

DMB

Arizona Public Service Company

PALO VERDE NUCLEAR GENERATING STATION
P.O. BOX 52034 • PHOENIX, ARIZONA 85072-2034

240-01404-HFB/GAC
January 10, 1995

Mr. Joseph Callan
Regional Administrator, Region IV
United States Nuclear Regulatory Commission
611 Ryan Plaza Drive, Suite 400
Arlington, Texas 76011

Dear Mr. Callan:

Subject: Dockets Nos. STN 50-528/529/530
License Nos. NPF-41/51/74
Palo Verde Nuclear Generating Station (PVNGS)
Unit I, II, and III
1995 Annual Emergency Plan Exercise 90 Day Submittal
File: 95-002-493

Attached for your review and comment are the "Exercise Objectives and Extent of Play" for the 1995 PVNGS Annual Emergency Plan Exercise (Exercise). This information is being provided at this time in order to conform with the 90 day submittal requirement prior to conduct of the Exercise. The Exercise is tentatively scheduled for April 12, 1995.

Arizona Public Service Company requests that the information in the enclosure be withheld from public disclosure pursuant to 10CFR2.790(a). The information enclosed is considered confidential and should be withheld until the conclusion of the Exercise.

If you need additional information, please call me at 602/393-6280.

Very truly yours,

Harry F. Bieling
Manager,
Emergency Planning

HFB/GAC/cb

Enclosures

cc: Ken Johnson

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OBJECTIVES

The following objectives, taken from the PVNGS Emergency Planning Master List of Objectives, have been chosen to be demonstrated in the 1995 PVNGS annual Exercise:

A. PVNGS Objectives

1. Demonstrate the ability to assess plant conditions.
2. Demonstrate the ability to classify the event in accordance with EPIP-02.
3. Demonstrate the ability to identify projected trends and potential consequences.
4. Demonstrate the ability to alert and notify PVNGS Emergency Response personnel in a timely manner.
5. Demonstrate the ability to mobilize PVNGS Emergency Response personnel within the time frames specified in the Emergency Plan.
6. Demonstrate the ability of PVNGS to notify state and county agencies within 15 minutes of emergency declaration.
7. Demonstrate the ability to determine actual or potential offsite radiological hazards.
8. Demonstrate the ability to make timely Protective Action Recommendations to offsite agencies.
9. Demonstrate the ability to track plume passage.
10. Demonstrate the proper use of radiation monitoring instruments and dosimetry.
11. Demonstrate the proper use of sampling equipment and contamination control techniques.
12. Demonstrate the ability to respond effectively to a contaminated injured individual within the plant.
13. Demonstrate the ability to coordinate with ambulance and hospital personnel in the handling, transport, and treatment of a contaminated injured individual.
20. Demonstrate the ability to draw and analyze a PASS sample during adverse radiological conditions.

IX-49

B. Facility Objectives

1. *Emergency Operations Facility (EOF)*

- a. Demonstrate the adequacy of the Emergency Plan and the Emergency Plan Implementing Procedures (EPIPs) both in terms of management control and workability of the procedures for the EOF.
- b. Demonstrate the adequacy of communications links between the CR/STSC, government emergency facilities, field teams, and the EOF.
- c. Demonstrate the effectiveness and availability of appropriate emergency equipment and supplies.
- d. Demonstrate the adequacy of security access control.
- e. Demonstrate activation and staffing of the EOF in a timely manner.
- f. Demonstrate the functional adequacy of the EOF.

2. *Technical Support Center (TSC)*

- a. Demonstrate the adequacy of the Emergency Plan and the Emergency Plan Implementing Procedures (EPIPs) both in terms of management control and workability of the procedures for the TSC.
- b. Demonstrate the adequacy of communications links between the CR/STSC, OSC, EOF, in-plant response teams, and the TSC.
- c. Demonstrate the effectiveness and availability of appropriate emergency equipment and supplies.
- d. Demonstrate the adequacy of security access control.
- e. Demonstrate activation and staffing of the TSC in a timely manner.
- f. Demonstrate the functional adequacy of the TSC.
- g. Demonstrate the capability to perform core damage assessment and to project the time remaining to core uncover.

B. Facility Objectives (continued...)

3. *Satellite Technical Support Center (STSC)*

- a. Demonstrate the adequacy of the Emergency Plan and the Emergency Plan Implementing Procedures (EPIPs) both in terms of management control and workability of the procedures for the STSC.
- b. Demonstrate the adequacy of communications links between the TSC, OSC, EOF, in-plant response teams, and the CR/STSC.
- c. Demonstrate the effectiveness and availability of appropriate emergency equipment and supplies.
- d. Demonstrate activation and staffing of the STSC in a timely manner.
- e. Demonstrate the functional adequacy of the STSC.

4. *Operations Support Center (OSC)*

- a. Demonstrate the adequacy of the Emergency Plan and the Emergency Plan Implementing Procedures (EPIPs) both in terms of management control and workability of the procedures for the OSC.
- b. Demonstrate the adequacy of communications links between field teams, the TSC/STSC, and the OSC.
- c. Demonstrate the effectiveness and availability of appropriate emergency equipment and supplies.
- d. Demonstrate activation and staffing of the OSC in a timely manner.
- e. Demonstrate the functional adequacy of the OSC.

B. Facility Objectives (continued...)

5. Joint Emergency News Center (JENC)

- a. Demonstrate the adequacy of the Emergency Plan and the Joint Public Information Procedures (JPIPs) both in terms of management control and workability of the procedures for the JENC.
- b. Demonstrate the adequacy of communications links between government emergency facilities, the site's emergency facilities, and the JENC.
- c. Demonstrate the effectiveness and availability of appropriate emergency equipment and supplies.
- d. Demonstrate the adequacy of security access control.
- e. Demonstrate activation and staffing of the JENC in a timely manner.
- f. Demonstrate the functional adequacy of the JENC.

C. State of Arizona / Maricopa County Objectives

1. Demonstrate the capability to alert and fully mobilize personnel for both emergency facilities and field operations. Demonstrate the capability to activate and staff emergency facilities for emergency operations.
2. Demonstrate the adequacy of facilities, equipment, displays, and other materials to support emergency operations.
3. Demonstrate the capability to direct and control emergency operations.
4. Demonstrate the capability to communicate with all appropriate emergency personnel at facilities and in the field.
5. Demonstrate the ability to continuously monitor and control radiation exposure to emergency workers.
6. Demonstrate the appropriate use of equipment and procedures for determining field radiation measurements.
7. Demonstrate the capability to develop dose projections and protective action recommendations regarding evacuation and sheltering.

C. State of Arizona / Maricopa County Objectives (continued...)

8. Demonstrate the appropriate use of equipment and procedures for the measurement of airborne radioiodine concentrations as low as $10E-7$ (0.0000001) microCurie (μCi) per cubic centimeter in the presence of noble gases and obtain samples of particulate activity in the airborne plume.
9. Demonstrate the capability to make timely protective action decisions (PAD).
10. Demonstrate the capability to promptly alert and notify the public within the 10-mile plume pathway emergency planning zone (EPZ) and disseminate instructional messages to the public on the basis of decisions by appropriate State or local officials.
11. Demonstrate the capability to coordinate the formulation and dissemination of accurate information and instructions to the public.
12. Demonstrate the capability to coordinate the development and dissemination of clear, accurate, and timely information to the news media.
13. Demonstrate the capability to establish and operate rumor control in a coordinated and timely manner.
14. Demonstrate the capability and resources to implement potassium iodide (KI) protective actions for emergency workers, institutionalized individuals, and, if the State plan specifies, the general public.
15. Demonstrate the capability and resources necessary to implement appropriate protective actions for special populations.
16. Demonstrate the capability and resources necessary to implement protective actions for school children within the plume pathway emergency planning zone (EPZ).
17. Demonstrate the organizational capability and resources necessary to control evacuation traffic flow and to control access to evacuated and sheltered areas.
18. Demonstrate the adequacy of procedures, facilities, equipment, and personnel for the radiological monitoring, decontamination, and registration of evacuees.
19. Demonstrate the adequacy of facilities, equipment, supplies, personnel, and procedures for congregate care of evacuees.
20. Demonstrate the adequacy of vehicles, equipment, procedures, and personnel for transporting contaminated, injured, or exposed individuals.

C. State of Arizona / Maricopa County Objectives (continued...)

21. Demonstrate the adequacy of the equipment, procedures, supplies, and personnel of medical facilities responsible for treatment of contaminated, injured, or exposed individuals.
22. Demonstrate the adequacy of procedures for monitoring and decontamination of emergency workers, equipment, and vehicles.
23. Demonstrate the capability to identify the need for external assistance and to request such assistance from Federal or other support organizations.

D. Joint Objectives (PVNGS, State of Arizona, Maricopa County)

1. Demonstrate the ability to respond to an emergency which initiates between the hours of 0400 and 1800 on workdays.
2. Demonstrate that emergency response organizations can activate and staff direction and control facilities in a timely manner.
3. Demonstrate the functional adequacy of emergency facilities.
4. Demonstrate the adequacy of communications links between government emergency facilities, field teams, and the utility's emergency facilities.
5. Demonstrate the adequacy of communications with the public via the Emergency Broadcast System (EBS).
6. Demonstrate the ability to implement personnel dosimetry for both utility and government emergency response personnel.
7. Demonstrate the ability to perform onsite and offsite dose assessment in a timely manner.
8. Demonstrate remote activation and operation of the offsite siren alerting system.
12. Demonstrate timely coordination and release of information to the media through coordinated action by state, county, and utility elements.
13. Demonstrate the ability to coordinate protective actions in the plume exposure pathway EPZ.
14. Demonstrate the adequacy of communications with the public via the news media.
15. Demonstrate the adequacy of communications with the public via Rumor Control.

RESPONSE LOCATIONS / EXTENT OF PLAY

1. *Utility - Palo Verde Nuclear Generating Station (I-10, Exit 98)*

1.1 Unit 3 Control Room (Simulator-A)

Unit 3 Control Room (Simulator-A) will be used to accommodate the event initiators. An off-shift Operations staff will be utilized to represent the on-shift Operations crew. Auxiliary Operators assigned to the Simulator crew will receive the shift turnover information in the Simulator and then traverse to Unit 3, where they will simulate the on-shift Auxiliary Operators.

1.2 Simulator-A Satellite Technical Support Center (STSC)

Simulator-A STSC will be fully activated.

1.3 Technical Support Center (TSC)

The TSC will be fully activated.

1.4 Unit 3 Operations Support Center (OSC)

Unit 3 OSC will be fully activated.

1.5 Emergency Operations Facility (EOF)

The EOF will be fully activated.

1.6 Forward News Center (FNC)

The FNC will be fully activated at the Notification of Unusual Event (NUE) classification and will deactivate when the Joint Emergency News Center (JENC) is activated.

2. *Federal*

2.1 US Nuclear Regulatory Commission (USNRC) - Washington DC Region-IV (Arlington TX)

The USNRC will engage as participants and observers. The participants will be evaluated against predetermined federal standards by USNRC evaluators.

2. *Federal (continued...)*

2.2 National Weather Service (NWS) - Phoenix AZ

The National Weather Service, an agency of the National Oceanic and Atmospheric Administration, correlates weather data per local agencies' requests for atmospheric dispersion and near-term forecasts related to radioactive plume characteristics. The NWS will accommodate requests as delineated by the local agencies.

2.3 Federal Emergency Management Agency - Region-IX (FEMA)

FEMA will deploy and establish a limited FRMAC. The extent of play will be limited to joint federal field team response in attendance with state field teams. FRMAC response will encompass performance of decision-making management in choosing a location.

3. *State of Arizona*

3.1 Emergency Operations Center (EOC)

The State EOC (including the Public Inquiry Center, the Joint Emergency News Center, and the State Technical Operations Center) will be fully activated. Equipment will be pre-staged for the TOC. A simulated supplemental request for assistance to Albuquerque NM will be demonstrated, but may occur out-of-sequence to other evaluated demonstrations.

3.2 Joint Emergency News Center (JENC)

The JENC will be fully activated.

3.3 Radiological Emergency Assistance Team (REAT)

The REAT Center (Environmental Surveillance Laboratory) will be fully activated.

3.4 REAT Forward

REAT Forward will be fully activated. Three (3) teams will be established, with one (1) team dispatched to the Reception and Care Center. Charcoal filters will substitute for Silver Zeolite in performance of sampling techniques. Emergency worker monitoring will be demonstrated, but will occur out-of-sequence to other evaluated demonstrations. The Buckeye Fire Department will be used (simulated) for decontamination of a vehicle.

3. ***State of Arizona (continued...)***

3.5 Reception and Care Center

The participating Reception and Care Center is located at Tolleson Union High School, 9419 W. Van Buren, Tolleson AZ. It will be fully staffed to demonstrate evacuee reception and care using simulated evacuees. This demonstration will be pre-staged and may be conducted out-of-sequence to other evaluated demonstrations.

4. ***Maricopa County***

4.1 Maricopa County Emergency Operations Center (MCEOC)

The County EOC will be fully activated.

4.2 Maricopa County Sheriff's Office (MCSO)

The MCSO On-Scene Command Post will be fully activated.

5. ***Volunteer Agencies***

5.1 American Red Cross (ARC)

Deployment of the Phoenix Chapter of the ARC will occur.

6. ***General Response***

6.1 The Notification Alert Network (NAN) will be used.

6.1.1 Government Response Organizations will be alerted.

6.2 State, County, and volunteer response organizations will be mobilized.

6.3 The demonstration of evacuation for affected citizens within the EPZ will be simulated. The evacuees will be pre-staged at the Reception and Care Center (RCC). Monitoring and radioactive decontamination, if appropriate, will occur. Surveys will be demonstrated for six (6) evacuees.

6.4 An evacuation of a representative resident group with special needs (approximately 4-6 individuals) will occur. One special needs evacuation location will be established for evaluation purposes.

6. General Response (continued...)

- 6.5** Transportation of a contaminated injured person will be demonstrated separately in a Medical Drill involving Good Samaritan Hospital and AirEvac at a date to be determined. The ability to draw and analyze a sample using the Post-Accident Sampling System (PASS) during adverse radiological conditions will be simulated in the Exercise and will be fully demonstrated in a PASS Drill at a date to be determined.
- 6.6** State Protective Action Decisions will be transmitted to affected schools. Evacuation of the schools will not be demonstrated.
- 6.7** Road Blocks/Access Control Points (1 for evaluation) will be implemented to demonstrate this function and then secured.
- 6.8** The onsite monitoring teams will simulate the donning of protective clothing appropriate to the scenario as directed by the RFAT Lead Controller. All offsite teams will simulate the use of protective clothing and related equipment.
- 6.9** In-plant teams will simulate the donning of protective clothing appropriate to the scenario as directed by the facility Lead Controller.
- 6.10** Primary and backup (limited demonstration) communications systems will be utilized as required by the scenario.
- 6.11** The siren portion of the PVNGS Site Warning Siren/Public Address System will be simulated. The public address portion of this system will be used onsite only. Verbal notifications in the affected area for simulated siren malfunctions will be provided by the Maricopa County Sheriff's Office.
- 6.12** Use of the Offsite Siren Activation System will be simulated. Siren sounding will not occur. Emergency Broadcast System (EBS) messages will be generated and distributed to KTAR, but none will be broadcast. The warnings will be disseminated amongst the Exercise participants via the emergency communications systems and to the representative resident group via a supplemental warning team for the evacuation.
- 6.13** The media will be simulated for emergency information dispensation. Rumor Control will be activated and simulated inquiries will take place.
- 6.14** Onsite assembly and accountability will be simulated. Evacuation will also be simulated.
- 6.15** The JENC staff will produce coordinated press releases and conduct oral briefings to actual and simulated media personnel.

6. *General Response (continued...)*

- 6.16 The distribution of Potassium Iodide (KI) to emergency workers will be simulated. The appropriate Exercise Controller will receive verbal notification that an announcement has been transmitted to affected personnel. REAT Forward will subsequently be notified that KI has been dispensed.



PALO VERDE
NUCLEAR GENERATING STATION

1995
EMERGENCY PREPAREDNESS
EXERCISE

[REDACTED] AL

[REDACTED]

ARIZONA PUBLIC SERVICE COMPANY
PROJECT MANAGER AND OPERATING AGENT



PALO VERDE
NUCLEAR GENERATING STATION

1995
**EMERGENCY PREPAREDNESS
EXERCISE**

[REDACTED] AL

9507130124 384pp

ARIZONA PUBLIC SERVICE COMPANY
PROJECT MANAGER AND OPERATING AGENT

1995 EMERGENCY PREPAREDNESS EXERCISE 95-E-AEV-04002

SUMMARY OF CHANGES

| # | LOCATION | DATE | REVISION |
|----|-------------------|---------|---|
| 1 | Pre-SEC 01 | 06APR95 | Added "NRC Resident" phone number to SIM Phone List |
| 2 | Pre-SEC 01 | 06APR95 | Completed Controller Listing |
| 3 | SEC 01 - 1.2.3 | 01MAR95 | Changed Reception and Care Center to Dysart High School |
| 4 | SEC 01 - 1.3.3.4 | 10MAR95 | Changed wording to reflect State/FEMA extent-of-play agreement |
| 5 | SEC 01 - 1.3.3.5 | 01MAR95 | Changed Reception and Care Center to Dysart High School |
| 6 | SEC 03 - II.C.3 | 24MAR95 | Eliminated |
| 7 | SEC 03 - Page 8 | 28MAR95 | Enhanced SIM Setup |
| 8 | SEC 03 - IV.A.9.g | 30MAR95 | Corrected briefing item for SIM ERDS activation capabilities |
| 9 | SEC 03 - IV.A.9.h | 28MAR95 | Enhanced SIM capability for COLSS blowdown constants |
| 10 | SEC 03 - IV.B.1.f | 16MAR95 | Added option for FTA requirements to reflect Operations staffing |
| 11 | SEC 03 - Scenario | 28MAR95 | Reconfigured Controller assignments as per "VIA" Column |
| 12 | SEC 03 - 0800 | 28MAR95 | Added "weather" CAE as automatic SIM instruction |
| 13 | SEC 03 - 0808 | 22MAR95 | Added Contingency Message "rxt" |
| 14 | SEC 03 - 0808 | 23MAR95 | Added Contingency Messages "mms" and "aaa" |
| 15 | SEC 03 - 0810 | 01MAR95 | Changed multipoint recorder entry due to SIM work order |
| 16 | SEC 03 - 0848 | 22MAR95 | Added Controller ID and Message for NAN backup control |
| 17 | SEC 03 - 0955 | 28MAR95 | Qualified CTMT pressure notation |
| 18 | SEC 03 - 0959 | 28MAR95 | Modified LOCA diagnosis analyses |
| 19 | SEC 03 - 1200 | 28MAR95 | Modified CTMT discussion based on re-analysis of parameters |
| 20 | SEC 03 - 1400 | 29MAR95 | Added RU-09 controlled malfunction for scenario enhancement |
| 21 | SEC 03 - Briefing | 17FEB95 | Corrected briefing item #7 for SIM ERDS activation capabilities |
| 22 | SEC 04 | 28MAR95 | Reconfigured Controller assignments |
| 23 | SEC 04 | 22MAR95 | Added Contingency Message "rxt" |
| 24 | SEC 04 | 23MAR95 | Added Contingency Messages "mms" and "aaa" |
| 25 | SEC 05-08 | 23MAR95 | Added more messages and tuned Sections per State/FEMA request |
| 26 | SEC 09 - Front | 07APR95 | Added RMS CAE data to specific RP Controller Manuals only |
| 27 | SEC 09 - 18-67 | 30MAR95 | Corrected Chemistry data / enhanced all Plume data per FEMA request |
| 28 | SEC 10 - Met | 16MAR95 | Changed ΔT s to effect stability class changes per FEMA request |

DRILL / EXERCISE PHONE NUMBERS

TELEPHONE NUMBERS FOR SIMULATOR-A

SIMULATOR-A (as UNIT x CONTROL ROOM)

| | |
|-------------------------------------|------|
| Shift Supervisor | 7206 |
| Assistant Shift Supervisor | 7205 |
| Control "Horseshoe" Area | 7201 |
| Control "Horseshoe" Area | 7202 |
| Control "Horseshoe" Area | 7203 |
| Control "Horseshoe" Area | 7204 |
| | |
| (from STSC to Control) | 6035 |
| (from OSC to Control) | 6036 |
| (from TSC to Control) | 6037 |
| (from EOF to Control) | 6038 |
| Technical Line (at RMS DCU) | 6039 |
| Maintenance Line (at RMS DCU) | 6040 |

STSC - SIMULATOR-A (as UNIT x STSC)

| | |
|--------------------------------|------|
| Technical Line (STA) | 6031 |
| Rad Assessment | 6032 |
| Environmental Assessment | 6033 |
| Emergency Coordinator | 6034 |
| NRC Resident | 5008 |
| | |
| (from SIM to STSC) | 6027 |
| (from OSC to STSC) | 6028 |
| (from TSC to STSC) | 6029 |
| (from EOF to STSC) | 6030 |

| | |
|--|------|
| Exercise Controller (SIM Work Station) | 5500 |
| Exercise Controller (STSC) | 6119 |

Emergency Operations Director (EOF) 6012

CONTROLLER LISTING - ONSITE

| ID | STATION | NAME | PHONE | PAGE |
|------------|-----------------------------------|-----------------------------|------------------|-------------|
| C-1 | SIM - EXERCISE LEAD | Gary Cerkas | 5500/6119 | 3713 |
| C-1a | SIM (AO Communications Interface) | Bradley Lee | 6119/3974 | 3777 |
| C-1b | SIM (Floor / Operations Crew) | Daniel Marks | 6119/3974 | 3532 |
| C-1c | SIM (Floor-STSC / STA) | Ray Buzard | 6119/3974 | 2293 |
| C-1d | SIM (STSC / NAN Communications) | ¹ Mary Pioggia | 6119/3974 | 2970 |
| C-1e | SIM (STSC-Dose Projection) | Charles Mighells | 6119/3974 | |
| C-1f | SIM (STSC-RPM) | ² Michael O'Neal | 6119/3974 | 3770 |
| C-1g | SIM (LOCT-Operations Crew) | Derek Edmunds/Eric Shouse | 6119/3974 | |
| C-1h | SIM (SIM Operations) | Roger Jones/John Dedon | 6119/3974 | |
| C-2 | TSC - FACILITY LEAD | Tom Barsuk | 2047 | 2916 |
| C-2a | TSC (Radiological / Chemistry) | Edward Walker | 2047 | |
| C-2b | TSC (Engineering / PRA) | Robert Lindquist Jr. | 2047 | |
| C-2c | TSC (Reactor Engineering / STA) | Peter Murphy | 2047 | |
| C-3 | OSC - FACILITY LEAD | Charles Bolle | 3278/3383 | 2973 |
| C-3a | OSC (Operations Coordination) | William Johnson | 3278/3383 | |
| C-3b | OSC (RP) | Kenneth Byers | 3278/3383 | |
| C-3c | OSC (RP) | Patrick Kikendall | 3278/3383 | |
| C-3d | OSC (RP) | Gary Mobbs | 3278/3383 | |
| C-3e | OSC (RP) | Michael Sexton | 3278/3383 | |
| C-3f | OSC (RP / General Areas) | Karen Akers | 3278/3383 | |
| C-4 | EOF - FACILITY LEAD | Harry Bieling | 6181 | 1679 |
| C-4a | EOF (Operations Coordination) | Harold Lines | 6185 | 2775 |
| C-4b | EOF (Engineering / STA) | John Reynoso | 1513 | |
| C-4c | EOF (General Areas) | ¹ Mary Pioggia | 1513 | 2970 |
| C-4d | EOF (RAC) | Lynn FitzRandolph | 6719 | 2936 |
| C-4e | EOF (RAC) | ² Michael O'Neal | 6719 | 3770 |
| C-5 | CHEMISTRY LEAD | Len Thorpe | 1275/1274 | |
| C-6 | SECURITY LEAD | N/A | 7019/7022 | |
| C-7 | OFFSITE SURVEY - LEAD | Michael Taney | Radio CH4 | |
| C-7a | Offsite Survey-RFAT | David Roberts | Radio CH4 | |
| C-7b | Offsite Survey-RFAT | Carolyn Seliga | Radio CH4 | |

- 1 - Mary Pioggia traverses from the SIM STSC to the EOF after initial notifications are made to offsite agencies from the STSC.
- 2 - Michael O'Neal traverses from the SIM STSC to the EOF after dose assessment responsibilities are transferred to the EOF upon that facility's activation.

CONTROLLER LISTING - OFFSITE

| ID | STATION | NAME | PHONE | PAGE |
|------|--|-----------------------------|---------------|------|
| C-8 | CEC - FACILITY LEAD | N/A | | |
| PI-1 | JENC Work Room | Bill Wolfe | 231-6359 | 2915 |
| PI-2 | Forward News Center | ³ Miles Koudelka | 250-1530 | 3939 |
| G-1 | CHIEF GOVERNMENT CONTACT | Harry Border | 231-6200 | |
| G-2 | State TOC | ⁴ Ray Duncan | 231-6204 | 1970 |
| G-3 | State EOC Direction and Control | Daniel Roe | 231-6296 | |
| G-3a | State EOC Direction and Control | Hugh Fowler | 231-6297 | |
| G-3b | State EOC (Utility) | ⁴ Ray Duncan | 231-6204 | 1970 |
| G-4 | State Offsite Controller | Charles McHugh | Cell 228-2659 | |
| G-4a | State Offsite Controller | ⁵ Gwyn La Gois | Cell 228-2659 | |
| G-5 | REAT Forward | Leroy Klotz | Radio | |
| G-5a | REAT Forward (Utility) | ³ Miles Koudelka | Radio | 3939 |
| G-6 | Chief County EOC Controller | Frank Landino | 273-1411 | |
| G-7 | Department of Agriculture EOC | | | |
| G-8 | MCSO Onscene Command Post | | Radio | |
| G-9 | Supplemental Warning Team (MCSO) | | Radio | |
| G-10 | Evacuation Group Controller | Mary Carr | Radio | |
| G-11 | Road Block Controller (MCSO) | | Radio | |
| G-12 | Reception and Care Center | ⁵ Gwyn La Gois | Radio | |
| G-13 | National Weather Service | Mike Franjevic | 231-6287 | |
| G-14 | Good Samaritan Regional Medical Center | N/A | 239-2222 | |
| G-15 | Maryvale Samaritan Medical Center | N/A | 848-5204 | |
| S-1 | Telephone Simulation Group (questions) | | | |

- 3 - Miles Koudelka traverses from the FNC to REAT Forward after utility communications responsibilities are transferred to the JENC upon that facility's activation.
- 4 - Ray Duncan serves as Controller in shared facilities.
- 5 - Gwyn La Gois serves as a State Offsite Controller, with simultaneous duties at the Reception and Care Center.

FACILITY LEAD CONTROLLER CHECKLIST

Facility:

Event Date:

(circle one) STSC OSC TSC
 EOF JENC CEC

EVENT DECLARATION TIME (Control Room [STSC] only)

| | Event Recognition | Emergency Declaration | Difference (minutes) |
|--------------|-------------------|-----------------------|----------------------|
| <i>NUE</i> | | | |
| <i>ALERT</i> | | | |
| <i>SAE</i> | | | |
| <i>GE</i> | | | |

NOTE: *Emergency Declaration must take place as soon as possible following Event Recognition such that notifications can be initiated to offsite agencies within 15 minutes following Emergency Declaration.*

EVENT NOTIFICATION TIME (Control Room [STSC] / EOF only)

| | A Emergency Declaration | B State Notification | TIME B minus A (minutes) | C Call to USNRC | TIME C minus A (minutes) |
|--------------|----------------------------|-------------------------|-----------------------------|--------------------|-----------------------------|
| <i>NUE</i> | | | | | |
| <i>ALERT</i> | | | | | |
| <i>SAE</i> | | | | | |
| <i>GE</i> | | | | | |

NOTE: *Notifications to the State /County must initiate within 15 minutes of Emergency Declaration. Notification to the USNRC must initiate following State / County notifications and within 1 hour of Emergency Declaration.*

FACILITY ACTIVATION TIME (All Facilities)

| | A Emergency Declaration | First Person Arrival | B Full Activation | TIME B minus A (minutes) | Facility Deactivation |
|----------------|----------------------------|----------------------|----------------------|-----------------------------|-----------------------|
| <i>≥ ALERT</i> | | | | | |

NOTE: *Certain time limits apply to activation of facilities - refer to appropriate Objective Evaluation Form(s).*

 CONTROLLER NAME

 CONTROLLER SIGNATURE

 DATE



POST-DRILL/EXERCISE CRITIQUE OUTLINE

- PURPOSE:**
- A. To assist the Facility Lead Controller in facilitating a complete and comprehensive critique of participant duties, responsibilities, procedures, and actions
 - B. To provide for feedback regarding observations and possible enhancements to the PVNGS Emergency Preparedness Program
-

- CRITIQUE:**
- 1. Provide a brief summary of events and timeline associated with the scenario. Ensure all participants have a thorough understanding of the scenario events.
 - 2. Provide an overall assessment of the following items:
 - a) Facility participant performance (staffing, activation time, command and control)
 - b) Adequacy of the Emergency Plan and implementing procedures
 - c) The facility and associated equipment and supplies
 - d) Participant logkeeping and maintenance of documentation
 - e) Intra- and inter-facility communications
 - 3. Solicit specific assessments and comments from other Controllers.
 - 4. Obtain comments and feedback from participants. If necessary, record participants' verbal comments to ensure each is addressed.
 - 5. Assemble all drill/exercise documentation (comments, objective evaluation forms, Lead Controller Checklist, participant logs and associated forms, etc.) and deliver to the Drill/Exercise Lead Controller for evaluation and documentation of the Drill/Exercise.
 - 6. If appropriate, encourage all Controllers and key participants to attend the Site Critique in the EOF following the individual facility critiques. In some cases, a Controller debrief may be conducted in addition to, or in lieu of, the Site Critique.

DRILL / EXERCISE STANDARDS

1.0 OVERALL RULES

- 1.1 *Stop play immediately if personnel or plant safety is jeopardized or if a real emergency occurs.*
- 1.2 *Do not physically operate/change valves, switches or component status in response to simulated events. Players should indicate components to be operated and what operation will be performed. Controllers will then provide information on their response to the simulated action.*
- 1.3 Any communications transmitted over communications lines must be preceded and followed by the statement "THIS IS A DRILL".
- 1.4 Non-Players are exempt from acting on simulated radiation levels specified for the Drill/Exercise. However, *normal radiological control practices shall be followed throughout the course of the Drill/Exercise.* The REP Number for the Drill and/or Exercise is 3-95-004B.
- 1.5 It is important to play out all actions as much as possible to convincingly demonstrate the proper emergency response. For this reason, except for actual manipulation of plant equipment, *no actions will be simulated unless first approved by a Controller.* Some instances may exist, however, where physical or time related constraints prevent a Player from realistically fulfilling actions associated with a desired result (e.g., the erection of scaffolding required for access to a particular component). In these cases, the Controller may request verbal response from the Player(s) regarding the actions necessary to achieve the result.
- 1.6 Controllers cannot give Players information that the Players would normally be able to see, either visually or by using instrumentation.
- 1.7 The actual Unit Control Room and STSC will not be used. Instead, PVNGS Simulator-A will be used to simulate the Control Room and STSC. A separate Drill/Exercise Phone Directory will be provided in the appropriate facilities which lists Simulator-A Control Room and STSC phone numbers.
- 1.8 Accountability, onsite evacuation, use of the Emergency Broadcast System, use of the offsite siren system, and use of the siren portion of the PVNGS Site Warning Siren/Public Address System will be simulated. Only the public address portion of the site PA system will be used.
- 1.9 Plant response will be simulated through the use of message sheets and handouts. Controllers will distribute handouts containing this information at predetermined times during the Drill/Exercise, or upon request at any time when appropriate. These plant parameters will be available in the Control Room, STSC, TSC and EOF. Appropriate radiological parameters will also be available in the Effluents Office. All Players should base their responses on information provided in these formats. Controllers should clarify the information, if necessary. As Simulator modeling improves and as data which has generally been made available in the form of data sheets becomes less of a necessity, Player response to given conditions will rely more heavily on Simulator output.
- 1.10 Players should not become obsessed with finding the exact cause of the accident or event at the time when response to the event has priority. As in the case of many real emergencies, the cause may not be fully determined until months after the event occurs.

DRILL / EXERCISE STANDARDS

1.0 OVERALL RULES (continued...)

1.11 Not all PVNGS personnel will be participating and not all personnel participating will be Players. To identify those involved in the Drill/Exercise, the following arm-band colors are used:

- ◆ Players: RED
- ◆ Controllers: GREEN
- ◆ Evaluators: PURPLE
- ◆ Observers: YELLOW

NOTE: Lapel badges may be used in addition to or in lieu of arm-bands.

- 1.12 Please refrain from inconveniencing personnel assigned to a Unit in an outage. If extra personnel are required to supplement participant actions, they should be obtained from a Unit that can provide them.
- 1.13 At the conclusion of the Drill/Exercise, please return your Drill/Exercise Scenario Manual to a Controller or to the area from where you received it. The binders are expensive and will be required for use in future Drills and Exercises.
- 1.14 It is imperative that all documents and paperwork produced during the course of the Drill/Exercise be gathered and turned over to your Facility Manager prior to leaving the area at the conclusion of the Drill/Exercise. These documents are vital in reconstructing the timeline of events that have occurred.

DRILL / EXERCISE STANDARDS

2.0 RULES FOR CONTROLLERS

- 2.1 Be on-station a few minutes before any Player action commences. Locate the phone, radio, or pager that you will be using to communicate with the Lead Controller. Contact the Lead Controller to test communications and synchronize watches to ensure correct event times are recorded. All watches will be synchronized before the Drill/Exercise begins.
- 2.2 Know the overall Controller organization and to whom you must communicate during the Drill/Exercise. Call your Lead Controller if in doubt about Drill/Exercise control or the direction of Player activities.
- 2.3 Few messages are time dependent. For those that are, issue the messages on time. Keep the play on schedule by checking your scenario manual frequently. For the majority of messages which are based on actions instead of timelines, ensure they are issued appropriately. Generally, a call to your Facility Lead Controller prior to issuing a message will avoid subsequent Player frustration and may help to mitigate unsynchronized actions which may occur as a result of untimely Controller message delivery. Issue contingency messages only if it is obvious the Players are not going to take the actions designated in the scenario, in order to keep the Drill/Exercise on course. Flexibility does exist at various portions in the timeline where a contingency message may want to be delayed in delivery pending accomplishment of certain actions by a Player. Notify the Exercise Lead Controller if in doubt regarding message delivery.
- 2.4 Allow the Players reasonable flexibility to do their functions and demonstrate their skill, knowledge, and initiative. However, call your Lead Controller immediately for advice if the Players depart significantly from the scenario. If necessary, intervene and put them back on track.
- 2.5 Evaluate the Player response actions and keep a chronological log of events as they occur. Note strengths, weaknesses, and areas for improvement. Do not criticize a Player's actions during the Drill/Exercise.
- 2.6 Attend the post-Drill/Exercise Critique and/or the Controller Debrief to provide your comments and recommendations. Complete the evaluation forms and provide them to the PVNGS Emergency Planning Manager.

DRILL / EXERCISE STANDARDS

3.0 RULES FOR PLAYERS

- 3.1 The 1995 EP Evaluated Exercise is scheduled for WED 12 APR 95. It will be a Unit 3 day shift Exercise encompassing the activation of all onsite and offsite emergency response facilities. For onsite, this includes SIM-A C.R. and STSC, the TSC, Unit 3 OSC, and the EOF. Personnel involved in a Unit outage will not be affected and should not respond to any announcements. They also should not be requested for support.
- 3.2 Controllers provide messages or safety guidelines to Players who may require certain actions necessary to assure continuity of the events described in the Drill/Exercise scenario. If you are dispatched from the facility as part of a response team, you must take a Controller with you to provide you with the readings or conditions simulated in the plant. Controllers may prompt or coach you during a Drill if specifically prearranged to do so. They may not prompt or coach you during an evaluated Exercise.
- 3.3 Controllers will be noting all actions, both good and bad. They will be the main source of input at the PVNGS critique.
- 3.4 The Drill/Exercise will be conducted in real time unless otherwise specified by a Controller.
- 3.5 Arriving at your facility before it is required to be activated is known as "pre-staging." This is prohibited, unless prearranged by the Drill/Exercise Lead Controller. Wait until the activation announcements are made, then proceed to your facility.
- 3.6 Some subsequent scenario data may become invalid if you take an action outside the bounds of the projected events. The scenario development team tried to determine the actions you might take when presented with the problems and data provided in the scenario manual. However, if a Controller asks you not to take a certain action, it may not be because it is the wrong action, but more likely it is to keep the scenario data synchronized with the rest of the actions that are necessary to complete the Drill/Exercise objectives. Take this in stride and realize that scripted emergencies will always present these problems.
- 3.7 Identify yourself by name and function to the Controllers and Evaluators. Speak out loud to identify your key actions and decisions. This may seem artificial and unrealistic, but will assist in the evaluation process.
- 3.8 You must play as if radiation levels are actually present in response to the information you have received. This will require normal radiological protective measures be taken, *including the wearing of protective clothing* (except offsite), if applicable, into the area you are entering.
- 3.9 Remember to stay within the bounds of the scenario and maintain a serious attitude at all times. If there is a slow period, think ahead to what events might take place next, but do not try to guess the remainder of the scenario. Map out your response strategy or use the time to organize your response area, complete your paperwork, and review your procedures. Drillsmanship always plays a very important role to evaluators interested in participant attitudes.
- 3.10 Players inside the Power Block should have with them the safety equipment they would normally have available (i.e., hard hats, safety glasses, etc.).

DRILL / EXERCISE STANDARDS

3.0 RULES FOR PLAYERS (continued...)

- 3.11 All teams dispatched from the OSC should have Team Briefing Forms in-hand as they leave, in accordance with EPIP-12. The "Team Member" section of the form should contain the person's name, not the person's job title.
- 3.12 Decision-making processes rely on correct, pertinent data. Don't always base Protective Action Recommendations and other decisions on current values when a trend history of parameters may be more appropriate to the process. ERFDADS displays may not always reflect instantaneous values associated with plant parameters due to rolling averages, power supply problems, etc., which could cause these values to become misleading.
- 3.13 The primary Emergency Response Organization responsibility is to protect the health and safety of plant personnel and the public. The key duty in fulfilling this responsibility lies in the appropriate response to each event by the staff as they occur in the emergency. Analyzing events at the time could greatly distract from and hamper efforts involved with your primary duties. ERO staff members have at their disposal several tools with which to perform their duties. If a tool becomes unavailable for use (i.e., no longer performs its intended function), it becomes your duty to utilize an alternate tool to perform your primary responsibility.
- 3.14 For the evaluated Exercise, USNRC personnel will be arriving on site to assume their duties regarding co-location with PVNGS counterparts in various emergency facilities. Upon their arrival, they will proceed to the EOF, where they will receive an initial briefing concerning plant conditions and actions taken. After the initial briefing, they will assume their job duties within the various facilities. When USNRC personnel arrive at their facilities, they will expect to be introduced to their counterpart PVNGS personnel and shown the facility logistical characteristics pertaining to their workstation, work support equipment, etc.
- 3.15 Plant status boards in the TSC and EOF are currently undergoing changes such that their layout and organization will accurately reflect the USNRC form page layout and organization for PVNGS. This will help tremendously in record-keeping and should vastly increase communications effectiveness between regional headquarters and EOF personnel. However, it may take some time before ERFDADS screen layouts are organized to coincide with the reorganized status board layouts. In addition, the event chronology board in the EOF has been replaced with one which will allow instantaneous hardcopy printouts of the board prior to erasure.
- 3.16 If Assembly/Accountability is called, it will be totally simulated (i.e., no site-wide page, either simulated or not, will take place). Even a "simulated" A/A announcement causes confusion. Do not make any A/A related announcements or sound any signals.
- 3.17 Comment sheets will be available for feedback throughout the Drill/Exercise for all participants. If a critique item identifies an observation, only the person identifying it should annotate it. Redundant observations will be discarded. The individual generating the comment will be tasked with detailing noted observations and providing possible evaluation. Apply scrutiny to your comment - if the comment identifies a need for CRDR generation, the comment observation must be specifically detailed enough and flagged as CRDR-related. When appropriate, the individual generating the comment will be tasked with CRDR initiation.

DRILL / EXERCISE STANDARDS

3.0 RULES FOR PLAYERS (continued...)

- 3.18 New phone lines and telephones have recently been installed in the TSC to accommodate the positions of Emergency Coordinator Technical Assistant, NRC Liaison Operations, and NRC Senior Resident. Also installed was an SL phone for the Emergency Coordinator position. It has a phone number extension of 6292 as the prime number and has roll-up capabilities to extensions 2560 and 2561. A detailed description of telecommunications capabilities associated with these positions is available for those who request it. The telephone numbers for all new extensions will be available in the EP TeleCom Manual.
- 3.19 One copy of the Simulator Unit 1 Cycle 4 Core Data Book with Safety Analysis Operational Data will be provided in the TSC and one in the EOF during the Exercise. They are clearly marked "FOR EXERCISE USE ONLY" and will be available for whoever requires it for use during the Exercise only. Controllers will ensure that these documents are removed prior to leaving the facilities after the Exercise has been terminated.
- 3.20 To preclude impact to outage personnel, one Operations contact will be established for related interface to that department should the need arise prior to facility activation. All communications raised to the Operations Management level should be directed to the Site Shift Manager assigned to support the Exercise.
- 3.21 If you are confronted by a member of the general public or the news media asking about the Drill/Exercise, inform them it is a training simulation and refrain from any further comment or discussion. Direct all such inquiries to your Controller.

If you have any questions, please call Harry Bieling at x6128 or Gary Cerkas at x3755.

DRILL / EXERCISE STANDARDS

4.0 RULES FOR OBSERVERS

- 4.1 Observers should not participate in the Drill/Exercise or interfere with actions taken by the Players, Controllers, and Evaluators. This is especially important with respect to the confidentiality of the event times and scenario data. Do not discuss any of this information with the Players and do not leave scenario information unattended where it is accessible to the Players.
- 4.2 Identification badges (if used) are to be worn on the upper front of the torso so as to be clearly visible. Yellow arm-bands must be worn at all times during the Drill/Exercise. Identify yourself to the Controllers in the area(s) you will be observing. (Badges and arm-bands must be returned at the end of the Drill/Exercise or critique.)
- 4.3 If you have questions during the course of the Drill/Exercise, contact the Lead Controller for the area in which you are observing.
- 4.4 Observers inside the RCA (if any) shall adhere to normal radiological control practices.

DRILL/EXERCISE COMMENT FORM

ORIGINATOR COMMENT (fill out top unshaded portion and return to EP at M.S. 6050)

NAME: _____ FACILITY: _____

DATE: _____ ERO POSITION: _____

PHONE: _____ CONTACT ME FOR FURTHER INFORMATION: YES NO

COMMENT BASIS: Exercise Drill Training Other _____
(circle one choice)

COMMENT (one per sheet)

RECOMMENDED SOLUTION (attach additional pages if necessary)

COMMENT CATEGORIZATION AND ROUTING (see 16AC-0EP06 Step 3.13.4 for instructions)

_____ DEFICIENCY / WEAKNESS - (requires CRDR initiation)
_____ TRACKABLE ITEM - (requires EPAIL initiation)
_____ NON-TRACKABLE ITEM - (resolved per Comment below)

Assigned to: _____ Due: _____

COMMENT ACTION

CRDR / EPAIL Number: _____

NON-TRACKABLE ITEM Resolution _____

Name: _____ Date: _____



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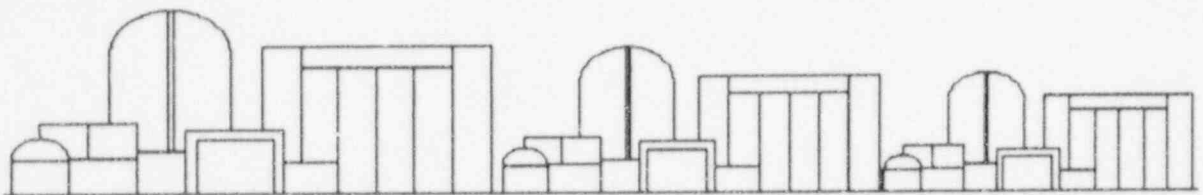
Name: _____

Date: _____



SECTION 01

INTRODUCTION



Palo Verde Nuclear Generating Station



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1.0 INTRODUCTION

1.1 Purpose

- 1.1.1 To conduct an exercise that includes the mobilization of licensee, state, county, and federal personnel and resources to adequately verify the capability to respond to an emergency at the Palo Verde Nuclear Generating Station.
- 1.1.2 To satisfy the requirements of 10CFR50 Appendix E, 44CFR350.9, and the guidance in NUREG-0654/FEMA REP-1, Revision 1.

1.2 Participating Agencies

1.2.1 Utility

Arizona Public Service Company
- Palo Verde Nuclear Generating Station (PVNGS)

1.2.2 Federal

US Nuclear Regulatory Commission - Washington DC
US Nuclear Regulatory Commission - Region-IV (Arlington TX)
Federal Emergency Management Agency - Region-IX (FEMA)
National Weather Service (NOAA-NWS)
U.S. Department of Energy (DOE)
U.S. Department of Agriculture (USDA)
Environmental Protection Agency (EPA)

1.2.3 State

Arizona Division of Emergency Management (ADEM)
Arizona Radiation Regulatory Agency (ARRA)
Arizona Department of Public Safety (DPS)
Department of Environmental Quality (DEQ)
Department of Water Resources (DWR)
Department of Health Services (DHS)
Department of Agriculture (DA)
Dysart High School

1.2.4 County

Maricopa County Department of Emergency Management (MCDEM)
Maricopa County Sheriff's Office (MCSO)

1.2.5 Volunteer Agencies

American Red Cross (ARC)

1.3 Response Locations / Extent of Play

1.3.1 *Utility - Palo Verde Nuclear Generating Station (I-10, Exit 98)*

1.3.1.1 Unit 3 Control Room (Simulator-A)

Unit 3 Control Room (Simulator-A) will be used to accommodate the event initiators. An off-shift Operations staff will be utilized to represent the on-shift Operations crew. Auxiliary Operators assigned to the Simulator crew will receive the shift turnover information in the Simulator and then traverse to Unit 3, where they will simulate the on-shift Auxiliary Operators.

1.3.1.2 Simulator-A Satellite Technical Support Center (STSC)

Simulator-A STSC will be fully activated.

1.3.1.3 Technical Support Center (TSC)

The TSC will be fully activated.

1.3.1.4 Unit 3 Operations Support Center (OSC)

Unit 3 OSC will be fully activated.

1.3.1.5 Emergency Operations Facility (EOF)

The EOF will be fully activated.

1.3.1.6 Forward News Center (FNC)

The FNC will be fully activated at the Notification of Unusual Event (NUE) classification and will deactivate when the Joint Emergency News Center (JENC) is activated.

1.3.2 *Federal*

1.3.2.1 US Nuclear Regulatory Commission (USNRC) -
Washington DC
Region-IV (Arlington TX)

The USNRC will engage as participants and observers. The participants will be evaluated against predetermined federal standards by USNRC evaluators.

1.3.2.2 National Weather Service (NWS) - Phoenix AZ

The National Weather Service, an agency of the National Oceanic and Atmospheric Administration, correlates weather data per local agencies' requests for atmospheric dispersion and near-term forecasts related to radioactive plume characteristics. The NWS will accommodate requests as delineated by the local agencies.

1.3.2.3 Federal Emergency Management Agency - Region-IX (FEMA)

FEMA will deploy and establish a limited FRMAC. The extent of play will be limited to joint federal field team response in attendance with state field teams. FRMAC response will encompass performance of decision-making management in choosing a location.

1.3.3 State of Arizona

1.3.3.1 Emergency Operations Center (EOC)

The State EOC (including the Public Inquiry Center, the Joint Emergency News Center, and the State Technical Operations Center) will be fully activated. Equipment will be pre-staged for the TOC. A simulated supplemental request for assistance to Albuquerque NM will be demonstrated, but may occur out-of-sequence to other evaluated demonstrations.

1.3.3.2 Joint Emergency News Center (JENC)

The JENC will be fully activated.

1.3.3.3 Radiological Emergency Assistance Team (REAT)

The REAT Center (Environmental Surveillance Laboratory) will be fully activated.

1.3.3.4 REAT Forward

REAT Forward will be fully activated. Three (3) teams will be established for REAT Forward and one (1) support team will be dispatched for the Reception and Care Center. Charcoal filters will substitute for Silver Zeolite in performance of sampling techniques. Emergency worker monitoring will be demonstrated, but will occur out-of-sequence to other evaluated demonstrations. The Buckeye Fire Department will be used (simulated) for decontamination of a vehicle.

1.3.3.5 Reception and Care Center

The participating Reception and Care Center is located at Dysart High School, 11405 N. Dysart Road, El Mirage AZ. It will be fully staffed to demonstrate evacuee reception and care using simulated evacuees. This demonstration will be pre-staged and may be conducted out-of-sequence to other evaluated demonstrations.

1.3.4 *Maricopa County*

1.3.4.1 Maricopa County Emergency Operations Center (MCEOC)

The County EOC will be fully activated.

1.3.4.2 Maricopa County Sheriff's Office (MCSO)

The MCSO On-Scene Command Post will be fully activated.

1.3.5 *Volunteer Agencies*

1.3.5.1 American Red Cross (ARC)

Deployment of the Phoenix Chapter of the ARC will occur.

1.3.6 General Response

- 1.3.6.1 The Notification Alert Network (NAN) will be used.
 - 1.3.6.1.1 Government Response Organizations will be alerted.
- 1.3.6.2 State, County, and volunteer response organizations will be mobilized.
- 1.3.6.3 The demonstration of evacuation for affected citizens within the EPZ will be simulated. The evacuees will be pre-staged at the Reception and Care Center (RCC). Monitoring and radioactive decontamination, if appropriate, will occur. Surveys will be demonstrated for six (6) evacuees.
- 1.3.6.4 An evacuation of a representative resident group with special needs (approximately 4-6 individuals) will occur. One special needs evacuation location will be established for evaluation purposes.
- 1.3.6.5 Transportation of a contaminated injured person will be demonstrated separately in a Medical Drill involving Good Samaritan Hospital and AirEvac at a date to be determined. The ability to draw and analyze a sample using the Post-Accident Sampling System (PASS) during adverse radiological conditions will be simulated in the Exercise and will be fully demonstrated in a PASS Drill at a date to be determined.
- 1.3.6.6 State Protective Action Decisions will be transmitted to affected schools. Evacuation of the schools will not be demonstrated.
- 1.3.6.7 Road Blocks/Access Control Points (1 for evaluation) will be implemented to demonstrate this function and then secured.
- 1.3.6.8 The onsite monitoring teams will demonstrate the donning of protective clothing appropriate to the scenario as directed by the RFAT Lead Controller. All offsite teams will simulate the use of protective clothing and related equipment.

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- 1.3.6.9 In-plant teams will demonstrate the donning of protective clothing appropriate to the scenario as directed by the Facility Lead Controller.
- 1.3.6.10 Primary and backup (limited demonstration) communications systems will be utilized as required by the scenario.
- 1.3.6.11 The siren portion of the PVNGS Site Warning Siren/Public Address System will be simulated. The public address portion of this system will be used onsite only. Verbal notifications in the affected area for simulated siren malfunctions will be provided by the Maricopa County Sheriff's Office.
- 1.3.6.12 Use of the Offsite Siren Activation System will be simulated. Siren sounding will not occur. Emergency Broadcast System (EBS) messages will be generated and distributed to KTAR, but none will be broadcast. The warnings will be disseminated amongst the Exercise participants via the emergency communications systems and to the representative resident group via a supplemental warning team for the evacuation.
- 1.3.6.13 The media will be simulated for emergency information dispensation. Rumor Control will be activated and simulated inquiries will take place.
- 1.3.6.14 Onsite assembly and accountability will be simulated. Evacuation will also be simulated.
- 1.3.6.15 The JENC staff will produce coordinated press releases and conduct oral briefings to actual and simulated media personnel.
- 1.3.6.16 The distribution of Potassium Iodide (KI) to emergency workers will be simulated. The appropriate Exercise Controller will receive verbal notification that an announcement has been transmitted to affected personnel. REAT Forward will subsequently be notified that KI has been dispensed.

1.4 Acronyms and Abbreviations

| | |
|--------|--|
| AC | Alternating Current |
| ACAD | Automated Control Access Device |
| ADEM | Arizona Division [of] Emergency Management |
| ADV | Atmospheric Dump Valve |
| AF | Auxiliary Feedwater |
| AFAS | Auxiliary Feedwater Actuation Signal |
| AFW | Auxiliary Feedwater |
| AgX | Silver Zeolite |
| AHU | Air Handling Unit |
| AO | Auxiliary Operator |
| APP | Appendix |
| APP | Applicable |
| APS | Arizona Public Service (Company) |
| ARC | American Red Cross |
| ARRA | Arizona Radiation Regulatory Agency |
| ASS | Assistant Shift Supervisor |
| AUX | Auxiliary |
| B0 | Board <i>number</i> (Control Room Panel) |
| BLDG | Building |
| BOP | Balance-of-Plant |
| BWR | Boiling Water Reactor |
| C- | PVNGS Controller <i>number</i> |
| CAS | Central Alarm Station |
| cc | cubic centimeter |
| CDE | Committed Dose Equivalent |
| CDF | Core Damage Fraction |
| CE | Combustion Engineering |
| CEA | Control Element Assembly |
| CEAC | Control Element Assembly Calculator |
| CEC | Corporate Emergency Center |
| CEDE | Committed Effective Dose Equivalent |
| CEDMCS | Control Element Drive Mechanism Control System |
| CEOG | Combustion Engineering Owner's Group |
| CESSAR | Combustion Engineering Standard Safety Analysis Report |
| CET | Core Exit Thermocouple |
| CFM | Cubic Feet [per] Minute |
| CFR | Code [of] Federal Regulations |
| CH | Channel |
| Ci | Curie |
| CIAS | Containment Isolation Actuation Signal |
| CLASS | Classification |

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| | |
|---------|---|
| CPC | Core Protection Calculator |
| CPIAS | Containment Purge Isolation Actuation Signal |
| CR | Control Room |
| CREFAS | Control Room Essential Filtration Actuation Signal |
| CRS | Control Room Supervisor |
| CRT | Cathode-Ray Tube |
| CRVIAS | Control Room Ventilation Isolation Actuation Signal |
| CSAS | Containment Spray Actuation Signal |
| CSD | Cold Shutdown |
| CSF | Critical Safety Function |
| CSFST | Critical Safety Function Status Tree |
| CST | Condensate Storage Tank |
| CTMT | Containment |
| DAWPS | Dry Activated Waste Processing [and] Storage |
| DC | Direct Current |
| DDE | Deep Dose Equivalent |
| DE | Dose Equivalent |
| DG | Diesel Generator |
| DNBR | Departure [from] Nucleate Boiling Ratio |
| DOT | Department of Transportation |
| DPS | [Arizona] Department [of] Public Safety |
| EAL | Emergency Action Level |
| E-BAR | Average Disintegration Energy |
| EBS | Emergency Broadcast System |
| EC | Emergency Coordinator |
| ECCS | Emergency Core Cooling System |
| EDE | Effective Dose Equivalent |
| EDG | Emergency Diesel Generator |
| EDT | Equipment Drain Tank |
| EMT | Emergency Medical Technician |
| ENS | Emergency Notification System |
| EOC | Emergency Operations Center |
| EOD | Emergency Operations Director |
| EOF | Emergency Operations Facility |
| EOP | Emergency Operating Procedure |
| EPA | Environmental Protection Agency |
| EPIP | Emergency Plan Implementing Procedure |
| EPRI | Electric Power Research Institute |
| EPTG | Emergency Procedure Technical Guideline |
| EPZ | Emergency Planning Zone |
| ERF | Emergency Response Facility |
| ERFDADS | Emergency Response Facility Data Acquisition [and] Display System |

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| | |
|----------------|---|
| ERO | Emergency Response Organization |
| ESF | Engineered Safety Features |
| ESFAS | Engineered Safety Features Actuation System |
| FAP | Fuel Alignment Plate |
| FBEVAS | Fuel Building Essential Ventilation Actuation Signal |
| FEMA | Federal Emergency Management Agency |
| FNC | Forward News Center |
| FPB | Fission Product Barrier |
| FRMAC | Federal Radiological Monitoring and Assessment Center |
| FRP | Functional Recovery Procedure |
| FSAR | Final Safety Analysis Report |
| FWLB | Feed Water Line Break |
| GDC | General Design Criteria |
| GE | General Emergency |
| GL | Government Liaison |
| gm | gram |
| gpm | gallons per minute |
| H ₂ | Hydrogen (elemental) |
| HJTC | Heated Junction Thermocouple |
| HPSI | High Pressure Safety Injection |
| HSB | Hot Standby |
| HSD | Hot Shutdown |
| HVAC | Heating, Ventilation, [and] Air Conditioning |
| IC | Initiating Condition |
| INPO | Institute [of] Nuclear Power Operations |
| JENC | Joint Emergency News Center |
| JPIP | Joint Public Information Procedure |
| KI | Potassium Iodide |
| Kr | Krypton |
| KV | Kilovolt |
| LC | Load Center |
| LCO | Limiting Condition [for] Operation |
| LLEA | Local Law Enforcement Agency |
| LO | LockOut |
| LOAF | Loss of All Feedwater |
| LOCA | Loss Of Coolant Accident |
| LOOP | Loss of Offsite Power |
| LOP | Loss of Power |
| LPD | Local Power Density |
| LPSI | Low Pressure Safety Injection |
| LWR | Light Water Reactor |
| MCC | Motor Control Center |
| MCDEM | Maricopa County Department [of] Emergency Management |

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| | |
|----------|---|
| MCEOC | Maricopa County Emergency Operations Center |
| μ Ci | microCurie |
| MCSO | Maricopa County Sheriff's Office |
| MOV | Motor Operated Valve |
| MPC | Maximum Permissible Concentration |
| mph | miles per hour |
| mR | milliRoentgen |
| mrem | millirem |
| MSIS | Main Steam Isolation Signal |
| MSIV | Main Steam Isolation Valve |
| MSLB | Main Steam Line Break |
| NAN | Notification Alert Network |
| NEI | Nuclear Energy Institute |
| NESP | National Environmental Studies Project |
| NOAA | National Oceanic [and] Atmospheric Administration |
| NRC | Nuclear Regulatory Commission |
| NRR | Nuclear Reactor Regulation |
| NSSS | Nuclear Steam Supply System |
| NUE | Notification [of] Unusual Event |
| NUMARC | Nuclear Management and Resources Council (<i>see NEI</i>) |
| NWS | National Weather Service |
| OBE | Operating Basis Earthquake |
| OCS | Operations Computer Support |
| ODCM | Offsite Dose Calculation Manual |
| OSC | Operations Support Center |
| PAG | Protective Action Guideline |
| PAR | Protective Action Recommendation |
| PASS | Post-Accident Sampling System |
| PBX | Private Branch eXchange |
| PCs | Protective Clothing |
| PMS | Plant Monitoring System |
| PO | Primary Operator |
| PORV | Power Operated Relief Valve |
| ppm | parts per million |
| PSI | Pounds [per] Square Inch |
| PSIA | Pounds [per] Square Inch Absolute |
| PSIG | Pounds [per] Square Inch Gauge |
| PVNGS | Palo Verde Nuclear Generating Station |
| PWR | Pressurized Water Reactor |
| PZR | Pressurizer |
| QSPDS | Qualified Safety Parameter Display System |
| RAC | Radiological Assessment Coordinator |
| RAS | Recirculation Actuation Signal |

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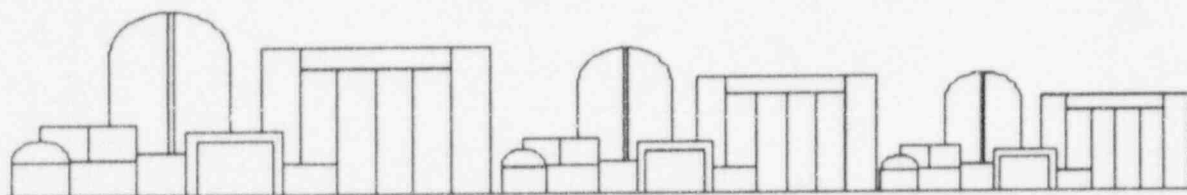
| | |
|-------|---|
| RCA | Radiologically Controlled Area |
| RCC | Reception [and] Care Center |
| RCP | Reactor Coolant Pump |
| RCS | Reactor Coolant System |
| RDT | Reactor Drain Tank |
| RE | Reference |
| REAT | Radiological Emergency Assessment Team |
| REP | Radiation Exposure Permit |
| RFAT | Radiological Field Assessment Team |
| RHR | Residual Heat Removal (i.e., SDC) |
| RMS | Radiation Monitoring System |
| RMWT | Reactor Makeup Water Tank |
| RO | Reactor Operator |
| RO | Recovery Operations |
| RP | Radiation Protection |
| RPC | Radiological Protection Coordinator |
| RPM | Radiation Protection Monitor |
| RPS | Reactor Protection System |
| RPT | Radiation Protection Technician |
| RSP | Remote Shutdown Panel |
| RTM | Response Technical Manual |
| RU | Radiation Unit |
| RVLMS | Reactor Vessel Level Monitoring System |
| RWP | Radiation Work Permit |
| RWT | Refueling Water Tank |
| Rx | Reactor |
| S/G | Steam Generator |
| SAE | Site Area Emergency |
| SAS | Secondary Alarm Station |
| SBCS | Steam Bypass Control System |
| SDC | Shutdown Cooling |
| SFP | Spent Fuel Pool |
| SG | Steam Generator |
| SGTR | Steam Generator Tube Rupture |
| SIAS | Safety Injection Actuation Signal |
| SIT | Safety Injection Tank |
| SO | Secondary Operator |
| SOER | Significant Operating Experience Report |
| SP | Spray Pond (Ultimate Heat Sink) |
| SPDS | Safety Parameter Display System |
| SRO | Senior Reactor Operator |
| SS | Shift Supervisor |
| SSC | Security Shift Captain |

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| | |
|------------------|--|
| ST | Surveillance Test |
| STA | Shift Technical Advisor |
| STSC | Satellite Technical Support Center |
| SWGR | Switchgear |
| T _{Avg} | Temperature-Average |
| T _C | Temperature-Cold leg |
| TBD | Total Body Dose |
| Tech Spec | Technical Specification |
| TEDE | Total Effective Dose Equivalent |
| T _H | Temperature-Hot leg |
| TOC | Technical Operations Center |
| TS | Technical Specification |
| TSC | Technical Support Center |
| TSCCR | Technical Specification Component Condition Record |
| UE | Unusual Event (see NUE) |
| UFSAR | Updated Final Safety Analysis Report |
| UJTC | Unheated Junction Thermocouple |
| V | Volt |
| VCT | Volume Control Tank |
| WRF | Water Reclamation Facility |

SECTION 02

OBJECTIVES



Palo Verde Nuclear Generating Station



PREFACE

The objectives documented on the following pages are those which comprise the PVNGS Emergency Planning Master List of Objectives. Time frame annotations represent evaluation requirements as directed by USNRC or FEMA regulations. The listing is intended to display all objectives which comprise the Master List of Objectives to more accurately and completely represent the site Emergency Preparedness six-year plan.

Objectives highlighted as **BOLDED-CAPITALIZED** are those selected to be demonstrated in this Drill/Exercise and will be evaluated, while those which are *italicized* are not required to be demonstrated and are not projected to be evaluated.

I. PVNGS OBJECTIVES

1. [ANNUAL] DEMONSTRATE THE ABILITY TO ASSESS PLANT CONDITIONS.
2. [ANNUAL] DEMONSTRATE THE ABILITY TO CLASSIFY THE EVENT IN ACCORDANCE WITH EPIP-02.
3. [ANNUAL] DEMONSTRATE THE ABILITY TO IDENTIFY PROJECTED TRENDS AND POTENTIAL CONSEQUENCES.
4. [ANNUAL] DEMONSTRATE THE ABILITY TO ALERT AND NOTIFY PVNGS EMERGENCY RESPONSE PERSONNEL IN A TIMELY MANNER.
5. [ANNUAL] DEMONSTRATE THE ABILITY TO MOBILIZE PVNGS EMERGENCY RESPONSE PERSONNEL WITHIN THE TIME FRAMES SPECIFIED IN THE EMERGENCY PLAN.
6. [ANNUAL] DEMONSTRATE THE ABILITY OF PVNGS TO NOTIFY STATE AND COUNTY AGENCIES WITHIN 15 MINUTES OF EMERGENCY DECLARATION.
7. [ANNUAL] DEMONSTRATE THE ABILITY TO DETERMINE ACTUAL OR POTENTIAL OFFSITE RADIOLOGICAL HAZARDS.
8. [ANNUAL] DEMONSTRATE THE ABILITY TO MAKE TIMELY PROTECTIVE ACTION RECOMMENDATIONS TO OFFSITE AGENCIES.
9. [ANNUAL] DEMONSTRATE THE ABILITY TO TRACK PLUME PASSAGE.
10. [ANNUAL] DEMONSTRATE THE PROPER USE OF RADIATION MONITORING INSTRUMENTS AND DOSIMETRY.
11. [ANNUAL] DEMONSTRATE THE PROPER USE OF SAMPLING EQUIPMENT AND CONTAMINATION CONTROL TECHNIQUES.
12. [ANNUAL] *Demonstrate the ability to respond effectively to a contaminated injured individual within the plant.*
13. [ANNUAL] *Demonstrate the ability to coordinate with ambulance and hospital personnel in the handling, transport, and treatment of a contaminated injured individual.*
14. [6 - YEAR] *Demonstrate the ability to monitor contamination in the field from plume passage deposition.*
15. [6 - YEAR] *Demonstrate the proper use of self-contained breathing apparatus (SCBA) as required by the scenario.*

I. PVNGS OBJECTIVES

16. [6 - YEAR] *Demonstrate onsite assembly and accountability for the protected area.*
17. [6 - YEAR] *Demonstrate the ability to respond to and control a fire.*
18. [6 - YEAR] *Demonstrate the ability to assemble onsite evacuees at an offsite assembly area.*
19. [6 - YEAR] *Demonstrate a shift change of Emergency Response personnel.*
20. [6 - YEAR] *Demonstrate the ability to draw and analyze a PASS sample during adverse radiological conditions.*
21. [6 - YEAR] *Demonstrate the ability to perform recovery and reentry.*
22. [6 - YEAR] *Demonstrate the ability to effectively respond to a security event.*

II. STATE / COUNTY OBJECTIVES

GROUP "A"

1. DEMONSTRATE THE CAPABILITY TO ALERT AND FULLY MOBILIZE PERSONNEL FOR BOTH EMERGENCY FACILITIES AND FIELD OPERATIONS. DEMONSTRATE THE CAPABILITY TO ACTIVATE AND STAFF EMERGENCY FACILITIES FOR EMERGENCY OPERATIONS.
2. DEMONSTRATE THE ADEQUACY OF FACILITIES, EQUIPMENT, DISPLAYS, AND OTHER MATERIALS TO SUPPORT EMERGENCY OPERATIONS.
3. DEMONSTRATE THE CAPABILITY TO DIRECT AND CONTROL EMERGENCY OPERATIONS.
4. DEMONSTRATE THE CAPABILITY TO COMMUNICATE WITH ALL APPROPRIATE EMERGENCY PERSONNEL AT FACILITIES AND IN THE FIELD.
5. DEMONSTRATE THE ABILITY TO CONTINUOUSLY MONITOR AND CONTROL RADIATION EXPOSURE TO EMERGENCY WORKERS.
6. DEMONSTRATE THE APPROPRIATE USE OF EQUIPMENT AND PROCEDURES FOR DETERMINING FIELD RADIATION MEASUREMENTS.
7. DEMONSTRATE THE CAPABILITY TO DEVELOP DOSE PROJECTIONS AND PROTECTIVE ACTION RECOMMENDATIONS REGARDING EVACUATION AND SHELTERING.
8. DEMONSTRATE THE APPROPRIATE USE OF EQUIPMENT AND PROCEDURES FOR THE MEASUREMENT OF AIRBORNE RADIOIODINE CONCENTRATIONS AS LOW AS $10E-7$ (0.0000001) MICROCURIE PER CUBIC CENTIMETER IN THE PRESENCE OF NOBLE GASES AND OBTAIN SAMPLES OF PARTICULATE ACTIVITY IN THE AIRBORNE PLUME.
9. DEMONSTRATE THE CAPABILITY TO MAKE TIMELY PROTECTIVE ACTION DECISIONS (PAD).
10. DEMONSTRATE THE CAPABILITY TO PROMPTLY ALERT AND NOTIFY THE PUBLIC WITHIN THE 10-MILE PLUME PATHWAY EMERGENCY PLANNING ZONE (EPZ) AND DISSEMINATE INSTRUCTIONAL MESSAGES TO THE PUBLIC ON THE BASIS OF DECISIONS BY APPROPRIATE STATE OR LOCAL OFFICIALS.
11. DEMONSTRATE THE CAPABILITY TO COORDINATE THE FORMULATION AND DISSEMINATION OF ACCURATE INFORMATION AND INSTRUCTIONS TO THE PUBLIC.
12. DEMONSTRATE THE CAPABILITY TO COORDINATE THE DEVELOPMENT AND DISSEMINATION OF CLEAR, ACCURATE, AND TIMELY INFORMATION TO THE NEWS MEDIA.
13. DEMONSTRATE THE CAPABILITY TO ESTABLISH AND OPERATE RUMOR CONTROL IN A COORDINATED AND TIMELY MANNER.

II. STATE / COUNTY OBJECTIVES

GROUP "B"

14. DEMONSTRATE THE CAPABILITY AND RESOURCES TO IMPLEMENT POTASSIUM IODIDE (KI) PROTECTIVE ACTIONS FOR EMERGENCY WORKERS, INSTITUTIONALIZED INDIVIDUALS, AND, IF THE STATE PLAN SPECIFIES, THE GENERAL PUBLIC.
15. DEMONSTRATE THE CAPABILITY AND RESOURCES NECESSARY TO IMPLEMENT APPROPRIATE PROTECTIVE ACTIONS FOR SPECIAL POPULATIONS.
16. DEMONSTRATE THE CAPABILITY AND RESOURCES NECESSARY TO IMPLEMENT PROTECTIVE ACTIONS FOR SCHOOL CHILDREN WITHIN THE PLUME PATHWAY EMERGENCY PLANNING ZONE (EPZ).
17. DEMONSTRATE THE ORGANIZATIONAL CAPABILITY AND RESOURCES NECESSARY TO CONTROL EVACUATION TRAFFIC FLOW AND TO CONTROL ACCESS TO EVACUATED AND SHELTERED AREAS.
18. DEMONSTRATE THE ADEQUACY OF PROCEDURES, FACILITIES, EQUIPMENT, AND PERSONNEL FOR THE RADIOLOGICAL MONITORING, DECONTAMINATION, AND REGISTRATION OF EVACUEES.
19. DEMONSTRATE THE ADEQUACY OF FACILITIES, EQUIPMENT, SUPPLIES, PERSONNEL, AND PROCEDURES FOR CONGREGATE CARE OF EVACUEES.
20. DEMONSTRATE THE ADEQUACY OF VEHICLES, EQUIPMENT, PROCEDURES, AND PERSONNEL FOR TRANSPORTING CONTAMINATED, INJURED, OR EXPOSED INDIVIDUALS.
21. DEMONSTRATE THE ADEQUACY OF THE EQUIPMENT, PROCEDURES, SUPPLIES, AND PERSONNEL OF MEDICAL FACILITIES RESPONSIBLE FOR TREATMENT OF CONTAMINATED, INJURED, OR EXPOSED INDIVIDUALS.
22. DEMONSTRATE THE ADEQUACY OF PROCEDURES FOR MONITORING AND DECONTAMINATION OF EMERGENCY WORKERS, EQUIPMENT, AND VEHICLES.
23. DEMONSTRATE THE CAPABILITY TO IDENTIFY THE NEED FOR EXTERNAL ASSISTANCE AND TO REQUEST SUCH ASSISTANCE FROM FEDERAL OR OTHER SUPPORT ORGANIZATIONS.

II. STATE / COUNTY OBJECTIVES

GROUP "C"

24. *Demonstrate the use of equipment and procedures for the collection and transportation of samples from areas that received deposition from the airborne plume.*
25. *Demonstrate laboratory operations and procedures for measuring and analyzing samples.*
26. *Demonstrate the capability to project dose to the public for the ingestion exposure pathway and to recommend protective actions.*
27. *Demonstrate the capability to implement protective actions for the ingestion exposure pathway.*
28. *Demonstrate the capability to develop decisions on relocation, reentry, and return.*
29. *Demonstrate the capability to implement appropriate measures for relocation, re-entry, and return.*
30. *Demonstrate the capability to maintain staffing on a continuous 24-hour basis through an actual shift change.*
31. *Demonstrate the capability to provide offsite support for the evacuation of onsite personnel.*
32. *Demonstrate the capability to carry out emergency response functions in an unannounced exercise or drill.*
33. *Demonstrate the capability to carry out emergency response functions during an off-hours exercise or drill.*
34. *Demonstrate the capability of licensee offsite response organization (licensee ORO) personnel to interface with non-participating organizations and accomplish coordination essential for emergency response.*

III. JOINT OBJECTIVES (PVNGS, STATE, COUNTY)

1. [ANNUAL] DEMONSTRATE THE ABILITY TO RESPOND TO AN EMERGENCY WHICH INITIATES BETWEEN 0400 AND 1800 ON WORKDAYS.
2. [ANNUAL] DEMONSTRATE THAT EMERGENCY RESPONSE ORGANIZATIONS CAN ACTIVATE AND STAFF DIRECTION AND CONTROL FACILITIES IN A TIMELY MANNER.
3. [ANNUAL] DEMONSTRATE THE FUNCTIONAL ADEQUACY OF EMERGENCY FACILITIES.
4. [ANNUAL] DEMONSTRATE THE ADEQUACY OF COMMUNICATIONS LINKS BETWEEN GOVERNMENT EMERGENCY FACILITIES, FIELD TEAMS, AND THE UTILITY'S EMERGENCY FACILITIES.
5. [ANNUAL] DEMONSTRATE THE ADEQUACY OF COMMUNICATIONS WITH THE PUBLIC VIA THE EMERGENCY BROADCAST SYSTEM (EBS).
6. [ANNUAL] DEMONSTRATE THE ABILITY TO IMPLEMENT PERSONNEL DOSIMETRY FOR BOTH UTILITY AND GOVERNMENT EMERGENCY RESPONSE PERSONNEL.
7. [ANNUAL] DEMONSTRATE THE ABILITY TO PERFORM ONSITE AND OFFSITE DOSE ASSESSMENT IN A TIMELY MANNER.
8. [ANNUAL] DEMONSTRATE REMOTE ACTIVATION AND OPERATION OF THE OFFSITE SIREN ALERTING SYSTEM.
9. [6 - YEAR] *Demonstrate the ability to respond to an emergency which initiates on weekends, off-days, or between 1800 and 0400 on workdays.*
10. [6 - YEAR] *Demonstrate the ability to respond to an emergency which initiates at an unannounced date and time.*
11. [6 - YEAR] *Demonstrate the ability to respond to an emergency during adverse weather conditions.*
12. [6 - YEAR] DEMONSTRATE TIMELY COORDINATION AND RELEASE OF INFORMATION TO THE MEDIA THROUGH COORDINATED ACTION BY STATE, COUNTY, AND UTILITY ELEMENTS.
13. [6 - YEAR] DEMONSTRATE THE ABILITY TO COORDINATE PROTECTIVE ACTIONS IN THE PLUME EXPOSURE PATHWAY EPZ.
14. [6 - YEAR] DEMONSTRATE THE ADEQUACY OF COMMUNICATIONS WITH THE PUBLIC VIA THE NEWS MEDIA.
15. [6 - YEAR] DEMONSTRATE THE ADEQUACY OF COMMUNICATIONS WITH THE PUBLIC VIA RUMOR CONTROL.

IV. FACILITY OBJECTIVES

1. EMERGENCY OPERATIONS FACILITY (EOF)

- a. [ANNUAL] **DEMONSTRATE THE ADEQUACY OF THE EMERGENCY PLAN AND THE EMERGENCY PLAN IMPLEMENTING PROCEDURES (EPIPS) BOTH IN TERMS OF MANAGEMENT CONTROL AND WORKABILITY OF THE PROCEDURES FOR THE EOF.**
- b. [ANNUAL] **DEMONSTRATE THE ADEQUACY OF COMMUNICATIONS LINKS BETWEEN THE CR/STSC, GOVERNMENT EMERGENCY FACILITIES, FIELD TEAMS, AND THE EOF.**
- c. [ANNUAL] **DEMONSTRATE THE EFFECTIVENESS AND AVAILABILITY OF APPROPRIATE EMERGENCY EQUIPMENT AND SUPPLIES.**
- d. [ANNUAL] **DEMONSTRATE THE ADEQUACY OF SECURITY ACCESS CONTROL.**
- e. [ANNUAL] **DEMONSTRATE ACTIVATION AND STAFFING OF THE EOF IN A TIMELY MANNER.**
- f. [ANNUAL] **DEMONSTRATE THE FUNCTIONAL ADEQUACY OF THE EOF.**
- g. [6 - YEAR] *Demonstrate the capability to function from the Backup EOF.*

IV. FACILITY OBJECTIVES

2. TECHNICAL SUPPORT CENTER (TSC)

- a. [ANNUAL] DEMONSTRATE THE ADEQUACY OF THE EMERGENCY PLAN AND THE EMERGENCY PLAN IMPLEMENTING PROCEDURES (EPIPS) BOTH IN TERMS OF MANAGEMENT CONTROL AND WORKABILITY OF THE PROCEDURES FOR THE TSC.
- b. [ANNUAL] DEMONSTRATE THE ADEQUACY OF COMMUNICATIONS LINKS BETWEEN THE CR/STSC, OSC, EOF, IN-PLANT RESPONSE TEAMS, AND THE TSC.
- c. [ANNUAL] DEMONSTRATE THE EFFECTIVENESS AND AVAILABILITY OF APPROPRIATE EMERGENCY EQUIPMENT AND SUPPLIES.
- d. [ANNUAL] DEMONSTRATE THE ADEQUACY OF SECURITY ACCESS CONTROL.
- e. [ANNUAL] DEMONSTRATE ACTIVATION AND STAFFING OF THE TSC IN A TIMELY MANNER.
- f. [ANNUAL] DEMONSTRATE THE FUNCTIONAL ADEQUACY OF THE TSC.
- g. [ANNUAL] DEMONSTRATE THE CAPABILITY TO PERFORM CORE DAMAGE ASSESSMENT AND TO PROJECT THE TIME REMAINING TO CORE UNCOVERY.
- h. [6 - YEAR] *Demonstrate the capability to function from a Backup TSC.*

IV. FACILITY OBJECTIVES

3. SATELLITE TECHNICAL SUPPORT CENTER (STSC)

- a. [ANNUAL] DEMONSTRATE THE ADEQUACY OF THE EMERGENCY PLAN AND THE EMERGENCY PLAN IMPLEMENTING PROCEDURES (EPIPS) BOTH IN TERMS OF MANAGEMENT CONTROL AND WORKABILITY OF THE PROCEDURES FOR THE STSC.
- b. [ANNUAL] DEMONSTRATE THE ADEQUACY OF COMMUNICATIONS LINKS BETWEEN THE TSC, OSC, EOF, IN-PLANT RESPONSE TEAMS, AND THE CR/STSC.
- c. [ANNUAL] DEMONSTRATE THE EFFECTIVENESS AND AVAILABILITY OF APPROPRIATE EMERGENCY EQUIPMENT AND SUPPLIES.
- d. [ANNUAL] DEMONSTRATE ACTIVATION AND STAFFING OF THE STSC IN A TIMELY MANNER.
- e. [ANNUAL] DEMONSTRATE THE FUNCTIONAL ADEQUACY OF THE STSC.
- f. [6 - YEAR] *Demonstrate the capability to function from a Backup STSC.*

IV. FACILITY OBJECTIVES

4. OPERATIONS SUPPORT CENTER (OSC)

- a. [ANNUAL] DEMONSTRATE THE ADEQUACY OF THE EMERGENCY PLAN AND THE EMERGENCY PLAN IMPLEMENTING PROCEDURES (EPIPS) BOTH IN TERMS OF MANAGEMENT CONTROL AND WORKABILITY OF THE PROCEDURES FOR THE OSC.
- b. [ANNUAL] DEMONSTRATE THE ADEQUACY OF COMMUNICATIONS LINKS BETWEEN FIELD TEAMS, THE TSC/STSC, AND THE OSC.
- c. [ANNUAL] DEMONSTRATE THE EFFECTIVENESS AND AVAILABILITY OF APPROPRIATE EMERGENCY EQUIPMENT AND SUPPLIES.
- d. [ANNUAL] DEMONSTRATE ACTIVATION AND STAFFING OF THE OSC IN A TIMELY MANNER.
- e. [ANNUAL] DEMONSTRATE THE FUNCTIONAL ADEQUACY OF THE OSC.
- f. [6 - YEAR] *Demonstrate the capability to function from the Backup OSC.*

IV. FACILITY OBJECTIVES

5. CORPORATE EMERGENCY CENTER (CEC) [NOTE: SECTION DELETED]

- a. [6 - YEAR] *Demonstrate the adequacy of the Emergency Plan and the Corporate Emergency Procedures both in terms of management control and workability of the procedures for the CEC.*
- b. [6 - YEAR] *Demonstrate the adequacy of communications links between government emergency facilities, the site's emergency facilities, and the CEC.*
- c. [6 - YEAR] *Demonstrate the effectiveness and availability of appropriate emergency equipment and supplies.*
- d. [6 - YEAR] *Demonstrate the adequacy of security access control.*
- e. [6 - YEAR] *Demonstrate activation and staffing of the CEC in a timely manner.*
- f. [6 - YEAR] *Demonstrate the functional adequacy of the CEC.*

IV. FACILITY OBJECTIVES

6. JOINT EMERGENCY NEWS CENTER (JENC)

- a. [6 - YEAR] DEMONSTRATE THE ADEQUACY OF THE EMERGENCY PLAN AND THE JOINT PUBLIC INFORMATION PROCEDURES (JPIPS) BOTH IN TERMS OF MANAGEMENT CONTROL AND WORKABILITY OF THE PROCEDURES FOR THE JENC.
- b. [6 - YEAR] DEMONSTRATE THE ADEQUACY OF COMMUNICATIONS LINKS BETWEEN GOVERNMENT EMERGENCY FACILITIES, THE SITE'S EMERGENCY FACILITIES, AND THE JENC.
- c. [6 - YEAR] DEMONSTRATE THE EFFECTIVENESS AND AVAILABILITY OF APPROPRIATE EMERGENCY EQUIPMENT AND SUPPLIES.
- d. [6 - YEAR] DEMONSTRATE THE ADEQUACY OF SECURITY ACCESS CONTROL.
- e. [6 - YEAR] DEMONSTRATE ACTIVATION AND STAFFING OF THE JENC IN A TIMELY MANNER.
- f. [6 - YEAR] DEMONSTRATE THE FUNCTIONAL ADEQUACY OF THE JENC.

EVALUATION OF DRILL/EXERCISE OBJECTIVES

All Drill/Exercise Controllers will use the same criteria for evaluating objectives.

NOTE: ONLY BOLDED OBJECTIVES ARE TO BE EVALUATED

On the forms, all of the objectives from the Master List of Objectives are provided, but only those which are **BOLDED** are to be evaluated for this Drill/Exercise. As a Controller/Evaluator, you will be responsible for evaluating those objectives pertinent to your area of observation. Each Evaluator, during the conduct of the Drill/Exercise, should observe as much of the Player's actions as possible while recording key events or items on the Event Log. These observations and notes must then form the basis for determining whether a particular objective can be categorized as:

- **D** Demonstrated
- **ND** Not Demonstrated
- **DWI** Demonstrated With Issue
- **NA** Not Applicable
- **NO** Not Observed

Specific evaluation criteria are listed with each stated objective. However, the following general criteria are to be used to correlate the above categories with your objective evaluations and observations:

D (Demonstrated):

Personnel and equipment generally performed better than expected. Any errors or problems were minor in nature and were either corrected on the spot or, since they had no impact on the emergency response, were noted to be corrected at a later date.

ND (Not Demonstrated):

Personnel and equipment consistently failed to perform as required. Serious deficiencies were noted which severely impaired the capability to perform a required function.

DWI (Demonstrated With Issue):

Personnel and equipment were generally able to perform and complete a required function. However, certain aspects failed to meet expectations. (For example, an emergency facility is able to perform its intended functions, however, one of its staffing positions did not have a qualified individual arrive to oversee its activities.)

NA (Not Applicable):

Activities associated with a particular objective were not applicable to the area being evaluated.

NO (Not Observed):

Activities associated with a particular objective were not performed (or not observed), and thus could not be evaluated.

OBJECTIVE EVALUATION PAGES

| <u>FACILITY</u> | <u>PVNGS OBJECTIVES</u> | <u>JOINT OBJECTIVES</u> | <u>FACILITY OBJECTIVES</u> |
|------------------|-------------------------|-------------------------|----------------------------|
| <i>EOF</i> | 16 - 37 | 72 - 86 | 87 - 93 |
| <i>TSC</i> | 16 - 37 | 72 - 86 | 94 - 101 |
| <i>CR / STSC</i> | 16 - 37 | 72 - 86 | 102 - 107 |
| <i>OSC</i> | 16 - 37 | 72 - 86 | 108 - 113 |
| <i>CEC</i> | ----- | ----- | ----- |
| <i>JENC</i> | 16 - 37 | 72 - 86 | 114 - 119 |

OBJECTIVE EVALUATION

| | | | | | |
|--|---|---|---------------------------------------|-------------------------------------|--------------|
| <u>Evaluator:</u> | <u>Location:</u> | | | | |
| I. PVNGS Objective | | | | | |
| 2. DEMONSTRATE THE ABILITY TO CLASSIFY THE EVENT IN ACCORDANCE WITH EPIP-02. | | | | | |
| Minimum criteria to meet this objective: | | | | | |
| <ul style="list-style-type: none">• Current controlled copy of EPIP-02 was available and was used.• Current controlled copy of EPIP-02 Technical Bases was available and was used.• Information and data necessary to correctly classify events was readily available and used by personnel to classify events.• Event classification was performed in a timely manner IAW EPIP-02. | | | | | |
| D <small>(Demonstrated)</small> | ND <small>(Not Demonstrated)</small> | DWI <small>(Demonstrated With Issue)</small> | NA <small>(Not Applicable)</small> | NO <small>(Not Observed)</small> | (circle one) |
| <u>Explanation of ND / DWI:</u> | | | | | |

OBJECTIVE EVALUATION

| | | | | | |
|---|---|---|---------------------------------------|-------------------------------------|--------------|
| <u>Evaluator:</u> | <u>Location:</u> | | | | |
| I. PVNGS Objective | | | | | |
| 4. DEMONSTRATE THE ABILITY TO ALERT AND NOTIFY PVNGS EMERGENCY RESPONSE PERSONNEL IN A TIMELY MANNER. | | | | | |
| Minimum criteria to meet this objective: | | | | | |
| <ul style="list-style-type: none">• Current procedures, up-to-date notification lists, and rosters were available.• Alert/notification methodology was adequate to ensure timely notification and/or alerting of emergency response personnel.• Equipment required for alert and notification was operational and functionally adequate.• Personnel were able to implement procedures and operate equipment. | | | | | |
| D <small>(Demonstrated)</small> | ND <small>(Not Demonstrated)</small> | DWI <small>(Demonstrated With issue)</small> | NA <small>(Not Applicable)</small> | NO <small>(Not Observed)</small> | (circle one) |
| <u>Explanation of ND / DWI:</u> | | | | | |



OBJECTIVE EVALUATION

| | | | | | |
|--|--------------------------|----------------------------------|------------------------|----------------------|--------------|
| <u>Evaluator:</u> | <u>Location:</u> | | | | |
| I. PVNGS Objective | | | | | |
| 6. DEMONSTRATE THE ABILITY OF PVNGS TO NOTIFY STATE AND COUNTY AGENCIES WITHIN 15 MINUTES OF EMERGENCY DECLARATION. | | | | | |
| Minimum criteria to meet this objective: | | | | | |
| <ul style="list-style-type: none">• Current procedures for State and County notification were available and were used.• Procedural methodology and equipment for offsite notifications were adequate.• NAN backup communications capabilities required for offsite notifications were adequate and were utilized, if appropriate.• Notifications were made to offsite authorities within fifteen (15) minutes of emergency declaration.• Notifications were made in a clear, unambiguous manner and included all required information. | | | | | |
| D (Demonstrated) | ND (Not Demonstrated) | DWI (Demonstrated With Issue) | NA (Not Applicable) | NO (Not Observed) | (circle one) |
| <u>Explanation of ND / DWI:</u> | | | | | |

OBJECTIVE EVALUATION

Evaluator:

Location:

I. PVNGS Objective

11. DEMONSTRATE THE PROPER USE OF SAMPLING EQUIPMENT AND CONTAMINATION CONTROL TECHNIQUES.

Minimum criteria to meet this objective:

- Equipment, instruments, and supplies required for sample collection were available.
- Equipment and instruments were handled in a manner to prevent cross-contamination.
- Samples were properly bagged and labeled.
- Personnel properly operated sampling instruments and equipment while maintaining contamination control techniques.
- Adequate procedural guidelines were available.

| | | | | | |
|----------------|--------------------|---------------------------|------------------|----------------|--------------|
| D | ND | DWI | NA | NO | (circle one) |
| (Demonstrated) | (Not Demonstrated) | (Demonstrated With Issue) | (Not Applicable) | (Not Observed) | |

Explanation of ND / DWI:

OBJECTIVE EVALUATION

| | | | | | |
|---|--------------------------|----------------------------------|------------------------|----------------------|--------------|
| <u>Evaluator:</u> | <u>Location:</u> | | | | |
| I. PVNGS Objective | | | | | |
| 13. <i>Demonstrate the ability to coordinate with ambulance and hospital personnel in the handling, transport, and treatment of a contaminated injured individual.</i> | | | | | |
| Minimum criteria to meet this objective: | | | | | |
| <ul style="list-style-type: none">• Procedures, equipment, and supplies for handling and site transport of the victim(s) were available.• Procedures, equipment, and supplies to expedite access to the site by offsite medical responders were in place.• Information concerning injuries and status of the victim(s) was clearly communicated to hospital and/or ambulance personnel.• Exposure and contamination control procedures were followed at the site, during transport, and at the hospital.• Treatment and/or stabilization of medical and radiological health threats to the victim(s) were provided. | | | | | |
| D (Demonstrated) | ND (Not Demonstrated) | DWI (Demonstrated With Issue) | NA (Not Applicable) | NO (Not Observed) | (circle one) |
| <u>Explanation of ND / DWI:</u> | | | | | |

OBJECTIVE EVALUATION

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|-------------------|------------------|
| <u>Evaluator:</u> | <u>Location:</u> |
|-------------------|------------------|

I. PVNGS Objective

16. *Demonstrate onsite assembly and accountability for the protected area.*

Minimum criteria to meet this objective:

- Appropriate notifications by Affected/Unaffected Unit Shift Supervisors were made per EPIP-04, -20, respectively.
- Appropriate notifications by Affected/Unaffected Unit Shift Supervisors were made in a timely manner consistent with PA and paging systems limitations.
- An alphabetized listing (by name) of all unaccounted for personnel within the Protected Area was produced by Security.
- An alphabetized listing (by name) of all unaccounted for personnel within the Protected Area was provided to the EC within 30 minutes of the request.

| | | | | | |
|------------------------------------|---|---|---------------------------------------|-------------------------------------|--------------|
| D <small>(Demonstrated)</small> | ND <small>(Not Demonstrated)</small> | DWI <small>(Demonstrated With Issue)</small> | NA <small>(Not Applicable)</small> | NO <small>(Not Observed)</small> | (circle one) |
|------------------------------------|---|---|---------------------------------------|-------------------------------------|--------------|

Explanation of ND / DWI:

OBJECTIVE EVALUATION

| | |
|-------------------|------------------|
| <u>Evaluator:</u> | <u>Location:</u> |
|-------------------|------------------|

I. PVNGS Objective

19. *Demonstrate a shift change of Emergency Response personnel.*

Minimum criteria to meet this objective:

- 24-hour manning and staff augmentation requirements have been accomplished.
- Adequate qualified personnel were available to accommodate a shift turnover.
- Status information and briefings were communicated clearly and concisely.
- Transfer of responsibilities occurred in a concise and complete manner.
- Oncoming shift personnel assumed responsibilities in a smooth and uniform manner.

| | | | | | |
|---|--|--|--|--|---------------------|
| D <small>(Demonstrated)</small> | ND <small>(Not Demonstrated)</small> | DWI <small>(Demonstrated With Issue)</small> | NA <small>(Not Applicable)</small> | NO <small>(Not Observed)</small> | (circle one) |
|---|--|--|--|--|---------------------|

Explanation of ND / DWI:



OBJECTIVE EVALUATION

| | |
|-------------------|------------------|
| <u>Evaluator:</u> | <u>Location:</u> |
|-------------------|------------------|

II. State of AZ / Maricopa County Objective

GROUP "A"

1. **DEMONSTRATE THE CAPABILITY TO ALERT AND FULLY MOBILIZE PERSONNEL FOR BOTH EMERGENCY FACILITIES AND FIELD OPERATIONS. DEMONSTRATE THE CAPABILITY TO ACTIVATE AND STAFF EMERGENCY FACILITIES FOR EMERGENCY OPERATIONS.**

Minimum criteria to meet this objective:

- Refer to FEMA-REP-15, Radiological Emergency Preparedness Exercise Evaluation Methodology, September 1991.

| | | | | | |
|-------------------------------|-----------------------------------|--|---------------------------------|-------------------------------|--------------|
| D | ND | DWI | NA | NO | (circle one) |
| <small>(Demonstrated)</small> | <small>(Not Demonstrated)</small> | <small>(Demonstrated With Issue)</small> | <small>(Not Applicable)</small> | <small>(Not Observed)</small> | |

Explanation of ND / DWI:



OBJECTIVE EVALUATION

Evaluator: _____ Location: _____

II. State of AZ / Maricopa County Objective

GROUP "A"

3. DEMONSTRATE THE CAPABILITY TO DIRECT AND CONTROL EMERGENCY OPERATIONS.

Minimum criteria to meet this objective:

- Refer to FEMA-REP-15, Radiological Emergency Preparedness Exercise Evaluation Methodology, September 1991.

D **ND** **DWI** **NA** **NO** (circle one)
(Demonstrated) (Not Demonstrated) (Demonstrated With Issue) (Not Applicable) (Not Observed)

Explanation of ND / DWI:



OBJECTIVE EVALUATION

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|---|--------------------------|----------------------------------|------------------------|----------------------|--------------|
| <u>Evaluator:</u> | <u>Location:</u> | | | | |
| II. State of AZ / Maricopa County Objective | | | | | |
| GROUP "A" | | | | | |
| 4. DEMONSTRATE THE CAPABILITY TO COMMUNICATE WITH ALL APPROPRIATE EMERGENCY PERSONNEL AT FACILITIES AND IN THE FIELD. | | | | | |
| Minimum criteria to meet this objective: | | | | | |
| • Refer to FEMA-REP-15, Radiological Emergency Preparedness Exercise Evaluation Methodology, September 1991. | | | | | |
| D (Demonstrated) | ND (Not Demonstrated) | DWI (Demonstrated With Issue) | NA (Not Applicable) | NO (Not Observed) | (circle one) |
| <u>Explanation of ND / DWI:</u> | | | | | |

OBJECTIVE EVALUATION

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| <u>Evaluator:</u> | <u>Location:</u> |
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II. State of AZ / Maricopa County Objective

GROUP "A"

7. DEMONSTRATE THE CAPABILITY TO DEVELOP DOSE PROJECTIONS AND PROTECTIVE ACTION RECOMMENDATIONS REGARDING EVACUATION AND SHELTERING.

Minimum criteria to meet this objective:

- Refer to FEMA-REP-15, Radiological Emergency Preparedness Exercise Evaluation Methodology, September 1991.

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|-------------------------------|-----------------------------------|--|---------------------------------|-------------------------------|---------------------|
| D | ND | DWI | NA | NO | (circle one) |
| <small>(Demonstrated)</small> | <small>(Not Demonstrated)</small> | <small>(Demonstrated With Issue)</small> | <small>(Not Applicable)</small> | <small>(Not Observed)</small> | |

Explanation of ND / DWI:



OBJECTIVE EVALUATION

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|---|--------------------------|----------------------------------|------------------------|----------------------|--------------|
| <u>Evaluator:</u> | <u>Location:</u> | | | | |
| ii. State of AZ / Maricopa County Objective | | | | | |
| GROUP "A" | | | | | |
| 8. DEMONSTRATE THE APPROPRIATE USE OF EQUIPMENT AND PROCEDURES FOR THE MEASUREMENT OF AIRBORNE RADIOIODINE CONCENTRATIONS AS LOW AS 10E-7 (0.000001) MICROCURIE PER CUBIC CENTIMETER IN THE PRESENCE OF NOBLE GASES AND OBTAIN SAMPLES OF PARTICULATE ACTIVITY IN THE AIRBORNE PLUME. | | | | | |
| Minimum criteria to meet this objective: | | | | | |
| • Refer to FEMA-REP-15, Radiological Emergency Preparedness Exercise Evaluation Methodology, September 1991. | | | | | |
| D (Demonstrated) | ND (Not Demonstrated) | DWI (Demonstrated With Issue) | NA (Not Applicable) | NO (Not Observed) | (circle one) |
| <u>Explanation of ND / DWI:</u> | | | | | |

OBJECTIVE EVALUATION

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|--|---|---|---------------------------------------|-------------------------------------|--------------|
| <u>Evaluator:</u> | <u>Location:</u> | | | | |
| II. State of AZ / Maricopa County Objective GROUP "A" 9. DEMONSTRATE THE CAPABILITY TO MAKE TIMELY PROTECTIVE ACTION DECISIONS (PAD). | | | | | |
| Minimum criteria to meet this objective: <ul style="list-style-type: none">Refer to FEMA-REP-15, Radiological Emergency Preparedness Exercise Evaluation Methodology, September 1991. | | | | | |
| D <small>(Demonstrated)</small> | ND <small>(Not Demonstrated)</small> | DWI <small>(Demonstrated With Issue)</small> | NA <small>(Not Applicable)</small> | NO <small>(Not Observed)</small> | (circle one) |
| <u>Explanation of ND / DWI:</u> | | | | | |

OBJECTIVE EVALUATION

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|---|---|---|---------------------------------------|-------------------------------------|--------------|
| <u>Evaluator:</u> | <u>Location:</u> | | | | |
| II. State of AZ / Maricopa County Objective | | | | | |
| GROUP "A" | | | | | |
| 11. DEMONSTRATE THE CAPABILITY TO COORDINATE THE FORMULATION AND DISSEMINATION OF ACCURATE INFORMATION AND INSTRUCTIONS TO THE PUBLIC. | | | | | |
| Minimum criteria to meet this objective: | | | | | |
| ● Refer to FEMA-REP-15, Radiological Emergency Preparedness Exercise Evaluation Methodology, September 1991. | | | | | |
| D <small>(Demonstrated)</small> | ND <small>(Not Demonstrated)</small> | DWI <small>(Demonstrated With Issue)</small> | NA <small>(Not Applicable)</small> | NO <small>(Not Observed)</small> | (circle one) |
| <u>Explanation of ND / DWI:</u> | | | | | |



OBJECTIVE EVALUATION

| | | | | | |
|--|--------------------------|----------------------------------|------------------------|----------------------|--------------|
| <u>Evaluator:</u> | <u>Location:</u> | | | | |
| II. State of AZ / Maricopa County Objective | | | | | |
| GROUP "A" | | | | | |
| 12. DEMONSTRATE THE CAPABILITY TO COORDINATE THE DEVELOPMENT AND DISSEMINATION OF CLEAR, ACCURATE, AND TIMELY INFORMATION TO THE NEWS MEDIA. | | | | | |
| Minimum criteria to meet this objective: | | | | | |
| <ul style="list-style-type: none">Refer to FEMA-REP-15, Radiological Emergency Preparedness Exercise Evaluation Methodology, September 1991. | | | | | |
| D (Demonstrated) | ND (Not Demonstrated) | DWI (Demonstrated With Issue) | NA (Not Applicable) | NO (Not Observed) | (circle one) |
| <u>Explanation of ND / DWI:</u> | | | | | |

OBJECTIVE EVALUATION

Evaluator:

Location:

II. State of AZ / Maricopa County Objective

GROUP "B"

14. DEMONSTRATE THE CAPABILITY AND RESOURCES TO IMPLEMENT POTASSIUM IODIDE (KI) PROTECTIVE ACTIONS FOR EMERGENCY WORKERS, INSTITUTIONALIZED INDIVIDUALS, AND, IF THE STATE PLAN SPECIFIES, THE GENERAL PUBLIC.

Minimum criteria to meet this objective:

- Refer to FEMA-RFP-15, Radiological Emergency Preparedness Exercise Evaluation Methodology, September 1991.

D **ND** **DWI** **NA** **NO** (circle one)
(Demonstrated) (Not Demonstrated) (Demonstrated With Issue) (Not Applicable) (Not Observed)

Explanation of ND / DWI:



OBJECTIVE EVALUATION

| | |
|-------------------|------------------|
| <u>Evaluator:</u> | <u>Location:</u> |
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II. State of AZ / Maricopa County Objective

GROUP "B"

17. DEMONSTRATE THE ORGANIZATIONAL CAPABILITY AND RESOURCES NECESSARY TO CONTROL EVACUATION TRAFFIC FLOW AND TO CONTROL ACCESS TO EVACUATED AND SHELTERED AREAS.

Minimum criteria to meet this objective:

- Refer to FEMA-REP-15, Radiological Emergency Preparedness Exercise Evaluation Methodology, September 1991.

| | | | | | |
|---|--|--|--|--|---------------------|
| D <small>(Demonstrated)</small> | ND <small>(Not Demonstrated)</small> | DWI <small>(Demonstrated With Issue)</small> | NA <small>(Not Applicable)</small> | NO <small>(Not Observed)</small> | (circle one) |
|---|--|--|--|--|---------------------|

Explanation of ND / DWI:

Empty box for explanation of ND / DWI.



OBJECTIVE EVALUATION

| | | | | | |
|--|---|---|---------------------------------------|-------------------------------------|--------------|
| <u>Evaluator:</u> | <u>Location:</u> | | | | |
| II. State of AZ / Maricopa County Objective | | | | | |
| GROUP "B" | | | | | |
| 19. DEMONSTRATE THE ADEQUACY OF FACILITIES, EQUIPMENT, SUPPLIES, PERSONNEL, AND PROCEDURES FOR CONGRUATE CARE OF EVACUEES. | | | | | |
| Minimum criteria to meet this objective: | | | | | |
| <ul style="list-style-type: none">Refer to FEMA-REP-15, Radiological Emergency Preparedness Exercise Evaluation Methodology, September 1991. | | | | | |
| D <small>(Demonstrated)</small> | ND <small>(Not Demonstrated)</small> | DWI <small>(Demonstrated With Issue)</small> | NA <small>(Not Applicable)</small> | NO <small>(Not Observed)</small> | (circle one) |
| <u>Explanation of ND / DWI:</u> | | | | | |

OBJECTIVE EVALUATION

| | | | | | |
|---|---|---|---------------------------------------|-------------------------------------|--------------|
| <u>Evaluator:</u> | <u>Location:</u> | | | | |
| II. State of AZ / Maricopa County Objective GROUP "B" 20. DEMONSTRATE THE ADEQUACY OF VEHICLES, EQUIPMENT, PROCEDURES, AND PERSONNEL FOR TRANSPORTING CONTAMINATED, INJURED, OR EXPOSED INDIVIDUALS. | | | | | |
| Minimum criteria to meet this objective: <ul style="list-style-type: none">Refer to FEMA-REP-15, Radiological Emergency Preparedness Exercise Evaluation Methodology, September 1991. | | | | | |
| D <small>(Demonstrated)</small> | ND <small>(Not Demonstrated)</small> | DWI <small>(Demonstrated With Issue)</small> | NA <small>(Not Applicable)</small> | NO <small>(Not Observed)</small> | (circle one) |
| <u>Explanation of ND / DWI:</u> | | | | | |

OBJECTIVE EVALUATION

| | |
|-------------------|------------------|
| <u>Evaluator:</u> | <u>Location:</u> |
|-------------------|------------------|

II. State of AZ / Maricopa County Objective

GROUP "B"

21. DEMONSTRATE THE ADEQUACY OF THE EQUIPMENT, PROCEDURES, SUPPLIES, AND PERSONNEL OF MEDICAL FACILITIES RESPONSIBLE FOR TREATMENT OF CONTAMINATED, INJURED, OR EXPOSED INDIVIDUALS.

Minimum criteria to meet this objective:

- Refer to FEMA-REP-15, Radiological Emergency Preparedness Exercise Evaluation Methodology, September 1991.

| | | | | | |
|---|--|--|--|--|---------------------|
| D <small>(Demonstrated)</small> | ND <small>(Not Demonstrated)</small> | DWI <small>(Demonstrated With Issue)</small> | NA <small>(Not Applicable)</small> | NO <small>(Not Observed)</small> | (circle one) |
|---|--|--|--|--|---------------------|

Explanation of ND / DWI:



OBJECTIVE EVALUATION

Evaluator:

Location:

II. State of AZ / Maricopa County Objective

GROUP "B"

22. DEMONSTRATE THE ADEQUACY OF PROCEDURES FOR MONITORING AND DECONTAMINATION OF EMERGENCY WORKERS, EQUIPMENT, AND VEHICLES.

Minimum criteria to meet this objective:

- Refer to FEMA-REP-15, Radiological Emergency Preparedness Exercise Evaluation Methodology, September 1991.

| | | | | | |
|----------------|--------------------|---------------------------|------------------|----------------|--------------|
| D | ND | DWI | NA | NO | (circle one) |
| (Demonstrated) | (Not Demonstrated) | (Demonstrated With Issue) | (Not Applicable) | (Not Observed) | |

Explanation of ND / DWI:

OBJECTIVE EVALUATION

| | | | | | |
|--|---|---|---------------------------------------|-------------------------------------|--------------|
| <u>Evaluator:</u> | <u>Location:</u> | | | | |
| II. State of AZ / Maricopa County Objective GROUP "C" <i>25. Demonstrate laboratory operations and procedures for measuring and analyzing samples.</i> | | | | | |
| Minimum criteria to meet this objective: ● Refer to FEMA-REP-15, Radiological Emergency Preparedness Exercise Evaluation Methodology, September 1991. | | | | | |
| D <small>(Demonstrated)</small> | ND <small>(Not Demonstrated)</small> | DWI <small>(Demonstrated With Issue)</small> | NA <small>(Not Applicable)</small> | NO <small>(Not Observed)</small> | (circle one) |
| <u>Explanation of ND / DWI:</u> | | | | | |



OBJECTIVE EVALUATION

| | | | | | |
|--|---|---|---------------------------------------|-------------------------------------|--------------|
| <u>Evaluator:</u> | <u>Location:</u> | | | | |
| II. State of AZ / Maricopa County Objective | | | | | |
| GROUP "C" | | | | | |
| 28. <i>Demonstrate the capability to develop decisions on relocation, reentry, and return.</i> | | | | | |
| Minimum criteria to meet this objective: | | | | | |
| ● Refer to FEMA-REP-15, Radiological Emergency Preparedness Exercise Evaluation Methodology, September 1991. | | | | | |
| D <small>(Demonstrated)</small> | ND <small>(Not Demonstrated)</small> | DWI <small>(Demonstrated With Issue)</small> | NA <small>(Not Applicable)</small> | NO <small>(Not Observed)</small> | (circle one) |
| <u>Explanation of ND / DWI:</u> | | | | | |

OBJECTIVE EVALUATION

| | | | | | |
|---|---|---|---------------------------------------|-------------------------------------|--------------|
| <u>Evaluator:</u> | <u>Location:</u> | | | | |
| II. State of AZ / Maricopa County Objective | | | | | |
| GROUP "C" | | | | | |
| 29. <i>Demonstrate the capability to implement appropriate measures for relocation, re-entry, and return.</i> | | | | | |
| Minimum criteria to meet this objective: | | | | | |
| • Refer to FEMA-REP-15, Radiological Emergency Preparedness Exercise Evaluation Methodology, September 1991. | | | | | |
| D <small>(Demonstrated)</small> | ND <small>(Not Demonstrated)</small> | DWI <small>(Demonstrated With Issue)</small> | NA <small>(Not Applicable)</small> | NO <small>(Not Observed)</small> | (circle one) |
| <u>Explanation of ND / DWI:</u> | | | | | |

OBJECTIVE EVALUATION

| | | | | | |
|--|--|--|--|--|--------------|
| <u>Evaluator:</u> | <u>Location:</u> | | | | |
| II. State of AZ / Maricopa County Objective | | | | | |
| GROUP "C" | | | | | |
| 32. <i>Demonstrate the capability to carry out emergency response functions in an unannounced exercise or drill.</i> | | | | | |
| Minimum criteria to meet this objective: | | | | | |
| <ul style="list-style-type: none">Refer to FEMA-REP-15, Radiological Emergency Preparedness Exercise Evaluation Methodology, September 1991. | | | | | |
| D <small>(Demonstrated)</small> | ND <small>(Not Demonstrated)</small> | DWI <small>(Demonstrated With Issue)</small> | NA <small>(Not Applicable)</small> | NO <small>(Not Observed)</small> | (circle one) |
| <u>Explanation of ND / DWI:</u> | | | | | |

OBJECTIVE EVALUATION

| | | | | | |
|--|---|---|---------------------------------------|-------------------------------------|--------------|
| <u>Evaluator:</u> | <u>Location:</u> | | | | |
| II. State of AZ / Maricopa County Objective | | | | | |
| GROUP "C" | | | | | |
| 33. <i>Demonstrate the capability to carry out emergency response functions during an off-hours exercise or drill.</i> | | | | | |
| Minimum criteria to meet this objective: | | | | | |
| <ul style="list-style-type: none">Refer to FEMA-REP-15, Radiological Emergency Preparedness Exercise Evaluation Methodology, September 1991. | | | | | |
| D <small>(Demonstrated)</small> | ND <small>(Not Demonstrated)</small> | DWI <small>(Demonstrated With Issue)</small> | NA <small>(Not Applicable)</small> | NO <small>(Not Observed)</small> | (circle one) |
| <u>Explanation of ND / DWI:</u> | | | | | |

OBJECTIVE EVALUATION

Evaluator:

Location:

III. Joint Objective (PVNGS, State, County)

1. DEMONSTRATE THE ABILITY TO RESPOND TO AN EMERGENCY WHICH INITIATES BETWEEN 0400 AND 1800 ON WORKDAYS.

Minimum criteria to meet this objective:

- Both licensee and government response organizations maintained the minimum staffing required for emergency response to events occurring during normal work hours.
- Communications capabilities were sufficient to initiate and support emergency response to events occurring during normal work hours.
- All Emergency Response Facilities were activated in a timely manner.
- Emergency facilities, equipment, and procedures necessary to support emergency response were available and were used.

D

(Demonstrated)

ND

(Not Demonstrated)

DWI

(Demonstrated With Issue)

NA

(Not Applicable)

NO

(Not Observed)

(circle one)

Explanation of ND / DWI:

OBJECTIVE EVALUATION

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|--|--------------------|---------------------------|------------------|----------------|--------------|----|--------------|----------------|--------------------|---------------------------|------------------|----------------|--|
| <u>Evaluator:</u> | <u>Location:</u> | | | | | | | | | | | | |
| III. Joint Objective (PVNGS, State, County) | | | | | | | | | | | | | |
| 3. DEMONSTRATE THE FUNCTIONAL ADEQUACY OF EMERGENCY FACILITIES. | | | | | | | | | | | | | |
| Minimum criteria to meet this objective: | | | | | | | | | | | | | |
| <ul style="list-style-type: none">• The operational capability of Emergency Response Facilities included providing safe environments for personnel to work, adequate work space, personal conveniences, and access to other personnel, facilities, or materials.• Situations did not occur in which the lack of equipment or materials prevented personnel from performing assigned tasks.• Appropriate means were available for personnel to provide for the resolution of equipment or material deficiencies. | | | | | | | | | | | | | |
| <table style="width: 100%; border: none;"><tr><td style="text-align: center; width: 15%;">D</td><td style="text-align: center; width: 15%;">ND</td><td style="text-align: center; width: 15%;">DWI</td><td style="text-align: center; width: 15%;">NA</td><td style="text-align: center; width: 15%;">NO</td><td style="text-align: right; width: 20%;">(circle one)</td></tr><tr><td style="text-align: center; font-size: small;">(Demonstrated)</td><td style="text-align: center; font-size: small;">(Not Demonstrated)</td><td style="text-align: center; font-size: small;">(Demonstrated With Issue)</td><td style="text-align: center; font-size: small;">(Not Applicable)</td><td style="text-align: center; font-size: small;">(Not Observed)</td><td></td></tr></table> | | D | ND | DWI | NA | NO | (circle one) | (Demonstrated) | (Not Demonstrated) | (Demonstrated With Issue) | (Not Applicable) | (Not Observed) | |
| D | ND | DWI | NA | NO | (circle one) | | | | | | | | |
| (Demonstrated) | (Not Demonstrated) | (Demonstrated With Issue) | (Not Applicable) | (Not Observed) | | | | | | | | | |
| <u>Explanation of ND / DWI:</u> | | | | | | | | | | | | | |

OBJECTIVE EVALUATION

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| <u>Evaluator:</u> | <u>Location:</u> |
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III. Joint Objective (PVNGS, State, County)

4. DEMONSTRATE THE ADEQUACY OF COMMUNICATIONS LINKS BETWEEN GOVERNMENT EMERGENCY FACILITIES, FIELD TEAMS, AND THE UTILITY'S EMERGENCY FACILITIES.

Minimum criteria to meet this objective:

- Communications systems specified in plans and procedures were available and were operational.
- Personnel were able to operate all communications systems in their respective facility.
- Clear and timely communications links were maintained between government emergency facilities, field teams, and the utility's emergency facilities.
- The minimum required phone lines in all facilities were available.

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|---|--|--|--|--|---------------------|
| D <small>(Demonstrated)</small> | ND <small>(Not Demonstrated)</small> | DWI <small>(Demonstrated With Issue)</small> | NA <small>(Not Applicable)</small> | NO <small>(Not Observed)</small> | (circle one) |
|---|--|--|--|--|---------------------|

Explanation of ND / DWI:



OBJECTIVE EVALUATION

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|--|--|--|--|--|--------------|
| <u>Evaluator:</u> | <u>Location:</u> | | | | |
| III. Joint Objective (PVNGS, State, County) | | | | | |
| 5. DEMONSTRATE THE ADEQUACY OF COMMUNICATIONS WITH THE PUBLIC VIA THE EMERGENCY BROADCAST SYSTEM (EBS). | | | | | |
| Minimum criteria to meet this objective: | | | | | |
| <ul style="list-style-type: none">• Coordination, formulation, and dissemination of information and instructions to the public occurred in an accurate and timely manner.• Refer to FEMA-REP-15, Radiological Emergency Preparedness Exercise Evaluation Methodology, September 1991. | | | | | |
| D <small>(Demonstrated)</small> | ND <small>(Not Demonstrated)</small> | DWI <small>(Demonstrated With Issue)</small> | NA <small>(Not Applicable)</small> | NO <small>(Not Observed)</small> | (circle one) |
| <u>Explanation of ND / DWI:</u> | | | | | |

OBJECTIVE EVALUATION

Evaluator: _____ Location: _____

III. Joint Objective (PVNGS, State, County)

6. DEMONSTRATE THE ABILITY TO IMPLEMENT PERSONNEL DOSIMETRY FOR BOTH UTILITY AND GOVERNMENT EMERGENCY RESPONSE PERSONNEL.

Minimum criteria to meet this objective:

- Personnel were provided dosimeters appropriate to potential radiological conditions and in accordance with established procedures.
- All instrumentation/dosimetry was within calibration dates and was operational.
- Operational checks were performed on instrumentation prior to use.
- Dosimeters were worn and handled properly by personnel.

D **ND** **DWI** **NA** **NO** (circle one)
(Demonstrated) (Not Demonstrated) (Demonstrated With Issue) (Not Applicable) (Not Observed)

Explanation of ND / DWI:



OBJECTIVE EVALUATION

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| <u>Evaluator:</u> | <u>Location:</u> |
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III. Joint Objective (PVNGS, State, County)

7. DEMONSTRATE THE ABILITY TO PERFORM ONSITE AND OFFSITE DOSE ASSESSMENT IN A TIMELY MANNER.

Minimum criteria to meet this objective:

- Current copies of appropriate procedures were available and were used by dose assessment personnel.
- Plant status and meteorological data were available and were used to determine offsite radiological consequences.
- Equipment for performing dose assessment was operational.
- Backup systems were available for dose projections, if appropriate.
- Field monitoring/sampling data was compared with projected doses.
- Updated projections were made as plant, meteorological, or field data parameters changed.

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|-------------------------------|-----------------------------------|--|---------------------------------|-------------------------------|--------------|
| D | ND | DWI | NA | NO | (circle one) |
| <small>(Demonstrated)</small> | <small>(Not Demonstrated)</small> | <small>(Demonstrated With Issue)</small> | <small>(Not Applicable)</small> | <small>(Not Observed)</small> | |

Explanation of ND / DWI:



OBJECTIVE EVALUATION

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|--|--------------------|---------------------------|------------------|----------------|--------------|----|--------------|----------------|--------------------|---------------------------|------------------|----------------|--|
| <u>Evaluator:</u> | <u>Location:</u> | | | | | | | | | | | | |
| III. Joint Objective (PVNGS, State, County) | | | | | | | | | | | | | |
| 8. DEMONSTRATE REMOTE ACTIVATION AND OPERATION OF THE OFFSITE SIREN ALERTING SYSTEM. | | | | | | | | | | | | | |
| Minimum criteria to meet this objective: | | | | | | | | | | | | | |
| <ul style="list-style-type: none">• Activation successfully occurred from the primary activation source (MCDEM) and from 1 of the 2 secondary activation sources (MCSO or DPS).• At least 95% of all sirens activated successfully.• Refer to FEMA-REP-15, Radiological Emergency Preparedness Exercise Evaluation Methodology, September 1991. | | | | | | | | | | | | | |
| <table style="width: 100%; border: none;"><tr><td style="text-align: center; width: 15%;">D</td><td style="text-align: center; width: 15%;">ND</td><td style="text-align: center; width: 15%;">DWI</td><td style="text-align: center; width: 15%;">NA</td><td style="text-align: center; width: 15%;">NO</td><td style="text-align: right; width: 20%;">(circle one)</td></tr><tr><td style="text-align: center; font-size: small;">(Demonstrated)</td><td style="text-align: center; font-size: small;">(Not Demonstrated)</td><td style="text-align: center; font-size: small;">(Demonstrated With Issue)</td><td style="text-align: center; font-size: small;">(Not Applicable)</td><td style="text-align: center; font-size: small;">(Not Observed)</td><td></td></tr></table> | | D | ND | DWI | NA | NO | (circle one) | (Demonstrated) | (Not Demonstrated) | (Demonstrated With Issue) | (Not Applicable) | (Not Observed) | |
| D | ND | DWI | NA | NO | (circle one) | | | | | | | | |
| (Demonstrated) | (Not Demonstrated) | (Demonstrated With Issue) | (Not Applicable) | (Not Observed) | | | | | | | | | |
| <u>Explanation of ND / DWI:</u> | | | | | | | | | | | | | |

OBJECTIVE EVALUATION

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| <u>Evaluator:</u> | <u>Location:</u> |
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III. Joint Objective (PVNGS, State, County)

9. *Demonstrate the ability to respond to an emergency which initiates on weekends, off-days, or between 1800 and 0400 on workdays.*

Minimum criteria to meet this objective:

- Both licensee and government response organizations maintained the minimum staffing required for emergency response to events occurring during off-normal work hours.
- Communications capabilities were sufficient to initiate and support emergency response to events occurring during off-normal work hours.
- All Emergency Response Facilities were activated in a timely manner.
- Emergency facilities, equipment, and procedures necessary to support emergency response were available and were used.

| | | | | | |
|-------------------------------|-----------------------------------|--|---------------------------------|-------------------------------|--------------|
| D | ND | DWI | NA | NO | (circle one) |
| <small>(Demonstrated)</small> | <small>(Not Demonstrated)</small> | <small>(Demonstrated With Issue)</small> | <small>(Not Applicable)</small> | <small>(Not Observed)</small> | |

Explanation of ND / DWI:



OBJECTIVE EVALUATION

Evaluator:

Location:

III. Joint Objective (PVNGS, State, County)

10. *Demonstrate the ability to respond to an emergency which initiates at an unannounced date and time.*

Minimum criteria to meet this objective:

- Both licensee and government response organizations maintained the minimum staffing required for emergency response to events occurring at an unannounced date and time.
- Communications capabilities were sufficient to initiate and support emergency response to events occurring at an unannounced date and time.
- All Emergency Response Facilities were activated in a timely manner.
- Emergency facilities, equipment, and procedures necessary to support emergency response were available and were used.

D

(Demonstrated)

ND

(Not Demonstrated)

DWI

(Demonstrated With Issue)

NA

(Not Applicable)

NO

(Not Observed)

(circle one)

Explanation of ND / DWI:



OBJECTIVE EVALUATION

Evaluator: _____ Location: _____

III. Joint Objective (PVNGS, State, County)

14. DEMONSTRATE THE ADEQUACY OF COMMUNICATIONS WITH THE PUBLIC VIA THE NEWS MEDIA.

Minimum criteria to meet this objective:

- Communications systems specified in the plans and procedures were available and were operational.
- A designated spokesperson was available to coordinate activities and briefings with the media.
- Clear and timely communications links were maintained between utility, government, and media personnel.
- Aids and materials were available to support accurate briefings to the media.
- Questions posed by members of the media received complete and accurate responses.

D **ND** **DWI** **NA** **NO** (circle one)
(Demonstrated) (Not Demonstrated) (Demonstrated With Issue) (Not Applicable) (Not Observed)

Explanation of ND / DWI:

OBJECTIVE EVALUATION

Evaluator:

Location:

IV. Facility Objective

1. EOF

b. **DEMONSTRATE THE ADEQUACY OF COMMUNICATIONS LINKS BETWEEN THE CR/STSC, TSC, GOVERNMENT EMERGENCY FACILITIES, FIELD TEAMS, AND THE EOF.**

Minimum criteria to meet this objective:

- Communications systems specified in the plans and procedures were available and were operational.
- Personnel were able to operate all communications systems.
- Clear and timely communications links were maintained with CR/STSC, TSC, Survey Teams, the NRC, JENC, and government emergency facilities and notification points.
- Planned communications capabilities were available for use by the NRC Site Team.

D

(Demonstrated)

ND

(Not Demonstrated)

DWI

(Demonstrated With Issue)

NA

(Not Applicable)

NO

(Not Observed)

(circle one)

Explanation of ND / DWI:

OBJECTIVE EVALUATION

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| <u>Evaluator:</u> | <u>Location:</u> |
|-------------------|------------------|

IV. Facility Objective

1. EOF

g. *Demonstrate the capability to function from the Backup EOF.*

Minimum criteria to meet this objective:

- The logistical layout of the facility and equipment provided in the Backup EOF was adequate to support implementation of EOF procedures.
- Clear and timely communications links were maintained with CR/STSC, TSC, Survey Teams, the NRC, JENC, and government emergency facilities and notification points.
- A safe environment, adequate work space, personal conveniences, and access to other personnel, facilities, or materials was provided for personnel to work.
- The staffing level of the Backup EOF was maintained at the minimum level established for the EOF by the Emergency Plan and EIPs throughout the emergency.

| | | | | | |
|---|--|--|--|--|---------------------|
| D <small>(Demonstrated)</small> | ND <small>(Not Demonstrated)</small> | DWI <small>(Demonstrated With Issue)</small> | NA <small>(Not Applicable)</small> | NO <small>(Not Observed)</small> | (circle one) |
|---|--|--|--|--|---------------------|

Explanation of ND / DWI:



OBJECTIVE EVALUATION

Evaluator:

Location:

IV. Facility Objective

2. TSC

- a. **DEMONSTRATE THE ADEQUACY OF THE EMERGENCY PLAN AND THE EMERGENCY PLAN IMPLEMENTING PROCEDURES (EPIPS) BOTH IN TERMS OF MANAGEMENT CONTROL AND WORKABILITY OF THE PROCEDURES FOR THE TSC.**

Minimum criteria to meet this objective:

- The EC was in full control of TSC operations.
- Current procedures were available and were used.
- The logistical layout of the facility and equipment provided in the TSC was adequate to support implementation of TSC procedures.

D

(Demonstrated)

ND

(Not Demonstrated)

DWI

(Demonstrated With Issue)

NA

(Not Applicable)

NO

(Not Observed)

(circle one)

Explanation of ND / DWI:



OBJECTIVE EVALUATION

| | | | | | |
|--|---|---|---------------------------------------|-------------------------------------|--------------|
| <u>Evaluator:</u> | <u>Location:</u> | | | | |
| IV. Facility Objective | | | | | |
| 2. TSC | | | | | |
| c. DEMONSTRATE THE ADEQUACY OF SECURITY ACCESS CONTROL. | | | | | |
| Minimum criteria to meet this objective: | | | | | |
| <ul style="list-style-type: none">• All access to the TSC was controlled.• A listing of personnel allowed access to the TSC was available and was used.• Procedures to authorize access for personnel not on the access listing were adequate.• Accountability of personnel present in the TSC was maintained throughout the emergency. | | | | | |
| D <small>(Demonstrated)</small> | ND <small>(Not Demonstrated)</small> | DWI <small>(Demonstrated With Issue)</small> | NA <small>(Not Applicable)</small> | NO <small>(Not Observed)</small> | (circle one) |
| <u>Explanation of ND / DWI:</u> | | | | | |



OBJECTIVE EVALUATION

Evaluator:

Location:

IV. Facility Objective

2. TSC

e. DEMONSTRATE ACTIVATION AND STAFFING OF THE TSC IN A TIMELY MANNER.

Minimum criteria to meet this objective:

- The TSC was declared activated by the EC within 1 hour (normal hours) or 2 hours (off-hours) of an ALERT or higher event declaration.
- The staffing level of the TSC was maintained at the level established by the Emergency Plan and EIPs throughout the emergency.

D **ND** **DWI** **NA** **NO** (circle one)
(Demonstrated) (Not Demonstrated) (Demonstrated With Issue) (Not Applicable) (Not Observed)

Explanation of ND / DWI:



OBJECTIVE EVALUATION

Evaluator:

Location:

IV. Facility Objective

3. STSC

- b. DEMONSTRATE THE ADEQUACY OF COMMUNICATIONS LINKS BETWEEN THE TSC, OSC, EOF, IN-PLANT RESPONSE TEAMS, AND THE CR/STSC.**

Minimum criteria to meet this objective:

- Communications systems specified in the plans and procedures were available and were operational.
- Personnel were able to operate all communications systems.
- Clear and timely communications links were maintained with TSC, OSC, EOF, in-plant response teams, and the CR/STSC.
- Dedicated phone lines as specified in the Emergency Plan were available.

D

(Demonstrated)

ND

(Not Demonstrated)

DWI

(Demonstrated With Issue)

NA

(Not Applicable)

NO

(Not Observed)

(circle one)

Explanation of ND / DWI:



OBJECTIVE EVALUATION

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|-------------------|------------------|
| <u>Evaluator:</u> | <u>Location:</u> |
|-------------------|------------------|

IV. Facility Objective

4. OSC

b. DEMONSTRATE THE ADEQUACY OF COMMUNICATIONS LINKS BETWEEN FIELD TEAMS, THE TSC/STSC, AND THE OSC.

Minimum criteria to meet this objective:

- Communications systems specified in the plans and procedures were available and were operational.
- Personnel were able to operate all communications systems.
- Clear and timely communications links were maintained with TSC, EOF, in-plant response teams, and the CR/STSC.
- Dedicated phone lines as specified in the Emergency Plan were available.

| | | | | | |
|---|--|--|--|--|---------------------|
| D <small>(Demonstrated)</small> | ND <small>(Not Demonstrated)</small> | DWI <small>(Demonstrated With Issue)</small> | NA <small>(Not Applicable)</small> | NO <small>(Not Observed)</small> | (circle one) |
|---|--|--|--|--|---------------------|

Explanation of ND / DWI:



OBJECTIVE EVALUATION

Evaluator:

Location:

IV. Facility Objective

5. JENC

- a. **DEMONSTRATE THE ADEQUACY OF THE EMERGENCY PLAN AND THE JOINT PUBLIC INFORMATION PROCEDURES (JPIPS) BOTH IN TERMS OF MANAGEMENT CONTROL AND WORKABILITY OF THE PROCEDURES FOR THE JENC.**

Minimum criteria to meet this objective:

- Command and control was effectively maintained on all operations in the JENC throughout the emergency.
- Current procedures were available and were used.
- The logistical layout of the facility and equipment provided in the JENC was adequate to support implementation of JENC procedures.

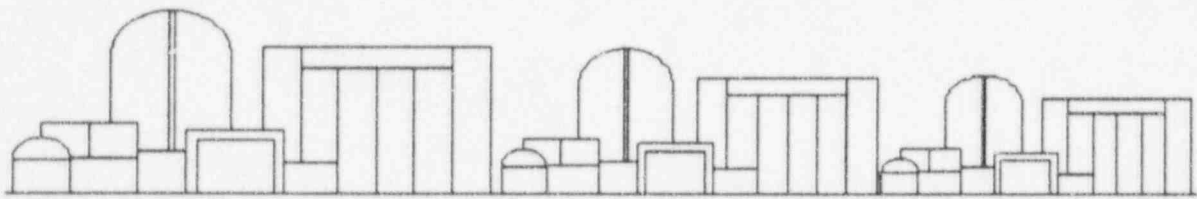
D **ND** **DWI** **NA** **NO** (circle one)
(Demonstrated) (Not Demonstrated) (Demonstrated With Issue) (Not Applicable) (Not Observed)

Explanation of ND / DWI:



SECTION 03

PV GUIDE



Palo Verde Nuclear Generating Station



SECTION 03

PV GUIDE



1995 EMERGENCY PREPAREDNESS DRILL/EXERCISE SCENARIO GUIDE

95-E-AEV-04002

I. SCENARIO TIMELINE

- 0705 All 3 Palo Verde Units are operating at 100% full power. This unit has been at 100% power for the last 116 days. Core age is 200 Effective Full Power Days (reference Unit 1 Cycle 4 Core Data Book). The Unit is operating with the reduced T_H program. RCS Boron concentration is 546 ppm per Chemistry sample. AFB-P01 was tagged out 7 hours ago for inboard bearing replacement and is expected back for surveillance testing in approximately 18 hours. Technical Specification LCOs 3.7.1.2 and 3.3.3.5, Action Statements "a.", were entered and the pump declared INOPERABLE 7 hours ago. A TSCCR has been generated on SIMS. Security has requested movement of the 16,000-pound "pillbox" presently located at the northwest corner of the Turbine Building to a new defensive position near the nitrogen tanks. Mechanical Maintenance personnel will be using a crane to do the move over the next few hours and will advise Operations when completed. Water Reclamation has taken the 66" effluent feeder line from the Hassayampa Pumping Station out of service 4 hours ago to repair a leaking flange 2 miles east of the site. The line is expected back in service in approximately 26 hours. Water Rec will advise when repairs are completed. ECC is planning to remove the Westwing-2 525 KV line from service within the next 6 hours and will call Unit 1 with preliminary action plans when they are ready to do so. A reactor bank located in the Westwing Switchyard must be replaced and the line is required to be de-energized for that operation. SRP will coordinate activities with APS personnel and Unit 1 Operations will inform the other Units prior to taking the line out of service. S/G blowdown is currently aligned for NORMAL rate from S/G-1 and ABNORMAL rate from S/G-2. They are due to be swapped at 1100. Both Abnormal Rate manual isolation valves are open and should remain open. The normal, shiftly surveillance tests have been completed. Operations Management has requested that 100% power operation be maintained.
- 0800 Facility time synchronization / begin event timeline.
- 0808 An RCS leak begins in containment on a sensing line for the S/G-2 DP Transmitter. The crew receives PMS annunciation for low DPs on the affected transmitter. At this time, no control board annunciation is received at the current leak rate, which is 32 gpm. Letdown flow slowly decreases to maintain PZR level constant. Containment humidity slowly increases and eventually alarms on a B07 multi-point recorder. The crew enters 41AO-1ZZ14, Excessive RCS Leakrate, to determine the current RCS leakage.
- 0839 The SS enters the Emergency Plan and classifies the event as an NUE based on unidentified RCS Leakage in excess of 10 gpm.
- 0857 After notifications are conveyed to Operations management, ECC, Chemistry, and RP, the crew commences a plant shutdown in accordance with 41AO-1ZZ56, Rapid Shutdown. The Primary Operator begins borating the RCS and the Secondary Operator maintains RCS temperatures by adjustment of turbine load.

- 0907 During the plant shutdown, the RCS leak increases to 65 gpm. CTMT Sump Excessive Leakage is indicated. Analyses of plant indications and diagnoses of conditions prompts the SS to consider re-entry into EPIP-02, Emergency Classification, after an estimated leak rate has been recalculated by the PO.
- 0927 The SS upgrades the event classification to an ALERT per EPIP-02, Emergency Classification, based on RCS leakage in excess of 44 gpm, as delineated in Table-1, Fission Product Barrier Reference. Offsite agencies are notified and the Emergency Response Organization is activated.
- 0958 Due to rising containment pressure and after a brief tailboard discussion, the crew may attempt a manual reactor trip and manual SIAS and CIAS actuations. The reactor will not trip and the CEDMCS Bus must be de-energized. At the time of the trip, 4.16 KV Class Bus PBB-S04 loses power due to a fault and its supply breaker and the bus are both severely damaged. The crew enters 41EP-1EO01, Emergency Operations. The board operators maintain safety functions and the CRS enters the Safety Function Flowchart. A LOCA is diagnosed 6 minutes later and the crew enters 41EP-1RO02, Loss of Coolant Accident. The SS does not reclassify the event whether or not an automatic reactor trip condition existed during operators' attempts to trip the reactor. (Note that if a manual reactor trip is not attempted at this time, procedures will direct the manual trip at 20% power within the following ten minutes. If this is the case, 4.16 KV Class Bus PBB-S04 will lockout and de-energize at 25% reactor power during the power reduction.)
- 1029 The crew commences a plant cooldown at < 100°F/hour as directed by procedure, with a goal of reaching 338°F T_c, at which time the Shutdown Cooling System can be placed into operation. Onsite and offsite Emergency Response Facilities have been activated and Emergency Response Organization staffing has been achieved.
- 1114 RCS pressure suddenly decreases as the RCS leak becomes much larger. Safety Injection Tanks inject within several minutes as RCS pressure decreases through 600 psia. ESFAS actuations include CSAS as containment pressure increases above the 8.5 psig CSAS setpoint. Containment radiation monitor readings escalate.
- 1117 The crew notices that no containment spray flow exists and attempts to open an isolation valve. Being unsuccessful, the CRS enters 41EP-1RO08, Functional Recovery (via SFFC), due to loss of the Containment Integrity Safety Function while an AO is dispatched to check the status of the stuck valve.
- 1121 The Control Room crew receives a call stating that the crane operator working on the concrete "pillbox" relocation effort has accidentally swung the crane boom in the wrong direction and hit the side of containment with the boom. The crane operator states that the "pillbox" broke from the cable after contacting the containment side and fell some 45 feet onto a large pipe protruding out from the containment wall near the equipment hatch. He thinks he broke the pipe, since smoke or steam is now billowing from the penetration and making a very loud hissing noise. He says he has vacated the area and is calling from the 100' elevation in the Corridor Building. A radiological release to the environment begins through the broken weld seam around the containment penetration.

- 1134 The EC upgrades the event classification to an SAE per EPIP-02, Emergency Classification, based on loss of both the RCS and CTMT Barriers, as delineated in Table-1, Fission Product Barrier Reference.
- 1200 It is determined that since the release cannot be stopped, the stuck valve has priority and all efforts will be taken to repair it. Field team monitoring of the radioactive plume continues to provide data for both onsite and offsite dose assessment activities.
- 1300 The offsite radioactive release to the environment continues.
- 1320 Maintenance informs Control Room personnel that the stuck valve has been repaired. The Primary Operator starts Containment Spray Pump "A" and allows the valve to cycle open after its breaker is racked in. "A" Train CS flow increases to 4000 gpm and containment parameters subsequently indicate the beginning of a pressure reduction.
- 1325 Radiation monitor readings in containment suddenly begin soaring during the slow containment pressure decrease. It soon becomes evident that a loss of fuel cladding integrity has occurred. RU-148 increases to levels beyond 1200 R/hr within a few minutes.
- 1335 After validating the increased containment radiation readings with Control Room information, the EC escalates the emergency classification to a GE based on the loss of the third fission product barrier.
- 1400 A RAS occurs due to RWT level reaching 7.4%. After the automatic actions associated with the RAS have completed, the crew takes additional manual actions from the Control Room to isolate RWT suction and realign ECCS pump suction to the CTMT sump. When manual actions have been completed, the Primary Operator starts "A" Train ECCS pumps and continues core injection. RP begins efforts to identify and control areas of the plant requiring restricted access, due to elevated radiological readings occurring in these areas as a result of the RAS.
- 1515 Due to continuing CS operation, pressures in CTMT have now reached values < 5 psig. Maintenance may now have the ability to seal the containment penetration leak and terminate the release.
- 1530 Efforts may be started by the EOD to establish a recovery organization in accordance with EPIP-31, Recovery.
- 1540 Conclude event timeline.

II. REQUIRED SIMULATOR PREPARATION**A. Documentation:**

1. PVNGS C.R. Simulator-A: Unit 1 specific
2. Reference material(s): Unit 1 specific
3. Telephone/radio configurations: Unit 3 specific

B. Red Danger Tag(s) for the Following Equipment:

1. HS-10 (AFB-P01 Handswitch)
2. HS-30A (Discharge Throttle Valve HV-30)
3. HS-31A (Discharge Throttle Valve HV-31)

C. Special Procedure(s) / Equipment:

1. Updated Plant Status Boards
2. SIMS TSCCR on "B" Auxiliary Feedwater Pump (simulated)

D. Qualifications:

1. Simulator operations require PVNGS qualifications in knowledge and operation of the PVNGS Simulators. All functions which are required to effectively transform the contents of this document into a comprehensive Control Room scenario scheme may not be embodied within the document, nor can all possible contingent actions requested by performers be anticipated. It is imperative that the Simulator Operator(s) possess the capability to ensure valid Simulator functions are identified and entered into the computer system in a correct and timely manner upon the request for their related effects.

E. Special Instructions:

1. Ensure the Following:
 - a. Daily Operational Readiness Test (DORT) performed by Hardware Group
 - b. Operating System downloaded and uploaded (software clean-boot)
 - c. PMS computer and displays set up properly
 - d. RMS program running, if applicable
 - e. RMS Loops reinitialized, if appropriate
 - f. RMS printer ON, if applicable
 - g. STSC ERFDADS Printer(s) / Dose Projection Computer operational
 - h. Alarm and Log typers ON
 - i. Westronics recorders ON (B07)
 - j. Chart paper advanced on all recorders
 - k. Communications set up (telephone, headsets, radio, FAX)
 - l. All procedures up-to-date and available
 - m. Plant status boards updated
 - n. Flowcharts cleaned and positioned correctly
 - o. All required Operator Aids installed properly
 - p. Paper pads and pens available
 - q. CR/STSC Player attendance sheet(s) available
 - r. Simulator Operations Area logistics proper
 - s. All cameras functioning and directed properly, if appropriate
 - t. VCR and tape(s) ready, if applicable
 - u. Software and Hardware support personnel available for duration
 - v. All trash cans clean

III. SIMULATOR SETUP

A. Initial Condition

1. IC-20 (100% Full Power - 200 EFPD - Reduced T_H Program - 546 ppm B¹⁰)

B. Special Instructions

1. Engage INSTRUMENT NOISE ON

C. Confirm the Following Functions Are Entered to Ensure Setup:

1. [MALFUNCTIONS]

- a. [RP04B] (Reactor Trip Switchgear Breaker "B" Stuck)
- b. [RP04D] (Reactor Trip Switchgear Breaker "D" Stuck)
- c. [RD12B] (Bypass MG Set #2 Output Contactor)

2. [COMPONENT OVERRIDES]

a. MALFUNCTIONS

- | | | | |
|----|-----------------|----------|-------------------------------------|
| 1) | [MV06:SIAUV672] | | (Spray Valve SIA-UV-672 Stuck Shut) |
| 2) | [TR01:SQNRU16] | 5.30E+00 | (RU-16 Normal) |
| 3) | [TR01:SQARU150] | 2.30E+04 | (RU-150 Normal) |
| 4) | [TR01:SQBRU151] | 2.51E+04 | (RU-151 Normal) |

b. REMOTE FUNCTIONS

- | | | |
|-----|------------------------|--|
| 1) | [FP01 OFF] | (Stop Diesel Fire Pump "A") |
| 2) | [FP02 OFF] | (Stop Diesel Fire Pump "B") |
| 3) | [WD21 OPEN] | (Unisolate S/G-1 Abnormal Rate Blowdown) |
| 4) | [WD35 OPEN] | (Unisolate S/G-2 Abnormal Rate Blowdown) |
| 5) | [B202:AFBP01 RACK_OUT] | (Rack Out AFB-P01 Supply Breaker) |
| 6) | [B401:AFBHV30 OPEN] | (Open HV-30 Supply Breaker) |
| 7) | [B401:AFBHV31 OPEN] | (Open HV-31 Supply Breaker) |
| 8) | [EP05 240] | (Wind Direction) |
| 9) | [EP06 3] | (Wind Speed) |
| 10) | [EP07 77] | (Ambient Temperature) |
| 11) | [EP09 2.5] | (Δ Temperature) |

NOTE: Align S/G Blowdown for "Normal" from S/G-1 and "Abnormal" from S/G-2 after SWITCH-CHECK.

3. [ANNUNCIATORS]

a. NONE

4. [CAEP / TRIGGERS]

a. Assign Trigger File RXPWR25 to available trigger and link command IMF ED11C (PBB-S04 Normal Supply 86 Lockout)

b. Assign Trigger File RPSCHC to Trigger-1 and link the following commands:

- | | | | | | | |
|----|-------------------|----------|------|----------|-------|----------|
| 1) | mmf TR01:SQNRU16 | 8.50E+02 | 1:00 | 9.50E+02 | | |
| 2) | mmf TR01:SQNRU16 | none | 1:00 | 1.00E+03 | 60:00 | 8.50E+02 |
| 3) | mmf TR01:SQARU150 | 1.00E+03 | 3:00 | 2.30E+04 | | |
| 4) | mmf TR01:SQBRU151 | 1.00E+03 | 3:00 | 2.51E+04 | | |

D. Hang Red Danger Tag(s) on the Following Equipment:

1. HS-10 (Auxiliary Feedwater Pump AFB-P01 Handswitch - B06)
2. HS-30A (AFB-P01 Discharge Throttle Valve HV-30 - B06)
3. HS-31A (AFB-P01 Discharge Throttle Valve HV-31 - B06)

IV. BRIEFING

A. Review Simulator Rules with the Operators

1. The USNRC plans on having an examiner on the Simulator floor during the Emergency Preparedness Drill/Exercise whenever possible (based on available manpower). Their main function during the Drill/Exercise is to ensure the operating crew can implement the Emergency Plan satisfactorily. However, they cannot ignore any problems they observe during the Drill/Exercise. In the event that they should observe a performance problem, their expected action is to determine if this problem was uncovered by the evaluation team and, if so, what remedial action will be taken to correct the problem. If the NRC had discovered a performance problem and no subsequent training action had been taken, then they would have an issue with the training group and not with the operator. If an identified performance problem relates to a history of poor performance on an individual's or team's NRC Requalification Examination in regards to the same problem, then the NRC may take issue with the operator(s) and the training group. If performance problems do occur, the NRC will expect to see the utility take remedial actions to correct the problems.
2. The primary responsibility is to operate the Simulation Facility as if it were the plant.
3. In addition to exercising the PVNGS Emergency Plan, the following activities will be observed during the Drill/Exercise:
 - a. Teamwork / communications
 - b. Diagnostic skills
 - c. Procedure usage
 - d. Systems knowledge
 - e. Log-keeping
4. A rough log may be kept during the Drill/Exercise suitable to complete necessary formal log entries.
5. Designated support personnel will act as Auxiliary Operators, Radiation Protection and Chemistry Technicians, Maintenance Supervisors, Plant Management, etc.
6. A(n) Drill/Exercise Controller will provide a shift turnover before the Drill/Exercise begins. The shift turnover will include present plant conditions, power history, equipment out of service, abnormal conditions, surveillance(s) due, and instructions for the shift.
7. No control board switches will be purposely misaligned. Out-of-service equipment will be tagged or otherwise identified.

8. Restroom leaves are permitted provided they are performed in compliance with normal Control Room staffing requirements.
9. A briefing will now take place regarding logistical items of interest that pertain to this Drill/Exercise:
 - a) This Exercise comprises full activation of all onsite and offsite Emergency Response Facilities. All procedural actions should take place unless otherwise directed within this briefing.
 - b) The telephone system has been switched over such that all outgoing calls placed from the floor area will reach the prescribed areas as indicated on the Simulator telephone listing for Unit 3. When answering incoming calls, disregard the red LED display on the phones so equipped to display incoming numbers; they may not display the correct incoming number in all cases.
 - c) The green dedicated phone system is also live. Be aware that the phone at the RMS DCU will be answered by the RMS Technician at the DCU because physical location constraints prevent that person from operating from his (her) normally assigned area (i.e., Unit 3 Effluents Office).
 - d) If Assembly/Accountability is called, it will be totally simulated (i.e., no site-wide page, either simulated or not, will take place). Even a "simulated" A/A announcement causes confusion. Do not make any A/A related announcements or sound any signals.
 - e) If and when a site-wide page must be made regarding event classifications, be aware that it takes at least three (3) seconds for the system to activate (i.e., key the microphone and refrain from speaking for 3 seconds prior to making the announcement). Please speak slowly and clearly, as outside areas are prone to echo, which results in unintelligible statements heard at most outside locations.
 - f) The site-wide Exercise termination announcement should be made from the Simulator before the system is reconfigured to its prior status. The Simulator and each Control Room are the only areas from where the site-wide announcement can be made and reach all inside and outside locations.
 - g) If ERDS must be activated, be aware that the normal password is accepted by the system in the Simulator. However, since the Simulator ERDS does not transmit to USNRC Headquarters, an established link cannot occur. Thus, activation of ERDS from the Simulator can take place only up to the point where MODEM dialing would occur. If and when this point is reached, a facility Controller should be informed that a simulated activation has taken place.
 - h) The Blowdown constants for COLSS on the CMC and PMS terminals are correct for current blowdown rates, but may not have the ability to be changed for other blowdown lineups.

- i) Upon conclusion of shift turnover, the crew's Auxiliary Operators will be given time to proceed to their normal watch stations in Unit 3. The OSC Controllers will accompany them. Once there, they will each receive a radio to allow them normal communications means with the Simulator Control Room staff. Be aware that the AOs' radios, as well as the Simulator radio, will transmit and receive on Channel 3. However, should Unit 3 Operations require use of Channel 3, they must be given priority for any communications and we must refrain from use of that channel until Unit 3 Operations has concluded their communication transmissions.

NOTE: *Ensure copies of Step 9 Briefing Items are distributed within the Simulator for reference.*

10. If there are any questions concerning the administration of the Drill/Exercise, those questions should be asked prior to the start of the Drill/Exercise.

B. Assign Positions

1. The crew will assume positions as determined by a(n) Drill/Exercise Controller and/or crew supervision:
 - a. (SS) Shift Supervisor
 - b. (CRS) Control Room Supervisor
 - c. (PO) Primary Operator
 - d. (SO) Secondary Operator
 - e. (RO) 3rd Reactor Operator
 - f. (FTA) Fire Team Advisor (optional)
 - g. (STA) Shift Technical Advisor
2. Auxiliary Operators (AOs) will strategically place themselves in their assigned areas of responsibility. All other support personnel will assume their normal responsibilities within their respective assigned work areas.

V. CONTROLLER INFORMATION

A. Simulator Conditions:

1. The progress of this Drill/Exercise depends primarily on the competence and capabilities of the personnel involved with it and also depends, to some degree, on the dependability of the software and hardware associated with the Simulation Facility. If, through unforeseen circumstances, the Simulator should fail during the course of Drill/Exercise operations, execution of the Drill/Exercise may become hampered. In this case, the Drill/Exercise timeline may have to be suspended until such time that it may again proceed. Accordingly, a timeline adjustment will then be incorporated onto the time-dependent events remaining in the Drill/Exercise. If the Simulator catastrophically fails such that immediate repair or scenario recall is not feasible, then the Lead Controller will, at that time, make a decision regarding future progression of the remaining portions of the Drill/Exercise.

B. Scenario Guide Layout:

1. The following is a brief composite of the Scenario Guide column descriptions:

| | | |
|----|--------------------------|---|
| a. | <u>TIME:</u> | Signifies real time with no applied adjustment |
| b. | <u>SIM INSTRUCTIONS:</u> | Simulator Operator instructions |
| c. | <u>MSG:</u> | Message number correlated to Section 04 |
| d. | <u>VIA:</u> | Controller designator |
| e. | <u>TO:</u> | Player designator |
| f. | <u>EVENT SEQUENCE:</u> | Major events sequenced in chronological order |
| g. | <u>NOTES:</u> | Controller information and/or Simulator Operator instructions |

2. Message identifiers used throughout this Scenario Guide (Section 03) are organized by type. *Numeric*-identified messages are employed for normal occurrences within the Drill/Exercise and should be used to achieve desired results based on predictable scenario events. Note that these messages may not always be directed on the designated scenario timeline and may depend on event time variations. *Alpha*-identified messages are employed as contingencies such that the messages are delivered only when or if predictable events or results do not take place. Contingency messages are keyed to specific actions, not time frames. Thus, when specific actions for which a particular contingency message is based do not occur on the timeline, this message should be saved and used when and if it is required. This type of message is utilized to maintain the Drill/Exercise on its predetermined course and not on its predetermined timeline.

C. Attachments:

1. Attachment A: File 94-002-493, Conversation Memorandum (APS/NRR), 26JUL94 0840 MST

D. Scenario Guide Abbreviations and Acronyms:

| | | | |
|---------|---|-------|--|
| AO | Auxiliary Operator | PSIG | Pounds [per] Square Inch Gauge |
| C-n(x) | Controller identifier | PO | Primary Operator |
| CAS | Central Alarm Station | PZR | Pressurizer |
| CET | Core Exit Thermocouple | RAS | Recirculation Actuation Signal |
| CIAS | Containment Isolation Actuation Signal | RCA | Radiological Controlled Area |
| CP | Charging Pump | RCP | Reactor Coolant Pump |
| CR | Control Room | RCS | Reactor Coolant System |
| CRS | Control Room Supervisor | RFAT | Radiological Field Assessment Team |
| CTMT | Containment | RMS | Radiation Monitoring System |
| DG | Diesel Generator | RO | Reactor Operator |
| DNBR | Departure [from] Nucleate Boiling Ratio | RP | Radiation Protection |
| EC | Emergency Coordinator | RWT | Refueling Water Tank |
| ECCS | Emergency Core Cooling System | Rx | Reactor |
| EDG | Emergency Diesel Generator | SAE | Site Area Emergency |
| EHC | Electrohydraulic Control | SAS | Secondary Alarm Station |
| EMT | Emergency Medical Technician | SIAS | Safety Injection Actuation Signal |
| EOF | Emergency Operations Facility | SIT | Safety Injection Tank |
| ERFDADS | Emergency Response Facility Data Acquisition [and] Display System | SO | Secondary Operator |
| ESFAS | Engineered Safeguard Features Actuation System | SS | Shift Supervisor |
| FTA | Fire Team Advisor | STSC | Satellite Technical Support Center |
| GE | General Emergency | TSC | Technical Support Center |
| GPM | Gallons Per Minute | TSCCR | Technical Specification Component Condition Record |
| HJTC | Heated Junction Thermocouple | UJTC | Unheated Junction Thermocouple |
| HPSI | High Pressure Safety Injection | | |
| KV | Kilovolt | | |
| LC | Load Center | | |
| LCO | Limiting Condition [for] Operation | | |
| LO | Lockout | | |
| LOCA | Loss Of Coolant Accident | | |
| LPD | Local Power Density | | |
| LPSI | Low Pressure Safety Injection | | |
| MCC | Motor Control Center | | |
| MSIS | Main Steam Isolation Signal | | |
| MSIV | Main Steam Isolation Valve | | |
| MSLB | Main Steam Line Break | | |
| NUE | Notification [of] Unusual Event | | |
| OCS | Operations Computer Support | | |
| OSC | Operations Support Center | | |
| PASS | Post-Accident Sampling System | | |
| PSIA | Pounds [per] Square Inch Absolute | | |

NOTE: See Section 01, Step 1.4, for a complete listing of acronyms and abbreviations used throughout this manual.

VI. SHIFT TURNOVER

A. Plant/Site Conditions:

1. All 3 Palo Verde Units are operating at 100% full power. This unit has been at 100% power for the last 116 days.
2. Core age is 200 Effective Full Power Days (reference Unit 1 Cycle 4 Core Data Book). The Unit is operating with the reduced T_H program. RCS Boron concentration is 546 ppm per Chemistry sample.
3. AFB-P01 was tagged out 7 hours ago for inboard bearing replacement and is expected back for surveillance testing in approximately 18 hours. Technical Specification LCOs 3.7.1.2 and 3.3.3.5, Action Statements "a.", were entered and the pump declared INOPERABLE 7 hours ago. A TSCCR has been generated on SIMS.
4. Security has requested movement of the 16,000-pound "pillbox" presently located at the northwest corner of the Turbine Building to a new defensive position near the nitrogen tanks. Mechanical Maintenance personnel will be using a crane to do the move over the next few hours and will advise Operations when completed.
5. Water Reclamation has taken the 66" effluent feeder line from the Hassayampa Pumping Station out of service 4 hours ago to repair a leaking flange 2 miles east of the site. The line is expected back in service in approximately 26 hours. Water Rec will advise when repairs are completed.
6. ECC is planning to remove the Westwing-2 525 KV line from service within the next 6 hours and will call Unit 1 with preliminary action plans when they are ready to do so. A reactor bank located in the Westwing Switchyard must be replaced and the line is required to be de-energized for that operation. SRP will coordinate activities with APS personnel and Unit 1 Operations will inform the other Units prior to taking the line out of service.
7. S/G blowdown is currently aligned to the Blowdown Flash Tank for NORMAL rate from S/G-1 and ABNORMAL rate from S/G-2. They are due to be swapped at 1100. Both Abnormal Rate manual isolation valves are open and should remain open.
8. The normal, shiftly surveillance tests have been completed.
9. Operations Management has requested that 100% power operation be maintained.

B. Miscellaneous:

1. 20-25 minutes will be allowed for familiarization with the status and condition of the control boards and for the Auxiliary Operators to arrive on station in Unit 3 and assume their watch duties as part of the Drill/Exercise. Initial log entries may have been prepared by the Drill/Exercise Lead Controller or the crew may make the initial log entries for this shift.

NOTE: THE DRILL/EXERCISE TIMELINE BEGINS WHEN THE CREW ASSUMES WATCH DUTIES AND SHOULD OCCUR AT 0800. THE DRILL/EXERCISE LEAD CONTROLLER WILL ESTABLISH TIMELINE SYNCHRONIZATION WITH ALL DRILL/EXERCISE CONTROLLERS.

| TIME | SIM INSTRUCTIONS | MSG | VIA | TO | EVENT SEQUENCE | NOTES |
|------|------------------------|-----|-----|------|--|--|
| 0705 | *** SHIFT TURNOVER *** | 1 | C-1 | CREW | <p>The crew is informed of the Plant/Site Conditions as referenced in Section VI.A previous.</p> <p>Simulator rules and configuration aspects are covered and any questions are answered.</p> | <p>After shift turnover, 20-25 minutes will be allowed for familiarization with the status and condition of the control boards and for the Auxiliary Operators to arrive on station and assume their watch duties. If an initial log entry sheet has not been prepared for the crew, then they may prepare one. The Drill/Exercise Timeline will begin at 0800.</p> |
| 0725 | | 2 | C-1 | SS | <p>As Emergency Response Facilities become activated and manned during the course of this Drill/Exercise, the following information will be relayed to the managers and key players by the Shift Supervisor, as required:</p> <p>Although this entire Drill/Exercise is simulated as taking place in Unit 3, procedures applicable to the Simulator will be used IAW standard Simulator practices.</p> <p>All radiological information will be presented via the Control Room PDP-11 RMS DCU minicomputer, unless otherwise annotated.</p> | <p>The Shift Supervisor (SS) should review plant conditions, brief the crew, and have the operators walk down their respective areas of responsibility.</p> <p>The operators may, at this time, make the initial log entries for their shift and review the plant status boards.</p> <p>Refer to Section 12 for data associated with malfunctioning equipment.</p> <p>All Controllers should ensure that facility managers are acquainted with the initial Scenario Plant/Site Conditions.</p> |
| 0800 | *** BEGIN TIMELINE *** | *** | *** | *** | *** BEGIN TIMELINE *** | *** BEGIN TIMELINE *** |

| TIME | SIM INSTRUCTIONS | MSG | VIA | TO | EVENT SEQUENCE | NOTES |
|------|---|------------------|---------------------|----------------|--|---|
| 0800 | <u>ENSURE SIMULATOR SETUP</u> | | | | | Double-check Simulator setup requirements to ensure all aspects are verified. |
| 0800 | [CAE] weather | | | | The Control Room crew assumes shift watch duties and responsibilities. | |
| 0808 | [MALF] TH07 25 [CAE] rmsloca35 (LOCA-Small Break) | rx mms aaa | C-1b C-1b C-2 | SS EC EC | An RCS leak begins on a sensing line for the S/G-2 DP Transmitter. | The RCS leak starts instantaneously at 32 gpm. NOTE: Applicable Controllers should review instructions for Contingency Messages -rx, -mms, and -aaa. |
| 0809 | | | | | Operators notice PMS annunciation for low DPs on the affected transmitter. | At this time, no control board annunciation is received at the current leak rate. PMS Annunciation: CORE DP LOOP 2B CORE DP LOOP 2A |
| 0810 | | | | | The PO notices letdown flow decreasing and attempts to determine the reason for the abnormality. A B07 multipoint recorder denotes increasing CTMT humidity. | Recorder 1JRMNTJR1: (Pl. 17) S/G-1 100' CTMT HUMIDITY |
| 0815 | | | | | The crew enters 41AO-1ZZ14, Excessive RCS Leakrate, and begins a 15-minute RCS leak rate determination. | The plant is stabilized for the calculation and the crew ensures that both RCS sampling and VCT makeup do not occur. The PO may have isolated letdown prior to the start of the 15-minute time period and entered 41AO-1ZZ37, Extended Loss of Letdown. |

| TIME | SIM INSTRUCTIONS | MSG | VIA | TO | EVENT SEQUENCE | NOTES |
|------|------------------|-----|------|-----|--|---|
| 0820 | | A | C-1c | SSM | The SS notifies the Site Shift Manager (SSM) or Operations representative of the situation and both discuss the impending required plant shutdown. | MSG-A will provide the SSM or Operations representative direction from which to proceed with the discussion. The MSG delineates a 1-hour plant shutdown per 41AO-1ZZ56, Rapid Shutdown. The MSG should be provided only if and when a plant shutdown is discussed. |
| 0825 | | B | C-3 | RP | The SS notifies RP to discuss the possibility of sending a team into CTMT to locate the source of the RCS leak. | MSG-B will provide the RP representative direction from which to proceed with the discussion. The MSG delineates advisement against sending a team into CTMT based on radiological conditions within CTMT at the present time. The MSG should be provided only if RP had been contacted and when current CTMT radiological conditions are understood. |
| 0834 | | | | | The PO has finished the 15-minute RCS leak rate determination and has calculated ≈ 32 gpm leakage. | Due to variations involving minor plant deviations in particular parameters, the calculation may yield values within a range of 32 ± 5 gpm. |
| 0835 | | | | | The SS enters Technical Specification LCO Action Statement(s) for RCS Leakage [and] PZR level (if letdown had been isolated). | Applicable T.S. LCOs: 3.4.3.1 PZR LEVEL 3.4.5.2 RCS LEAKAGE |
| 0837 | | C | C-1b | CRS | | MSG-C will provide the CRS information pertaining to the RCS leak rate calculation only if the PO's calculation results did not reasonably fall within the prescribed range or if the calculation did not take place. |
| 0839 | | | | | The SS enters the Emergency Plan and classifies the event as an <u>NUE</u> based on unidentified RCS Leakage in excess of 10 gpm. | If the SS bases his emergency classification on identified RCS leakage in excess of 25 gpm, his justification should be noted and discussed in the facility critique when the Exercise is terminated. |

| TIME | SIM INSTRUCTIONS | MSG | VIA | TO | EVENT SEQUENCE | NOTES |
|------|---|-----|------|----|---|---|
| 0845 | | D | C-1b | SS | | MSG-D will provide the SS emergency classification criteria on which to base his judgment to classify the event as an <u>NUE</u> . The MSG should be provided only if the SS has classified the event erroneously or presents no appearance of classifying the event. The Exercise Lead Controller will prescribe the use of MSG-D. |
| 0848 | | | C-1d | | Due to temporary NAN unavailability, offsite agencies are notified of the <u>NUE</u> via the NAN Backup (radio). | Telecommunications personnel are notified. NOTE: C-1d will note the NAN out-of-service. |
| 0850 | | | | | The CRS holds a crew briefing to discuss plans and contingencies for the plant shutdown. Support staff is notified of the shutdown. | |
| 0857 | | | | | The crew commences shutdown of the plant. The PO begins borating the RCS and the SO will maintain RCS temperatures by adjusting turbine load accordingly. | The PO should start the boration at 35-45 gpm. The PO will commence reducing turbine load about 4 minutes later. Calculations should reference 2845 gallons of borated water required to shutdown, negating the effects of Xenon. |
| 0907 | [MALF] TH07 50 [CAE] rmsioca70 (LOCA-Small Break) | | | | The RCS leak rate escalates during the plant shutdown. Operators notice the problem by observing PZR level changes and PMS displays. | RCS leakage increases to 65 gpm. Due to the location of the leak, RPS Channel-A for "LO RC FLOW SG 2" will trip. The crew will place the affected channel in BYPASS and the SS will enter T.S. LCO 3.3.1 Action 2. |
| 0912 | | | | | CTMT sump level alarms are acknowledged on B07. CTMT Sump Excessive Leakage is indicated. | The crew should determine that RCS leakage has increased. Analyses of plant indications and diagnoses of conditions should prompt the SS to consider re-entry into EPIP-02, Emergency Classification, after an estimated leak rate has been recalculated by the PO. |

| TIME | SIM INSTRUCTIONS | MSG | VIA | TO | EVENT SEQUENCE | NOTES |
|------|--|-----|------|----|---|---|
| 0927 | | | | | The SS upgrades the event classification to an <u>ALERT</u> per EPIP-02, Emergency Classification, based on RCS leakage in excess of 44 gpm, as delineated in Table-1, Fission Product Barrier Reference. | With RCS leakage at 65 gpm, the crew may have increased their power reduction rate. The SS may notify his superiors of the degrading plant conditions and will request to be relieved as the EC by an unaffected Unit SS or by another EC-qualified individual. |
| 0933 | | E | C-1b | SS | | MSG-E will provide the SS emergency classification criteria on which to base his judgment to upgrade the event to an <u>ALERT</u> . The MSG should be provided only if the SS has upgraded the event erroneously or presents no appearance of upgrading the event. The Exercise Lead Controller will prescribe the use of MSG-E. |
| 0945 | | | | | Offsite agencies are notified of the <u>ALERT</u> Classification via the NAN by the STSC Communicator. | Onsite and Offsite Emergency Response Organizations will be activated. Emergency Response Facilities will be fully staffed and activated within the time frames specified in the PVNGS Emergency Plan. |
| 0949 | [REM FNC] TP17 90 (Adjust MFWP A L.O. Temperature Controller) [REM FNC] TP18 90 (Adjust MFWP B L.O. Temperature Controller) | | | | The crew continues shutting down the plant. CEA positions are being monitored per the Core Operating Limits Report. Meanwhile, CTMT parameters continue to degrade. | Reactor power reaches 40%. The Reactor Power Cutback System has been removed from service and house loads are being (or have been) transferred to the Startup Transformers. One Main Feedwater Pump should have been shut down and MFWP L.O. temperature controllers are adjusted for 90°F. The operators begin removing Cooling Tower fans from service as required. |
| 0955 | | | | | Due to degrading parameters, the crew discusses tripping the reactor. | Plant power reaches 35%. CTMT pressure may reach 2 psig and will continue to increase. |

| TIME | SIM INSTRUCTIONS | MSG | VIA | TO | EVENT SEQUENCE | NOTES |
|------|------------------|-----|------|------------|---|---|
| 0958 | | | | | After a brief tailboard discussion, the crew attempts a manual reactor trip and manual SIAS and CIAS actuations. | Due to rising CTMT pressure, the crew may decide to trip the reactor and manually initiate SIAS and CIAS actuations to place the plant into a safer Mode 3 condition. |
| 0958 | | | | | The crew observes that the reactor trip pushbuttons on B05 are ineffective in causing the reactor to trip. The PO is directed to open L03 and L10 Load Center supply breakers on B01. | The PO is successful in de-energizing the CEDMCS Bus. All CEAs insert to bring the reactor subcritical. Subsequently, the crew manually initiates SIAS and CIAS actuations. |
| 0958 | | | | | The operators observe that 4.16 KV Class Bus PBB-S04 de-energizes when the reactor is tripped. <u>NOTE:</u> This event may occur prior to the reactor trip at 25% power or concurrent with the reactor trip. | Note that [MALF] ED11C was triggered to insert at 25% reactor power. (See Simulator Setup, Step III.C.4.a, for details.) An operator may also remind the crew that since PBB-S04 lost power at the time of the trip, one valve for each CTMT penetration may not have closed with the CIAS actuation. |
| 0959 | | | | | The crew enters 41EP-1EO01, Emergency Operations. The board operators maintain safety functions and the CPS enters the Safety Function Flowchart. | Based on CTMT or PZR parameters, the CRS should diagnose a LOCA. However, he may also diagnose a Reactor Trip if conditions are such that CTMT parameters do not direct him into the appropriate flowpath within the chart. |
| 1000 | | | | | The SS directs an AO to respond to the loss of power at PBB-S04 and to check the running diesel generator. | The SS may remind the AO about the 15-minute time requirement to "Emergency Stop" the diesel generator which is running without a cooling water |
| 1003 | | 3 | C-3a | AO ELEC | The AO reports that 4.16 KV Breaker PBB-S04K appears to be destroyed and that evidence of charring exists on the breaker cubicle door. (S)he reports that "B" DG is running fine. | MSG-3 will provide AO information on which to base his report to the Control Room. The MSG should be provided only if the AO / ELEC responds to the correct location(s) and takes the proper actions to earn the information. |

| TIME | SIM INSTRUCTIONS | MSG | VIA | TO | EVENT SEQUENCE | NOTES |
|------|--|-----|-----|----|---|--|
| 1004 | | | | | The CRS diagnoses a LOCA condition and directs the crew to enter 41EP-1RO02, Loss of Coolant Accident. | If a Reactor Trip was diagnosed by the CRS, major elements within that procedure will not adversely affect the sequence of actions in the remainder of the scenario. |
| 1006 | | | | | The SS/EC reviews EPIP-02 for criteria related to an ATWS condition. | If it is clear to the crew that no automatic reactor trip setpoints had been met or exceeded prior to reactor shutdown, the trip event does not qualify as an ATWS event. (See Attachment-1, Conversation Memorandum, File 94-002-493 APS/NRR, for details.) However, use of ATWS classification criteria for this circumstance will not affect the current <u>ALERT</u> Classification, but should be noted by a Controller and discussed in the facility critique following termination of the Exercise. |
| 1013 | [REM FNC] EG21 STOP (Emergency Stop DG "B") | | | | The AO is directed to "Emergency Stop" Diesel Generator "B". | If the time limitation for securing the diesel generator was exceeded, the fact should be recorded and discussed in the facility critique when the Exercise is terminated. |
| 1016 | | | | | If not manually actuated previously, an automatic MSIS occurs due to CTMT pressure reaching 3 psig. | The slow CTMT pressure increase is due to the RCS inventory leak into CTMT. |
| 1028 | [REM FNC] CH05 ACKNOWLEDGE (Common TRBL Alarm Reset - "A" H ₂ Monitor) | | | | An AO is directed to reset the "A" H ₂ Monitor "Common TRBL" Alarm. | This action may not occur at the specified time and is dependent upon the pace in procedure usage by the crew. |
| 1029 | | | | | The crew commences a plant cool-down at < 100°F/hour as directed by procedure, with a goal of reaching 338°F T _C , at which time the Shutdown Cooling System can be placed into operation. | 338°F T _C is the maximum temperature allowed by procedure to place the SDC System into service. Depending upon the TSC EC direction, the goal may be modified to a lower RCS temperature prior to placing the system into service. |

| TIME | SIM INSTRUCTIONS | MSG | VIA | TO | EVENT SEQUENCE | NOTES |
|------|--|-----|-----|----|--|---|
| 1030 | [REM FNC] ED72 OVERRIDE_CLS [REM FNC] ED74 OVERRIDE_CLS [REM FNC] ED76 OVERRIDE_CLS (Re-energize M19, M71, and QBN-D91, respectively) | | | | An AO is directed to re-energize non-Class load-shed Motor Control Centers M19 and M71 and Essential Lighting Panel QBN-D91. | Note that "B" Train equipment cannot be re-energized due to the loss of power to PBB-S04. The Simulator Operator should allow ½ -1 minute between each subsequent breaker closure. |
| 1045 | [REM FNC] MS25 100 [REM FNC] MS24 ON [MALF] AV02:ASNPV5A [MALF] AV02:ASNPV5B [MALF] AV02:ASNPV6 (Align Auxiliary Steam) | | | | The operators continue with the plant cooldown. Startup detectors are energized, auxiliary steam is cross-tied, and reactor coolant pumps are secured as required. | At this time, the plant cooldown is proceeding as expected. Onsite and offsite Emergency Response Facilities have been activated and Emergency Response Organization staffing has been achieved. |
| 1114 | [MALF] TH01D 10 [CAE] rmsloca8000 (LOCA-Loop 2B Cold Leg) | | | | RCS pressure suddenly decreases as the RCS leak becomes much larger. It is apparent to the crew that stable plant cooldown conditions no longer exist. | SITs inject within several minutes as RCS pressure decreases through 600 psia. ESFAS actuations include CSAS as CTMT pressure increases above the 8.5 psig CSAS setpoint. CTMT radiation monitor readings escalate. |
| 1116 | | | | | The crew notices that no CTMT Spray flow exists. The SO is directed to manually reinitiate CSAS actuations. | The PO may diagnose the problem and notice that SIA-UV-672 is shut. |
| 1116 | | | | | The operators notice SIA-UV-672, "A" Train CS discharge header isolation valve, is shut. The PO is directed to open the valve. | Note that [MALF] MV06:SIAUV672 was entered at Simulator Setup. (See Simulator Setup, Step I.I.C.2.a.1, for details.) The valve will not move from its shut position. With "B" Train Class power lost and SIA-UV-672 stuck shut, no CTMT Spray is available. CTMT pressure increases to 35 psig. |
| 1117 | | | | | The CRS enters 41EP-1RO08, Functional Recovery (via SFFC), due to loss of the CTMT Integrity Safety Function. All RCPs are secured. | The procedure directs actions aimed at recovering the lost safety function and may hold procedure progression until recovery. Meanwhile, an AO is dispatched to check the status of SIA-UV-672. |

| TIME | SIM INSTRUCTIONS | MSG | VIA | TO | EVENT SEQUENCE | NOTES |
|------|------------------|-----|------|------|--|---|
| 1120 | | F | C-2 | EC | The EC reviews EPIP-02 for criteria which has potential for upgrading the current event classification. | If reactor vessel outlet plenum voiding is indicated < 21% or if the EC believes that a loss of the CTMT barrier is indicated, (s)he may wish to escalate the event classification to an <u>SAE</u> based on impact to 2 fission product barriers. However, MSG-F will provide the EC emergency classification information on which to base his judgment to maintain the current event classification at an <u>ALERT</u> . Since plenum voiding below 21% may occur, it will recover shortly and the transition into an upgraded event classification for the short time period should be treated as a transitory event and offsite agencies notified accordingly. A potential loss of CTMT exists, but procedure logics do not allow escalation of the emergency classification level based on the current plant conditions. The MSG should be provided only if the EC has prematurely decided to upgrade the event or presents no appearance of maintaining the current event classification. The Exercise Lead Controller will prescribe the use of MSG-F. |
| 1121 | | 4 | C-3b | MECH | The Control Room crew receives a call stating that the crane operator working on the concrete "pillbox" relocation effort has accidentally swung the crane boom in the wrong direction and hit the side of CTMT with the boom. | The crane operator states that the "pillbox" broke from the cable after contacting the CTMT side and fell some 45 feet onto a large pipe protruding out from the CTMT wall near the equipment hatch. He thinks he broke the pipe, since smoke or steam is now billowing from the penetration and making a very loud hissing noise. He says he has vacated the area and is calling from the 100' elevation in the Corridor Building. |
| 1121 | | | | | A radiological release to the environment begins through the broken weld seam around the CTMT penetration. With pressure in CTMT at 30-40 psig, sufficient motive force exists to cause a substantial radioactive release. | At current meteorological parameters of 290° wind direction and 3-5 mph wind speed, the radioactive plume is directed at the CTMT wall, where it is uplifted over CTMT and carried offsite past the Administration Building Complex and the EIC. |

| TIME | SIM INSTRUCTIONS | MSG | VIA | TO | EVENT SEQUENCE | NOTES |
|------|---|-----|------|--------------------|---|---|
| 1123 | | | | | An AO is directed to investigate the call (via the OSC) and report back. | OSC personnel may not allow exit to the north side of the plant due to radiological concerns. |
| 1125 | | G | C-3a | AO | | <p>An unproceduralized method exists to cross-connect the "A" Train CS Pump to the "B" Train spray header using the following valve lineup:</p> <p style="text-align: right;"> SIA-HV-657 CLOSE SIA-HV-686 OPEN SI-V460 OPEN SI-V464 OPEN SIB-HV-696 OPEN SIB-HV-695 OPEN SIB-UV-671 OPEN </p> <p>Incorporation of this valve lineup would not allow successful completion of the scenario objectives. While this method may result in the ability to successfully regain the Loss of CTMT Integrity Safety Function, MSG-G is employed to prevent success of the cross-connected CTMT Spray System valve lineup. MSG-G should be provided only if actions to cross-connect the 2 Spray Systems by this method have begun. The valve lineup methodology employed, however, should be recorded and discussed as an innovative approach in the facility critique when the Exercise is terminated. Note that this action may not occur at the specified time and is dependent upon the pace in procedure usage by the crew.</p> |
| 1127 | [REM FNC] B401:SIAUV672 OPEN (Breaker for SIA-UV-672) | 5 | C-3d | AO MECH ELEC | The AO reports that CTMT Spray Valve SIA-UV-672 is indeed stuck shut. (The crew may have the valve power supply removed in preparation for electrical maintenance.) | The valve motor operator housing is dripping with oil and appears damaged. The Controller should use MSG-5 for delivery to whoever is dispatched to check the valve. The Facility Lead Controller should be contacted if questions arise. |

| TIME | SIM INSTRUCTIONS | MSG | VIA | TO | EVENT SEQUENCE | NOTES |
|------|---|-----|------|----|--|--|
| 1133 | | 6 | C-3b | AO | The AO calls Control Room operators and substantiates the Maintenance individual's report concerning the "pillbox" accident. | This action is contingent on RP personnel decisions regarding access to the north side of CTMT. MSG-6 should not be used if OSC personnel deny access to the north side of CTMT to assess damages. Radiological concerns will drive the decision. However, the Controller should use MSG-6 for delivery to whoever is allowed access to the area to report damages. |
| 1134 | | | | | The EC reviews EPIP-02 for criteria which has potential for upgrading the current event classification. The EC upgrades the event classification to an SAE per EPIP-02, Emergency Classification, based on loss of both the RCS and CTMT Barriers, as delineated in Table-1, Fission Product Barrier Reference. | Even though no distinct CTMT Barrier EAL is specified for this condition, a true loss of CTMT exists. The EC should use EAL [V-24] as justification for the SAE upgrade. Offsite agencies must be notified within 15 minutes of the upgraded classification. |
| 1141 | [MALF] TR01:SQBRU151 <i>{Delete}</i> [MALF] TR01:SQBRU149 <i>{Delete}</i> (Allow de-energization of RU-151 and RU-149 upon loss of M42) | | | | DC Electrical Bus M42 is lost as its battery voltage degrades to a point where it can no longer support loads. | Numerous alarms annunciate and all Channel "B" indications are lost in the Control Room as the bus is de-energized. |
| 1142 | | | | | DC Electrical Bus M44 is lost as its battery voltage degrades to a point where it can no longer support loads. Full ESFAS actuations occur due to the loss of both "B" Train channels. NOTE: If Channel B parameters were previously placed into BYPASS, then full ESFAS actuations will not occur with the loss of M44. | More alarms annunciate and Channel "D" indications are lost in the Control Room as the bus is de-energized. RAS must be overridden and the "A" Train ECCS pumps realigned to allow RCS injection to continue. At this time, the crew may enter 41AO-1ZZ32, Inadvertent AFAS, to apply corrective actions. They may also enter App. "L" of the EOP for RAS verification. NOTE: Loss of "B" Train DC electrical buses may not occur at the prescribed times and is dependent on bus loading. |

| TIME | SIM INSTRUCTIONS | MSG | VIA | TO | EVENT SEQUENCE | NOTES |
|------|------------------|-----|-----|----|--|---|
| 1144 | | H | C-2 | EC | | MSG-H will provide the EC emergency classification criteria on which to base his judgment to upgrade the event to an <u>SAE</u> . The MSG should be provided only if the EC has upgraded the event erroneously or presents no appearance of upgrading the event. The Exercise Lead Controller will prescribe the use of MSG-H. |
| 1145 | | | | | Since Site Assembly / Accountability is mandatory at the <u>SAE</u> classification level, the EC requests that A/A take place at this time, unless requested previously. | This event shall be totally simulated. The Controller should record the time and reason and discuss A/A in the facility critique which follows the Exercise. (See Item IV.A.9.d for details.) The Controller should not allow the EC to sound the A/A signal or call Security for A/A. |
| 1200 | | | | | In lieu of attempting repairs to the offsite radioactive release CTMT penetration point, repairs to Spray Valve SIA-UV-672 have been raised to the highest priority. With an offsite radioactive release occurring and CTMT maintaining pressures in excess of the CTMT spray setpoint, it is imperative that the valve gets repaired as soon as possible. | Based on reports to the Control Room regarding the location of the "pillbox" and its position against the CTMT penetration piping, all efforts to attempt removal of the "pillbox" and subsequent repairs to the damaged CTMT penetration piping should have been abandoned. However, if attempts to remove the "pillbox" with a second crane are successful, it will become apparent that the penetration cannot be repaired from a position outside CTMT, nor can the CTMT leak be patched. Given the size of the penetration envelope and CTMT pressure in excess of 8.5 psig, a patch would be required to withstand a minimum pressure of 5,000 pounds of force. |
| 1230 | | | | | The RWT continues to be pumped down. At the present rate of RWT decrease, SIA-UV-672 must be repaired within the next 1½ hours. After a RAS occurs, the 88' West Penetration Room may become uninhabitable due to high radiation levels. | After a RAS and recirculation realignment takes place, radiation levels may increase in the West Penetration Room. Subsequently, RP may prohibit entry into that area and repairs to the affected valve could not take place. |

| TIME | SIM INSTRUCTIONS | MSG | VIA | TO | EVENT SEQUENCE | NOTES |
|------|--|-----|------|--------------|--|---|
| 1300 | | | | | The offsite radioactive release to the environment continues. Field team monitoring of the radioactive plume continues to provide data for both onsite and offsite dose assessment activities. | The release will continue until Valve SIA-UV-672 is repaired and CTMT Spray is started and allowed to depressurize CTMT. With only 1 train of CTMT Spray available, it will take 1½ - 2½ hours to effectively lower CTMT pressure to < 5 psig. However, the release could not be terminated until CTMT pressure is decreased to atmospheric and/or the affected CTMT penetration is sealed. Entry into CTMT and repair of the penetration would be encompassed under long-term recovery efforts. Maintenance personnel should not attempt repairs to seal the penetration from outside CTMT at this time. |
| 1320 | [MALF] MV06:SIAUV672 (Delete) (Spray Valve SIA-UV-672 Stuck) [REM FNC] B401:SIAUV672 CLOSE (Breaker for SIA-UV-672) | 7 | C-3d | MECH ELEC | Maintenance informs Operations that SIA-UV-672 has been repaired. | MSG-7 states that valve repairs are complete and personnel await valve motor re-energization. NOTE: The valve will automatically cycle open upon re-energization. |
| 1321 | | | | | The PO starts CS Pump "A" and cycles the valve open after its breaker is racked in. "A" Train CS flow increases to 4000 gpm and CTMT parameters may indicate the beginning of a pressure reduction. | Availability of only 1 train of CTMT Spray will hamper and prolong the pressure decrease in CTMT. The rate of decrease is further restricted by increased temperatures of CTMT structures (i.e., 200-300°F). |
| 1325 | [MALF] TH05 0->10=120 sec [CAE] rmsafuelfail (Fuel Pins Rupture) | | | | Radiation monitor readings in CTMT suddenly begin soaring during the slow CTMT pressure decrease. It soon becomes evident that a loss of fuel cladding integrity has occurred. RU-148 increases to levels beyond 1200 R/hr within a few minutes. | With a radioactive release to the environment in progress, the sudden release of activity into the CTMT atmosphere will eventually drive Site Boundary dose rates to levels approaching GE thresholds. Dose projections may produce results mandating changes to protective action recommendations made to the state. |

| TIME | SIM INSTRUCTIONS | MSG | VIA | TO | EVENT SEQUENCE | NOTES |
|------|---|-----|-----|----|--|--|
| 1335 | | | | | After validating the increased CTMT radiation readings with Control Room information, the EC escalates the emergency classification to a <u>GE</u> based on the loss of the third fission product barrier. | The elevated RU-148 reading(s) constitute a loss of the Fuel Clad Barrier. The EC should base his upgrade to the current emergency classification level on the status of all 3 fission product barriers. The RCS barrier has been lost with the LOCA and the CTMT barrier was lost when the "pillbox" fell onto the ILRT piping at CTMT Penetration 58. These 2 barrier losses, coupled with radiation readings in CTMT which surpass the thresholds that constitute a loss of that barrier, together indicate a loss of all 3 fission product barriers. Offsite agencies should be informed of the basis for the <u>GE</u> when they are notified of the upgrade to the emergency classification. |
| 1345 | | I | C-2 | EC | | MSG-I will provide the EC emergency classification criteria on which to base his judgment to upgrade the event to a <u>GE</u> . The MSG should be provided only if the EC has not upgraded the event or presents no appearance of upgrading the event. The Exercise Lead Controller will prescribe the use of MSG-I. |
| 1400 | [MALF] TR01:SQNRU9 7.90E-06 (RU-09 RMS Response) | | | | A RAS occurs due to RWT level reaching 7.4%. After the automatic actions associated with the RAS have completed, the crew must take additional manual actions from the Control Room to isolate RWT suction and realign ECCS pump suction to the CTMT sump. When manual actions have been completed, the PO starts "A" Train ECCS pumps to continue core injection. | After a RAS has occurred, radiation levels in certain areas of the Auxiliary Building and West Penetration Rooms may increase due to CTMT sump volume supplying ECCS pump suction. The water is cooled and pumped back into the RCS. Note that the time at which the RAS occurs is dependent on varying ECCS pump flows over the past several hours and may occur up to ½ hour before or after the prescribed time. |

| TIME | SIM INSTRUCTIONS | MSG | VIA | TO | EVENT SEQUENCE | NOTES |
|------|---------------------------|-----|-----|-----|--|--|
| 1430 | | | | | Efforts continue to decrease CTMT pressure. Offsite agencies work to support the state's Protective Action Decisions which are based on the <u>GE</u> . | Offsite agencies are taking measures to protect the health and safety of the public within the site's 10-mile EPZ. Since the time of the RAS, RP has been working to identify and control areas of the plant requiring restricted access. ERO personnel continue to address those areas requiring their attention. Under current plant conditions, ERO personnel should have the knowledge and ability to project the time remaining to consider the release terminated. The objective to support this goal may encompass time estimatiions to reduce CTMT pressure to a value where the affected CTMT penetration release point can be secured from outside CTMT with a patch. Further core cooling will reduce the amount of decay heat to a point where the effects of steam production would be negligible. Entry into CTMT to subsequently repair the penetration may not occur until weeks into the long-term recovery effort. |
| 1515 | | | | | Due to continuing CS operation, pressures in CTMT have now reached values < 5 psig. | ERO personnel may want to patch the damaged CTMT penetration at this time. Controllers should note all ideas presented and address them in the facility critique after the Exercise has been terminated. |
| 1530 | | | | | With the radioactive release to the environment terminated, efforts may be started by the EOD to establish a recovery organization in accordance with EPIP-31, Recovery. | This entry is contingent on many factors and may not occur at the prescribed time. Depending on Exercise limitations and logistical elements of the scenario, this item may not occur at all. |
| 1540 | *** CONCLUDE TIMELINE *** | *** | *** | *** | *** CONCLUDE TIMELINE *** | *** CONCLUDE TIMELINE *** |

CONVERSATION MEMORANDUM

FILE NO.: 94-002-493

TELEPHONE

OFFICE VISIT

MEETING

DATE: 26 JUL 94

TIME: 0840 MST

PREPARED BY: CERKAS

DISTRIBUTION

| | | | |
|----------------------|-------------------|-------------|-------|
| <u>MARK SHARP</u> | <u>TOM BARSUK</u> | <u>FILE</u> | _____ |
| <u>MIKE BAUGHMAN</u> | <u>BILL IDE</u> | _____ | _____ |
| <u>HARRY BIELING</u> | <u>DAVE BURNS</u> | _____ | _____ |

PARTICIPANTS (Name/Company)

USNRC - Office of Nuclear Reactor Regulation (Dan Bross)

APS - PVNGS (Harry Cerkas)

SUBJECT

ATWS - conservatism / DE-I¹³¹ assumptions

SUMMARY

(see attached)

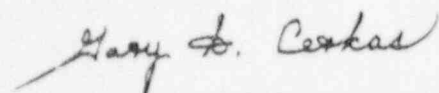
TELECOMMUNICATIONS ATTACHMENT

Date: 26 JUL 94 - 0840 MST

Participants: USNRC, Office of Nuclear Reactor Regulation (NRR) Dan Barss
APS - PVNGS Emergency Planning Gary Cerkas

On THU 21 JUL 94, a call was placed by Tom Barsuk and myself to Dan Barss, NRR - Rockville MD requesting clarification of Emergency Action Levels (EALs) relating to ATWS and Dose Equivalence I¹³¹ and the effects on emergency declarations under specific circumstances. Reply was received from Dan Barss, NRR at 0840 MST on TUE 26 JUL 94.

- (1) An ALERT should be declared when a Reactor Protection System (RPS) automatic trip setpoint has been met or exceeded and the reactor must be shut down under manual actions from the Control Room. If manual actions from the Control Room are unsuccessful to shut down the reactor and actions from outside the Control Room must be taken, then a Site Area Emergency (SAE) declaration is warranted. If manual Control Room actions are successful, but it is not readily known if an automatic trip setpoint was met or exceeded during the time frame when manual actions were being taken, then a conservative ALERT should be declared. If it is known that no automatic trip setpoints were met or exceeded prior to manual shutdown of the reactor, then no emergency classification declaration is warranted. The basis for declaring no emergency under this latter condition is that state response is not required, nor recommended, when no Limiting Safety System Setting (LSSS), corresponding to any RPS automatic trip setpoint, was met or exceeded. It is highly unlikely that fuel cladding was jeopardized if no automatic trip setpoints were reached.
- (2) When an Anticipated Transient Without Scram (ATWS) occurs, an assumption should not be made that Dose Equivalence I¹³¹ is greater than 300 $\mu\text{Ci/gm}$. The EPIP-02, Table 1 Fission Product Barrier (FPB) Reference EAL for Reactor Coolant System (RCS) activity (Fuel Clad Barrier - "Loss" Column) is not automatically applicable in an ATWS condition. An RCS Chemistry sample is normally requested to *verify* that no clad damage took place. An emergency declaration should be made if an automatic trip setpoint was reached in an ATWS event and should not be terminated until the Chemistry sample verifies that no fuel clad damage occurred. The only time the Table 1 EAL regarding RCS activity should be applicable is when Dose Equivalence I¹³¹ is *verified* to be greater than 300 $\mu\text{Ci/gm}$, and not on an assumption made in an ATWS condition.



Gary A. Cerkas - PVNGS Emergency Planning Onsite

EXERCISE 95-E-AEV-04002

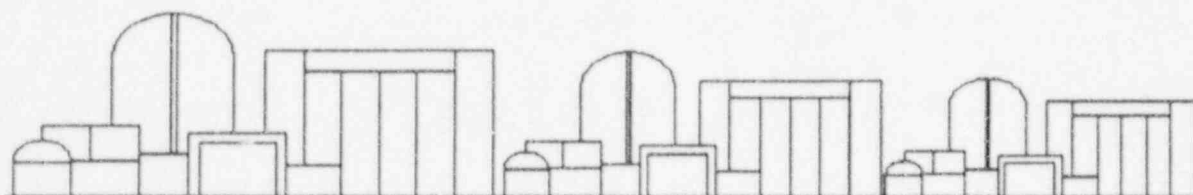
BRIEFING ITEMS

- 1) This Exercise comprises full activation of all onsite and offsite Emergency Response Facilities. All procedural actions should take place unless otherwise directed within this briefing.
- 2) The telephone system has been switched over such that all outgoing calls placed from the floor area will reach the prescribed areas as indicated on the Simulator telephone listing for Unit 3. When answering incoming calls, disregard the red LED display on the phones so equipped to display incoming numbers; they may not display the correct incoming number in all cases.
- 3) The green dedicated phone system is also live. Be aware that the phone at the RMS DCU will be answered by the RMS Technician at the DCU because physical location constraints prevent that person from operating from his (her) normally assigned area (i.e., Unit 3 Effluents Office).
- 4) If Assembly/Accountability is called, it will be totally simulated (i.e., no site-wide page, either simulated or not, will take place). Even a "simulated" A/A announcement causes confusion. Do not make any A/A related announcements or sound any signals.
- 5) If and when a site-wide page must be made regarding event classifications, be aware that it takes at least three (3) seconds for the system to activate (i.e., key the microphone and refrain from speaking for 3 seconds prior to making the announcement). Please speak slowly and clearly, as outside areas are prone to echo, which results in unintelligible statements heard at most outside locations.
- 6) The site-wide Exercise termination announcement should be made from the Simulator before the system is reconfigured to its prior status. The Simulator and each Control Room are the only areas from where the site-wide announcement can be made and reach all inside and outside locations.
- 7) If ERDS must be activated, be aware that the normal password is accepted by the system in the Simulator. However, since the Simulator ERDS does not transmit to USNRC Headquarters, an established link cannot occur. Thus, activation of ERDS from the Simulator can take place only up to the point where MODEM dialing would occur. If and when this point is reached, a facility Controller should be informed that a simulated activation has taken place.
- 8) The Blowdown constants for COLSS on the CMC and PMS terminals are correct for current blowdown rates, but may not have the ability to be changed for other blowdown lineups.
- 9) Upon conclusion of shift turnover, the crew's Auxiliary Operators will be given time to proceed to their normal watch stations in Unit 3. The OSC Controllers will accompany them. Once there, they will each receive a radio to allow them normal communications means with the Simulator Control Room staff. Be aware that the AOs' radios, as well as the Simulator radio, will transmit and receive on Channel 3. However, should Unit 3 Operations require use of Channel 3, they must be given priority for any communications and we must refrain from use of that channel until Unit 3 Operations has concluded their communication transmissions.



SECTION 04

PV MESSAGES



Palo Verde Nuclear Generating Station



CONTROLLER INSTRUCTIONS

| <u>TIME</u> | <u>MSG</u> | <u>VIA</u> | <u>TO</u> | <u>CONTROLLER INSTRUCTION</u> |
|-------------|------------|-------------|------------|--|
| 0705 | 1 | C-1 | CREW | Direct the MSG to the SS and the crew in the Simulator. It comprises shift turnover information. |
| 0705 | 1 | FAC LEAD | FAC | Direct the MSG to whoever requests it upon arrival at the facility. It comprises shift turnover information as it was presented to the Simulator crew when they assumed watch duties. |
| 0725 | 2 | C-1 | SS | Direct the MSG to the SS so that he can pass the information along to Facility Managers as the facilities become activated. |
| N/A | rx | C-1b | SS | Direct the MSG to the SS if a manual Rx trip is ordered prior to reactor shutdown such that impact to scenario data would hamper efforts in meeting remaining objective evaluation criteria. This MSG is based on an action and not on a specific time. <i>(See Exercise Lead Controller for details)</i> |
| N/A | mms | C-1b C-2 | EC | Direct the MSG to the EC/SS if attempts are made, prior to 1100, to vacate the plant north yard of personnel working on the security "pillbox" operation. Note the reasons for concern and discuss these in the facility critique when the Exercise is terminated. This MSG is based on an action and not on a specific time. <i>(See Exercise Lead Controller for details)</i> |
| N/A | aaa | C-2 | EC | Direct the MSG to the EC if Assembly / Accountability actions are attempted prior to 1100. Note the reasons for concern and discuss these in the facility critique when the Exercise is terminated. This MSG is based on an action and not on a specific time. <i>(See Exercise Lead Controller for details)</i> |
| 0810 | A | C-1c | SSM | Direct the MSG to the Site Shift Manager (or Operations Manager) to prepare him (her) for the CTMT entry and plant shutdown discussions projected to occur within the following 15 minutes. |
| 0820 | B | C-3 | RP | Direct the MSG <u>only</u> if RP has been contacted for CTMT entry and when current CTMT radiological conditions are understood. |
| 0837 | C | C-1b | CRS | Direct the MSG <u>only</u> if the PO's calculation results do not fall within the prescribed range or if the calculation did not take place. |
| 0845 | D | C-1b | SS | Direct the MSG <u>only</u> if the SS has classified the event erroneously or presents no appearance of classifying the event. |
| 0933 | E | C-1b | SS | Direct the MSG <u>only</u> if the SS has upgraded the event erroneously or presents no appearance of upgrading the event. |
| 1003 | 3 | C-3a | AO ELEC | Direct the MSG <u>only</u> if the AO / ELEC responds to the correct location(s) and takes the proper actions to earn the information. |
| 1120 | F | C-2 | EC | Direct the MSG <u>only</u> if the EC has prematurely decided to upgrade the event or has no intentions to do so. |

CONTROLLER INSTRUCTIONS

| <u>TIME</u> | <u>MSG</u> | <u>VIA</u> | <u>TO</u> | <u>CONTROLLER INSTRUCTION</u> |
|-------------|------------|------------|-----------|---|
| 1121 | 4 | C-3b | MECH | Direct the MSG to the crane operator moving the "pillbox" outside on the north side of CTMT. Direct MSG at MSG "AREA". |
| 1125 | G | C-3a | AO | Direct the MSG <u>only</u> if actions to cross-connect the 2 Spray Systems by the method explained in the PV Guide have begun. |
| 1127 | 5 | C-3d | AO | Direct the MSG to the AO / MECH / ELEC (or appropriate) <u>only</u> if (s)he has been dispatched to check the status of SIA-UV-672. |
| 1133 | 6 | C-3b | AO | Direct the MSG to the AO (or whoever) <u>only</u> if (s)he has been allowed access to the north side of CTMT to assess damages. |
| 1144 | H | C-2 | EC | Direct the MSG <u>only</u> if the EC has upgraded the event erroneously or has no intentions of upgrading the event. |
| 1320 | 7 | C-3d | MECH | Direct the MSG to the MECH / ELEC (or appropriate) who is repairing SIA-UV-672. |
| 1345 | I | C-2 | EC | Direct the MSG <u>only</u> if the EC has not upgraded the event or has no intentions of upgrading the event. |

PALO VERDE MESSAGES

*** THIS IS A DRILL ***
*** TAKE NO ACTIONS WHICH MAY AFFECT UNIT OPERATIONS ***

| | | | |
|--------------|---|--------------|----------|
| TIME: | 0705 | FROM: | C-1/LEAD |
| MSG: | 1 | TO: | Crew/FAC |
| AREA: | Simulator-A (Unit 3 C.R.) / Emergency Response Facilities | | |

MESSAGE:

Plant / Site Conditions:

1. All 3 Palo Verde Units are operating at 100% full power. This unit has been at 100% power for the last 116 days.
2. Core age is 200 Effective Full Power Days (reference Unit 1 Cycle 4 Core Data Book). The Unit is operating with the reduced T_H program. RCS Boron concentration is 546 ppm per Chemistry sample.
3. AFB-P01 was tagged out 7 hours ago for inboard bearing replacement and is expected back for surveillance testing in approximately 18 hours. Technical Specification LCOs 3.7.1.2 and 3.3.3.5, Action Statements "a.", were entered and the pump declared INOPERABLE 7 hours ago. A TSCCR has been generated on SIMS.
4. Security has requested movement of the 16,000-pound "pillbox" presently located at the northwest corner of the Turbine Building to a new defensive position near the nitrogen tanks. Mechanical Maintenance personnel will be using a crane to do the move over the next few hours and will advise Operations when completed.
5. Water Reclamation has taken the 66" effluent feeder line from the Hassayampa Pumping Station out of service 4 hours ago to repair a leaking flange 2 miles east of the site. The line is expected back in service in approximately 26 hours. Water Rec will advise when repairs are completed.
6. ECC is planning to remove the Westwing-2 525 KV line from service within the next 6 hours and will call Unit 1 with preliminary action plans when they are ready to do so. A reactor bank located in the Westwing Switchyard must be replaced and the line is required to be de-energized for that operation. SRP will coordinate activities with APS personnel and Unit 1 Operations will inform the other Units prior to taking the line out of service.
7. S/G blowdown is currently aligned for NORMAL rate from S/G-1 and ABNORMAL rate from S/G-2. They are due to be swapped at 1100. Both Abnormal Rate manual isolation valves are open and should remain open.
8. The normal, shiftly surveillance tests have been completed.
9. Operations Management has requested that 100% power operation be maintained.
10. The ERFDADS Unit/Server Switch required to monitor Simulator-A output from the TSC and the EOF is "SIMULATED ERFDADS SUBSYSTEM A".

PALO VERDE MESSAGES

*** THIS IS A DRILL ***
*** TAKE NO ACTIONS WHICH MAY AFFECT UNIT OPERATIONS ***

| | | | |
|-------|---------------------------|-------|-----|
| TIME: | 0725 | FROM: | C-1 |
| MSG: | 2 | TO: | SS |
| AREA: | Simulator-A (Unit 3 C.R.) | | |

MESSAGE:

As Emergency Response Facilities become activated and manned during the course of this Drill/Exercise, please pass the following 3 information items to the managers and key players as required:

1. *Although this entire Drill/Exercise is simulated as taking place in Unit 3, procedures applicable to the Simulator will be used in accordance with standard Simulator practices.*
2. *All radiological information will be presented via the Control Room PDP-11 RMS DCU minicomputer and linked via the Simulator-A ERFDADS interface, unless otherwise annotated.*
3. *The ERFDADS Unit/Server Switch required to monitor Simulator-A output from the TSC and the EOF is "SIMULATED ERFDADS SUBSYSTEM A".*

After shift turnover, 20-25 minutes will be allowed for familiarization with the status and condition of the control boards and for the Auxiliary Operators to arrive on station and assume their watch duties. If an initial log entry sheet has not been prepared, then you may prepare one. The Drill/Exercise Timeline will begin at 0800.

PALO VERDE MESSAGES

*** THIS IS A DRILL ***

*** TAKE NO ACTIONS WHICH MAY AFFECT UNIT OPERATIONS ***

| | | | |
|--------------|---------------------------|--------------|------|
| <i>TIME:</i> | N/A | <i>FROM:</i> | C-1b |
| <i>MSG:</i> | txt | <i>TO:</i> | SS |
| <i>AREA:</i> | Simulator-A (Unit 3 C.R.) | | |

MESSAGE:

Though your judgment may indicate the necessity for initiation of a manual reactor trip at this time, the ability to demonstrate several remaining EP objective evaluation criteria would be impacted.

Proceed as if the Site Shift Manager and/or Operations Manager had directed a one-hour plant shutdown per 41AO-1ZZ56, Rapid Shutdown. Your reasons for concern may be valid and will be discussed in the facility critique when the Exercise is terminated. If you still feel it is absolutely necessary to manually initiate a reactor trip at this time, please discuss the situation with the Exercise Lead Controller prior to taking any action.

PALO VERDE MESSAGES

*** THIS IS A DRILL ***
*** TAKE NO ACTIONS WHICH MAY AFFECT UNIT OPERATIONS ***

| | | | |
|--------------|--|--------------|------------|
| TIME: | N/A | FROM: | C-1b / C-2 |
| MSG: | mms | TO: | EC |
| AREA: | Simulator-A (Unit 3 C.R.) / Technical Support Center (TSC) | | |

MESSAGE:

Though your judgment may indicate the necessity to vacate the plant yard area of personnel at this time as a conservative measure in anticipation of degrading plant conditions, the ability to demonstrate several remaining EP objective evaluation criteria would be impacted.

Proceed as if the necessity to vacate the plant yard area of personnel at this time does not yet exist. Your reasons for concern may be valid and will be discussed in the facility critique when the Exercise is terminated. If you still feel it is absolutely necessary to vacate the plant yard area of personnel at this time, please discuss the situation with the Exercise Lead Controller prior to taking any action.

PALO VERDE MESSAGES

*** THIS IS A DRILL ***
*** TAKE NO ACTIONS WHICH MAY AFFECT UNIT OPERATIONS ***

| | | | |
|--------------|--------------------------------|--------------|-----|
| TIME: | N/A | FROM: | C-2 |
| MSG: | aaa | TO: | EC |
| AREA: | Technical Support Center (TSC) | | |

MESSAGE:

Though your judgment may indicate the necessity for personnel Assembly / Accountability at this time, the ability to demonstrate several remaining EP objective evaluation criteria would be impacted.

Proceed as if the necessity for personnel Assembly / Accountability does not yet exist. Your reasons for concern may be valid and will be discussed in the facility critique when the Exercise is terminated. If you still feel it is absolutely necessary for personnel Assembly / Accountability at this time, please discuss the situation with the Exercise Lead Controller prior to taking any action.

PALO VERDE MESSAGES

*** THIS IS A DRILL ***

*** TAKE NO ACTIONS WHICH MAY AFFECT UNIT OPERATIONS ***

| | | | |
|--------------|---|--------------|------|
| TIME: | 0810 | FROM: | C-1c |
| MSG: | A | TO: | SSM |
| AREA: | Site Shift Manager's Office (simulated) | | |

MESSAGE:

If and when the Simulator-A (Unit 3) Shift Supervisor calls to inform you about an RCS leak the crew has diagnosed, he may want to discuss the impending plant shutdown. He will discuss the fact that the PO is currently performing a 15-minute RCS leak rate determination per 41AO-1ZZ14, Excessive RCS Leakrate, or has just finished the leak rate determination and has calculated ≈ 32 gpm. In either case, he will want to discuss logistics regarding the plant shutdown (i.e., when to begin shutting down the plant, at what rate, and per which procedure). He may also want to discuss a possible containment entry to identify the source of the RCS leak.

You should ask if RP had been contacted regarding a containment entry and, if so, what their response is. (Seek this information before communicating plant shutdown directions.) If the SS has not yet contacted RP concerning a containment entry, then suggest (s)he contact them now and call right back with the RP response. An alternative would be for you to contact RP to discuss a containment entry and call the SS back with the decision.

Based on a plant shutdown driven by RCS leakage, you want the plant shut down (100% power to 20% power, at which point the reactor is tripped per procedure) in 60 minutes. You want the shutdown accomplished per 41AO-1ZZ56, Rapid Shutdown. You do not want the shutdown to take longer than 1 hour. Therefore, ZZ56 is the procedure you want followed.

NOTE: Try to get the SS to start his shutdown as close to 0900 (or slightly before) as possible. This will keep the subsequent Exercise scenario events on the timeline. Based on the difference between the "Message Time" at the top of this form and the present time, you may verbally have to either hasten him or slow him down. But please do not tell him that the scenario calls for this. Use legitimate excuses, if possible, to ensure that his shutdown starts around 0900. The RP discussion item on containment entry could be used to ensure the shutdown commences close to 0900. It is imperative that the 1-hour plant shutdown starts as close to 0900 as possible, with "breakers open" estimated for 1000.

The Shift Supervisor may also want to discuss other items. Discuss these other items with him freely. The only purpose for this message is to ensure the plant shutdown is performed in accordance with 41AO-1ZZ56, Rapid Shutdown, and that it is accomplished in 1 hour.

PALO VERDE MESSAGES

*** THIS IS A DRILL ***
*** TAKE NO ACTIONS WHICH MAY AFFECT UNIT OPERATIONS ***

| | | | |
|--------------|----------------------------------|--------------|-----|
| TIME: | 0820 | FROM: | C-3 |
| MSG: | B | TO: | RP |
| AREA: | RP Island (work area or offices) | | |

MESSAGE:

If you are contacted by either a Control Room (Simulator-A) crew member, the Site Shift Manager, or the Operations Manager to discuss a containment entry for the purposes of looking for and identifying an RCS leak source, explain to him the basis for what normally would be permitted in this case. You advise against sending a team into containment based on radiological conditions within containment at the present time. Use your influence to discourage entry by anyone.

NOTE: Since the Simulator-A RMS DCU cannot be accessed from Unit 3 Effluents Office, an Exercise Controller can provide you with current containment radiological conditions, provided you explain to him (her) the logistics of retrieving the data supporting those conditions. Use this data as a basis for your discussion methodology.

PALO VERDE MESSAGES

*** THIS IS A DRILL ***
*** TAKE NO ACTIONS WHICH MAY AFFECT UNIT OPERATIONS ***

| | | | |
|--------------|---------------------------|--------------|------|
| TIME: | 0837 | FROM: | C-1b |
| MSG: | C | TO: | CRS |
| AREA: | Simulator-A (Unit 3 C.R.) | | |

MESSAGE:

An RCS leak rate determination has been performed by a Reactor Operator in accordance with 41AO-1ZZ14, Excessive RCS Leakrate, Section 2, and has logged the following data:

- PZR level / pressure constant over 15 minutes
- Related valves positioned accordingly
- No VCT makeup / diversion occurred
- No primary systems sampling occurred
- RCS temperatures constant over 15 minutes
- VCT level change over 15 minutes: -11.9%

PALO VERDE MESSAGES

*** THIS IS A DRILL ***
*** TAKE NO ACTIONS WHICH MAY AFFECT UNIT OPERATIONS ***

| | | | |
|--------------|---------------------------|--------------|------|
| TIME: | 0845 | FROM: | C-1b |
| MSG: | D | TO: | SS |
| AREA: | Simulator-A (Unit 3 C.R.) | | |

MESSAGE:

A 32 gpm RCS leak rate has been calculated by a Reactor Operator per 41AO-1ZZ14, Excessive RCS Leakrate, Section 2.

Epip-02, Emergency Classification, Table 2, LEA, should be reviewed as soon as possible.

PALO VERDE MESSAGES

*** THIS IS A DRILL ***
*** TAKE NO ACTIONS WHICH MAY AFFECT UNIT OPERATIONS ***

| | | | |
|--------------|---------------------------|--------------|------|
| TIME: | 0933 | FROM: | C-1b |
| MSG: | E | TO: | SS |
| AREA: | Simulator-A (Unit 3 C.R.) | | |

MESSAGE:

An estimated 65 gpm RCS leak rate has been recalculated by a Reactor Operator based on analyses of plant indications and diagnoses of current conditions.

Epip-02, Emergency Classification, Table 1, FPB, should be reviewed as soon as possible.

PALO VERDE MESSAGES

*** THIS IS A DRILL ***
*** TAKE NO ACTIONS WHICH MAY AFFECT UNIT OPERATIONS ***

| | | | |
|--------------|--|--------------|-----------|
| TIME: | 1003 | FROM: | C-3a |
| MSG: | 3 | TO: | AO / ELEC |
| AREA: | 4.16 KV Class "B" Switchgear Room - 100' Control Building (at PBB-S04) | | |

MESSAGE:

Breaker PBB-S04K is demolished. Pieces of it are everywhere. The breaker cubicle door is charred, but there is no fire or smoke. Inside the cubicle, it looks like the bus-work for that breaker is severely damaged. It also appears that other portions of the bus are damaged. Almost every relay on the bus is tripped.

"B" Diesel Generator appears to be running fine.

NOTE: If an estimated time for repairs is requested of Electrical Maintenance personnel, 12 hours is the estimated minimum time required to repair the bus so that it could be re-energized.

PALO VERDE MESSAGES

*** THIS IS A DRILL ***
*** TAKE NO ACTIONS WHICH MAY AFFECT UNIT OPERATIONS ***

| | | | |
|--------------|--------------------------------|--------------|-----|
| TIME: | 1120 | FROM: | C-2 |
| MSG: | F | TO: | EC |
| AREA: | Technical Support Center (TSC) | | |

MESSAGE:

If reactor vessel outlet plenum voiding is indicated < 21% or if you believe that a loss of the containment barrier is indicated, you may initially want to escalate the event classification to an SAE based on impact to 2 fission product barriers. However, since plenum voiding below 21% may occur, it will recover shortly and the transition into an upgraded event classification for the short time period should be treated as a transitory event and offsite agencies notified accordingly. A potential loss of containment exists, but procedure logics do not allow escalation of the emergency classification level based on the current plant conditions.

NOTE: See EPIP-02, Emergency Classification, Page 8, Item 4.3.2.1 for details.

PALO VERDE MESSAGES

*** THIS IS A DRILL ***
*** TAKE NO ACTIONS WHICH MAY AFFECT UNIT OPERATIONS ***

| | | | |
|--------------|--|--------------|------|
| TIME: | 1121 | FROM: | C-3b |
| MSG: | 4 | TO: | MECH |
| AREA: | 100' Corridor Building (phone located near elevator) | | |

MESSAGE:

You had the 16,000-pound "pillbox" suspended 45' above grade and was preparing to swing the crane boom counterclockwise about 180° to place the "pillbox" on a flatbed truck so it could be taken over to the nitrogen tank area. However, the crane boom swung clockwise instead, and the boom swung into the side of containment. When that happened, the "pillbox" broke from the cable and came crashing down onto a large pipe protruding out from the containment wall near the equipment hatch. You think the pipe is broke, because smoke or steam (you think it's steam) is now billowing from the penetration and making a very loud hissing noise. You left the area immediately and are calling from the 100' elevation in the Corridor Building.

NOTE: You can't remember exactly why the boom swung in the wrong direction.

PALO VERDE MESSAGES

*** THIS IS A DRILL ***

*** TAKE NO ACTIONS WHICH MAY AFFECT UNIT OPERATIONS ***

| | | | |
|--------------|--|--------------|------|
| TIME: | 1125 | FROM: | C-3a |
| MSG: | G | TO: | AO |
| AREA: | At manual SI x-connect valve SI-V460 - "A" 70' SDC Heat Exchanger Entrance | | |

MESSAGE:

After unlocking the valve, you cannot dislodge the valve off of its "SHUT" seat. The valve cannot be moved.

NOTE: If approval is given to use a "valve persuader", you use it and promptly snap the valve stem somewhere down in the packing area. The valve handle spins freely, but nothing else is happening.

PALO VERDE MESSAGES

***** THIS IS A DRILL *****
***** TAKE NO ACTIONS WHICH MAY AFFECT UNIT OPERATIONS *****

| | | | |
|--------------|---|--------------|----------|
| TIME: | 1127 | FROM: | C-3d |
| MSG: | 5 | TO: | AO/MAINT |
| AREA: | At "A" Train Containment Spray Valve SIA-UV-672 - 88' West Penetration Room | | |

MESSAGE:

The valve motor operator housing is dripping with oil and appears damaged. It has a diagonal crack on one side running half way down the motor operator housing.

PALO VERDE MESSAGES

***** THIS IS A DRILL *****
***** TAKE NO ACTIONS WHICH MAY AFFECT UNIT OPERATIONS *****

| | | | |
|--------------|---|--------------|------|
| TIME: | 1133 | FROM: | C-3b |
| MSG: | 6 | TO: | AO |
| AREA: | 100' Outside - North Side - at Containment Building | | |

MESSAGE:

The "pillbox" is resting at an angle on top of the ILRT piping. That's all that can be seen, because there is too much steam coming out and surrounding the area.

PALO VERDE MESSAGES

*** THIS IS A DRILL ***

*** TAKE NO ACTIONS WHICH MAY AFFECT UNIT OPERATIONS ***

| | | | |
|--------------|--------------------------------|--------------|-----|
| <i>TIME:</i> | 1144 | <i>FROM:</i> | C-2 |
| <i>MSG:</i> | H | <i>TO:</i> | EC |
| <i>AREA:</i> | Technical Support Center (TSC) | | |

MESSAGE:

A loss of the RCS Barrier has existed for some time. However, steam is now issuing from the side of containment.

Epip-02, Emergency Classification, Table 1, FPB, should be reviewed as soon as possible.

PALO VERDE MESSAGES

*** THIS IS A DRILL ***

*** TAKE NO ACTIONS WHICH MAY AFFECT UNIT OPERATIONS ***

| | | | |
|--------------|---|--------------|-------|
| TIME: | 1320 | FROM: | C-3d |
| MSG: | 7 | TO: | MAINT |
| AREA: | At "A" Train Containment Spray Valve SIA-UV-672 - 88' West Penetration Room | | |

MESSAGE:

"A" Train Containment Spray Valve SIA-UV-672 has been repaired. The valve had to have its motor operator changed and realigned. It is now ready to be cycled open.

PALO VERDE MESSAGES

*** THIS IS A DRILL ***

*** TAKE NO ACTIONS WHICH MAY AFFECT UNIT OPERATIONS ***

| | | | |
|--------------|--------------------------------|--------------|-----|
| TIME: | 1345 | FROM: | C-2 |
| MSG: | i | TO: | EC |
| AREA: | Technical Support Center (TSC) | | |

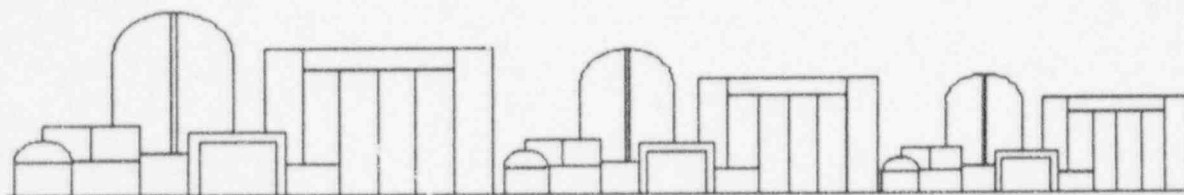
MESSAGE:

Control Room personnel are reporting RU-148 containment area radiation monitor readings in excess of 1,200 R/hr sustained.

Epip-02, Emergency Classification, Table 1, FPB, should be reviewed as soon as possible.

SECTION 05

GOVT GUIDE



Palo Verde Nuclear Generating Station



SECTION 5

GOVERNMENT CONTROLLER GUIDE

SECTION 5

GOVERNMENT CONTROLLER GUIDE

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SECTION 5

GOVERNMENT CONTROLLER GUIDE

ACRONYMS

| | | |
|----------|---|--|
| ADEM | - | Arizona Division of Emergency Management |
| ADO | - | Assistant Director of Operations |
| ARRA | - | Arizona Radiation Regulatory Agency |
| COC | - | Chief Offsite Controller |
| COMM. O. | - | Communications Officer |
| DC | - | Direction and Control |
| DCC | - | Direction and Control Controller |
| DO | - | Director of Operations |
| DPS | - | Department of Public Safety |
| EBS | - | Emergency Broadcast System |
| EG | - | Evacuation Group |
| EGC | - | Evacuation Group Controller |
| EOC | - | Emergency Operations Center |
| EOCC | - | Emergency Operations Center Controller |
| EOF | - | Emergency Operations Facility |
| EPZ | - | Emergency Planning Zone |
| ESD | - | Equipment Services Department |
| FEMA | - | Federal Emergency Management Agency |
| JENC | - | Joint Emergency News Center |
| KI | - | Potassium Iodide |
| MC | - | Maricopa County |
| MCDEM | - | Maricopa County Department of Emergency Management |

SECTION 5

GOVERNMENT CONTROLLER GUIDE

ACRONYMS (Continued)

| | | |
|-------|---|--|
| MCSO | - | Maricopa County Sheriff's Office |
| NAN | - | Notification Alert Network |
| OGC | - | Operations Group Chief |
| OSCP | - | On-Scene Command Post |
| PI | - | Public Inquiry |
| POC | - | Privately Owned Conveyance |
| POL | - | Petroleum, Oil Lubrication Vehicle |
| PVNGS | - | Palo Verde Nuclear Generating Station |
| RB | - | Road Block |
| RCC | - | Reception and Care Center |
| REAT | - | Radiological Emergency Assistance Team |
| RF | - | REAT Forward |
| RFC | - | REAT Forward Controller |
| SEG | - | Special Evacuation Group |
| SS | - | Shift Supervisor |
| SW | - | Supplemental Warning |
| TOC | - | Technical Operations Center |
| TOCC | - | Technical Operations Center Controller |
| TOD | - | Technical Operations Director |

GOVERNMENT CONTROLLER GUIDE

STATE EMERGENCY OPERATIONS CENTER (EOC)

| DRILL CONTROLLER GUIDE | | | | | |
|------------------------|-----|----|-------------------------------|---|---|
| Time | Msg | To | Event Summary | Anticipated Response | Controller Notes |
| 0839 to 0904 | | | Notification of Unusual Event | ADEM Staff receives NAN broadcast and verifies authenticator. | Chief Offsite Controller (COC) and State EOC Controller (EOCC), to be on station in EOC 15 min. prior to the Drill. |
| 0927 to 0952 | | | ALERT Notification | <p>ADEM Staff receives NAN and verifies authenticator.</p> <p>Alert Assistant Director of Operations (ADO) and ADEM Comm. Officer</p> <p>ADEM Ops Staff fans out notification to state response organizations.</p> <p>ADO notifies ADEM Director and directs activation of the EOC.</p> <p>EOC Shift Supervisor assumes control of EOC activation.</p> <p>ADEM Administrative Organization vacates EOC office space.</p> <p>Shift Supervisor declares EOC activated when sufficient staff is in place to man key communications.</p> <p>EOC Staff continues to arrive and function.</p> <p>PIO collects and sends releasable information to JENC.</p> | <p>COC and EOF Controllers set time (EOF 393-6178/6188).</p> <p>EOCC sets real time on EOC clock and fans out real time to controllers on station in MCEOC, JENC and TOC.</p> <p>COC and EOCC on station in EOC communications or EOC arena until notification fan out completed and monitor controller phones.</p> <p>EOCC observes EOC setup and arrangement in progress. Corrective action, as appropriate. (Direction and Control, Technical Operations Center, Public Inquiry.)</p> <p>EOCC observes staff functions as appropriate.</p> <p>EOCC acts as exercise contact in declaration process, etc.</p> <p>Record time lines of all communications.</p> |

GOVERNMENT CONTROLLER GUIDE

STATE EMERGENCY OPERATIONS CENTER (EOC)

| DRILL CONTROLLER GUIDE | | | | | |
|------------------------|-----|----|--|---|--|
| Time | Msg | To | Event Summary | Anticipated Response | Controller Notes |
| 1134 to 1159 | | | SITE AREA EMERGENCY Notification | <p>EOC Communications receives NAN broadcast and verifies authenticator.</p> <p>EOC staff fans out notification.</p> <p>TOC may recommend Protective Action to Director of Operations based on notification message. (PAR may not coincide with PAR in notification.)</p> <p>Director of Operations PAR decision announced. (Decision may not coincide with TOC PAR.)</p> <p>Public Inquiry to commence when role players initiate calls.</p> <p>PIO collects and sends releasable information to JENC.</p> | <p>EOCC monitors staff functions.</p> <p>Record time lines, PAR, Siren Activation, EBS and announcements.</p> <p>EOCC acts as contact for initiating role player activities.</p> |
| 1335 to 1400 | | | GENERAL EMERGENCY Notification | <p>EOC Communications receives NAN broadcast and verifies authenticator.</p> <p>TOC recommends Protective Action to Director of Ops.</p> <p>Director of Ops decision announced. (decision may not coincide with TOC recommendation for Protective Action.)</p> <p>MCDEM liaison transmits decision to Maricopa County EOC for implementation.</p> <p>PIO collects and sends releasable information to JENC</p> | <p>COC maintains contact with MCEOC, JENC and PVNGS EOF controllers, as appropriate.</p> <p>EOCC monitors EOC staff functioning.</p> <p>EOC Controller monitors Protective Action Recommendations and decisions.</p> <p>TOCC monitors TOC staff functioning.</p> |

GOVERNMENT CONTROLLER GUIDE
TECHNICAL OPERATIONS CENTER (TOC)

| DRILL CONTROLLER GUIDE | | | | | |
|------------------------|-------|--------|--|---|---|
| Time | Msg | To | Event Summary | Anticipated Response | Controller Notes |
| 0839 to 0904 | | | Notification of Unusual Event | ARRA Duty Officer calls ADEM Duty Officer with follow up. | TOCC in TOC 15 min. prior to ALERT. Call EOCC for real time check. |
| 0927 to 0952 | | | ALERT Notification | ARRA Emergency Coordinator notifies Technical Operations Director (TOD). TOD directs activation of TOC. TOD directs State Liaison to EOF. TOC staff relocates to State EOC. TOC staff sets up and organizes TOC. TOC performs communications check. TOC Shift Supervisor reports activation to EOC Shift Supervisor. Initiates situation Assessment and formulate Protective Action Recommendations as required. | Relocate to TOC with TOC staff. TOCC observes TOC set up and arrangement, corrective action as appropriate in coordination with EOCC. Record time lines. Compare dose projection to EOF and TOC, ensure consistency. Check inconsistencies for errors. |
| | TOC A | TOD | | | Issue CTM MSG TOC-A when asked by staff which of several RCCs is the one in play. |
| | TOC B | TOC SS | TOC Directs REAT Forward to dispatch Field Monitor Teams to RCC. | Situation Assessment continues until downgrade. | Issue CTM MSG TOC-B to TOC Shift Supervisor if TOC staff fails to take action outlined above. |

GOVERNMENT CONTROLLER GUIDE
 TECHNICAL OPERATIONS CENTER (TOC)

| DRILL CONTROLLER GUIDE | | | | | |
|------------------------|-----|----|--|--|--|
| Time | Msg | To | Event Summary | Anticipated Response | Controller Notes |
| 1134 to 1159 | | | SITE AREA EMERGENCY Notification | Continue Situation Assessment and may formulate Protective Action Recommendations. (Dir of Ops decision may not coincide with TOC recommendation of PAR.) Situation Assessment continues until downgrade. | TOCC observes TOC functioning; corrective action as appropriate. Record time lines. |
| 1335 to 1400 | | | GENERAL EMERGENCY Notification | Situation Assessment continues. Calculate projected dose as required. TOD recommends Protective Actions to Director of Operations. Director of Operations decision announced. (Decision may not coincide with TOC recommendation for Protective Actions.) | Record time lines. |

GOVERNMENT CONTROLLER GUIDE

DIRECTION AND CONTROL (EOCC)

| DRILL CONTROLLER GUIDE | | | | | |
|------------------------|-----|----|----------------------------------|--|---|
| Time | Msg | To | Event Summary | Anticipated Response | Controller Notes |
| 0839 to 0904 | | | Notification of Unusual Event | ADO notified and notifies the Director of Operations | EOC Controller on station 15 minutes prior to Exercise. |
| 0927 to 0952 | | | ALERT Notification | <p>ADO notified and notifies the Director of Operations. Shift Supervisor and EOC Staff set up EOC.</p> <p>ADO directs Shift Supervisor to activate EOC and fan out Alert and activation instructions.</p> <p>Shift Supervisor declares EOC activated at his discretion when sufficiently staff in place to man key communications.</p> <p>Director of Operations and ADO report to the EOC.</p> | <p>Real time check.</p> <p>Key staff for decision should include: TOD, EOC Shift Supervisor, ADO and MCDEM Liaison.</p> <p>Record time lines.</p> |
| 1134 to 1159 | | | SITE AREA EMERGENCY Notification | <p>Director of Ops or ADO acts upon TOD recommendation for Protective Action.</p> <p>Director of Ops or ADO formulates and announces Protective Action Decision to key staff and EOC.</p> | <p>Ensure MCDEM Liaison transcribes Protective Action decision as stated, corrective action as appropriate.</p> <p>Record Time Lines.</p> |
| 1335 to 1400 | | | GENERAL EMERGENCY Notification | <p>Director of Ops or ADO acts upon TOD recommendations for Protective Action.</p> <p>Director of Ops or ADO formulates and announces Protective Action decisions to key staff and EOC.</p> | <p>Ensure MCDEM Liaison transcribes Protective Action Decision as stated, corrective actions as appropriate.</p> <p>Record Time Lines.</p> <p>Ops Dir. and/or TOD may be summoned to JENC to participate in media briefing.</p> |

GOVERNMENT CONTROLLER GUIDE

MARICOPA COUNTY EMERGENCY OPERATIONS CENTER (MCEOC)

| DRILL CONTROLLER GUIDE | | | | | |
|------------------------|-----|----|----------------------------------|---|---|
| Time | Msg | To | Event Summary | Anticipated Response | Controller Notes |
| 0839 to 0904 | | | Notification of Unusual Event | MCDEM staff receives NAN broadcast and verifies authenticator. | |
| 0927 to 0952 | | | ALERT Notification | <p>MCDEM staff receives NAN broadcast and verifies authenticator.</p> <p>Notify Senior Coordinator and MCDEM Director.</p> <p>Initiate activation. Notify State EOC when activated.</p> <p>Advise County Manager concerning situation and MCEOC activation.</p> <p>Advise Response Organization to assemble at MCSO Avondale Substation.</p> <p>EOC staff reports to EOC.</p> <p>Place EBS on standby.</p> <p>County Liaison Officer reports to state EOC.</p> <p>Direct On-Scene Commander to deploy Response Organization when assembled.</p> | <p>Real time check.</p> <p>Record time lines of player arrