	100.0	100.0	100.0
T-HOT (X) IM008H	468	462	454	448	440	432	425	421	415	409
RC PRES WR A PSIG	965	887	816	754	683	633	585	547	515	485
RC PRES WR B PSIG	942	863	793	730	659	609	562	524	491	461
T-HOT WR (RECORDED)	469	463	455	448	441	432	427	420	414	408
SATURATION MARGIN DEG F	69.3	65.9	63.5	61.9	57.0	57.6	54.2	54.1	53.1	52.5
PZR TEMPERATURE DEG F	544	534	524	515	505	496	488	481	475	469
FEEDWATER TEMP A DEG F	296	292	286	281	274	266	265	263	262	261
FEEDWATER TEMP B DEG F	282	277	271	264	258	252	242	234	229	224
EFP-1 TO B OTSG	0	0	0	0	0	0	0	0	0	0
EFP-1 TO A OTSG	0	0	0	0	0	0	0	0	0	0
EFP-2 TO B OTSG	0	0	0	0	0	0	0	0	0	0
EFP-2 TO A OTSG	0	0	0	0	0	0	0	0	0	0
SRC RANGE NI-1 CPS (LOG)	1.11719	1.08654	1.0526	1.02056	0.99771	0.96191	0.94187	0.91403	0.89063	0.86793
SRC RANGE NI-2 CPS (LOG)	1.08578	1.05492	1.02079	0.98857	0.96555	0.92963	0.90792	0.88003	0.85656	0.83377
INT RANGE NI-3 AMP	-11	-11	-11	-11	-11	-11	-11	-11	-11	-11
INT RANGE NI-4 AMP	-11	-11	-11	-11	-11	-11	-11	-11	-11	-11
OTSG A RC TEMP DIFF	45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0
OTSG B RC TEMP DIFF	45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6
OTSG A RC TEMP DIFF	53	60	68	75	81	90	93	101	106	112
OTSG B RC TEMP DIFF	51	58	66	73	80	89	95	102	108	114
EFT LEVEL FT	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8
CONDENSER VAC IN. HG	1.7	1.7	1.7	1.7	1.8	1.7	1.7	1.7	1.7	1.7
MAIN FW FLOW A KLB/HR	37.8	47.3	38.9	38.8	61.1	37.5	7.3	7.0	7.3	7.3
MAIN FW FLOW B KLB/HR	89.9	98.4	97.7	92.8	98.8	91.2	217.0	197.2	187.2	190.0

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1992 EXERCISE OPS TABLE	1005	1010	1015	1020	1025	1030	1035	1040	1045	1050
	21	22	23	24	25	26	27	28	29	30
T-COLD WR A DEG F	401	394	386	382	376	373	370	367	365	361
T-COLD WR B DEG F	401	396	390	385	380	376	373	370	367	364
T-AVE DEG F	520	520	520	520	520	520	520	520	520	520
RC PRES WR A PSIG	465	450	447	442	437	430	423	417	411	403
STEAM TEMP OUT A DEG F	403	398	391	386	382	377	374	370	368	359
STEAM TEMP OUT B DEG F	390	385	378	373	369	365	362	359	357	354
STEAM PRES OUT A PSIG	241	227	208	196	186	174	167	160	155	137
STEAM PRES OUT B PSIG	201	191	177	166	157	149	142	138	133	128
TURB HDR PRES A PSIA	600	600	600	600	600	600	600	600	600	600
TURB HDR PRES B PSIA	600	600	600	600	600	600	600	600	600	600
RC PRES WR B PSIG	441	415	411	406	401	394	387	380	374	367
PZR LEVEL CMP IN.	108.6	97.8	102.6	103.1	104.2	110.0	109.3	109.4	109.3	108.0
OTSG A SU LEVEL IN.	136.5	152.7	169.8	187.2	205.1	223.0	241.0	250.0	250.0	250.0
OTSG A OP LEVEL %	9.0	10.7	13.9	19.2	28.1	37.3	46.5	61.1	69.6	72.1
OTSG B SU LEVEL IN.	31.7	32.3	32.3	32.3	32.3	32.3	32.3	32.3	32.3	32.3
OTSG B OP LEVEL %	4.8	4.8	4.7	4.7	4.6	4.6	4.5	4.4	4.3	4.3
RC FLOW A CM MLB/HR	35.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RC FLOW B CM MLB/HR	80.1	80.1	80.1	80.1	80.1	80.1	80.1	80.1	80.1	80.1
SU FW FLOW A KLB/HR	8.8E-06	5.7E-06	6.5E-06	7.1E-06	7.6E-06	8.0E-06	8.4E-06	8.8E-06	9.0E-06	9.5E-06
SU FW FLOW B KLB/HR	2.6E-02	2.3E-02	1.9E-02	1.7E-02	1.5E-02	1.4E-02	1.3E-02	1.1E-02	1.1E-02	9.6E-03
MAKEUP FLOW GPM	160	181	198	164	200	158	149	145	141	192
LETDOWN FLOW GPM	0	0	0	0	0	0	0	0	0	0
BWST LEVEL FT	42.6	42.5	42.3	42.2	42.1	42.0	41.9	41.8	41.7	41.6
MAKEUP TANK LEVEL IN.	84.8	85.0	84.4	84.9	84.7	84.8	85.2	85.3	85.4	85.2
OTSG WR A LEVEL IN.	99.2	110.4	122.5	135.2	148.7	162.8	177.7	191.0	198.5	211.2
OTSG WR B LEVEL IN.	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
TURB BYPASS VLV A POS %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	42.9
TURB BYPASS VLV B POS %	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
T-HOT (X) IMOOBH	402	398	392	387	381	376	375	371	370	366
RC PRES WR A PSIG	465	450	447	442	437	430	423	417	410	403
RC PRES WR B PSIG	440	414	411	406	401	394	387	381	374	367
T-HOT WR (RECORDED)	403	396	390	384	380	376	372	369	367	361
SATURATION MARGIN DEG F	53.7	52.2	58.0	62.2	65.4	68.2	70.0	71.4	72.2	73.9
PZR TEMPERATURE DEG F	464	461	460	459	458	456	455	454	452	451
FEEDWATER TEMP A DEG F	260	260	259	258	257	256	255	254	253	252
FEEDWATER TEMP B DEG F	222	219	218	217	216	216	216	215	215	215
EFF-1 TO B OTSG	0	0	0	0	0	0	0	0	0	0
EFF-1 TO A OTSG	0	0	0	0	0	0	0	0	0	0
EFF-2 TO B OTSG	0	0	0	0	0	0	0	0	0	0
EFF-2 TO A OTSG	0	0	0	0	0	0	0	0	0	0
SRC RANGE NI-1 CPS (LOG)	0.84607	0.82688	0.80209	0.78115	0.76341	0.74625	0.73229	0.71966	0.70903	0.69574
SRC RANGE NI-2 CPS (LOG)	0.81184	0.79315	0.76822	0.74724	0.72943	0.7122	0.6982	0.68553	0.67487	0.66152
INT RANGE NI-3 AMP	-11	-11	-11	-11	-11	-11	-11	-11	-11	-11
INT RANGE NI-4 AMP	-11	-11	-11	-11	-11	-11	-11	-11	-11	-11
OTSG A RC TEMP DIFF	45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0
OTSG B RC TEMP DIFF	45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6
OTSG A RC TEMP DIFF	117	123	129	135	139	143	147	150	152	155
OTSG B RC TEMP DIFF	119	124	130	135	140	144	147	150	153	156
EFT LEVEL FT	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8
CONDENSER VAC IN. HG	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.9	4.0	5.3
MAIN FW FLOW A KLB/HR	4.0	3.1	3.4	3.4	3.4	3.7	4.0	4.0	4.0	4.0
MAIN FW FLOW B KLB/HR	193.0	176.9	163.1	154.3	146.9	139.7	134.7	125.0	121.2	115.3

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1992 EXERCISE OPS TABLE	1055	1100	1105	1110	1115	1120	1125	1130	1135	1140
	31	32	33	34	35	36	37	38	39	40
T-COLD WR A DEG F	355	347	347	337	336	335	325	327	324	322
T-COLD WR B DEG F	357	351	347	342	338	335	332	329	326	324
T-AVE DEG F	520	520	520	520	520	520	520	520	520	520
RC PRES WR A PSIG	396	372	359	353	310	302	306	239	234	231
STEAM TEMP OUT A DEG F	352	345	342	336	333	331	325	324	321	319
STEAM TEMP OUT B DEG F	348	341	338	333	329	326	323	320	318	315
STEAM PRES OUT A PSIG	124	111	108	97	93	90	82	80	77	74
STEAM PRES OUT B PSIG	117	106	100	94	87	84	80	75	73	70
TURB HDR PRES A PSIA	600	600	600	600	600	600	600	600	600	600
TURB HDR PRES B PSIA	600	600	600	600	600	600	600	600	600	600
RC PRES WR B PSIG	360	335	321	316	273	265	268	202	197	195
PZR LEVEL CMP IN.	109.3	126.5	97.7	107.3	111.6	89.8	120.2	125.6	133.8	130.7
OTSG A SU LEVEL IN.	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0
OTSG A OP LEVEL %	70.6	69.6	68.8	68.4	68.6	68.9	69.3	69.8	70.2	70.4
OTSG B SU LEVEL IN.	32.3	32.6	32.1	33.4	32.1	32.3	30.7	31.4	32.7	30.9
OTSG B OP LEVEL %	4.2	4.2	4.1	4.1	4.4	4.1	3.7	4.1	3.8	3.7
RC FLOW A CM MLB/HR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RC FLOW B CM MLB/HR	80.1	80.1	80.1	80.1	80.1	80.1	80.1	80.1	80.1	80.1
SU FW FLOW A KLB/HR	1.0E-05	1.1E-05	1.1E-05	1.1E-05	1.2E-05	1.2E-05	1.2E-05	1.2E-05	1.2E-05	1.2E-05
SU FW FLOW B KLB/HR	8.3E-03	7.3E-03	6.8E-03	5.7E-03	5.2E-03	8.2E-03	3.6E-03	6.4E-03	3.7E-03	7.0E-03
MAKEUP FLOW GPM	188	196	32	200	128	32	200	156	113	107
LETDOWN FLOW GPM	0	0	0	0	0	0	0	0	0	0
BWST LEVEL FT	41.5	41.3	41.3	41.2	41.1	41.0	40.9	40.8	40.7	40.6
MAKEUP TANK LEVEL IN.	84.9	83.7	85.7	82.5	85.4	85.7	80.8	85.4	85.5	85.7
OTSG WR A LEVEL IN.	209.8	210.2	208.7	205.6	206.5	206.9	207.0	209.0	209.5	210.3
OTSG WR B LEVEL IN.	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
TURB BYPASS VLV A POS %	42.9	42.9	42.9	42.9	42.9	42.9	42.9	42.9	42.9	42.9
TURB BYPASS VLV B POS %	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
T-HOT (X) IM008H	358	353	349	343	338	336	332	330	327	325
RC PRES WR A PSIG	396	371	358	352	310	302	305	239	234	232
RC PRES WR B PSIG	360	335	321	315	272	264	268	202	197	194
T-HOT WR (RECORDED)	354	347	344	338	335	333	327	326	323	321
SATURATION MARGIN DEG F	78.8	78.5	78.7	81.6	73.1	73.1	77.8	57.1	58.0	58.6
PZR TEMPERATURE DEG F	449	443	440	429	427	424	409	405	404	402
FEEDWATER TEMP A DEG F	251	250	249	248	246	245	244	243	242	241
FEEDWATER TEMP B DEG F	215	214	213	213	212	211	211	210	211	211
EFP-1 TO B OTSG	0	0	0	0	0	0	0	0	0	0
EFP-1 TO A OTSG	0	0	0	0	0	0	0	0	0	0
EFP-2 TO B OTSG	0	0	0	0	0	0	0	0	0	0
EFP-2 TO A OTSG	0	0	0	0	0	0	0	0	0	0
SRC RANGE NI-1 CPS (LOG)	0.6721	0.64882	0.63698	0.61975	0.60421	0.5963	0.58027	0.57149	0.56092	0.55337
SRC RANGE NI-2 CPS (LOG)	0.63777	0.61435	0.60251	0.5852	0.56961	0.56167	0.54557	0.53677	0.52617	0.51862
INT RANGE NI-3 AMP	-11	-11	-11	-11	-11	-11	-11	-11	-11	-11
INT RANGE NI-4 AMP	-11	-11	-11	-11	-11	-11	-11	-11	-11	-11
OTSG A RC TEMP DIFF	45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0
OTSG B RC TEMP DIFF	45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6
OTSG A RC TEMP DIFF	162	168	173	177	182	184	187	191	194	196
OTSG B RC TEMP DIFF	162	169	173	177	182	185	188	192	194	196
EFT LEVEL FT	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8
CONDENSER VAC IN. HG	6.4	7.3	8.0	8.6	9.0	9.4	9.7	9.8	10.0	9.0
MAIN FW FLOW A KLB/HR	4.2	4.4	4.4	4.5	4.5	4.7	4.7	4.7	4.7	4.7
MAIN FW FLOW B KLB/HR	107.6	98.9	97.0	84.9	59.6	82.7	94.4	92.3	17.1	112.8

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1992 EXERCISE OPS TABLE	1145	1150	1155	1200	1205	1210	1215	1220	1225	1230
	41	42	43	44		46	47	48	49	50
T-COLD WR A DEG F	320	318	315	313	311	309	307	305	303	301
T-COLD WR B DEG F	322	319	317	315	313	310	308	306	305	303
T-AVE DEG F	520	520	520	520	520	520	520	520	520	520
RC PRES WR A PSIG	242	252	247	241	261	281	296	286	279	282
STEAM TEMP OUT A DEG F	317	314	312	309	307	305	303	301	299	298
STEAM TEMP OUT B DEG F	313	311	309	307	304	302	300	299	297	295
STEAM PRES OUT A PSIG	71	68	65	63	60	58	56	54	52	50
STEAM PRES OUT B PSIG	68	65	62	60	58	55	53	52	50	48
TURB HDR PRES A PSIA	600	600	600	600	600	600	600	600	600	600
TURB HDR PRES B PSIA	600	600	600	600	600	600	600	600	600	600
RC PRES WR B PSIG	204	215	212	202	223	243	258	248	241	244
PZR LEVEL CMP IN.	130.8	131.0	131.1	129.4	129.4	129.4	129.6	129.7	129.6	129.6
OTSG A SU LEVEL IN.	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0
OTSG A OP LEVEL %	70.7	69.7	69.7	69.6	69.5	69.4	71.4	72.4	73.7	74.7
OTSG B SU LEVEL IN.	31.8	32.1	31.2	29.6	30.8	32.1	31.2	31.7	31.9	31.8
OTSG B OP LEVEL %	3.8	3.9	3.6	3.9	3.9	3.8	3.7	3.6	3.8	3.6
RC FLOW A CM MLB/HR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RC FLOW B CM MLB/HR	80.1	80.1	80.1	80.1	80.1	80.1	80.1	80.1	80.1	80.1
SU FW FLOW A KLB/HR	1.3E-05	1.3E-05	1.3E-05	1.3E-05	1.3E-05	1.3E-05	1.3E-05	1.4E-05	1.4E-05	1.4E-05
SU FW FLOW B KLB/HR	1.2E-04	2.6E-03	9.3E-04	1.1E-03	1.6E-03	2.1E-03	3.2E-03	5.9E-04	1.1E-03	1.9E-03
MAKEUP FLOW GPM	114	118	117	118	123	128	133	129	127	129
LETDOWN FLOW GPM	0	0	0	0	0	0	0	0	0	0
BWST LEVEL FT	40.5	40.4	40.4	40.3	40.2	40.1	40.0	39.9	39.8	39.7
MAKEUP TANK LEVEL IN.	85.7	85.8	85.8	85.9	85.9	86.0	85.9	86.0	86.1	86.1
OTSG WR A LEVEL IN.	212.4	210.9	210.1	210.1	210.2	210.3	212.9	215.2	217.6	220.6
OTSG WR B LEVEL IN.	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
TURB BYPASS VLV A POS %	62.8	62.8	62.8	62.8	62.8	62.8	62.8	62.8	81.1	81.1
TURB BYPASS VLV B POS %	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
T-HOT (X) IM008H	323	321	319	315	313	311	309	308	305	303
RC PRES WR A PSIG	242	252	246	241	261	282	296	286	279	282
RC PRES WR B PSIG	205	214	208	205	224	244	258	248	241	244
T-HOT WR (RECORDED)	318	316	314	311	309	307	305	303	301	300
SATURATION MARGIN DEG F	65.0	72.0	71.7	72.0	82	91.6	98.1	96.9	96.3	99.1
PZR TEMPERATURE DEG F	405	409	407	405	412	418	423	420	417	418
FEEDWATER TEMP A DEG F	239	238	237	236	235	234	233	232	231	230
FEEDWATER TEMP B DEG F	211	212	212	212	212	212	212	212	212	212
EFF-1 TO B OTSG	0	0	0	0	0	0	0	0	0	0
EFF-1 TO A OTSG	0	0	0	0	0	0	0	0	0	0
EFF-2 TO B OTSG	0	0	0	0	0	0	0	0	0	0
EFF-2 TO A OTSG	0	0	0	0	0	0	0	0	0	0
SRC RANGE NI-1 CPS (LOG)	0.54504	0.53571	0.52706	0.51833	0.50932	0.50031	0.49186	0.48514	0.47849	0.47109
SRC RANGE NI-2 CPS (LOG)	0.51026	0.50089	0.49222	0.48347	0.474425	0.46538	0.45692	0.45019	0.44353	0.43611
INT RANGE NI-3 AMP	-11	-11	-11	-11	-11	-11	-11	-11	-11	-11
INT RANGE NI-4 AMP	-11	-11	-11	-11	-11	-11	-11	-11	-11	-11
OTSG A RC TEMP DIFF	45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0
OTSG B RC TEMP DIFF	45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6
OTSG A RC TEMP DIFF	198	200	203	205	207	209	212	213	215	217
OTSG B RC TEMP DIFF	198	201	203	206	208	210	212	214	215	217
EFT LEVEL FT	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8
CONDENSER VAC IN. HG	7.7	6.5	5.6	4.8	4.4	4.0	3.8	3.6	3.4	3.2
MAIN FW FLOW A KLB/HR	4.7	4.7	4.7	4.7	4.8	4.9	4.9	4.9	4.9	4.9
MAIN FW FLOW B KLB/HR	29.1	75.4	63.7	37.7	46.1	54.6	66.3	67.5	39.3	58.6

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1992 EXERCISE OPS TABLE	1235	1240	1245	1250	1255	1300	1305	1310	1315	1320
	51	52	53	54	55	56	57	58	59	60
T-COLD WR A DEG F	300	298	296	295	294	293	292	291	291	290
T-COLD WR B DEG F	301	300	298	297	295	294	293	293	292	291
T-AVE DEG F	520	520	520	520	520	520	520	520	520	520
RC PRES WR A PSIG	285	288	283	284	287	288	277	265	253	256
STEAM TEMP OUT A DEG F	296	294	293	291	290	289	288	287	287	286
STEAM TEMP OUT B DEG F	293	292	290	289	287	286	286	285	284	283
STEAM PRES OUT A PSIG	49	47	46	45	43	42	42	41	41	40
STEAM PRES OUT B PSIG	47	45	44	43	41	40	40	39	39	38
TURB HDR PRES A PSIA	600	600	600	600	600	600	600	600	600	600
TURB HDR PRES B PSIA	600	600	600	600	600	600	600	600	600	600
RC PRES WR B PSIG	246	249	244	245	248	249	236	225	217	217
PZR LEVEL CMP IN.	129.6	129.5	129.7	129.6	129.6	129.6	129.7	129.7	129.6	129.6
OTSG A SU LEVEL IN.	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0
OTSG A OP LEVEL %	75.7	76.4	77.1	78.1	78.8	79.4	80.2	80.7	81.1	81.5
OTSG B SU LEVEL IN.	32.8	31.9	29.9	31.5	32.3	30.6	31.6	33.9	31.9	32.8
OTSG B OP LEVEL %	3.9	3.6	3.8	3.6	3.9	3.8	3.7	3.6	3.7	3.8
RC FLOW A CM MLB/HR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RC FLOW B CM MLB/HR	80.1	80.1	80.1	80.1	80.1	80.1	80.1	80.1	80.1	80.1
SU FW FLOW A KLB/HR	1.4E-05	1.4E-05	1.4E-05	1.4E-05	1.4E-05	1.4E-05	1.4E-05	1.4E-05	1.4E-05	1.4E-05
SU FW FLOW B KLB/HR	2.0E-03	1.8E-03	1.5E-03	1.4E-03	2.9E-03	1.4E-03	7.2E-04	1.6E-03	4.8E-04	1.9E-03
MAKEUP FLOW GPM	130	132	127	127	127	127	122	119	115	115
LETDOWN FLOW GPM	0	0	0	0	0	0	0	0	0	0
BWST LEVEL FT	39.6	39.5	39.4	39.3	39.2	39.2	39.1	39.0	38.9	38.8
MAKEUP TANK LEVEL IN.	86.1	86.1	86.2	86.2	86.3	86.3	86.4	86.5	86.5	86.6
OTSG WR A LEVEL IN.	222.2	224.7	226.6	228.1	228.2	229.8	231.6	232.7	233.5	234.5
OTSG WR B LEVEL IN.	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
TURB BYPASS VLV A POS %	81.1	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
TURB BYPASS VLV B POS %	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
T-HOT (X) IM008H	302	300	299	297	296	295	295	294	292	291
RC PRES WR A PSIG	285	288	283	284	287	287	275	263	255	256
RC PRES WR B PSIG	247	250	244	246	248	249	236	225	217	218
T-HOT WR (RECORDED)	298	296	295	293	292	291	290	290	289	288
SATURATION MARGIN DEG F	101.7	104.5	104.0	105.9	108.0	109.4	105.2	101.6	99.2	100.6
PZR TEMPERATURE DEG F	419	420	419	419	419	420	417	413	410	410
FEEDWATER TEMP A DEG F	227	225	227	226	225	224	223	222	221	220
FEEDWATER TEMP B DEG F	212	212	212	212	212	211	211	211	211	211
EFF-1 TO B OTSG	0	0	0	0	0	0	0	0	0	0
EFF-1 TO A OTSG	0	0	0	0	0	0	0	0	0	0
EFF-2 TO B OTSG	0	0	0	0	0	0	0	0	0	0
EFF-2 TO A OTSG	0	0	0	0	0	0	0	0	0	0
SRC RANGE NI-1 CPS (LOG)	0.46395	0.45698	0.45103	0.44512	0.43946	0.43438	0.43063	0.42707	0.42379	0.41977
SRC RANGE NI-2 CPS (LOG)	0.42898	0.42196	0.41599	0.41007	0.40441	0.39932	0.39558	0.39202	0.38873	0.38472
INT RANGE NI-3 AMP	-11	-11	-11	-11	-11	-11	-11	-11	-11	-11
INT RANGE NI-4 AMP	-11	-11	-11	-11	-11	-11	-11	-11	-11	-11
OTSG A RC TEMP DIFF	45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0
OTSG B RC TEMP DIFF	45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6
OTSG A RC TEMP DIFF	219	220	222	223	224	226	226	227	228	229
OTSG B RC TEMP DIFF	219	221	222	224	225	226	227	228	228	229
EFT LEVEL FT	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8
CONDENSER VAC IN. HG	3.0	2.9	2.8	2.7	2.6	2.5	2.4	2.3	2.3	2.2
MAIN FW FLOW A KLB/HR	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
MAIN FW FLOW B KLB/HR	53.8	55.0	53.1	41.9	16.2	17.2	62.5	60.1	30.0	16.2

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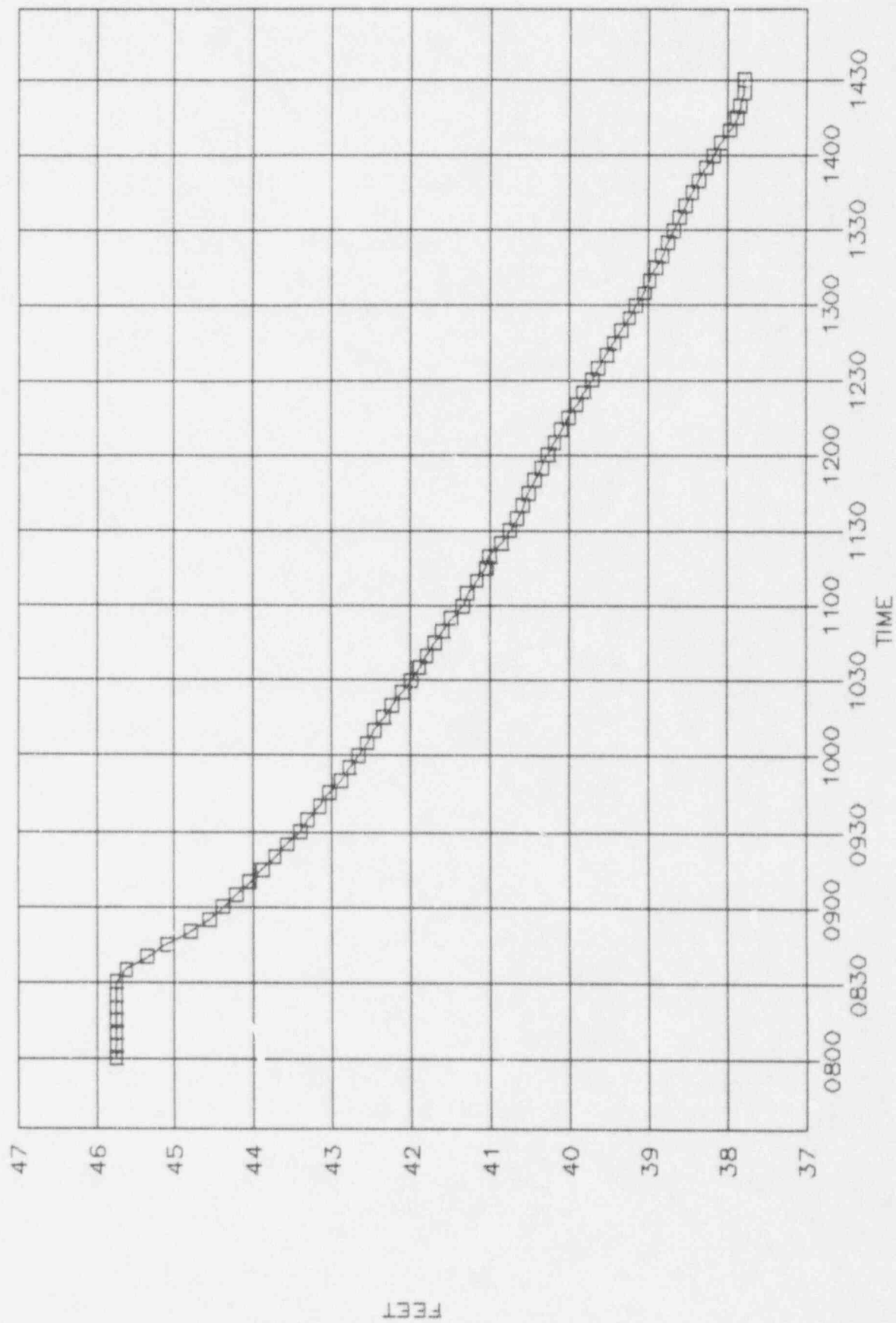
1992 EXERCISE OPS TABLE	1325	1330	1335	1340	1345	1350	1355	1400	1405	1410
	61	62	63	64	65	66	67	68	69	70
T-COLD WR A DEG F	289	288	288	287	287	285	283	281	278	272
T-COLD WR B DEG F	290	290	289	289	288	287	285	282	279	274
T-AVE DEG F	520	520	520	520	520	520	520	520	520	520
RC PRES WR A PSIG	259	261	261	251	243	245	247	236	236	248
STEAM TEMP OUT A DEG F	285	285	284	283	283	282	280	277	274	269
STEAM TEMP OUT B DEG F	283	282	281	281	280	279	281	279	284	280
STEAM PRES OUT A PSIG	39	39	38	38	38	37	35	33	30	27
STEAM PRES OUT B PSIG	37	37	36	36	35	34	36	35	32	28
TURB HDR PRES A PSIA	600	600	600	600	600	600	600	600	600	600
TURB HDR PRES B PSIA	600	600	600	600	600	600	600	600	600	600
RC PRES WR B PSIG	220	222	223	211	204	206	207	203	197	208
PZR LEVEL CMP IN.	129.5	129.6	129.6	129.7	129.6	129.3	129.5	129.5	129.6	130.2
OTSG A SU LEVEL IN.	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0
OTSG A OP LEVEL %	81.9	82.3	83.0	83.4	83.6	83.2	77.6	71.3	68.7	72.5
OTSG B SU LEVEL IN.	32.8	33.0	31.2	31.7	31.4	69.5	133.2	184.8	235.6	250.0
OTSG B OP LEVEL %	3.7	3.5	3.8	3.6	3.5	6.9	7.6	14.5	37.0	60.1
RC FLOW A CM MLB/HR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RC FLOW B CM MLB/HR	80.1	80.1	80.1	80.1	80.1	80.1	80.1	80.1	80.1	80.1
SU FW FLOW A KLB/HR	1.4E-05	1.4E-05	1.4E-05	1.4E-05	1.4E-05	1.4E-05	1.4E-05	1.4E-05	1.5E-05	1.5E-05
SU FW FLOW B KLB/HR	2.2E-04	4.1E-04	1.9E-03	6.2E-04	5.3E-03	6.4E-02	6.4E-02	6.5E-02	6.5E-02	6.5E-02
MAKEUP FLOW GPM	117	117	117	114	110	123	128	130	130	146
LETDOWN FLOW GPM	0	0	0	0	0	0	0	0	0	0
BWST LEVEL FT	38.8	38.7	38.6	38.5	38.4	38.4	38.3	38.2	38.1	38.0
MAKEUP TANK LEVEL IN.	86.6	86.7	86.7	86.8	86.9	86.9	86.9	86.9	86.9	86.6
OTSG WR A LEVEL IN.	235.6	236.8	239.0	240.4	241.4	239.3	226.6	213.1	210.4	214.7
OTSG WR B LEVEL IN.	40.0	40.0	40.0	40.0	40.0	56.2	96.4	133.1	172.9	197.2
TURB BYPASS VLV A POS %	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
TURB BYPASS VLV B POS %	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
T-HOT (X) IM008H	291	291	289	289	290	287	286	284	280	276
RC PRES WR A PSIG	259	261	261	250	243	245	246	235	236	247
RC PRES WR B PSIG	220	222	223	211	204	206	208	201	197	207
T-HOT WR (RECORDED)	288	287	286	286	285	284	282	279	276	271
SATURATION MARGIN DEG F	102.2	103.7	105.1	100.6	98.6	100.5	103.3	103.5	104.8	113.8
PZR TEMPERATURE DEG F	411	412	412	409	406	406	407	404	403	402
FEEDWATER TEMP A DEG F	220	219	218	217	216	216	215	214	214	213
FEEDWATER TEMP B DEG F	211	211	211	211	211	212	214	215	215	215
EFP-1 TO B OTSG	0	0	0	0	0	0	0	0	0	0
EFP-1 TO A OTSG	0	0	0	0	0	0	0	0	0	0
EFP-2 TO B OTSG	0	0	0	0	0	0	0	0	0	0
EFP-2 TO A OTSG	0	0	0	0	0	0	0	0	0	0
SRC RANGE NI-1 CPS (LOG)	0.41607	0.41242	0.40884	0.40606	0.40326	0.39833	0.3912	0.38362	0.37481	0.35866
SRC RANGE NI-2 CPS (LOG)	0.38102	0.37735	0.37378	0.37102	0.36821	0.36328	0.35611	0.34851	0.33966	0.32342
INT RANGE NI-3 AMP	-11	-11	-11	-11	-11	-11	-11	-11	-11	-11
INT RANGE NI-4 AMP	-11	-11	-11	-11	-11	-11	-11	-11	-11	-11
OTSG A RC TEMP DIFF	45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0
OTSG B RC TEMP DIFF	45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6
OTSG A RC TEMP DIFF	229	230	231	231	232	233	235	238	241	246
OTSG B RC TEMP DIFF	230	231	231	232	232	234	236	238	241	246
EFT LEVEL FT	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8
CONDENSER VAC IN. HG	2.2	2.1	2.1	2.0	2.0	2.0	1.9	1.9	1.9	1.9
MAIN FW FLOW A KLB/HR	4.9	4.9	4.9	4.9	4.9	4.9	5.1	5.1	5.1	5.1
MAIN FW FLOW B KLB/HR	33.6	39.5	71.8	65.2	75.2	300.8	300.4	298.7	301.9	301.2

[illegible]

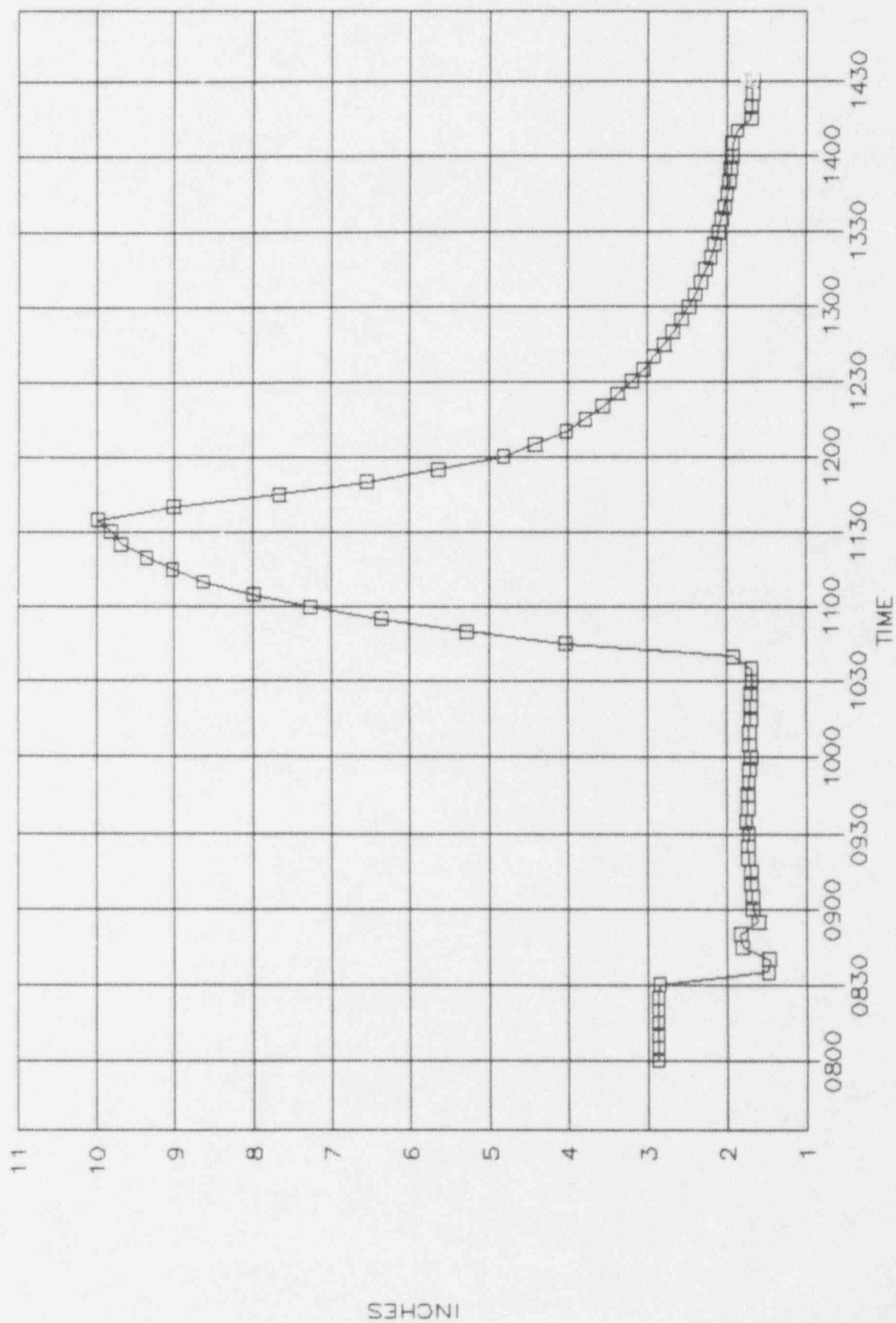
1992 EXERCISE OPS TABLE	1415	1420	1425
	71		73
T-COLD WR A DEG F	250	245	241
T-COLD WR B DEG F	269	268	268
T-AVE DEG F	520	520	520
RC PRES WR A PSIG	234	218	202
STEAM TEMP OUT A DEG F	257	253	249
STEAM TEMP OUT B DEG F	266	268	269
STEAM PRES OUT A PSIG	19	17	16
STEAM PRES OUT B PSIG	25	24	22
TURB HDR PRES A PSIA	600	600	600
TURB HDR PRES B PSIA	600	600	600
RC PRES WR B PSIG	230	214	197
PZR LEVEL CMP IN.	131.1	129.9	128.6
OTSG A SU LEVEL IN.	250.0	250.0	250.0
OTSG A OP LEVEL %	75.4	77.7	80.1
OTSG B SU LEVEL IN.	250.0	250.0	250.0
OTSG B OP LEVEL %	62.6	58.4	54.3
RC FLOW A CM MLB/HR	0.0	0.0	0.0
RC FLOW B CM MLB/HR	8.6	8.5	8.5
SU FW FLOW A KLB/HR	1.5E-05	1.5E-05	1.5E-05
SU FW FLOW B KLB/HR	1.4E-06	1.4E-06	1.4E-06
MAKEUP FLOW GPM	111	130	149
LETDOWN FLOW GPM	0	0	0
BWST LEVEL FT	37.9	37.8	37.8
MAKEUP TANK LEVEL IN.	86.9	87.0	87.1
OTSG WR A LEVEL IN.	230.7	234.8	238.8
OTSG WR B LEVEL IN.	198.9	195.2	191.5
TURB BYPASS VLV A POS %	79.5	79.5	79.5
TURB BYPASS VLV B POS %	11.4	11.4	11.4
T-HOT (X) IMOOBH	288	289	290
RC PRES WR A PSIG	232	214	195
RC PRES WR B PSIG	232	213	195
T-HOT WR (RECORDED)	269	284	299
SATURATION MARGIN DEG F	120.5	112.1	103.7
PZR TEMPERATURE DEG F	402	396	391
FEEDWATER TEMP A DEG F	212	212	212
FEEDWATER TEMP B DEG F	215	215	214
EFP-1 TO B OTSG	0	0	0
EFP-1 TO A OTSG	0	0	0
EFP-2 TO B OTSG	0	0	0
EFP-2 TO A OTSG	0	0	0
SRC RANGE NI-1 CPS (LOG)	0.35273	0.335715	0.3187
SRC RANGE NI-2 CPS (LOG)	0.31748	0.30024	0.283
INT RANGE NI-3 AMP	-11	-11	-11
INT RANGE NI-4 AMP	-11	-11	-11
OTSG A RC TEMP DIFF	45.0	45	45.0
OTSG B RC TEMP DIFF	45.6	46	45.6
OTSG A RC TEMP DIFF	251	256	261
OTSG B RC TEMP DIFF	251	252	253
EFT LEVEL FT	34.8	34.8	34.8
CONDENSER VAC IN. HG	1.7	1.7	1.7
MAIN FW FLOW A KLB/HR	5.1	5.2	5.3
MAIN FW FLOW B KLB/HR	2.0	2.0	2.0

1992 EXERCISE OPS TABLE	1415	1420	1425
	71		73
EFIC SG B LR LEVEL IN.	150.0	150.0	150.0
EFIC SG B HI LEVEL %	62.3	58.2	54.2
EFIC SG A LR LEVEL IN.	150.0	150.0	150.0
EFIC SG A HI LEVEL %	76.5	78.0	79.5
HPI FLOW MUV-25 GPM	0	0	0
HPI FLOW MUV-23 GPM	0	0	0
HPI FLOW MUV-26 GPM	0	0	0
HPI FLOW MUV-24 GPM	0	0	0
DH FLOW A PMP GPM	3026	3011	2996
DH FLOW B PMP GPM	0	0	0

# BWST LEVEL

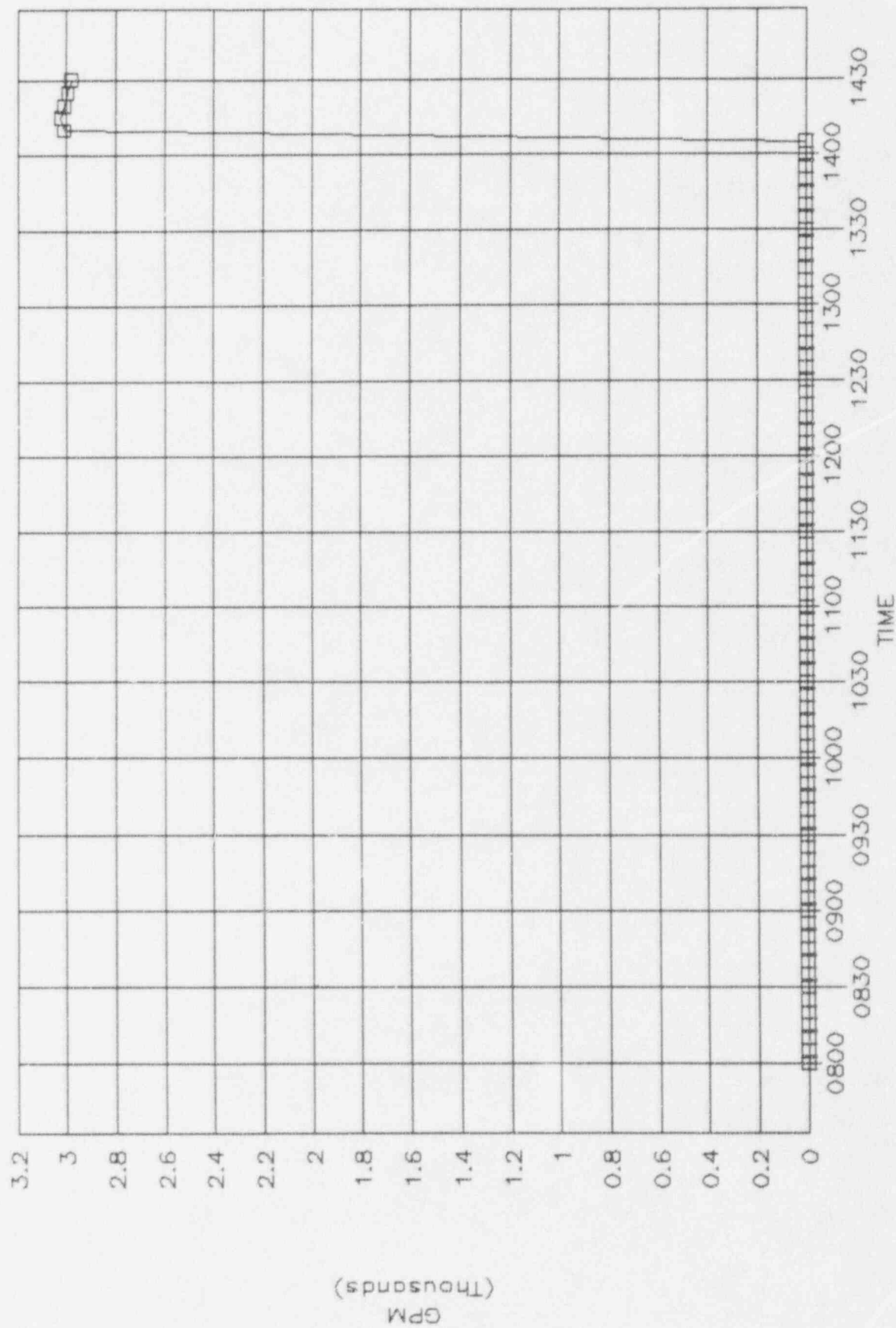


# CONDENSER VACUUM

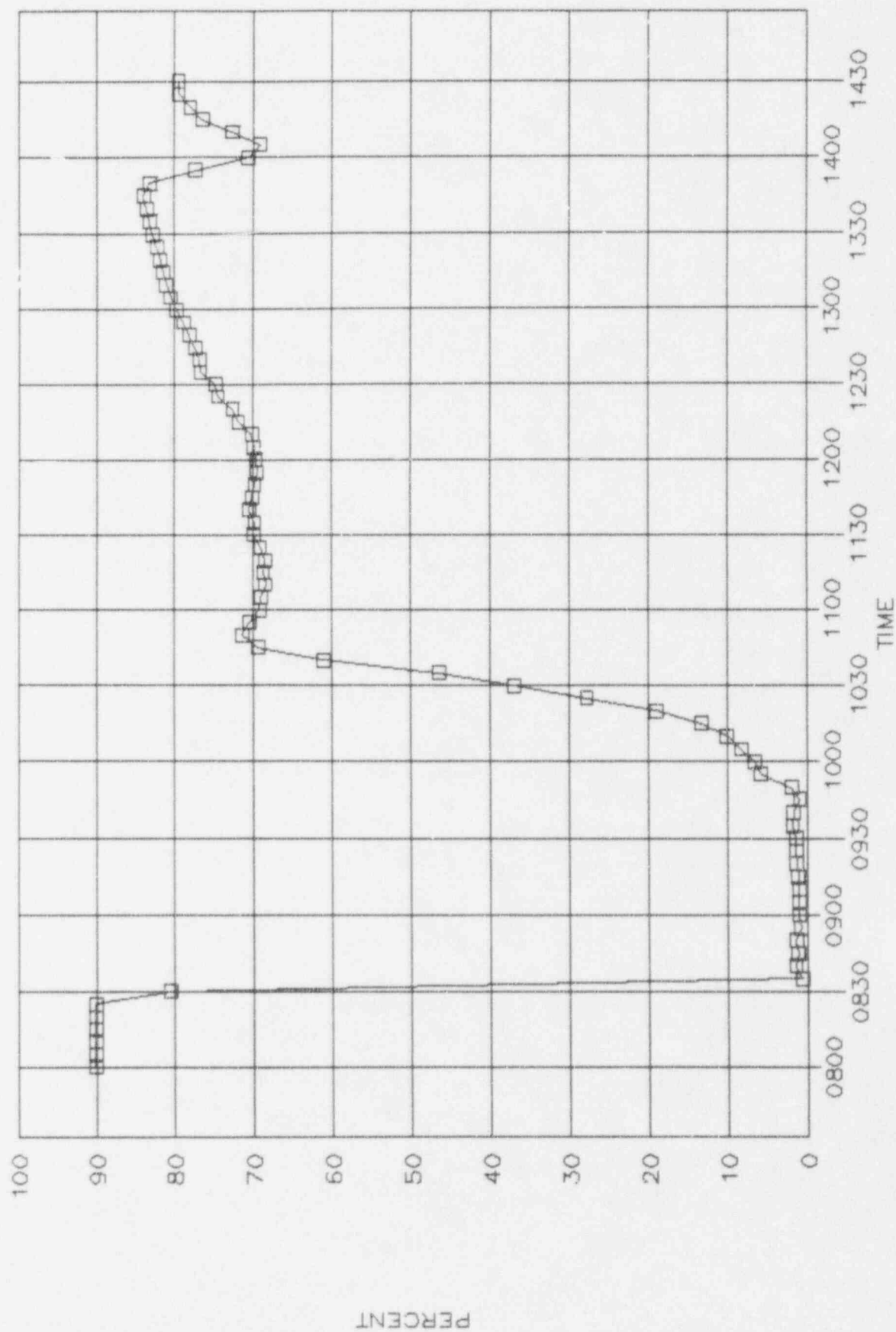




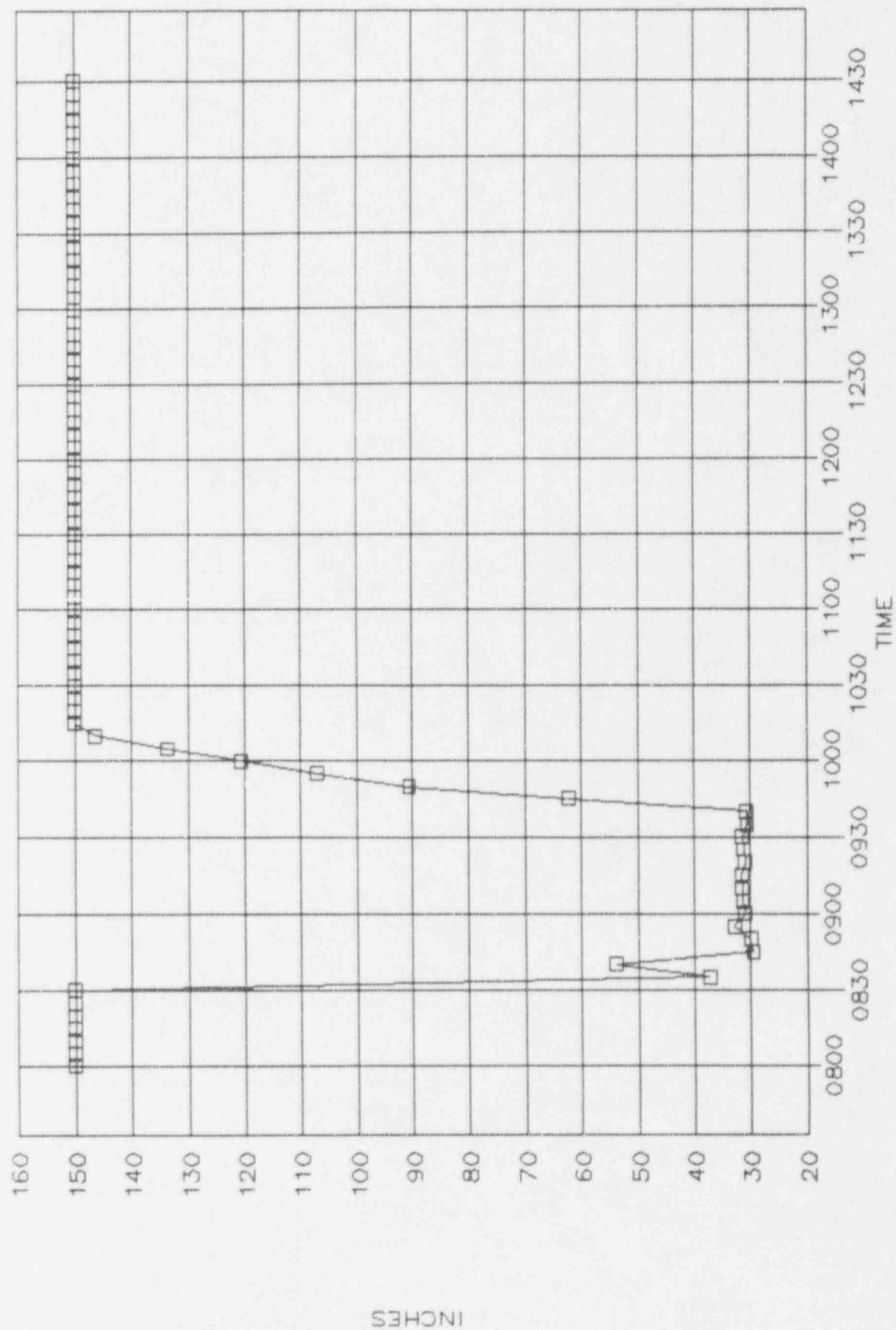
# DH FLOW A



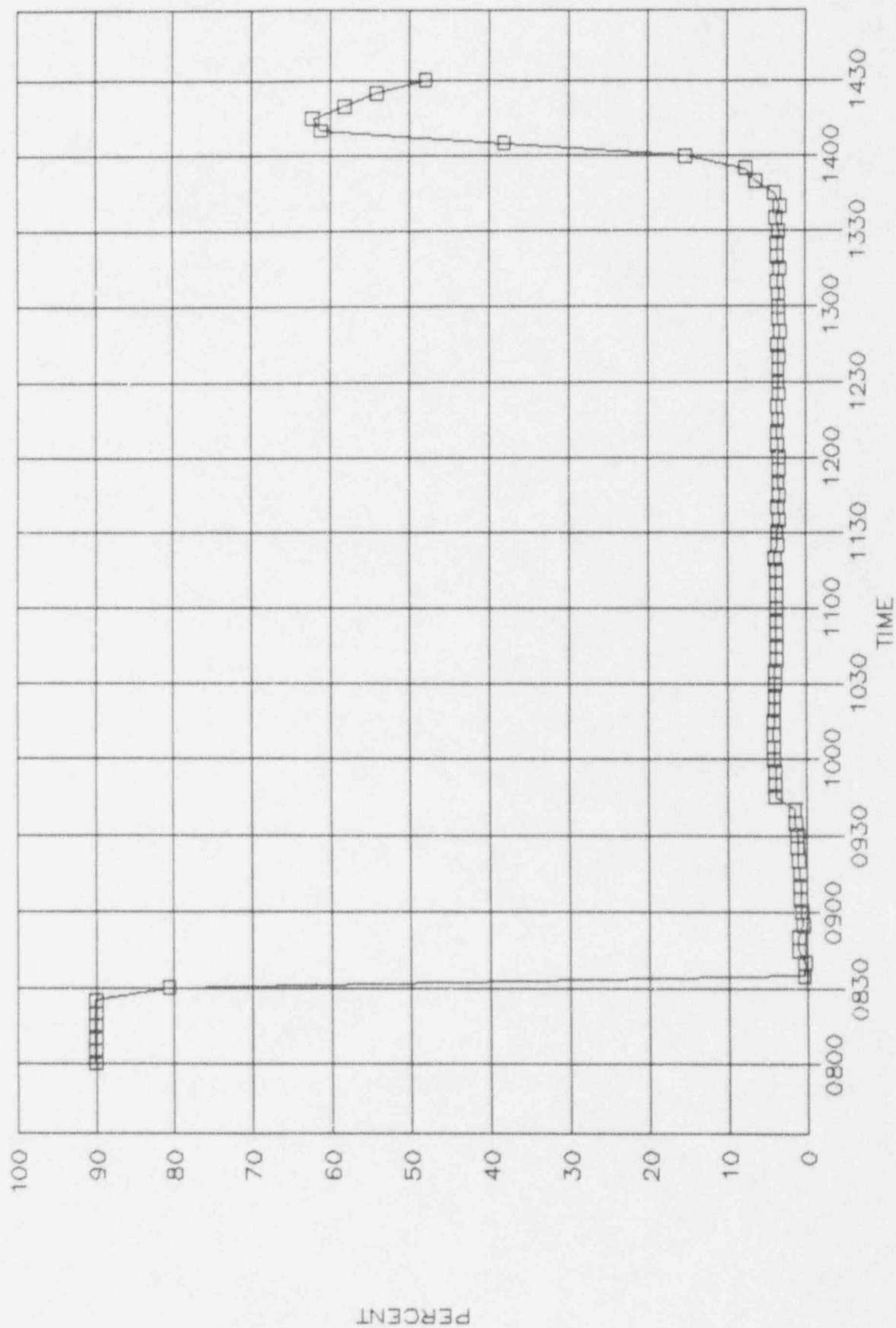
# EFIC SG A HI LEVEL



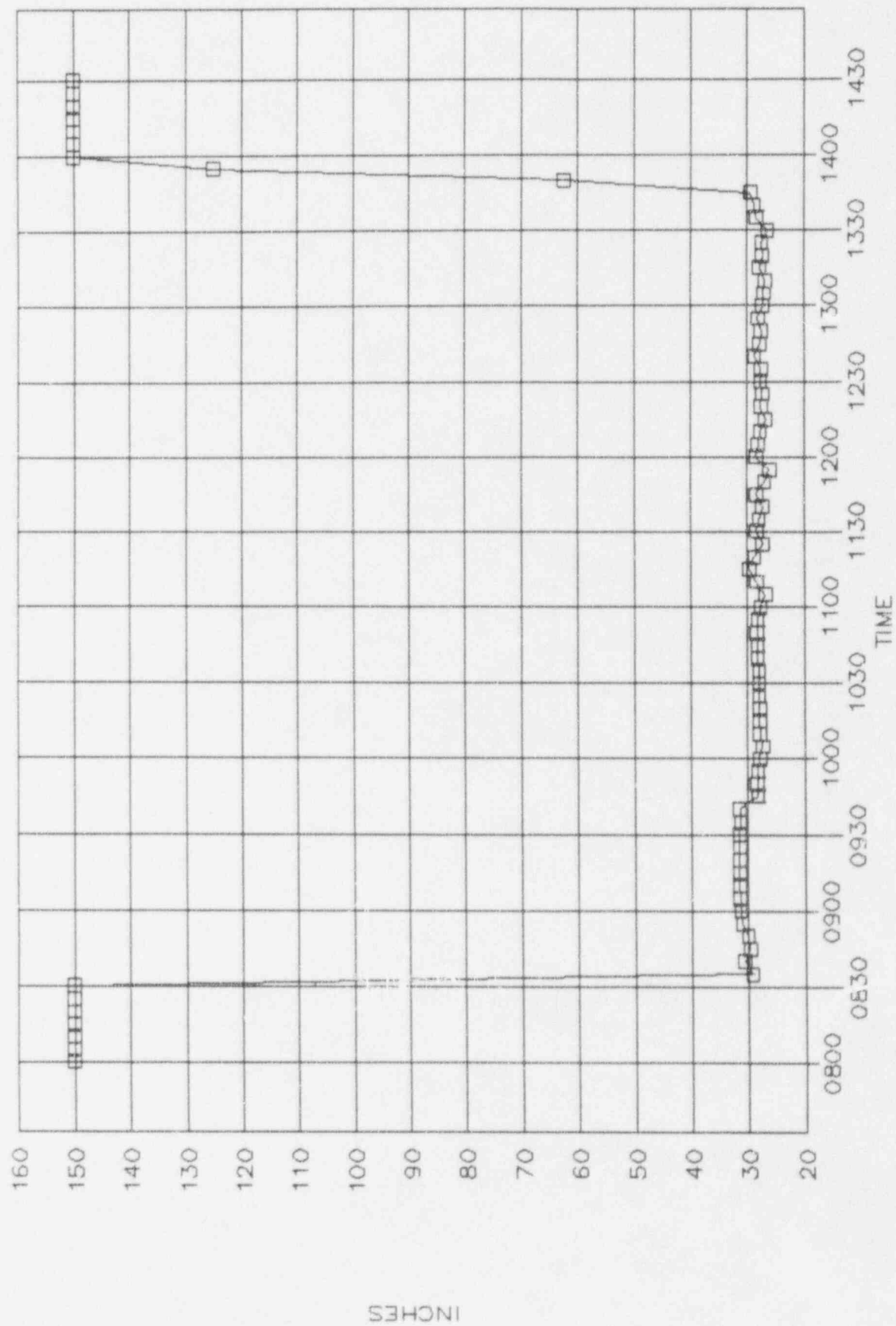
# EFIC SG A LR LEVEL



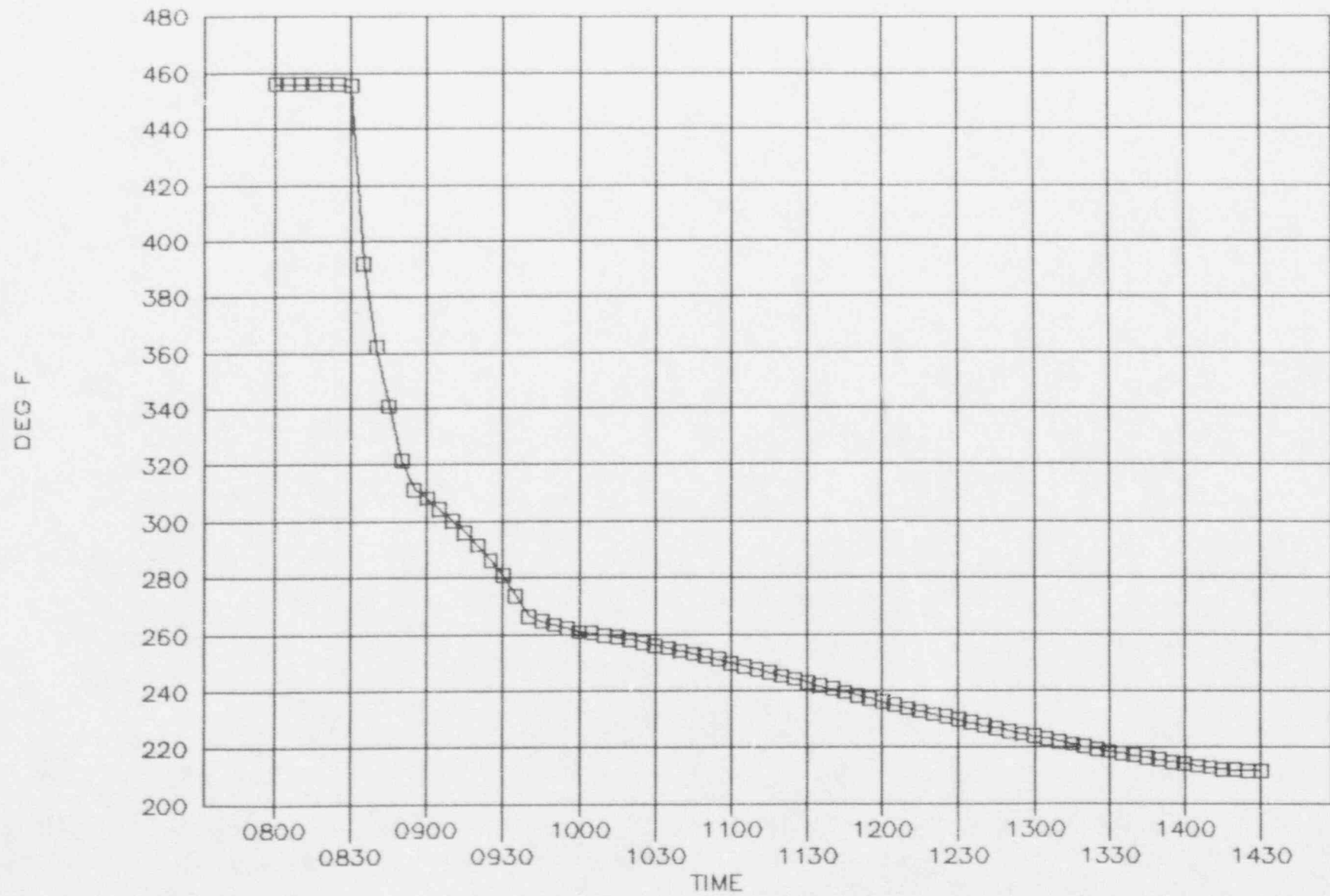
# EFIC SG B HI LEVEL



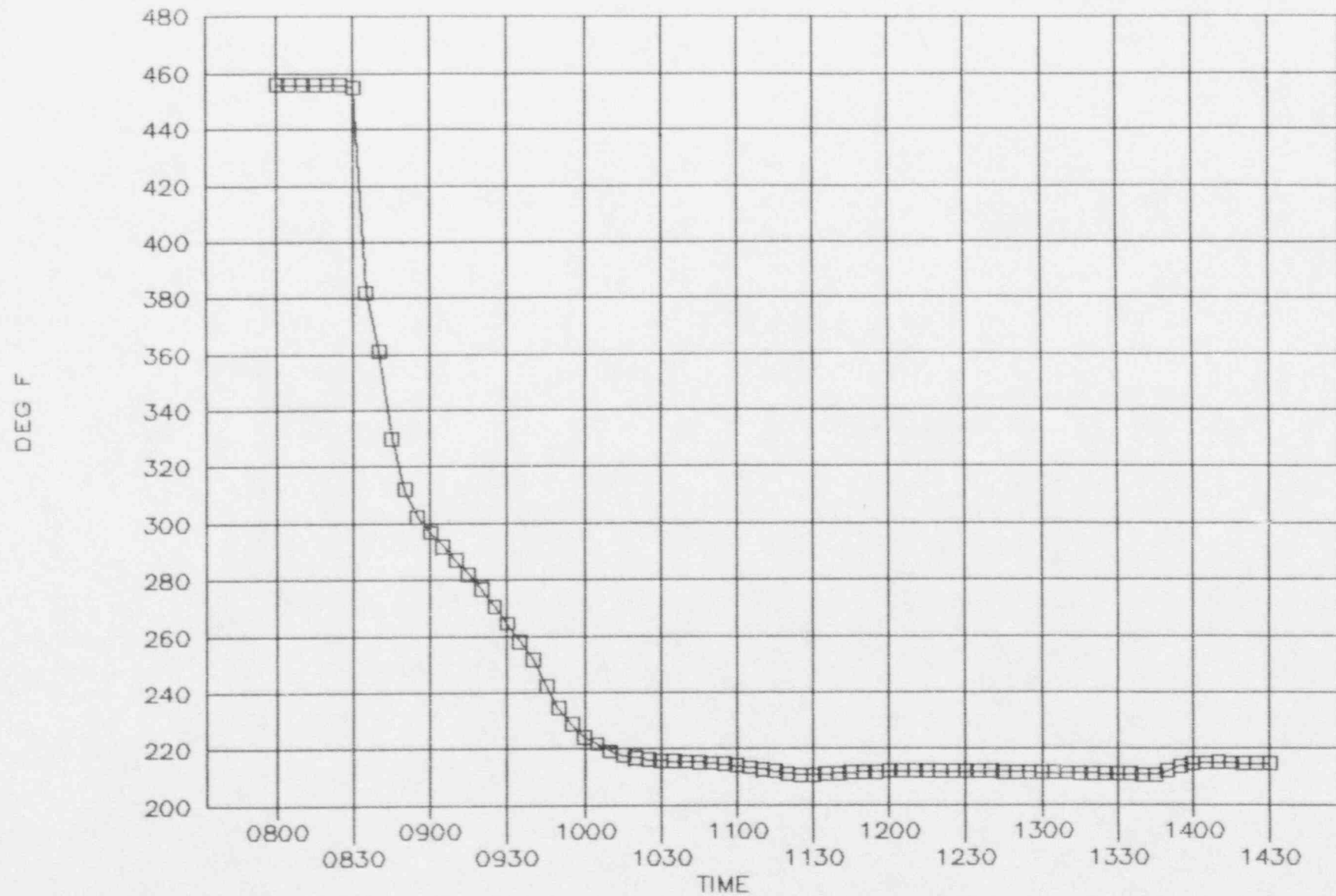
# EFIC SG B LR LEVEL



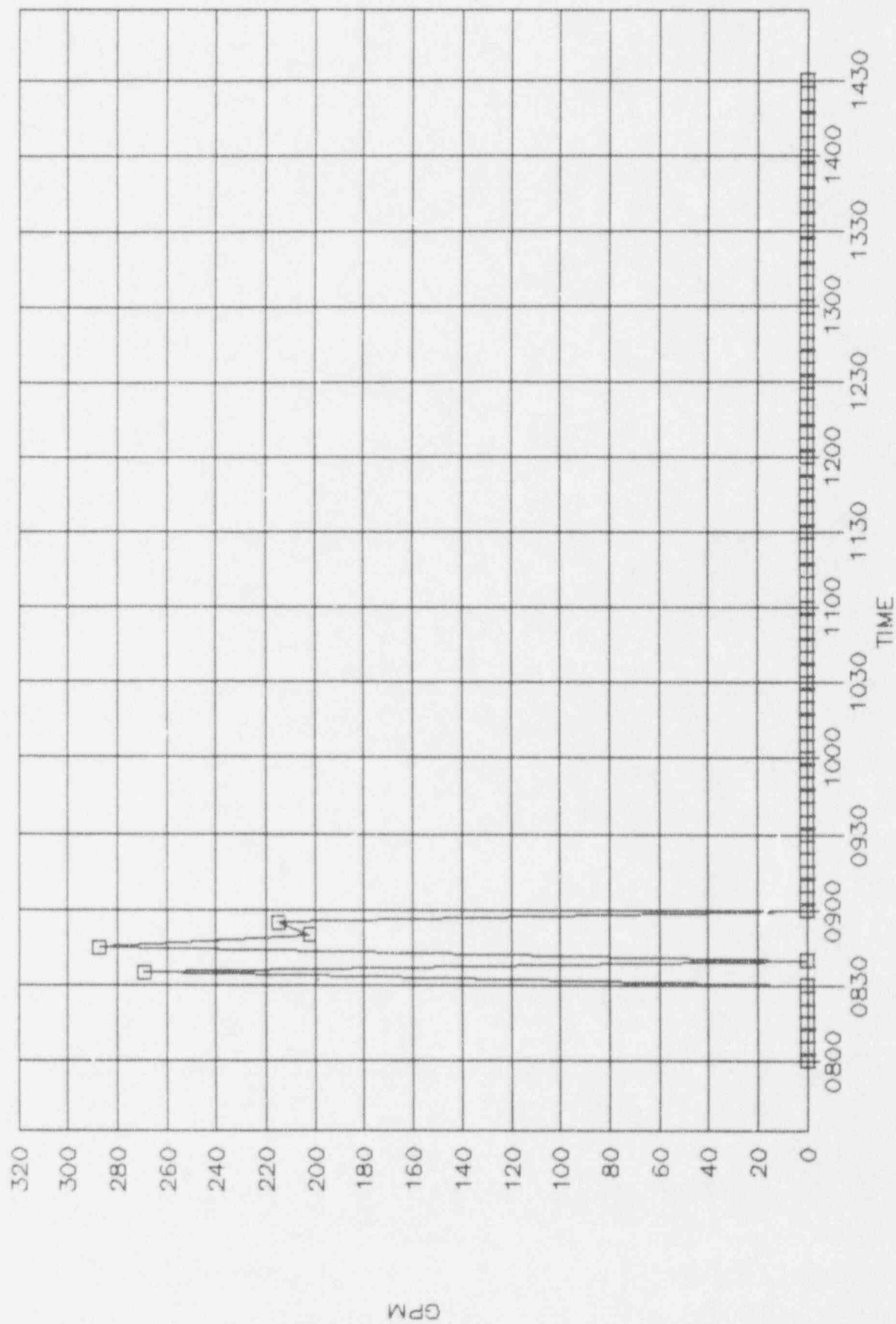
# FEEDWATER TEMPERATURE A



# FEEDWATER TEMPERATURE B

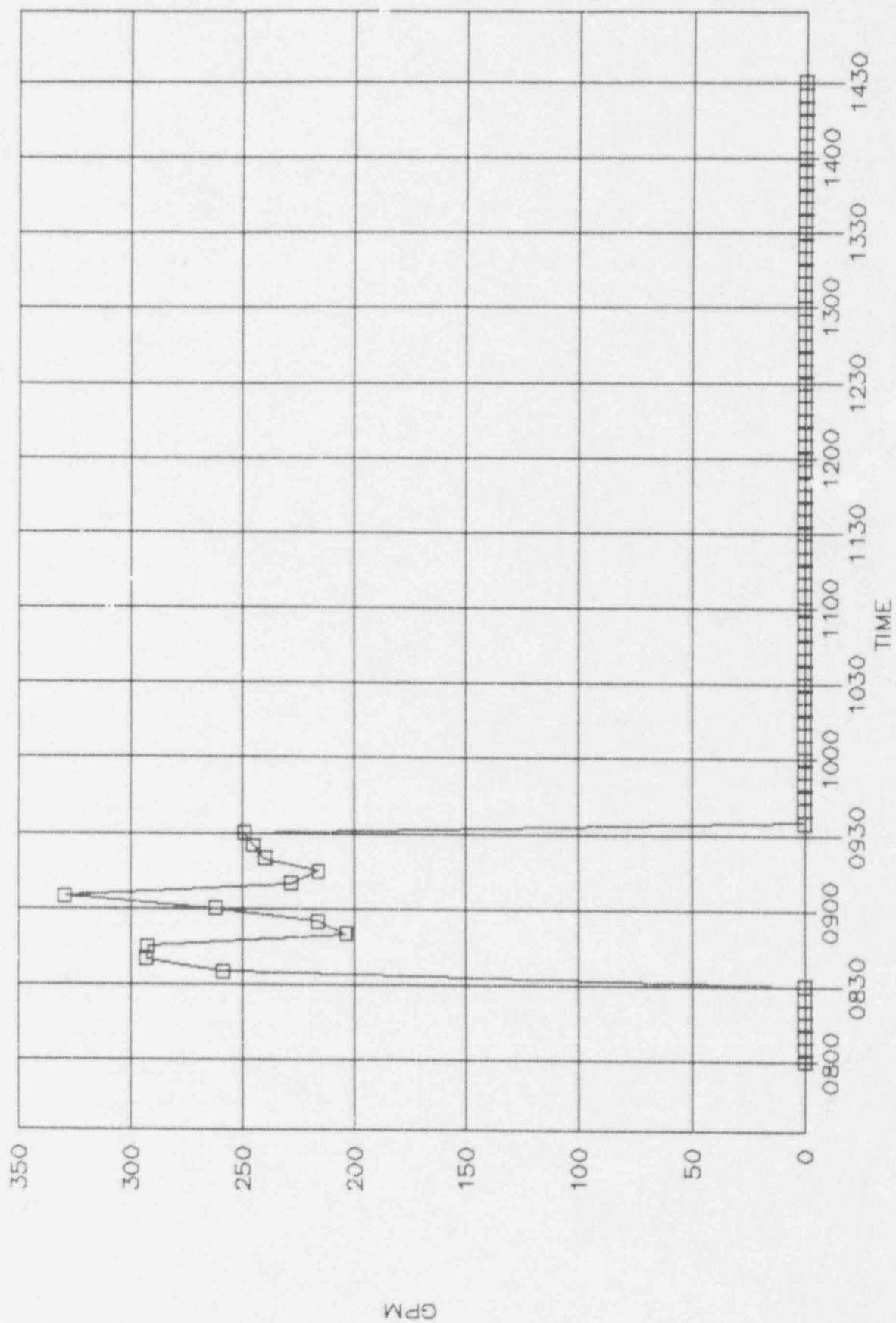


# HPI FLOW MUV-23

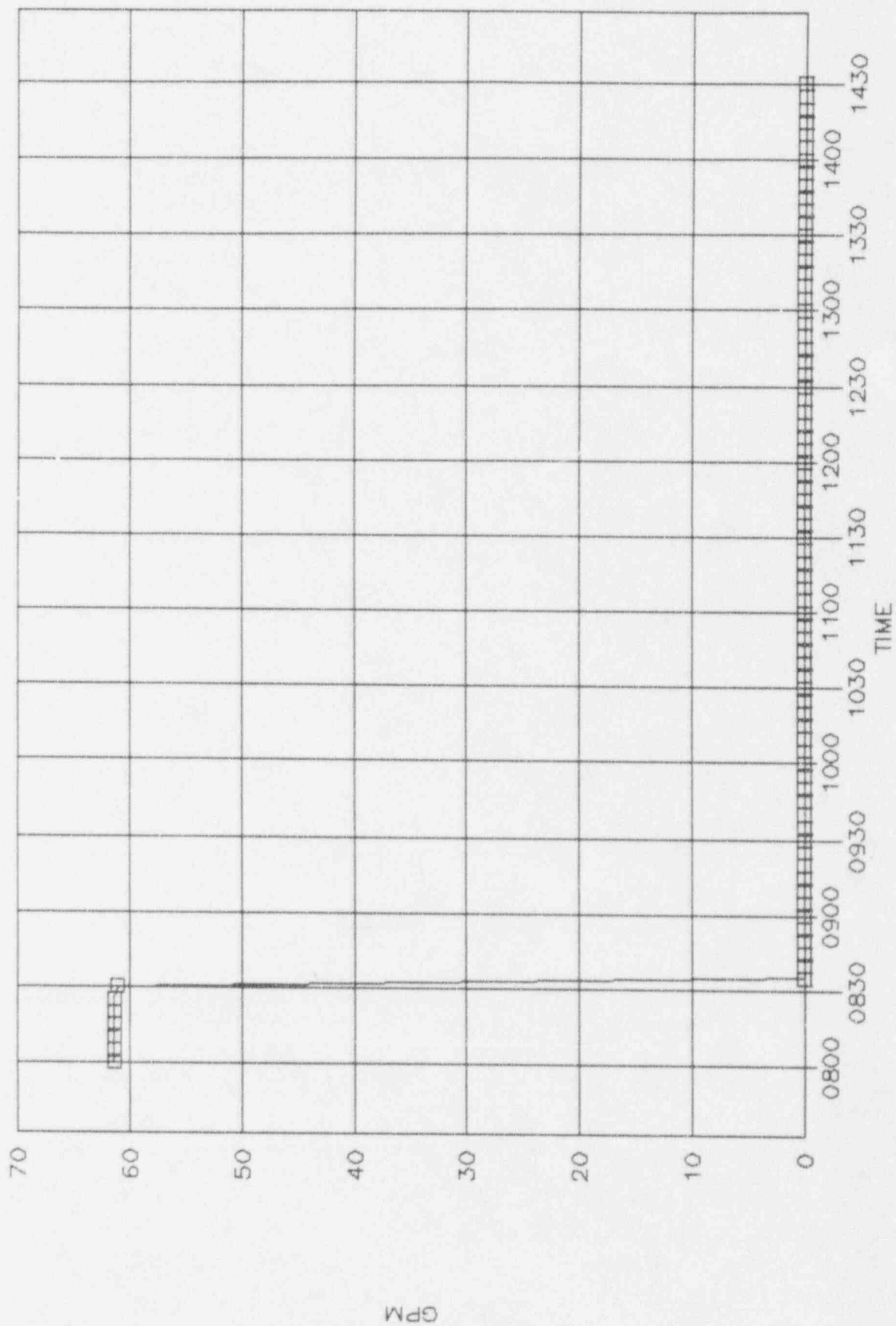




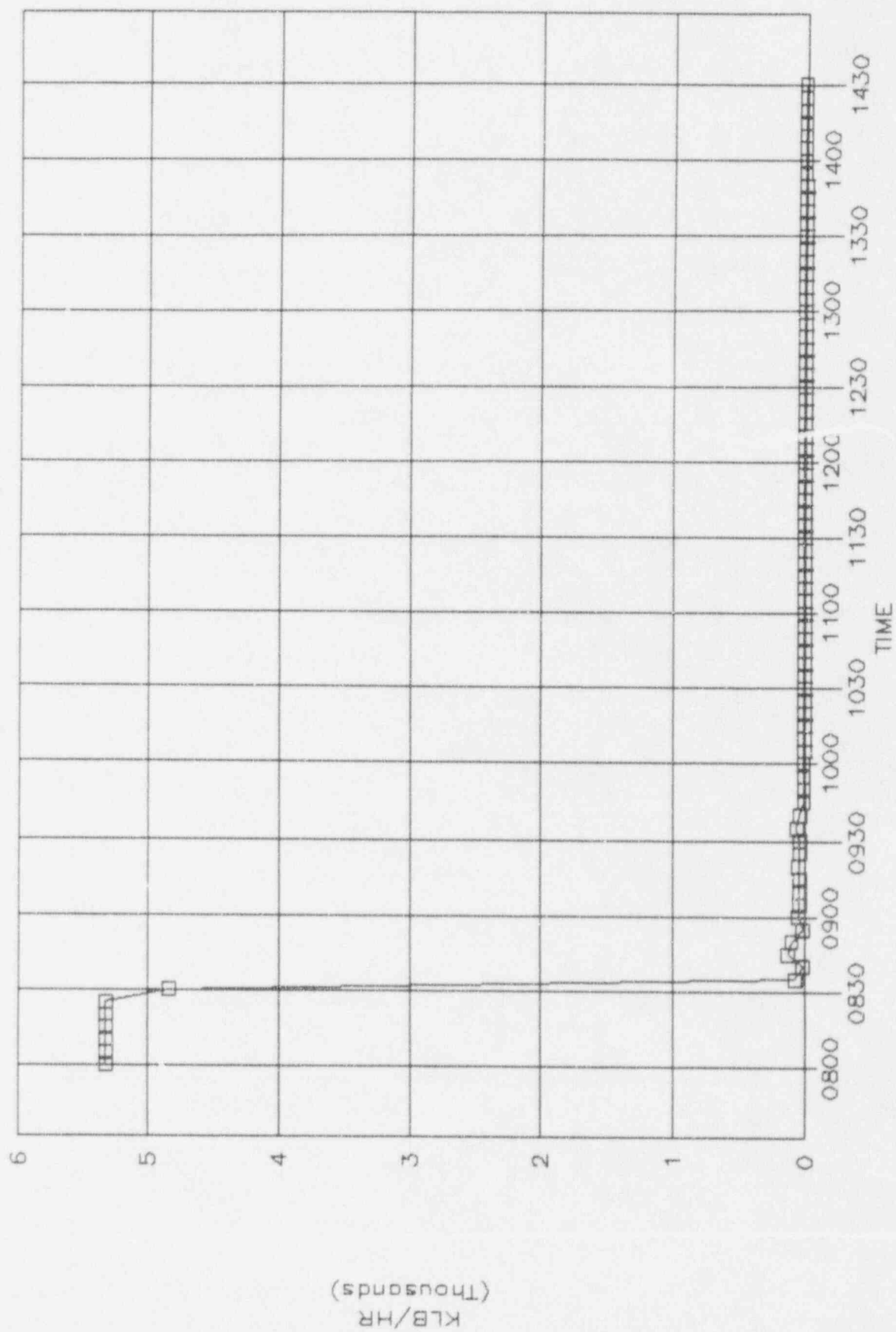
# HPI FLOW MUV-24



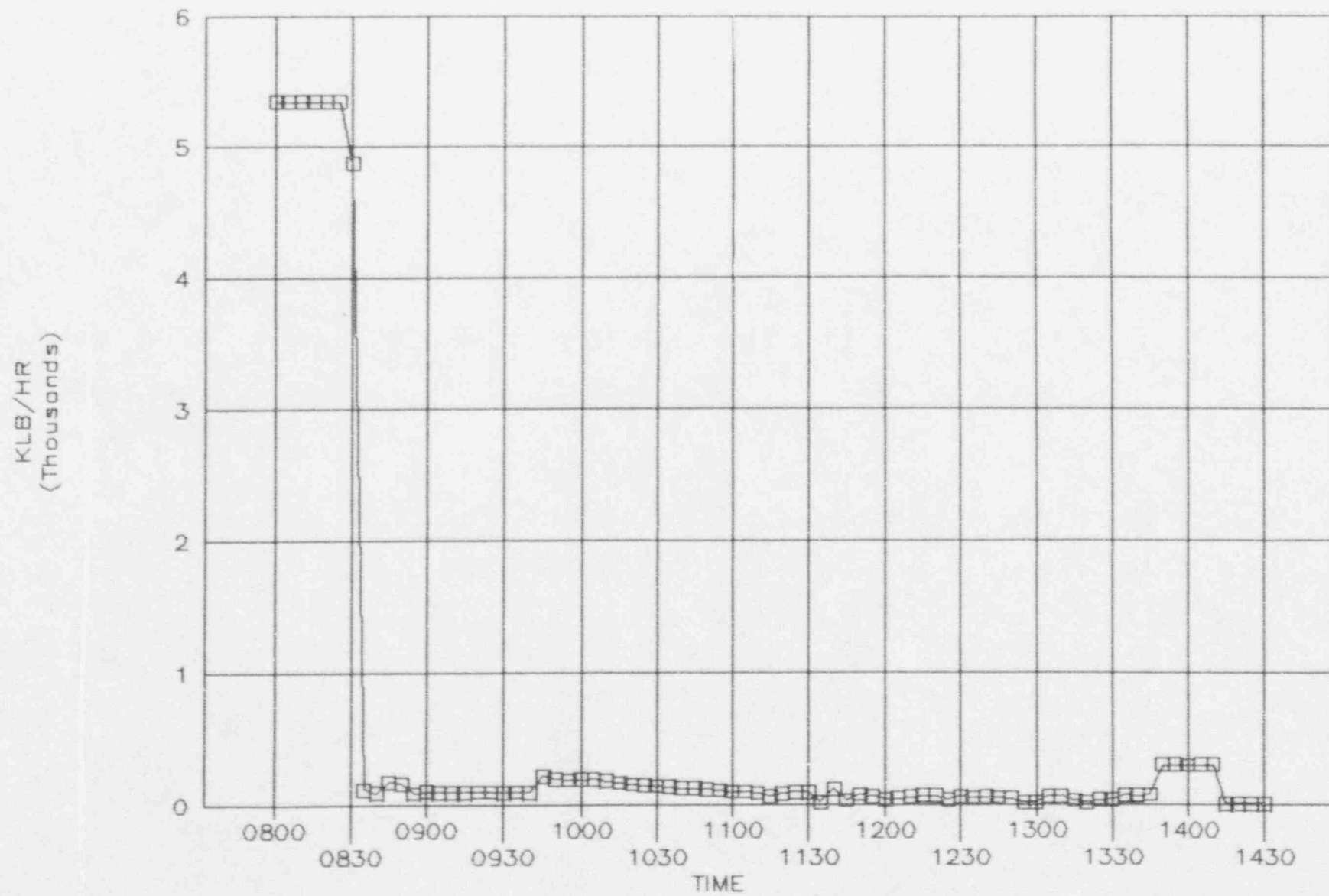
# LETDOWN FLOW



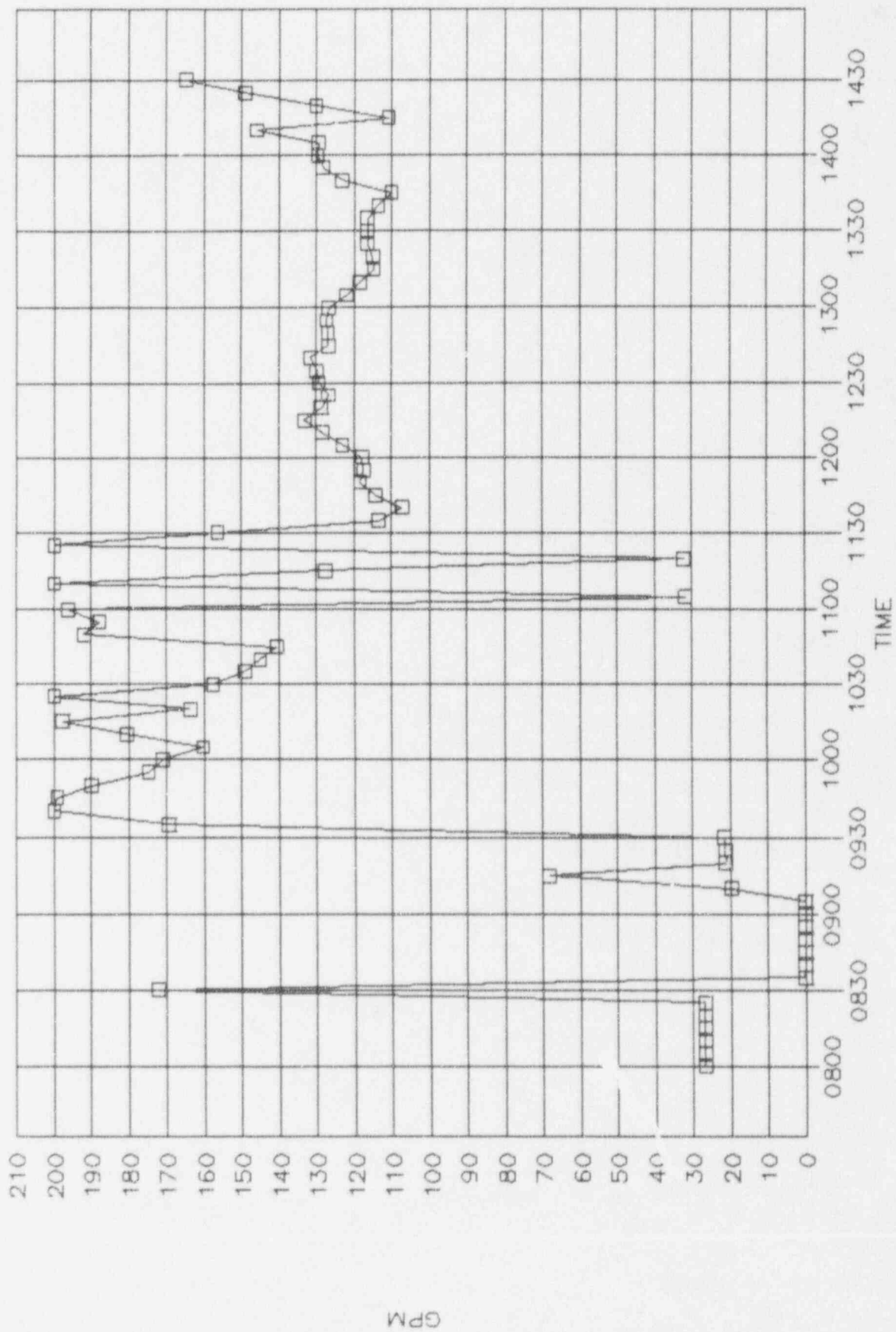
# MAIN FEEDWATER FLOW A



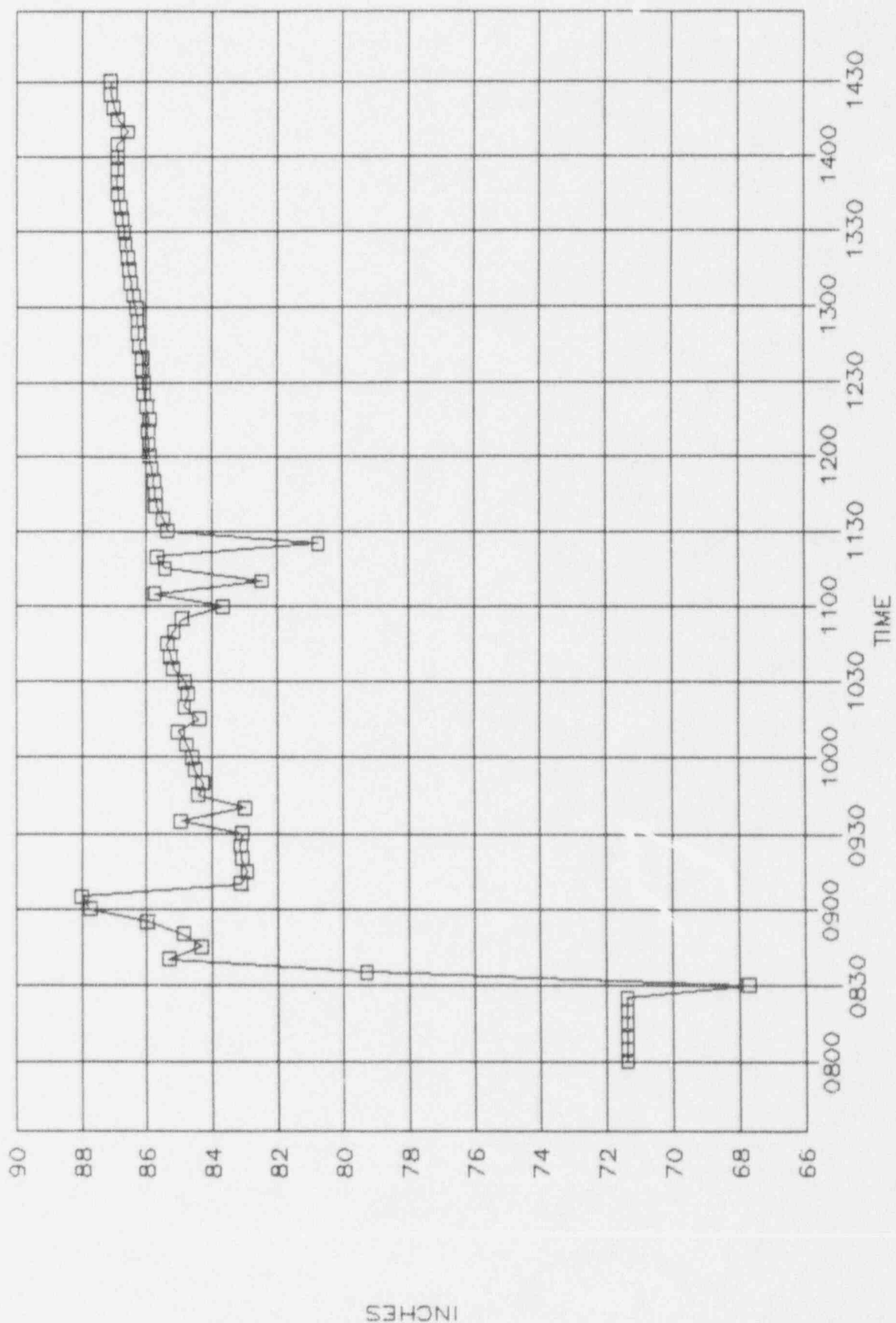
# MAIN FEEDWATER FLOW A



# MAKEUP FLOW



# MAKEUP TANK LEVEL



# SRC NI-1

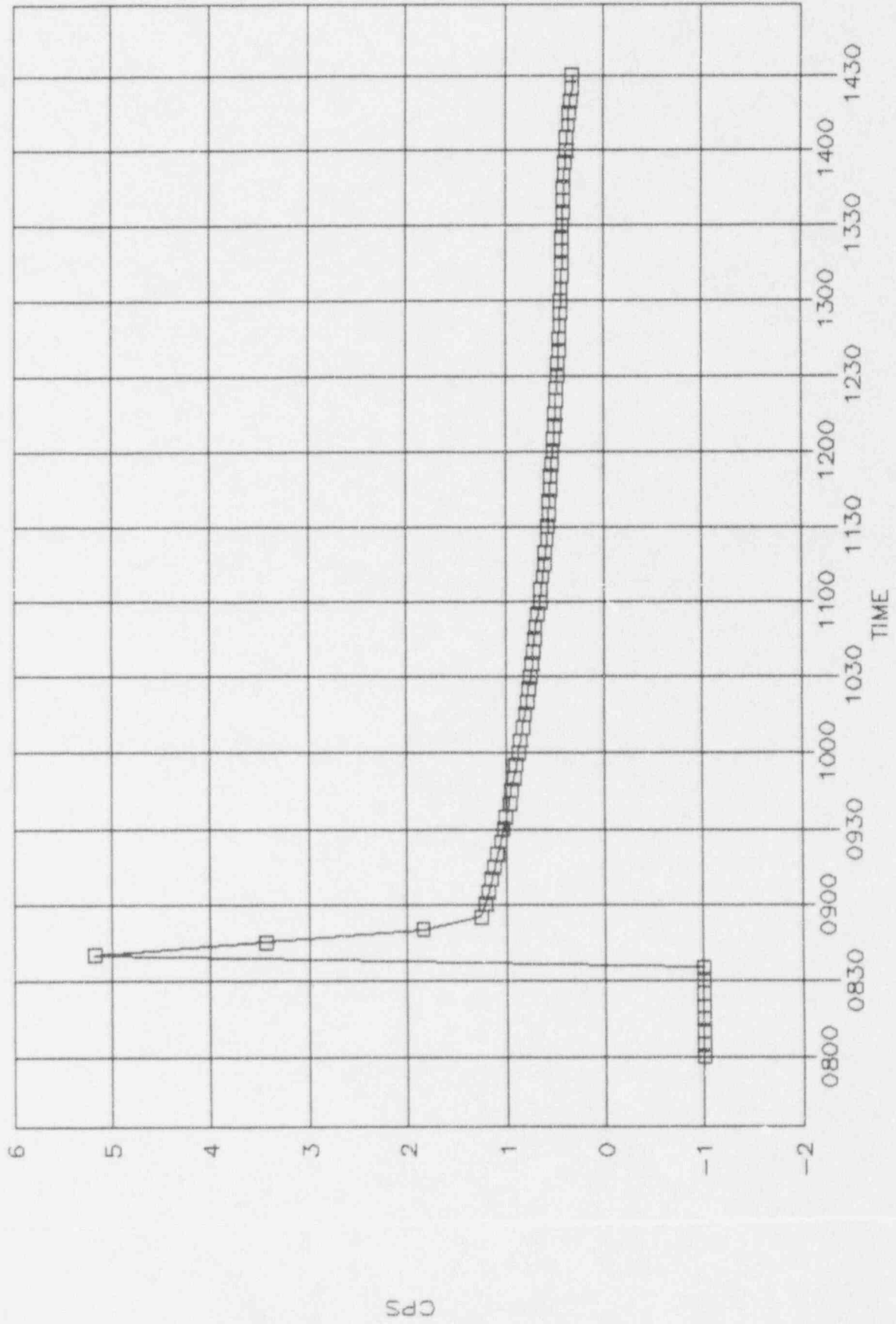


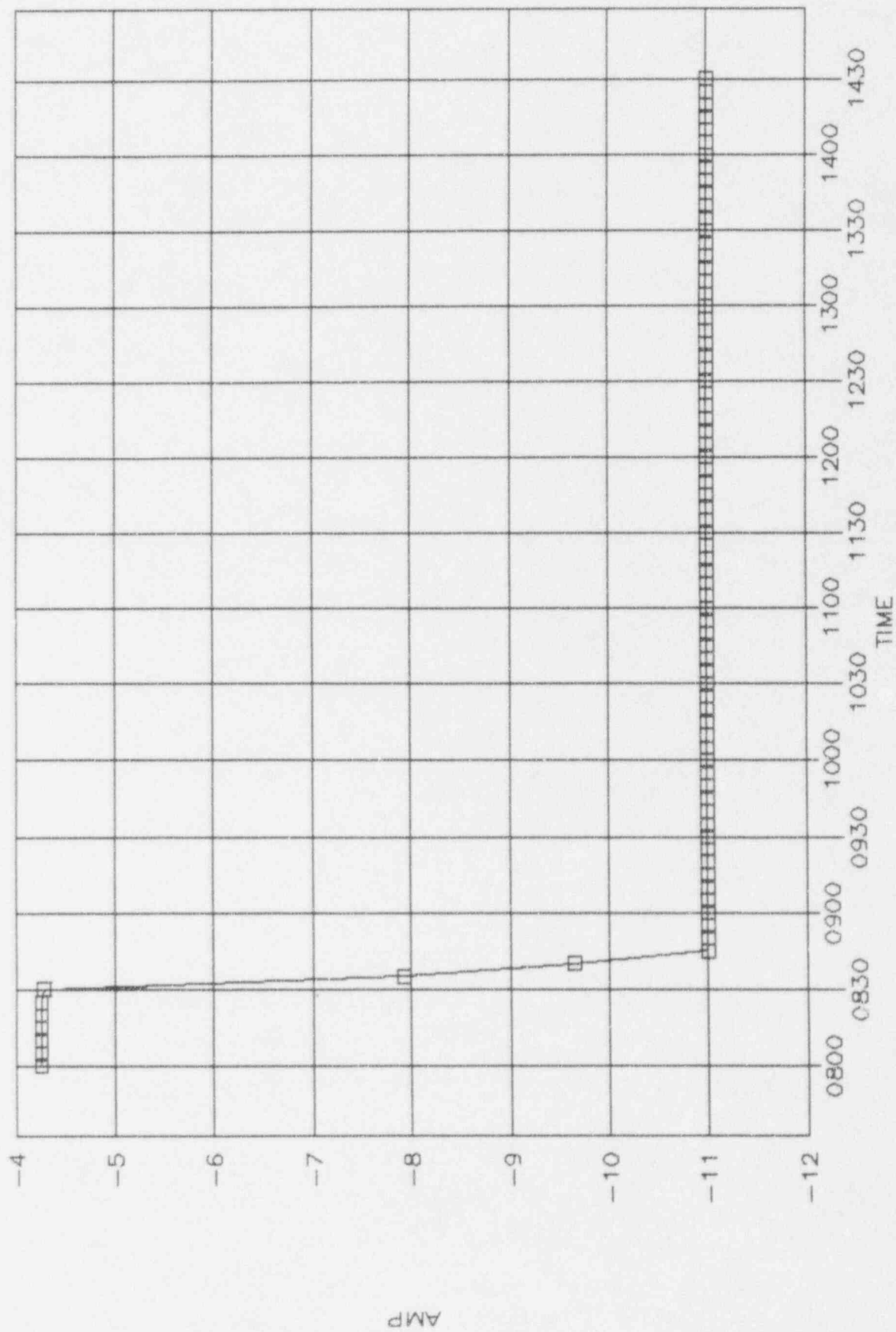
Figure 1 is a line graph with 'CPS' on the vertical axis and 'TIME' on the horizontal axis. The vertical axis has major tick marks at -2, -1, 0, 1, 2, 3, 4, 5, and 6. The horizontal axis has major tick marks every 30 minutes, starting from 0800 and ending at 1430. The data is plotted as a series of open squares connected by a line. The graph shows a sharp increase in CPS starting around 0900, peaking at approximately 5.5 CPS around 1000, and then decreasing to about 0.5 CPS by 1430.

TIME	CPS
0800	-1.0
0830	-1.0
0900	1.0
0930	1.5
1000	5.5
1030	4.5
1100	3.5
1130	2.5
1200	1.5
1230	1.0
1300	0.8
1330	0.6
1400	0.5
1430	0.5

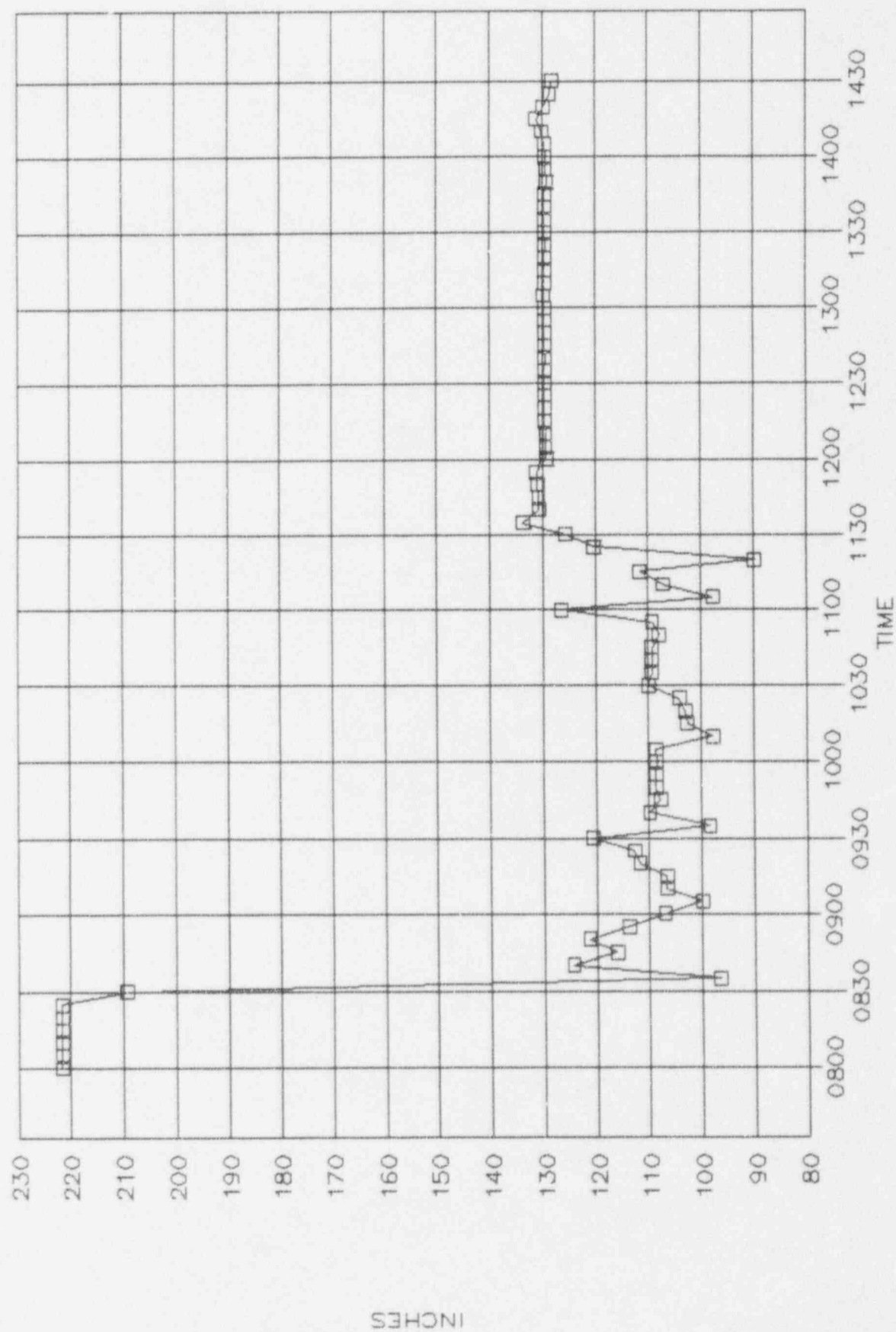
CPS



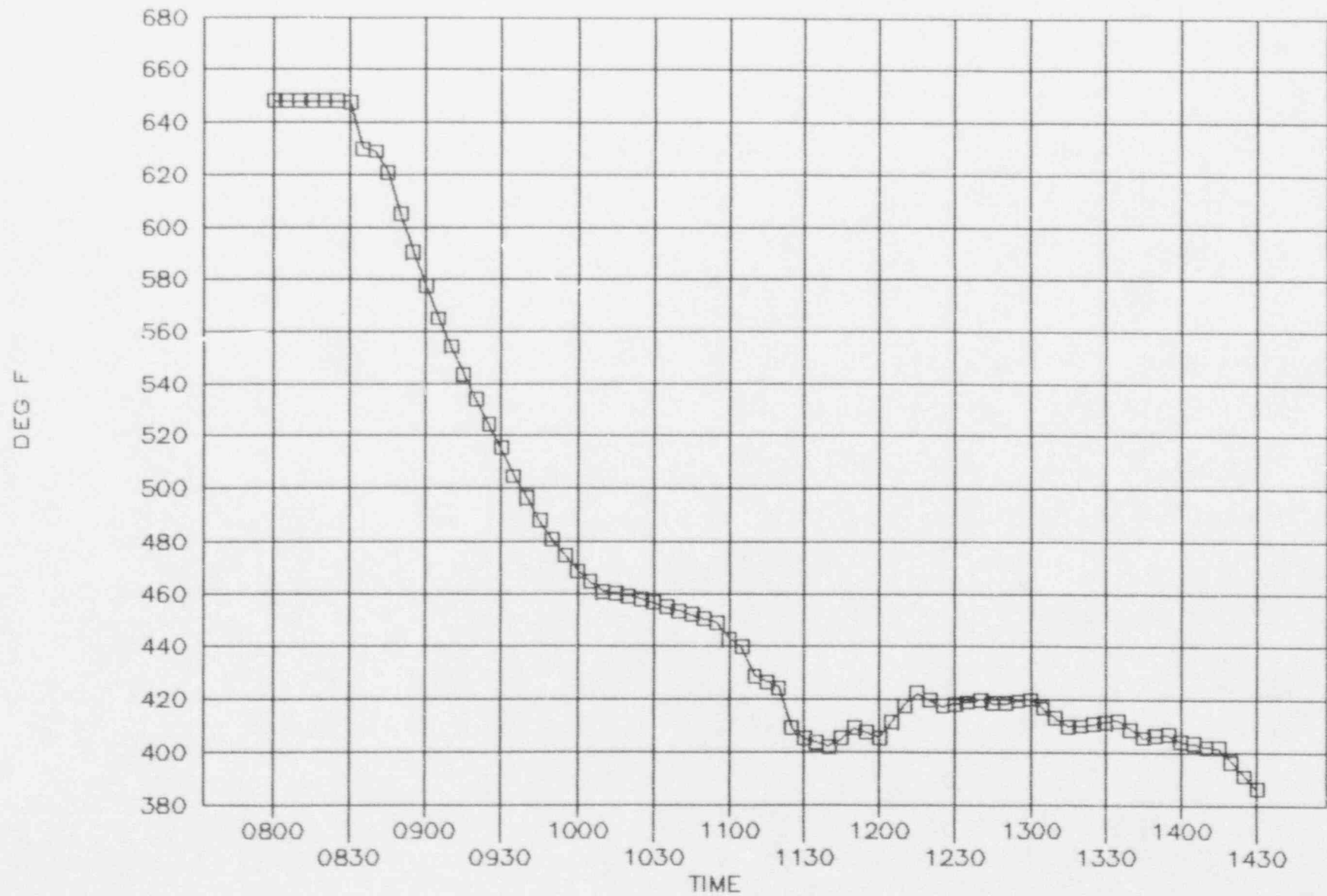
# INT RANGE NI-3, NI-4



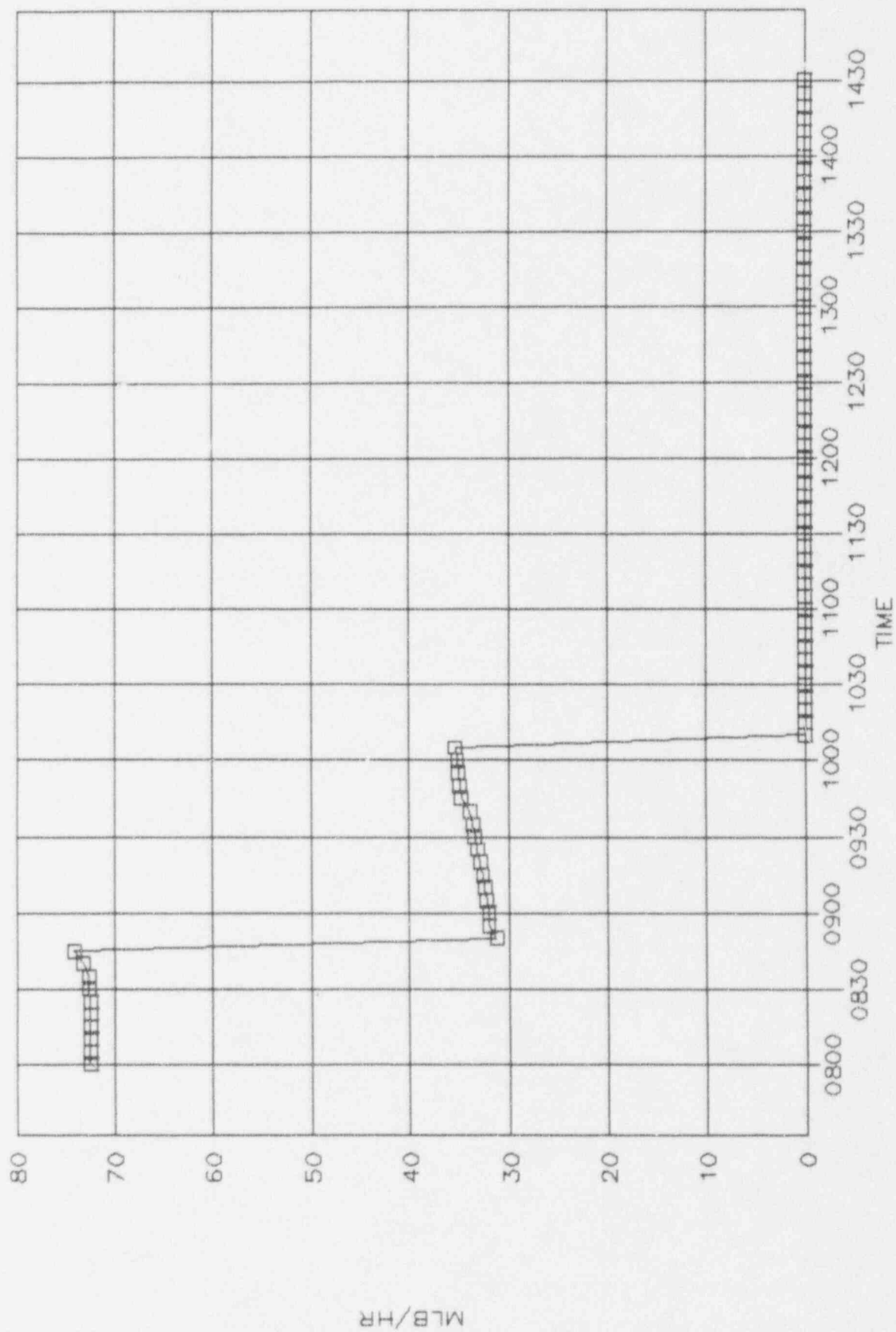
# PZR LEVEL COMP IN.



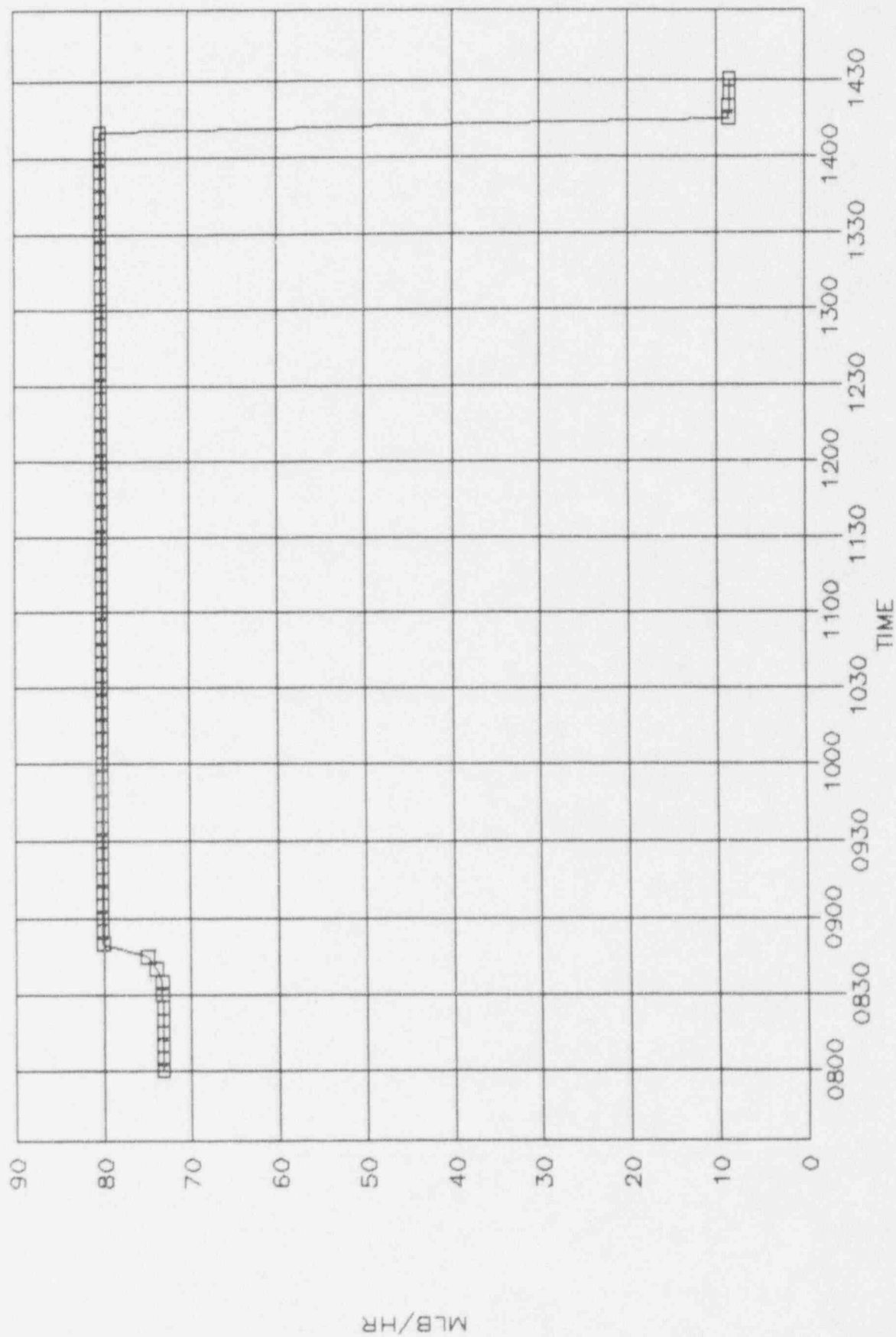
# PRESSURIZER TEMPERATURE



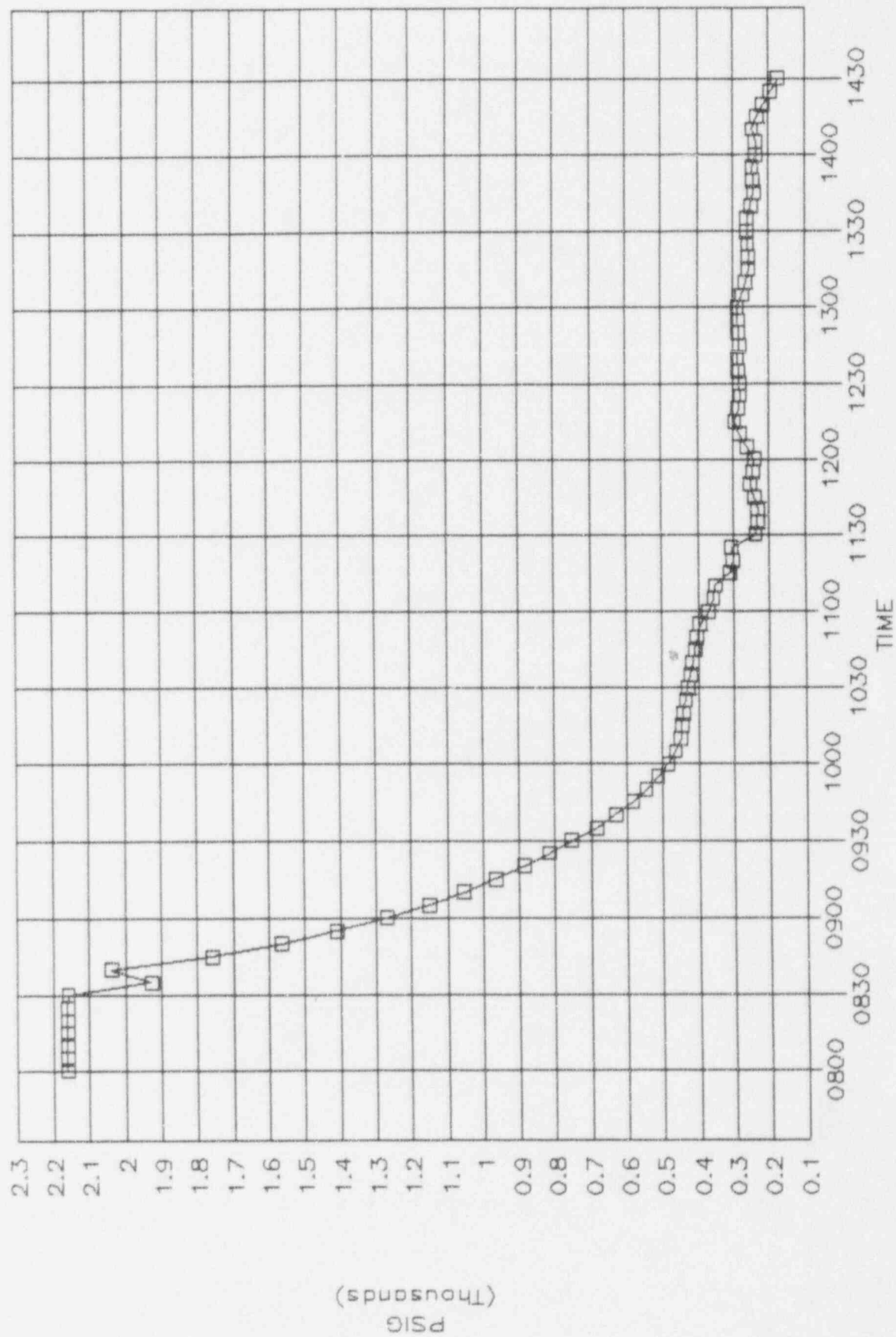
# RC FLOW A CM



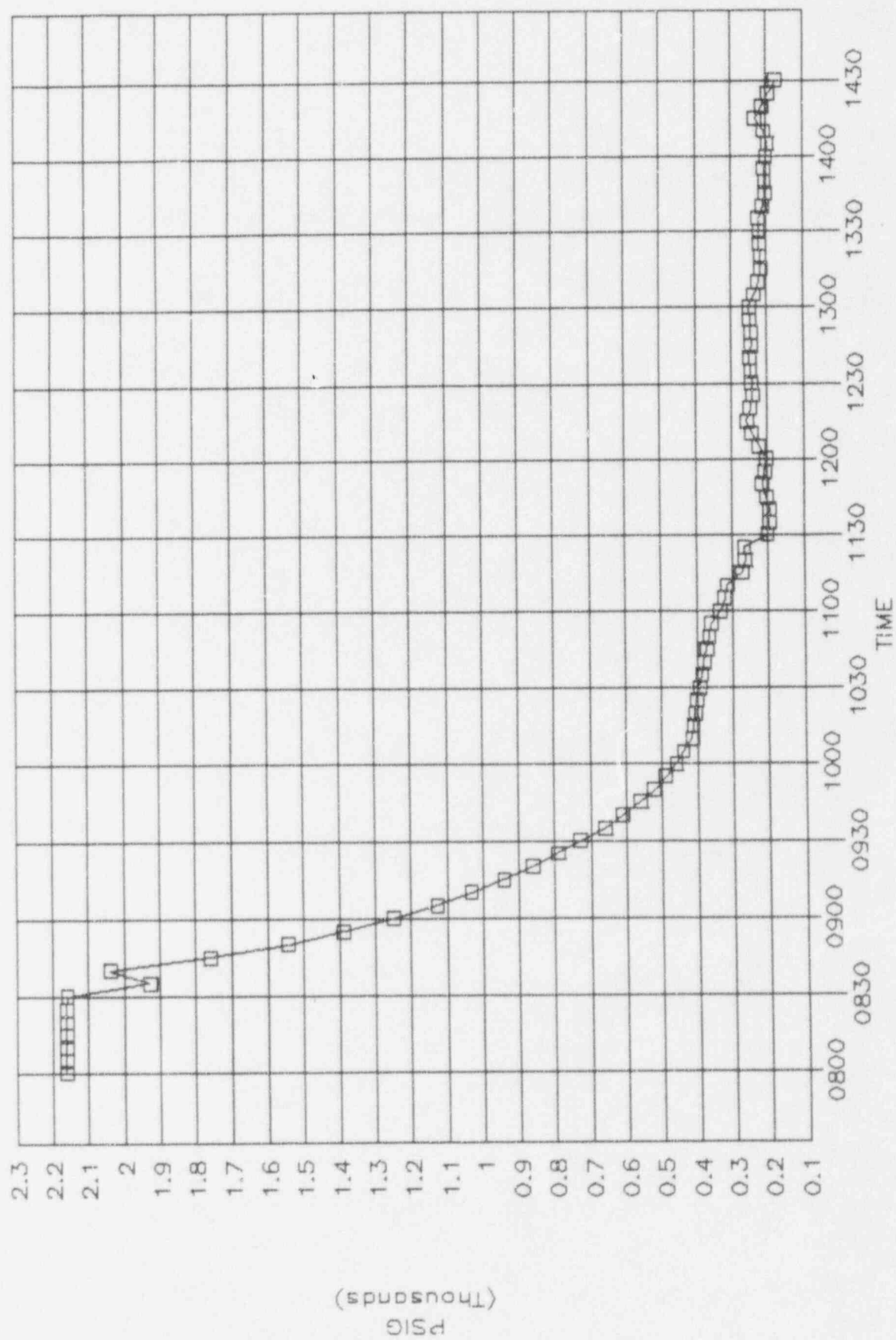
# RC FLOW B CM



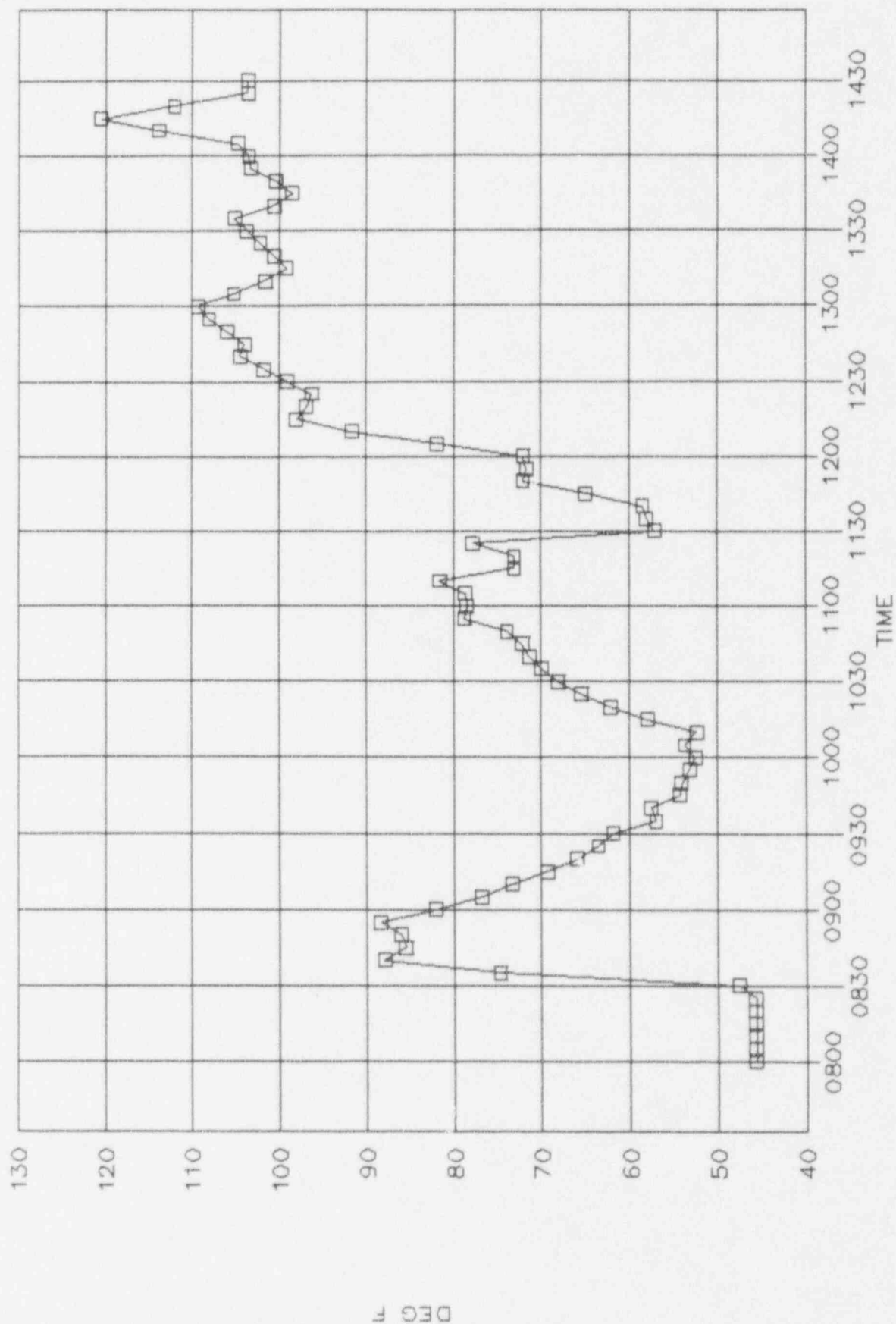
# RC PRES WR A



# RC PRES WR B

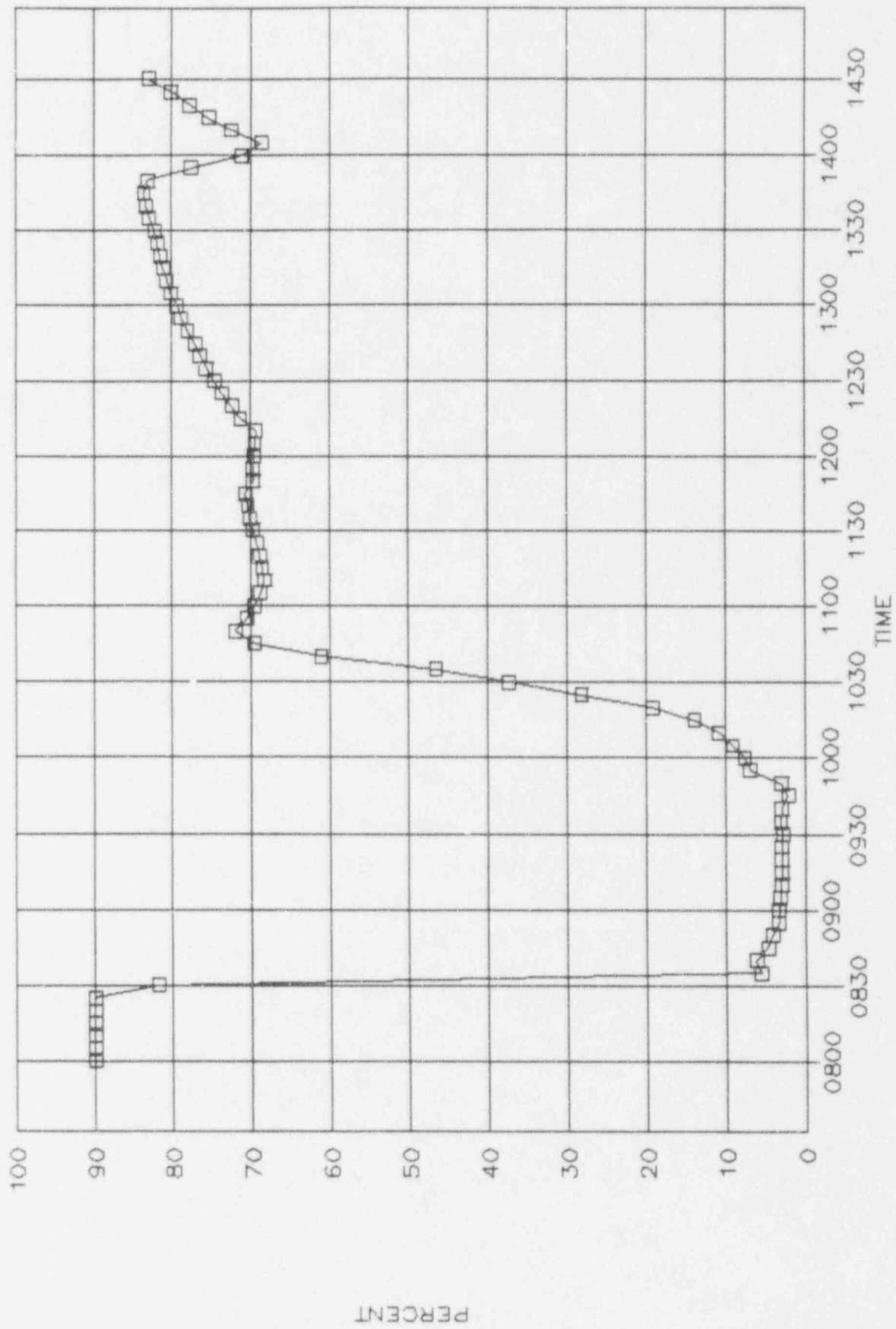


# SATURATION MARGIN

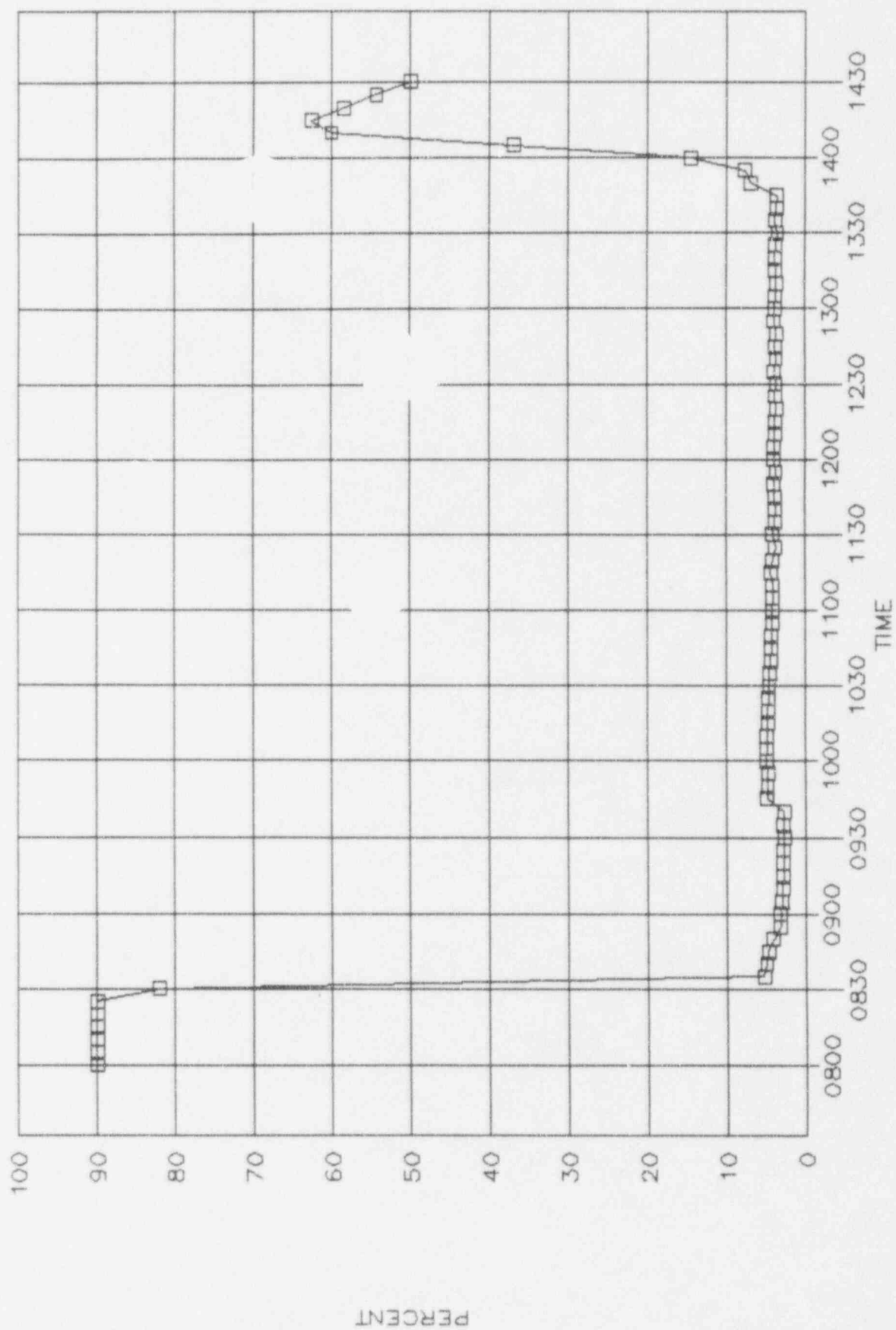




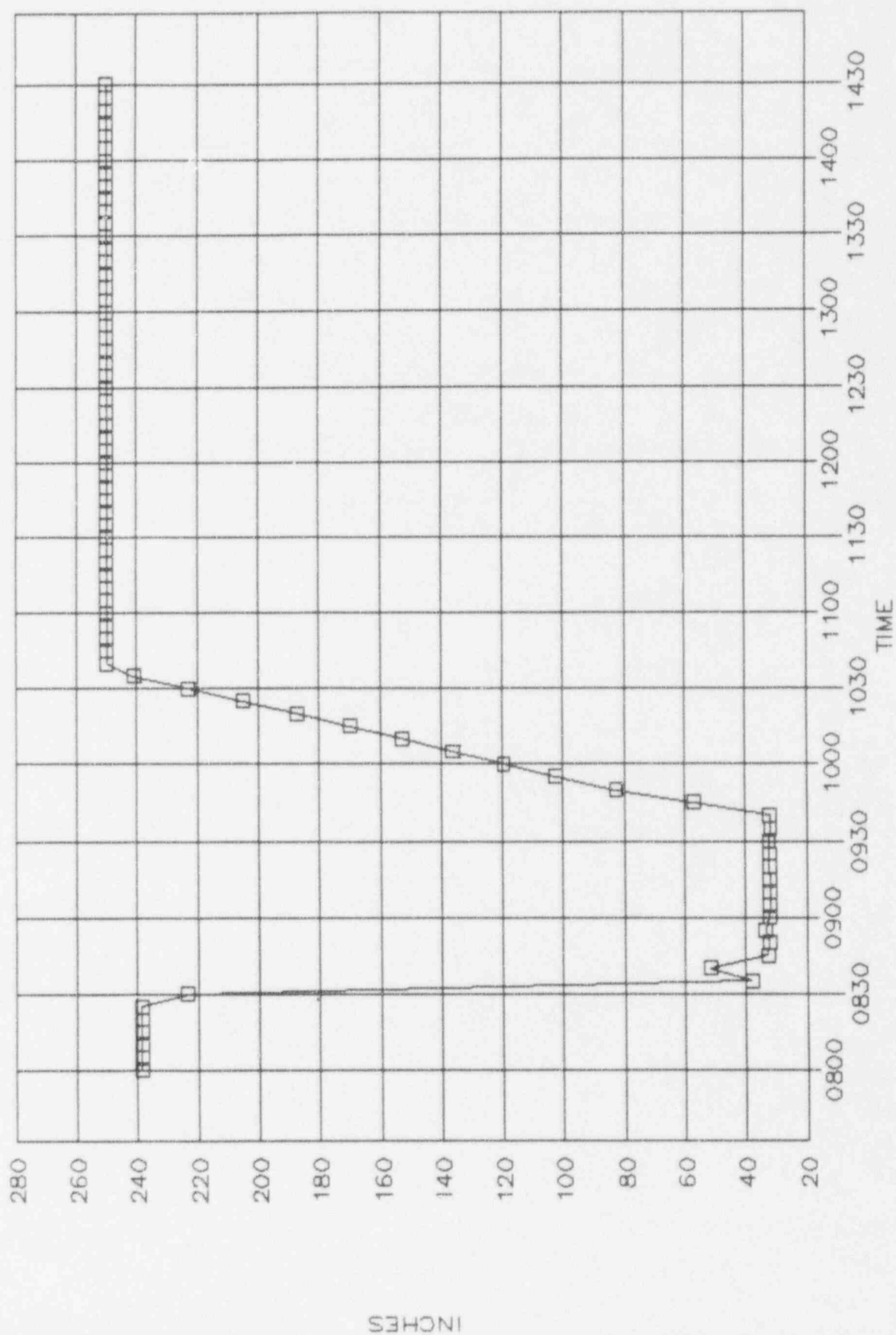
# OTSG OP LEVEL A



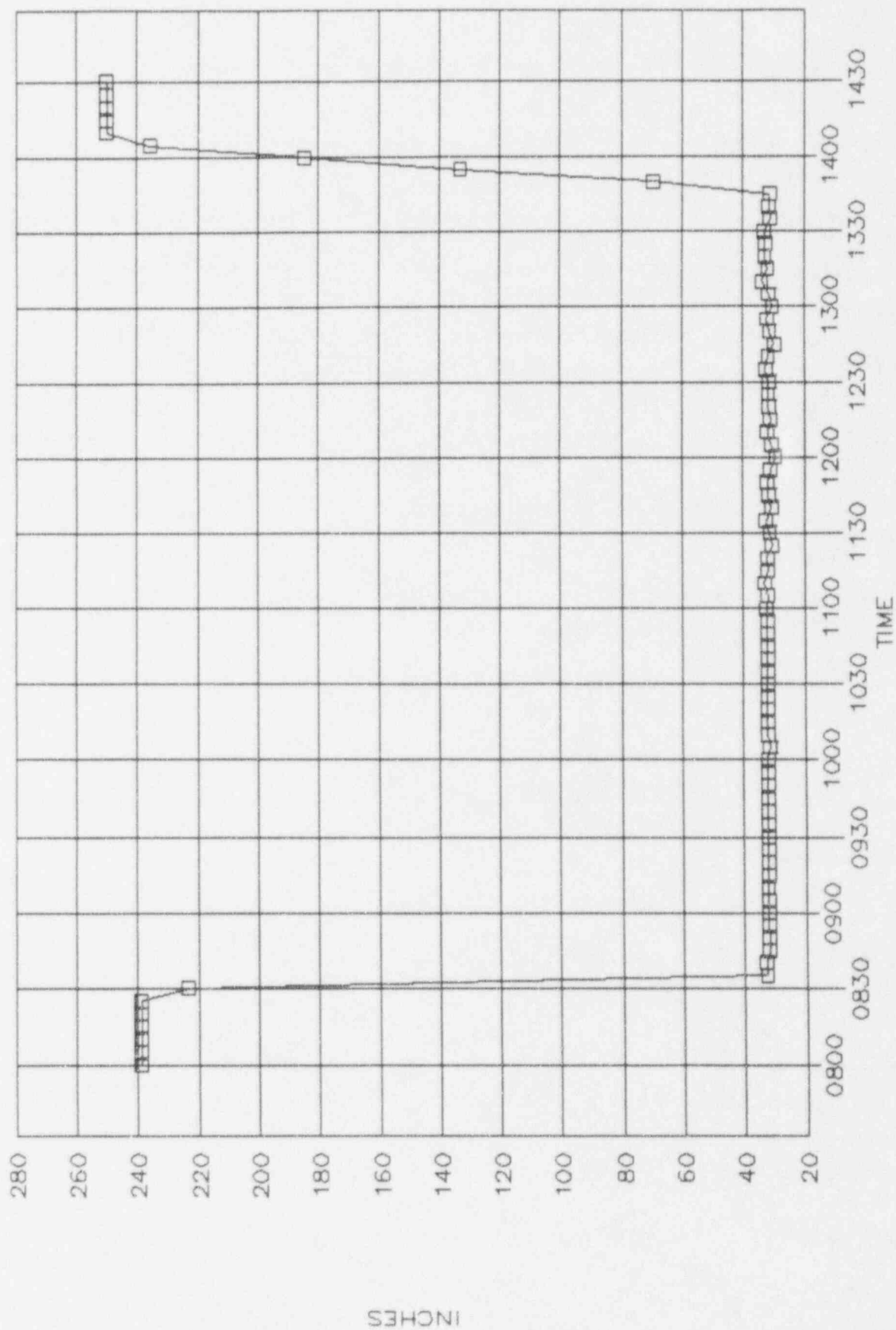
# OTSG OP LEVEL B



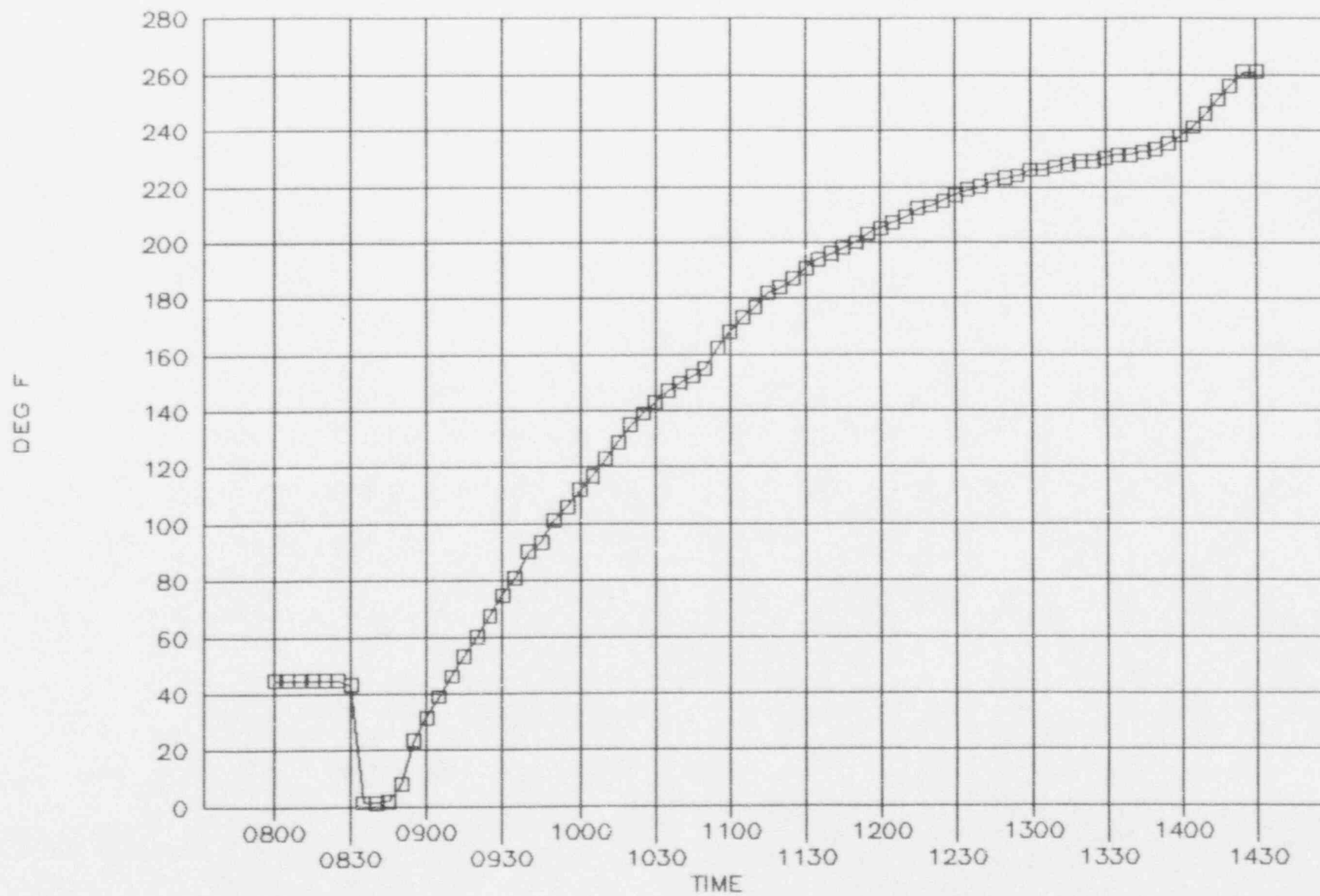
# OTSG SU LEVEL A



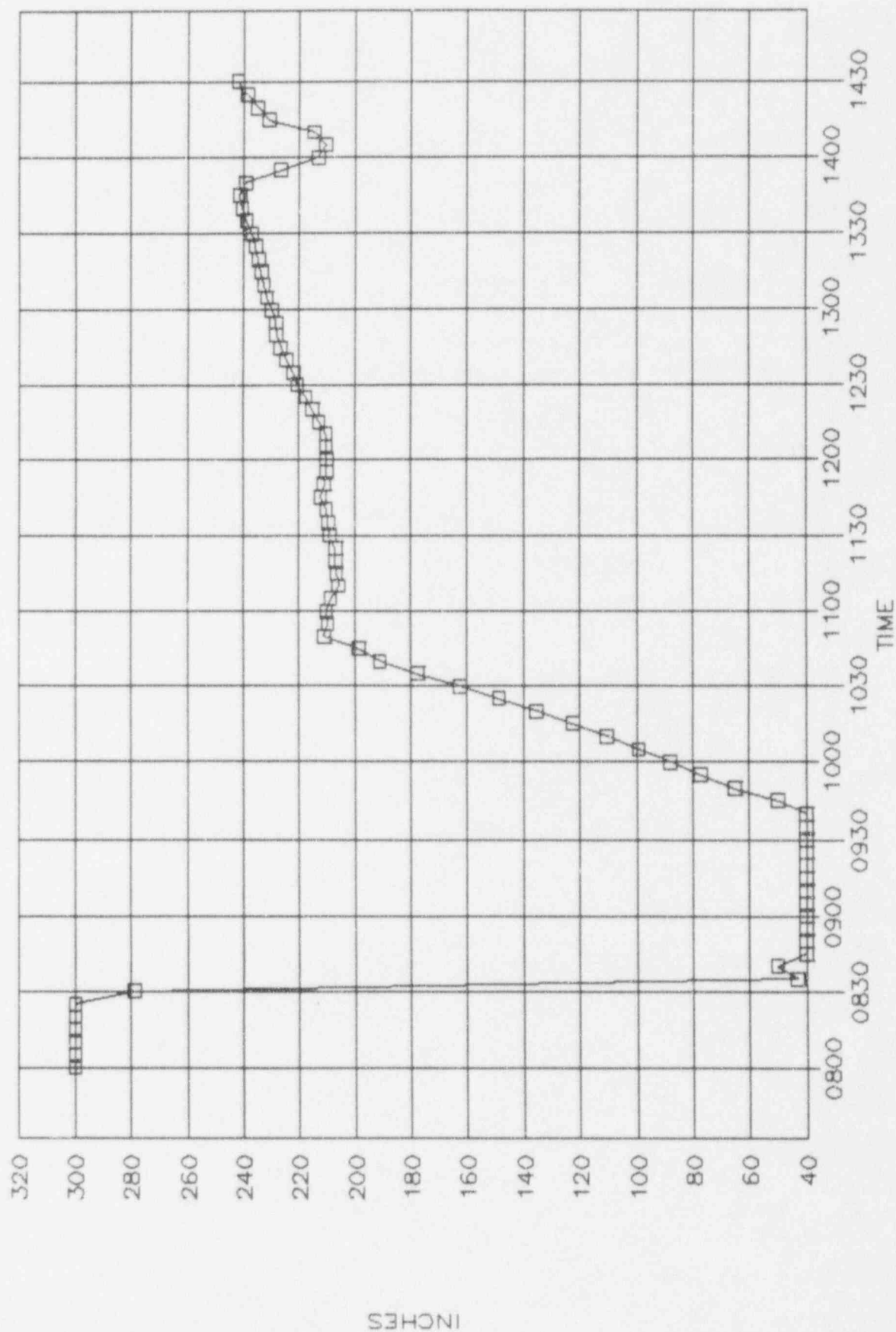
# OTSG SU LEVEL B



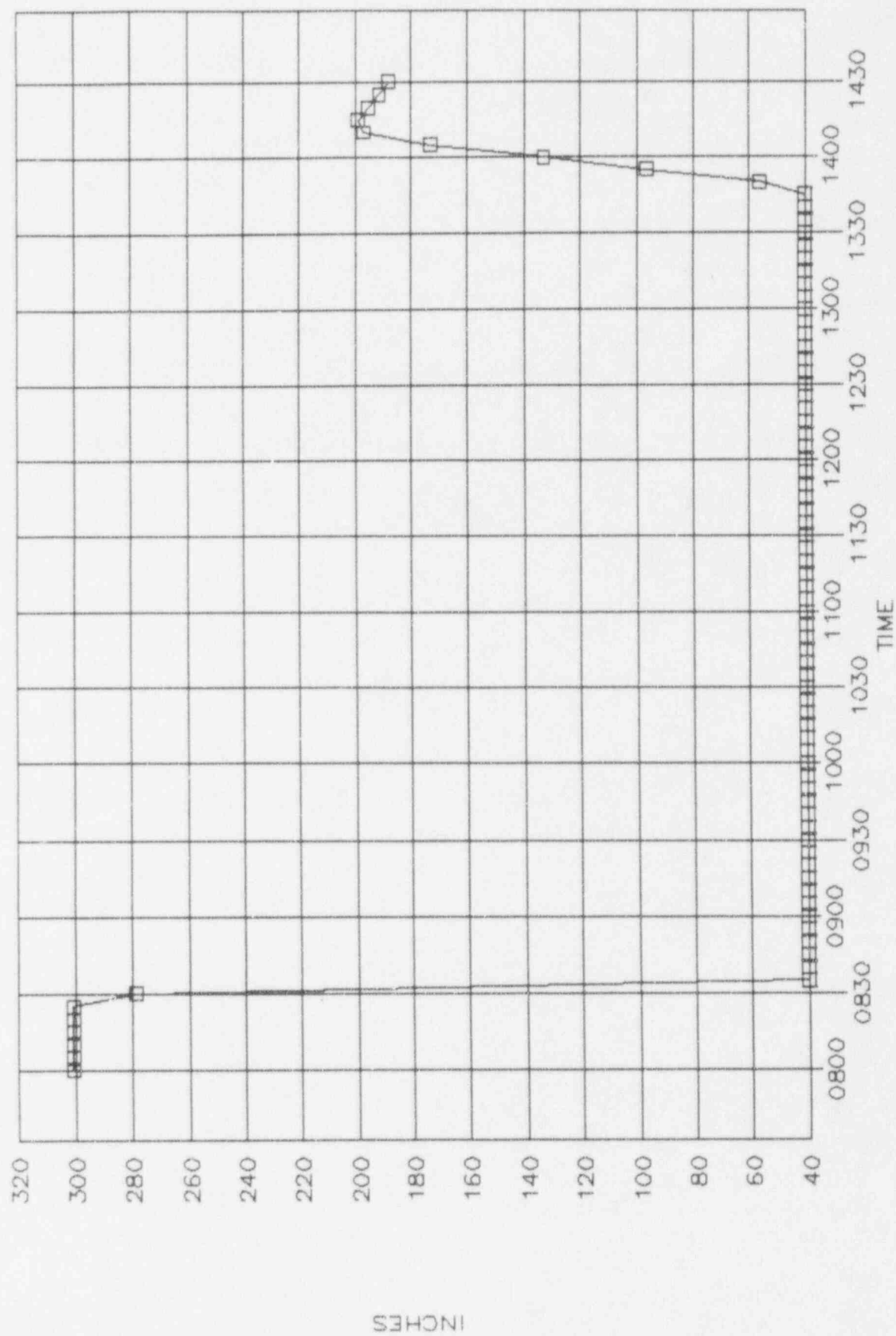
# OTSG RC TEMP DIFF A,B (JPPAR706,707)



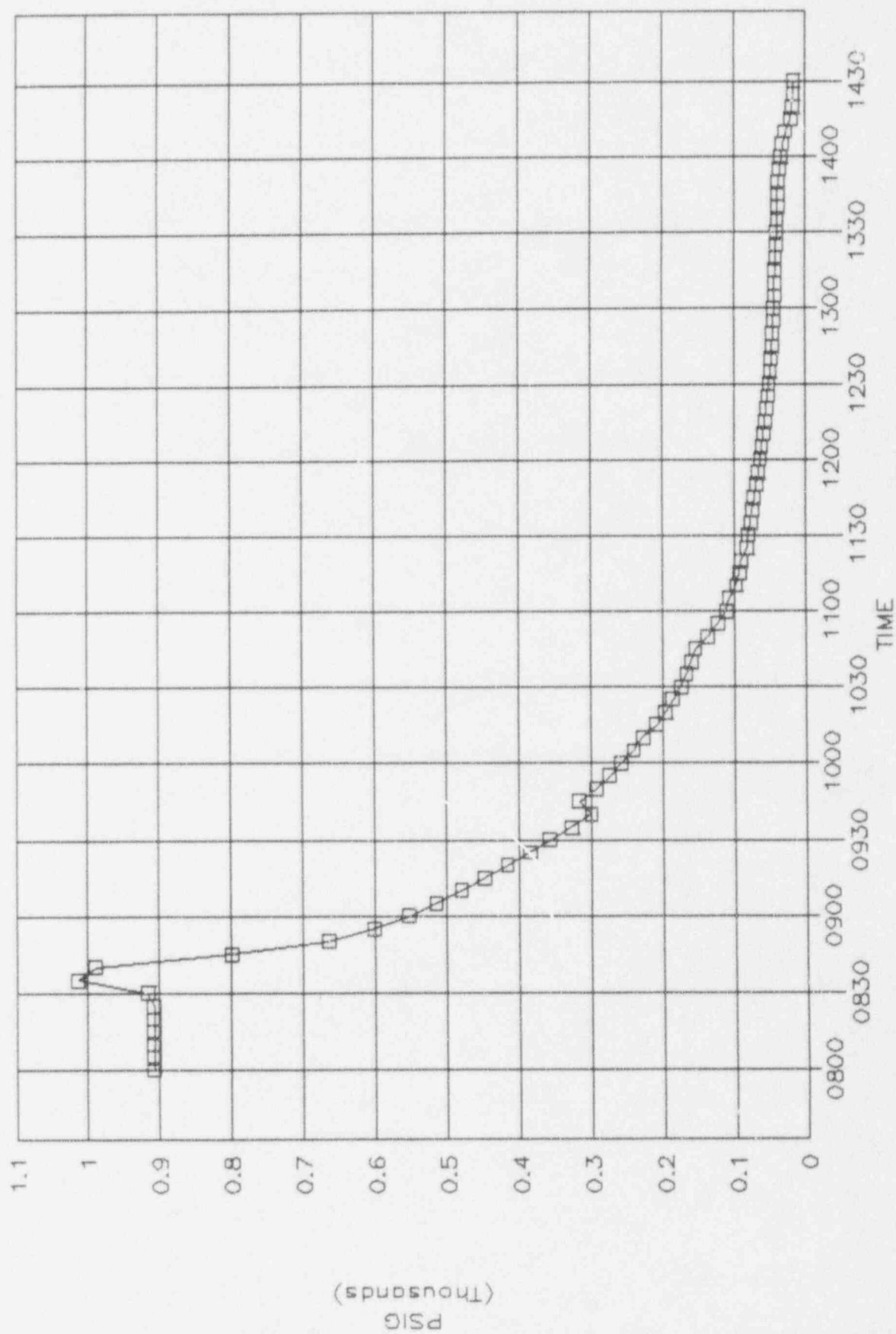
# OTSG WR LEVEL A



# OTSG WR LEVEL B

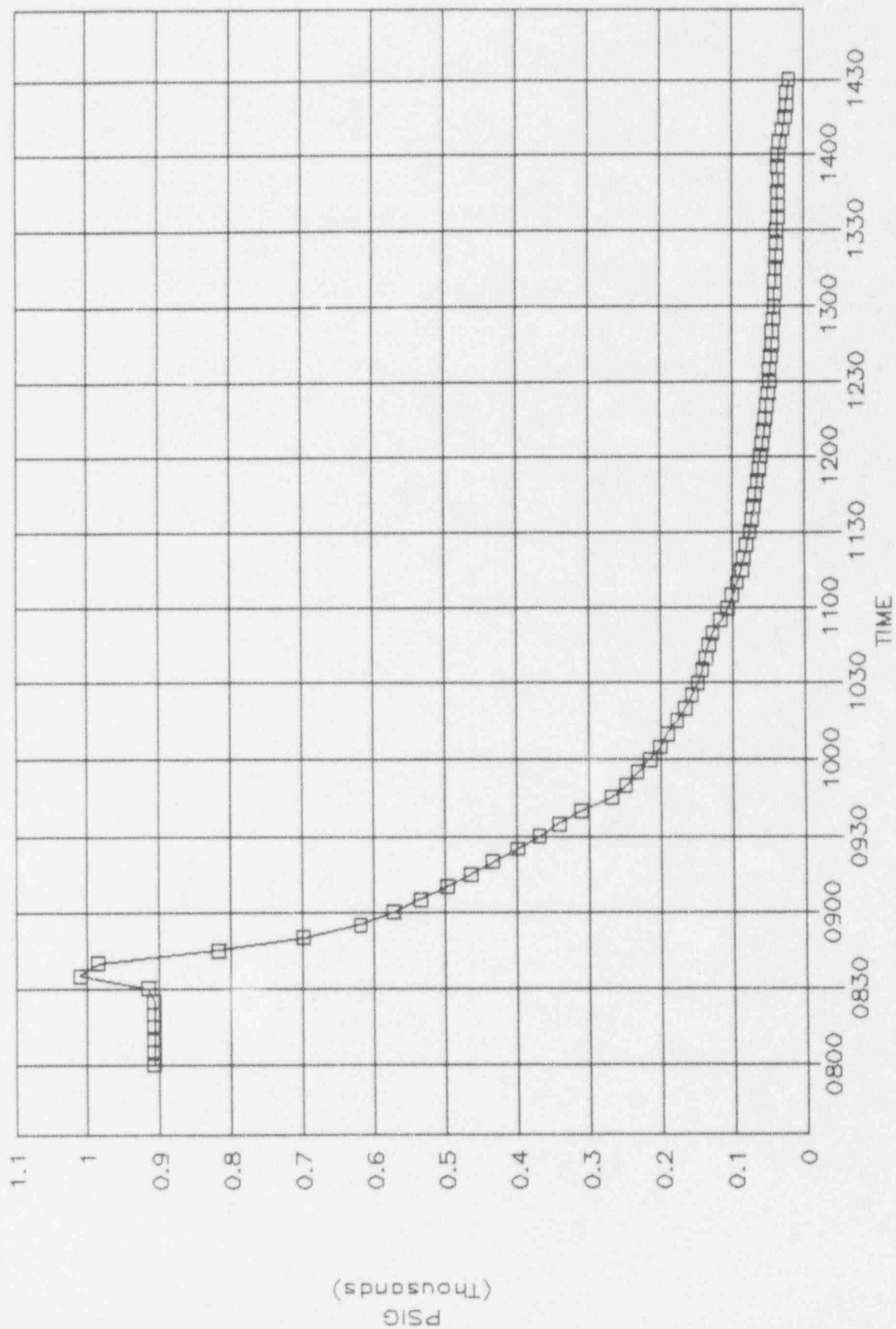


# STEAM PRES OUT A

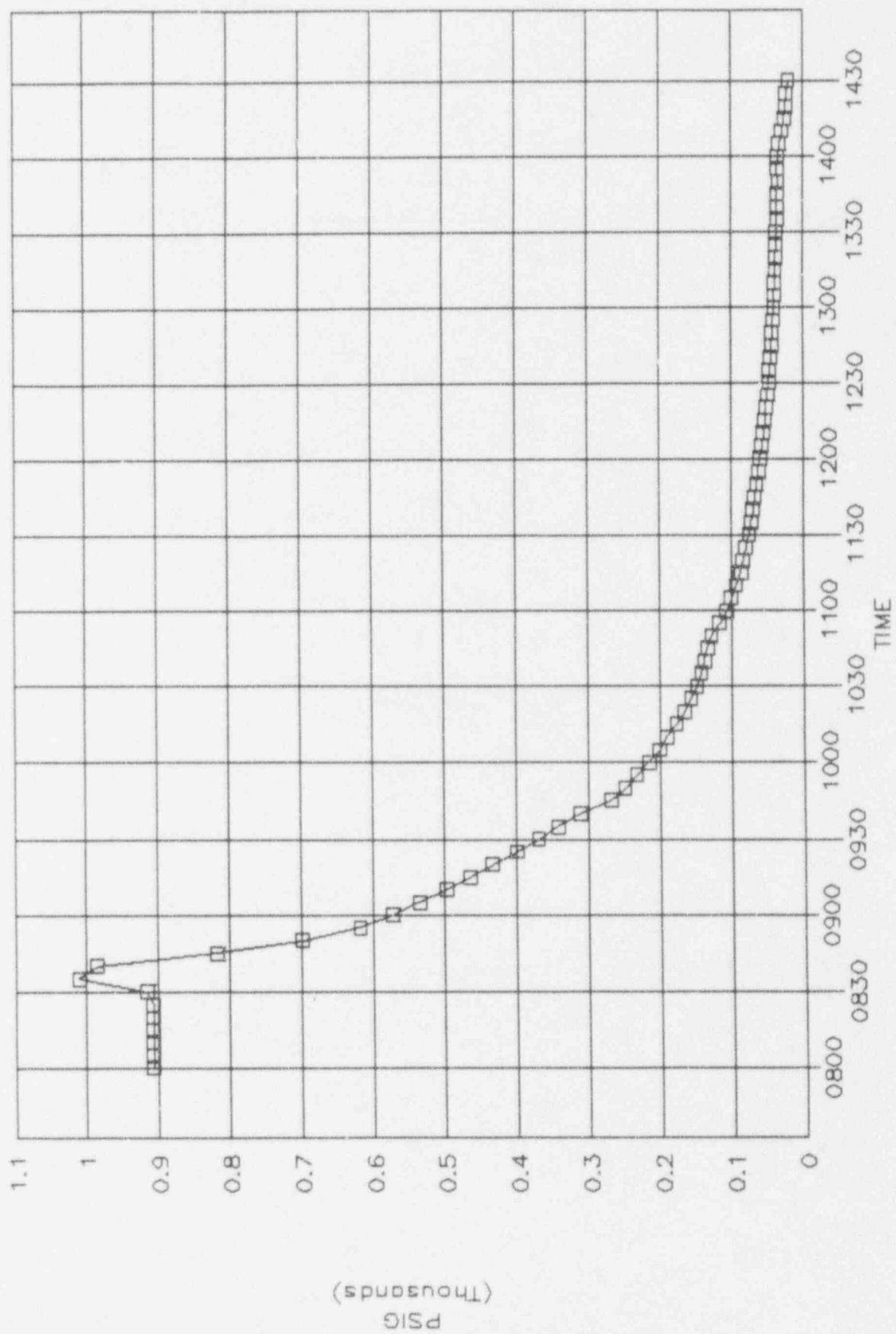




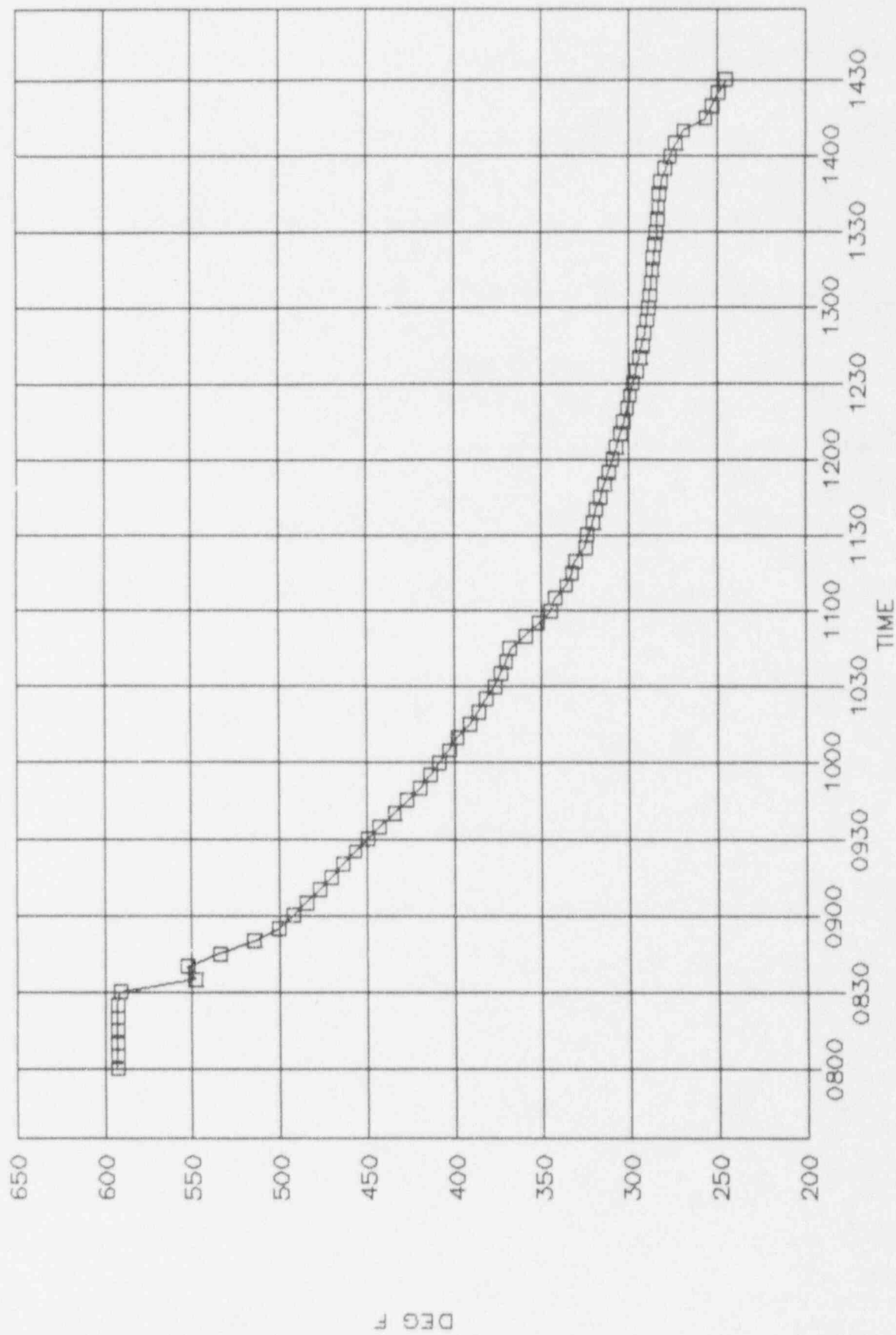
# STEAM PRES OUT B



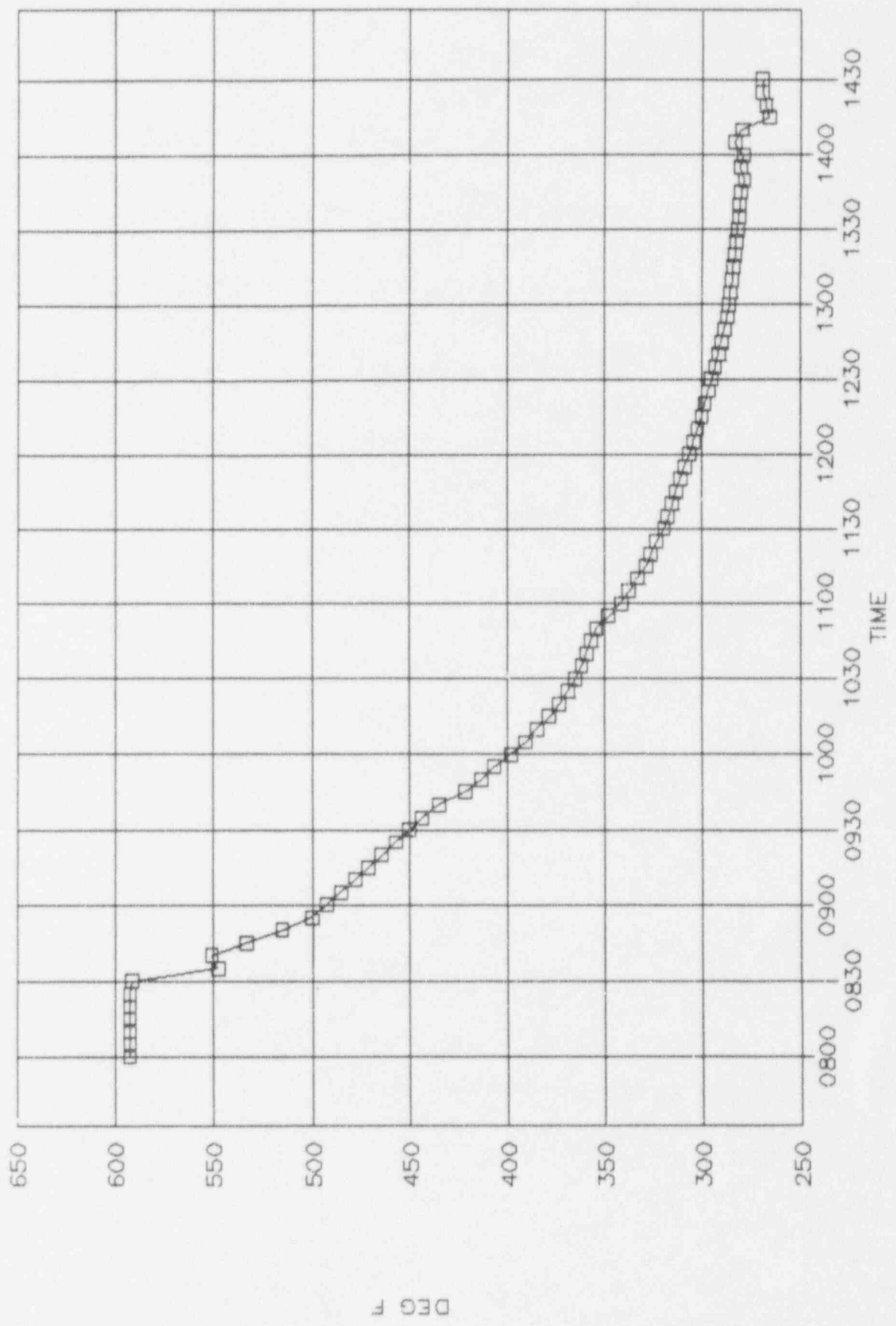
# STEAM PRES OUT B



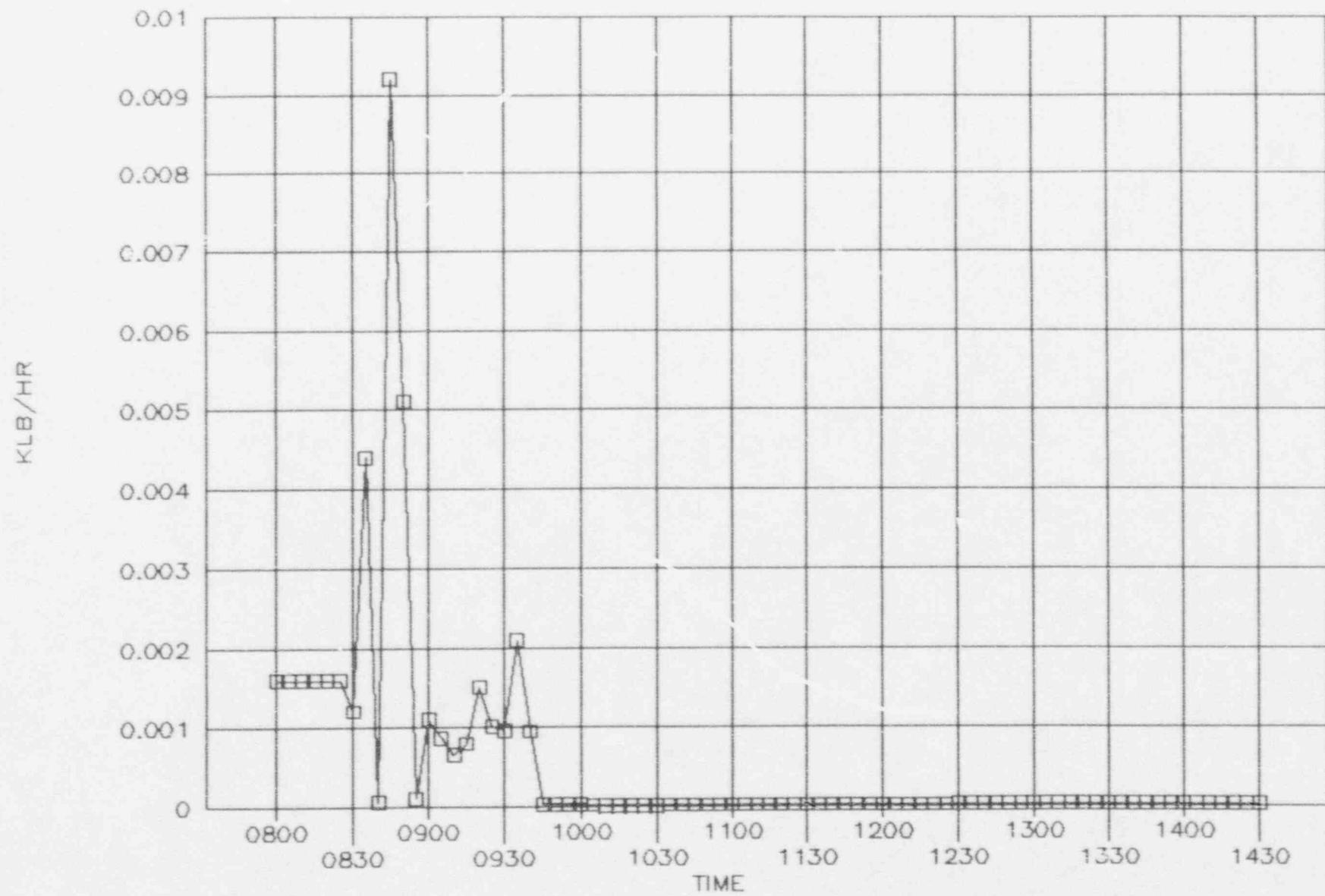
# STEAM TEMP OUT A



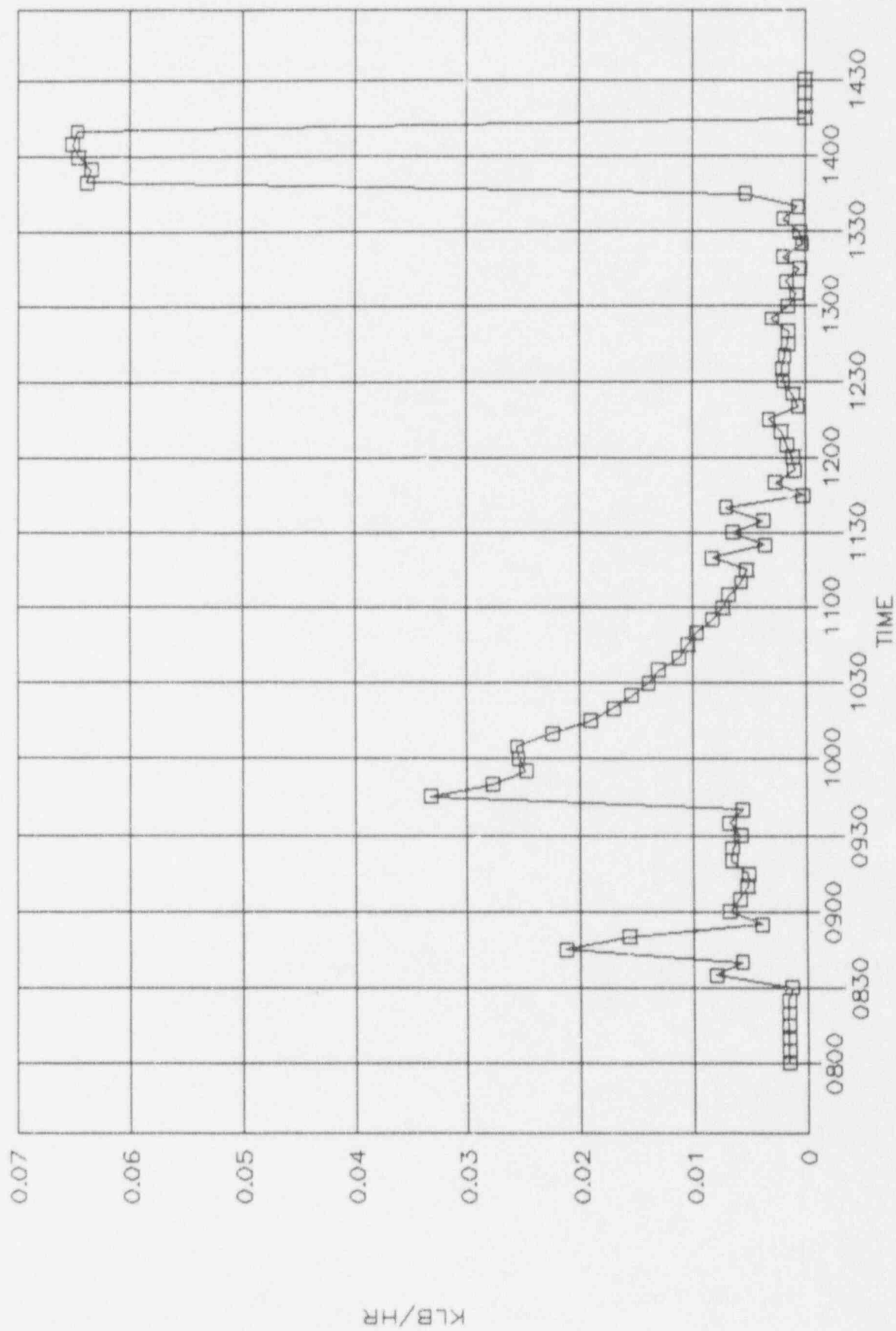
# STEAM TEMP OUT B



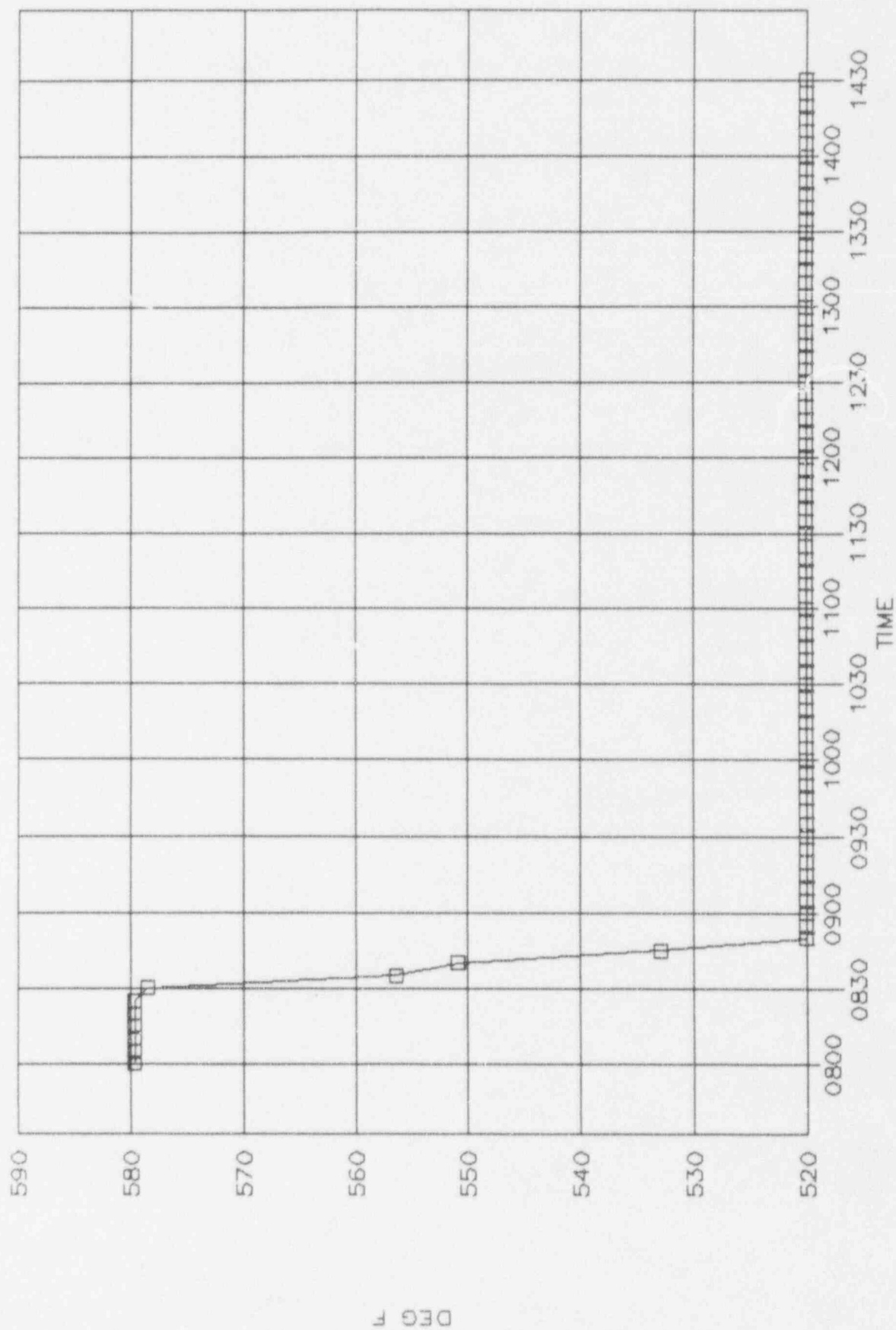
# SU FEEDWATER FLOW A



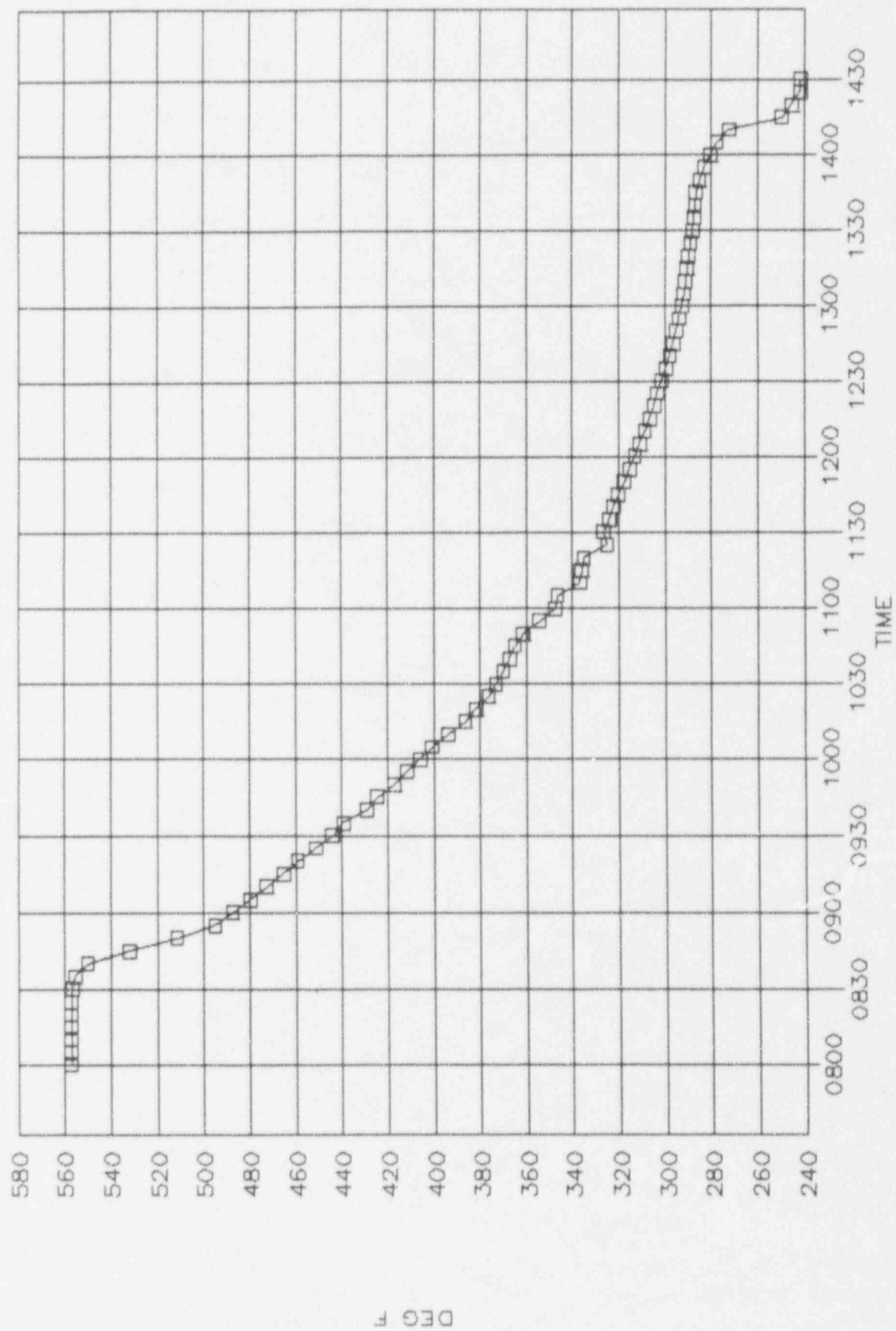
# SU FEEDWATER FLOW B



T-AVE

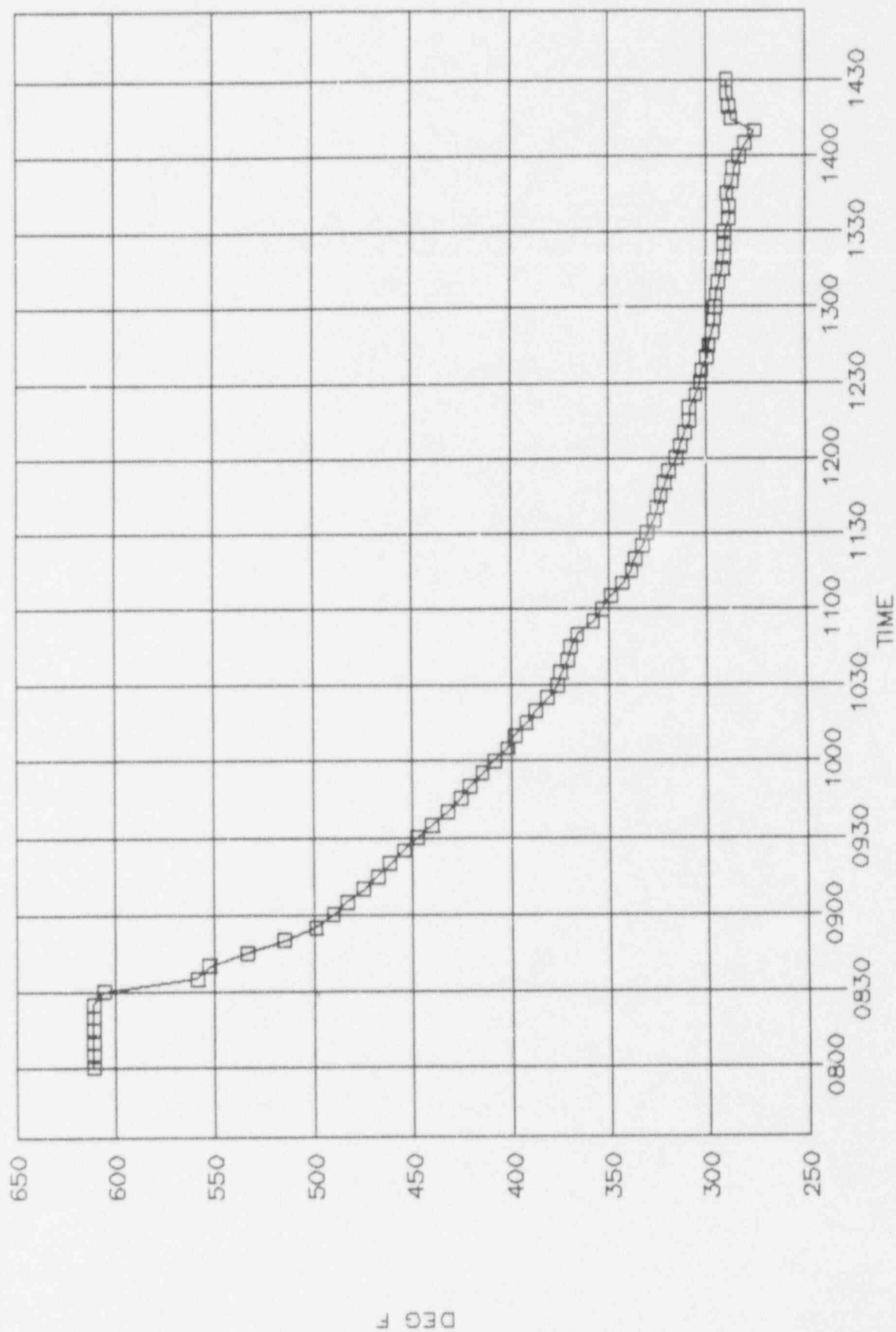


# T-COLD WR A,B

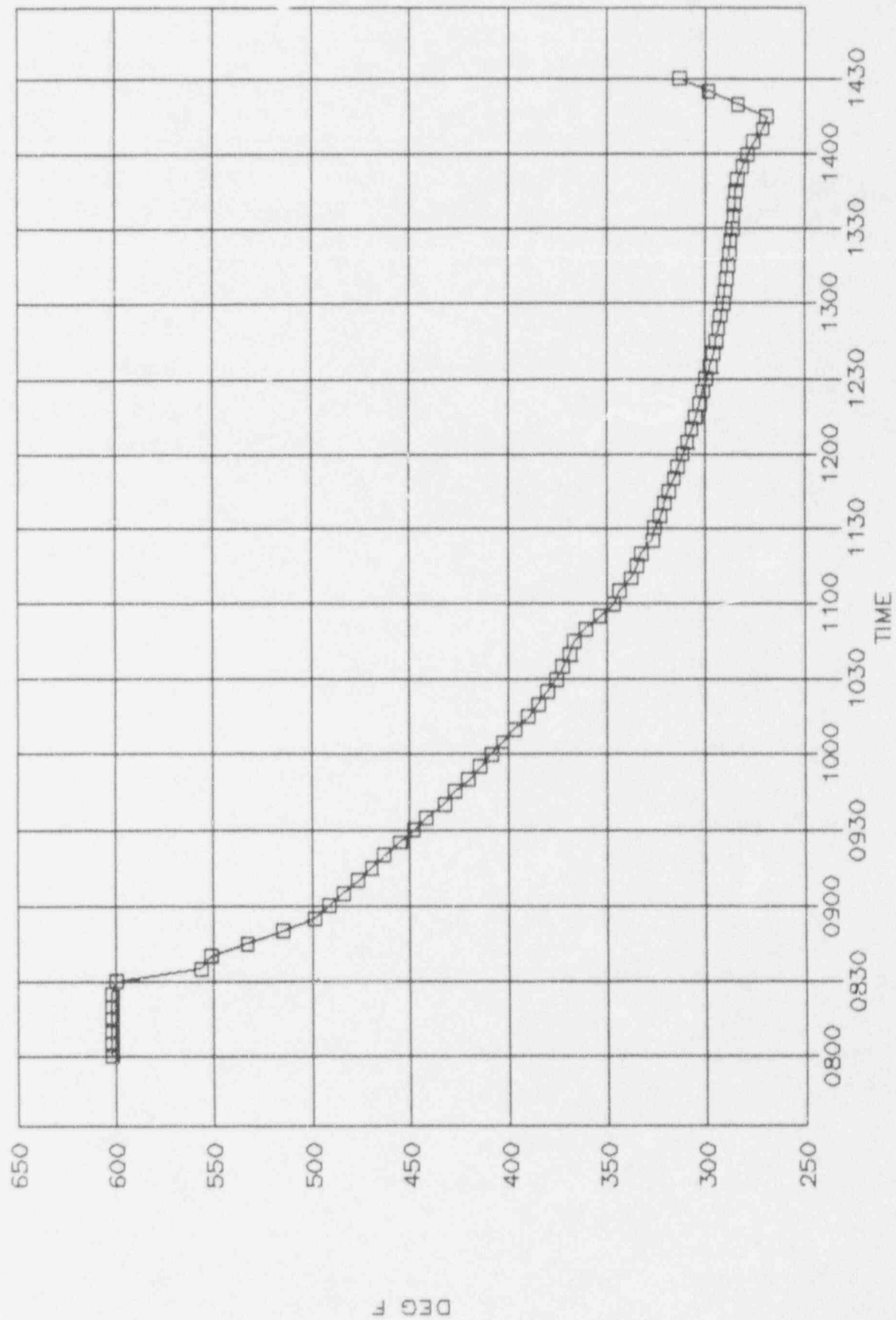




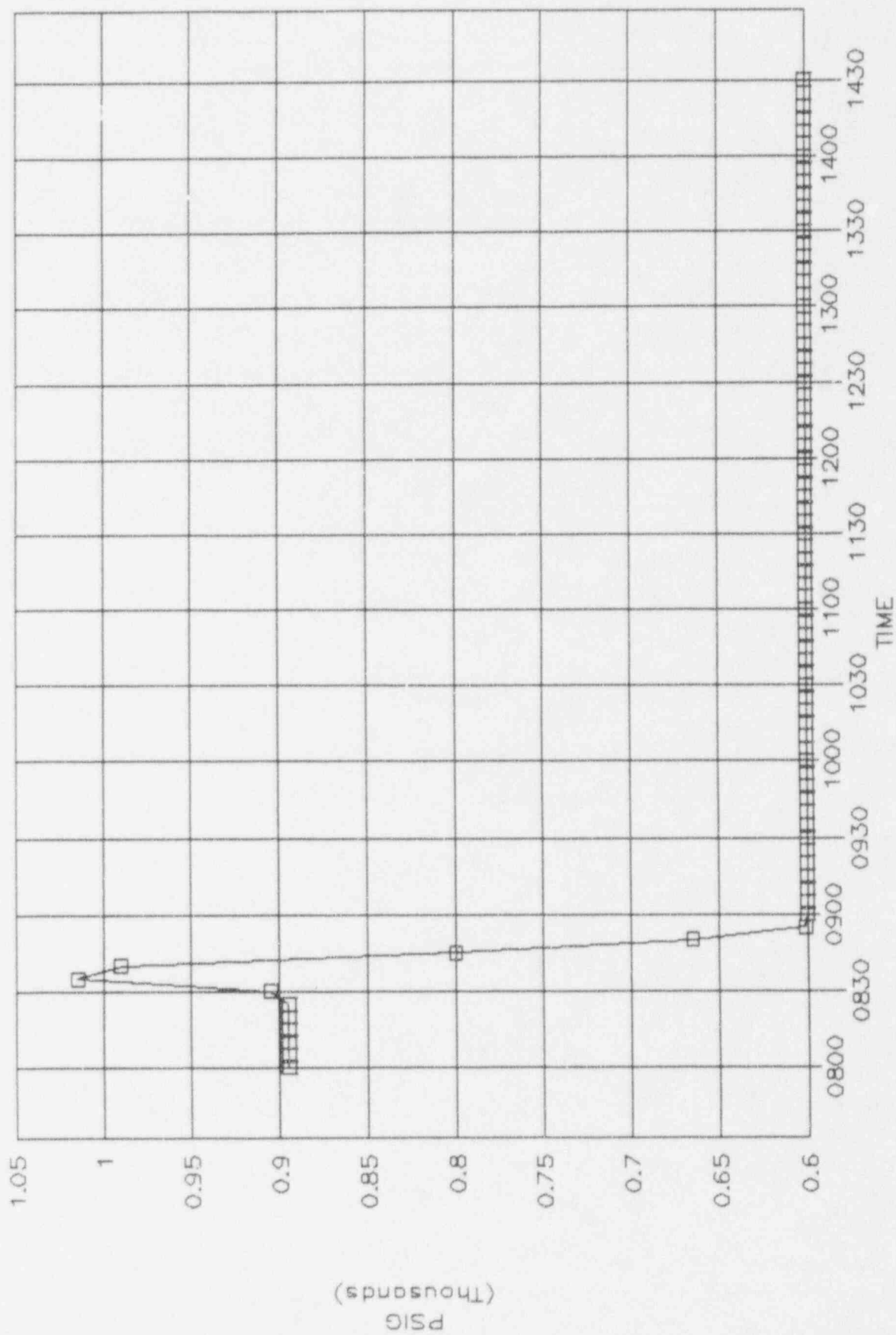
# T-HOT (X) IM008H



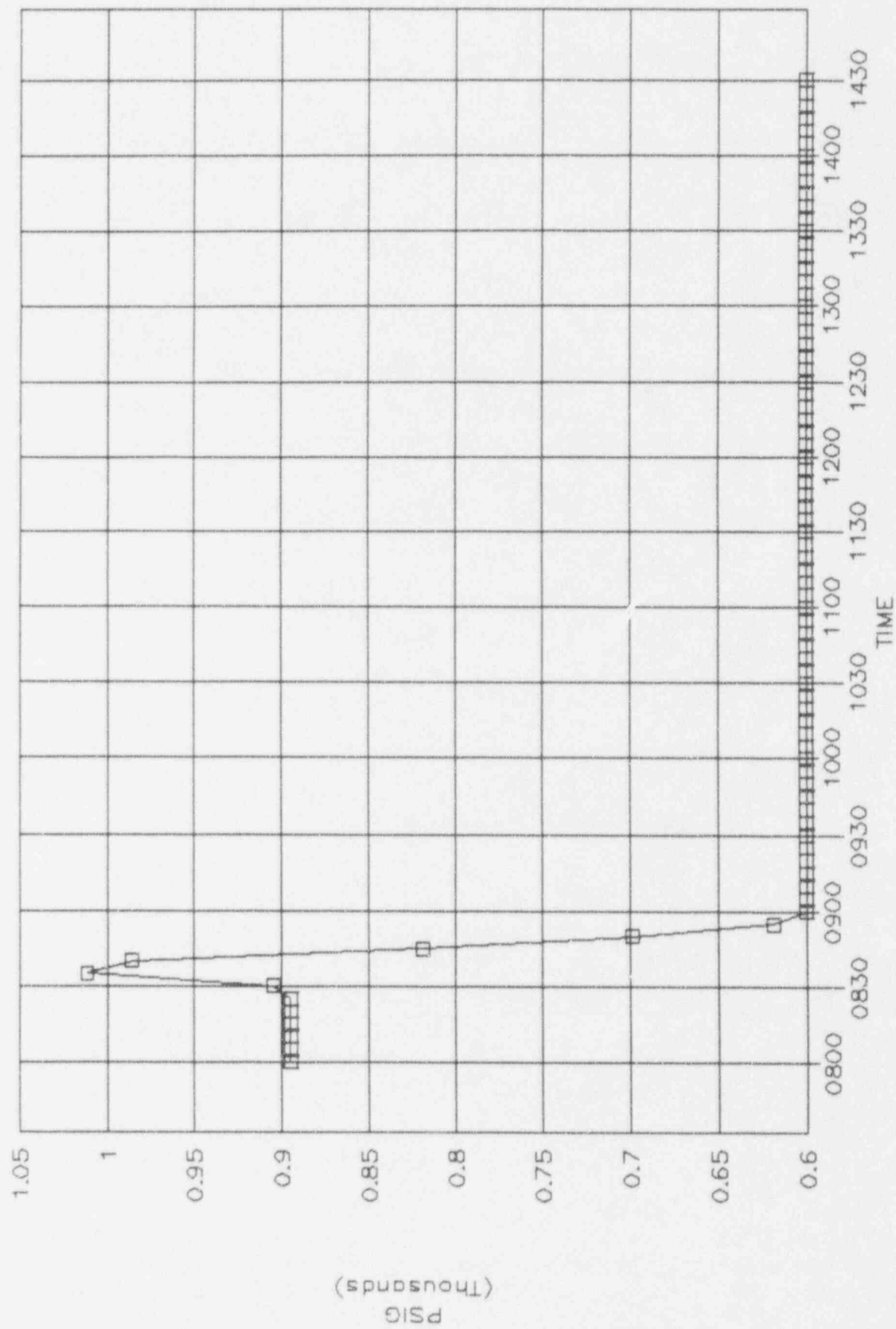
# T-HOT WR RECORDED



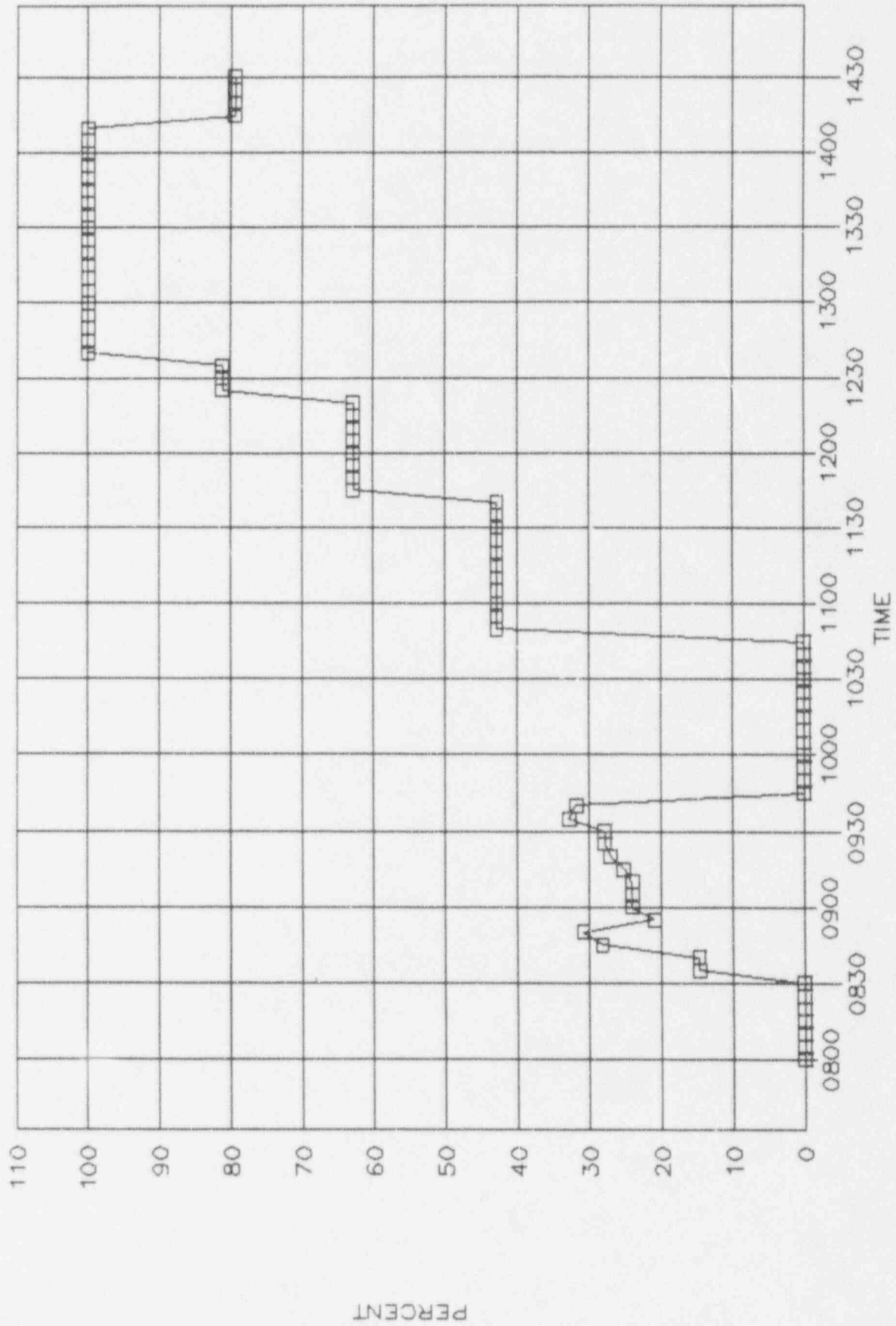
# TURB HDR PRES A



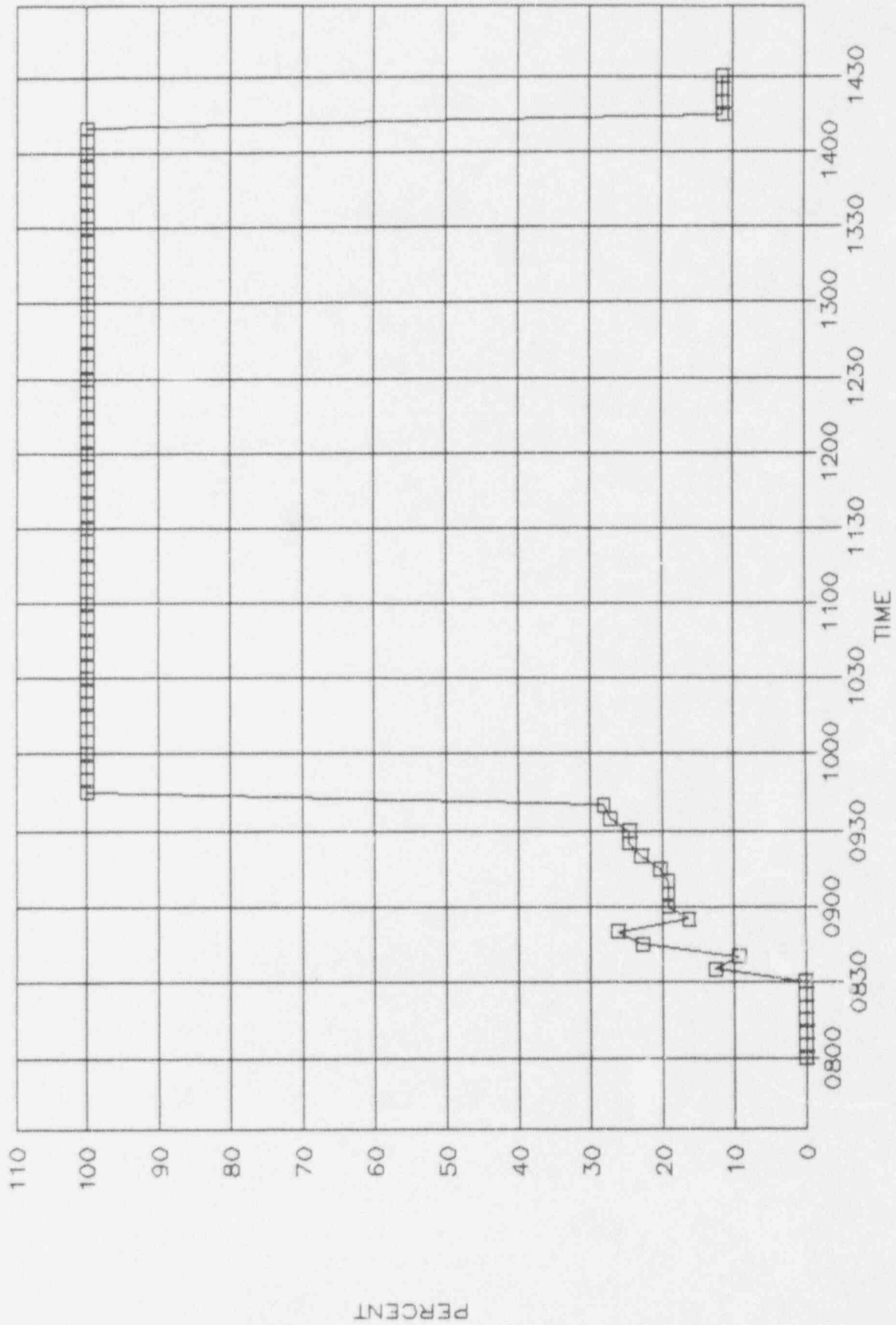
# TURB HDR PRES B



# TURB BYPASS VLV A POSITION



# TURB BYPASS VLV B POSITION



# RADIATION MONITORS

RM-A1L	RM-G12
RM-A1M	RM-G1
RM-A1H	RM-G2
RM-A1I	RM-G3
RM-A1P	RM-G4
RM-A2L	RM-G5
RM-A2M	RM-G6
RM-A2H	RM-G7
RM-A2I	RM-G8
RM-A2P	RM-G9
RM-A3	RM-G10
RM-A4	RM-G11
RM-A5G	RM-G13
RM-A5I/P	RM-G14
RM-A6G	RM-G15
RM-A6I/P	RM-G16
RM-A7	RM-G17
RM-A8	RM-G18
RM-A11	RM-G25
RM-A12	RM-G26
RM-L1	RM-G27
RM-L2	RM-G28
RM-L3	RM-G29
RM-L5	RM-G30
RM-L6	

	RM-A1L	RM-A1M	RM-A1H	RM-A1I	RM-A1P	RM-A2L	RM-A2M
0500	10	0.3	0.0	10	10	32	0.1
0515	10	0.4	0.0	10	10	22	0.1
0530	10	0.3	0.0	10	10	31	0.1
0545	10	0.3	0.0	10	10	26	0.1
0600	10	0.3	0.0	10	10	27	0.1
0615	10	0.4	0.0	10	10	35	0.1
0630	10	0.3	0.0	10	10	25	0.1
0645	10	0.2	0.0	10	10	23	0.1
0700	10	0.4	0.0	10	10	29	0.1
0715	10	0.4	0.0	10	10	22	0.1
0730	10	0.2	0.0	10	10	26	0.1
0745	10	0.3	0.0	10	10	27	0.1
0800	10	0.3	0.0	10	10	20	0.1
0815	10	0.3	0.0	10	10	30	0.1
0830	10	0.3	0.0	10	10	27	0.1
0845	10	0.2	0.0	10	10	8124	0.1
0900	10	0.3	0.0	10	10	6704	0.1
0915	10	0.3	0.0	10	10	5775	0.1
0930	10	0.2	0.0	10	10	5159	0.1
0945	10	0.3	0.0	10	10	3358	0.1
1000	10	0.3	0.0	10	10	3356	0.1
1015	10	0.3	0.0	10	10	4220	0.1
1030	10	0.4	0.0	10	10	4369	0.1
1045	10	0.3	0.0	10	10	4374	0.1
1100	10	0.3	0.0	10	10	4415	0.1
1115	10	0.3	0.0	10	10	4030	0.1
1130	10	0.3	0.0	10	10	3441	0.1
1145	10	0.3	0.0	10	10	3572	0.1
1200	10	0.3	0.0	10	10	3645	0.1
1215	10	0.3	0.0	10	10	4236	0.1
1230	10	0.3	0.0	10	10	4165	0.1
1245	10	0.2	0.0	10	10	4210	0.1
1300	10	0.3	0.0	10	10	4289	0.1
1315	10	0.4	0.0	10	10	3980	0.1
1330	10	0.4	0.0	10	10	4073	0.1
1345	10	0.3	0.0	10	10	3913	0.1
1400	10	0.3	0.0	10	10	3984	0.1
1415	10	0.3	0.0	10	10	4008	0.1
1430	10	0.3	0.0	10	10	4100	0.1
1445	10	0.3	0.0	10	10	3900	0.1



	RM-A2H	RM-A2I	RM-A2P	RM-A3	RM-A4	RM-A5G	RM-A5I/P
0500	0.1	31	23	23	25	13	20
0515	0.1	35	29	13	30	19	21
0530	0.1	30	25	14	33	21	17
0545	0.1	44	26	19	34	15	25
0600	0.1	44	21	20	26	23	18
0615	0.1	27	26	12	23	15	20
0630	0.1	34	23	17	23	17	15
0645	0.1	31	25	15	30	19	27
0700	0.1	28	26	15	30	19	16
0715	0.1	33	25	11	31	18	20
0730	0.1	26	23	14	29	22	27
0745	0.1	29	33	13	29	16	15
0800	0.1	32	22	10	31	16	19
0815	0.1	34	22	16	30	20	20
0830	0.1	26	30	11	24	16	16
0845	0.1	34	26	17	22962	18	18
0900	0.1	26	26	21	18956	15	13
0915	0.1	35	25	15	16334	23	23
0930	0.1	30	28	15	14596	19	19
0945	0.1	35	21	15	9513	15	27
1000	0.1	43	24	16	9506	22	18
1015	0.1	38	22	16	11947	22	25
1030	0.1	35	19	18	12366	19	22
1045	0.1	38	22	15	12381	15	21
1100	0.1	35	29	15	12495	15	15
1115	0.1	30	16	18	11410	21	25
1130	0.1	36	23	14	9748	24	23
1145	0.1	35	17	12	10116	23	23
1200	0.1	32	27	12	10323	23	18
1215	0.1	31	25	13	11991	19	15
1230	0.1	35	20	15	11789	20	18
1245	0.1	23	20	13	11916	19	19
1300	0.1	29	27	17	12141	19	12
1315	0.1	33	23	12	11268	19	22
1330	0.1	39	25	14	11532	20	18
1345	0.1	36	20	15	11080	12	22
1400	0.1	30	30	17	11026	12	20
1415	0.1	30	25	16	11348	21	17
1430	0.1	32	18	11	10971	19	26
1445	0.1	34	26	14	10553	23	24

	RM-A6G	RM-A6I/P	RM-A7	RM-A8	RM-A11	RM-A12	RM-L1
0500	394	651	17	30	2298	44	12231
0515	395	668	19	27	2251	35	12120
0530	404	680	22	31	2332	36	12198
0545	452	660	25	33	2331	45	12209
0600	410	691	18	26	2245	42	12225
0615	441	679	18	27	2226	30	12096
0630	365	687	17	32	2305	36	12250
0645	428	693	16	23	2348	40	12357
0700	459	692	24	35	2188	38	12381
0715	401	677	22	31	2221	42	12389
0730	404	654	20	32	2313	34	12118
0745	407	699	15	30	2220	41	12173
0800	409	693	14	37	2199	31	12141
0815	432	653	26	31	2298	36	12418
0830	448	694	29	28	2229	35	11917
0845	426	662	27	37	2292	1.0E+06	12163
0900	439	681	30	34	2278	1.0E+06	12315
0915	392	661	26	29	2304	1.0E+06	12014
0930	435	692	19	26	2295	1.0E+06	12344
0945	396	668	14	21	2274	7.0E+05	12337
1000	396	686	26	25	2310	7.0E+05	12431
1015	409	664	19	27	2283	8.7E+05	12466
1030	428	679	20	31	2189	9.0E+05	12198
1045	418	671	16	27	2260	9.1E+05	12206
1100	418	654	22	22	2178	9.1E+05	12181
1115	380	659	21	24	2322	8.3E+05	12200
1130	426	686	18	36	2257	7.1E+05	12509
1145	437	652	18	32	2337	7.4E+05	12574
1200	393	654	19	21	2338	7.6E+05	12523
1215	422	680	26	27	2309	8.8E+05	12380
1230	401	654	13	23	2256	8.6E+05	12346
1245	438	685	18	35	2260	8.7E+05	12189
1300	441	660	17	27	2275	8.9E+05	12063
1315	375	671	20	21	2331	8.2E+05	12233
1330	402	691	19	31	2266	8.4E+05	12080
1345	407	686	17	22	2328	8.1E+05	12075
1400	429	683	25	25	2250	8.1E+05	12498
1415	403	673	20	30	2244	5.0E+01	12290
1430	406	688	18	24	2228	1.0E+06	12436
1445	413	669	15	23	2282	1.0E+03	12209

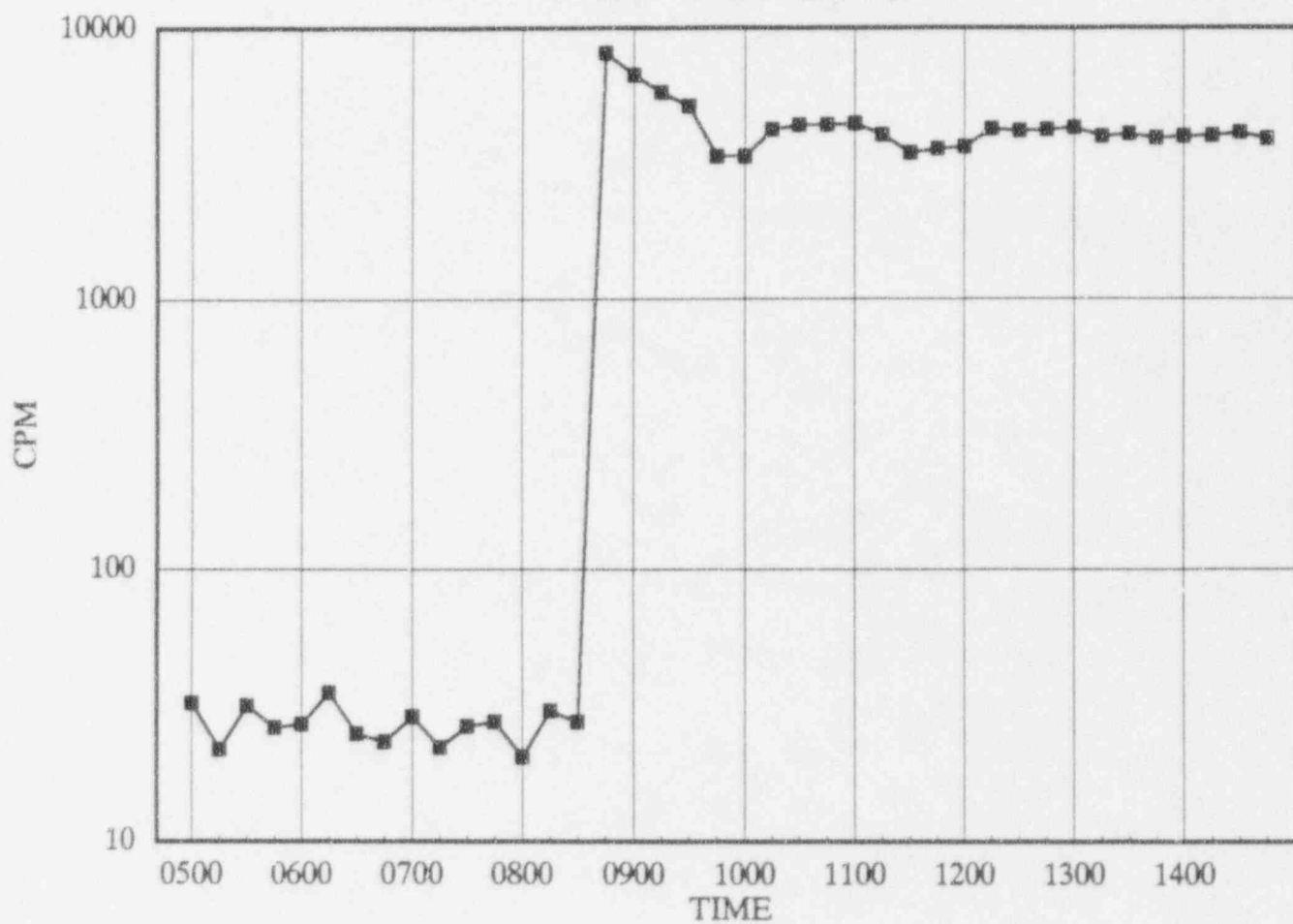
	RM-L2	RM-L3	RM-L5	RM-L6	RM-G12	RM-G1	RM-G2
0500	40128	484	381	303	5.6	0.1	0.2
0515	39988	480	422	323	5.4	0.1	0.3
0530	40563	468	362	337	5.4	0.1	0.2
0545	40452	508	363	319	5.7	0.1	0.2
0600	40369	454	410	309	5.4	0.1	0.2
0615	40104	444	383	320	5.3	0.1	0.3
0630	39926	428	374	322	5.5	0.1	0.2
0645	40499	502	383	331	5.7	0.1	0.2
0700	40277	458	374	361	4.8	0.1	0.3
0715	40539	477	389	311	5.7	0.1	0.2
0730	40034	505	379	341	6.5	0.1	0.2
0745	41152	438	404	301	5.2	0.1	0.2
0800	40932	532	387	332	5.5	0.1	0.2
0815	40720	454	387	308	4.8	0.1	0.2
0830	41022	466	382	358	5.3	0.1	0.2
0845	40740	473	389	335	6.1	0.1	0.3
0900	41516	455	357	309	5.4	0.1	0.2
0915	43459	497	379	342	5.2	0.1	0.3
0930	44038	495	350	310	5.7	0.1	0.2
0945	28412	444	372	330	6.2	0.1	0.2
1000	27996	475	412	335	4.8	0.1	0.3
1015	41930	490	390	330	5.4	0.1	0.3
1030	42130	465	364	344	5.2	0.1	0.2
1045	42001	491	420	319	5.2	0.1	0.2
1100	42213	425	395	336	5.3	0.1	0.2
1115	42187	452	343	298	5.5	0.1	0.2
1130	42395	449	380	366	5.3	0.1	0.2
1145	42028	453	388	333	5.4	0.1	0.2
1200	41657	440	349	326	5.4	0.1	0.2
1215	41795	471	370	373	5.8	0.1	0.2
1230	42157	432	402	338	4.9	0.1	0.2
1245	41847	412	346	341	5.8	0.1	0.2
1300	41895	489	398	323	5.6	0.1	0.2
1315	41713	439	369	331	5.4	0.1	0.2
1330	42410	455	338	305	5.4	0.1	0.2
1345	41566	488	399	289	5.8	0.1	0.2
1400	42104	416	352	341	6.0	0.1	0.2
1415	41445	470	393	309	5.3	0.1	0.2
1430	41833	469	392	327	5.8	0.1	0.2
1445	42018	449	391	349	5.8	0.1	0.2

	RM-G3	RM-G4	RM-G5	RM-G6	RM-G7	RM-G8	RM-G9
0500	0.5	0.2	8.0	283.6	4.0	0.1	0.1
0515	0.6	0.3	8.0	284.4	3.7	0.1	0.1
0530	0.6	0.2	8.0	283.8	4.0	0.1	0.1
0545	0.6	0.2	8.0	285.7	3.9	0.1	0.1
0600	0.5	0.2	8.0	279.1	3.9	0.1	0.1
0615	0.5	0.3	8.0	279.3	4.1	0.1	0.1
0630	0.7	0.2	8.0	273.9	4.0	0.1	0.1
0645	0.6	0.2	8.0	274.7	4.2	0.1	0.1
0700	0.6	0.2	8.0	278.1	3.8	0.1	0.1
0715	0.7	0.2	8.0	275.4	3.7	0.1	0.1
0730	0.5	0.3	8.0	275.9	4.0	0.1	0.1
0745	0.6	0.3	8.0	272.3	4.5	0.1	0.1
0800	0.5	0.2	8.0	275.8	4.2	0.1	0.1
0815	0.7	0.2	8.0	275.5	4.0	0.1	0.1
0830	0.7	0.2	8.0	274.0	3.5	0.1	0.1
0845	0.6	0.3	8.0	272.1	3.8	0.1	0.1
0900	0.6	0.2	8.0	273.5	3.8	0.1	0.1
0915	0.7	0.2	8.0	269.2	4.1	0.1	0.1
0930	0.7	0.2	8.0	275.5	4.0	0.1	0.1
0945	0.5	0.2	8.0	275.4	4.1	0.1	0.1
1000	0.7	0.3	8.0	274.0	4.0	0.1	0.1
1015	0.6	0.2	8.0	274.6	4.5	0.1	0.1
1030	0.6	0.3	8.0	275.4	4.1	0.1	0.1
1045	0.7	0.4	8.0	273.6	3.8	0.1	0.1
1100	0.6	0.3	8.0	275.4	4.2	0.1	0.1
1115	0.7	0.2	8.0	274.9	4.4	0.1	0.1
1130	0.6	0.2	8.0	273.1	3.8	0.1	0.1
1145	0.6	0.2	8.0	277.3	4.2	0.1	0.1
1200	0.6	0.2	8.0	276.6	4.1	0.1	0.1
1215	0.6	0.2	8.0	271.6	3.5	0.1	0.1
1230	0.7	0.3	8.0	271.7	4.4	0.1	0.1
1245	0.7	0.3	8.0	274.5	4.3	0.1	0.1
1300	0.5	0.3	8.0	274.5	3.6	0.1	0.1
1315	0.6	0.2	8.0	275.3	4.2	0.1	0.1
1330	0.7	0.2	8.0	272.1	4.0	0.1	0.1
1345	0.6	0.2	8.0	272.7	3.8	0.1	0.1
1400	0.6	0.2	8.0	275.1	4.3	0.1	0.1
1415	0.6	0.2	8.0	273.3	3.9	0.1	0.1
1430	0.6	0.2	8.0	276.3	3.9	0.1	0.1
1445	0.6	0.2	8.0	275.4	4.2	0.1	0.1

	RM-G10	RM-G11	RM-G13	RM-G14	RM-G15	RM-G16	RM-G17
0500	1.9	0.1	0.2	0.2	0.7	106.9	0.6
0515	1.6	0.1	0.1	0.2	0.6	109.7	0.7
0530	1.8	0.1	0.2	0.2	0.8	101.9	0.6
0545	2.1	0.1	0.2	0.2	0.7	103.1	0.5
0600	2.4	0.1	0.1	0.2	0.5	109.0	0.6
0615	1.9	0.1	0.2	0.2	0.8	105.0	0.6
0630	1.8	0.1	0.2	0.2	0.6	109.5	0.5
0645	1.9	0.1	0.2	0.2	0.6	105.7	0.5
0700	2.2	0.1	0.2	0.2	0.6	104.7	0.5
0715	3.4	0.1	0.2	0.2	0.7	106.4	0.6
0730	2.3	0.1	0.2	0.2	0.6	108.5	0.6
0745	3.8	0.1	0.1	0.2	0.8	103.4	0.6
0800	3.7	0.1	0.2	0.2	0.7	108.8	0.6
0815	1.6	0.1	0.2	0.2	0.5	103.5	0.7
0830	1.6	0.1	0.1	0.2	0.8	106.9	0.6
0845	2.1	0.1	0.2	0.2	0.7	105.4	0.6
0900	1.5	0.1	0.1	0.2	0.7	107.7	0.7
0915	1.8	0.1	0.2	0.2	0.6	102.5	0.5
0930	1.7	0.1	0.2	0.2	0.6	101.0	0.7
0945	1.6	0.1	0.2	0.2	0.7	102.2	0.7
1000	2.0	0.1	0.2	0.2	0.6	108.5	0.5
1015	1.9	0.1	0.2	0.2	0.6	107.2	0.7
1030	1.9	0.1	0.2	0.2	0.8	102.6	0.7
1045	1.7	0.1	0.2	0.2	0.7	106.2	0.5
1100	1.6	0.1	0.2	0.2	0.6	102.5	0.6
1115	1.8	0.1	0.2	0.2	0.7	105.5	0.6
1130	1.6	0.1	0.2	0.2	0.6	106.7	0.6
1145	2.1	0.1	0.2	0.2	0.7	105.2	0.6
1200	1.8	0.1	0.2	0.2	0.6	106.6	0.6
1215	1.4	0.1	0.2	0.2	0.7	100.3	0.6
1230	2.2	0.1	0.2	0.2	0.6	105.3	0.6
1245	1.8	0.1	0.2	0.2	0.6	101.1	0.6
1300	1.7	0.1	0.2	0.2	0.6	106.4	0.7
1315	1.7	0.1	0.2	0.2	0.6	107.5	0.5
1330	3.1	0.1	0.3	0.2	0.8	104.5	0.7
1345	1.5	0.1	0.2	0.2	0.8	102.5	0.6
1400	2.2	0.1	0.1	0.2	0.6	108.1	0.6
1415	1.8	0.1	0.2	0.2	0.7	103.7	0.7
1430	2.3	0.1	0.2	0.2	0.6	102.5	0.7
1445	3.3	0.1	0.2	0.2	0.6	109.6	0.6

	RM-G18	RM-G25	RM-G26	RM-G27	RM-G28	RM-G29	RM-G30
0500	29.9	0.1	0.1	0.1	0.1	1.5	1.6
0515	29.1	0.1	0.1	0.1	0.1	1.5	1.6
0530	29.0	0.1	0.1	0.1	0.1	1.5	1.6
0545	29.5	0.1	0.1	0.1	0.1	1.5	1.6
0600	29.3	0.1	0.1	0.1	0.1	1.5	1.6
0615	29.7	0.1	0.1	0.1	0.1	1.5	1.6
0630	29.0	0.1	0.1	0.1	0.1	1.5	1.6
0645	28.7	0.1	0.1	0.1	0.1	1.5	1.6
0700	28.6	0.1	0.1	0.1	0.1	1.5	1.6
0715	29.6	0.1	0.1	0.1	0.1	1.5	1.6
0730	29.1	0.1	0.1	0.1	0.1	1.5	1.6
0745	28.9	0.1	0.1	0.1	0.1	1.5	1.6
0800	28.4	0.1	0.1	0.1	0.1	1.5	1.6
0815	29.9	0.1	0.1	0.1	0.1	1.5	1.6
0830	28.8	0.1	0.1	200.0	0.1	1.5	1.6
0845	29.7	0.1	0.1	0.6	0.1	1.5	1.6
0900	29.2	0.1	0.1	0.1	0.1	1.5	1.6
0915	29.1	0.1	0.1	0.1	0.1	1.5	1.6
0930	29.3	0.1	0.1	0.1	0.1	1.5	1.6
0945	29.3	0.1	0.1	0.1	0.1	1.5	1.6
1000	29.5	0.1	0.1	0.1	0.1	1.5	1.6
1015	30.0	0.1	0.1	0.1	0.1	1.5	1.6
1030	28.3	0.1	0.1	0.1	0.1	1.5	1.6
1045	29.2	0.1	0.1	0.1	0.1	1.4	1.6
1100	29.8	0.1	0.1	0.1	0.1	1.5	1.6
1115	29.4	0.1	0.1	0.1	0.1	1.5	1.6
1130	29.6	0.1	0.1	0.1	0.1	1.5	1.6
1145	29.2	0.1	0.1	0.1	0.1	1.5	1.6
1200	29.7	0.1	0.1	0.1	0.1	1.5	1.6
1215	29.2	0.1	0.1	0.1	0.1	1.5	1.6
1230	28.8	0.1	0.1	0.1	0.1	1.5	1.6
1245	27.4	0.1	0.1	0.1	0.1	1.4	1.6
1300	29.0	0.1	0.1	0.1	0.1	1.5	1.6
1315	29.9	0.1	0.1	0.1	0.1	1.5	1.6
1330	28.7	0.1	0.1	0.1	0.1	1.5	1.6
1345	29.2	0.1	0.1	0.1	0.1	1.5	1.6
1400	28.6	0.1	0.1	0.1	0.1	1.5	1.6
1415	30.1	0.1	0.1	0.1	0.1	1.4	1.6
1430	29.2	0.1	0.1	0.1	0.1	1.5	1.6
1445	29.5	0.1	0.1	0.1	0.1	1.5	1.6

# RM-A2 GAS



# RM-A12

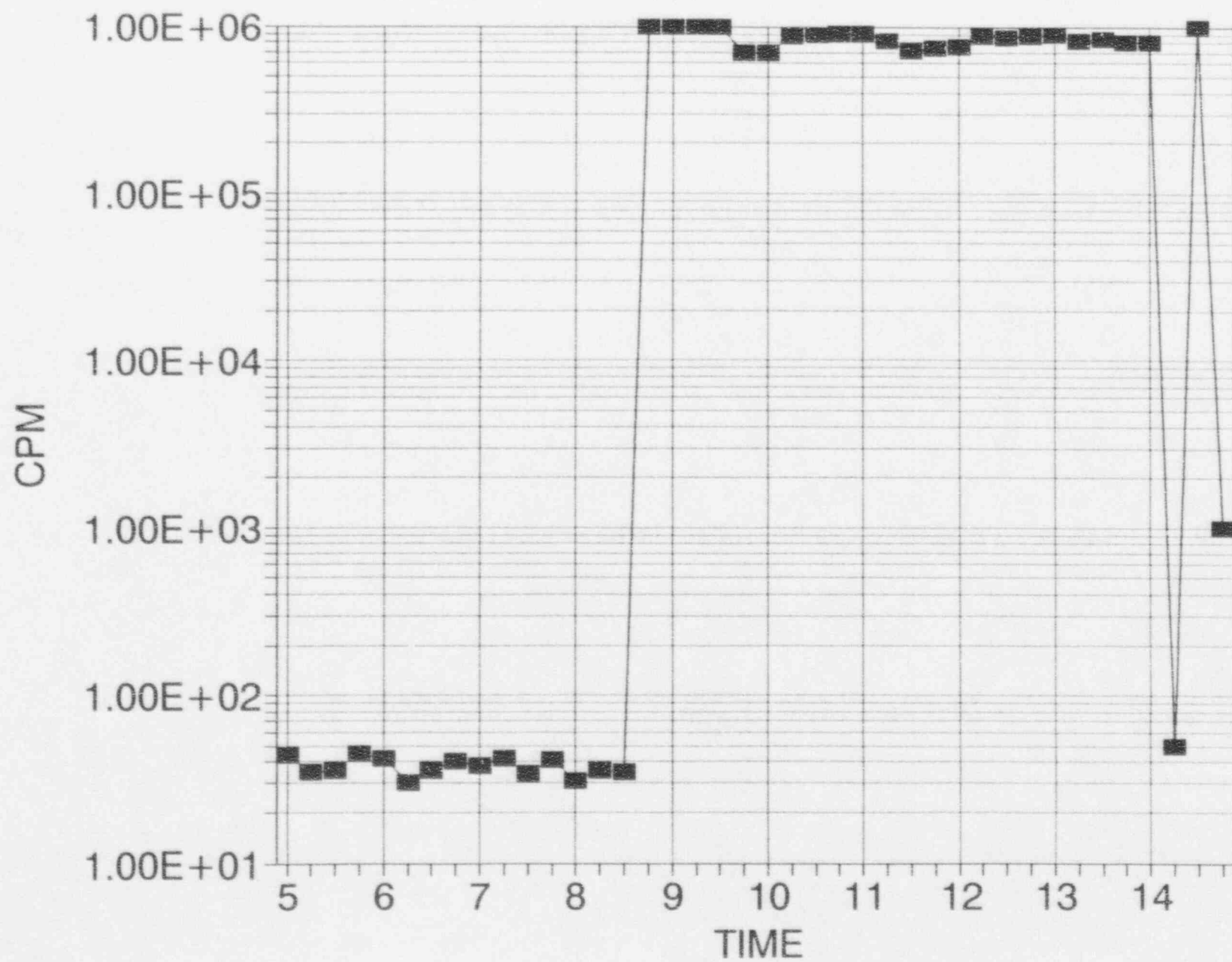




Table 12.2

## Radiation Monitoring Systems

<u>Monitor Designation</u>	<u>Description</u>	<u>Range of Sensitivity</u>	<u>Detector Type</u>	<u>Type Radiation</u>
RM-G1	Control Room	.1 - $1 \times 10^4$ mr/hr	G.M.	Gamma
RM-G2	Radiochemistry Laboratory	.1 - $1 \times 10^4$ mr/hr	G.M.	Gamma
RM-G3	Sample Room	.1 - $1 \times 10^4$ mr/hr	G.M.	Gamma
RM-G4	Entrance Corridor	.1 - $1 \times 10^4$ mr/hr	G.M.	Gamma
RM-G5	Waste Gas Decay Tank Area	.1 - $1 \times 10^4$ mr/hr	G.M.	Gamma
RM-G6	Makeup Tank Area	.1 - $1 \times 10^4$ mr/hr	G.M.	Gamma
RM-G7	Reactor Coolant Bleed Tank Elev. 95'	.1 - $1 \times 10^4$ mr/hr	G.M.	Gamma
RM-G8	Reactor Coolant Bleed Tank Elev. 115'	.1 - $1 \times 10^4$ mr/hr	G.M.	Gamma
RM-G9	Personnel Access Hatch	.1 - $1 \times 10^4$ mr/hr	G.M.	Gamma
RM-G10	Makeup Pump Area	.1 - $1 \times 10^4$ mr/hr	G.M.	Gamma
RM-G11	Deborating - Demineralizer Area	.1 - $1 \times 10^4$ mr/hr	G.M.	Gamma
RM-G12	Spent Resin Storage Tank Area	.1 - $1 \times 10^4$ mr/hr	G.M.	Gamma
RM-G13	Decontamination Pit Area	.1 - $1 \times 10^4$ mr/hr	G.M.	Gamma
RM-G14	Fuel Storage Pool Area	.1 - $1 \times 10^4$ mr/hr	G.M.	Gamma
RM-G15	Auxiliary Building Fuel Handling Bridge	.1 - $1 \times 10^4$ mr/hr	G.M.	Gamma
RM-G16	Reactor Building Fuel Handling Bridge	.1 - $1 \times 10^4$ mr/hr	G.M.	Gamma
RM-G17	Reactor Building, Near Personnel Access Hatch	.1 - $1 \times 10^4$ mr/hr	G.M.	Gamma
RM-G18	Reactor Building, In-Core Instrument Area	.1 - $1 \times 10^4$ mr/hr	G.M.	Gamma
RM-G25	Steam Line Monitors (119' Inter. Bldg.)	.1 - $1 \times 10^7$ mr/hr	Ion Chamber	Gamma
RM-G26	Steam Line Monitors (119' Inter. Bldg.)	.1 - $1 \times 10^7$ mr/hr	Ion Chamber	Gamma
RM-G27	Steam Line Monitors (119' Inter. Bldg.)	.1 - $1 \times 10^7$ mr/hr	Ion Chamber	Gamma

Table 12.2 (Continued)

## Radiation Monitoring Systems

Monitor Designation	Description	Range of Sensitivity	Detector Type	Type Radiation
RM-G28	Steam Line Monitor (119' Inter. Bldg.)	.1 - $1 \times 10^7$ mr/hr	Ion Chamber	Gamma
RM-G29	Reactor Building, Elev. 180'	$10^0$ - $10^8$ R/hr	Ion Chamber	Gamma
RM-G30	Reactor Building, Elev. 180'	$10^0$ - $10^8$ R/hr	Ion Chamber	Gamma
RM-A1	Reactor Building Purge Duct	$10^{-11}$ - $10^{-7}$ Ci/cc	Scintillation	P-Cs <sup>137</sup> , Beta-G
		$10^{-11}$ - $10^{-7}$ Ci/cc	Scintillation	I-I <sup>131</sup> Gamma
		$10^{-6}$ - $10^{-2}$ Ci/cc	G.M.	G-Kr <sup>85</sup> , Beta-G
		(Mid Range) $10^{-2}$ - $10^3$ mr/hr	Ion Chamber	Gamma
		(High Range) $10^{-1}$ - $10^7$ mr/hr	Ion Chamber	Gamma
RM-A2	Auxiliary and Fuel Handling Building Exhaust Duct	$10^{-11}$ - $10^{-7}$ Ci/cc	Scintillation	P-Cs <sup>137</sup> , Beta-G
		$10^{-11}$ - $10^{-7}$ Ci/cc	Scintillation	I-I <sup>131</sup> Gamma
		$10^{-6}$ - $10^{-2}$ Ci/cc	G.M.	G-Kr <sup>85</sup> , Beta-G
		(Mid Range) $10^{-2}$ - $10^3$ mr/hr	Ion Chamber	Gamma
		(High Range) $10^{-1}$ - $10^7$ mr/hr	Ion Chamber	Gamma
RM-A3	Auxiliary Building Exhaust Duct	$10^{-6}$ - $10^{-2}$ Ci/cc	G.M.	G-Kr <sup>85</sup> , Beta-G
RM-A4	Fuel Handling and Spent Fuel Exhaust Duct	$10^{-6}$ - $10^{-2}$ Ci/cc	G.M.	G-Kr <sup>85</sup> , Beta-G
RM-A5	Control Complex Return Duct	$10^{-6}$ - $10^{-2}$ Ci/cc	G.M.	G-Kr <sup>85</sup> , Beta-G
		$10^{-11}$ - $10^{-7}$ Ci/cc	Scintillation	I-I <sup>131</sup> , Gamma
RM-A6	Reactor Building Air Sample Line	$10^{-6}$ - $10^{-2}$ Ci/cc	G.M.	G-Kr <sup>85</sup> , Beta-G
		$10^{-11}$ - $10^{-7}$ Ci/cc	Scintillation	I-I <sup>131</sup> Gamma
RM-A7	Nuclear Sample Room	$10^{-6}$ - $10^{-2}$ Ci/cc	G.M.	G-Kr <sup>85</sup> , Beta-G
RM-A8	Auxiliary Building Exhaust Duct	$10^{-6}$ - $10^{-2}$ Ci/cc	G.M.	G-Kr <sup>85</sup> , Beta-G

P = Particulate

I = Iodine

G = Gaseous

Table 12.2 (Continued)

## Radiation Monitoring Systems

<u>Monitor Designation</u>	<u>Description</u>	<u>Range of Sensitivity</u>	<u>Detector Type</u>	<u>Type Radiation</u>
RM-A9	Not Assigned			
RM-A10	Not Assigned			
RM-A11	Waste Gas Decay Tank	$10^{-6}$ - $10^{-2}$ Ci/cc	G.M.	G-Kr <sup>85</sup> , Beta-G
RM-A12	Condenser Vacuum Pump Exhaust	$10^{-6}$ - $10^{-2}$ Ci/cc	G.M.	G-Kr <sup>85</sup> , Beta-G
RM-A13	Gas Sampling Station	$10^{-6}$ - $10^{-2}$ Ci/cc	G.M.	G-Kr <sup>85</sup> , Beta-G
RM-L1	Primary Coolant Letdown	$10^{-5}$ - $10^{-1}$ Ci/cc	Scintillation	I-I <sup>131</sup> Gamma
RM-L2	Plant Discharge Line	$10^{-6}$ - $10^{-2}$ Ci/cc	Scintillation	Co <sup>60</sup> , Gamma
RM-L3	Nuclear Services Closed Cycle Cooling Water	$10^{-6}$ - $10^{-2}$ Ci/cc	Scintillation	Co <sup>60</sup> , Gamma
RM-L4	Spent Fuel Cooling Water	$10^{-6}$ - $10^{-2}$ Ci/cc	Scintillation	Co <sup>60</sup> , Gamma
RM-L5	Decay Heat Closed Cycle Cooling Water, I	$10^{-6}$ - $10^{-2}$ Ci/cc	Scintillation	Co <sup>60</sup> , Gamma
RM-L6	Decay Heat Closed Cycle Cooling Water, II	$10^{-6}$ - $10^{-2}$ Ci/cc	Scintillation	Co <sup>60</sup> , Gamma
RM-L7	Turbine Building Basement	$10^{-6}$ - $10^{-2}$ Ci/cc	Scintillation	Co <sup>60</sup> , Gamma

P = Particulate

I = Iodine

G = Gaseous

## 1992 EXERCISE IN-PLANT DATA

### TURBINE BUILDING

The elevation maps show the whole body dose rates in the turbine building at various times and locations during the exercise.

Dose rates are due to shine from iodine and other isotopes accumulating in the condensate demineralizers.

The demins are located in the northwest corner of the 95' elevation.

Both particulate and iodine air activities are at background levels.

Smearable activity is at background levels.

### 119' INTERMEDIATE BUILDING

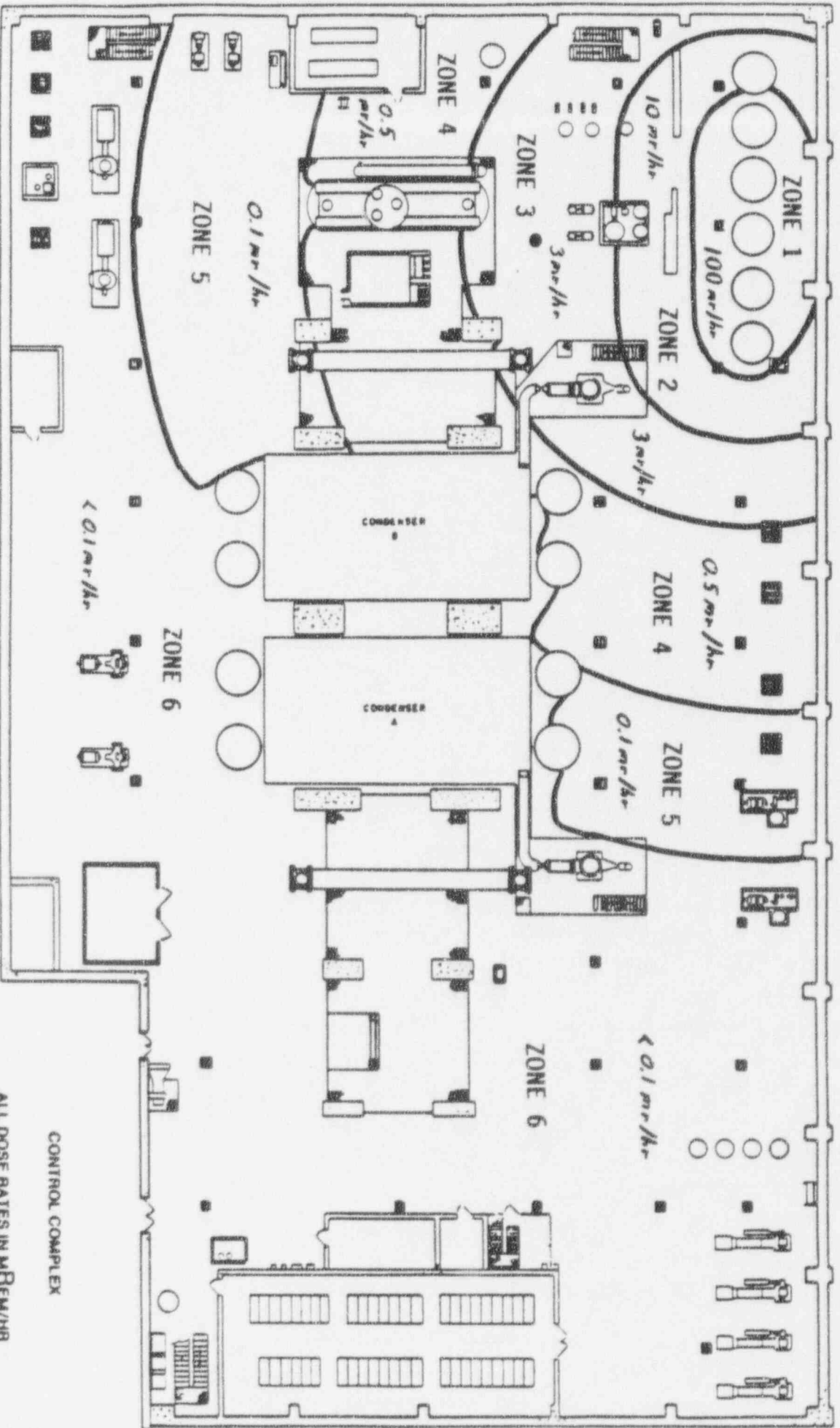
General area dose rate near MSV-33 and associated steamlines is 0.5 mR/hr.

Contact dose rate on the safety valve and the steamlines is 6 mR/hr.



95' EL TURBINE BLDG

Time 0830



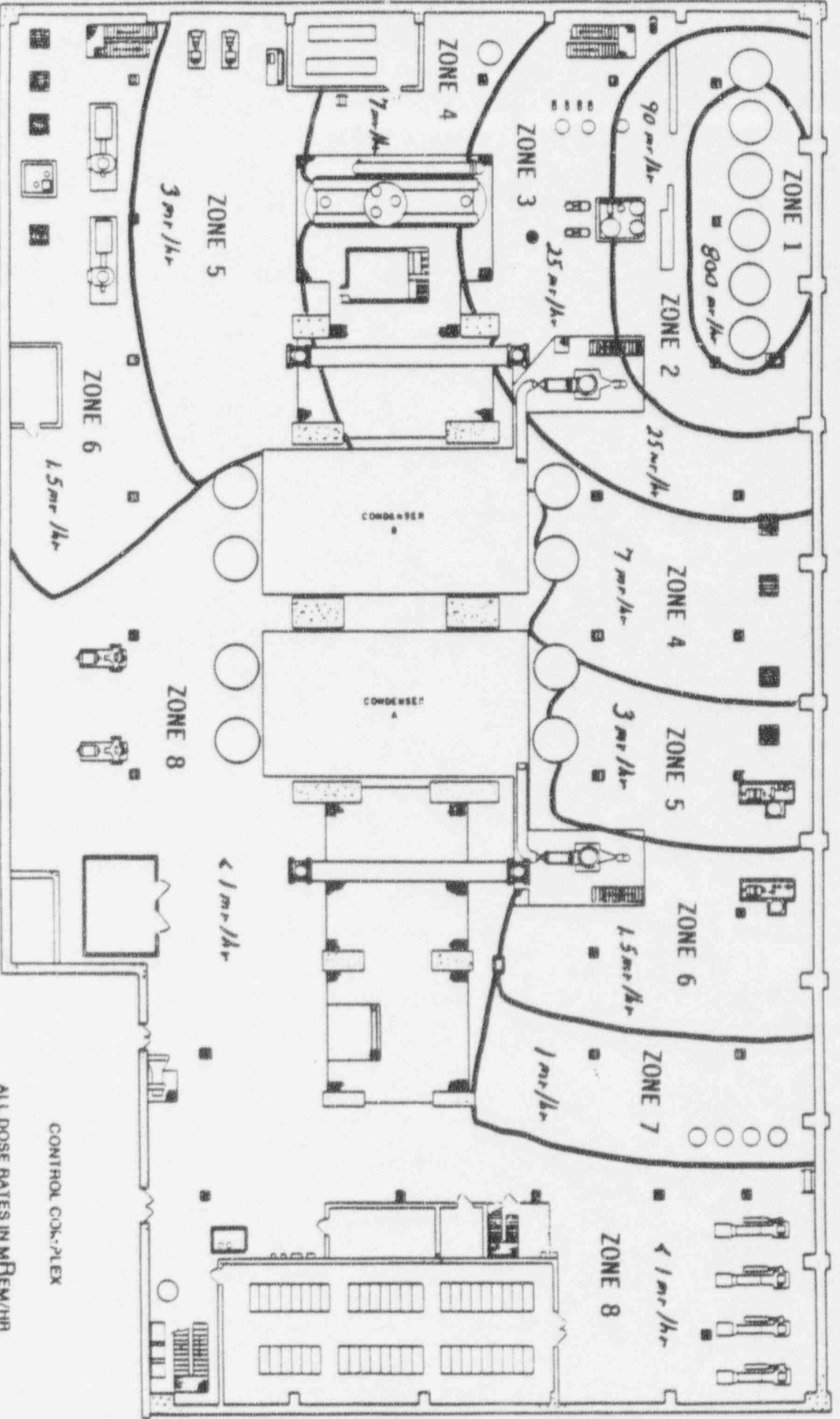
CONTROL COMPLEX

ALL DOSE RATES IN MREM/HR  
UNLESS OTHERWISE NOTED  
NO BETA RADIATION DETECTED  
UNLESS OTHERWISE NOTED  
\* DENOTES CONTACT AREA



95' EL. TURBINE BLDG

Time 09 00



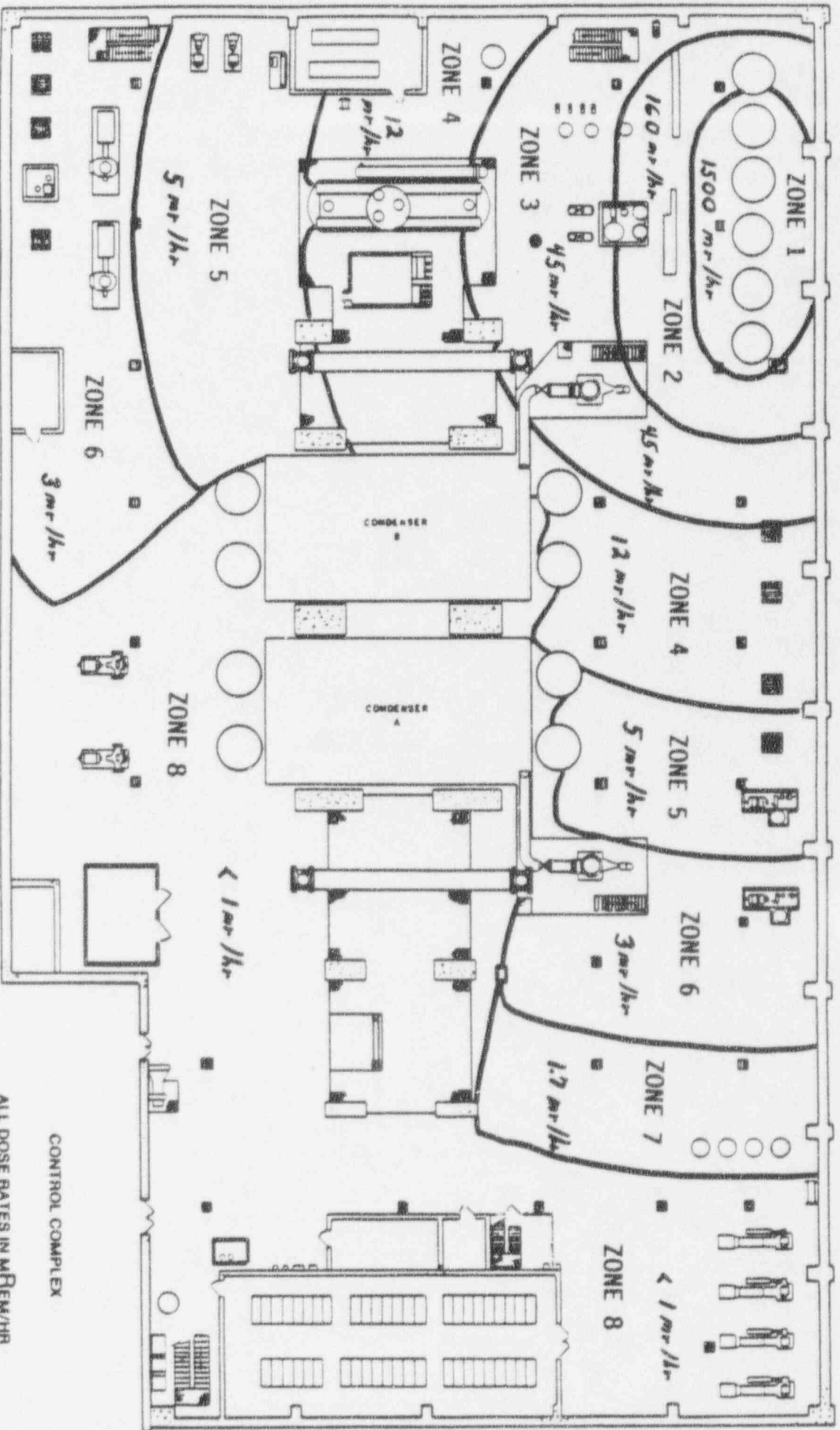
CONTROL COMPLEX

ALL DOSE RATES IN mR/hr  
UNLESS OTHERWISE NOTED  
NO BETA RADIATION DETECTED  
UNLESS OTHERWISE NOTED  
\* DENOTES CONTACT READING



95' EL TURBINE BLDG

Time 09 30



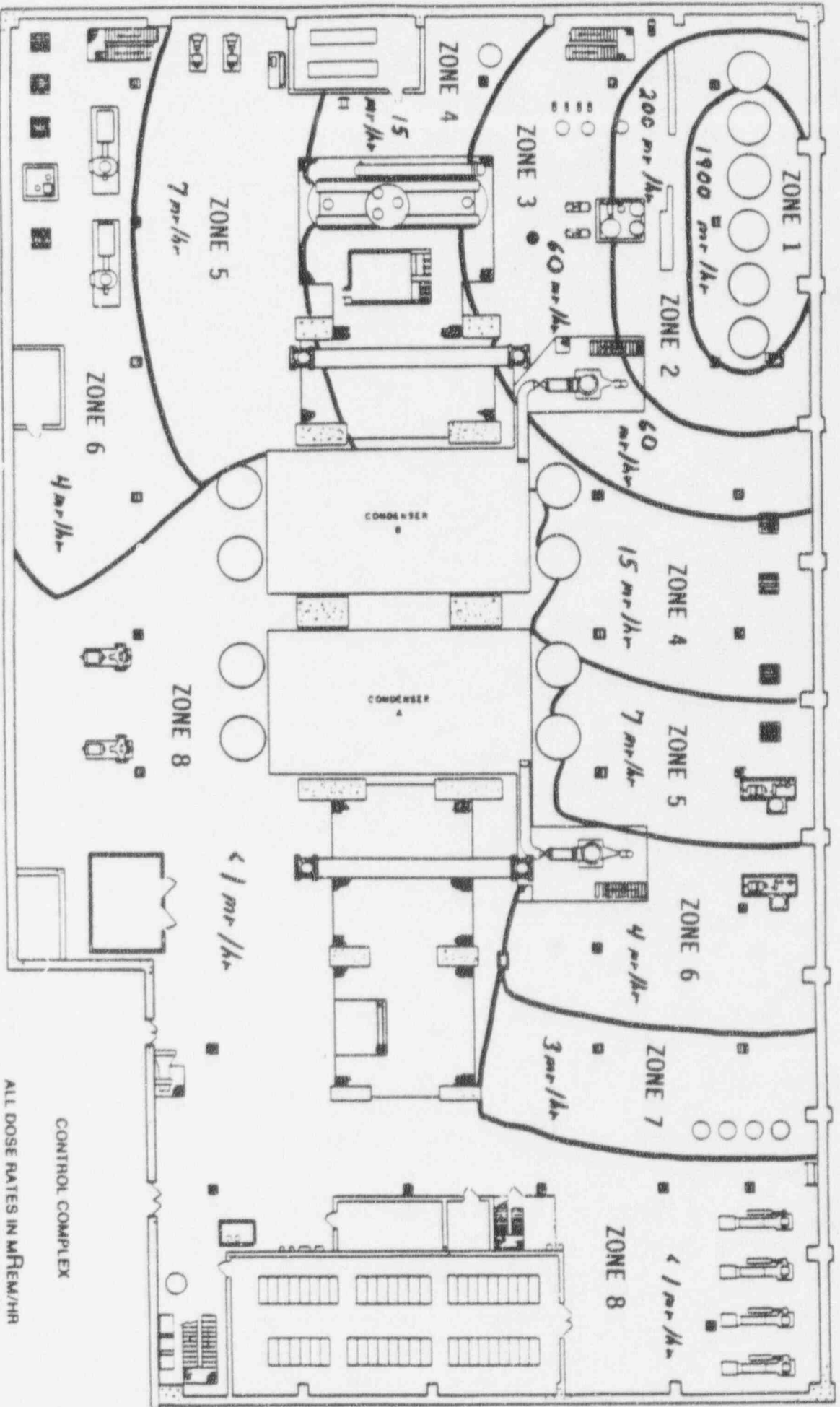
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UNLESS OTHERWISE NOTED  
NO BETA RADIATION DETECTED  
UNLESS OTHERWISE NOTED  
\* DENOTES CONTACT READING





95' EL. TURBINE BLDG

Time 10 00



ALL DOSE RATES IN mREM/HR  
UNLESS OTHERWISE NOTED  
NO BETA RADIATION DETECTED  
UNLESS OTHERWISE NOTED  
\* DENOTES CONTACT READING

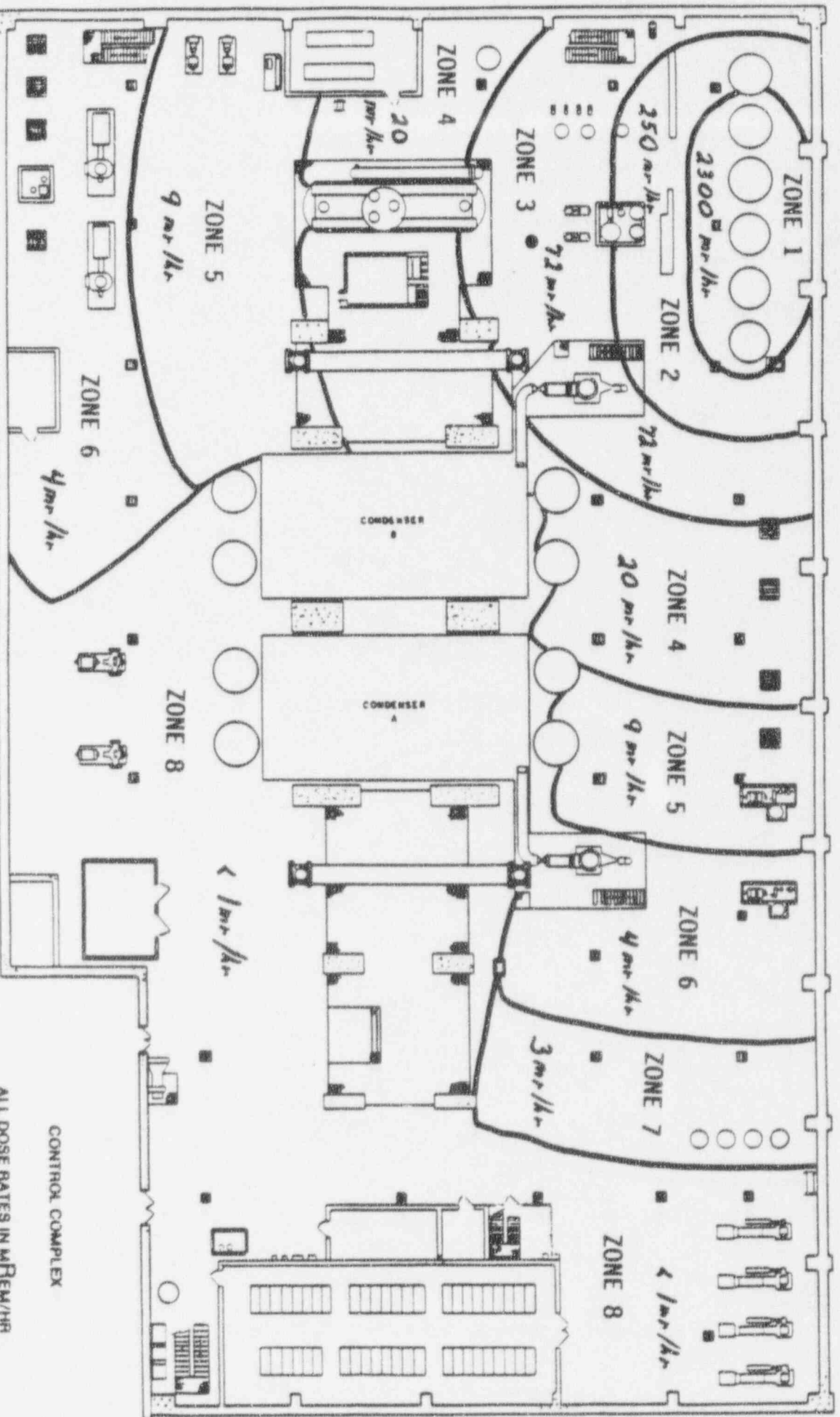
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95' EL TURBINE BLDG

Time 10 30



CONTROL COMPLEX

ALL DOSE RATES IN mREM/HR  
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NO BETA RADIATION DETECTED  
UNLESS OTHERWISE NOTED  
\* DENOTES CONTACT READING



Time 11:00

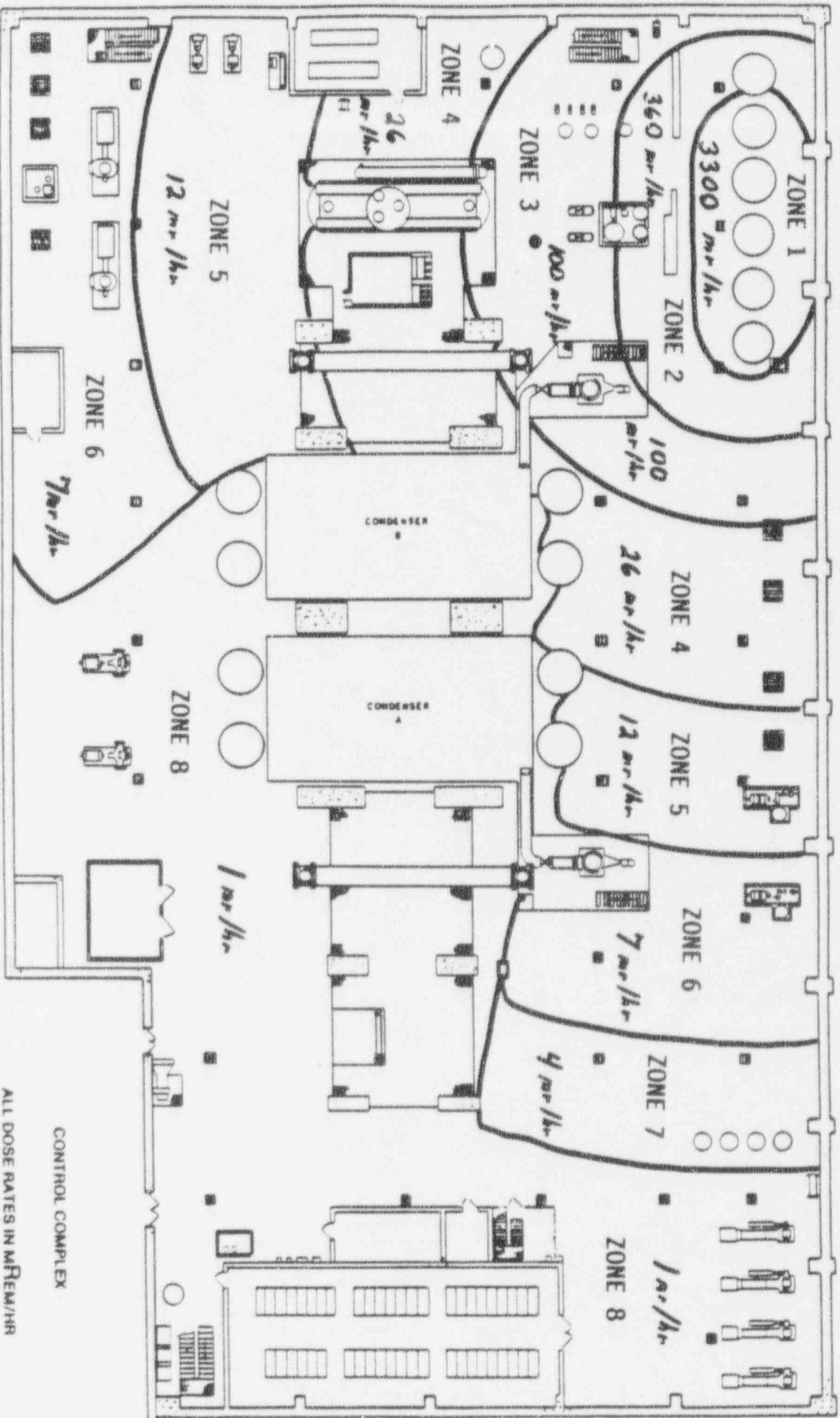


ALL DOSE RATES IN  $\text{mR}/\text{hr}$   
UNLESS OTHERWISE NOTED  
NO BETA RADIATION DETECTED  
UNLESS OTHERWISE NOTED  
\* DENOTES CONTACT READING



95' EL. TURBINE BLDG

Time 11 30



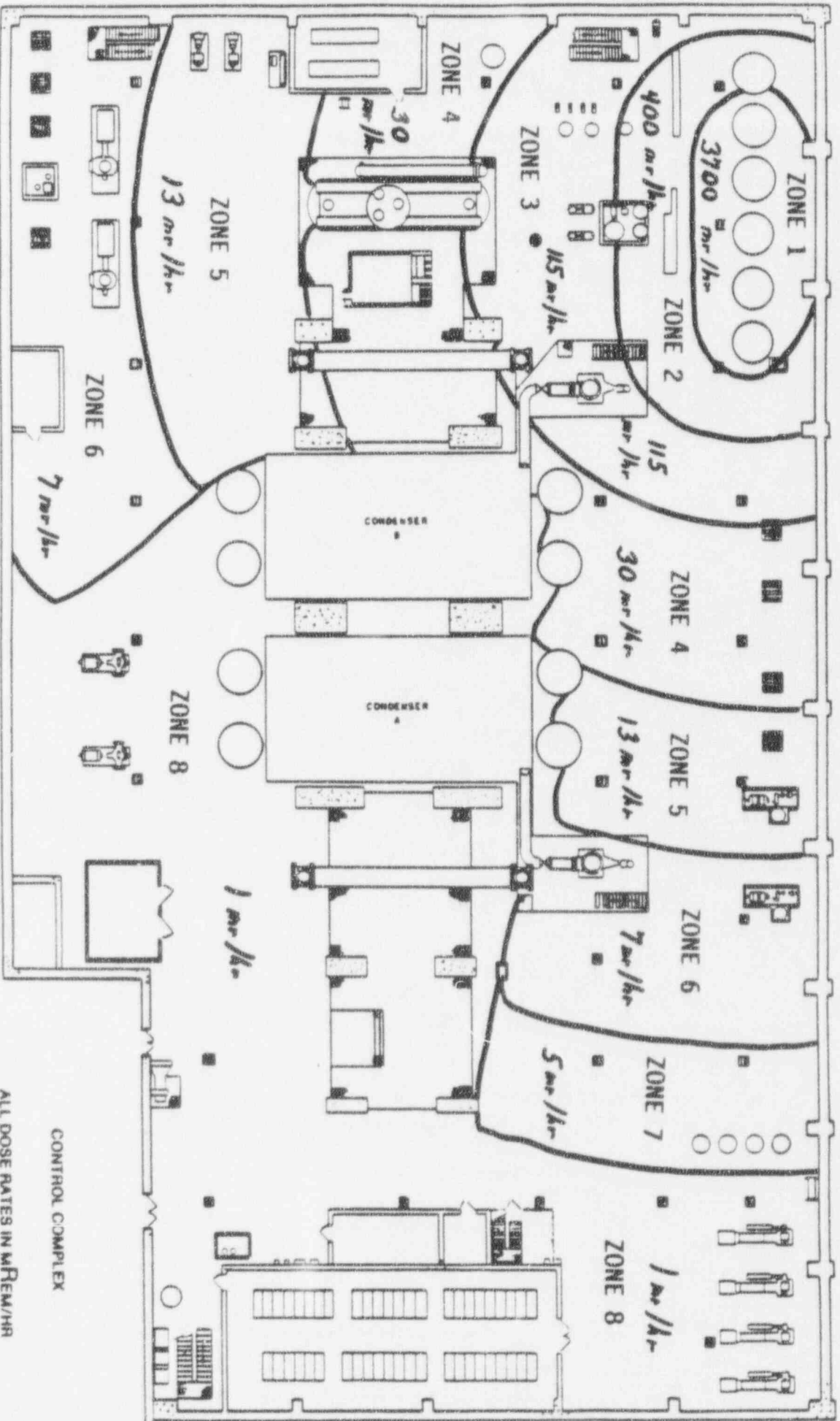
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NO BETA RADIATION DETECTED  
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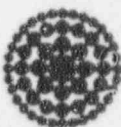


95' EL TURBINE BLDG

TIME 12 00



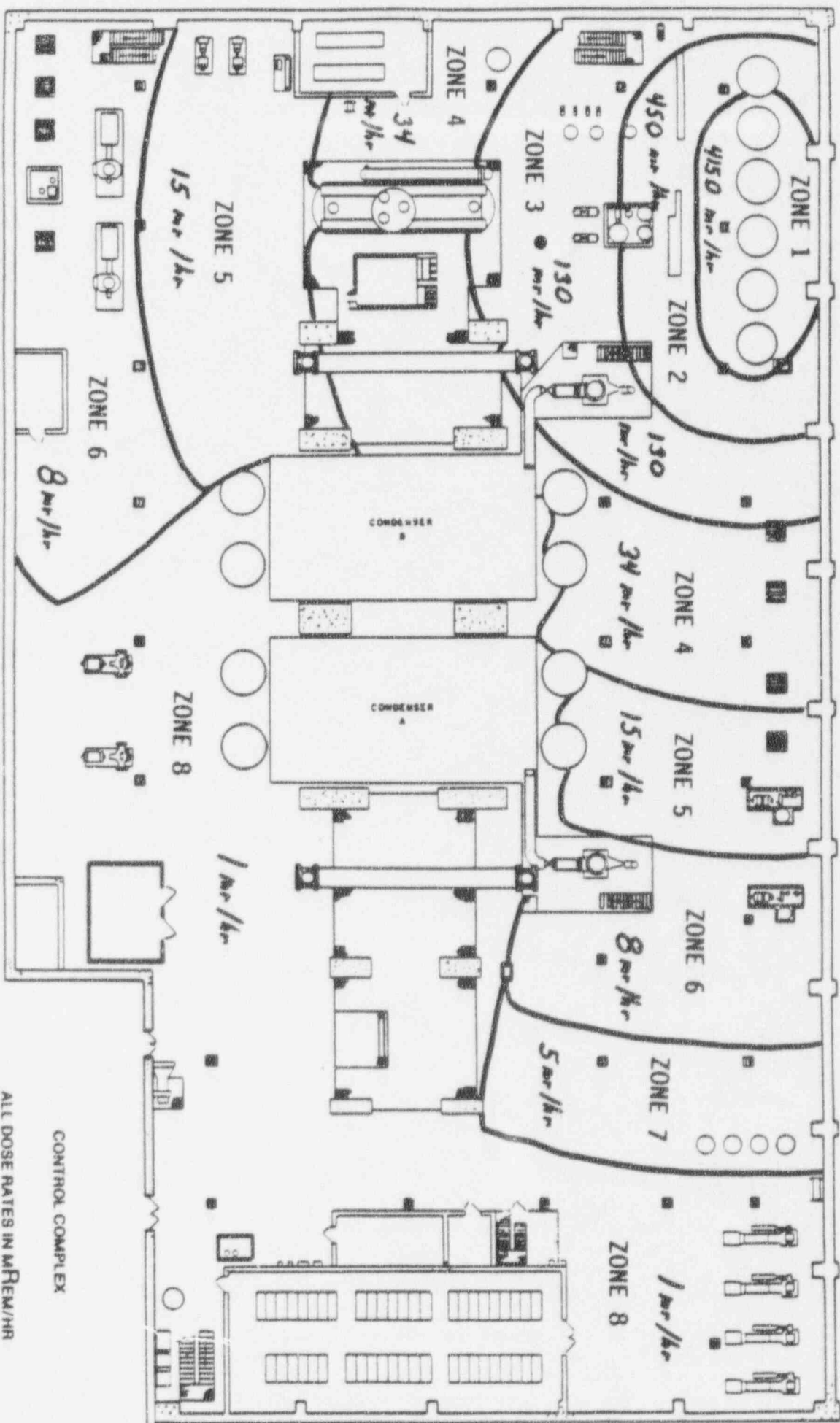
ALL DOSE RATES IN mREM/HR  
UNLESS OTHERWISE NOTED  
NO BETA RADIATION DETECTED  
UNLESS OTHERWISE NOTED  
\* DENOTES CONTACT READING



Florida  
Power  
CORPORATION

95' EL. TURBINE BLDG

Time 12 30



CONTROL COMPLEX

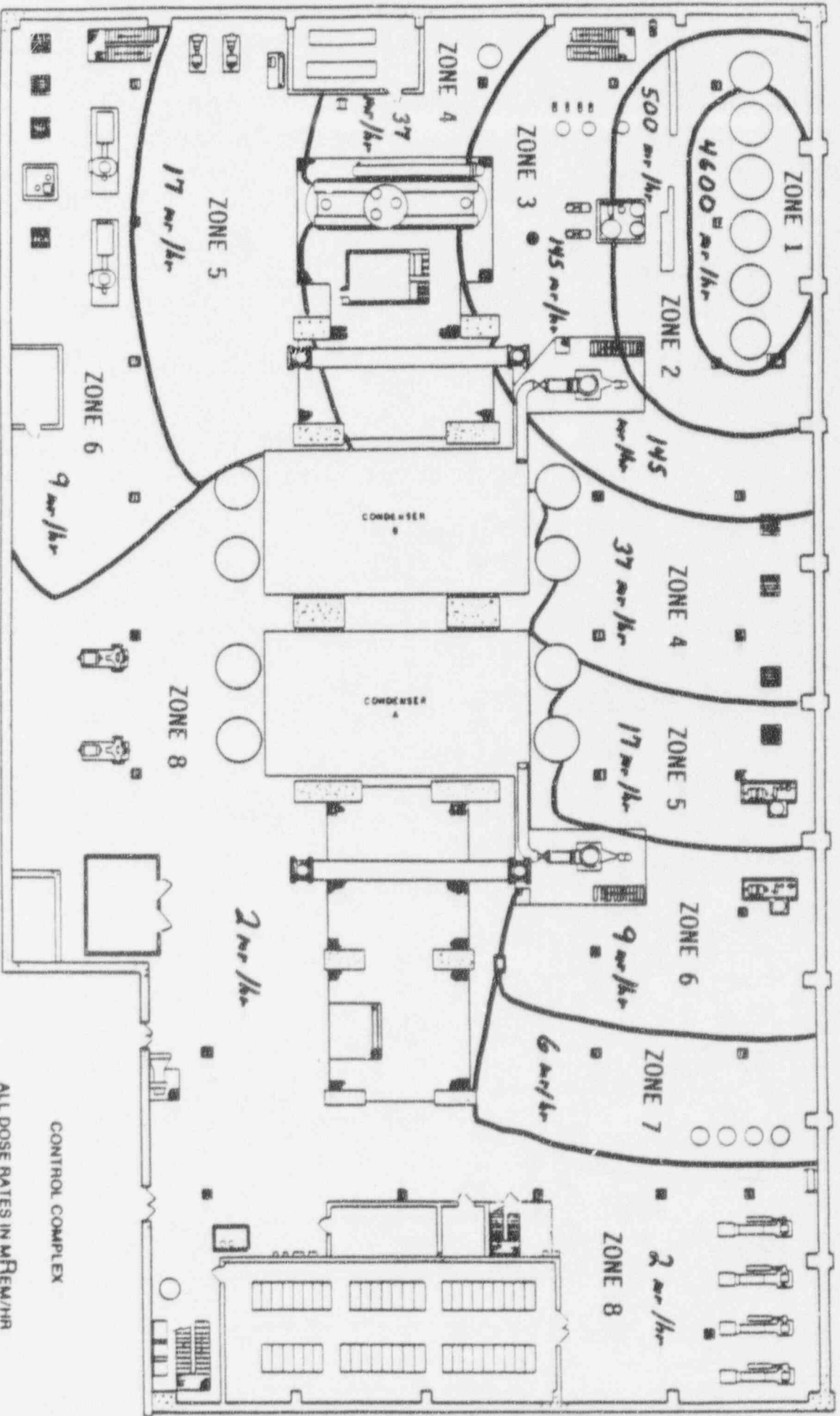
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UNLESS OTHERWISE NOTED  
\* DENOTES CONTACT READING





95' EL. TURBINE BLDG

Time 1300



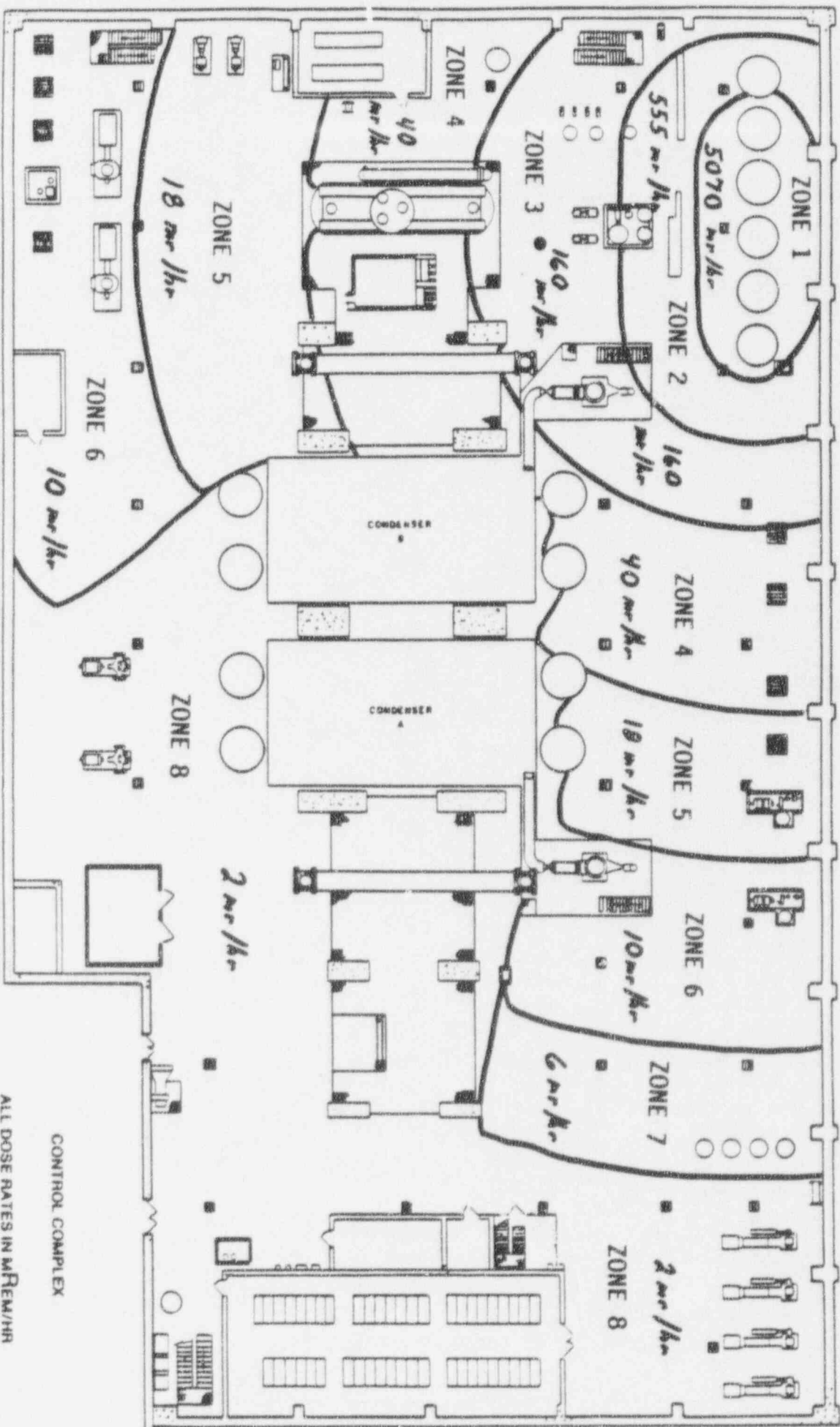
CONTROL COMPLEX

ALL DOSE RATES IN MREM/HR  
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NO BETA RADIATION DETECTED  
UNLESS OTHERWISE NOTED  
\* DENOTES CONTACT READING



95' EL. TURBINE BLDG

Time 13 30



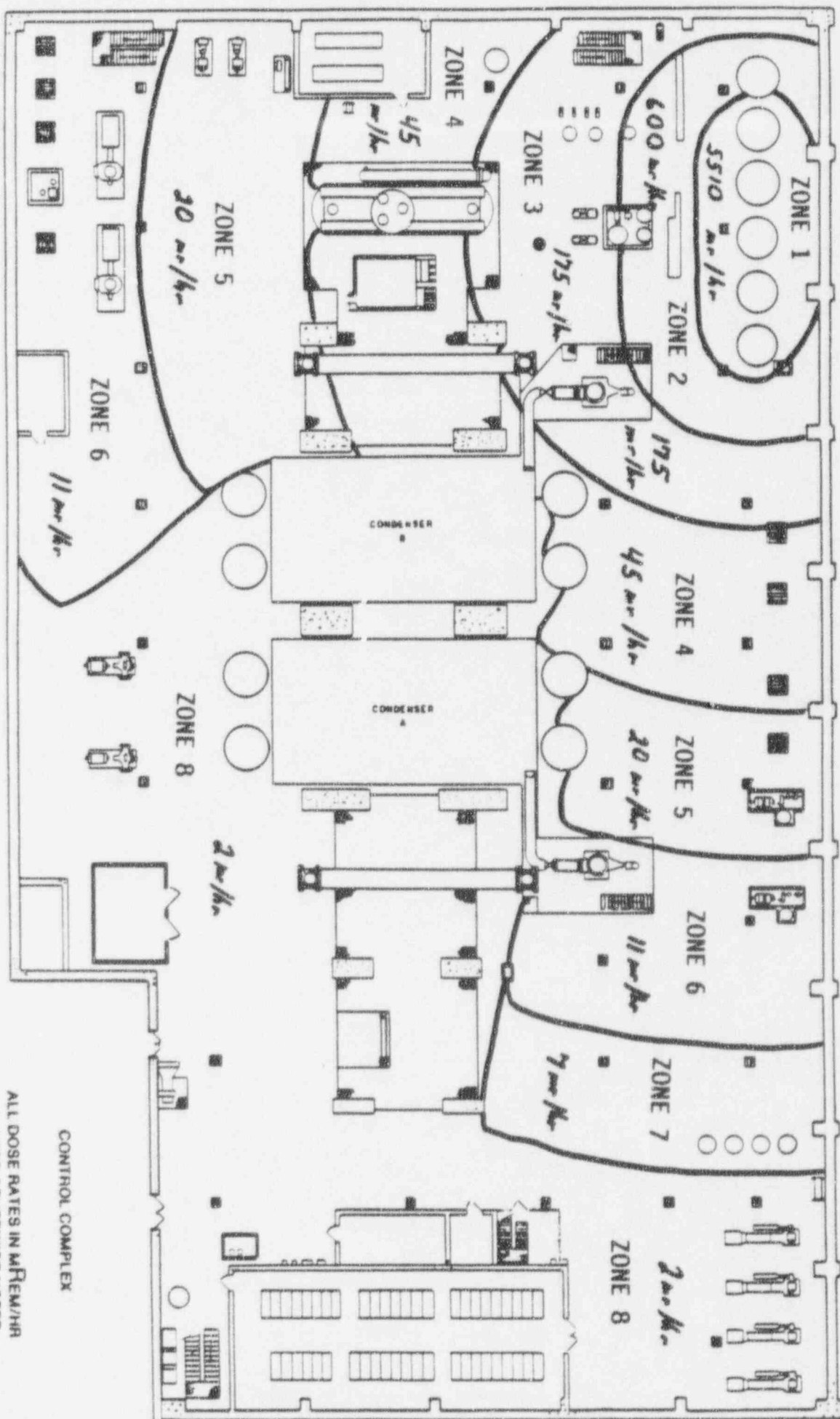
CONTROL COMPLEX

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UNLESS OTHERWISE NOTED  
\* DENOTES CONTACT READING



# 95' EL TURBINE BLDG

14 00



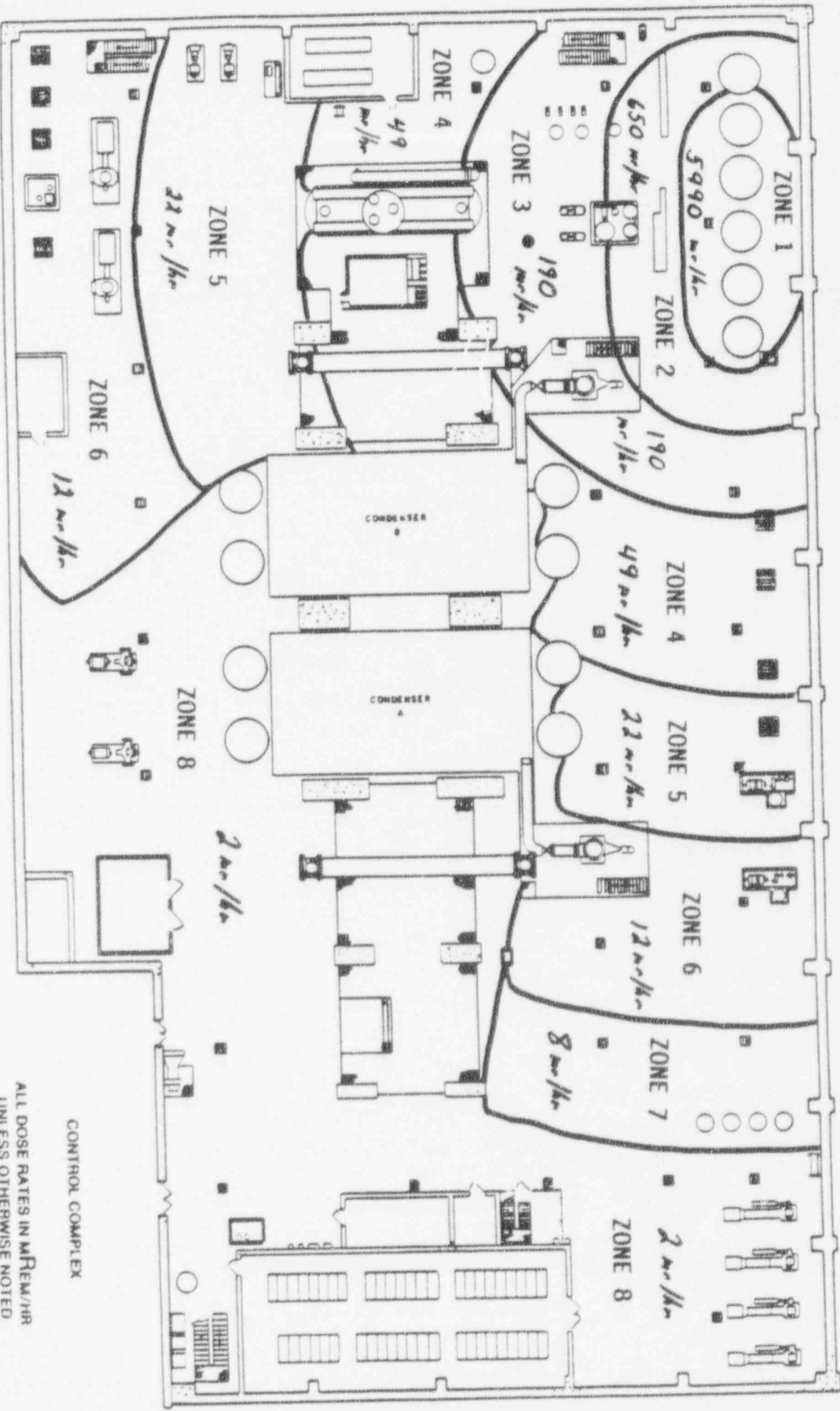
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UNLESS OTHERWISE NOTED  
\* DENOTES CONTACT READING





95' EL. TURBINE BLDG

Time 1430



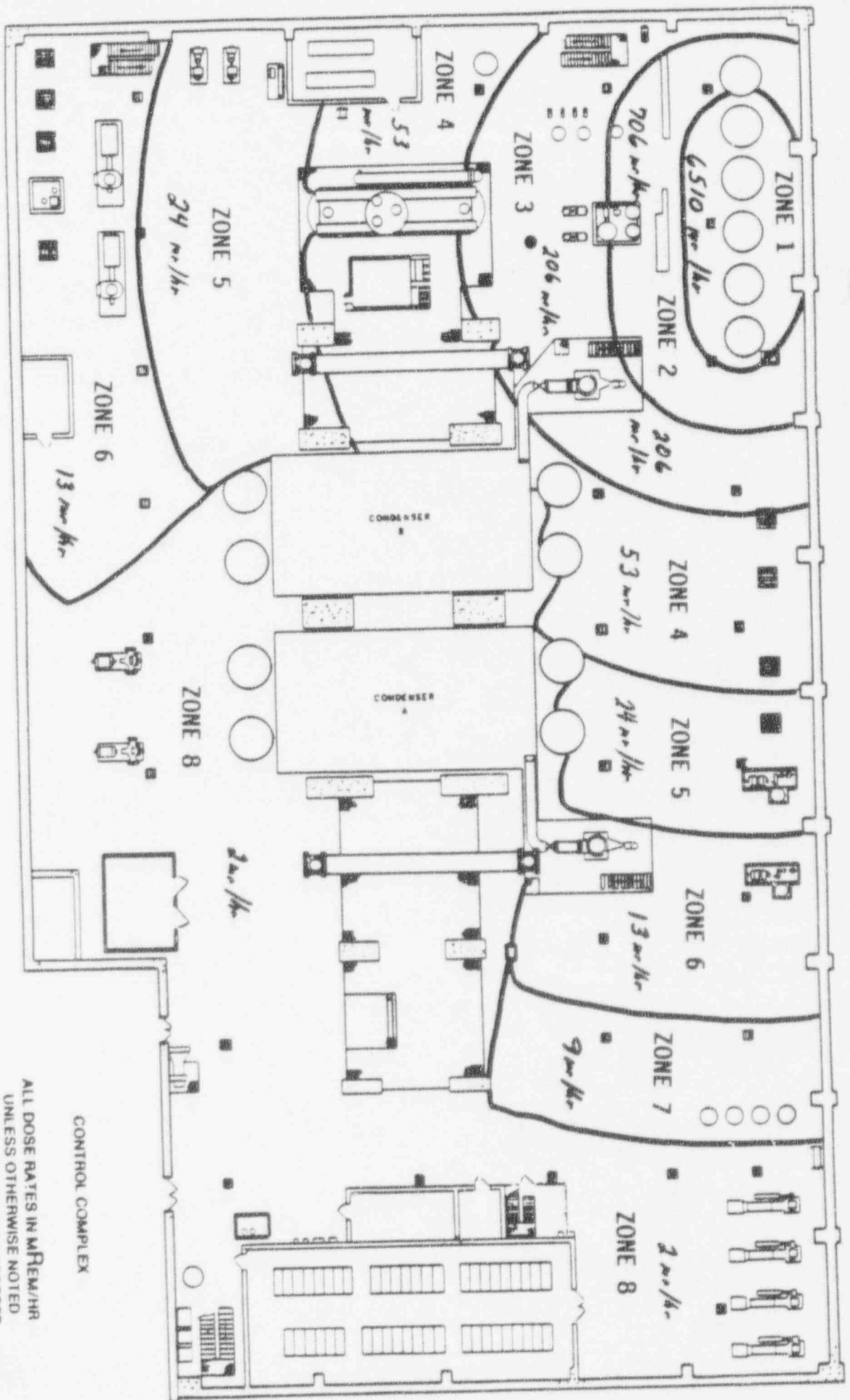
CONTROL COMPLEX

ALL DOSE RATES IN mREM/HR  
UNLESS OTHERWISE NOTED  
NO BETA RADIATION DETECTED  
UNLESS OTHERWISE NOTED  
- DENOTES CONTACT RE -



69' EL. TURBINE BLDG

Time 1500



ALL DOSE RATES IN MREM/HR  
UNLESS OTHERWISE NOTED  
NO BETA RADIATION DETECTED  
UNLESS OTHERWISE NOTED  
\* DENOTES CONTACT RF

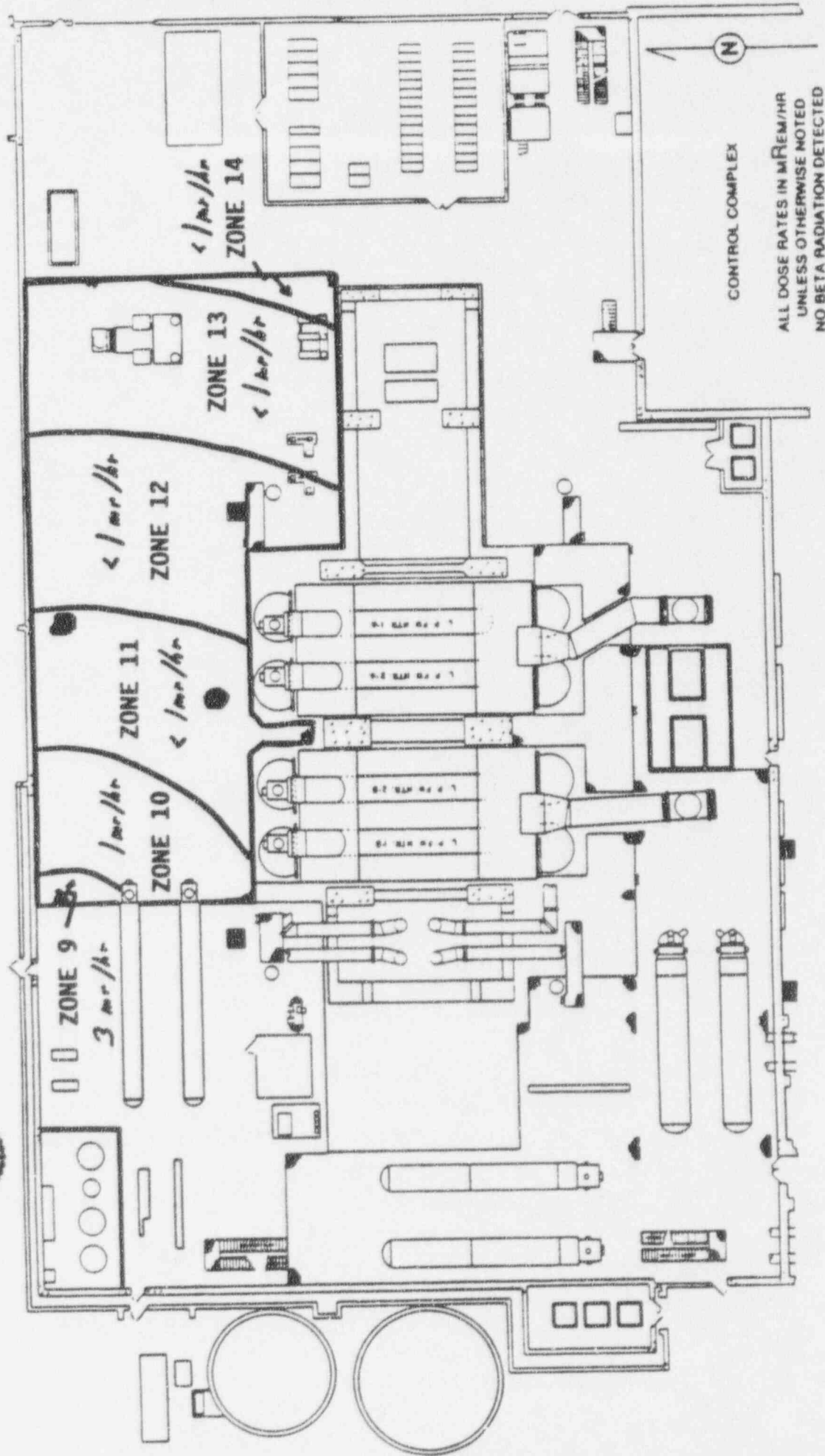
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Y1003 900 S000

SURVEY NO 0830



118' EL. TURBINE BLDG



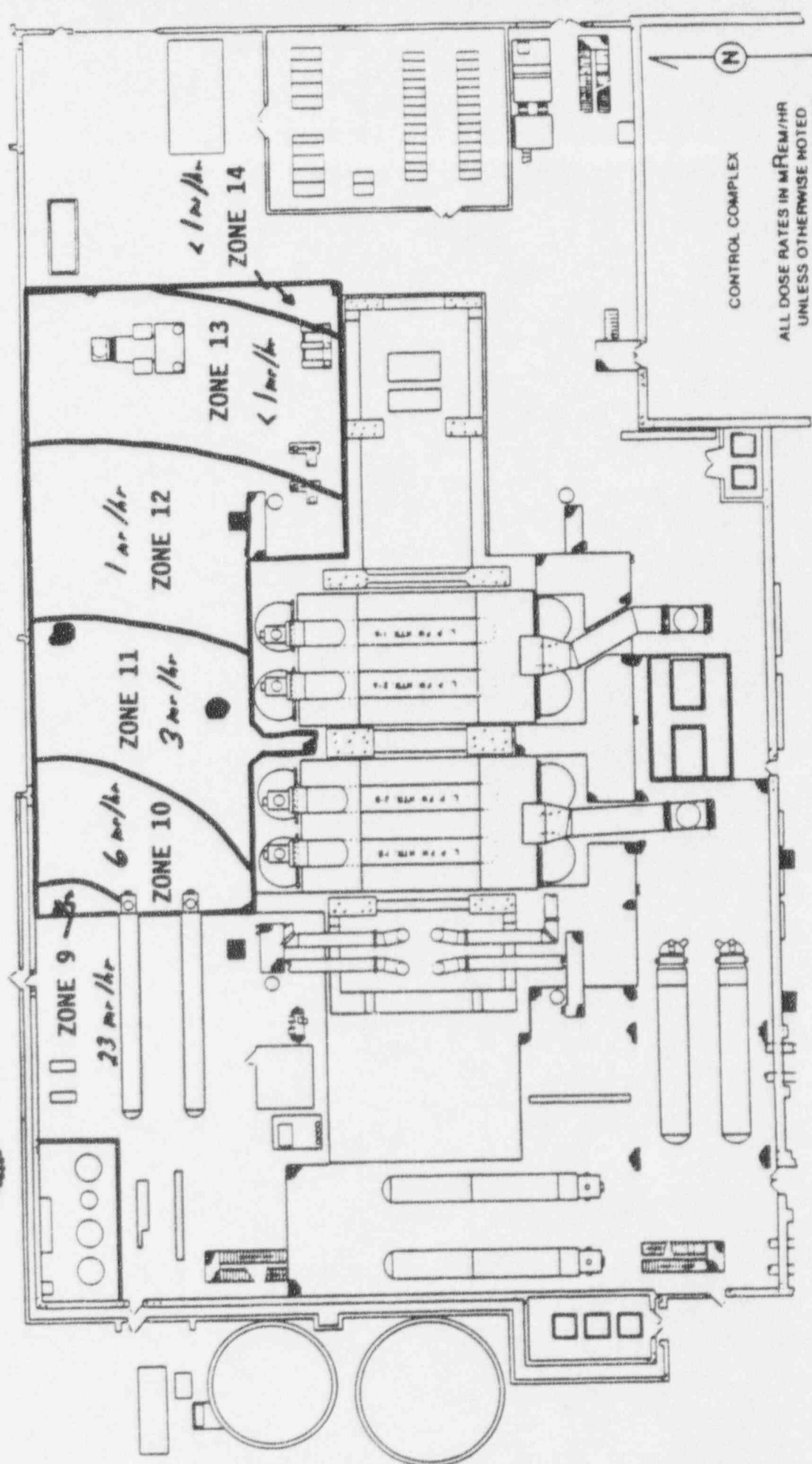
CONTROL COMPLEX

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NET Life of Plant RESP. Health Physics 900 505



118' EL. TURBINE BLDG

SURVEY NO 0900



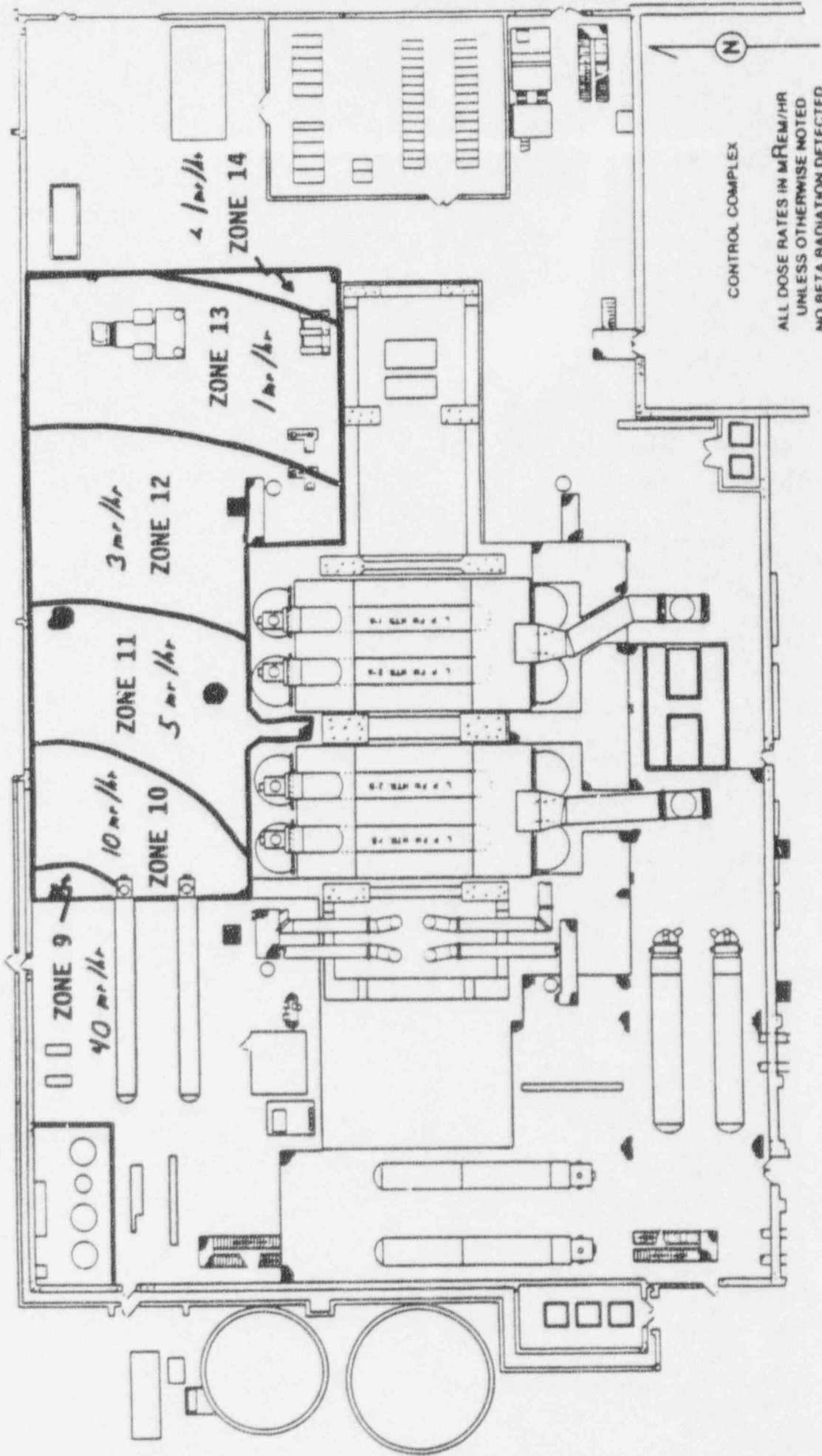
CONTROL COMPLEX

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SURVEY NO 0980



118' EL. TURBINE BLDG

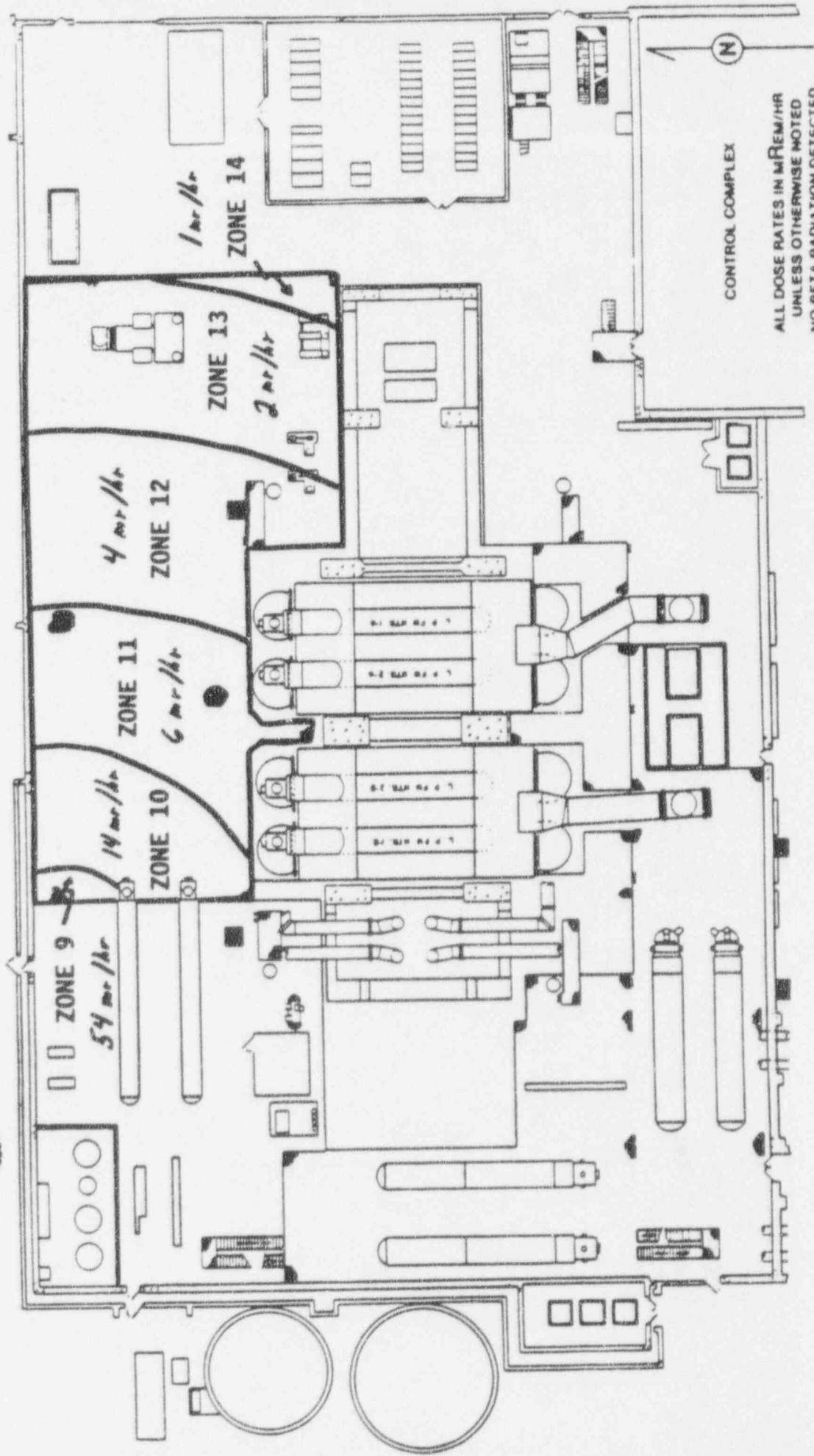


ALL DOSE RATES IN mREM/HR  
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NO BETA RADIATION DETECTED  
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SURVEY NO. 1000



110' EL. TURBINE BLDG



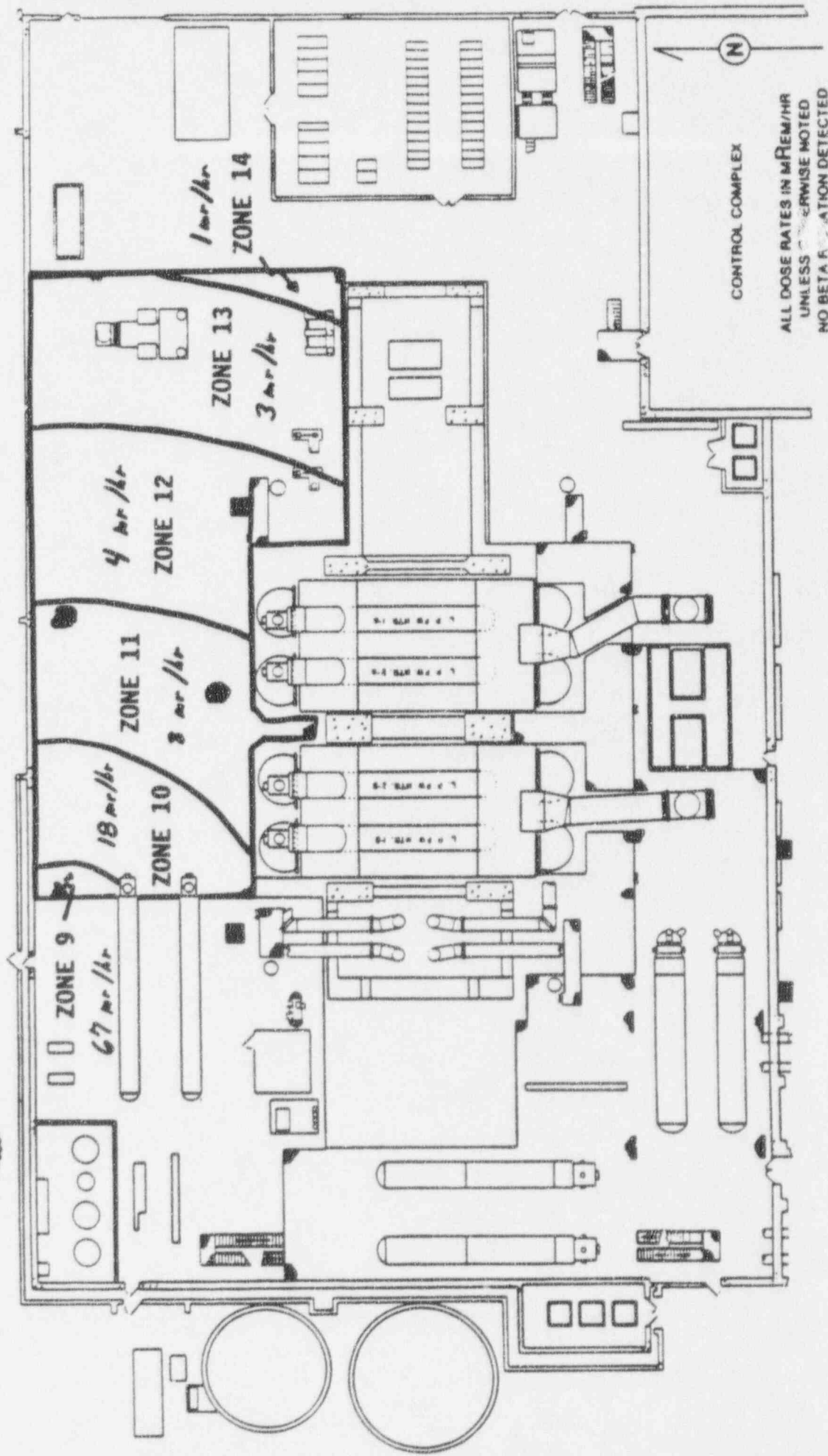
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UNLESS OTHERWISE NOTED  
\* DENOTES CONTACT READING  
NET Life of Plant Resp. Health Phys. 800 505



SURVEY NO. 1030



119' EL. TURBINE BLDG



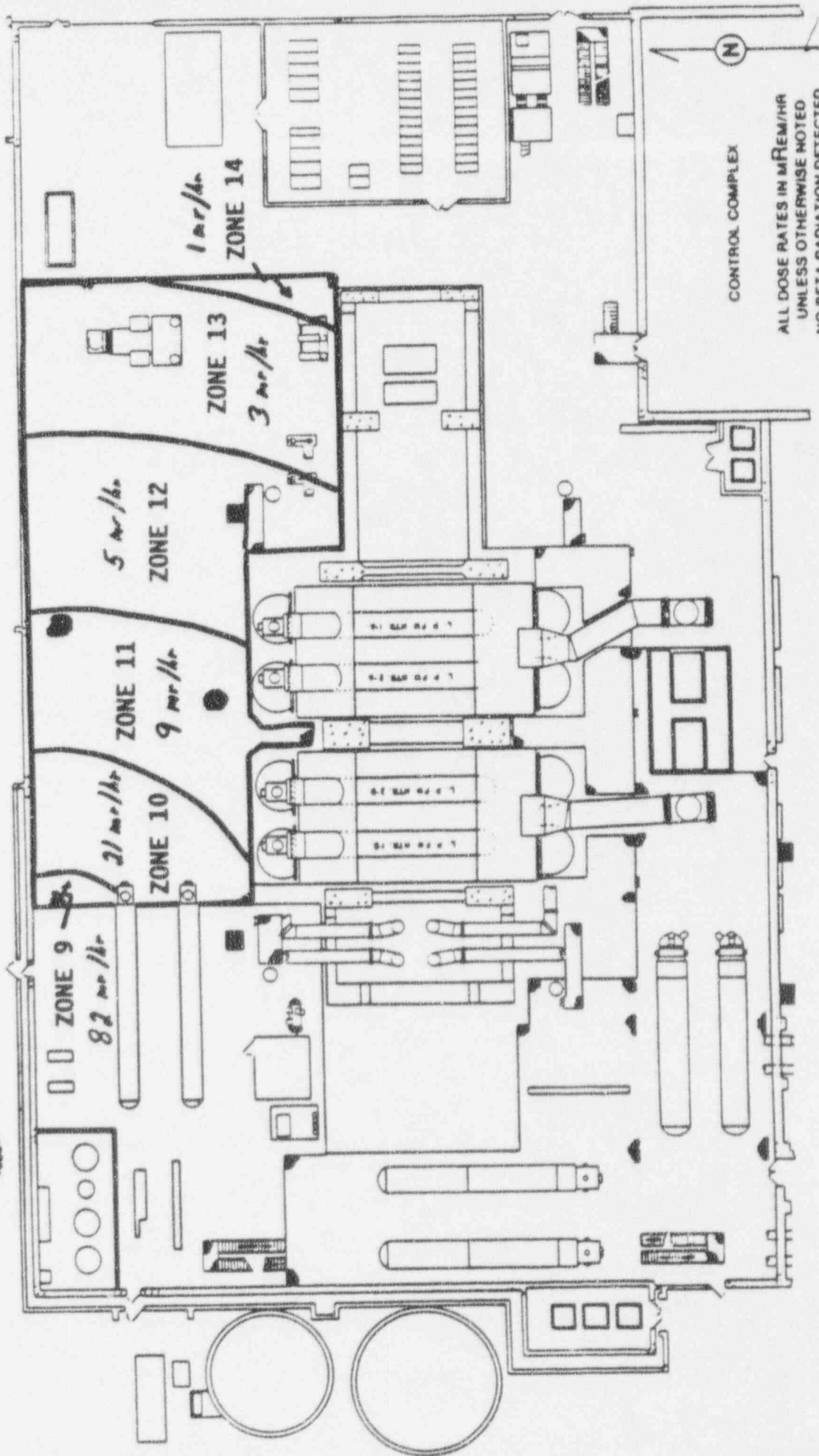
CONTROL COMPLEX

ALL DOSE RATES IN mREM/HR  
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NO BETA RADIATION DETECTED  
UNLESS OTHERWISE NOTED  
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NET Life of Plant RESP. Health Physics 900 505

SURVEY NO 1100



110' EL. TURBINE BLDG



CONTROL COMPLEX

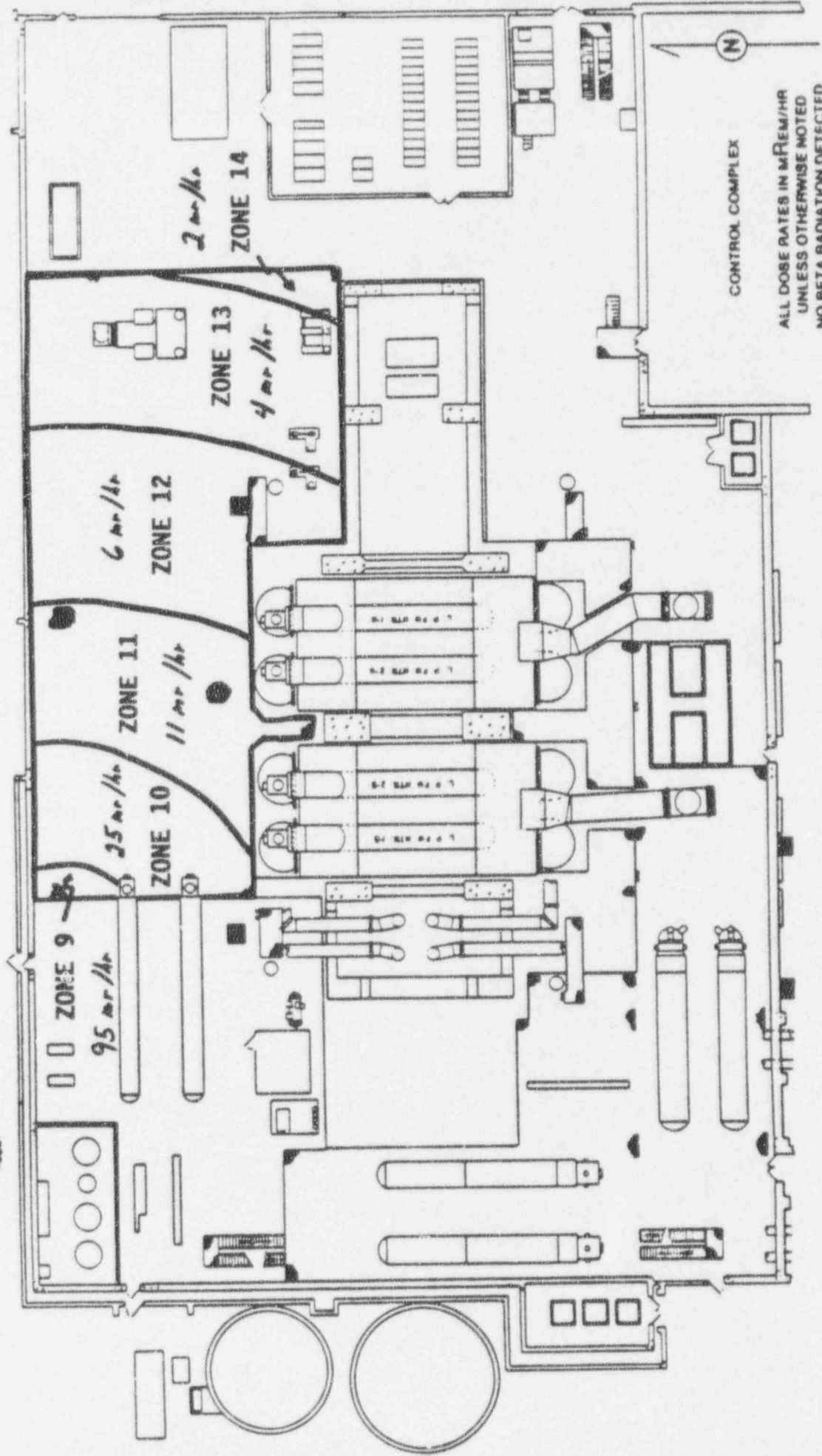
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NET Life of Plant Resp. Health Physics 900 505



SURVEY NO. 1130



118' EL. TURBINE BLDG

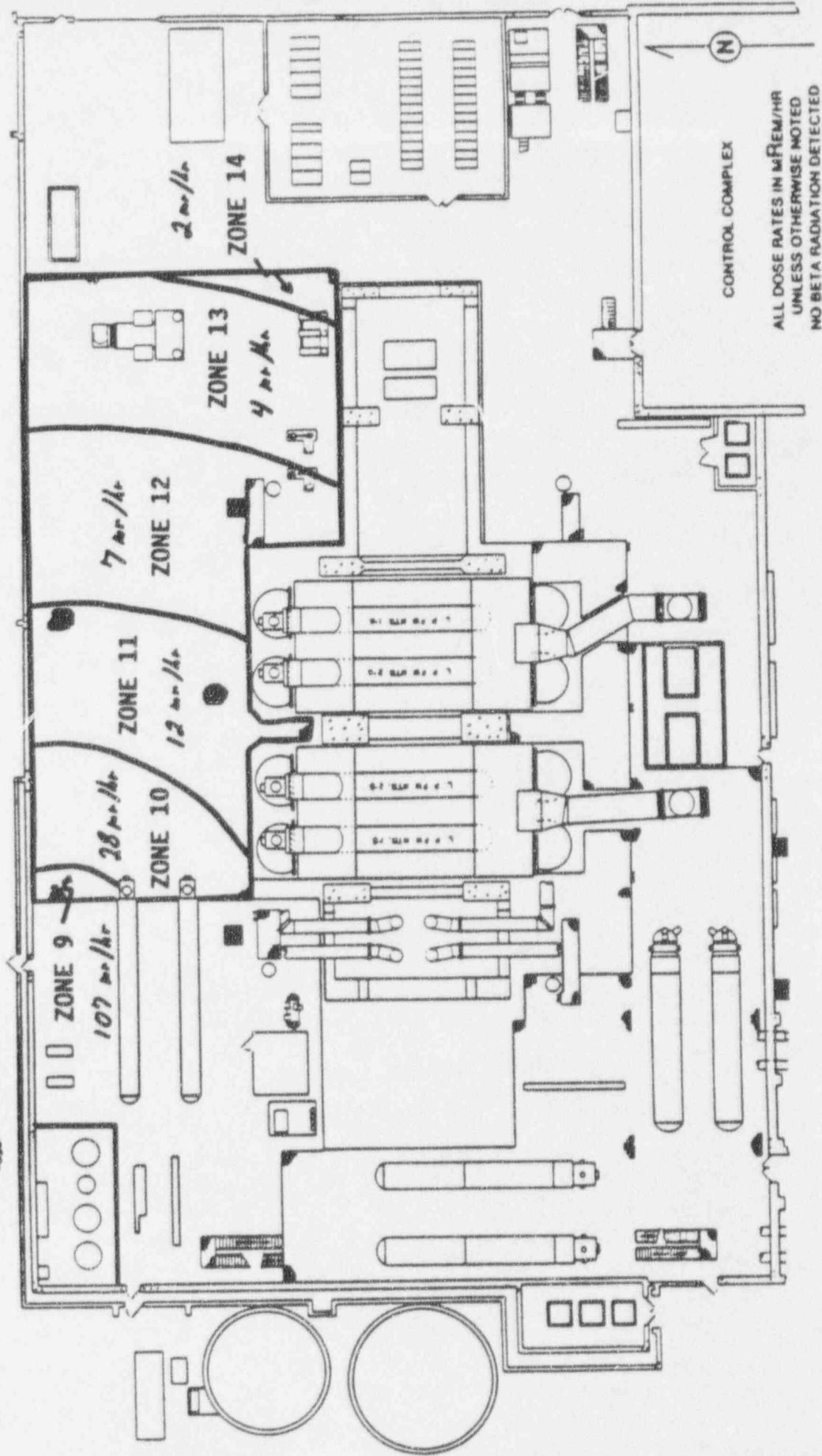


ALL DOSE RATES IN mREM/HR  
UNLESS OTHERWISE NOTED  
NO BETA RADIATION DETECTED  
UNLESS OTHERWISE NOTED  
\* DENOTES CONTACT READING  
REF: Life at Plant 888P Health Physics 800 505

SURVEY NO. 1200



118' EL TURBINE BLDG

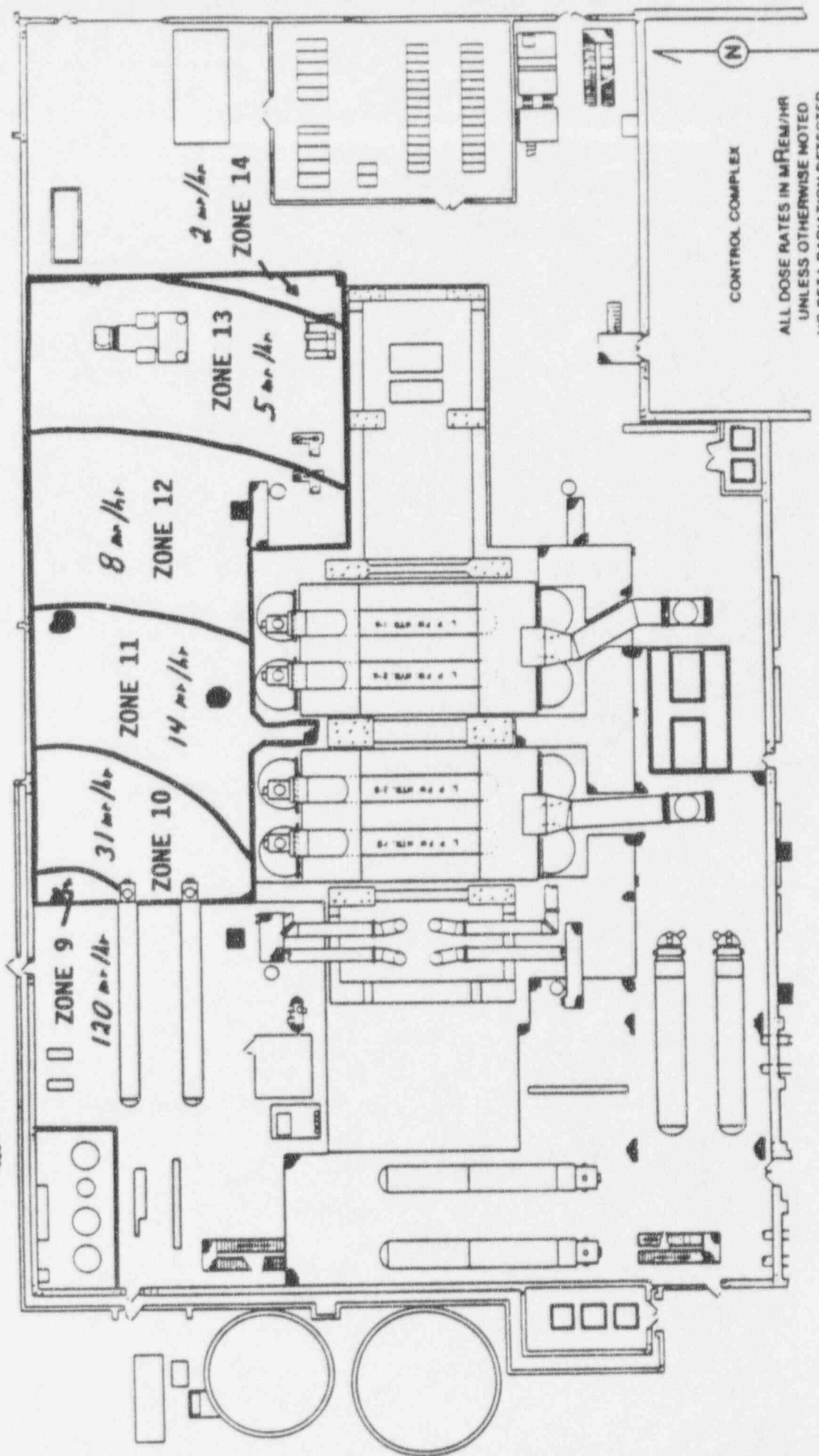


ALL DOSE RATES IN mREM/HR  
UNLESS OTHERWISE NOTED  
NO BETA RADIATION DETECTED  
UNLESS OTHERWISE NOTED  
• DENOTES CONTACT READING  
RET Life of Plant RESP. Health Physics 800 505

SURVEY NO 1230



118' EL. TURBINE BLDG

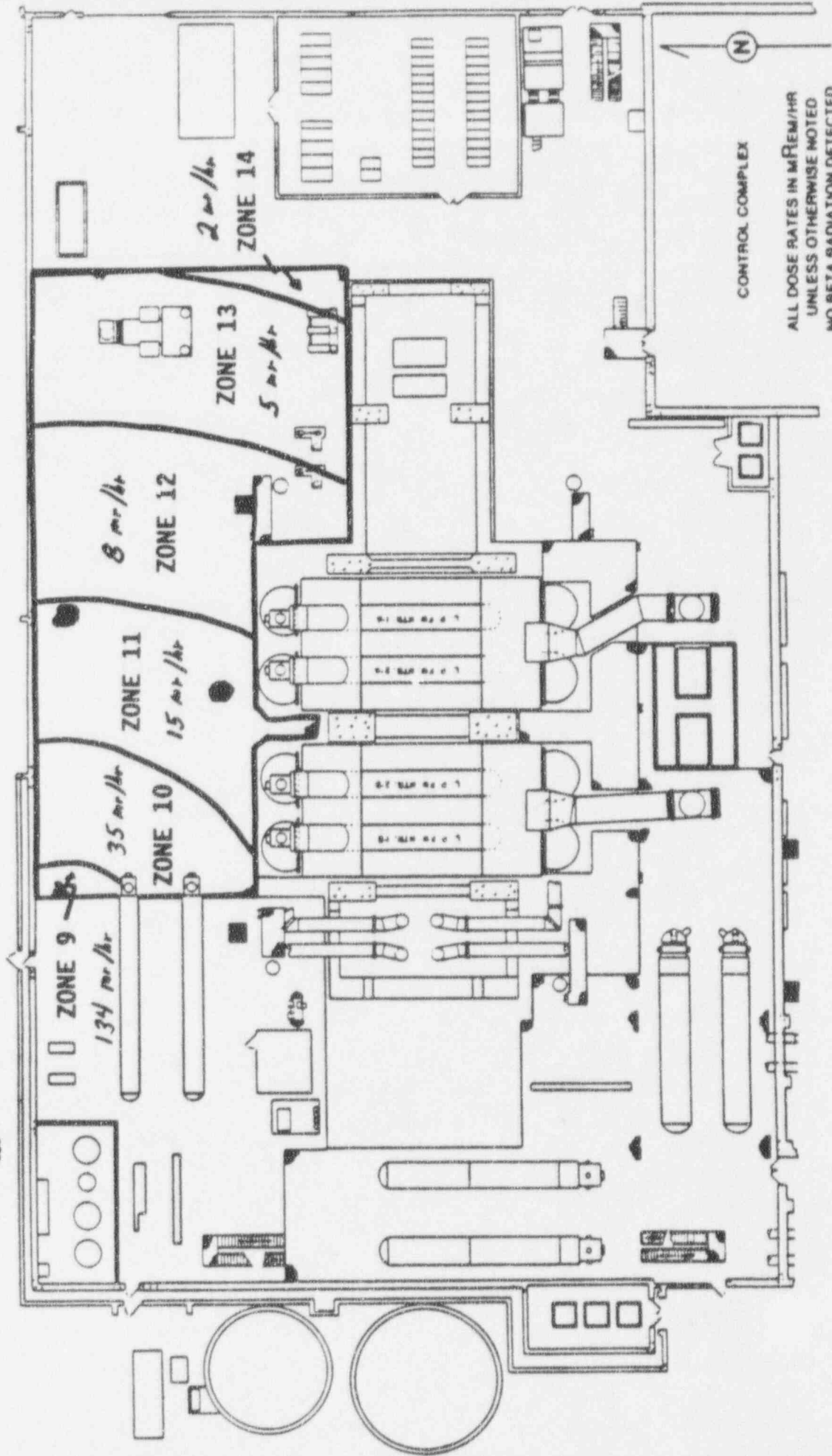


ALL DOSE RATES IN mRem/hr  
 UNLESS OTHERWISE NOTED  
 NO BETA RADIATION DETECTED  
 UNLESS OTHERWISE NOTED  
 \* DENOTES CONTACT READING  
 RET. 1.16 of Plant Resp. Health Physics 800 505

SURVEY NO. 1300



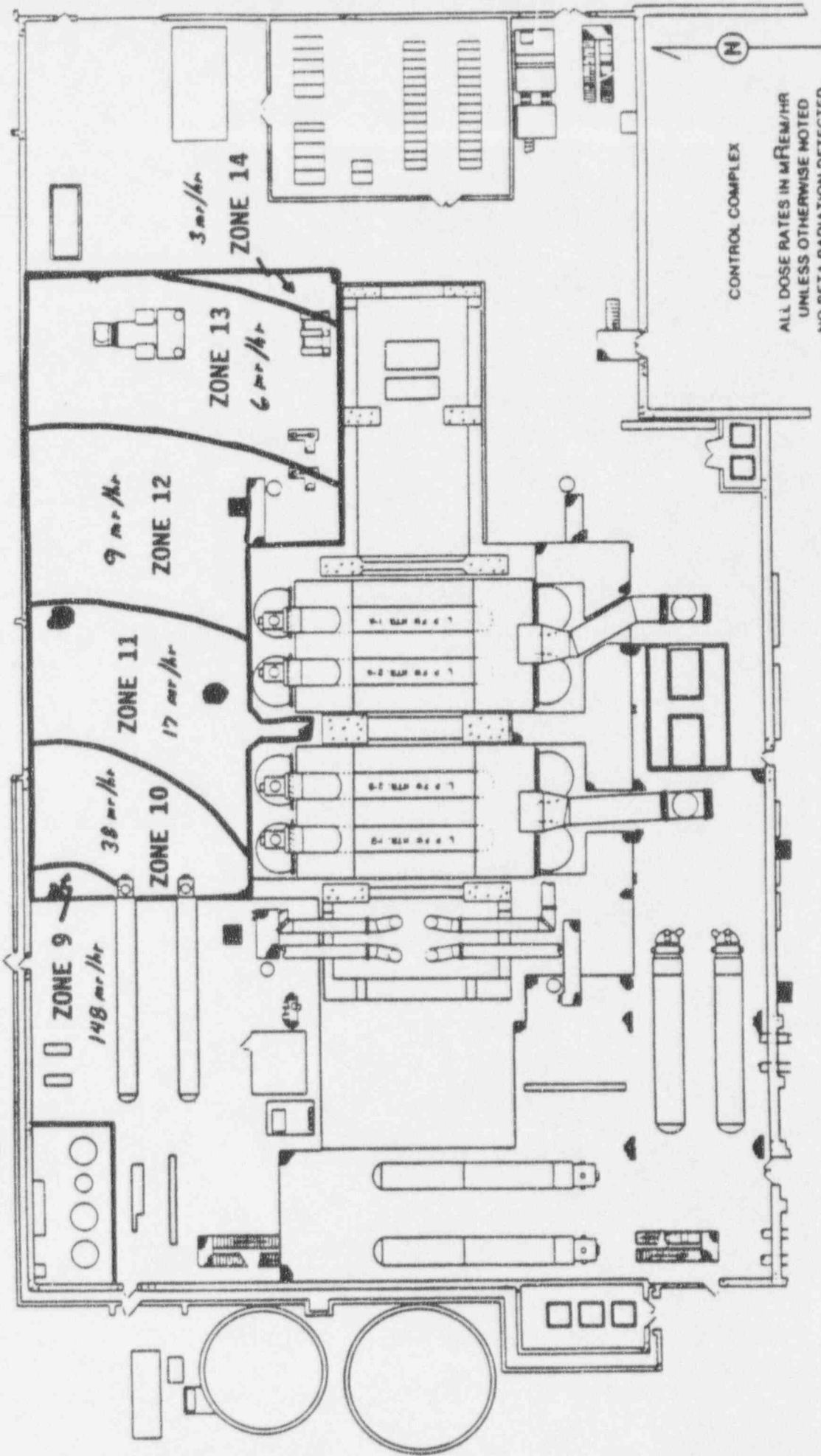
110' EL. TURBINE BLDG



ALL DOSE RATES IN mREM/HR  
UNLESS OTHERWISE NOTED  
NO BETA RADIATION DETECTED  
UNLESS OTHERWISE NOTED  
\* DENOTES CONTACT READING



118' EL. TURBINE BLDG



CONTROL COMPLEX

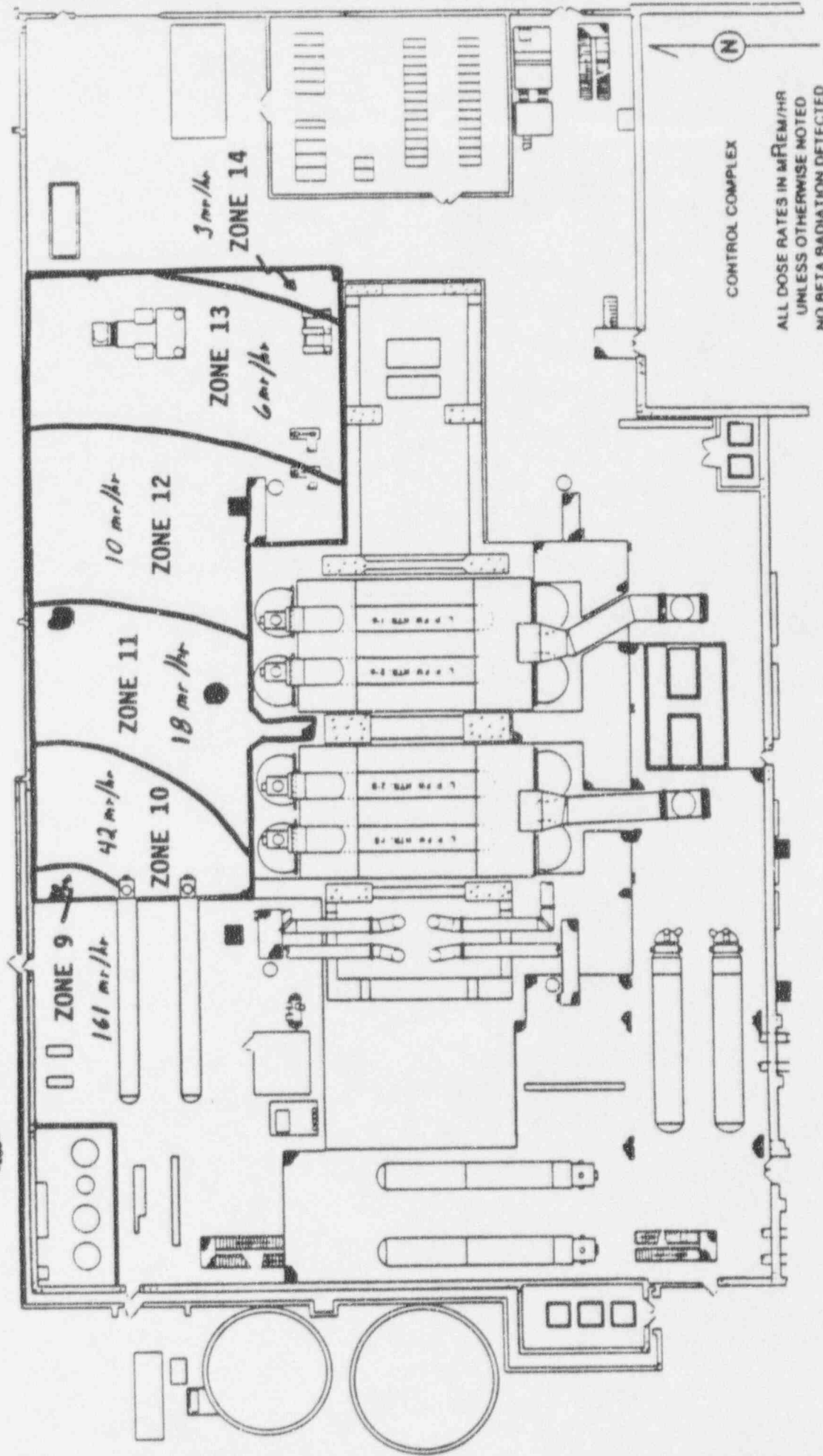
ALL DOSE RATES IN mREM/HR  
UNLESS OTHERWISE NOTED  
NO BETA RADIATION DETECTED  
UNLESS OTHERWISE NOTED  
\* DENOTES CONTACT READING



SURVEY NO. 1400



110' EL. TURBINE BLDG

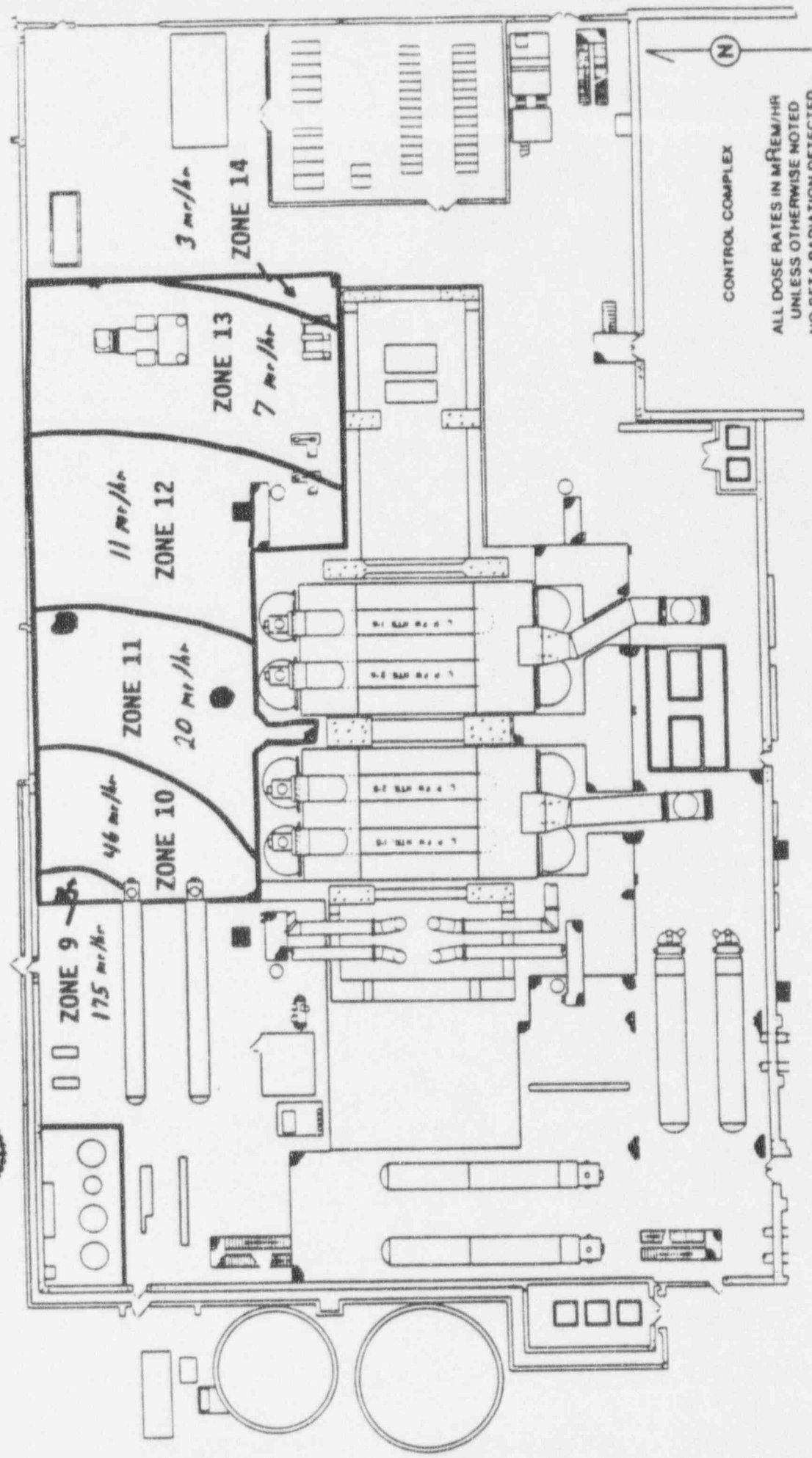


ALL DOSE RATES IN mREM/HR  
UNLESS OTHERWISE NOTED  
NO BETA RADIATION DETECTED  
UNLESS OTHERWISE NOTED  
\* DENOTES CONTACT READING  
NET Life at Flight RESP. Health Physics 800 305

SURVEY NO. 1430



118' EL. TURBINE BLDG



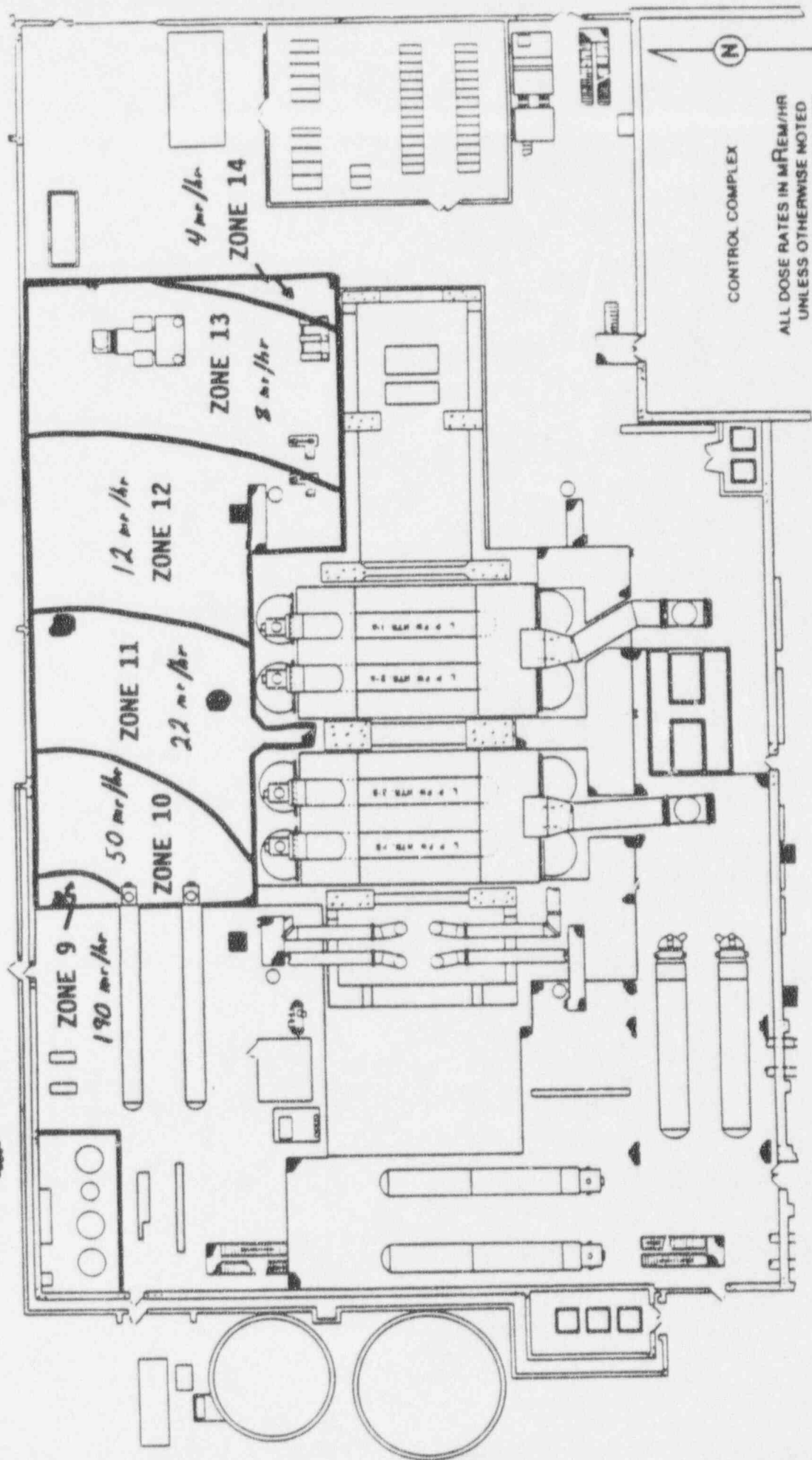
CONTROL COMPLEX

ALL DOSE RATES IN MREM/HR  
UNLESS OTHERWISE NOTED  
NO BETA RADIATION DETECTED  
UNLESS OTHERWISE NOTED  
\* DENOTES CONTACT READING  
RET. Life of Plant RESP. Health Physics 800 500



# 110' EL. TURBINE BLDG

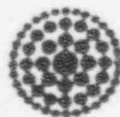
SURVEY NO. 1500



CONTROL COMPLEX

ALL DOSE RATES IN mREM/HR  
UNLESS OTHERWISE NOTED  
NO BETA RADIATION DETECTED  
UNLESS OTHERWISE NOTED  
• DENOTES CONTACT READING  
RET. Log of Plant Resp. Health Physics 800 505

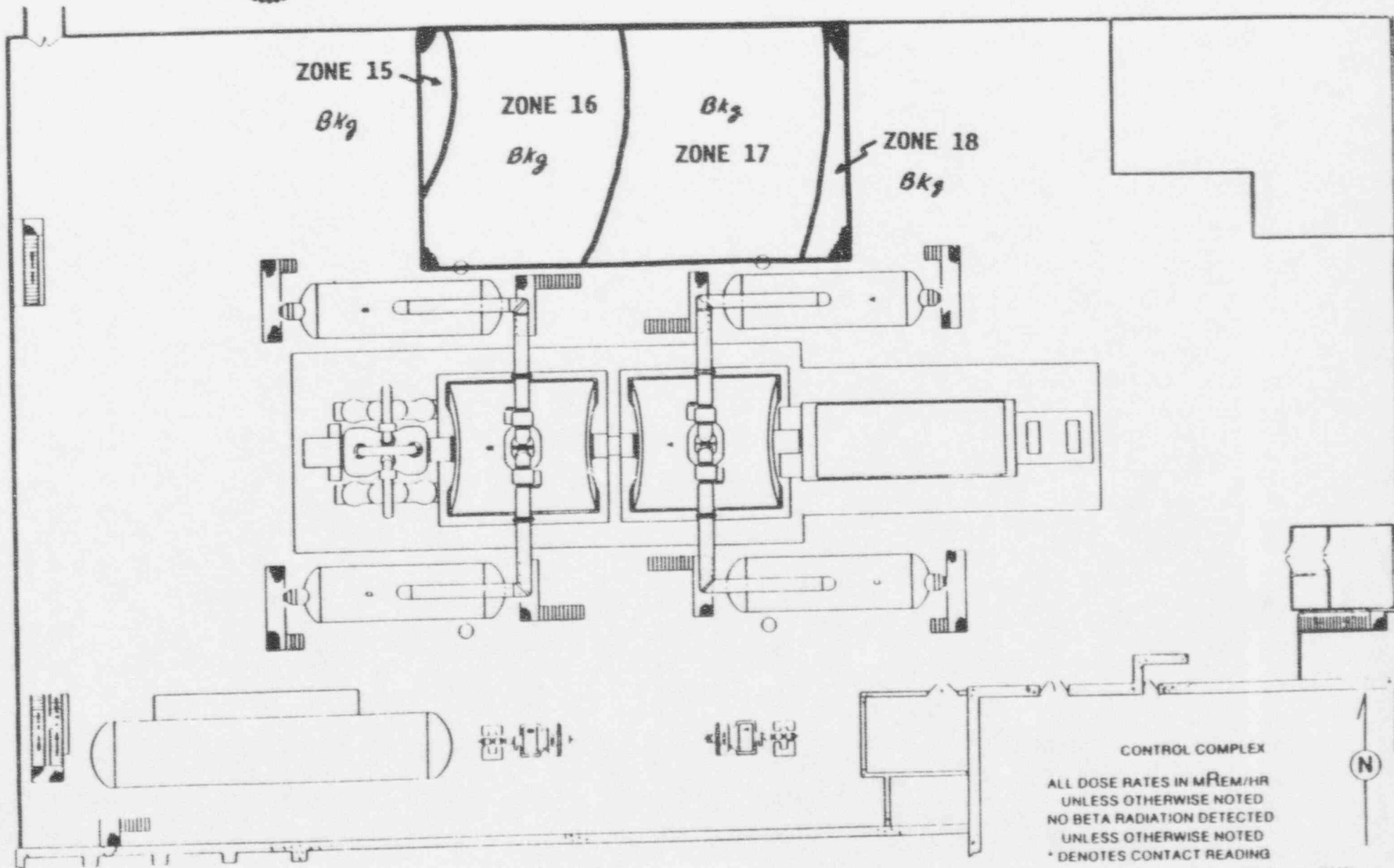




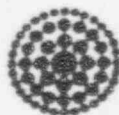
Florida  
Power  
CORPORATION

145' EL. TURBINE BLDG., OPER. FLR.

SURVEY NO. 0830



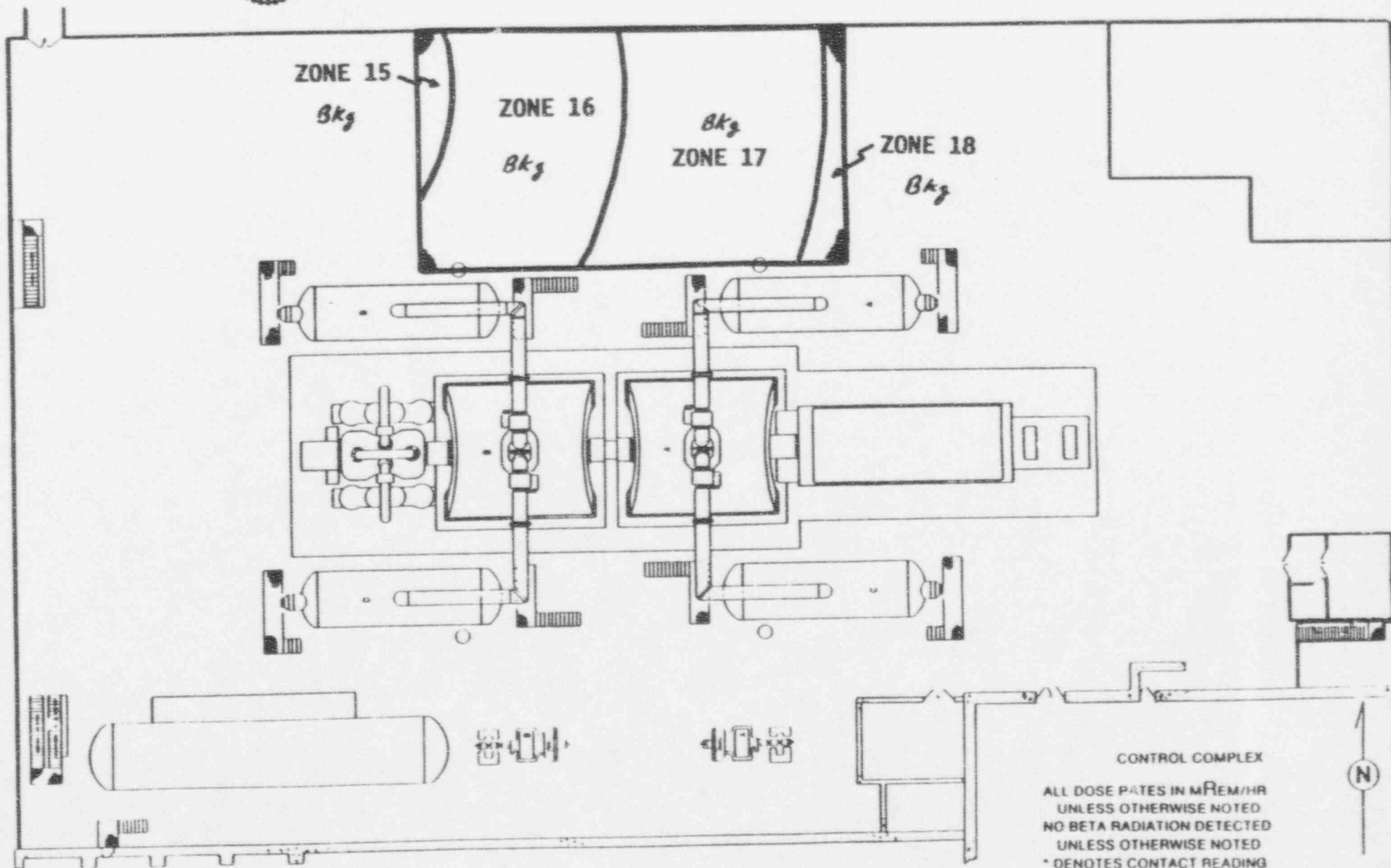
RET. Life of Plant RESP. Health Physics 900 504



Florida  
Power  
CORPORATION

145' EL. TURBINE BLDG., OPER. FLR.

SURVEY NO. 0900



CONTROL COMPLEX  
ALL DOSE RATES IN mREM/HR  
UNLESS OTHERWISE NOTED  
NO BETA RADIATION DETECTED  
UNLESS OTHERWISE NOTED  
\* DENOTES CONTACT READING

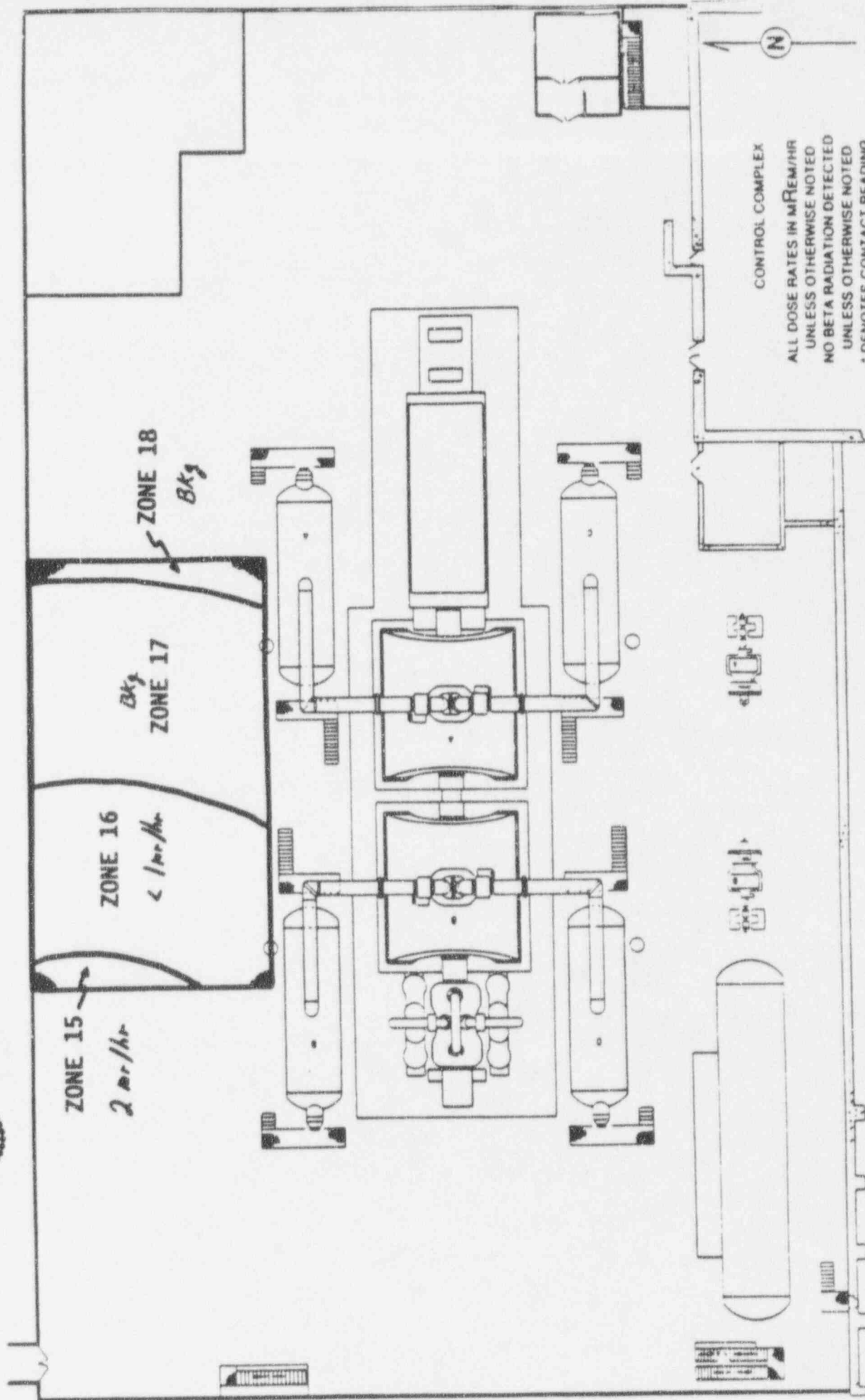
RET: Life of Plant RESP. Health Physics 800 504



145' EL. TURBINE BLDG., OPER. FLR.

SURVEY NO.

1000

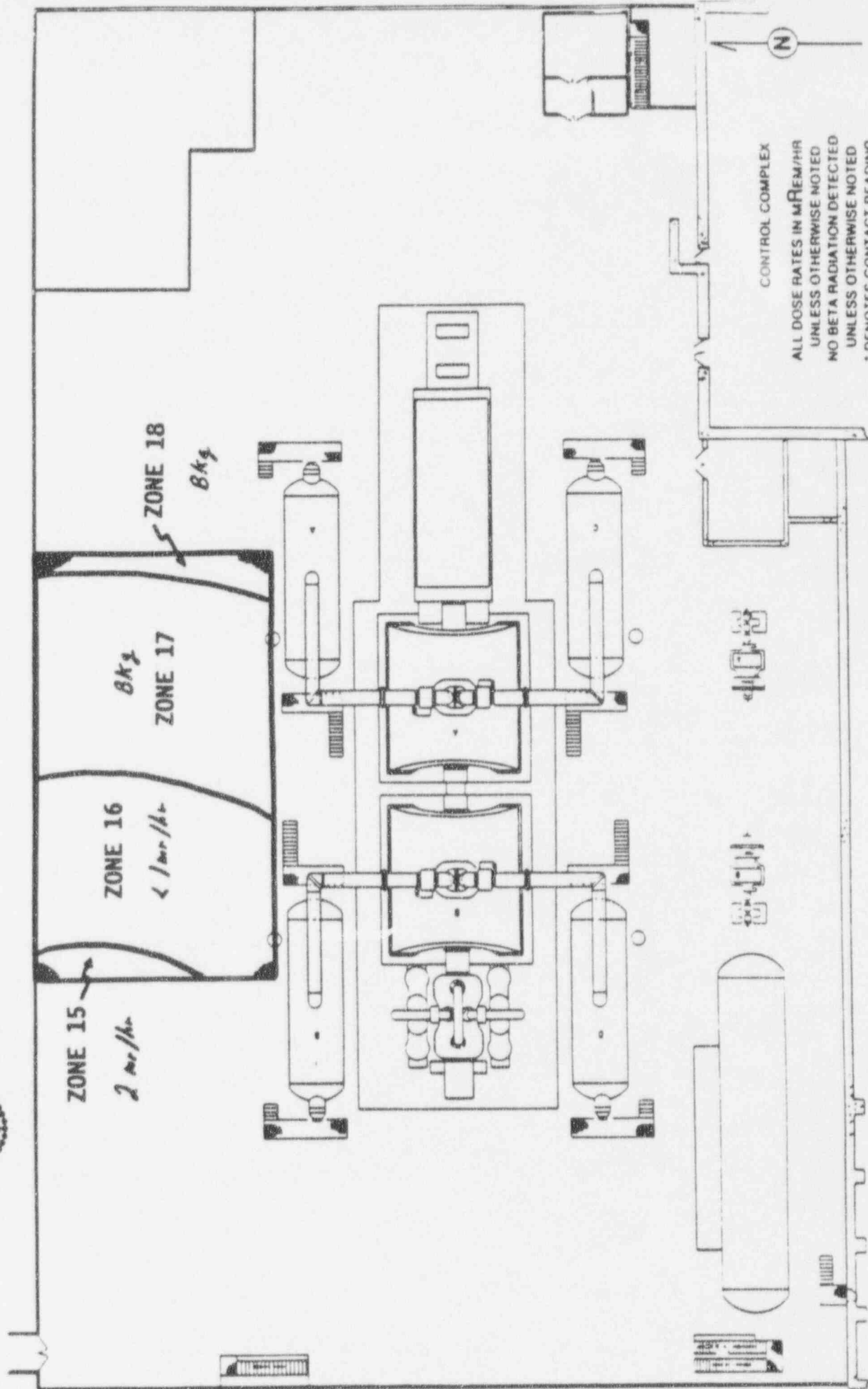




145' EL. TURBINE BLDG., OPER. FLR.

SURVEY NO.

1030



CONTROL COMPLEX

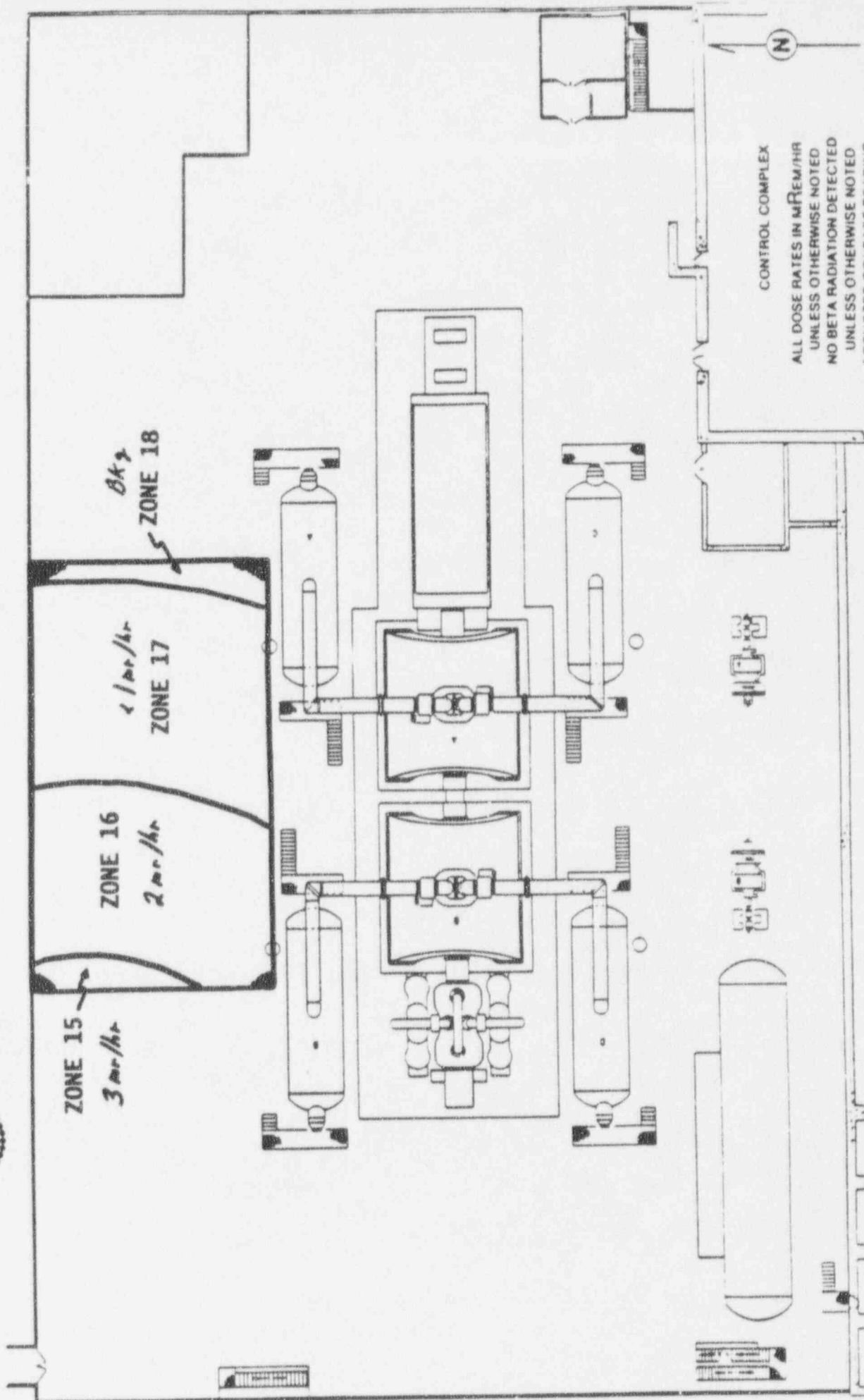
ALL DOSE RATES IN  $\text{mRem/hr}$   
UNLESS OTHERWISE NOTED  
NO BETA RADIATION DETECTED  
UNLESS OTHERWISE NOTED  
\* DENOTES CONTACT READING

REF: Life of Plant RESP. Health Physics 800-504



145' EL. TURBINE BLDG., OPER. FLR.

SURVEY NO. 1100



CONTROL COMPLEX

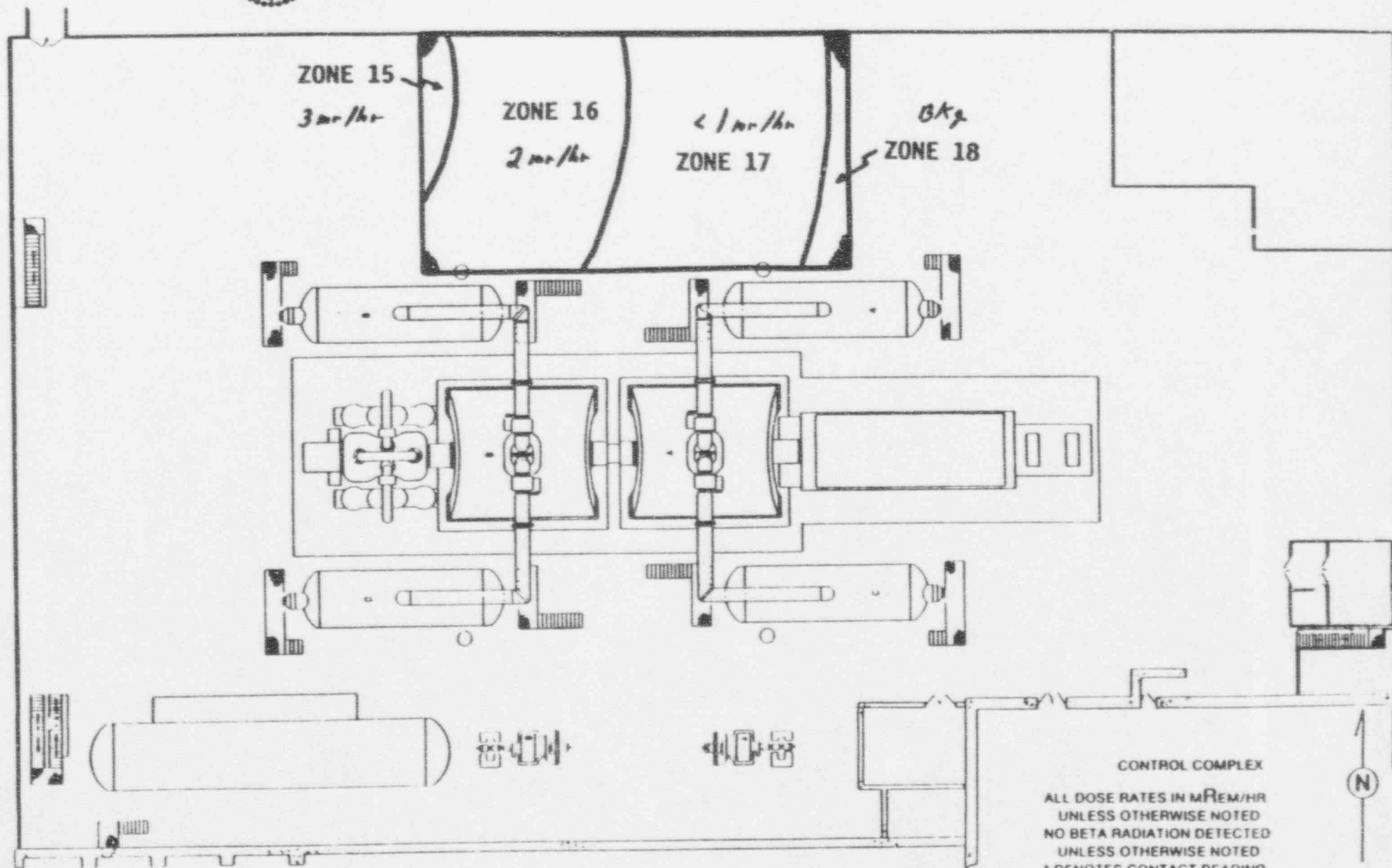
ALL DOSE RATES IN mREM/HR  
UNLESS OTHERWISE NOTED  
NO BETA RADIATION DETECTED  
UNLESS OTHERWISE NOTED  
\* DENOTES CONTACT READING

NET Life of Plant RESP. Health Physics 800 504



145' EL. TURBINE BLDG., OPER. FLR.

SURVEY NO. 1130



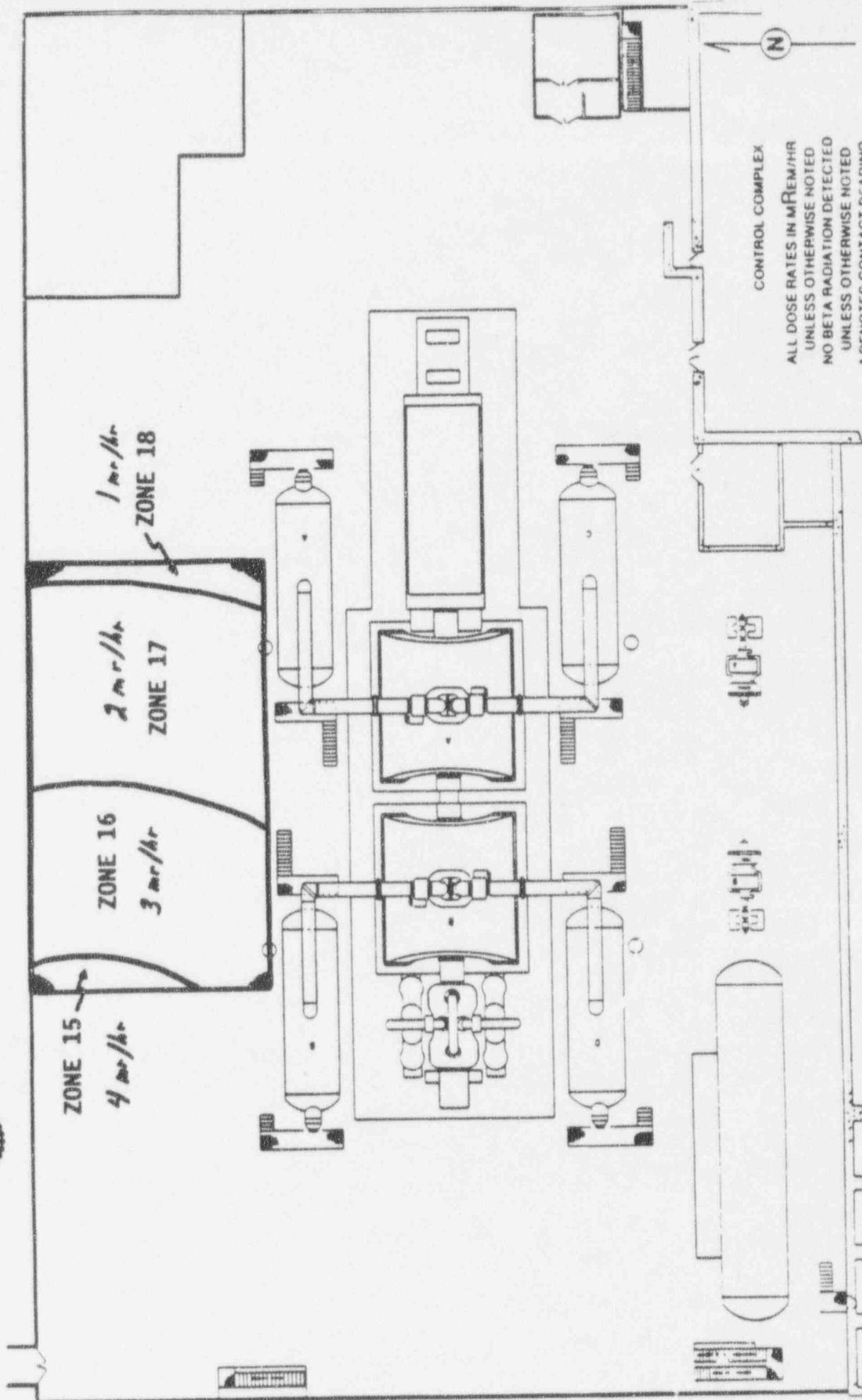
CONTROL COMPLEX  
ALL DOSE RATES IN  $\text{mR/hr}$   
UNLESS OTHERWISE NOTED  
NO BETA RADIATION DETECTED  
UNLESS OTHERWISE NOTED  
\* DENOTES CONTACT READING



145' EL. TURBINE BLDG., OPER. FLR.

SURVEY NO.

1200



RET. Ltr of Plant RESP. Health Physics 900 504

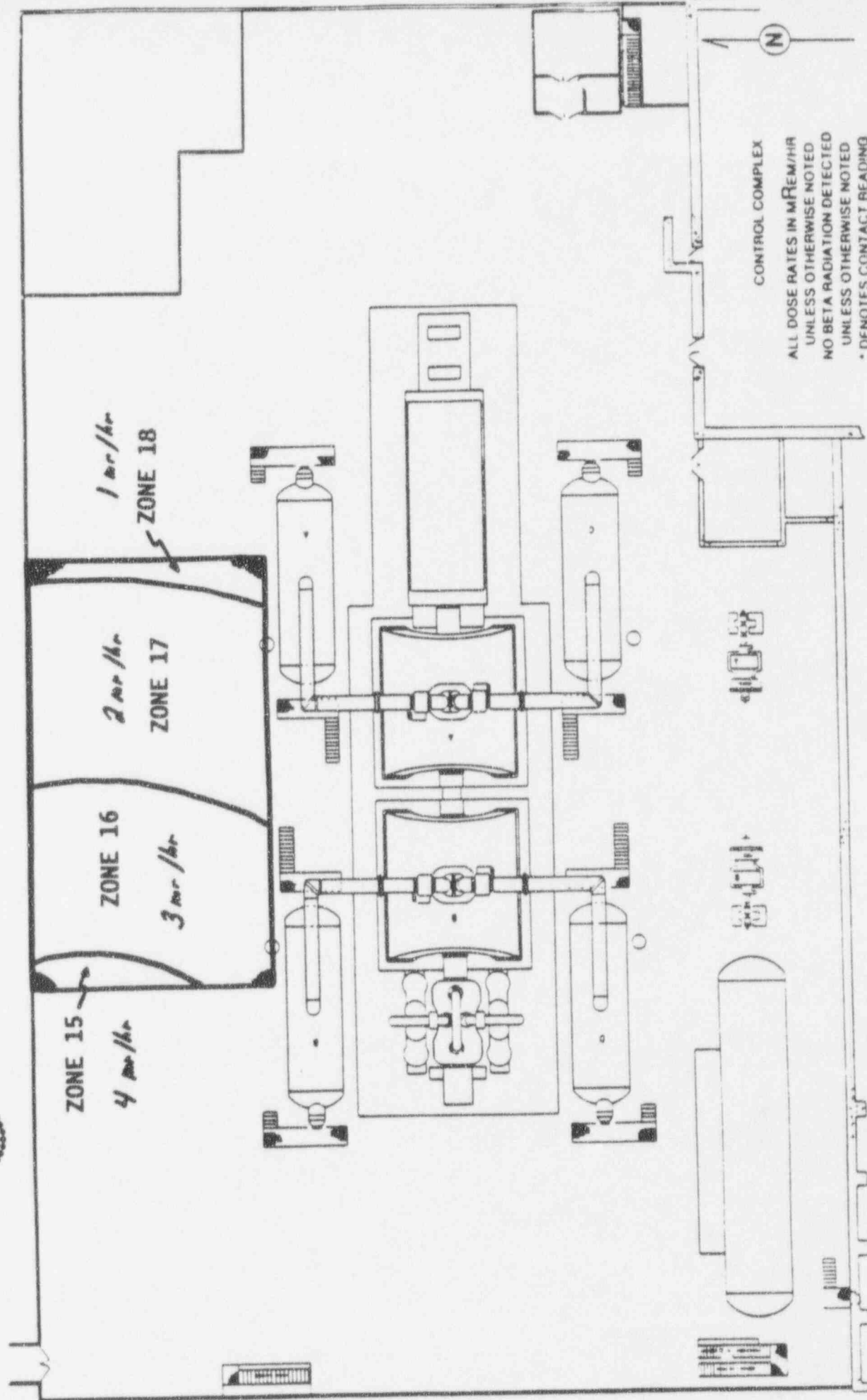




145' EL. TURBINE BLDG., OPER. FLR.

SURVEY NO.

1230



ALL DOSE RATES IN mREM/HR  
UNLESS OTHERWISE NOTED  
NO BETA RADIATION DETECTED  
UNLESS OTHERWISE NOTED  
\* DENOTES CONTACT READING

REF: Life of Plant RESP: Health Physics 800 504

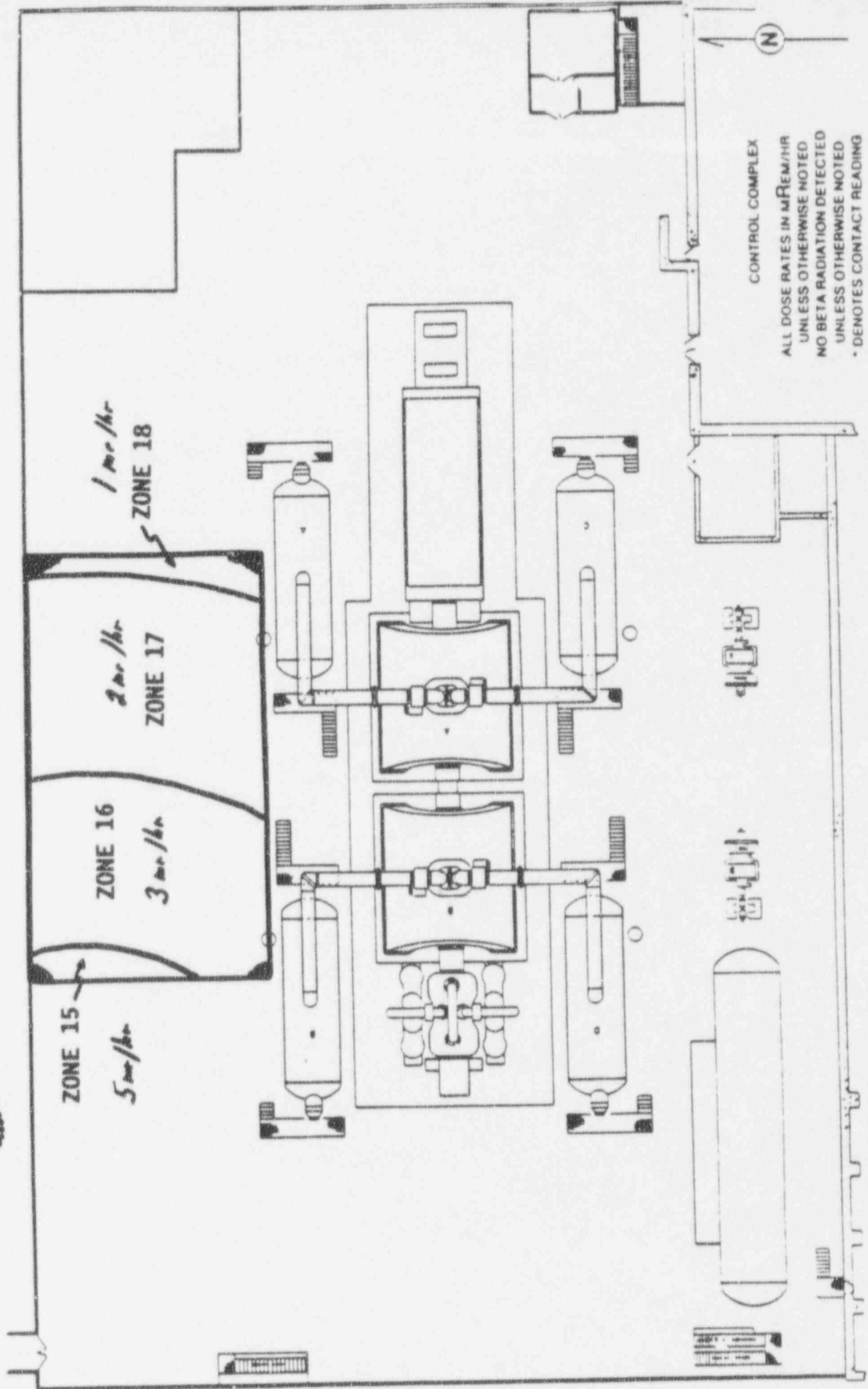




145' EL. TURBINE BLDG., OPER. FLR.

SURVEY NO.

1300



ALL DOSE RATES IN mREM/HR  
UNLESS OTHERWISE NOTED  
NO BETA RADIATION DETECTED  
UNLESS OTHERWISE NOTED  
\* DENOTES CONTACT READING

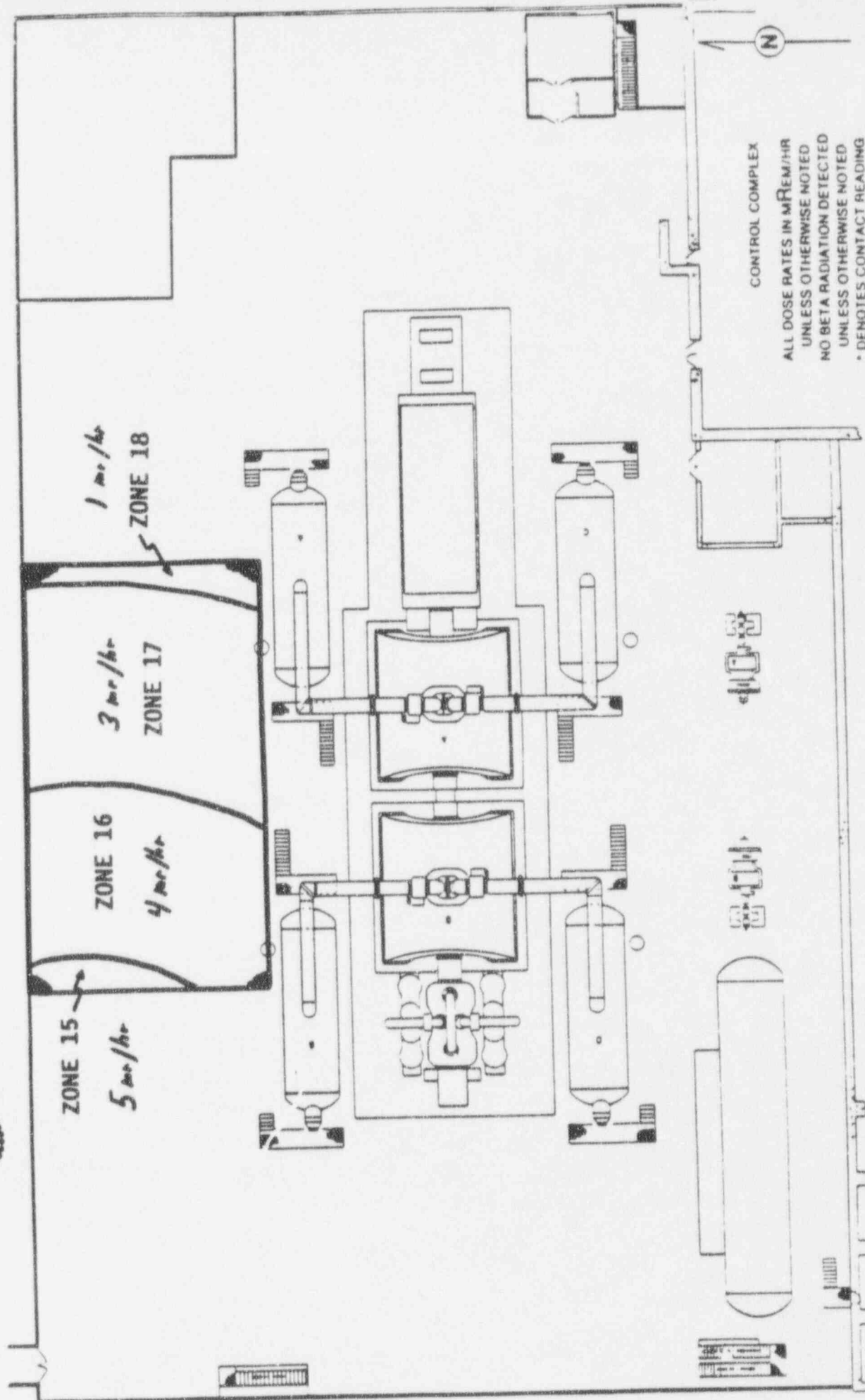
RET. Life of Plant RESP. Health Physics 800 504



145' EL. TURBINE BLDG., OPER. FLR.

SURVEY NO.

1330



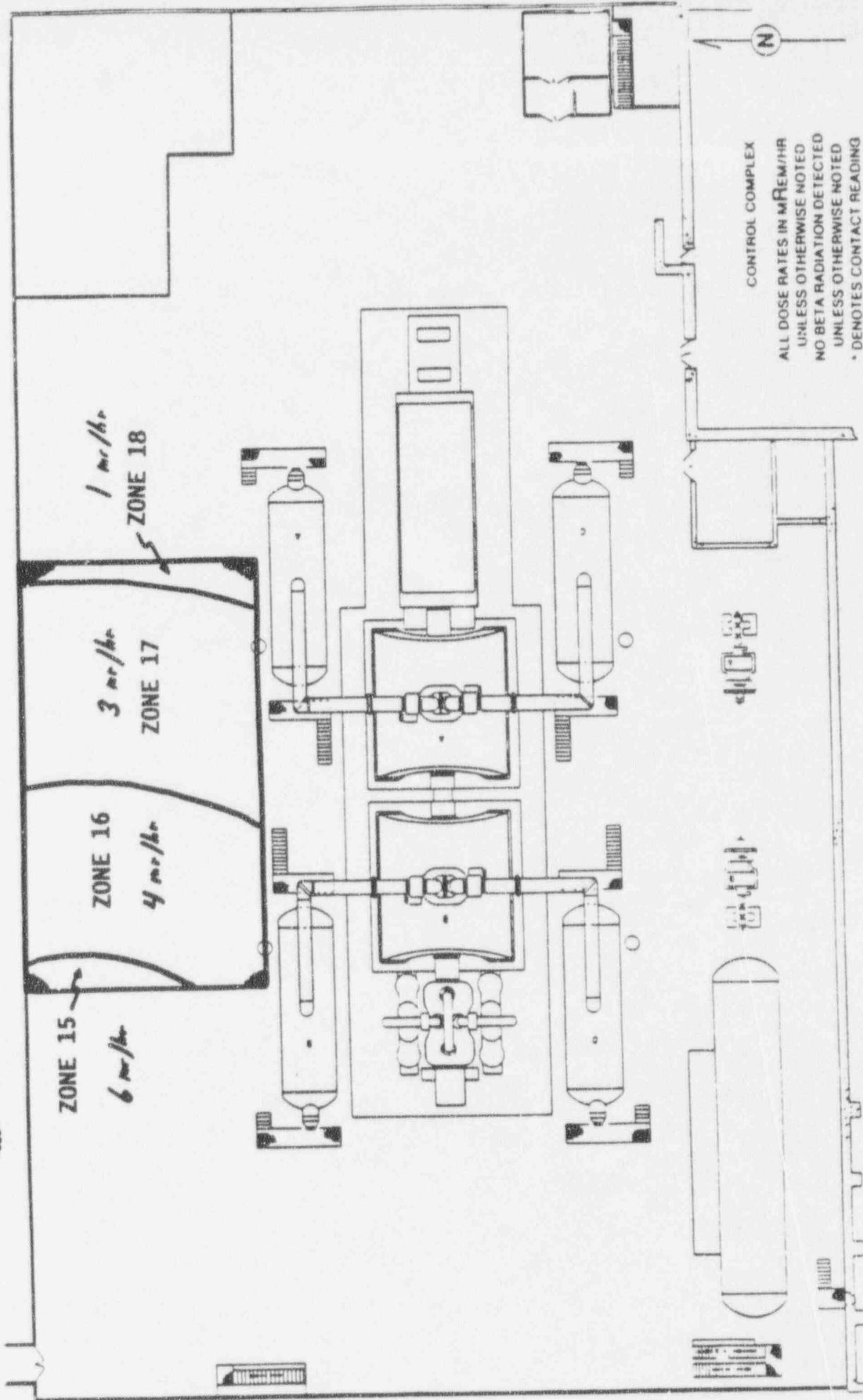
CONTROL COMPLEX

ALL DOSE RATES IN mREM/HR  
UNLESS OTHERWISE NOTED  
NO BETA RADIATION DETECTED  
UNLESS OTHERWISE NOTED  
\* DENOTES CONTACT READING

NET Life of Plant RESP Health Physics 300 SGA

SURVEY NO. 1400

145' EL. TURBINE BLDG., OPER. FLR.



ALL DOSE RATES IN mREM/HR  
UNLESS OTHERWISE NOTED  
NO BETA RADIATION DETECTED  
UNLESS OTHERWISE NOTED  
\* DENOTES CONTACT READING

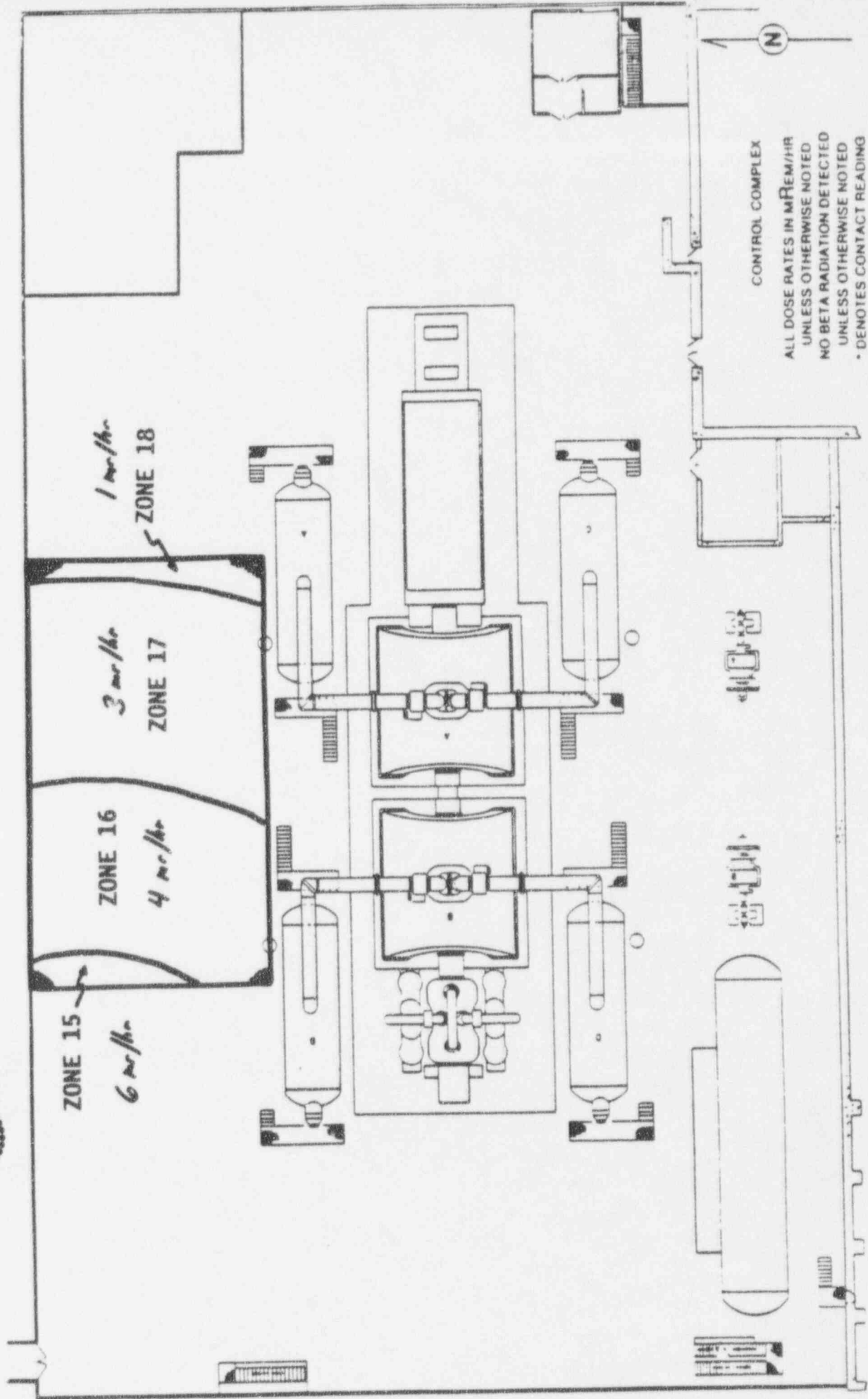
REF: LHA of Plant RESP. Health Physics 800 504



145' EL. TURBINE BLDG., OPER. FLR.

SURVEY NO.

1430



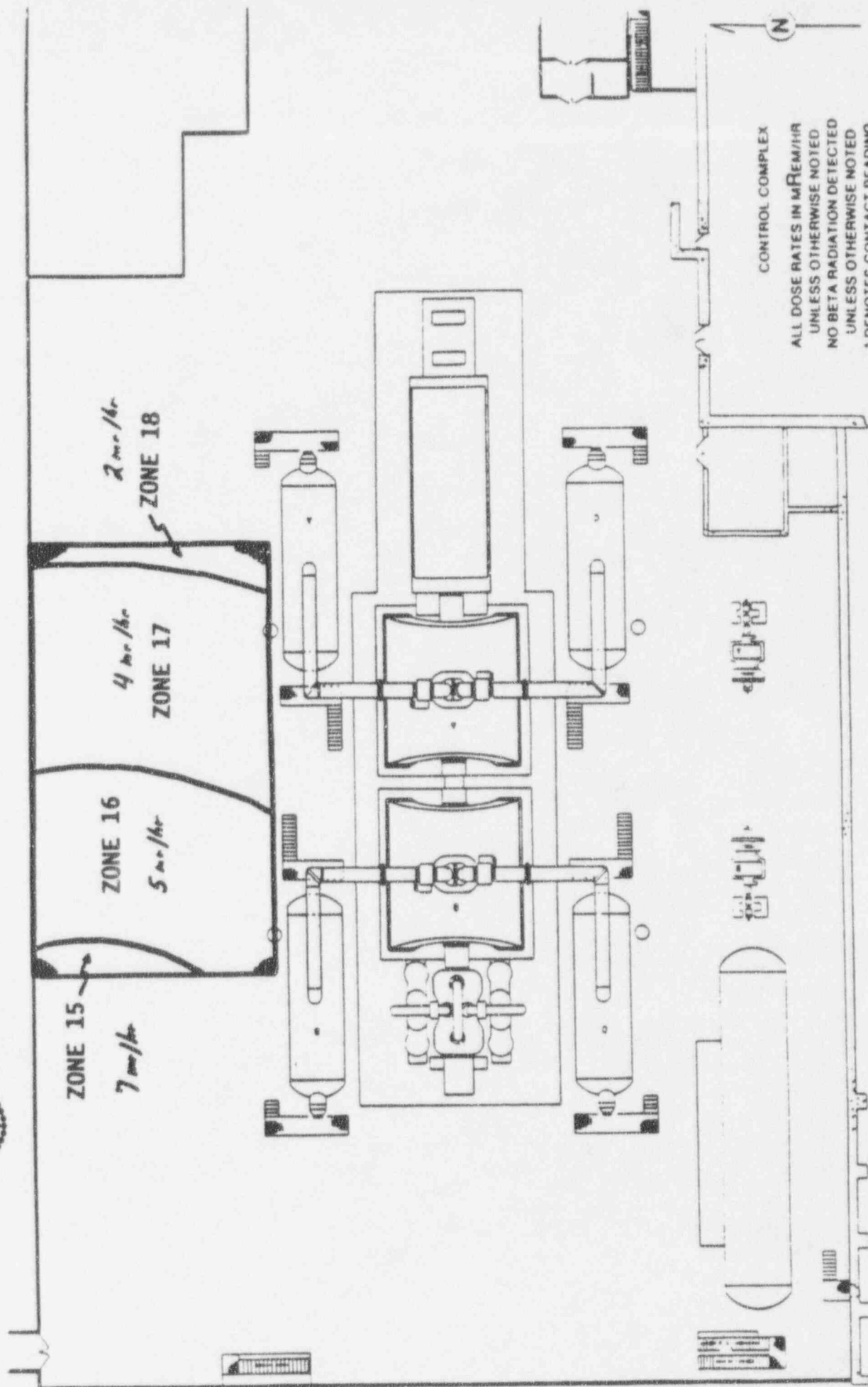
ALL DOSE RATES IN mREM/HR  
UNLESS OTHERWISE NOTED  
NO BETA RADIATION DETECTED  
UNLESS OTHERWISE NOTED  
• DENOTES CONTACT READING

REF: Lits of Plant RESP. Health Physics 900 504



145' EL. TURBINE BLDG., OPER. FLR.

SURVEY NO. 1500



CONTROL COMPLEX

ALL DOSE RATES IN mREM/HR  
UNLESS OTHERWISE NOTED  
NO BETA RADIATION DETECTED  
UNLESS OTHERWISE NOTED  
\* DENOTES CONTACT READING

RET. Log of Plant RESP. Health Physics 800 504

	KR83M	KR85M	KR85	KR87	KR88	XE131M	XE133M	XE133	XE135	I131	I132	I133	I134	I135
1140	4.3E-07	2.2E-06	1.2E-05	8.7E-07	3.5E-06	2.6E-06	4.3E-06	4.0E-04	8.7E-06	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
1145	4.5E-07	2.3E-06	1.2E-05	9.0E-07	3.6E-06	2.7E-06	4.5E-06	4.2E-04	9.0E-06	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
1150	4.7E-07	2.3E-06	1.3E-05	9.4E-07	3.8E-06	2.8E-06	4.7E-06	4.3E-04	9.4E-06	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
1155	4.7E-07	2.3E-06	1.3E-05	9.3E-07	3.7E-06	2.8E-06	4.7E-06	4.3E-04	9.3E-06	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
1200	4.6E-07	2.3E-06	1.2E-05	9.2E-07	3.7E-06	2.8E-06	4.6E-06	4.3E-04	9.2E-06	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
1205	4.9E-07	2.5E-06	1.3E-05	9.8E-07	3.9E-06	2.9E-06	4.9E-06	4.5E-04	9.8E-06	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
1210	5.2E-07	2.6E-06	1.4E-05	1.0E-06	4.1E-06	3.1E-06	5.2E-06	4.8E-04	1.0E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
1215	5.4E-07	2.7E-06	1.4E-05	1.1E-06	4.3E-06	3.2E-06	5.4E-06	4.9E-04	1.1E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
1220	5.3E-07	2.6E-06	1.4E-05	1.1E-06	4.2E-06	3.2E-06	5.3E-06	4.9E-04	1.1E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
1225	5.2E-07	2.6E-06	1.4E-05	1.0E-06	4.2E-06	3.1E-06	5.2E-06	4.8E-04	1.0E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
1230	5.3E-07	2.6E-06	1.4E-05	1.1E-06	4.2E-06	3.2E-06	5.3E-06	4.9E-04	1.1E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
1235	5.3E-07	2.7E-06	1.4E-05	1.1E-06	4.3E-06	3.2E-06	5.3E-06	4.9E-04	1.1E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
1240	5.4E-07	2.7E-06	1.5E-05	1.1E-06	4.3E-06	3.2E-06	5.4E-06	4.9E-04	1.1E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
1245	5.3E-07	2.7E-06	1.4E-05	1.1E-06	4.3E-06	3.2E-06	5.3E-06	4.9E-04	1.1E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
1250	5.3E-07	2.7E-06	1.4E-05	1.1E-06	4.3E-06	3.2E-06	5.3E-06	4.9E-04	1.1E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
1255	5.4E-07	2.7E-06	1.5E-05	1.1E-06	4.3E-06	3.2E-06	5.4E-06	5.0E-04	1.1E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
1300	5.4E-07	2.7E-06	1.5E-05	1.1E-06	4.3E-06	3.3E-06	5.4E-06	5.0E-04	1.1E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
1305	5.3E-07	2.7E-06	1.4E-05	1.1E-06	4.2E-06	3.2E-06	5.3E-06	4.9E-04	1.1E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
1310	5.2E-07	2.6E-06	1.4E-05	1.0E-06	4.1E-06	3.1E-06	5.2E-06	4.8E-04	1.0E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
1315	5.0E-07	2.5E-06	1.4E-05	1.0E-06	4.0E-06	3.0E-06	5.0E-06	4.6E-04	1.0E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
1320	5.1E-07	2.5E-06	1.4E-05	1.0E-06	4.1E-06	3.1E-06	5.1E-06	4.7E-04	1.0E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
1325	5.1E-07	2.6E-06	1.4E-05	1.0E-06	4.1E-06	3.1E-06	5.1E-06	4.7E-04	1.0E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
1330	5.2E-07	2.6E-06	1.4E-05	1.0E-06	4.1E-06	3.1E-06	5.2E-06	4.7E-04	1.0E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
1335	5.2E-07	2.6E-06	1.4E-05	1.0E-06	4.1E-06	3.1E-06	5.2E-06	4.8E-04	1.0E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
1340	5.0E-07	2.5E-06	1.4E-05	1.0E-06	4.0E-06	3.0E-06	5.0E-06	4.7E-04	1.0E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
1345	5.0E-07	2.5E-06	1.3E-05	9.9E-07	4.0E-06	3.0E-06	5.0E-06	4.6E-04	9.9E-06	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
1350	5.0E-07	2.5E-06	1.3E-05	1.0E-06	4.0E-06	3.0E-06	5.0E-06	4.6E-04	1.0E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
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1400	4.9E-07	2.5E-06	1.3E-05	9.9E-07	3.9E-06	3.0E-06	4.9E-06	4.5E-04	9.9E-06	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
1405	5.0E-07	2.5E-06	1.3E-05	9.9E-07	4.0E-06	3.0E-06	5.0E-06	4.6E-04	9.9E-06	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
1410	5.1E-07	2.6E-06	1.4E-05	1.0E-06	4.1E-06	3.1E-06	5.1E-06	4.7E-04	1.0E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
1415	5.1E-07	2.5E-06	1.4E-05	1.0E-06	4.1E-06	3.0E-06	5.1E-06	4.7E-04	1.0E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
1420	4.9E-07	2.5E-06	1.3E-05	9.8E-07	3.9E-06	2.9E-06	4.9E-06	4.5E-04	9.8E-06	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
1425	4.7E-07	2.4E-06	1.3E-05	9.4E-07	3.8E-06	2.8E-06	4.7E-06	4.3E-04	9.4E-06	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00



1992 EXERCISE RM-A2 PASS DATA

	KR83M	KR85M	KR87	KR88	XE131M	XE133M	XE133	XE135	1131	1132	1133	1134	1135
0830	6.8E-07	3.4E-06	1.8E-05	1.4E-06	5.4E-06	4.1E-06	6.8E-06	6.2E-04	1.4E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00
0835	9.4E-07	4.7E-06	2.5E-05	1.9E-06	7.5E-06	5.6E-06	9.4E-06	8.6E-04	1.9E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00
0840	2.1E-07	1.0E-06	5.6E-06	4.2E-07	1.7E-06	1.2E-06	2.1E-06	1.9E-04	4.2E-06	0.0E+00	0.0E+00	0.0E+00	0.0E+00
0845	1.0E-06	5.1E-06	2.8E-05	2.0E-06	8.2E-06	6.1E-06	1.0E-05	9.4E-04	2.0E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00
0850	9.9E-07	5.0E-06	2.7E-05	2.0E-06	7.9E-06	6.0E-06	9.9E-06	9.2E-04	2.0E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00
0855	5.8E-07	2.9E-06	1.6E-05	1.2E-06	4.6E-06	3.5E-06	5.8E-06	5.3E-04	1.2E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00
0900	8.5E-07	4.2E-06	2.3E-05	1.7E-06	6.8E-06	5.1E-06	8.5E-06	7.8E-04	1.7E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00
0905	8.0E-07	4.0E-06	2.2E-05	1.6E-06	6.4E-06	4.8E-06	8.0E-06	7.4E-04	1.6E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00
0910	7.6E-07	3.8E-06	2.0E-05	1.5E-06	6.1E-06	4.5E-06	7.6E-06	7.0E-04	1.5E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00
0915	7.3E-07	3.6E-06	2.0E-05	1.5E-06	5.8E-06	4.4E-06	7.3E-06	6.7E-04	1.5E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00
0920	7.1E-07	3.6E-06	1.9E-05	1.4E-06	5.7E-06	4.3E-06	7.1E-06	6.5E-04	1.4E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00
0925	6.8E-07	3.4E-06	1.8E-05	1.4E-06	5.4E-06	4.1E-06	6.8E-06	6.2E-04	1.4E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00
0930	6.5E-07	3.3E-06	1.8E-05	1.3E-06	5.2E-06	3.9E-06	6.5E-06	6.0E-04	1.3E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00
0935	6.3E-07	3.2E-06	1.7E-05	1.3E-06	5.1E-06	3.8E-06	6.3E-06	5.8E-04	1.3E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00
0940	6.0E-07	3.0E-06	1.6E-05	1.2E-06	4.8E-06	3.6E-06	6.0E-06	5.6E-04	1.2E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00
0945	4.3E-07	2.1E-06	1.1E-05	8.5E-07	3.4E-06	2.6E-06	4.3E-06	3.9E-04	8.5E-06	0.0E+00	0.0E+00	0.0E+00	0.0E+00
0950	4.2E-07	2.1E-06	1.1E-05	8.5E-07	3.4E-06	2.5E-06	4.2E-06	3.9E-04	8.5E-06	0.0E+00	0.0E+00	0.0E+00	0.0E+00
0955	4.3E-07	2.1E-06	1.2E-05	8.6E-07	3.4E-06	2.6E-06	4.3E-06	3.9E-04	8.6E-06	0.0E+00	0.0E+00	0.0E+00	0.0E+00
1000	4.3E-07	2.1E-06	1.1E-05	8.5E-07	3.4E-06	2.6E-06	4.3E-06	3.9E-04	8.5E-06	0.0E+00	0.0E+00	0.0E+00	0.0E+00
1005	3.6E-07	1.8E-06	9.6E-06	7.1E-07	2.9E-06	2.1E-06	3.6E-06	3.3E-04	7.1E-06	0.0E+00	0.0E+00	0.0E+00	0.0E+00
GAG 1010	5.2E-07	2.6E-06	1.4E-05	1.0E-06	4.1E-06	3.1E-06	5.2E-06	4.8E-04	1.0E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00
IN 1015	5.3E-07	2.7E-06	1.4E-05	1.1E-06	4.3E-06	3.2E-06	5.3E-06	4.9E-04	1.1E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00
PLACE 1020	5.4E-07	2.7E-06	1.5E-05	1.1E-06	4.3E-06	3.3E-06	5.4E-06	5.0E-04	1.1E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00
1025	5.5E-07	2.7E-06	1.5E-05	1.1E-06	4.4E-06	3.3E-06	5.5E-06	5.0E-04	1.1E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00
1030	5.5E-07	2.8E-06	1.5E-05	1.1E-06	4.4E-06	3.3E-06	5.5E-06	5.1E-04	1.1E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00
1035	5.5E-07	2.8E-06	1.5E-05	1.1E-06	4.4E-06	3.3E-06	5.5E-06	5.1E-04	1.1E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00
1040	5.5E-07	2.8E-06	1.5E-05	1.1E-06	4.4E-06	3.3E-06	5.5E-06	5.1E-04	1.1E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00
1045	5.5E-07	2.8E-06	1.5E-05	1.1E-06	4.4E-06	3.3E-06	5.5E-06	5.1E-04	1.1E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00
1050	5.6E-07	2.8E-06	1.5E-05	1.1E-06	4.5E-06	3.4E-06	5.6E-06	5.2E-04	1.1E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00
1055	5.7E-07	2.9E-06	1.5E-05	1.1E-06	4.6E-06	3.4E-06	5.7E-06	5.3E-04	1.1E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00
1100	5.6E-07	2.8E-06	1.5E-05	1.1E-06	4.5E-06	3.4E-06	5.6E-06	5.1E-04	1.1E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00
1105	5.5E-07	2.7E-06	1.5E-05	1.1E-06	4.4E-06	3.3E-06	5.5E-06	5.0E-04	1.1E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00
1110	5.5E-07	2.8E-06	1.5E-05	1.1E-06	4.4E-06	3.3E-06	5.5E-06	5.1E-04	1.1E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00
1115	5.1E-07	2.6E-06	1.4E-05	1.0E-06	4.1E-06	3.1E-06	5.1E-06	4.7E-04	1.0E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00
1120	5.0E-07	2.5E-06	1.4E-05	1.0E-06	4.0E-06	3.0E-06	5.0E-06	4.6E-04	1.0E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00
1125	5.2E-07	2.6E-06	1.4E-05	1.0E-06	4.1E-06	3.1E-06	5.2E-06	4.8E-04	1.0E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00
1130	4.4E-07	2.2E-06	1.2E-05	8.7E-07	3.5E-06	2.6E-06	4.4E-06	4.0E-04	8.7E-06	0.0E+00	0.0E+00	0.0E+00	0.0E+00
1135	4.3E-07	2.2E-06	1.2E-05	8.7E-07	3.5E-06	2.6E-06	4.3E-06	4.0E-04	8.7E-06	0.0E+00	0.0E+00	0.0E+00	0.0E+00

1992 EXERCISE RCS ISOTOPIC (uCI/CC)

KR83M	5.7E-03
KR85M	2.8E-02
KR85	1.5E-01
KR87	1.1E-02
KR88	4.5E-02
XE131M	3.4E-02
XE133M	5.7E-02
XE133	5.2E+00
XE135	1.1E-01
I131	2.6E-01
I132	8.3E-02
I133	2.7E-01
I134	3.2E-02
I135	1.4E-01



## FORMULAS AND ASSUMPTIONS FOR FIELD MONITORING DATA

### WHOLE BODY DOSES

Open window readings are two times that of closed window readings when in the plume.

### CHILD THYROID DOSES

The following steps should be taken to determine child thyroid dose rates, I-131 concentrations in uCi/cc, and gross CPM values for 50 and 20 cubic feet air samples:

- A. Use the RADDose-IV dose assessment model to determine child thyroid dose rates.
- B. Divide the mR/hr by the dose factor for the accident type. The result will be iodine activity in uCi/cc.

WGDT Dose Factor = 5.43E8  
LOCAN Dose Factor = 7.72E8  
LOCOG Dose Factor = 3.49E8  
LOCAC Dose Factor = 3.49E8  
FHA Dose Factor = 1.57E9  
SGTRN Dose Factor = 7.82E8  
SGTRG Dose Factor = 3.49E8  
SGTRC Dose Factor = 3.49E8

- C. Use the uCi/cc value obtained step B to determine the gross CPM for 50 and 20 cubic feet air samples using the following formula:

$$\text{gross CPM} = \frac{(\text{uCi/cc})(\text{eff})(\text{cu.ft.})(28317)(2.22\text{E}6)}{(\text{F.E.F.})} + \text{BKG}$$

$$\text{uCi/cc} = \frac{(\text{net cpm})(\text{F.E.F.})}{(\text{eff.})(28317)(\text{cu.ft.})(2.22\text{E}6)}$$

Where:

eff = 0.0015 for charcoal or silver zeolite

FEF = 1.33 for filter eff. factor at 5CFM for silver zeolite

ENVIRONMENTAL SURVEY TEAM SAMPLING INFORMATION

SAMPLE FLOW RATE: 5.0 CFM

BACKGROUND: 50 CPM

FILTER EFF. FACTOR: 1.33  
(Silver Zeolite)

COUNTING EFF: 0.0015

TOTAL SAMPLE VOLUME: 50 CUBIC FEET

PLUME CENTERLINE DATA FOR EST  
1992 EXERCISE

MILES

0.2 0.5 0.83 1 2 3 4 5 7 10

TIME: 0915

SECTOR	G	G	G	G						
WB	0.31	1	0.5	0.39	0	0	0	0	0	0
CT	0	86	46	36	0	0	0	0	0	0
ACT	0.0E+00	1.1E-07	5.9E-08	4.6E-08	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
20	50	206	133	115	50	50	50	50	50	50
50	50	440	259	213	50	50	50	50	50	50

TIME: 0945

SECTOR	G	G	G	G	G	G				
WB	0.03	0.46	0.22	0.17	0.07	0.08	0	0	0	0
CT	0	70	34	26	11	5.3	0	0	0	0
ACT	0.0E+00	9.0E-08	4.3E-08	3.3E-08	1.4E-08	6.8E-09	0.0E+00	0.0E+00	0.0E+00	0.0E+00
20	50	177	112	97	70	60	50	50	50	50
50	50	367	204	168	100	74	50	50	50	50

TIME: 1015

SECTOR	G	G	G	G	G	G	G	G		
WB	0.02	0.3	0.14	0.11	0.04	0.04	0.02	0.03	0	0
CT	0	130	63	50	20	6.1	3	2.5	0	0
ACT	0.0E+00	1.7E-07	8.1E-08	6.4E-08	2.6E-08	7.8E-09	3.8E-09	3.2E-09	0.0E+00	0.0E+00
20	50	286	164	141	86	61	55	55	50	50
50	50	639	336	277	141	78	64	61	50	50

TIME: 1045

SECTOR	G	G	G	G	G	G	G	G	G	
WB	0.03	0.17	0.09	0.07	0.03	0.02	0.01	0.01	0.01	0
CT	0	0	0	0	0	5.7	6	4.4	1.2	0
ACT	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	7.3E-09	7.7E-09	5.6E-09	1.5E-09	0.0E+00
20	50	50	50	50	50	60	61	58	52	50
50	50	50	50	50	50	76	77	70	55	50

TIME: 1115

SECTOR	G	G	G	G	G	G	G	G	G	G
WB	0.03	0.19	0.1	0.08	0.03	0.01	0	0	0	0
CT	0	0	0	0	0	0	0	0.06	2.7	0.7
ACT	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	7.7E-11	3.5E-09	9.0E-10
20	50	50	50	50	50	50	50	50	55	51
50	50	50	50	50	50	50	50	50	62	53

WB - whole body mR/hr  
CT - child thyroid mR/hr  
ACT - uCi/cc I in air

20 - gross cpm for 20 CF air sample (bkg = 50 cpm)  
50 - gross cpm for 50 CF air sample (bkg = 50 cpm)  
ZERO mR/hr indicates background  
(\*) offscale with E-120

PLUME CENTERLINE DATA FOR EST  
1992 EXERCISE

MILES

	0.2	0.5	0.83	1	2	3	4	5	7	10
TIME: 1145										
SECTOR	G	G	G	G	G	G	G			G
WB	0.01	0.18	0.09	0.07	0.03	0.02	0.01	0	0	0
CT	0	0	0	0	0	0	0	0	0	1.3
ACT	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.7E-09
20	50	50	50	50	50	50	50	50	50	52
50	50	50	50	50	50	50	50	50	50	56

TIME: 1215										
SECTOR	F	F	F	F	F	F	G			G
WB	0.02	0.15	0.08	0.06	0.02	0.01	0.01	0	0	0
CT	0	0	0	0	0	0	0	0	0	0.07
ACT	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	9.0E-11
20	50	50	50	50	50	50	50	50	50	50
50	50	50	50	50	50	50	50	50	50	50

TIME: 1245										
SECTOR	F	F	F	F	F	F				
WB	0.03	0.17	0.09	0.07	0.03	0.01	0	0	0	0
CT	0	0	0	0	0	0	0	0	0	0
ACT	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
20	50	50	50	50	50	50	50	50	50	50
50	50	50	50	50	50	50	50	50	50	50

TIME: 1315										
SECTOR	F	F	F	F	F	F				
WB	0.02	0.2	0.09	0.07	0.03	0.02	0	0	0	0
CT	0	0	0	0	0	0	0	0	0	0
ACT	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
20	50	50	50	50	50	50	50	50	50	50
50	50	50	50	50	50	50	50	50	50	50

TIME: 1345										
SECTOR	F	F	F	F	F	F				
WB	0.02	0.19	0.09	0.07	0.03	0.02	0	0	0	0
CT	0	0	0	0	0	0	0	0	0	0
ACT	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
20	50	50	50	50	50	50	50	50	50	50
50	50	50	50	50	50	50	50	50	50	50

WB - whole body mR/hr  
CT - child thyroid mR/hr  
ACT - uCi/cc I in air

20 - gross cpm for 20 CF air sample (bkg = 50 cpm)  
50 - gross cpm for 50 CF air sample (bkg = 50 cpm)  
ZERO mR/hr indicates background  
(\*) offscale with E-120

PLUME CENTERLINE DATA FOR EST  
1992 EXERCISE

MILES

0.2 0.5 0.83 1 2 3 4 5 7 10

TIME: 1415

SECTOR	G	G	G	G	G	G				
WB	0.02	0.16	0.08	0.06	0.02	0.02	0	0	0	0
CT	0	0	0	0	0	0	0	0	0	0
ACT	C	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
20	50	50	50	50	50	50	50	50	50	50
50	50	50	50	50	50	50	50	50	50	50

TIME: 1445

SECTOR	G	G	G	G	G	G				
WB	0.03	0.15	0.08	0.06	0.03	0.01	0	0	0	0
CT	0	0	0	0	0	0	0	0	0	0
ACT	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
20	50	50	50	50	50	50	50	50	50	50
50	50	50	50	50	50	50	50	50	50	50

TIME:

SECTOR										
WB										
CT										
ACT	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
20	50	50	50	50	50	50	50	50	50	50
50	50	50	50	50	50	50	50	50	50	50

TIME:

SECTOR										
WB										
CT										
ACT	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
20	50	50	50	50	50	50	50	50	50	50
50	50	50	50	50	50	50	50	50	50	50

TIME:

SECTOR										
WB										
CT										
ACT	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
20	50	50	50	50	50	50	50	50	50	50
50	50	50	50	50	50	50	50	50	50	50

WB - whole body mR/hr  
CT - child thyroid mR/hr  
ACT - uCi/cc I in air

20 - gross cpm for 20 CF air sample (bkg = 50 cpm)  
50 - gross cpm for 50 CF air sample (bkg = 50 cpm)  
ZERO mR/hr indicates background  
(\*) offscale with E-120

SPECIAL RECEPTOR DATA FOR EST  
1992 EXERCISE

TIME: 0915

SECT/DIST

WB

CT

ACT	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
20	50	50	50	50	50	50	50	50	50	50	50
50	50	50	50	50	50	50	50	50	50	50	50

TIME: 0945

SECT/DIST

WB

CT

ACT	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
20	50	50	50	50	50	50	50	50	50	50	50
50	50	50	50	50	50	50	50	50	50	50	50

TIME: 1015

SECT/DIST

G5

WB

0

CT

0.53

ACT	6.8E-10	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
20	51	50	50	50	50	50	50	50	50	50	50
50	52	50	50	50	50	50	50	50	50	50	50

TIME: 1045

SECT/DIST

G5

G7

G10

WB

0

0.01

0

CT

2.9

1.1

0.01

ACT	3.7E-09	1.4E-09	1.3E-11	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
20	55	52	50	50	50	50	50	50	50	50	50
50	63	55	50	50	50	50	50	50	50	50	50

TIME: 1115

SECT/DIST

G7

G10

WB

0

0

CT

1

0.59

ACT	1.3E-09	7.5E-10	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
20	52	51	50	50	50	50	50	50	50	50	50
50	55	53	50	50	50	50	50	50	50	50	50

WB - whole body mR/hr  
CT - child thyroid mR/hr  
ACT - uCi/cc I in air

20 - gross cpm for 20 CF air sample (bkg = 50 cpm)  
50 - gross cpm for 50 CF air sample (bkg = 50 cpm)  
ZERO mR/hr indicates background  
(\*) offscale with E-120

SPECIAL RECEPTOR DATA FOR EST  
1992 EXERCISE

TIME: 1145

SECT/DIST	G10										
WB	0										
CT	0.42										
ACT	5.4E-10	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
20	51	50	50	50	50	50	50	50	50	50	50
50	52	50	50	50	50	50	50	50	50	50	50

TIME: 1215

SECT/DIST	G10										
WB	0										
CT	0.03										
ACT	3.8E-11	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
20	50	50	50	50	50	50	50	50	50	50	50
50	50	50	50	50	50	50	50	50	50	50	50

TIME: 1245-1445

SECT/DIST											
WB											
CT											
ACT	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
20	50	50	50	50	50	50	50	50	50	50	50
50	50	50	50	50	50	50	50	50	50	50	50

TIME:

SECT/DIST											
WB											
CT											
ACT	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
20	50	50	50	50	50	50	50	50	50	50	50
50	50	50	50	50	50	50	50	50	50	50	50

TIME:

SECT/DIST											
WB											
CT											
ACT	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
20	50	50	50	50	50	50	50	50	50	50	50
50	50	50	50	50	50	50	50	50	50	50	50

WB - whole body mR/hr  
CT - child thyroid mR/hr  
ACT - uCi/cc I in air

20 - gross cpm for 20 CF air sample (bkg = 50 cpm)  
50 - gross cpm for 50 CF air sample (bkg = 50 cpm)  
ZERO mR/hr indicates background  
(\*) offscale with E-120

PLUME CENTERLINE DATA FOR DHRS  
1992 EXERCISE

MILES

10 12 14 16 18 20 22 24 26 28

TIME: 0915-1045

SECT/DIST

WB

CT

ACT	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
20	50	50	50	50	50	50	50	50	50	50	50
50	50	50	50	50	50	50	50	50	50	50	50

TIME: 1115

SECT/DIST

G

G

WB

0

0

CT

0.07

0.13

ACT	9.0E-11	1.7E-10	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
20	50	50	50	50	50	50	50	50	50	50	50
50	50	51	50	50	50	50	50	50	50	50	50

TIME: 1145

SECT/DIST

G

G

G

WB

0

0

0

CT

1.3

0.46

0.22

ACT	1.7E-09	5.9E-10	2.8E-10	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
20	52	51	50	50	50	50	50	50	50	50	50
50	56	52	51	50	50	50	50	50	50	50	50

TIME: 1215

SECT/DIST

G

G

G

G

WB

0

0

0

0

CT

0.07

0.83

0.41

0.25

ACT	9.0E-11	1.1E-09	5.2E-10	3.2E-10	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
20	50	52	51	50	50	50	50	50	50	50	50
50	50	54	52	51	50	50	50	50	50	50	50

TIME: 1245

SECT/DIST

G

G

G

G

WB

0

0

0

0

CT

0

0.01

0.55

0.38

0.18

ACT	0.0E+00	1.3E-11	7.0E-10	4.9E-10	2.3E-10	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
20	50	50	51	51	50	50	50	50	50	50	50
50	50	50	52	52	51	50	50	50	50	50	50

WB - whole body mR/hr  
CT - child thyroid mR/hr  
ACT - uCi/cc I in air

20 - gross cpm for 20 CF air sample (bkg = 50 cpm)  
50 - gross cpm for 50 CF air sample (bkg = 50 cpm)  
ZERO mR/hr indicates background  
(\*) offscale with E-120



PLUME CENTERLINE DATA FOR DHRS  
1992 EXERCISE

	MILES									
	10	12	14	16	18	20	22	24	26	28
TIME: 1315										
SECT/DIST					G	G	G			
WB	0	0	0	0	0	0	0			
CT	0	0	0	0.35	0.32	0.15				
ACT	0.0E+00	0.0E+00	0.0E+00	4.5E-10	4.1E-10	1.9E-10	0.0E+00	0.0E+00	0.0E+00	0.0E+00
20	50	50	50	51	51	50	50	50	50	50
50	50	50	50	52	51	51	50	50	50	50
TIME: 1345										
SECT/DIST					G	G	G			
WB	0	0	0	0	0	0	0			
CT	0	0	0	0	0.18	0.26	0.12			
ACT	0.0E+00	0.0E+00	0.0E+00	0.0E+00	2.3E-10	3.3E-10	1.5E-10	0.0E+00	0.0E+00	0.0E+00
20	50	50	50	50	50	50	50	50	50	50
50	50	50	50	50	51	51	51	50	50	50
TIME: 1415										
SECT/DIST						G	G	G	G	
WB	0	0	0	0	0	0	0	0	0	
CT	0	0	0	0	0	0.1	0.2	0.12	0.07	
ACT	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.3E-10	2.6E-10	1.5E-10	9.0E-11	0.0E+00
20	50	50	50	50	50	50	50	50	50	50
50	50	50	50	50	50	50	51	51	50	50
TIME: 1445										
SECT/DIST							G	G	G	G
WB	0	0	0	0	0	0	0	0	0	0
CT	0	0	0	0	0	0	0.02	0.16	0.12	0.06
ACT	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	2.6E-11	2.0E-10	1.5E-10	7.7E-11
20	50	50	50	50	50	50	50	50	50	50
50	50	50	50	50	50	50	50	51	51	50
TIME:										
SECT/DIST										
WB										
CT										
ACT	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
20	50	50	50	50	50	50	50	50	50	50
50	50	50	50	50	50	50	50	50	50	50

WB - whole body mR/hr  
CT - child thyroid mR/hr  
ACT - uCi/cc I in air

20 - gross cpm for 20 CF air sample (bkg = 50 cpm)  
50 - gross cpm for 50 CF air sample (bkg = 50 cpm)  
ZERO mR/hr indicates background  
(\*) offscale with E-120

Each page of the table contains 5 sections of data going down the page.

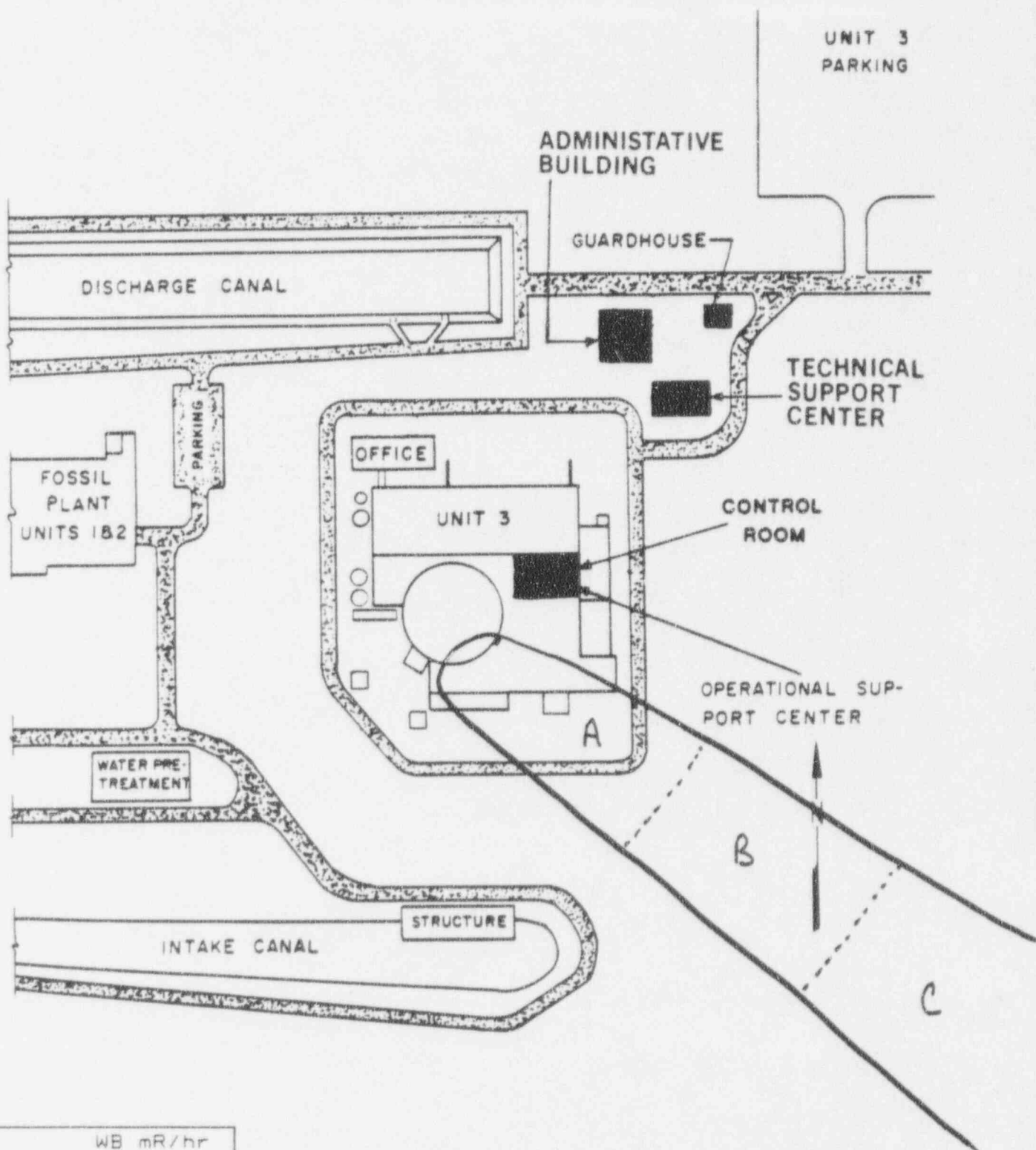
Each section has the following data:

TIME - Time dose rate is projected to exist in the environment  
SECTOR - The map sector that the plume data is for  
WB - whole body mR/hr  
CT - child thyroid committed mR per hour of exposure  
ACT - uCi/cc Iodine in air  
20 - gross cpm for 20 CF air sample with an E-120 (bkg = 50 cpm)  
50 - gross cpm for 50 CF air sample with an E-120 (bkg = 50 cpm)

Each section contains a data set for each distance listed on the top of the page. (e.g. 0.2 0.5 0.83 1 2 3 4 5 7 10)

Blanks or zeros in the dose rate positions indicate background.

TIME: 0915

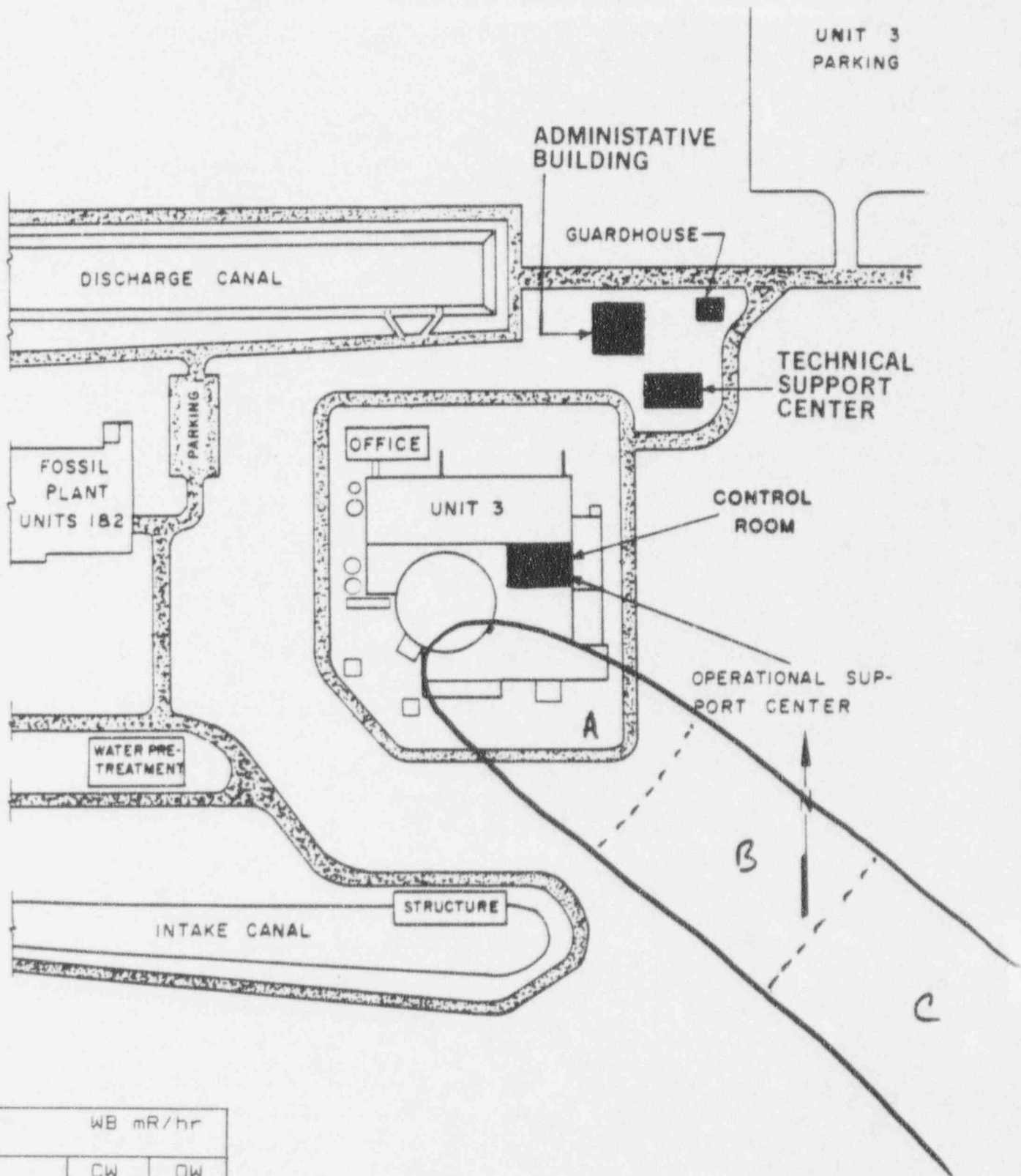


WB mR/hr		
	CW	OW
A	1.2	1.2
B	<1	<1
C	<1	<1

CW - CLOSED WINDOW

OW - OPEN WINDOW

TIME: 0945-1445



WB mR/hr		
	CW	OW
A	<1	<1
B	<1	<1
C	<1	<1

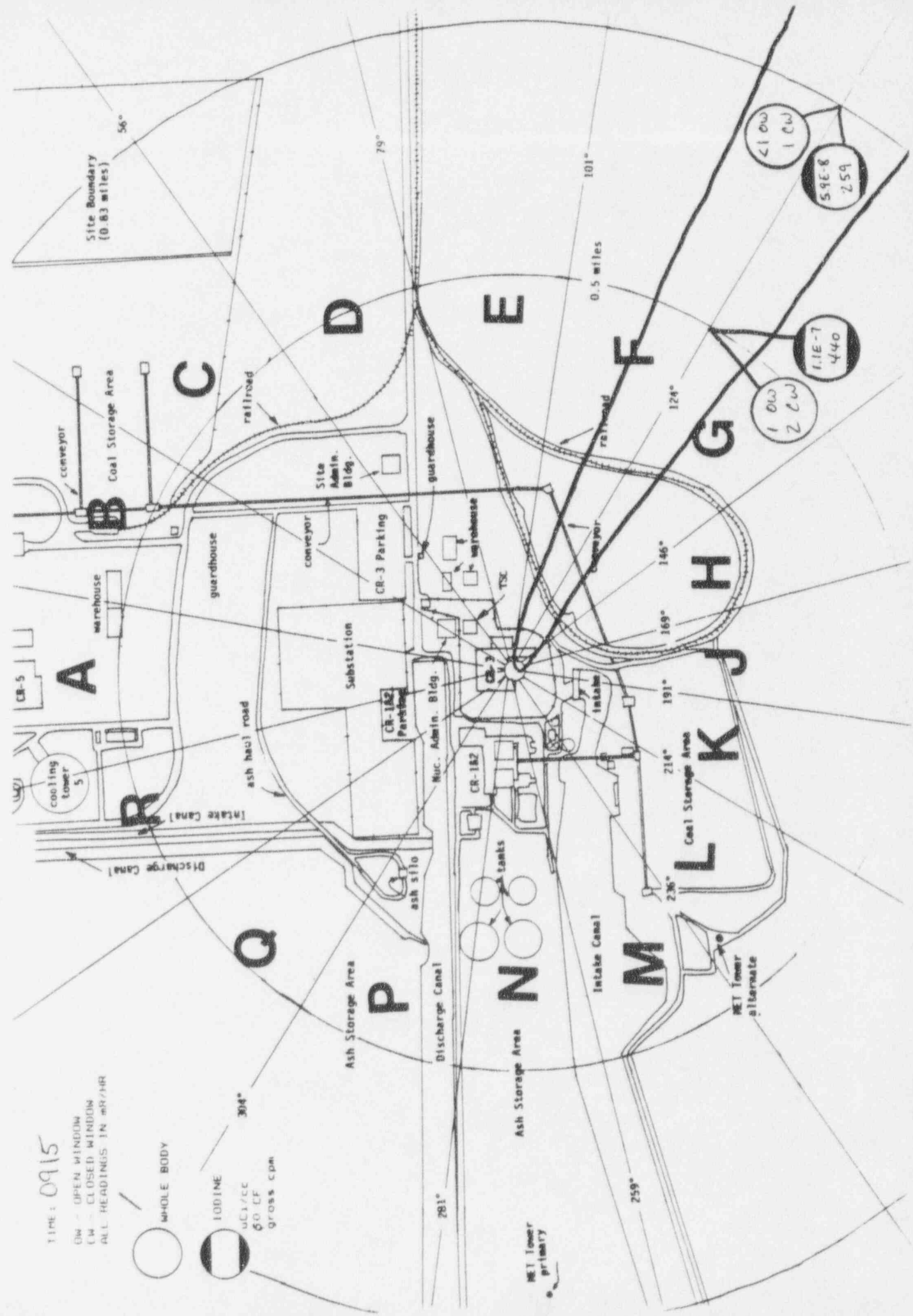
CW - CLOSED WINDOW

OW - OPEN WINDOW

OW - OPEN WINDOW  
CW - CLOSED WINDOW  
ALL READINGS IN mR/HR

IODINE

60 CF  
gross

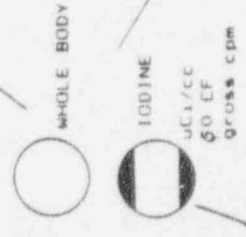






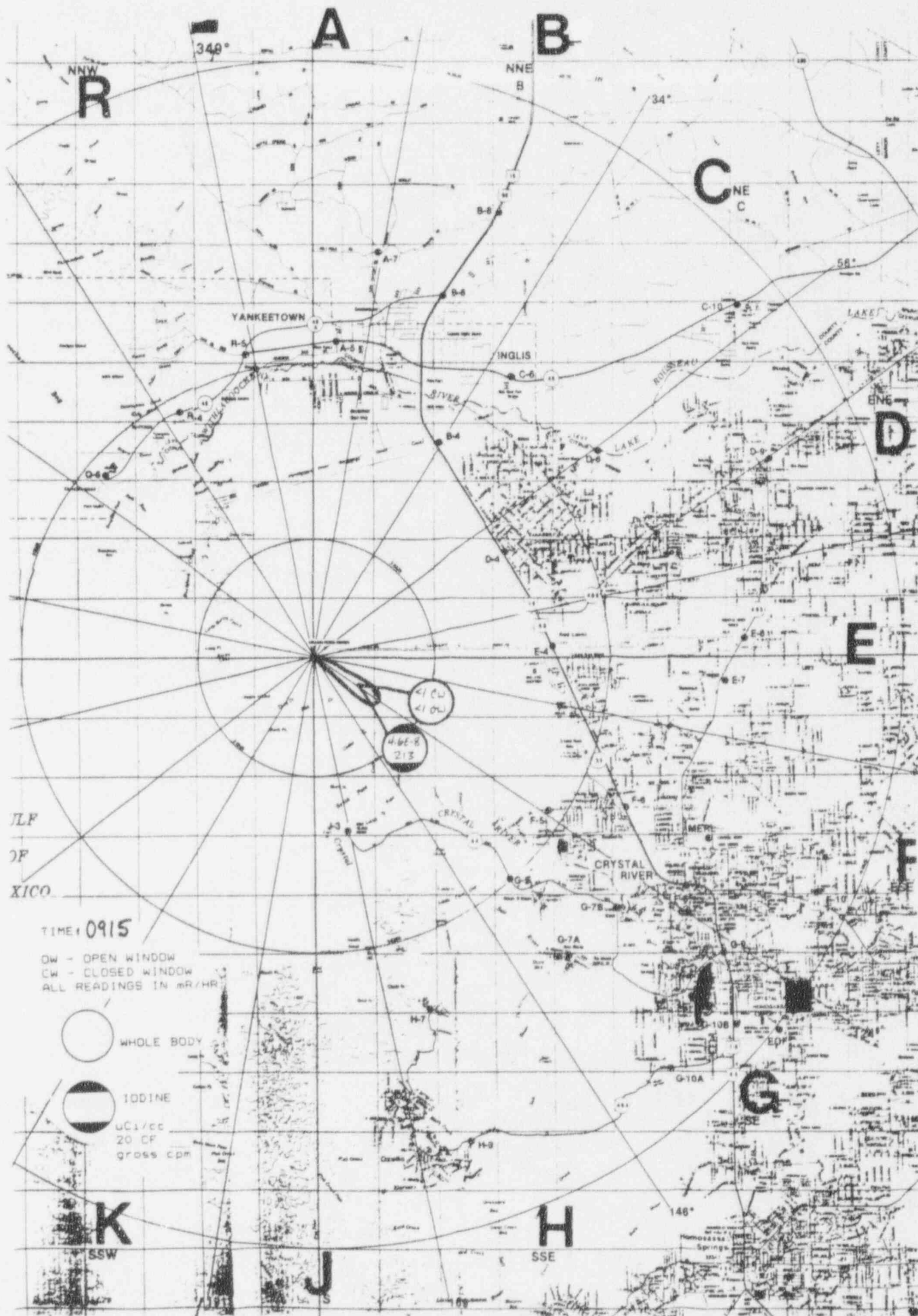
TIME: 1015

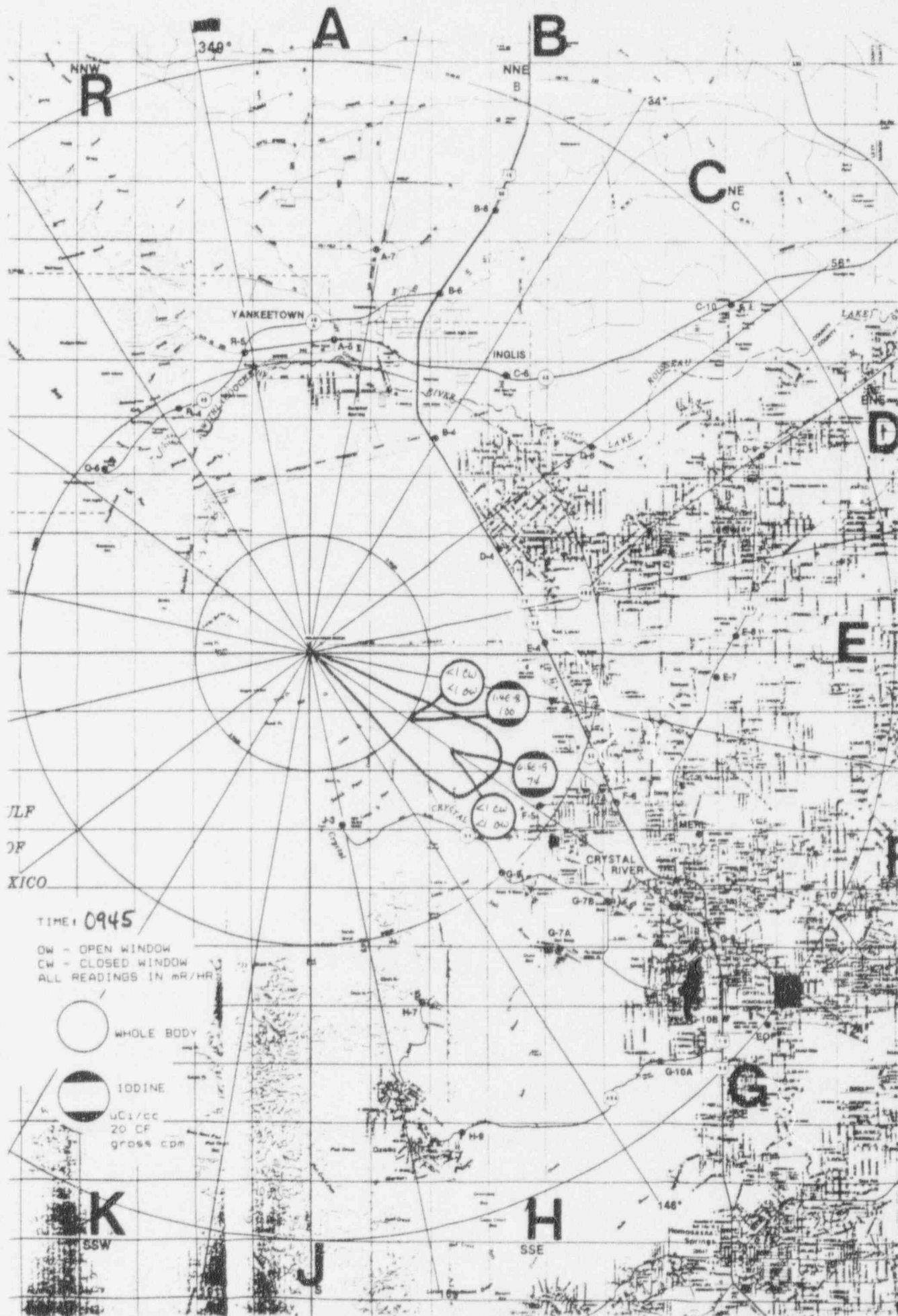
OW - OPEN WINDOW  
 CW - CLOSED WINDOW  
 ALL HEADINGS IN MR/HR

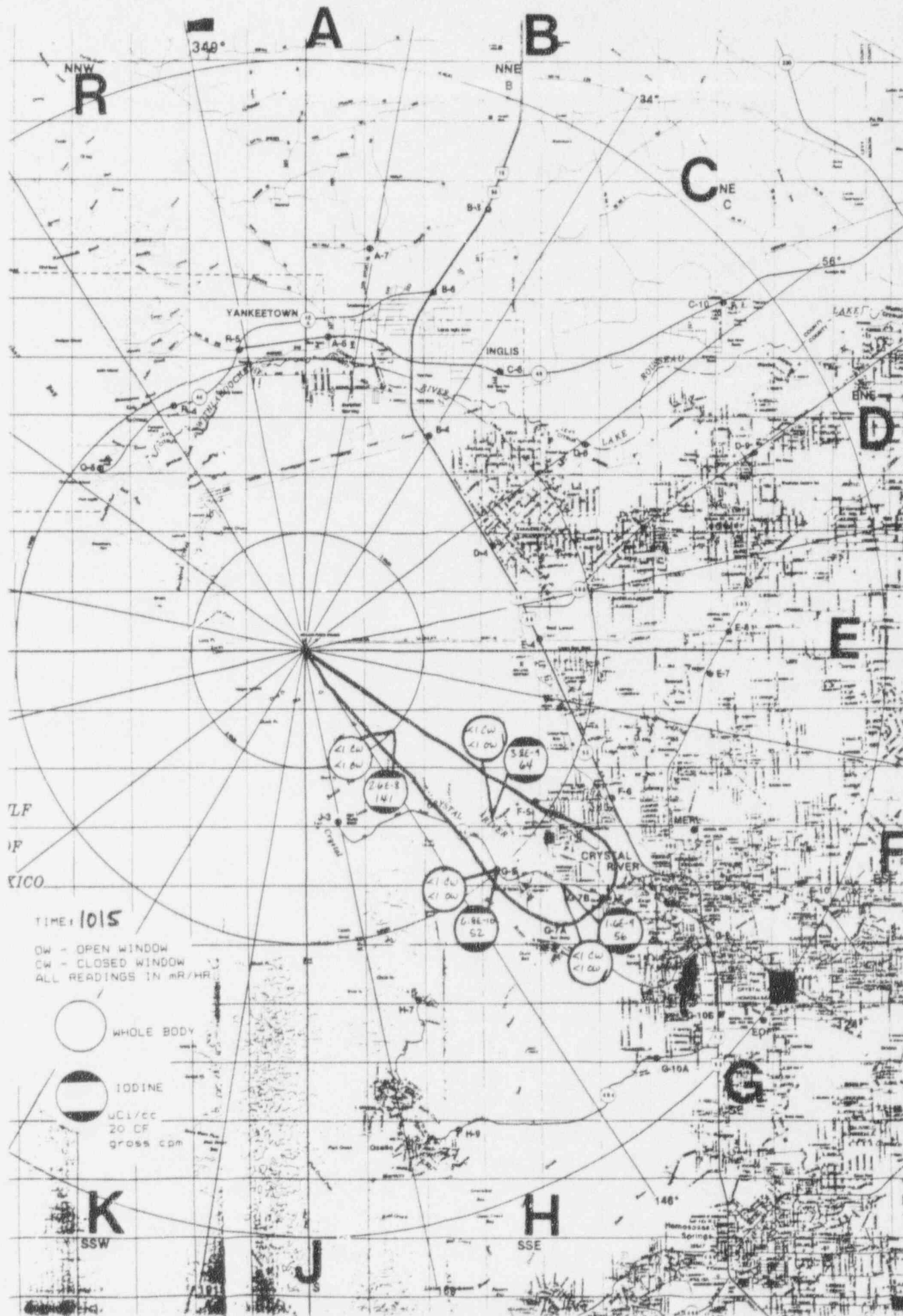




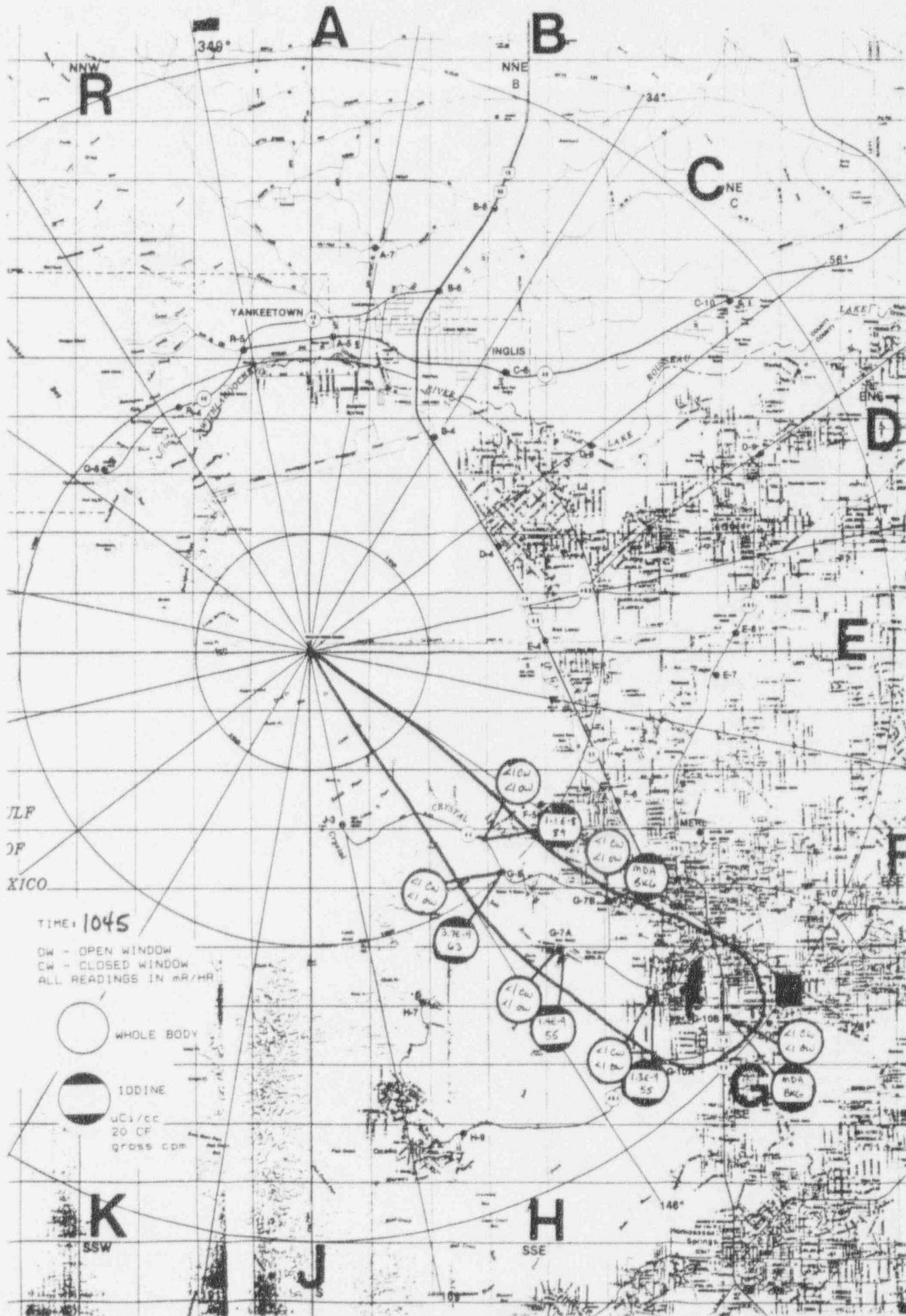


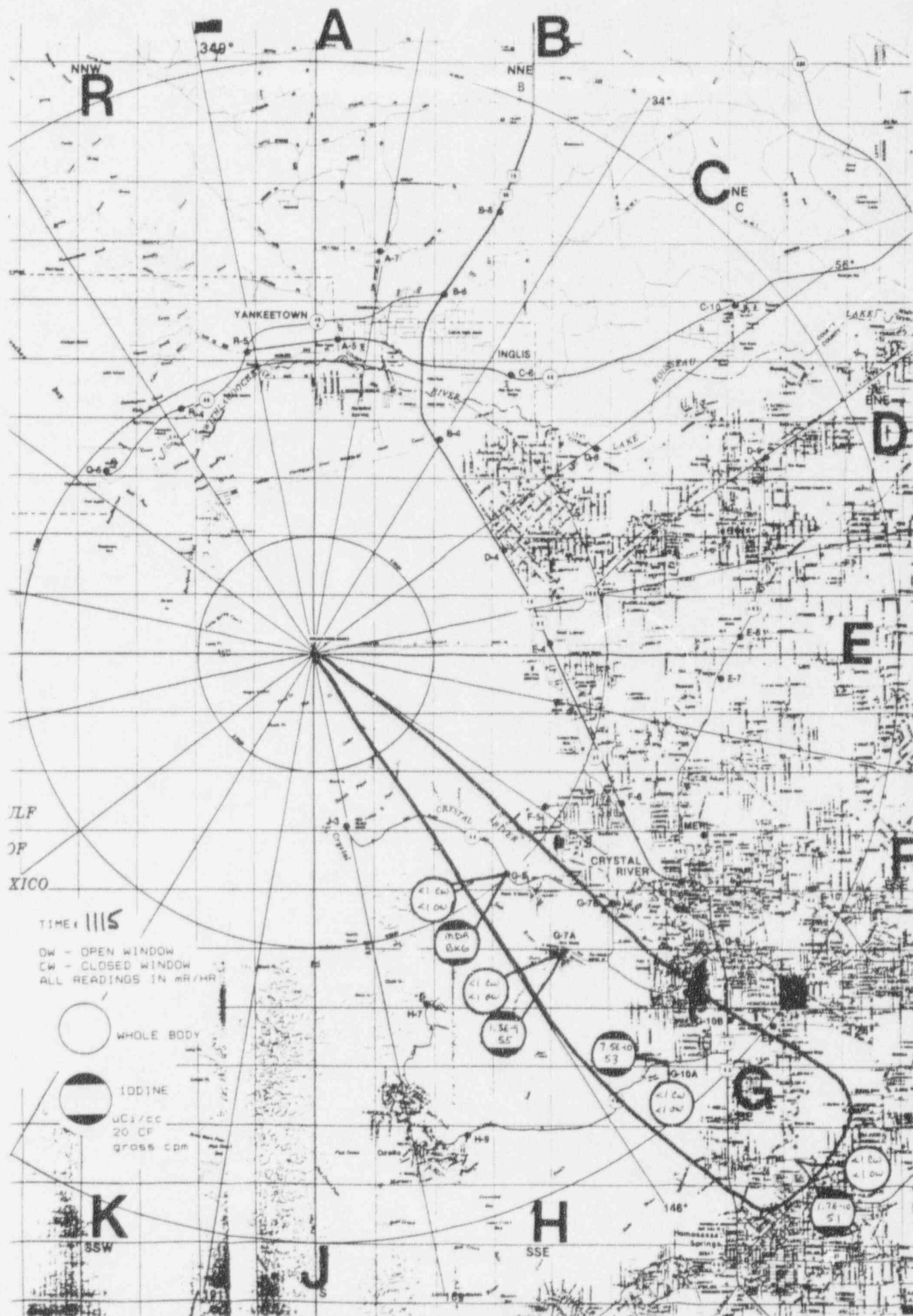


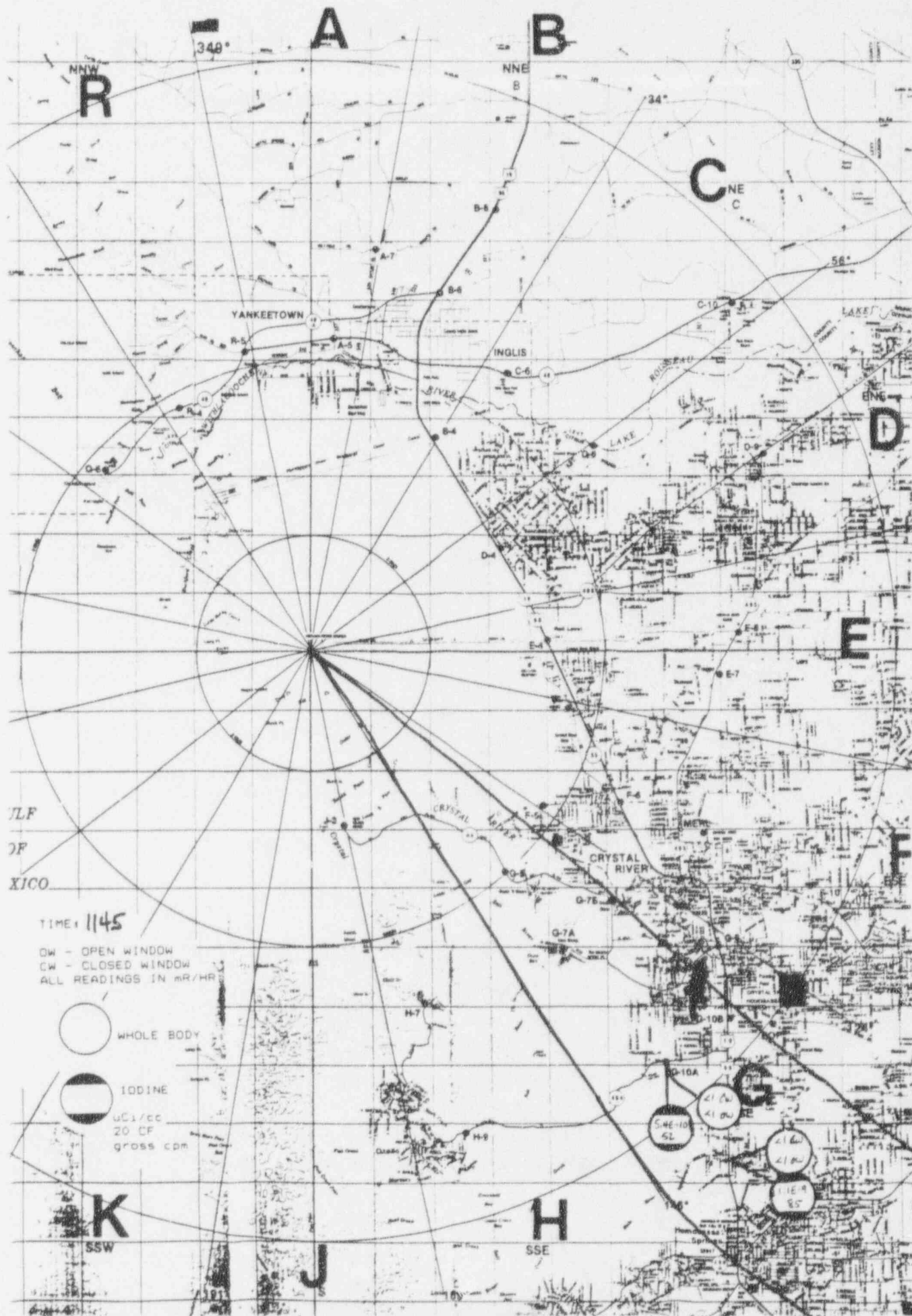




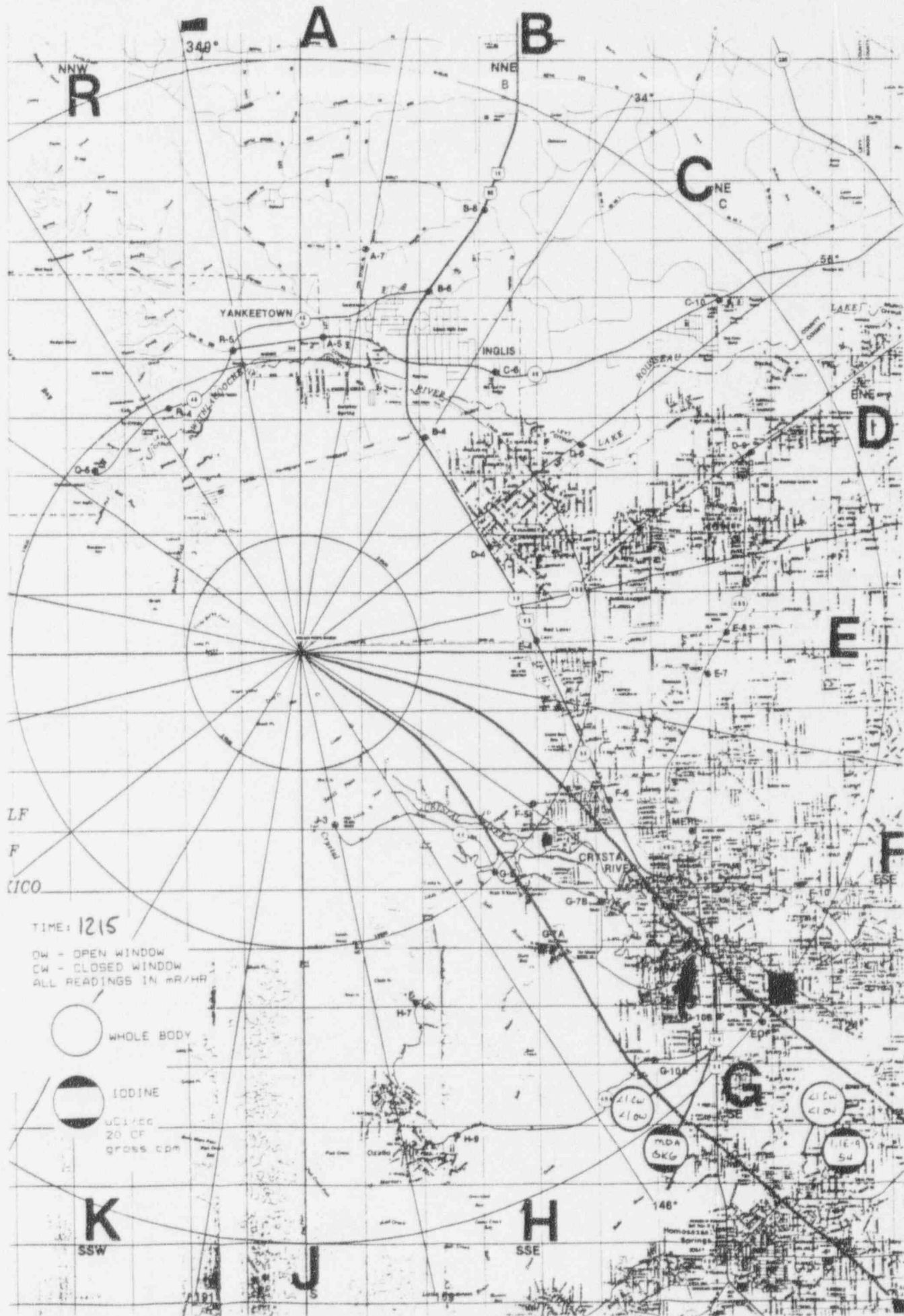


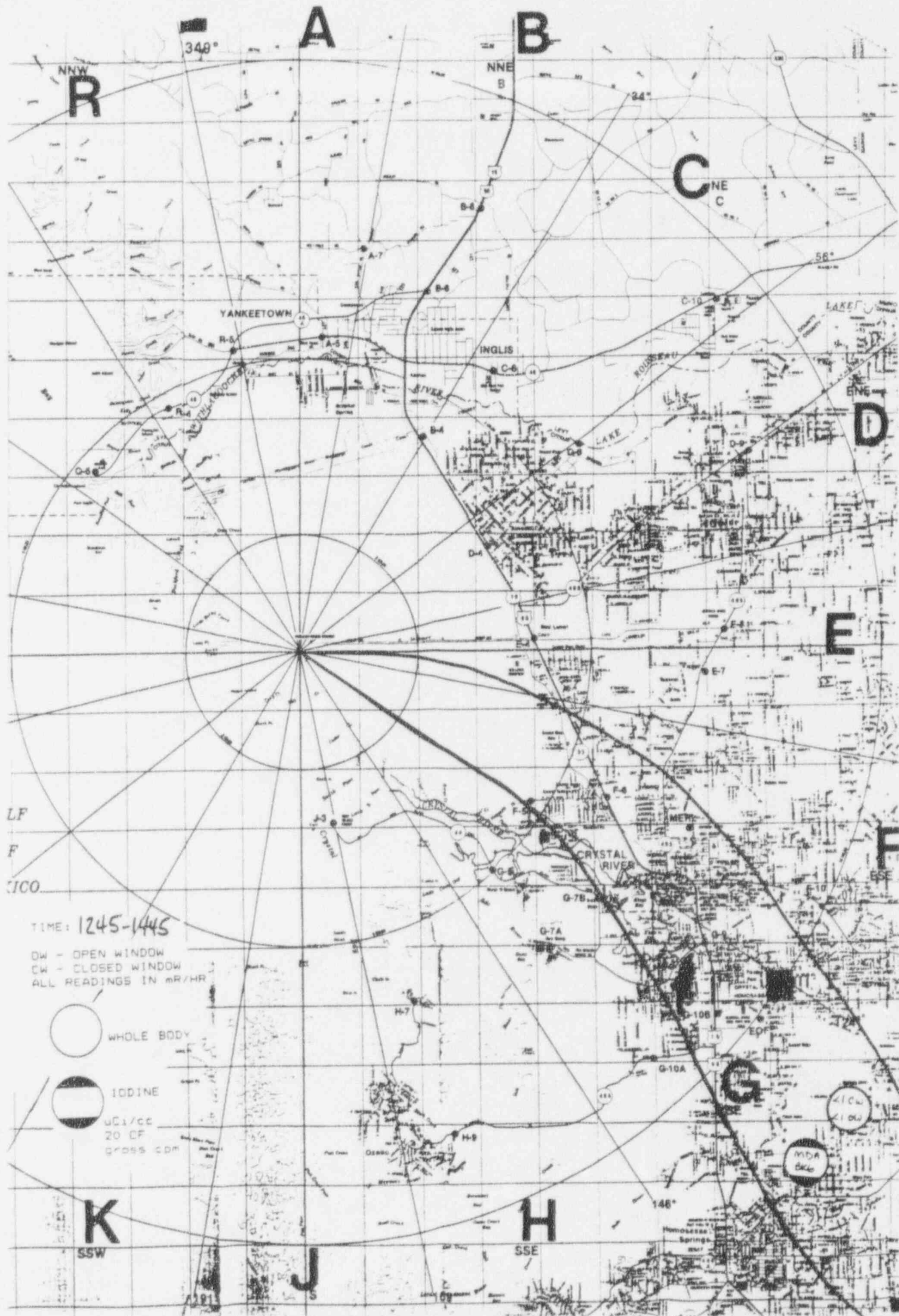














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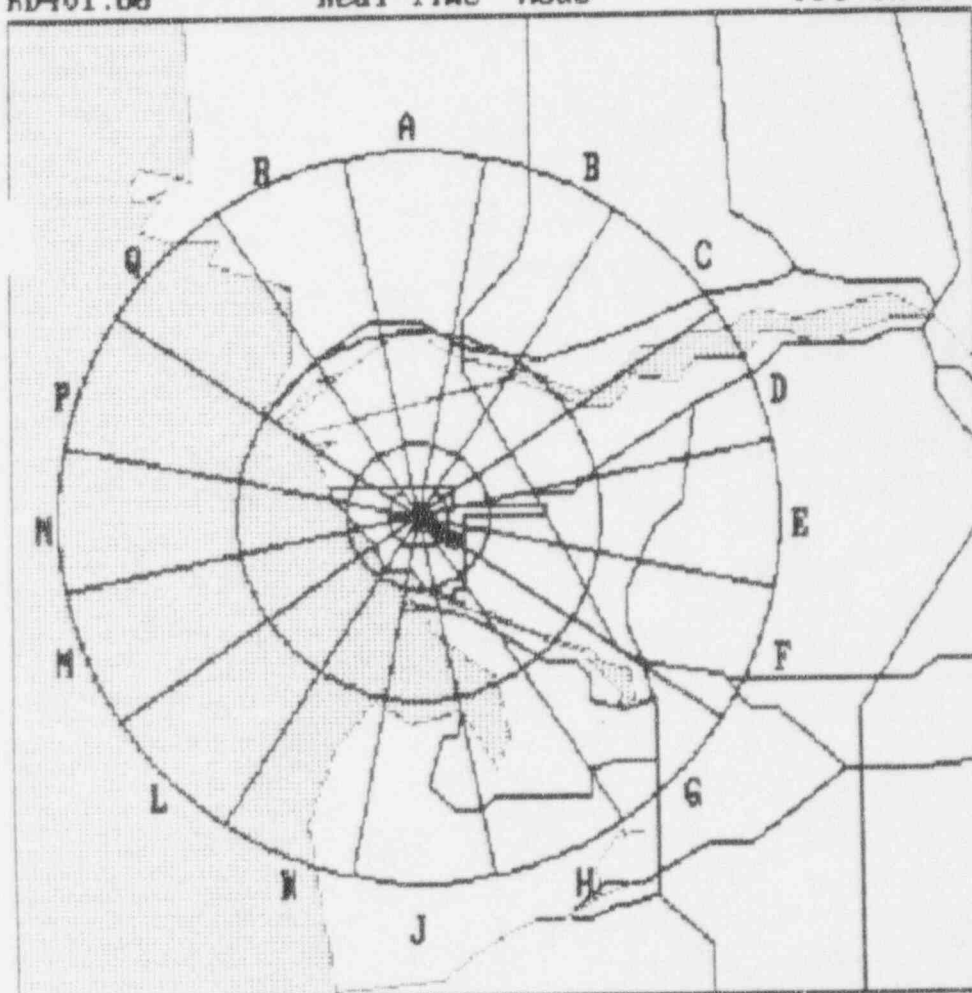
PROJ NUMBER: 001  
 PROJ DATE : 11/05/92  
 PROJ TIME : 09:15

PRINT DATE: 08/18/92  
 PRINT TIME: 08:37  
 OPERATOR : SEC

RD4v1.60

Real-Time Mode

FPC:CRMPP



MAXIMUM DOSE RATES

mrem/h: Whl-Bdy ChldThy

0.83mi	0.53	46.19
2.0 mi	0.33	0.30
5.0 mi	0.33	0.30
10.0 mi	0.33	0.30

PARs from Dose Rates

No PARs met

===== KEY =====

CIRCLES show position  
 of plume (3σ spread)  
 [Shaded Area] indicates areas  
 where HIGH RADIATION  
 AREAS are projected

CALC FOR: 11/05/92 @ 09:15 (Step 1) Operator: SEC  
 Wind: 1.1 m/s from 305° StbCl = E Precip = 0.0in/15M

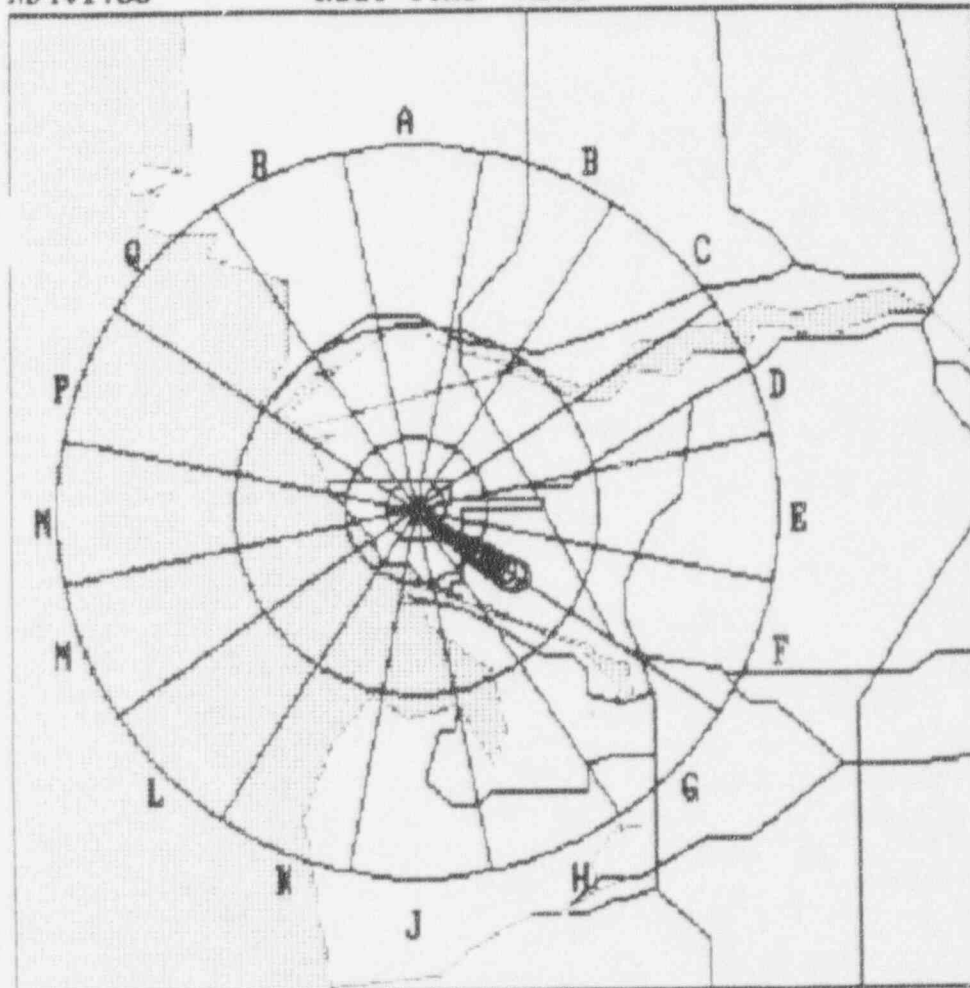
RADN NUMBER: 100  
 FROM DATE: 11/05/92  
 FROM TIME: 09:45

PRINT DATE: 05/13/92  
 PRINT TIME: 09:45  
 OPERATOR: SEC

RD4v1.60

Real-Time Mode

FPC:CRMP



MAXIMUM DOSE RATES		
mrem/h: Wbl-Bdy ChldThy		
0.83mi	0.22	30.22
2.0 mi	0.47	18.34
5.0 mi	0.40	0.30
10.0 mi	0.30	0.30
PARs from Dose Rates		
No PARs met		
===== K E Y =====		
CIRCLES show position of plume (3σ spread)		
[Shaded Area] Indicates areas where HIGH RADIATION AREAS are projected		

CALC FOR: 11/05/92 @ 09:45 (Step 2) Operator: SEC  
 Wind: 1.9 m/s from 388° StbCl = E Precip = 0.0in/15M

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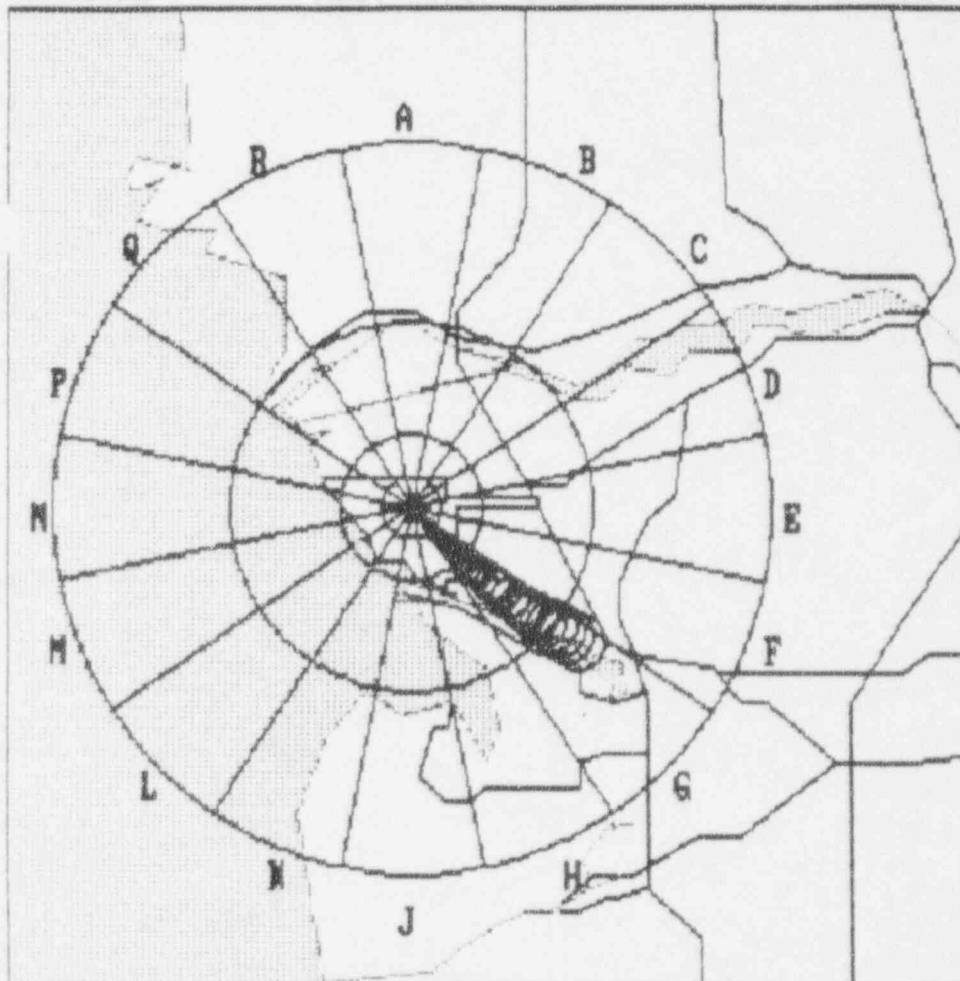
PROJ NUMBER: 003  
PROJ DATE : 11/05/92  
PROJ TIME : 10:15

PRINT DATE: 06/15/93  
PRINT TIME: 09:14  
OPERATOR : SEC

RD4v1.60

Real-Time Mode

FPC:CRMPP



MAXIMUM DOSE RATES

mrem/h: Whl-Bdy Chld Thy

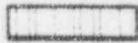
0.83mi	8.14	63.62
2.0 mi	8.94	19.75
5.0 mi	8.43	2.54
10.0 mi	8.88	0.88

PARs from Dose Rates

No PARs met

===== K E Y =====

CIRCLES show position  
of plume (3σ spread)

 Indicates areas  
where HIGH RADIATION  
AREAS are projected

CALC FOR: 11/05/92 @ 10:15 (Step 3) Operator: SEC  
Wind: 2.5 m/s from 318° StbCl = E Precip = 0.0in/15M

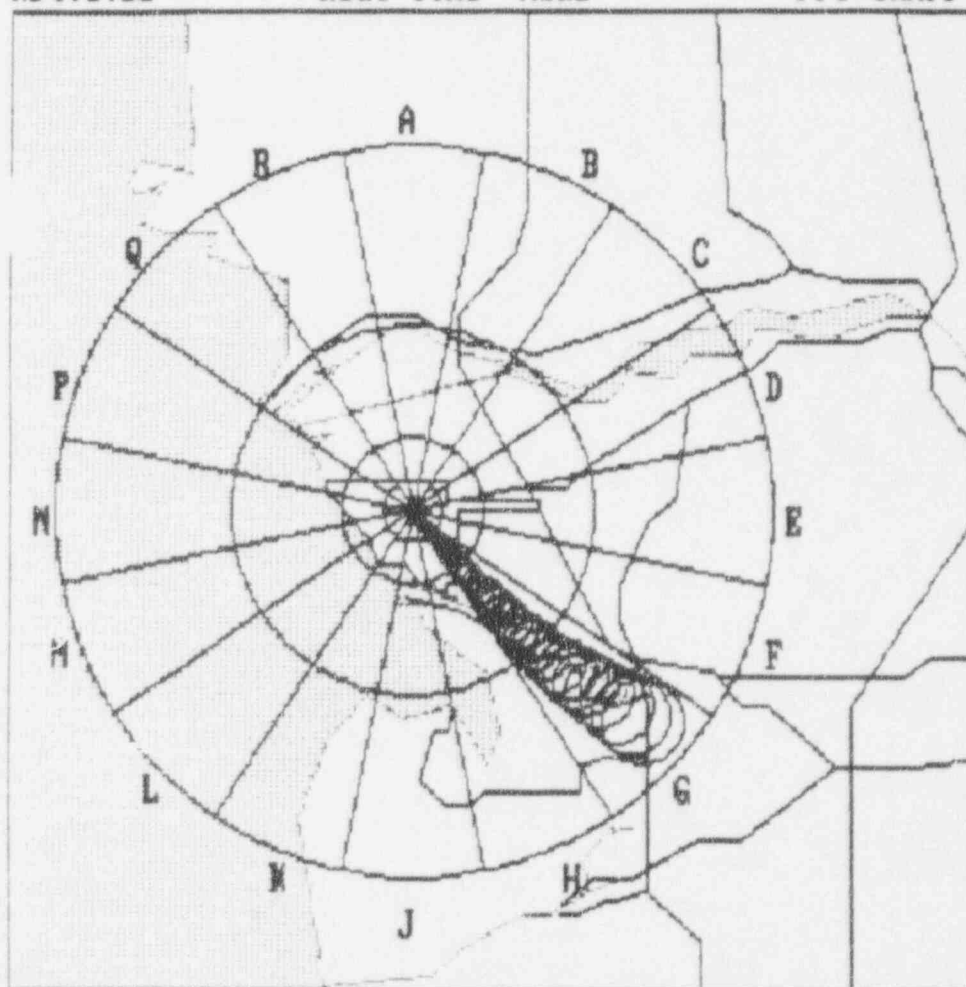
PROJ NUMBER: 004  
 PROJ DATE: 11/05/92  
 PROJ TIME: 10:45

PRINT DATE: 08/18/93  
 PRINT TIME: 09:02  
 OPERATOR: SEC

RD4v1.60

Real-Time Mode

FPC:CRNPP



### MAXIMUM DOSE RATES

mrem/h: Whl-Bdy ChldThy

0.03mi	0.09	0.20
2.0 mi	0.03	0.08
5.0 mi	0.01	0.04
10.0 mi	0.00	0.00

PARs from Dose Rates

No PARs met

===== K E Y =====

CIRCLES show position  
 of plume (3σ spread)  
 [Shaded Area] indicates areas  
 where HIGH RADIATION  
 AREAS are projected

ALC FOR: 11/05/92 @ 10:45 (Step 4) Operator: SEC  
 Ind: 2.6 m/s from 322° StbCl = E Precip = 0.0in/15M

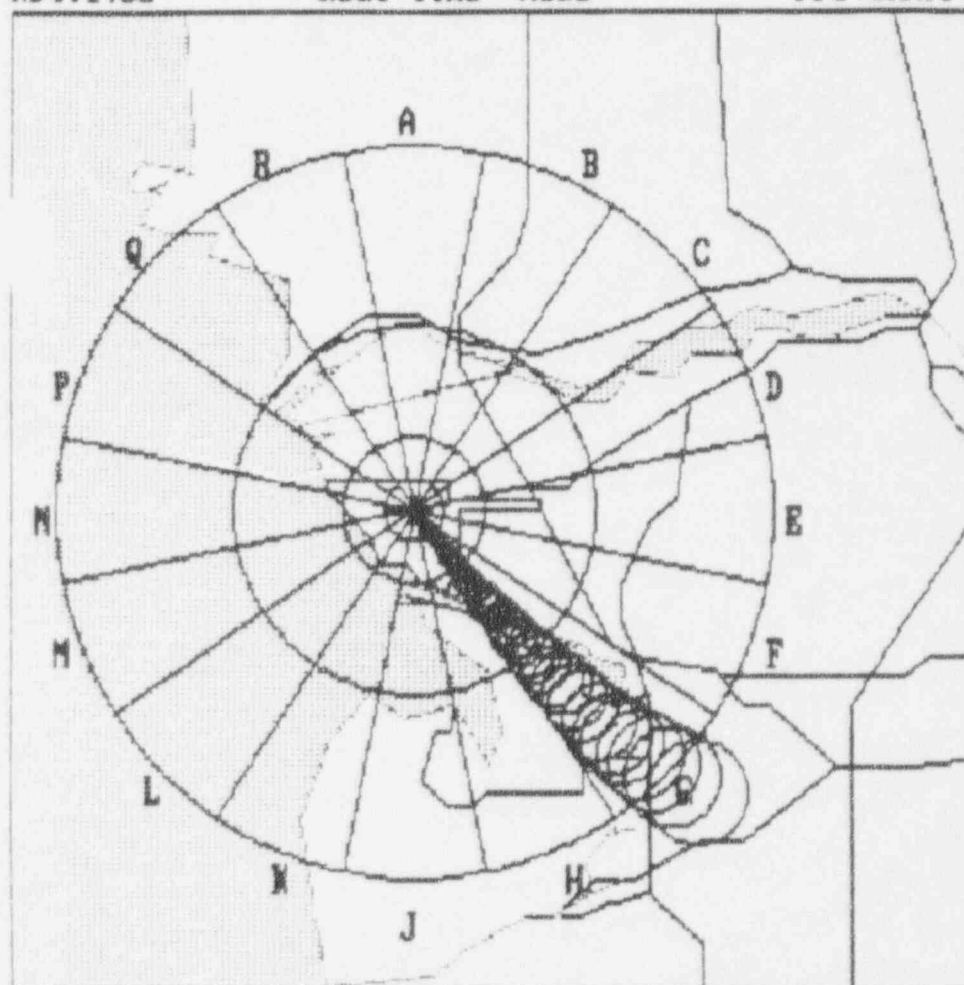
PROJ NUMBER: 005  
 PROJ DATE: 11/05/92  
 PROJ TIME: 11:15

PRINT DATE: 08/27/93  
 PRINT TIME: 14:12  
 OPERATOR: SEC

RD4v1.60

Real-Time Mode

FPC:CRMP



### MAXIMUM DOSE RATES

mrem/h: Wbl-Bdy ChldThy

0.83mi	8.18	0.88
2.0 mi	8.83	0.88
5.0 mi	0.88	0.88
10.0 mi	8.88	0.78

### PARs from Dose Rates

No PARs met

===== K E Y =====

CIRCLES show position  
 of plume (3σ spread)  
 [Shaded Box] indicates areas  
 where HIGH RADIATION  
 AREAS are projected

CALC FOR: 11/05/92 @ 11:15 (Step 5) Operator: SEC  
 Wind: 2.3 m/s from 325° StbCl = E Precip = 0.0in/15M



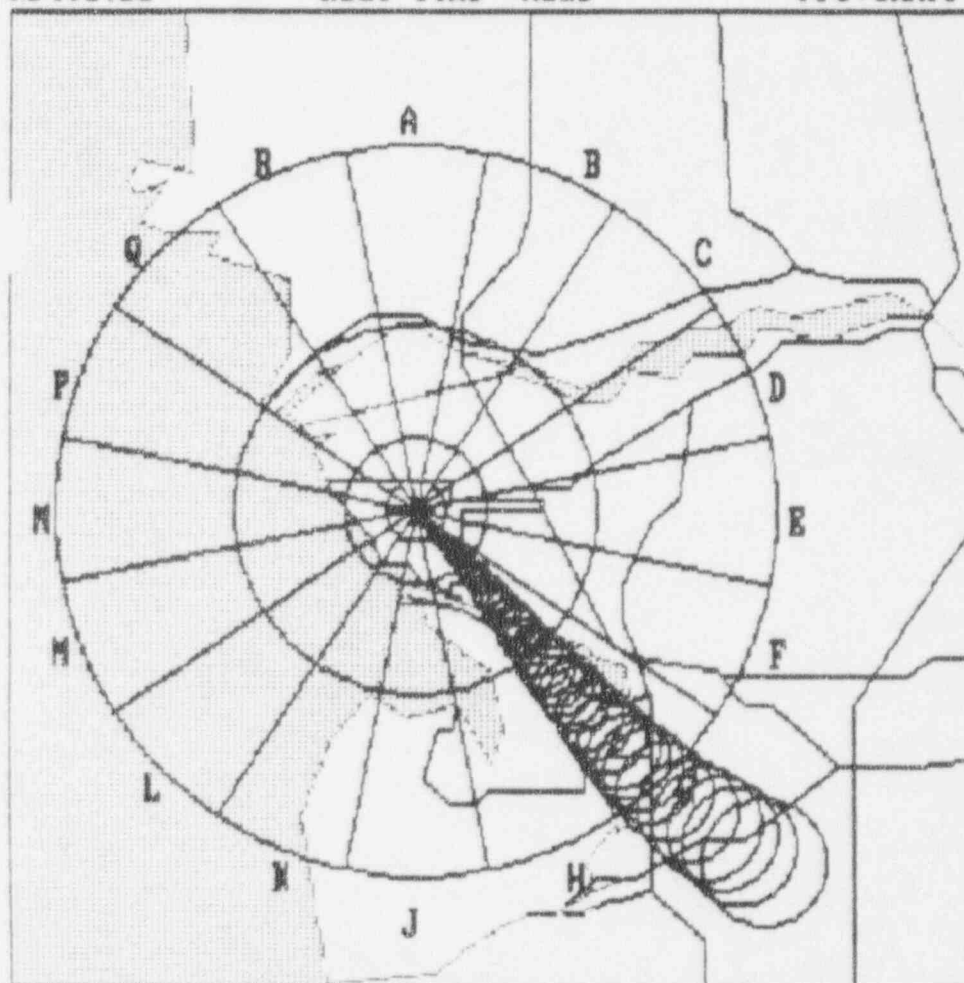
PROJ NUMBER: 006  
PROJ DATE : 11/05/92  
PROJ TIME : 11:45

PRINT DATE: 08/18/92  
PRINT TIME: 10:54  
OPERATOR : SEC

RD4v1.60

Real-Time Mode

FPC:CRNPP



### MAXIMUM DOSE RATES

mrem/h: Wbl-Bdy ChldThy

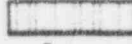
0.83mi	0.99	0.80
2.0 mi	0.93	0.80
5.0 mi	0.88	0.80
10.0 mi	0.80	1.30

PARs from Dose Rates

No PARs met

===== K E Y =====

CIRCLES show position  
of plume (3σ spread)

 indicates areas  
where HIGH RADIATION  
AREAS are projected

CALC FOR: 11/05/92 @ 11:45 (Step 6) Operator: SEC  
Wind: 2.5 m/s from 320° StbCl = E Precip = 0.0in/15M

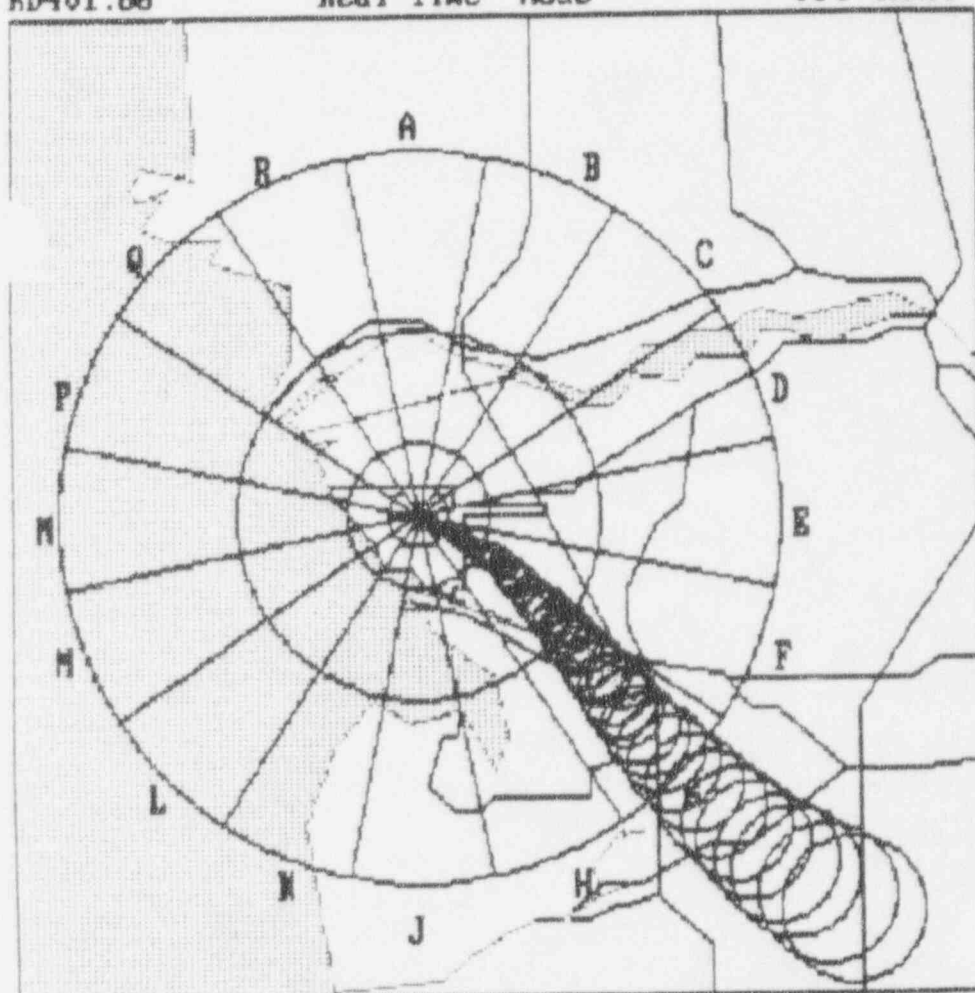
PROJ NUMBER: 007  
 PROJ DATE : 11/05/92  
 PROJ TIME : 12:15

PRINT DATE: 08/13/92  
 PRINT TIME: 14:51  
 OPERATOR : SEC

RD4v1.68

Real-Time Mode

FPC:CRMPP



### MAXIMUM DOSE RATES

mrem/h: Wbl-Bdy ChldThy

0.03mi	0.00	0.00
2.0 mi	0.02	0.00
5.0 mi	0.00	0.00
10.0 mi	0.00	0.07

### PARs from Dose Rates

No PARs met

### ===== K E Y =====

CIRCLES show position  
 of plume (3σ spread)

Indicates areas  
 where HIGH RADIATION  
 AREAS are projected

CALC FOR: 11/05/92 @ 12:15 (Step 7) Operator: SEC  
 Wind: 2.3 m/s from 302° StbCl = E Precip = 0.0in/15M



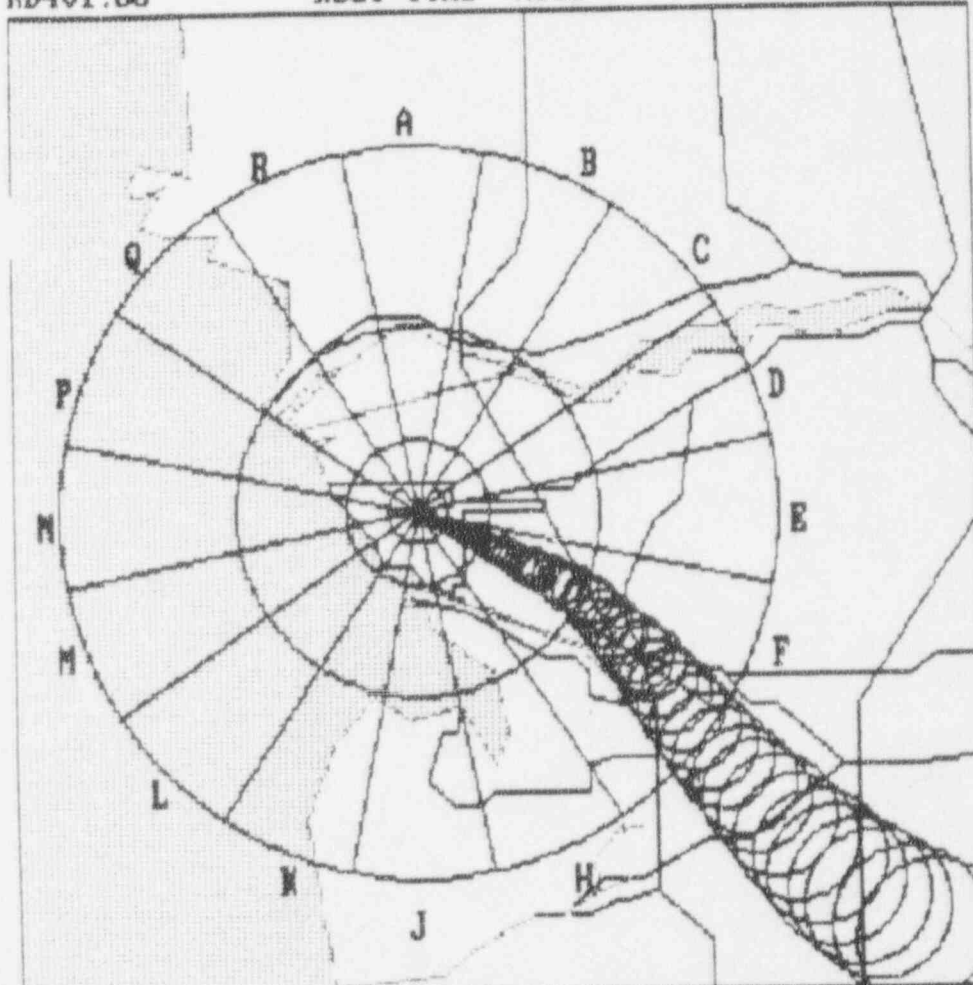
PROJ NUMBER: 008  
 PROJ DATE : 11/05/92  
 PROJ TIME : 12:45

PRINT DATE: 11/15/92  
 PRINT TIME: 13:01  
 OPERATOR : SEC

RD4v1.60

Real-Time Mode

FPC:CRMPP



### MAXIMUM DOSE RATES

mrem/h: Whl-Bdy ChldThy

0.83mi	8.89	8.89
2.0 mi	8.43	8.78
5.0 mi	8.88	8.88
10.0 mi	8.88	8.88

PARs from Dose Rates

No PARs met

===== K E Y =====

CIRCLES show position  
 of plume (3σ spread)  
 [Shaded Area] Indicates areas  
 where HIGH RADIATION  
 AREAS are projected

CALC FOR: 11/05/92 @ 12:45 (Step 8) Operator: SEC  
 Wind: 2.3 w/s from 297° StbCl = E Precip = 0.8in/15M

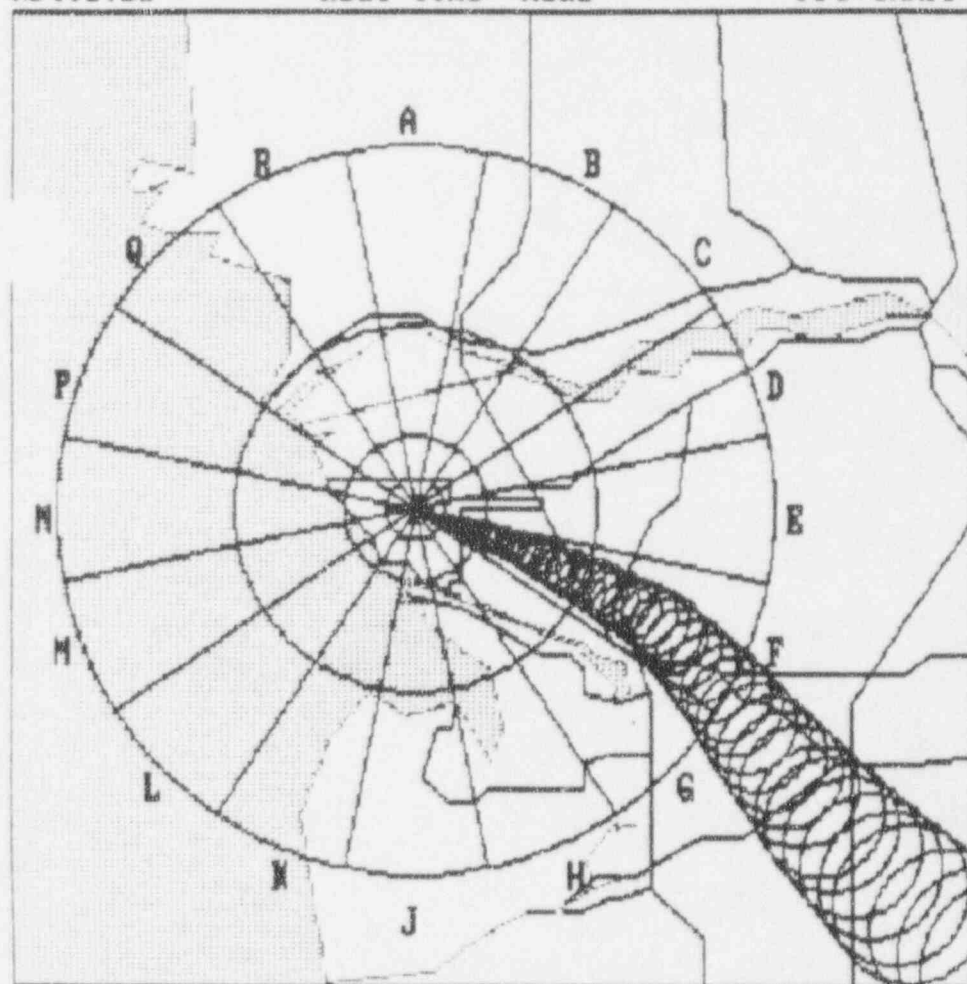
PROJ NUMBER: 009  
 PROJ DATE : 11/05/92  
 PROJ TIME : 13:15

PRINT DATE: 08/18/92  
 PRINT TIME: 13:30  
 OPERATOR : SEC

RD4v1.60

Real-Time Mode

FPC:CRNPP



### MAXIMUM DOSE RATES

mrem/h: Whl-Bdy ChldThy

0.83mi	8.89	8.88
2.0 mi	8.93	8.88
5.0 mi	8.98	8.88
10.0 mi	8.99	8.88

PARs from Dose Rates

No PARs met

===== K E Y =====

CIRCLES show position  
 of plume (3σ spread)  
 [Shaded Area] Indicates areas  
 where HIGH RADIATION  
 AREAS are projected

CALC FOR: 11/05/92 @ 13:15 (Step 9) Operator: SEC  
 id: 2.2 m/s from 292° StbCl = E Precip = 0.8in/15M

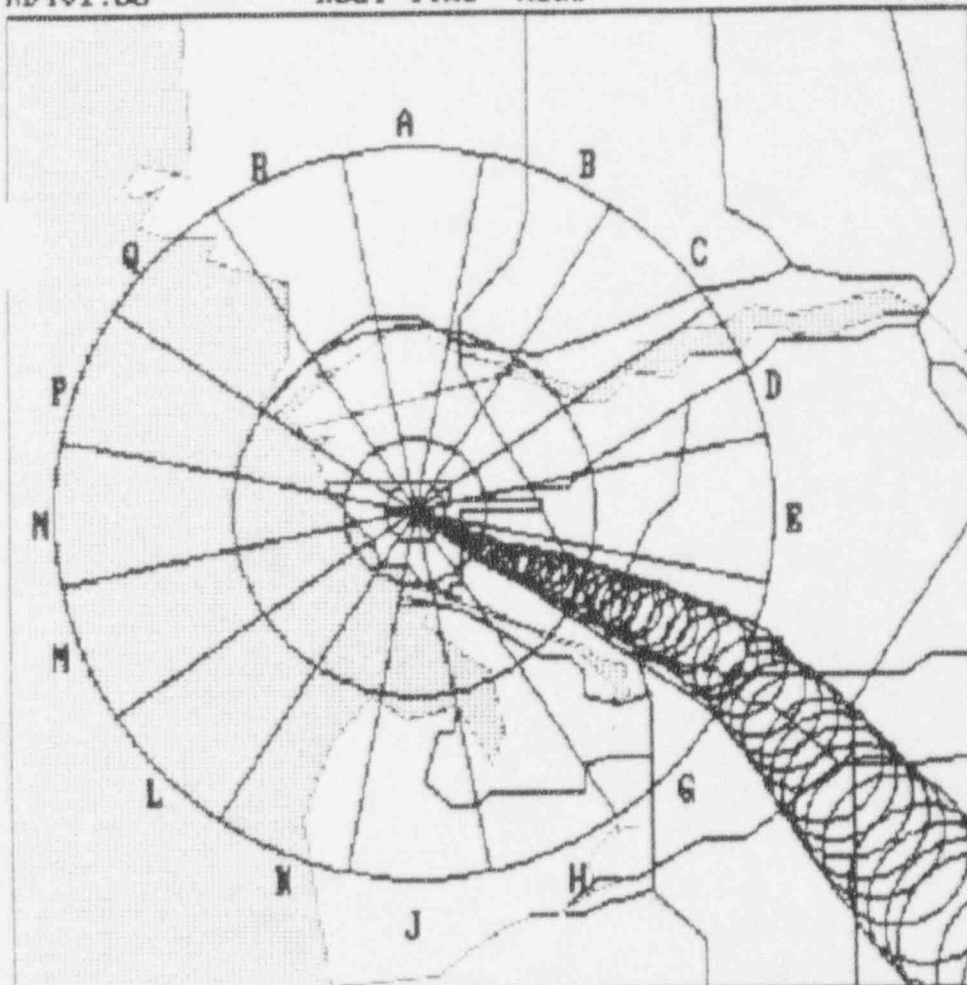
PROJ NUMBER: 010  
PROJ DATE: 11/05/92  
PROJ TIME: 13:45

PRINT DATE: 08/18/93  
PRINT TIME: 15:42  
OPERATOR: SEC

RD4v1.60

Real-Time Mode

FPC:CRNPP



### MAXIMUM DOSE RATES

mrem/h: Whl-Bdy ChldThy

0.83mi	8.89	8.88
2.0 mi	8.83	8.88
5.0 mi	8.88	8.88
10.0 mi	8.88	8.88

PARs from Dose Rates

No PARs met

===== K E Y =====

CIRCLES show position  
of plume (3σ spread)

Indicates areas  
where HIGH RADIATION  
AREAS are projected

CALC FOR: 11/05/92 @ 13:45 (Step 10) Operator: SEC  
Ind: 2.1 m/s from 301° StbCl = E Precip = 0.0in/15M

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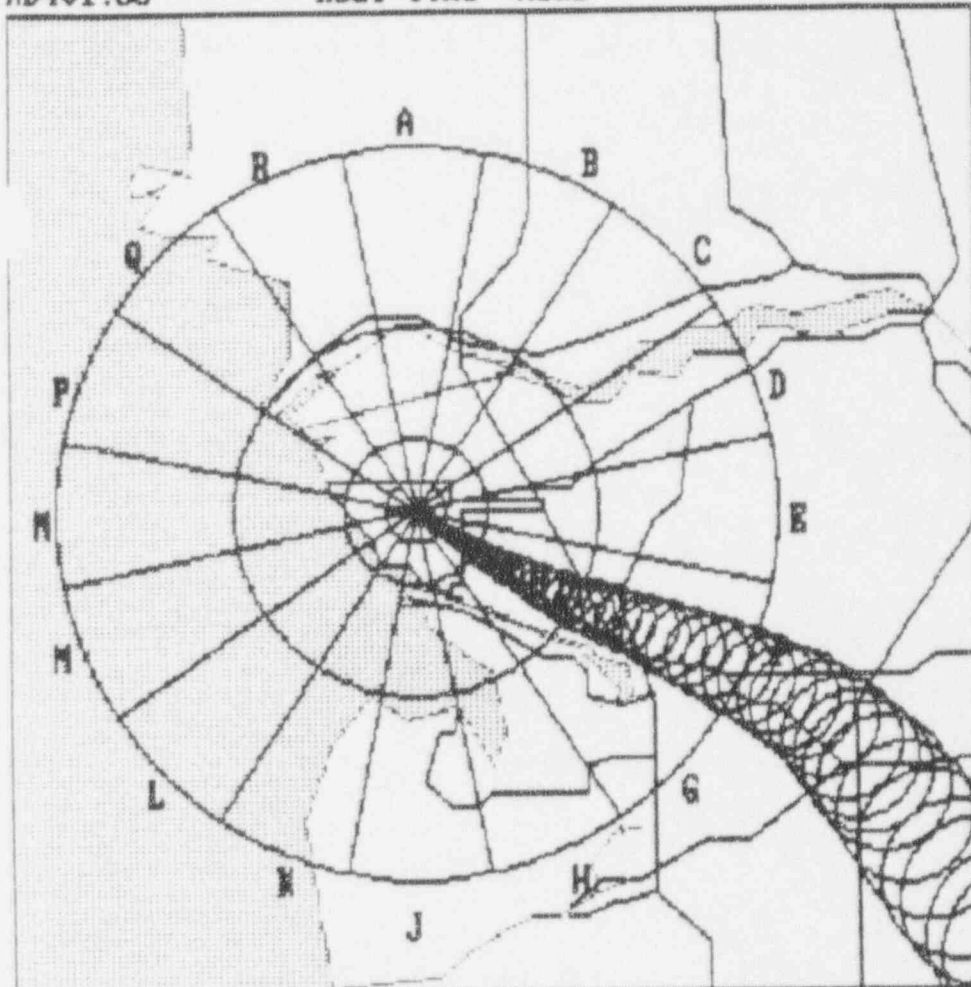
PROJ NUMBER: 011  
PROJ DATE : 11/05/92  
PROJ TIME : 14:15

PRINT DATE: 09/18/92  
PRINT TIME: 15:58  
OPERATOR : SEC

RD4v1.60

Real-Time Mode

FPC:CRNPP



MAXIMUM DOSE RATES

mrem/h: Whl-Bdy ChldThy

0.83mi	0.00	0.00
2.0 mi	0.02	0.00
5.0 mi	0.00	0.00
10.0 mi	0.00	0.00

PARs from Dose Rates

No PARs met

===== K E Y =====

CIRCLES show position  
of plume (3σ spread)  
Indicates areas  
where HIGH RADIATION  
AREAS are projected

CALC FOR: 11/05/92 @ 14:15 (Step 11) Operator: SEC  
Wind: 2.4 m/s from 305° StbCl = E Precip = 0.0in/15m

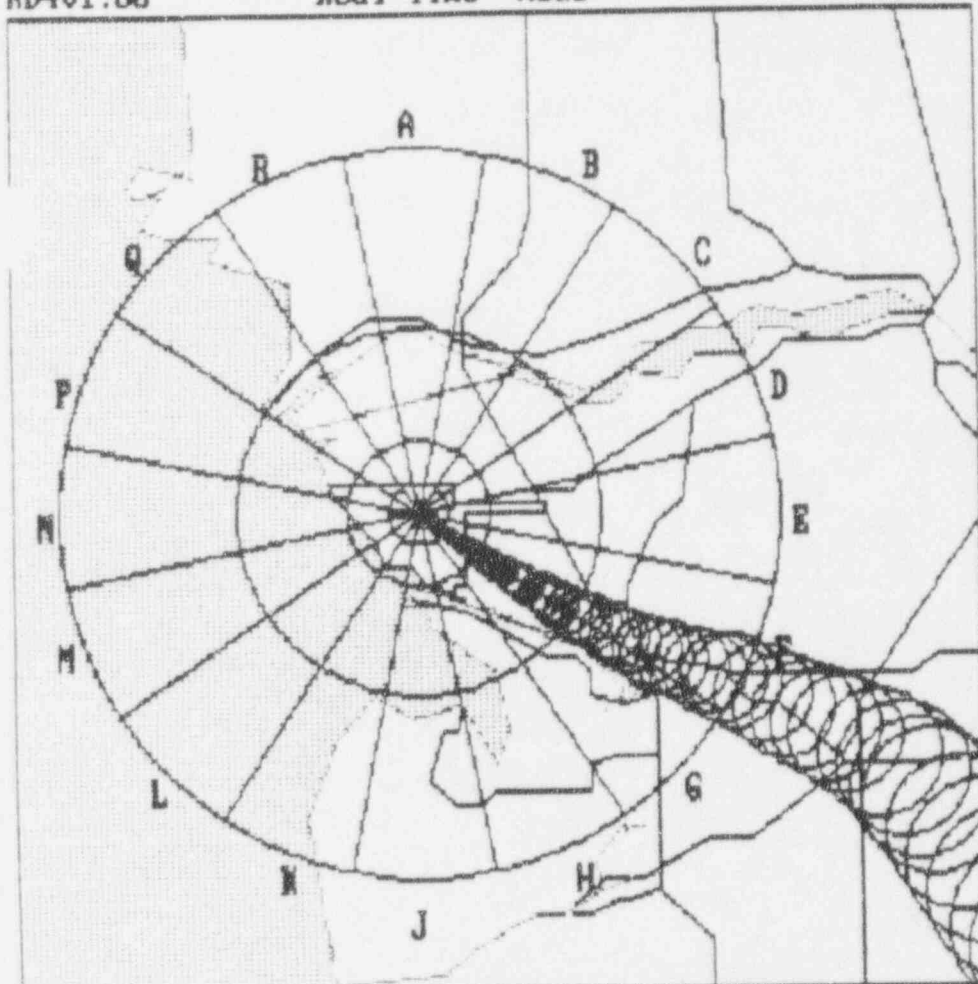
PROJ NUMBER: 012  
 PROJ DATE: 11/05/92  
 PROJ TIME: 14:45

PRINT DATE: 03/13/93  
 PRINT TIME: 15:09  
 OPERATOR: SEC

RD4v1.60

Real-Time Mode

FPC:CRMPP



### MAXIMUM DOSE RATES

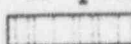
mrem/h: Whl-Bdy ChldThy

0.83mi	8.38	8.38
2.0 mi	8.83	8.38
5.0 mi	8.88	8.88
10.0 mi	8.88	8.88

### PARs from Dose Rates

No PARs met

===== K E Y =====

CIRCLES show position  
 of plume (3σ spread)  
 indicates areas  
 where HIGH RADIATION  
 AREAS are projected

CALC FOR: 11/05/92 @ 14:45 (Step 12) Operator: SEC  
 Wind: 2.3 m/s from 387° StbCl = E Precip = 0.0in/15M

## 1992 EXERCISE

DPM/100 SQ CM

TIME	SECTOR	0.5 MI	0.83 MI
0915	G	4.4E+03	2.2E+03
0945	G	7.8E+03	3.9E+03
1015	G	1.4E+04	6.9E+03
1045	G	1.4E+04	6.9E+03
1115	G	1.4E+04	6.9E+03
1145	G	1.4E+04	6.9E+03
1215	G	1.4E+04	6.9E+03
1245	G	1.4E+04	6.9E+03
1315	G	1.4E+04	6.9E+03
1345	G	1.4E+04	6.9E+03
1415	G	1.4E+04	6.9E+03
1445	G	1.4E+04	6.9E+03



1992 EXERCISE EST ISOTOPIC (uCi/cc)

TIME	SECT	DIST	KR83M	KR85M	KR85	KR87	KR88	NE131M	NE133M	NE133	NE135	1131	1132	1133	1134	1135
0915	G	0.5	2.0E-08	9.8E-08	5.3E-07	3.9E-08	1.6E-07	1.2E-07	2.0E-07	1.8E-05	3.9E-07	3.6E-08	1.2E-08	3.8E-08	4.5E-09	1.9E-08
	G	0.83	9.8E-09	4.9E-08	2.6E-07	2.0E-08	7.8E-08	5.9E-08	9.8E-08	9.0E-06	2.0E-07	1.9E-08	6.3E-09	2.0E-08	2.4E-09	1.0E-08
	G	1	7.6E-09	3.8E-08	2.1E-07	1.5E-08	6.1E-08	4.6E-08	7.6E-08	7.0E-06	1.5E-07	1.5E-08	4.9E-09	1.6E-08	1.9E-09	8.1E-09
0945	G	0.5	9.0E-09	4.5E-08	2.4E-07	1.8E-08	7.2E-08	5.4E-08	9.0E-08	8.3E-06	1.8E-07	2.9E-08	9.6E-09	3.1E-08	3.7E-09	1.6E-08
	G	0.83	4.3E-09	2.2E-08	1.2E-07	8.6E-09	3.4E-08	2.6E-08	4.3E-08	4.0E-06	8.6E-08	1.4E-08	4.7E-09	1.5E-08	1.8E-09	7.7E-09
	G	1	3.3E-09	1.7E-08	9.0E-08	6.7E-09	2.7E-08	2.0E-08	3.3E-08	3.1E-06	6.7E-08	1.1E-08	3.6E-09	1.2E-08	1.4E-09	5.9E-09
	G	2	1.4E-09	6.8E-09	3.7E-08	2.7E-09	1.1E-08	8.2E-09	1.4E-08	1.3E-06	2.7E-08	4.6E-09	1.5E-09	4.9E-09	5.8E-10	2.5E-09
	G	3	1.6E-09	7.8E-09	4.2E-08	3.1E-09	1.3E-08	9.4E-09	1.6E-08	1.4E-06	3.1E-08	2.2E-09	7.3E-10	2.4E-09	2.8E-10	1.2E-09
1015	G	0.5	5.9E-09	2.9E-08	1.6E-07	1.2E-08	4.7E-08	3.5E-08	5.9E-08	5.4E-06	1.2E-07	5.5E-08	1.8E-08	5.8E-08	6.8E-09	2.9E-08
	G	0.83	2.7E-09	1.4E-08	7.4E-08	5.5E-09	2.2E-08	1.6E-08	2.7E-08	2.5E-06	5.5E-08	2.7E-08	8.6E-09	2.8E-08	3.3E-09	1.4E-08
	G	1	2.2E-09	1.1E-08	5.8E-08	4.3E-09	1.7E-08	1.3E-08	2.2E-08	2.0E-06	4.3E-08	2.1E-08	6.8E-09	2.2E-08	2.6E-09	1.1E-08
	G	2	7.8E-10	3.9E-09	2.1E-08	1.6E-09	6.3E-09	4.7E-09	7.8E-09	7.2E-07	1.6E-08	8.4E-09	2.7E-09	8.9E-09	1.0E-09	4.5E-09
	G	3	7.8E-10	3.9E-09	2.1E-08	1.6E-09	6.3E-09	4.7E-09	7.8E-09	7.2E-07	1.6E-08	2.6E-09	8.3E-10	2.7E-09	3.2E-10	1.4E-09
	G	4	3.9E-10	2.0E-09	1.1E-08	7.8E-10	3.1E-09	2.3E-09	3.9E-09	3.6E-07	7.8E-09	1.3E-09	4.1E-10	1.3E-09	1.6E-10	6.8E-10
	G	5	5.9E-10	2.9E-09	1.6E-08	1.2E-09	4.7E-09	3.5E-09	5.9E-09	5.4E-07	1.2E-08	1.1E-09	3.4E-10	1.1E-09	1.3E-10	5.6E-10
	G5		0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	2.2E-10	7.3E-11	2.4E-10	2.8E-11	1.2E-10
1045	G	0.5	3.3E-09	1.7E-08	9.0E-08	6.7E-09	2.7E-08	2.0E-08	3.3E-08	3.1E-06	6.7E-08	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	G	0.83	1.8E-09	8.8E-09	4.8E-08	3.5E-09	1.4E-08	1.1E-08	1.8E-08	1.6E-06	3.5E-08	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	G	1	1.4E-09	6.8E-09	3.7E-08	2.7E-09	1.1E-08	8.2E-09	1.4E-08	1.3E-06	2.7E-08	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	G	2	5.9E-10	2.9E-09	1.6E-08	1.2E-09	4.7E-09	3.5E-09	5.9E-09	5.4E-07	1.2E-08	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	G	3	3.9E-10	2.0E-09	1.1E-08	7.8E-10	3.1E-09	2.3E-09	3.9E-09	3.6E-07	7.8E-09	2.4E-09	7.8E-10	2.5E-09	3.0E-10	1.3E-09
	G	4	2.0E-10	9.8E-10	5.3E-09	3.9E-10	1.6E-09	1.2E-09	2.0E-09	1.8E-07	3.9E-09	2.5E-09	8.2E-10	2.7E-09	3.1E-10	1.4E-09
	G	5	2.0E-10	9.8E-10	5.3E-09	3.9E-10	1.6E-09	1.2E-09	2.0E-09	1.8E-07	3.9E-09	1.9E-09	6.0E-10	2.0E-09	2.3E-10	9.9E-10
	G	7	2.0E-10	9.8E-10	5.3E-09	3.9E-10	1.6E-09	1.2E-09	2.0E-09	1.8E-07	3.9E-09	5.0E-10	1.6E-10	5.3E-10	6.3E-11	2.7E-10
	G5		0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.2E-09	4.0E-10	1.3E-09	1.5E-10	6.5E-10
	G7		2.0E-10	9.8E-10	5.3E-09	3.9E-10	1.6E-09	1.2E-09	2.0E-09	1.8E-07	3.9E-09	4.6E-10	1.5E-10	4.9E-10	5.8E-11	2.5E-10
	G10		0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	4.2E-12	1.4E-12	4.4E-12	5.2E-13	2.3E-12



TIME	SECT	DIST	KR83M	KR85M	KR87	KR88	XE131M	XE133M	XE133	XE135	1131	1132	1133	1134	1135
1115	G	0.5	3.7E-09	1.9E-08	1.0E-07	7.4E-09	3.0E-08	2.2E-08	3.7E-08	3.4E-06	7.4E-08	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	G	0.83	2.0E-09	9.8E-09	5.3E-08	3.9E-07	1.6E-08	1.2E-08	2.0E-08	1.8E-06	3.9E-08	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	G	1	1.6E-09	7.8E-09	4.2E-08	3.1E-09	1.3E-08	9.4E-09	1.6E-08	1.4E-06	3.1E-08	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	G	2	5.9E-10	2.9E-09	1.6E-08	1.2E-09	4.7E-09	3.5E-09	5.9E-09	5.4E-07	1.2E-08	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	G	3	2.0E-10	9.8E-10	5.3E-09	3.9E-10	1.6E-09	1.2E-09	2.0E-09	1.8E-07	3.9E-09	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	G	4	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	G	5	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	G	7	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	G	10	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	G7		0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	G10		0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
1145	G	0.5	3.5E-09	1.8E-08	9.5E-08	7.0E-09	2.8E-08	2.1E-08	3.5E-08	3.2E-06	7.0E-08	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	G	0.83	1.8E-09	8.8E-09	4.8E-08	3.5E-09	1.4E-08	1.1E-08	1.8E-08	1.6E-06	3.5E-08	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	G	1	1.4E-09	6.8E-09	3.7E-08	2.7E-09	1.1E-08	8.2E-09	1.4E-08	1.3E-06	2.7E-08	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	G	2	5.9E-10	2.9E-09	1.6E-08	1.2E-09	4.7E-09	3.5E-09	5.9E-09	5.4E-07	1.2E-08	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	G	3	3.9E-10	2.0E-09	1.1E-08	7.8E-10	3.1E-09	2.3E-09	3.9E-09	3.6E-07	7.8E-09	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	G	4	2.0E-10	9.8E-10	5.3E-09	3.9E-10	1.6E-09	1.2E-09	2.0E-09	1.8E-07	3.9E-09	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	G	10	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	G10		0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
1215	F	0.5	2.9E-09	1.5E-08	7.9E-08	5.9E-09	2.3E-08	1.8E-08	2.9E-08	2.7E-06	5.9E-08	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	F	0.83	1.6E-09	7.8E-09	4.2E-08	3.1E-09	1.3E-08	9.4E-09	1.6E-08	1.4E-06	3.1E-08	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	F	1	1.2E-09	5.9E-09	3.2E-08	2.3E-09	9.4E-09	7.0E-09	1.2E-08	1.1E-06	2.3E-08	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	F	2	3.9E-10	2.0E-09	1.1E-08	7.8E-10	3.1E-09	2.3E-09	3.9E-09	3.6E-07	7.8E-09	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	F	3	2.0E-10	9.8E-10	5.3E-09	3.9E-10	1.6E-09	1.2E-09	2.0E-09	1.8E-07	3.9E-09	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	G	4	2.0E-10	9.8E-10	5.3E-09	3.9E-10	1.6E-09	1.2E-09	2.0E-09	1.8E-07	3.9E-09	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	G	10	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	G10		0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
1245	F	0.5	3.3E-09	1.7E-08	9.0E-08	6.7E-09	2.7E-08	2.0E-08	3.3E-08	3.1E-06	6.7E-08	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	F	0.83	1.8E-09	8.8E-09	4.8E-08	3.5E-09	1.4E-08	1.1E-08	1.8E-08	1.6E-06	3.5E-08	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	F	1	1.4E-09	6.8E-09	3.7E-08	2.7E-09	1.1E-08	8.2E-09	1.4E-08	1.3E-06	2.7E-08	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	F	2	5.9E-10	2.9E-09	1.6E-08	1.2E-09	4.7E-09	3.5E-09	5.9E-09	5.4E-07	1.2E-08	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	F	3	2.0E-10	9.8E-10	5.3E-09	3.9E-10	1.6E-09	1.2E-09	2.0E-09	1.8E-07	3.9E-09	0.0E+00	0.0E+00	0.0E+00	0.0E+00

TIME	SECT	DIST	KR83M	KR85M	KR87	KR88	XE131M	XE133M	XE133	XE135	1131	1132	1133	1134	1135
1315	F	0.5	3.9E-09	2.0E-08	1.1E-07	7.8E-09	3.1E-08	2.3E-08	3.9E-08	3.6E-06	7.8E-08	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	F	0.83	1.8E-09	8.8E-09	4.8E-08	3.5E-09	1.4E-08	1.1E-08	1.8E-08	1.6E-06	3.5E-08	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	F	1	1.4E-09	6.8E-09	3.7E-08	2.7E-09	1.1E-08	8.2E-09	1.4E-08	1.3E-06	2.7E-08	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	F	2	5.9E-10	2.9E-09	1.6E-08	1.2E-09	4.7E-09	3.5E-09	5.9E-09	5.4E-07	1.2E-08	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	F	3	3.9E-10	2.0E-09	1.1E-08	7.8E-10	3.1E-09	2.3E-09	3.9E-09	3.6E-07	7.8E-09	0.0E+00	0.0E+00	0.0E+00	0.0E+00
1345	F	0.5	3.7E-09	1.9E-08	1.0E-07	7.4E-09	3.0E-08	2.2E-08	3.7E-08	3.4E-06	7.4E-08	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	F	0.83	1.8E-09	8.8E-09	4.8E-08	3.5E-09	1.4E-08	1.1E-08	1.8E-08	1.6E-06	3.5E-08	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	F	1	1.4E-09	6.8E-09	3.7E-08	2.7E-09	1.1E-08	8.2E-09	1.4E-08	1.3E-06	2.7E-08	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	F	2	5.9E-10	2.9E-09	1.6E-08	1.2E-09	4.7E-09	3.5E-09	5.9E-09	5.4E-07	1.2E-08	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	F	3	3.9E-10	2.0E-09	1.1E-08	7.8E-10	3.1E-09	2.3E-09	3.9E-09	3.6E-07	7.8E-09	0.0E+00	0.0E+00	0.0E+00	0.0E+00
1415	G	0.5	3.1E-09	1.6E-08	8.5E-08	6.3E-09	2.5E-08	1.9E-08	3.1E-08	2.9E-06	6.3E-08	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	G	0.83	1.6E-09	7.8E-09	4.2E-08	3.1E-09	1.3E-08	9.4E-09	1.6E-08	1.4E-06	3.1E-08	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	G	1	1.2E-09	5.9E-09	3.2E-08	2.3E-09	9.4E-09	7.0E-09	1.2E-08	1.1E-06	2.3E-08	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	G	2	3.9E-10	2.0E-09	1.1E-08	7.8E-10	3.1E-09	2.3E-09	3.9E-09	3.6E-07	7.8E-09	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	G	3	3.9E-10	2.0E-09	1.1E-08	7.8E-10	3.1E-09	2.3E-09	3.9E-09	3.6E-07	7.8E-09	0.0E+00	0.0E+00	0.0E+00	0.0E+00
1445	G	0.5	2.9E-09	1.5E-08	7.9E-08	5.9E-09	2.3E-08	1.8E-08	2.9E-08	2.7E-06	5.9E-08	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	G	0.83	1.6E-09	7.8E-09	4.2E-08	3.1E-09	1.3E-08	9.4E-09	1.6E-08	1.4E-06	3.1E-08	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	G	1	1.2E-09	5.9E-09	3.2E-08	2.3E-09	9.4E-09	7.0E-09	1.2E-08	1.1E-06	2.3E-08	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	G	2	5.9E-10	2.9E-09	1.6E-08	1.2E-09	4.7E-09	3.5E-09	5.9E-09	5.4E-07	1.2E-08	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	G	3	2.0E-10	9.8E-10	5.3E-09	3.9E-10	1.6E-09	1.2E-09	2.0E-09	1.8E-07	3.9E-09	0.0E+00	0.0E+00	0.0E+00	0.0E+00

LONGRANGE WEATHER FORECAST

November 5, 1992

1. Mostly sunny with light winds out of the northwest.
2. Temperatures should range from the low 60's in the morning to the mid 70's in the afternoon.
3. Chance of rain is about 10%.

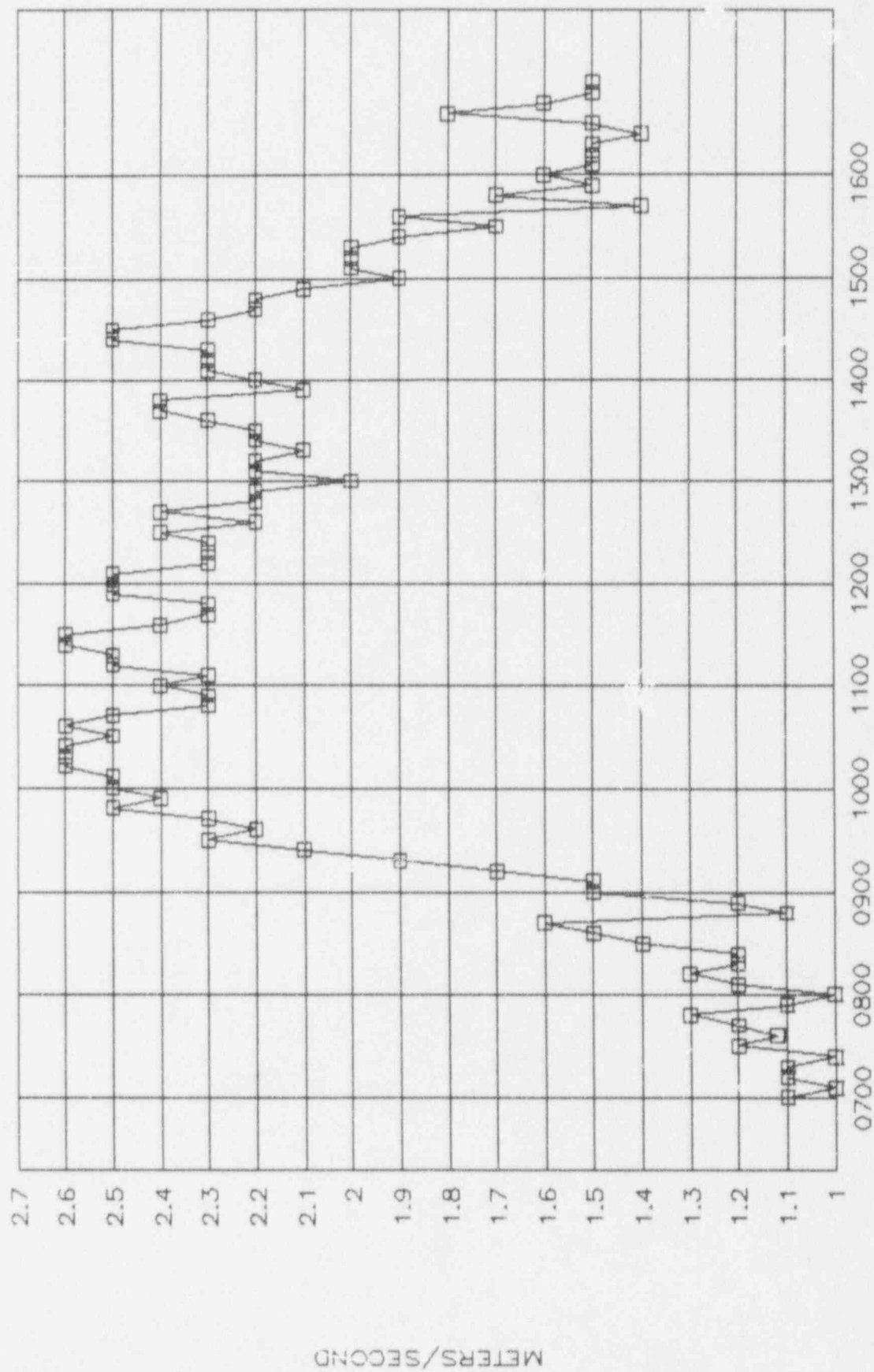
## 1992 RADIOLOGICAL EXERCISE METEOROLOGCAL DAT

TIME	WIND SPEED	WIND DIR	DELTA TEMP	AIR TEMP
0700	1.1	290	2.00	61
6	1.0	290	2.00	61
12	1.1	290	1.90	61
18	1.1	289	1.70	62
24	1.0	291	1.80	62
30	1.2	291	1.50	62
36	1.1	292	1.50	63
42	1.2	293	1.30	63
48	1.3	295	1.11	63
54	1.1	295	1.08	64
0800	1.0	296	1.00	65
6	1.2	296	0.98	65
12	1.3	298	0.92	65
18	1.2	298	0.84	66
24	1.2	297	0.70	66
30	1.4	299	0.57	67
36	1.5	299	0.40	66
42	1.6	302	0.22	67
48	1.1	305	0.17	68
54	1.2	311	0.15	69
0900	1.5	307	0.11	70
6	1.5	305	0.05	70
12	1.7	305	0.00	70
18	1.9	308	0.00	70
24	2.1	312	-0.10	70
30	2.3	312	-0.13	71
36	2.2	316	-0.14	71
42	2.3	317	-0.18	71
48	2.5	318	-0.20	71
54	2.4	322	-0.21	71
1000	2.5	322	-0.24	72
6	2.5	322	-0.25	72
12	2.6	322	-0.24	71
18	2.6	322	-0.24	72
24	2.6	323	-0.25	73
30	2.5	325	-0.26	73
36	2.6	324	-0.25	73
42	2.5	323	-0.25	74
48	2.3	325	-0.24	74
54	2.3	325	-0.26	74

TIME	WIND SPEED	WIND DIR	DELTA TEMP	AIR TEMP
1100	2.4	326	-0.27	73
6	2.3	325	-0.27	74
12	2.5	326	-0.26	74
18	2.5	320	-0.26	75
24	2.6	316	-0.26	75
30	2.6	313	-0.27	75
36	2.4	308	-0.26	75
42	2.3	304	-0.28	75
48	2.3	302	-0.28	76
54	2.5	301	-0.26	76
1200	2.5	299	-0.25	75
6	2.5	300	-0.28	76
12	2.3	301	-0.28	76
18	2.3	297	-0.29	75
24	2.3	296	-0.29	75
30	2.4	295	-0.30	75
36	2.2	294	-0.29	74
42	2.4	294	-0.28	75
48	2.2	292	-0.29	75
54	2.2	297	-0.28	76
1300	2.0	300	-0.27	76
6	2.2	299	-0.29	76
12	2.2	301	-0.29	76
18	2.1	301	-0.28	77
24	2.2	302	-0.29	77
30	2.2	304	-0.31	76
36	2.3	304	-0.29	76
42	2.4	304	-0.30	76
48	2.4	305	-0.30	74
54	2.1	305	-0.30	74
1400	2.2	306	-0.32	75
6	2.3	305	-0.33	76
12	2.3	305	-0.24	74
18	2.3	307	-0.32	75
24	2.5	307	-0.24	76
30	2.5	307	-0.30	75
36	2.3	307	-0.30	74
42	2.2	309	-0.31	74
48	2.2	308	-0.31	73
54	2.1	309	-0.30	73

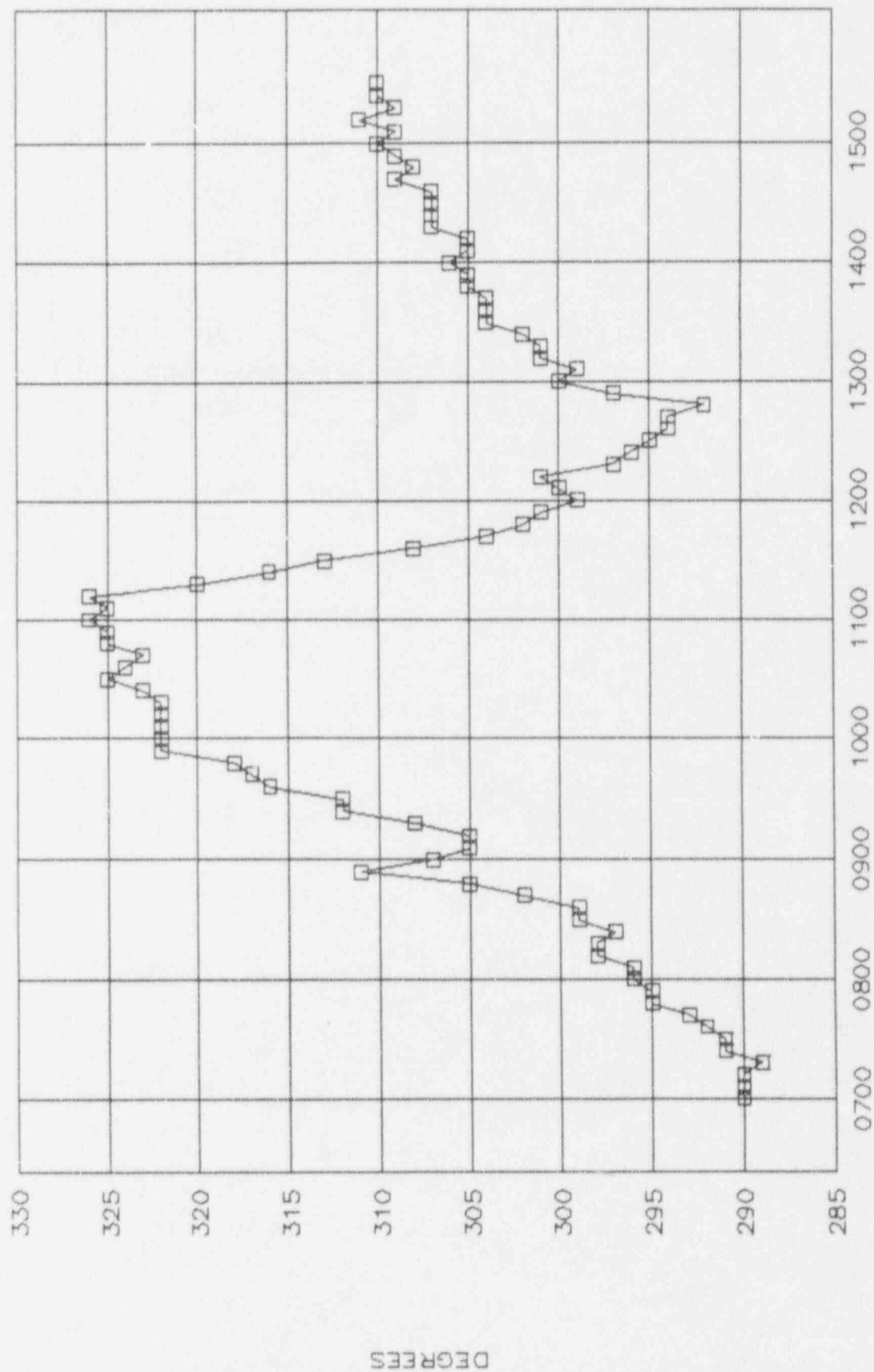
TIME	WIND SPEED	WIND DIR	DELTA TEMP	AIR TEMP
1500	1.9	310	-0.28	74
6	2.0	309	-0.29	73
12	2.0	311	-0.29	73
18	2.0	309	-0.28	72
24	1.9	310	-0.29	73
30	1.7	310	-0.30	74
36	1.9	309	-0.32	74
42	1.4	311	-0.32	74
48	1.7	311	-0.32	72
54	1.5	311	-0.30	72
1600	1.6	312	-0.31	73
6	1.5	312	-0.30	73
12	1.5	312	-0.30	73
18	1.5	311	-0.28	74
24	1.4	312	-0.28	74
30	1.5	311	-0.25	72
36	1.8	310	-0.24	72
42	1.6	310	-0.25	73
48	1.5	311	-0.25	72
54	1.5	312	-0.23	72

# WIND SPEED

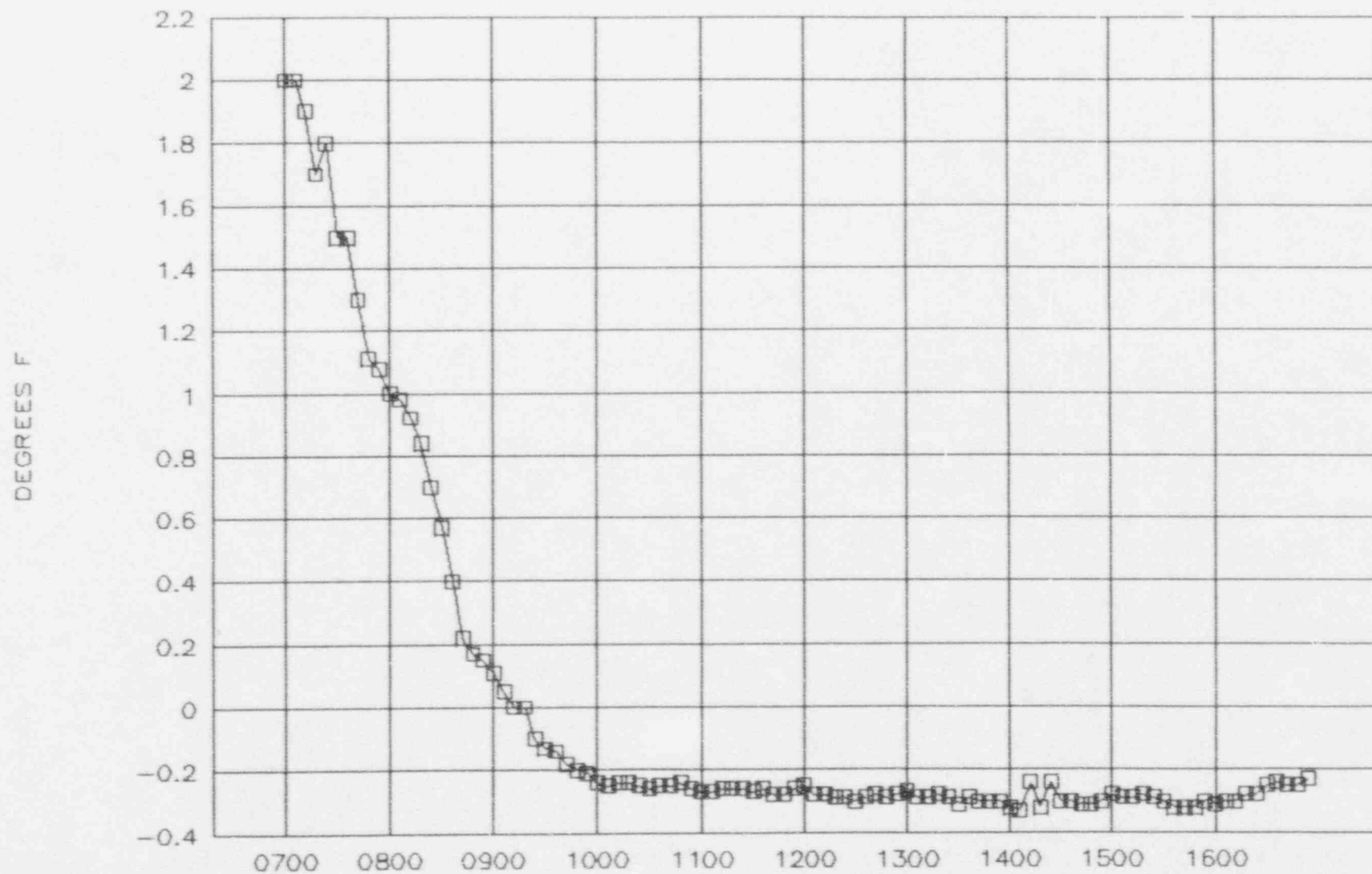




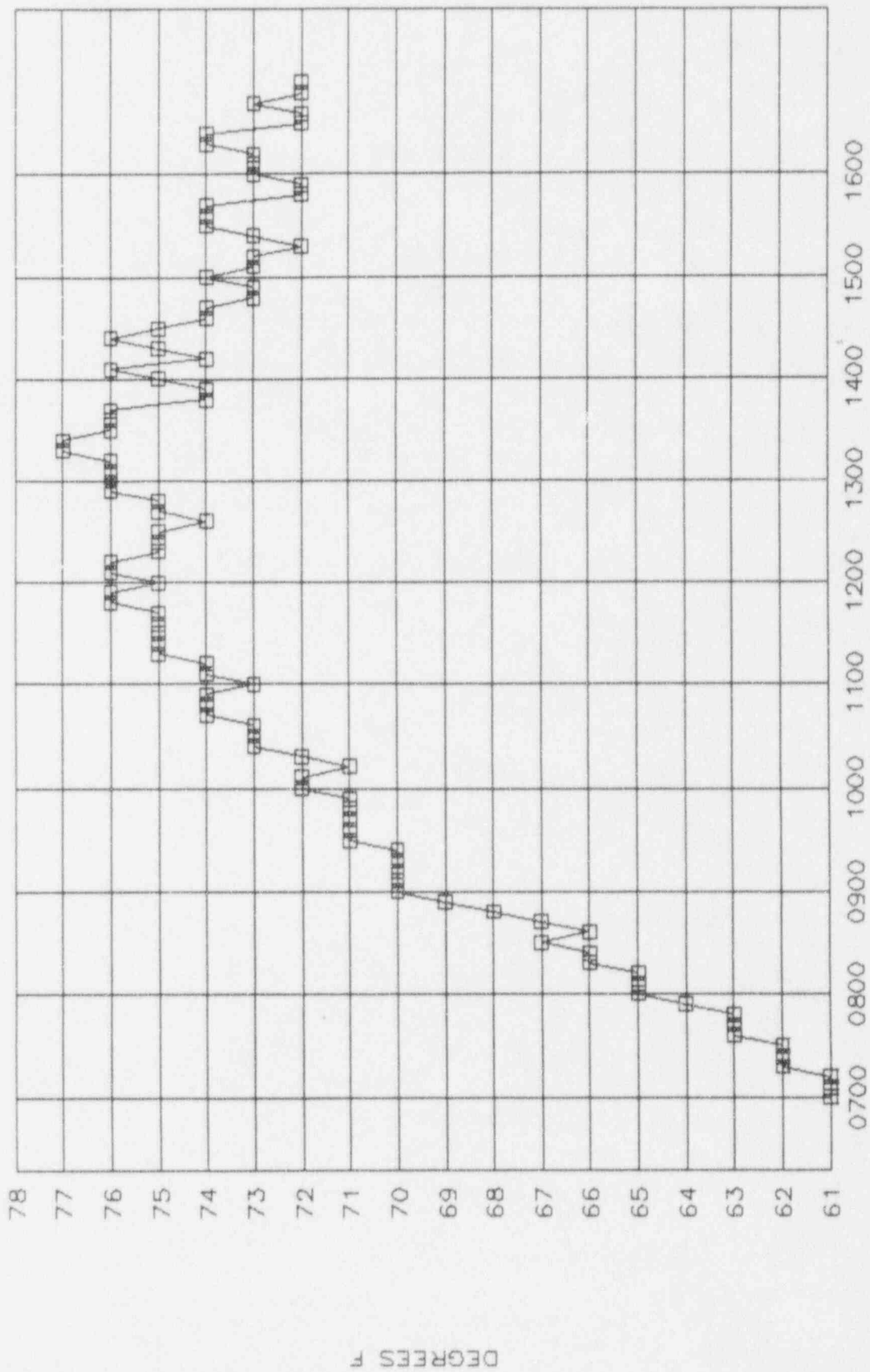
# WIND DIRECTION



# DELTA TEMPERATURE



# AMBIENT TEMPERATURE



## CRITIQUE GUIDELINES FOR CONTROLLERS

An informal participant's critique will be held immediately following the Exercise in the Control Room, Simulator, Technical Support Center, and the Emergency Operations Facility. Participant's Critique Forms should be distributed to all participants to encourage comments for inclusion (when appropriate) into the formal critique the following day.

A formal critique will be conducted at the Emergency Operations Facility. Participants from State and Local Governments will be invited to attend.

FPC Exercise Controllers will provide comments during this critique based on their observations. Comments should be categorized to clearly identify those areas requiring corrective actions, as follows:

### Areas Requiring Corrective Actions (ARCA's)

These are areas which involve a deficiency in procedures, equipment, facilities, or training.

### Concerns

Areas which do not involve specific program deficiencies but warrant review in appropriate training programs and/or by appropriate personnel.

When possible, recommended corrective actions should be included in the critique. The critique facilitator should however make it clear that all comments are preliminary and subject to change based on further participant interviews and data review.

EXERCISE PARTICIPANT'S  
CRITIQUE REPORT

Please provide your comments on the operation of the facility or performance of the team activity in which you were involved. Pay particular attention to deficiencies in procedures, equipment, facilities, or training. Was the designated leader of your facility/team in obvious control? Was there adequate communication to allow you to perform necessary functions? Give your recommended corrective actions.

FACILITY/TEAM: \_\_\_\_\_ DATE: \_\_\_\_\_

Prepared by: \_\_\_\_\_

Florida Power Corporation Crystal River Unit 3  
1992 Radiological Emergency Response Plan Exercise

Exercise Evaluation Criteria  
for  
Emergency Response Teams

KEY PERSONNEL AT THIS LOCATION:

EVALUATION:

	U	S	E
I. Activation and Response			
1. Was activation/initiation efficient and organized?	_____	_____	_____
2. Were personnel familiar with their responsibilities and did they respond in a timely manner?	_____	_____	_____
3. Was the person in charge clearly identifiable?	_____	_____	_____
II. Communication/Dissemination of Information			
1. Were all required/specified communications systems operable?	_____	_____	_____
2. Were personnel familiar with available communications and the intended use of each?	_____	_____	_____
3. Was the team adequately briefed prior to dispatch?	_____	_____	_____
4. Were communications between the team and the TSC adequate?	_____	_____	_____
5. Were there sufficient personnel to conduct communications tasks?	_____	_____	_____
6. Was incoming information effectively and efficiently distributed to appropriate personnel?	_____	_____	_____
7. Was there a two-way exchange of information such that personnel understood the changing situation and were able to effectively contribute to accident assessment and mitigation?	_____	_____	_____

### III. Procedures

- |    |  |       |       |       |
|----|--|-------|-------|-------|
| 1. | Were personnel generally familiar with the relevant procedures?  | _____ | _____ | _____ |
| 2. | Were procedures followed?  | _____ | _____ | _____ |
| 3. | Were the procedures appropriate?   | _____ | _____ | _____ |
| 4. | What was your overall assessment of the overall level of competency and state of training of the personnel observed? | _____ | _____ | _____ |

### IV. Direction and Control

- |    |   |       |       |       |
|----|---|-------|-------|-------|
| 1. | Was the information flow from the personnel observed to Senior management timely, complete, and accurate?                 | _____ | _____ | _____ |
| 2. | Did the individual in charge become too deeply involved in a specific activity to the exclusion of other activities?      | _____ | _____ | _____ |
| 3. | Could the response be categorized as a team effort or as a group of individual efforts?<br>(U = Individual      E = Team) | _____ | _____ | _____ |
| 4. | Was there an effective mechanism for resolving differences of opinion regarding technical issues or actions to be taken?  | _____ | _____ | _____ |
| 5. | Did the team document/log its activities appropriately?   | _____ | _____ | _____ |

### V. Material and Equipment

- |    |  |       |       |       |
|----|--|-------|-------|-------|
| 1. | Were all of the required materials and equipments available?   | _____ | _____ | _____ |
| 2. | Was the equipment functional?  | _____ | _____ | _____ |
| 3. | Did personnel check to assure that all equipment was available and functional early in the activation process? | _____ | _____ | _____ |
| 4. | If equipment was inoperative or failed in use were appropriate actions taken to resolve the deficiency?        | _____ | _____ | _____ |



VI. Protective Measures

- |    |   |       |       |       |
|----|---|-------|-------|-------|
| 1. | Were team members apprised of in-plant radiological conditions?   | _____ | _____ | _____ |
| 2. | Were appropriate protective measures implemented? (if applicable)   | _____ | _____ | _____ |
| 3. | Were all in-plant activities conducted with regard for personnel safety, consistent with the need to complete the activity? | _____ | _____ | _____ |

VII. Describe any problems or deficiencies that were noted, and provide recommended corrective action if available.

VIII. Additional Comments:

Florida Power Corporation Crystal R Unit 3  
1992 Radiological Emergency Response Plan Exercise

Exercise Evaluation Criteria  
for  
Control Room

LIST NAMES OF PARTICIPANTS AND THEIR EMERGENCY POSITION:

KEY PERSONNEL AT THIS LOCATION:

Shift Supervisor: has ultimate control over all evolutions associated with operations of the plant that occur during his shift.

EVALUATION CRITERIA:

Unacceptable (U) indicates that personnel and / or equipment performed below expectations. Provide explanatory comments concerning any observed response that is evaluated as unacceptable.

Satisfactory (S) indicates that personnel and / or equipment performed adequately. Any exceptions were minor and easily correctible.

Excellent (E) indicates that personnel and / or equipment functioned at a level much greater than required or reasonable expected.

EVALUATION:

U S E

I. Activation and Response

- |    |  |       |       |       |
|----|--|-------|-------|-------|
| 1. | Was activation/initiation of the emergency plan efficient and organized?                     | _____ | _____ | _____ |
| 2. | Were personnel familiar with their responsibilities and did they respond in a timely manner? | _____ | _____ | _____ |
| 3. | Was the person in charge clearly identifiable?   | _____ | _____ | _____ |

C/R EVALUATION, cont'd.

II. Communication/Dissemination of Information

- |    |  |       |       |       |
|----|--|-------|-------|-------|
| 1. | Were all required/specified communications systems operable?                               | _____ | _____ | _____ |
| 2. | Were personnel familiar with available communications and the intended use of each?        | _____ | _____ | _____ |
| 3. | Were communications adequate?  | _____ | _____ | _____ |
| 4. | Were there sufficient personnel to conduct communications tasks?                           | _____ | _____ | _____ |
| 5. | Was incoming information effectively and efficiently distributed to appropriate personnel? | _____ | _____ | _____ |
| 6. | Were offsite/onsite notifications performed as required?<br>(NRC, State, FPC)              | _____ | _____ | _____ |

III. Procedures (See procedures EM-103 and EM-202)

- |    |  |       |       |       |
|----|--|-------|-------|-------|
| 1. | Were personnel generally familiar with the relevant procedures?  | _____ | _____ | _____ |
| 2. | Were procedures followed?  | _____ | _____ | _____ |
| 3. | Were the procedures appropriate?   | _____ | _____ | _____ |
| 4. | What was your overall assessment of the overall level of competency and state of training of the personnel observed? | _____ | _____ | _____ |

IV. Direction and Control

- |    |   |       |       |       |
|----|---|-------|-------|-------|
| 1. | Was the information flow from the personnel observed to Senior management timely, complete, and accurate?                 | _____ | _____ | _____ |
| 2. | Did the individual in charge become too deeply involved in a specific activity to the exclusion of other activities?      | _____ | _____ | _____ |
| 3. | Could the response be categorized as a team effort or as a group of individual efforts?<br>(U = Individual      E = Team) | _____ | _____ | _____ |

C/R EVALUATION, cont'd.

- |    |  |       |       |       |
|----|--|-------|-------|-------|
| 4. | Was there an effective mechanism for resolving differences of opinion regarding technical issues or actions to be taken? | _____ | _____ | _____ |
|----|--|-------|-------|-------|

V. Material and Equipment

- |    |  |       |       |       |
|----|--|-------|-------|-------|
| 1. | Were all of the required materials and equipment available?  | _____ | _____ | _____ |
| 2. | Was the equipment functional?  | _____ | _____ | _____ |
| 3. | Did personnel check to assure that all equipment was available and functional early in the activation process? | _____ | _____ | _____ |
| 4. | If equipment was inoperative or failed in use were appropriate actions taken to resolve the deficiency?        | _____ | _____ | _____ |

VI. Protective Measures

- |    |   |       |       |       |
|----|---|-------|-------|-------|
| 1. | Were appropriate protective measures implemented? (if applicable) | _____ | _____ | _____ |
|----|---|-------|-------|-------|

VII. Describe any problems or deficiencies that were noted, and provide recommended corrective action if available.

VIII. Additional Comments:

Florida Power Corporation Crystal River Unit 3  
1992 Radiological Emergency Response Plan Exercise

Exercise Evaluation Criteria  
for  
Dose Assessment/Environmental Monitoring  
EOF

PROVIDE NAMES OF PARTICIPANTS AND THEIR EMERGENCY POSITION:

(Identify from attached list)

KEY PERSONNEL AT THIS LOCATION:

**Corporate Health Physicist:** Responsible for directing and controlling the dose assessment activities in the EOF, and for representing FPC in matters pertaining to off-site effects of a radiological accident.

EVALUATION CRITERIA:

**Unacceptable (U)** indicates that personnel and / or equipment performed below expectations. Provide explanatory comments concerning any observed response that is evaluated as unacceptable.

**Satisfactory (S)** indicates that personnel and / or equipment performed adequately. Any exceptions were minor and easily correctible.

**Excellent (E)** indicates that personnel and / or equipment functioned at a level much greater than required or reasonable expected.

EVALUATION:

	U	S	E
I. Activation and Response			
1. Was activation/initiation efficient and organized?	___	___	___
2. Were personnel familiar with their responsibilities and did they respond in a timely manner?	___	___	___
3. Was the person in charge clearly identifiable?	___	___	___
4. Were the transfers of authority accomplished quickly and effectively?	___	___	___

DOSE ASS/ENV MON EVALUATION, cont'd.

II. Communication/Dissemination of Information

- |    |  |       |       |       |
|----|--|-------|-------|-------|
| 1. | Were all required/specified communications systems operable?                               | _____ | _____ | _____ |
| 2. | Were personnel familiar with available communications and the intended use of each?        | _____ | _____ | _____ |
| 3. | Were communications adequate?  | _____ | _____ | _____ |
| 4. | Were their sufficient personnel to conduct communications tasks?                           | _____ | _____ | _____ |
| 5. | Was incoming information effectively and efficiently distributed to appropriate personnel? | _____ | _____ | _____ |
| 6. | Was there adequate communication between the Control Room, TSC, and EOF?                   | _____ | _____ | _____ |

III. Procedures (Refer to Procedures REP-03, REP-04, and REP-09)

- |    |  |       |       |       |
|----|--|-------|-------|-------|
| 1. | Were personnel generally familiar with the relevant procedures?  | _____ | _____ | _____ |
| 2. | Were procedures followed?  | _____ | _____ | _____ |
| 3. | Were the procedures appropriate?   | _____ | _____ | _____ |
| 4. | What was your overall assessment of the overall level of competency and state of training of the personnel observed? | _____ | _____ | _____ |

IV. Direction and Control

- |    |  |       |       |       |
|----|--|-------|-------|-------|
| 1. | Was the information flow from the personnel observed to Senior management timely, complete, and accurate?            | _____ | _____ | _____ |
| 2. | Was adequate and timely guidance provided by FPC Senior management?  | _____ | _____ | _____ |
| 3. | Did the individual in charge become too deeply involved in a specific activity to the exclusion of other activities? | _____ | _____ | _____ |

DOSE ASSESS/ENV MON EVALUATION, cont'd.

- |    |   |       |       |       |
|----|---|-------|-------|-------|
| 4. | Could the response be categorized as a team effort or as a group of individual efforts?<br>(U = Individual      E = Team) | _____ | _____ | _____ |
| 5. | Was there an effective mechanism for resolving differences of opinion regarding technical issues or actions to be taken?  | _____ | _____ | _____ |

V.    Material and Equipment

- |    |  |       |       |       |
|----|--|-------|-------|-------|
| 1. | Were all of the required materials and equipments available?   | _____ | _____ | _____ |
| 2. | Was the equipment functional?  | _____ | _____ | _____ |
| 3. | Did personnel check to assure that all equipment was available and functional early in the activation process? | _____ | _____ | _____ |
| 4. | If equipment was inoperative or failed in use were appropriate actions taken to resolve the deficiency?        | _____ | _____ | _____ |

VI.   Protective Measures

- |    |  |       |       |       |
|----|--|-------|-------|-------|
| 1. | Were appropriate protective measures implemented? (if applicable)  | _____ | _____ | _____ |
| 2. | Did the environmental survey team members check their dosimetry at appropriate intervals?                                      | _____ | _____ | _____ |
| 3. | Were the appropriate on-site protective action recommendations made?   | _____ | _____ | _____ |
| 4. | Did FPC personnel coordinate adequately with State of Florida dose assessment personnel?                                       | _____ | _____ | _____ |
| 5. | Were computerized dose projections appropriately compared to field team data for integration into the decision making process. | _____ | _____ | _____ |



DOSE ASSESS/ENV MON EVALUATION, cont'd.

VII. Describe any problems or deficiencies that were noted, and provide recommended corrective action if available.

VIII. Additional Comments:

Florida Power Corporation Crystal R1 Unit 3  
1992 Radiological Emergency Response Plan Exercise

Exercise Evaluation Criteria  
for  
Dose Assessment/Environmental Monitoring  
TSC

PROVIDE NAMES OF PARTICIPANTS AND THEIR EMERGENCY POSITION:

(Identify from attached list)

KEY PERSONNEL AT THIS LOCATION:

Dose Assessment Team  
Nuclear Chemistry and Radiation Protection Superintendent

EVALUATION CRITERIA:

Unacceptable (U) indicates that personnel and / or equipment performed below expectations. Provide explanatory comments concerning any observed response that is evaluated as unacceptable.

Satisfactory (S) indicates that personnel and / or equipment performed adequately. Any exceptions were minor and easily correctible.

Excellent (E) indicates that personnel and / or equipment functioned at a level much greater than required or reasonable expected.

EVALUATION:

		U	S	E
I.	Activation and Response			
1.	Was activation/initiation efficient and organized?	_____	_____	_____
2.	Were personnel familiar with their responsibilities and did they respond in a timely manner?	_____	_____	_____
3.	Was the person in charge clearly identifiable?	_____	_____	_____
4.	Were the transfers of authority accomplished quickly and effectively?	_____	_____	_____

DOSE ASS/ENV MON EVALUATION, cont'd.

II. Communication/Dissemination of Information

- |    |  |       |       |       |
|----|--|-------|-------|-------|
| 1. | Were all required/specitied commu-<br>nications systems operable?                                | _____ | _____ | _____ |
| 2. | Were personnel familiar with avail-<br>able communications and the intended<br>use of each?      | _____ | _____ | _____ |
| 3. | Were communications adequate?  | _____ | _____ | _____ |
| 4. | Were their sufficient personnel to<br>conduct communications tasks?                              | _____ | _____ | _____ |
| 5. | Was incoming information effectively<br>and efficiently distributed to<br>appropriate personnel? | _____ | _____ | _____ |
| 6. | Was there adequate communication be-<br>tween the Control Room, TSC, and EOF?                    | _____ | _____ | _____ |

III. Procedures (Refer to Procedures EM-204A/B, EM-219)

- |    |   |       |       |       |
|----|---|-------|-------|-------|
| 1. | Were personnel generally familiar<br>with the relevant procedures?  | _____ | _____ | _____ |
| 2. | Were procedures followed?   | _____ | _____ | _____ |
| 3. | Were the procedures appropriate?  | _____ | _____ | _____ |
| 4. | What was your overall assessment of<br>the overall level of competency and<br>state of training of the personnel<br>observed? | _____ | _____ | _____ |

IV. Direction and Control

- |    |   |       |       |       |
|----|---|-------|-------|-------|
| 1. | Was the information flow from the<br>personnel observed to Senior manage-<br>ment timely, complete, and accurate?             | _____ | _____ | _____ |
| 2. | Was adequate and timely guidance pro-<br>vided by FPC Senior management?  | _____ | _____ | _____ |
| 3. | Did the individual in charge become<br>too deeply involved in a specific<br>activity to the exclusion of other<br>activities? | _____ | _____ | _____ |

DOSE ASSESS/ENV MON EVALUATION, cont'd.

- |    |   |       |       |       |
|----|---|-------|-------|-------|
| 4. | Could the response be categorized as a team effort or as a group of individual efforts?<br>(U = Individual      E = Team) | _____ | _____ | _____ |
| 5. | Was there an effective mechanism for resolving differences of opinion regarding technical issues or actions to be taken?  | _____ | _____ | _____ |

V.     Material and Equipment

- |    |  |       |       |       |
|----|--|-------|-------|-------|
| 1. | Were all of the required materials and equipments available?   | _____ | _____ | _____ |
| 2. | Was the equipment functional?  | _____ | _____ | _____ |
| 3. | Did personnel check to assure that all equipment was available and functional early in the activation process? | _____ | _____ | _____ |
| 4. | If equipment was inoperative or failed in use were appropriate actions taken to resolve the deficiency?        | _____ | _____ | _____ |

VI.    Protective Measures

- |    |  |       |       |       |
|----|--|-------|-------|-------|
| 1. | Were appropriate protective measures implemented? (if applicable)  | _____ | _____ | _____ |
| 2. | Did the environmental survey team members check their dosimetry at appropriate intervals?                                      | _____ | _____ | _____ |
| 3. | Were the appropriate on-site protective action recommendations made?   | _____ | _____ | _____ |
| 4. | Did FPC personnel coordinate adequately with State of Florida dose assessment personnel?                                       | _____ | _____ | _____ |
| 5. | Were computerized dose projections appropriately compared to field team data for integration into the decision making process. | _____ | _____ | _____ |

DOSE ASSESS/ENV MON EVALUATION, cont'd.

VII. Describe any problems or deficiencies that were noted, and provide recommended corrective action if available.

VIII. Additional Comments:

Florida Power Corporation Crystal River Unit 3  
1992 Radiological Emergency Response Plan Exercise

Exercise Evaluation Criteria  
for  
Emergency News Center

LIST NAMES OF PARTICIPANTS AND THEIR EMERGENCY POSITION:

KEY PERSONNEL AT THIS LOCATION:

EOF/ENC Information Coordinator: Responsible for activating and managing the Emergency News Center as an outlet for emergency related information during emergency and recovery phase activities.

ENC Technical Support Representative: Responsible for providing clarification of the technical terminology and operational concepts that must be understood in order to accurately report emergency activities.

Corporate Spokesperson(s): authorized to release emergency-related information outside of the Company.

EVALUATION CRITERIA:

Unacceptable (U) indicates that personnel and / or equipment performed below expectations. Provide explanatory comments concerning any observed response that is evaluated as unacceptable.

Satisfactory (S) indicates that personnel and / or equipment performed adequately. Any exceptions were minor and easily correctible.

Excellent (E) indicates that personnel and / or equipment functioned at a level much greater than required or reasonable expected.

EVALUATION:

I. Activation and Response

- |   | U     | S     | E     |
|---|-------|-------|-------|
| 1. Was activation/initiation efficient and organized?   | _____ | _____ | _____ |
| 2. Were personnel familiar with their responsibilities and did they respond in a timely manner? | _____ | _____ | _____ |

ENC EVALUATION, cont'd.

- |    |  |       |       |       |
|----|--|-------|-------|-------|
| 3. | Was the ENC physically ready for operation at the time the EOF was declared operational? | _____ | _____ | _____ |
| 4. | Was the person in charge clearly identifiable?   | _____ | _____ | _____ |

II. Communication/Dissemination of Information

- |    |   |       |       |       |
|----|---|-------|-------|-------|
| 1. | Were all required/specified communications systems operable?  | _____ | _____ | _____ |
| 2. | Were personnel familiar with available communications and the intended use of each?                           | _____ | _____ | _____ |
| 3. | Were communications adequate?   | _____ | _____ | _____ |
| 4. | Were their sufficient personnel to conduct communications tasks?  | _____ | _____ | _____ |
| 5. | Did the ENC staff successfully acquire emergency related information from the ENC?                            | _____ | _____ | _____ |
| 6. | Was incoming information effectively and efficiently distributed to appropriate personnel?                    | _____ | _____ | _____ |
| 7. | Was the FPC interface with State/Local Public Information Officers appropriate and effective?                 | _____ | _____ | _____ |
| 8. | Was the Technical Advisor used effectively to provide clarification of technical and operational terminology? | _____ | _____ | _____ |
| 9. | Were the status boards utilized effectively?  | _____ | _____ | _____ |

III. Procedures (Refer to Procedure REP-08)

- |    |   |       |       |       |
|----|---|-------|-------|-------|
| 1. | Were personnel generally familiar with the relevant procedures?   | _____ | _____ | _____ |
| 2. | Were procedures followed?   | _____ | _____ | _____ |
| 3. | Were the procedures appropriate?  | _____ | _____ | _____ |
| 4. | What was your overall assessment of the overall level of competency and state of training of the personnel? | _____ | _____ | _____ |



ENC EVALUATION, cont'd.

IV. Direction and Control

- |    |   |       |       |       |
|----|---|-------|-------|-------|
| 1. | Was the information flow from the personnel observed to Senior management timely, complete, and accurate?                 | _____ | _____ | _____ |
| 2. | Did the individual in charge become too deeply involved in a specific activity to the exclusion of other activities?      | _____ | _____ | _____ |
| 3. | Did prepared information releases receive appropriate approvals prior to presentation outside the Company?                | _____ | _____ | _____ |
| 4. | Could the response be categorized as a team effort or as a group of individual efforts?<br>(U = Individual      E = Team) | _____ | _____ | _____ |
| 5. | Was there an effective mechanism for resolving differences of opinion regarding technical issues or actions to be taken?  | _____ | _____ | _____ |

V. Material and Equipment

- |    |  |       |       |       |
|----|--|-------|-------|-------|
| 1. | Were all of the required materials and equipment available?  | _____ | _____ | _____ |
| 2. | Was the equipment functional?  | _____ | _____ | _____ |
| 3. | Did personnel check to assure that all equipment was available and functional early in the activation process? | _____ | _____ | _____ |
| 4. | If equipment was inoperative or failed in use were appropriate actions taken to resolve the deficiency?        | _____ | _____ | _____ |
| 5. | Could the ENC support the personnel assigned to it?  | _____ | _____ | _____ |
| 6. | Were press briefings conducted in an organized and professional manner?  | _____ | _____ | _____ |
| 7. | Were there resource materials readily available for distribution to the press?                                 | _____ | _____ | _____ |

ENC EVALUATION, cont'd.

VI. Protective Measures

1. Were appropriate protective measures implemented? (if applicable) \_\_\_\_\_

VII. Access Control

1. Was an appropriate security posture established against unauthorized personnel? \_\_\_\_\_
2. Was an identification system used that effectively identified authorized personnel and their duties? \_\_\_\_\_

VIII. Describe any problems or deficiencies that were noted, and provide recommended corrective action if available.

IX. Additional Comments:

Florida Power Corporation Crystal River Unit 3  
1992 Radiological Emergency Response Plan Exercise

Exercise Evaluation Criteria  
for  
Emergency Operations Facility

LIST NAMES OF PARTICIPANTS AND THEIR EMERGENCY POSITION:

(Attach REP-03 Accountability Logs or list names and position)

KEY PERSONNEL AT THIS LOCATION:

**EOF Director:** Assumes Corporate responsibility for control and mitigation of the emergency, and exercises authority-of-position to acquire and use Corporate resources for control and mitigation of the emergency.

**Assistant EOF Director:** Responsible for assisting the EOF Director in management of the EOF.

**EOF Facility Manager:** Responsible for assuring that the EOF is set up and available for use in a timely manner.

**State and Local Gov't Liaison:** Responsible for providing the State and local government representatives in the EOF a means of communicating with the FPC emergency organization concerning coordination between FPC and their emergency assistance teams.

EVALUATION CRITERIA:

**Unacceptable (U)** indicates that personnel and / or equipment performed below expectations. Provide explanatory comments concerning any observed response that is evaluated as unacceptable.

**Satisfactory (S)** indicates that personnel and / or equipment performed adequately. Any exceptions were minor and easily correctible.

**Excellent (E)** indicates that personnel and / or equipment functioned at a level much greater than required or reasonably expected.

EVALUATION:

**I. Activation and Response**

	U	S	E
1. Was activation/initiation efficient and organized?	_____	_____	_____
2. Were personnel familiar with their responsibilities and did they respond in a timely manner?	_____	_____	_____

## EOF EVALUATION, cont'd.

- |    |  |       |       |       |
|----|--|-------|-------|-------|
| 3. | Was the EOF declared operational within 60 minutes of the decision to activate?                    | _____ | _____ | _____ |
| 4. | Were the required personnel present at the time the EOF was declared operational?                  | _____ | _____ | _____ |
| 5. | Was the facility physically ready for operation at the time it was declared operational?           | _____ | _____ | _____ |
| 6. | Was the person in charge clearly identifiable? (i.e. State notification, protective actions, etc.) | _____ | _____ | _____ |
| 7. | Were the transfers of responsibilities accomplished efficiently and effectively?                   | _____ | _____ | _____ |
| 8. | Were all participants made aware via formal announcement that the transfers had occurred?          | _____ | _____ | _____ |

## II. Communication/Dissemination of Information

- |    |  |       |       |       |
|----|--|-------|-------|-------|
| 1. | Were all required/specified communications systems operable?                               | _____ | _____ | _____ |
| 2. | Were personnel familiar with available communications and the intended use of each?        | _____ | _____ | _____ |
| 3. | Were communications adequate?  | _____ | _____ | _____ |
| 4. | Were there sufficient personnel to conduct communications tasks?                           | _____ | _____ | _____ |
| 5. | Was incoming information effectively and efficiently distributed to appropriate personnel? | _____ | _____ | _____ |
| 6. | Were periodic update announcements made to the EOF staff?                                  | _____ | _____ | _____ |
| 7. | Did communicators keep accurate logs?  | _____ | _____ | _____ |

EOF EVALUATION, Cont'd.

- |     |  |       |       |       |
|-----|--|-------|-------|-------|
| 8.  | Were the status boards used effectively?   | _____ | _____ | _____ |
| 9.  | Were offsite personnel kept informed of plant status/activity?   | _____ | _____ | _____ |
| 10. | Was there a two-way exchange of information such that personnel understood the changing situation and were able to effectively contribute to accident assessment and mitigation? | _____ | _____ | _____ |

III. Procedures (Refer to Procedures REP-03)

- |    |  |       |       |       |
|----|--|-------|-------|-------|
| 1. | Were personnel generally familiar with the relevant procedures?  | _____ | _____ | _____ |
| 2. | Were procedures followed?  | _____ | _____ | _____ |
| 3. | Were the procedures appropriate?   | _____ | _____ | _____ |
| 4. | What was your overall assessment of the overall level of competency and state of training of the personnel observed? | _____ | _____ | _____ |

IV. Direction and Control

- |    |   |       |       |       |
|----|---|-------|-------|-------|
| 1. | Was the information flow from the personnel observed to Senior management timely, complete, and accurate?                 | _____ | _____ | _____ |
| 2. | Did the individual in charge become too deeply involved in a specific activity to the exclusion of other activities?      | _____ | _____ | _____ |
| 3. | Could the response be categorized as a team effort or as a group of individual efforts?<br>(U = Individual      E = Team) | _____ | _____ | _____ |
| 4. | Was there an effective mechanism for resolving differences of opinion regarding technical issues or actions to be taken?  | _____ | _____ | _____ |

V. Material and Equipment

- |    |  |       |       |       |
|----|--|-------|-------|-------|
| 1. | Were all of the required materials and equipments available? | _____ | _____ | _____ |
|----|--|-------|-------|-------|

EOF EVALUATION, cont'd.

- |    |  |       |       |       |
|----|--|-------|-------|-------|
| 2. | Was the equipment functional?  | _____ | _____ | _____ |
| 3. | Did personnel check to assure that all equipment was available and functional early in the activation process?   | _____ | _____ | _____ |
| 4. | If equipment was inoperative or failed in use were appropriate actions taken to resolve the deficiency?          | _____ | _____ | _____ |
| 5. | Could the EOF support the personnel assigned to it?  | _____ | _____ | _____ |
| 6. | Were there resource materials readily available to assess the emergency situation and to plan corrective action? | _____ | _____ | _____ |

VI. Protective Measures

- |    |   |       |       |       |
|----|---|-------|-------|-------|
| 1. | Were appropriate protective measures implemented? (if applicable)     | _____ | _____ | _____ |
| 2. | Were EOF personnel kept apprised of in-plant radiological conditions? | _____ | _____ | _____ |

VII. Access Control

- |    |  |       |       |       |
|----|--|-------|-------|-------|
| 1. | Was an appropriate security posture established against unauthorized personnel?                      | _____ | _____ | _____ |
| 2. | Was an identification system used that effectively identified authorized personnel and their duties? | _____ | _____ | _____ |

VIII. Describe any problems or deficiencies that were noted, and provide recommended corrective action if available.

IX. Additional Comments:

Florida Power Corporation Crystal River Unit 3  
1992 Radiological Emergency Response Plan Exercise

Exercise Evaluation Criteria  
for  
Emergency Repair Team

PROVIDE NAMES OF PARTICIPANTS AND THEIR EMERGENCY POSITION:

(Identify from attached list)

KEY PERSONNEL AT THIS LOCATION:

Emergency Repair Team Leader  
Emergency Repair Teams

EVALUATION CRITERIA:

Unacceptable (U) indicates that personnel and / or equipment performed below expectations. Provide explanatory comments concerning any observed response that is evaluated as unacceptable.

Satisfactory (S) indicates that personnel and / or equipment performed adequately. Any exceptions were minor and easily correctible.

Excellent (E) indicates that personnel and / or equipment functioned at a level much greater than required or reasonable expected.

EVALUATION:

	U	S	E
I. Activation and Response			
1. Was activation/initiation efficient and organized?	_____	_____	_____
2. Were personnel familiar with their responsibilities and did they respond in a timely manner?	_____	_____	_____
3. Was the person in charge clearly identifiable?	_____	_____	_____
II. Communication/Dissemination of Information			
1. Were all required/specified communication systems operable?	_____	_____	_____



- |    |  |       |       |       |
|----|--|-------|-------|-------|
| 2. | Were personnel familiar with available communications and the intended use of each?  | _____ | _____ | _____ |
| 3. | Was the team adequately briefed prior to dispatch?   | _____ | _____ | _____ |
| 4. | Were communications between the team and the TSC adequate?   | _____ | _____ | _____ |
| 5. | Were their sufficient personnel to conduct communications tasks?   | _____ | _____ | _____ |
| 6. | Was incoming information effectively and efficiently distributed to appropriate personnel?   | _____ | _____ | _____ |
| 7. | Was there a two-way exchange of information such that personnel understood the changing situation and were able to effectively contribute to accident assessment and mitigation? | _____ | _____ | _____ |

III. Procedures (Refer to Procedures EM-209 and EM-218)

- |    |  |       |       |       |
|----|--|-------|-------|-------|
| 1. | Were personnel generally familiar with the relevant procedures?  | _____ | _____ | _____ |
| 2. | Were procedures followed?  | _____ | _____ | _____ |
| 3. | Were the procedures appropriate?   | _____ | _____ | _____ |
| 4. | What was your overall assessment of the overall level of competency and state of training of the personnel observed? | _____ | _____ | _____ |

IV. Direction and Control

- |    |  |       |       |       |
|----|--|-------|-------|-------|
| 1. | Was the information flow from the personnel observed to Senior management timely, complete, and accurate?                | _____ | _____ | _____ |
| 2. | Did the individual in charge become too deeply involved in a specific activity to the exclusion of other activities?     | _____ | _____ | _____ |
| 3. | Could the response be categorized as a team effort or as a group of individual efforts?<br>(U = Individual     T = Team) | _____ | _____ | _____ |

4. Was there an effective mechanism for resolving differences of opinion regarding technical issues or actions to be taken? \_\_\_\_\_

5. Did the team document/log its activities appropriately? \_\_\_\_\_

V. Material and Equipment

1. Were all of the required materials and equipments available? \_\_\_\_\_

2. Was the equipment functional? \_\_\_\_\_

3. Did personnel check to assure that all equipment was available and functional early in the activation process? \_\_\_\_\_

4. If equipment was inoperative or failed in use were appropriate actions taken to resolve the deficiency? \_\_\_\_\_

VI. Protective Measures

1. Were team members apprised of in-plant radiological conditions? \_\_\_\_\_

2. Were appropriate protective measures implemented? (if applicable) \_\_\_\_\_

3. Were all in-plant activities conducted with regard for personnel safety, consistent with the need to complete the activity? \_\_\_\_\_

VII. Describe any problems or deficiencies that were noted, and provide recommended corrective action if available.

VIII. Additional Comments:

Florida Power Corporation Crystal River Unit 3  
1992 Radiological Emergency Response Plan Exercise

Exercise Evaluation Criteria  
for  
Fire Brigade

PROVIDE NAMES OF FIRE BRIGADE MEMBERS AND THE FIRE TEAM LEADER:

(Identify from attached list)

KEY PERSONNEL AT THIS LOCATION:

Fire Brigade Team Leader  
Fire Brigade Members

EVALUATION CRITERIA:

Unacceptable (U) indicates that personnel and / or equipment performed below expectations. Provide explanatory comments concerning any observed response that is evaluated as unacceptable.

Satisfactory (S) indicates that personnel and / or equipment performed adequately. Any exceptions were minor and easily correctible.

Excellent (E) indicates that personnel and / or equipment functioned at a level much greater than required or reasonable expected.

EVALUATION:

	U	S	E
I. Activation and Response			
1. Was activation/initiation efficient and organized?	_____	_____	_____
2. Were personnel familiar with their responsibilities and did they respond in a timely manner?	_____	_____	_____
3. Was the person in charge clearly identifiable?	_____	_____	_____
II. Communication/Dissemination of Information			
1. Were all required/specified communications systems operable?	_____	_____	_____

- |    |  |       |       |       |
|----|--|-------|-------|-------|
| 2. | Were personnel familiar with available communications and the intended use of each?  | _____ | _____ | _____ |
| 3. | Was the team adequately briefed prior to dispatch?   | _____ | _____ | _____ |
| 4. | Were communications between the team and the TSC adequate?   | _____ | _____ | _____ |
| 5. | Were there sufficient personnel to conduct communications tasks?   | _____ | _____ | _____ |
| 6. | Was incoming information effectively and efficiently distributed to appropriate personnel?   | _____ | _____ | _____ |
| 7. | Was there a two-way exchange of information such that personnel understood the changing situation and were able to effectively contribute to accident assessment and mitigation? | _____ | _____ | _____ |

III. Procedures (Refer to Procedures EM-201 and EM-216)

- |    |  |       |       |       |
|----|--|-------|-------|-------|
| 1. | Were personnel generally familiar with the relevant procedures?  | _____ | _____ | _____ |
| 2. | Were procedures followed?  | _____ | _____ | _____ |
| 3. | Were the procedures appropriate?   | _____ | _____ | _____ |
| 4. | What was your overall assessment of the overall level of competency and state of training of the personnel observed? | _____ | _____ | _____ |

IV. Direction and Control

- |    |   |       |       |       |
|----|---|-------|-------|-------|
| 1. | Was the information flow from the personnel observed to Senior management timely, complete, and accurate?                 | _____ | _____ | _____ |
| 2. | Did the individual in charge become too deeply involved in a specific activity to the exclusion of other activities?      | _____ | _____ | _____ |
| 3. | Could the response be categorized as a team effort or as a group of individual efforts?<br>(U = Individual      E = Team) | _____ | _____ | _____ |

4. Was there an effective mechanism for resolving differences of opinion regarding technical issues or actions to be taken? \_\_\_\_\_
5. Did the team document/log its activities appropriately? \_\_\_\_\_

V. Material and Equipment

1. Were all of the required materials and equipments available? \_\_\_\_\_
2. Was the equipment functional? \_\_\_\_\_
3. Did personnel check to assure that all equipment was available and functional early in the activation process? \_\_\_\_\_
4. If equipment was inoperative or failed in use were appropriate actions taken to resolve the deficiency? \_\_\_\_\_

VI. Protective Measures

1. Were team members apprised of in-plant radiological conditions? \_\_\_\_\_
2. Were appropriate protective measures implemented? (if applicable) \_\_\_\_\_
3. Were all in-plant activities conducted with regard for personnel safety, consistent with the need to complete the activity? \_\_\_\_\_

VII. Describe any problems or deficiencies that were noted, and provide recommended corrective action if available.

VIII. Additional Comments:

Florida Power Corporation Crystal River Unit 3  
1992 Radiological Emergency Response Plan Exercise

Exercise Evaluation Criteria  
for  
Medical Emergency Team

PROVIDE NAMES OF PARTICIPANTS AND THEIR EMERGENCY POSITION:

KEY PERSONNEL AT THIS LOCATION:

Medical Emergency Team Leader  
Assistant Nuclear Shift Supervisor

EVALUATION CRITERIA:

Unacceptable (U) indicates that personnel and / or equipment performed below expectations. Provide explanatory comments concerning any observed response that is evaluated as unacceptable.

Satisfactory (S) indicates that personnel and / or equipment performed adequately. Any exceptions were minor and easily correctible.

Excellent (E) indicates that personnel and / or equipment functioned at a level much greater than required or reasonable expected.

EVALUATION:

	U	S	E
I. Activation and Response			
1. Was activation/initiation efficient and organized?	_____	_____	_____
2. Were personnel familiar with their responsibilities and did they respond in a timely manner?	_____	_____	_____
3. Was the person in charge clearly identifiable?	_____	_____	_____

## II. Communication/Dissemination of Information

- |    |   |       |       |       |
|----|---|-------|-------|-------|
| 1. | Were all required/specified communications systems operable?                        | _____ | _____ | _____ |
| 2. | Were personnel familiar with available communications and the intended use of each? | _____ | _____ | _____ |
| 3. | Was the team adequately briefed?  | _____ | _____ | _____ |
| 4. | Were communications between the team and the Control Room adequate?                 | _____ | _____ | _____ |

## III. Procedures (Refer to Procedure EM-213)

- |    |  |       |       |       |
|----|--|-------|-------|-------|
| 1. | Were personnel generally familiar with the relevant procedures?  | _____ | _____ | _____ |
| 2. | Were procedures followed?  | _____ | _____ | _____ |
| 3. | Were the procedures appropriate?   | _____ | _____ | _____ |
| 4. | What was your overall assessment of the overall level of competency and state of training of the personnel observed? | _____ | _____ | _____ |

## IV. Direction and Control

- |    |   |       |       |       |
|----|---|-------|-------|-------|
| 1. | Was the information flow from the personnel observed to Senior management timely, complete, and accurate?                 | _____ | _____ | _____ |
| 2. | Did the individual in charge become too deeply involved in a specific activity to the exclusion of other activities?      | _____ | _____ | _____ |
| 3. | Could the response be categorized as a team effort or as a group of individual efforts?<br>(U = Individual      E = Team) | _____ | _____ | _____ |
| 4. | Was there an effective mechanism for resolving differences of opinion regarding medical issues or actions to be taken?    | _____ | _____ | _____ |
| 5. | Did the team document/log its activities appropriately?   | _____ | _____ | _____ |



V. Material and Equipment

- |    |  |       |       |       |
|----|--|-------|-------|-------|
| 1. | Were all of the required materials and equipments available?   | _____ | _____ | _____ |
| 2. | Was the equipment functional?  | _____ | _____ | _____ |
| 3. | Did personnel check to assure that all equipment was available and functional early in the activation process? | _____ | _____ | _____ |
| 4. | If equipment was inoperative or failed in use were appropriate actions taken to resolve the deficiency?        | _____ | _____ | _____ |

VI. Protective Measures

- |    |   |       |       |       |
|----|---|-------|-------|-------|
| 1. | Were team members apprised of in-plant radiological conditions?   | _____ | _____ | _____ |
| 2. | Were appropriate protective measures implemented? (if applicable)   | _____ | _____ | _____ |
| 3. | Were all in-plant activities conducted with regard for personnel safety, consistent with the need to complete the activity? | _____ | _____ | _____ |

VII. Describe any problems or deficiencies that were noted, and provide recommended corrective action if available.

VIII. Additional Comments:

Florida Power Corporation Crystal River Unit 3  
1992 Radiological Emergency Response Plan Exercise

Exercise Evaluation Criteria  
for  
Sampling Team

PROVIDE NAMES OF PARTICIPANTS AND THEIR EMERGENCY POSITION:

(Identify from attached list)

KEY PERSONNEL AT THIS LOCATION:

Sampling Team Leader  
Sampling Team Members

EVALUATION CRITERIA:

Unacceptable (U) indicates that personnel and / or equipment performed below expectations. Provide explanatory comments concerning any observed response that is evaluated as unacceptable.

Satisfactory (S) indicates that personnel and / or equipment performed adequately. Any exceptions were minor and easily correctible.

Excellent (E) indicates that personnel and / or equipment functioned at a level much greater than required or reasonable expected.

EVALUATION:

	U	S	E
I. Activation and Response			
1. Was activation/initiation efficient and organized?	_____	_____	_____
2. Were personnel familiar with their responsibilities and did they respond in a timely manner?	_____	_____	_____
3. Was the person in charge clearly identifiable?	_____	_____	_____
II. Communication/Dissemination of Information			
1. Were all required/specified communications systems operable?	_____	_____	_____

- |    |  |       |       |       |
|----|--|-------|-------|-------|
| 2. | Were personnel familiar with available communications and the intended use of each?  | _____ | _____ | _____ |
| 3. | Was the team adequately briefed prior to dispatch?   | _____ | _____ | _____ |
| 4. | Were communications between the team and the TSC adequate?   | _____ | _____ | _____ |
| 5. | Were there sufficient personnel to conduct communications tasks?   | _____ | _____ | _____ |
| 6. | Was incoming information effectively and efficiently distributed to appropriate personnel?   | _____ | _____ | _____ |
| 7. | Was there a two-way exchange of information such that personnel understood the changing situation and were able to effectively contribute to accident assessment and mitigation? | _____ | _____ | _____ |

### III. Procedures (Refer to Procedures EM-209, EM-217)

- |    |  |       |       |       |
|----|--|-------|-------|-------|
| 1. | Were personnel generally familiar with the relevant procedures?  | _____ | _____ | _____ |
| 2. | Were procedures followed?  | _____ | _____ | _____ |
| 3. | Were the procedures appropriate?   | _____ | _____ | _____ |
| 4. | What was your overall assessment of the overall level of competency and state of training of the personnel observed? | _____ | _____ | _____ |

### IV. Direction and Control

- |    |   |       |       |       |
|----|---|-------|-------|-------|
| 1. | Was the information flow from the personnel observed to Senior management timely, complete, and accurate?                 | _____ | _____ | _____ |
| 2. | Did the individual in charge become too deeply involved in a specific activity to the exclusion of other activities?      | _____ | _____ | _____ |
| 3. | Could the response be categorized as a team effort or as a group of individual efforts?<br>(U = Individual      E = Team) | _____ | _____ | _____ |

- |    |  |      |      |      |
|----|--|------|------|------|
| 4. | Was there an effective mechanism for resolving differences of opinion regarding technical issues or actions to be taken? | ____ | ____ | ____ |
| 5. | Did the team document/log its activities appropriately?  | ____ | ____ | ____ |

V. Material and Equipment

- |    |  |      |      |      |
|----|--|------|------|------|
| 1. | Were all of the required materials and equipment available?  | ____ | ____ | ____ |
| 2. | Was the equipment functional?  | ____ | ____ | ____ |
| 3. | Did personnel check to assure that all equipment was available and functional early in the activation process? | ____ | ____ | ____ |
| 4. | If equipment was inoperative or failed in use were appropriate actions taken to resolve the deficiency?        | ____ | ____ | ____ |

VI. Protective Measures

- |    |   |      |      |      |
|----|---|------|------|------|
| 1. | Were team members apprised of in-plant radiological conditions?   | ____ | ____ | ____ |
| 2. | Were appropriate protective measures implemented? (if applicable)   | ____ | ____ | ____ |
| 3. | Were all in-plant activities conducted with regard for personnel safety, consistent with the need to complete the activity? | ____ | ____ | ____ |

VII. Describe any problems or deficiencies that were noted, and provide recommended corrective action if available.

VIII. Additional Comments:

Florida Power Corporation Crystal River Unit 3  
1992 Radiological Emergency Response Plan Exercise

Exercise Evaluation Criteria  
for  
Operational Support Center

LIST NAMES OF PARTICIPANTS AND THEIR EMERGENCY POSITION:

OSC Repair Team Leader:	Chief Nuc. Electrician:
Communications:	Chief Nuc. Tech. Support Tech:
Electrical/I&C Super:	Health Physics Tech:
Master Mechanic:	

KEY PERSONNEL AT THIS LOCATION:

OSC Repair Team Leader

EVALUATION CRITERIA:

Unacceptable (U) indicates that personnel and / or equipment performed below expectations. Provide explanatory comments concerning any observed response that is evaluated as unacceptable.

Satisfactory (S) indicates that personnel and / or equipment performed adequately. Any exceptions were minor and easily correctible.

Excellent (E) indicates that personnel and / or equipment functioned at a level much greater than required or reasonable expected.

EVALUATION:

	U	S	E
I. Activation and Response			
1. Was activation/initiation efficient and organized? (also note time that OSC was activated)	_____	_____	_____
2. Were personnel familiar with their responsibilities and did they respond in a timely manner? (Provide job titles of personnel who reported to the OSC)	_____	_____	_____
3. Was the person in charge clearly identifiable?	_____	_____	_____

OSC EVALUATION, cont'd.

II. Communication/Dissemination of Information

- |    |  |       |       |       |
|----|--|-------|-------|-------|
| 1. | Were all required/specified communications systems operable?                               | _____ | _____ | _____ |
| 2. | Were personnel familiar with available communications and the intended use of each?        | _____ | _____ | _____ |
| 3. | Were communications adequate?  | _____ | _____ | _____ |
| 4. | Were there sufficient personnel to conduct communications tasks?                           | _____ | _____ | _____ |
| 5. | Was incoming information effectively and efficiently distributed to appropriate personnel? | _____ | _____ | _____ |

III. Procedures (Refer to procedure EM-102)

- |    |  |       |       |       |
|----|--|-------|-------|-------|
| 1. | Were personnel generally familiar with the relevant procedures?  | _____ | _____ | _____ |
| 2. | Were procedures followed?  | _____ | _____ | _____ |
| 3. | Were the procedures appropriate?   | _____ | _____ | _____ |
| 4. | What was your overall assessment of the overall level of competency and state of training of the personnel observed? | _____ | _____ | _____ |

IV. Direction and Control

- |    |   |       |       |       |
|----|---|-------|-------|-------|
| 1. | Was the information flow from the personnel observed to Senior management timely, complete, and accurate?                 | _____ | _____ | _____ |
| 2. | Did the individual in charge become too deeply involved in a specific activity to the exclusion of other activities?      | _____ | _____ | _____ |
| 3. | Could the response be categorized as a team effort or as a group of individual efforts?<br>(U = Individual      E = Team) | _____ | _____ | _____ |

OSC EVALUATION, cont'd.

- |    |  |       |       |       |
|----|--|-------|-------|-------|
| 4. | Was there an effective mechanism for resolving differences of opinion regarding technical issues or actions to be taken? | _____ | _____ | _____ |
|----|--|-------|-------|-------|

V. Material and Equipment

- |    |  |       |       |       |
|----|--|-------|-------|-------|
| 1. | Were all of the required materials and equipments available?   | _____ | _____ | _____ |
| 2. | Was the equipment functional?  | _____ | _____ | _____ |
| 3. | Did personnel check to assure that all equipment was available and functional early in the activation process? | _____ | _____ | _____ |
| 4. | If equipment was inoperative or failed in use were appropriate actions taken to resolve the deficiency?        | _____ | _____ | _____ |
| 5. | Was there a request for additional material/equipment not currently provided?                                  | _____ | _____ | _____ |

VI. Protective Measures

- |    |   |       |       |       |
|----|---|-------|-------|-------|
| 1. | Were appropriate protective measures implemented? (if applicable)   | _____ | _____ | _____ |
| 2. | Were OSC personnel kept apprised of in-plant radiological conditions?   | _____ | _____ | _____ |
| 3. | Were all in-plant activities conducted with regard for personnel safety, consistent with the need to complete the activity? | _____ | _____ | _____ |
| 4. | Was the evacuation of the OSC conducted safely and efficiently? (if applicable)   | _____ | _____ | _____ |



OSC EVALUATION, cont'd.

VII. Describe any problems or deficiencies that were noted, and provide recommended corrective action if available.

VIII. Additional Comments:

Florida Power Corporation Crystal R Unit 3  
1991 Radiological Emergency Response Plan Exercise

Exercise Evaluation Criteria  
for  
Security / Personnel Accountability

KEY PERSONNEL AT THIS LOCATION:

**Shift Supervisor:** has ultimate control over all evolutions associated with operations of the plant that occur during his shift.

EVALUATION CRITERIA:

**Unacceptable (U)** indicates that personnel and / or equipment performed below expectations. Provide explanatory comments concerning any observed response that is evaluated as unacceptable.

**Satisfactory (S)** indicates that personnel and / or equipment performed adequately. Any exceptions were minor and easily correctable.

**Excellent (E)** indicates that personnel and / or equipment functioned at a level much greater than required or reasonable expected.

EVALUATION:

	U	S	E
I. Activation and Response			
1. Was activation/initiation of the emergency plan efficient and organized?	_____	_____	_____
2. Were personnel familiar with their responsibilities and did they respond in a timely manner?	_____	_____	_____
3. Was the person in charge clearly identifiable?	_____	_____	_____
II. Communication/Dissemination of Information			
1. Were all required/specified communications systems operable?	_____	_____	_____
2. Were personnel familiar with available communications and the intended use of each?	_____	_____	_____
3. Were communications adequate?	_____	_____	_____

## SECURITY EVALUATION, cont'd.

- |    |  |       |       |       |
|----|--|-------|-------|-------|
| 4. | Were their sufficient personnel to conduct communications tasks?   | _____ | _____ | _____ |
| 5. | Was incoming information effectively and efficiently distributed to appropriate personnel?   | _____ | _____ | _____ |
| 6. | Was there a two way exchange of information such that personnel understood the changing situation and were able to effectively contribute to accident assessment and mitigation? | _____ | _____ | _____ |
| 7. | Was there adequate communication between the SAS and the CAS?  | _____ | _____ | _____ |

### III. Procedures (Refer to procedures EM-205 and EM-211)

- |    |   |       |       |       |
|----|---|-------|-------|-------|
| 1. | Were personnel generally familiar with the relevant procedures?   | _____ | _____ | _____ |
| 2. | Were procedures followed?   | _____ | _____ | _____ |
| 3. | Were the procedures appropriate?  | _____ | _____ | _____ |
| 4. | What was your overall assessment of the overall level of competency and state of training of the personnel observed?      | _____ | _____ | _____ |
| 5. | Was accountability achieved within 30 minutes? Were they able to locate those not accounted for within a reasonable time? | _____ | _____ | _____ |

### IV. Direction and Control

- |    |   |       |       |       |
|----|---|-------|-------|-------|
| 1. | Was the information flow from the personnel observed to Senior management timely, complete, and accurate?                 | _____ | _____ | _____ |
| 2. | Did the individual in charge become too deeply involved in a specific activity to the exclusion of other activities?      | _____ | _____ | _____ |
| 3. | Could the response be categorized as a team effort or as a group of individual efforts?<br>(U = Individual      E = Team) | _____ | _____ | _____ |

SECURITY EVALUATION, cont'd.

V. Material and Equipment

- |    |  |       |       |       |
|----|--|-------|-------|-------|
| 1. | Were all of the required materials and equipments available? | _____ | _____ | _____ |
| 2. | Was the equipment functional?                                | _____ | _____ | _____ |

VI. Protective Measures

- |    |   |       |       |       |
|----|---|-------|-------|-------|
| 1. | Were appropriate protective measures implemented? (if applicable) | _____ | _____ | _____ |
|----|---|-------|-------|-------|

VII. Access Control

- |    |   |       |       |       |
|----|---|-------|-------|-------|
| 1. | Was an appropriate security posture established against unauthorized personnel?                                       | _____ | _____ | _____ |
| 2. | Were incoming support personnel (ambulances, etc.) provided appropriate access in a timely manner?                    | _____ | _____ | _____ |
| 3. | Was there an effective method for identifying those personnel on plant staff who were part of the emergency response? | _____ | _____ | _____ |

VIII. Describe any problems or deficiencies that were noted, and provide recommended corrective action if available.

IX. Additional Comments:

Florida Power Corporation Crystal River Unit 3  
1992 Radiological Emergency Response Plan Exercise

Exercise Evaluation Criteria  
for  
Technical Support Center

LIST NAMES OF PARTICIPANTS AND THEIR EMERGENCY POSITION:

Emergency Coordinator:	Repairs:
Dose Assessment:	Fire Assessment:
Security:	Medical:
Accident Assessment:	HPN Talker:
Communications/Report Prep:	Procurement:
Engineering:	Others:

KEY PERSONNEL AT THIS LOCATION:

**Emergency Coordinator:** Responsible for overall direction of TSC actions, including approval of information reported to outside organizations. Also responsible for all activities at the Crystal River Generating Complex during an emergency at CR3.

EVALUATION CRITERIA:

**Unacceptable (U)** indicates that personnel and / or equipment performed below expectations. Provide explanatory comments concerning any observed response that is evaluated as unacceptable.

**Satisfactory (S)** indicates that personnel and / or equipment performed adequately. Any exceptions were minor and easily correctible.

**Excellent (E)** indicates that personnel and / or equipment functioned at a level much greater than required or reasonable expected.

EVALUATION:

	U	S	E
1. Activation and Response			
1. Was activation/initiation efficient and organized?	___	___	___
2. Were personnel familiar with their responsibilities and did they respond in a timely manner?	___	___	___

TSC EVALUATION, cont'd.

- |    |   |       |       |       |
|----|---|-------|-------|-------|
| 3. | Was the TSC declared operational within 60 minutes of declaration of ALERT?      How long?  | _____ | _____ | _____ |
| 4. | Was the facility physically ready for operation at the time it was declared operational?    | _____ | _____ | _____ |
| 5. | Were the required personnel present at the time the TSC was declared operational?           | _____ | _____ | _____ |
| 6. | Was the person in charge clearly identifiable?  | _____ | _____ | _____ |
| 7. | Were the transfers of responsibilities accomplished efficiently and effectively?            | _____ | _____ | _____ |
| 8. | Were all participants made aware via a formal announcement that the transfers had occurred? | _____ | _____ | _____ |

II. Communication/Dissemination of Information

- |    |  |       |       |       |
|----|--|-------|-------|-------|
| 1. | Were all required/specified communications systems operable?                               | _____ | _____ | _____ |
| 2. | Were personnel familiar with available communications and the intended use of each?        | _____ | _____ | _____ |
| 3. | Were communications adequate?  | _____ | _____ | _____ |
| 4. | Were there sufficient personnel to conduct communications tasks?                           | _____ | _____ | _____ |
| 5. | Was incoming information effectively and efficiently distributed to appropriate personnel? | _____ | _____ | _____ |
| 6. | Were periodic update announcements made to the TSC staff?                                  | _____ | _____ | _____ |
| 7. | Did communicators keep accurate logs?  | _____ | _____ | _____ |
| 8. | Were the status boards used effectively?   | _____ | _____ | _____ |

TSC EVALUATION, cont'd.

- |    |  |       |       |       |
|----|--|-------|-------|-------|
| 9. | Was there a two-way exchange of information such that personnel understood the changing situation and were able to effectively contribute to accident assessment and mitigation? | _____ | _____ | _____ |
|----|--|-------|-------|-------|

III. Procedures (Refer to procedures EM-102 and EM-202)

- |    |  |       |       |       |
|----|--|-------|-------|-------|
| 1. | Were personnel generally familiar with the relevant procedures?  | _____ | _____ | _____ |
| 2. | Were procedures followed?  | _____ | _____ | _____ |
| 3. | Were the procedures appropriate?   | _____ | _____ | _____ |
| 4. | What was your overall assessment of the overall level of competency and state of training of the personnel observed? | _____ | _____ | _____ |

IV. Direction and Control

- |    |   |       |       |       |
|----|---|-------|-------|-------|
| 1. | Was the information flow from the personnel observed to Senior management timely, complete, and accurate?                 | _____ | _____ | _____ |
| 2. | Did the individual in charge become too deeply involved in a specific activity to the exclusion of other activities?      | _____ | _____ | _____ |
| 3. | Could the response be categorized as a team effort or as a group of individual efforts?<br>(U = Individual      E = Team) | _____ | _____ | _____ |
| 4. | Was there an effective mechanism for resolving differences of opinion regarding technical issues or actions to be taken?  | _____ | _____ | _____ |

V. Material and Equipment

- |    |  |       |       |       |
|----|--|-------|-------|-------|
| 1. | Were all of the required materials and equipments available? | _____ | _____ | _____ |
| 2. | Was the equipment functional?                                | _____ | _____ | _____ |



TSC EVALUATION, cont'd.

- |    |  |       |       |       |
|----|--|-------|-------|-------|
| 3. | Did personnel check to assure that all equipment was available and functional early in the activation process?   | _____ | _____ | _____ |
| 4. | If equipment was inoperative or failed in use were appropriate actions taken to resolve the deficiency?          | _____ | _____ | _____ |
| 5. | Could the TSC support the personnel assigned to it?  | _____ | _____ | _____ |
| 6. | Were there resource materials readily available to assess the emergency situation and to plan corrective action? | _____ | _____ | _____ |

VI. Protective Measures

- |    |   |       |       |       |
|----|---|-------|-------|-------|
| 1. | Were appropriate protective measures implemented? (if applicable)   | _____ | _____ | _____ |
| 2. | Were TSC personnel kept apprised of in-plant radiological conditions?   | _____ | _____ | _____ |
| 3. | Was the normal radiological control program appropriately modified to contend with the emergency radiological conditions? | _____ | _____ | _____ |

VII. Access Control

- |    |  |       |       |       |
|----|--|-------|-------|-------|
| 1. | Was an appropriate security posture established against unauthorized personnel?                      | _____ | _____ | _____ |
| 2. | Was an identification system used that effectively identified authorized personnel and their duties? | _____ | _____ | _____ |

VIII. Describe any problems or deficiencies that were noted, and provide recommended corrective action if available.

IX. Additional Comments:

Florida Power Corporation Crystal River Unit 3  
1992 Radiological Emergency Response Plan Exercise

Exercise Evaluation Criteria  
for  
Radiation Monitoring Team

PROVIDE NAMES OF PARTICIPANTS AND THEIR EMERGENCY POSITION:

(Identify from attached list)

KEY PERSONNEL AT THIS LOCATION:

Radiation Monitoring Team Leader  
Radiation Monitoring Team Members

EVALUATION CRITERIA:

Unacceptable (U) indicates that personnel and / or equipment performed below expectations. Provide explanatory comments concerning any observed response that is evaluated as unacceptable.

Satisfactory (S) indicates that personnel and / or equipment performed adequately. Any exceptions were minor and easily correctible.

Excellent (E) indicates that personnel and / or equipment functioned at a level much greater than required or reasonable expected.

EVALUATION:

	U	S	E
I. Activation and Response			
1. Was activation/initiation efficient and organized?	_____	_____	_____
2. Were personnel familiar with their responsibilities and did they respond in a timely manner?	_____	_____	_____
3. Was the person in charge clearly identifiable?	_____	_____	_____
II. Communication/Dissemination of Information			
1. Were all required/specified communications systems operable?	_____	_____	_____

- |    |  |       |       |       |
|----|--|-------|-------|-------|
| 2. | Were personnel familiar with available communications and the intended use of each?  | _____ | _____ | _____ |
| 3. | Was the team adequately briefed prior to dispatch?   | _____ | _____ | _____ |
| 4. | Were communications between the team and the TSC adequate?   | _____ | _____ | _____ |
| 5. | Were there sufficient personnel to conduct communications tasks?   | _____ | _____ | _____ |
| 6. | Was incoming information effectively and efficiently distributed to appropriate personnel?   | _____ | _____ | _____ |
| 7. | Was there a two-way exchange of information such that personnel understood the changing situation and were able to effectively contribute to accident assessment and mitigation? | _____ | _____ | _____ |

### III. Procedures (Refer to Procedure EM-210)

- |    |  |       |       |       |
|----|--|-------|-------|-------|
| 1. | Were personnel generally familiar with the relevant procedures?  | _____ | _____ | _____ |
| 2. | Were procedures followed?  | _____ | _____ | _____ |
| 3. | Were the procedures appropriate?   | _____ | _____ | _____ |
| 4. | What was your overall assessment of the overall level of competency and state of training of the personnel observed? | _____ | _____ | _____ |

### IV. Direction and Control

- |    |   |       |       |       |
|----|---|-------|-------|-------|
| 1. | Was the information flow from the personnel observed to Senior management timely, complete, and accurate?                 | _____ | _____ | _____ |
| 2. | Did the individual in charge become too deeply involved in a specific activity to the exclusion of other activities?      | _____ | _____ | _____ |
| 3. | Could the response be categorized as a team effort or as a group of individual efforts?<br>(U = Individual      E = Team) | _____ | _____ | _____ |

- |    |  |       |       |       |
|----|--|-------|-------|-------|
| 4. | Was there an effective mechanism for resolving differences of opinion regarding technical issues or actions to be taken? | _____ | _____ | _____ |
| 5. | Did the team document/log its activities appropriately?  | _____ | _____ | _____ |

V. Material and Equipment

- |    |  |       |       |       |
|----|--|-------|-------|-------|
| 1. | Were all of the required materials and equipment available?  | _____ | _____ | _____ |
| 2. | Was the equipment functional?  | _____ | _____ | _____ |
| 3. | Did personnel check to assure that all equipment was available and functional early in the activation process? | _____ | _____ | _____ |
| 4. | If equipment was inoperative or failed in use were appropriate actions taken to resolve the deficiency?        | _____ | _____ | _____ |

VI. Protective Measures

- |    |   |       |       |       |
|----|---|-------|-------|-------|
| 1. | Were team members apprised of in-plant radiological conditions?   | _____ | _____ | _____ |
| 2. | Were appropriate protective measures implemented? (if applicable)   | _____ | _____ | _____ |
| 3. | Were all in-plant activities conducted with regard for personnel safety, consistent with the need to complete the activity? | _____ | _____ | _____ |

VII. Describe any problems or deficiencies that were noted, and provide recommended corrective action if available.

VIII. Additional Comments: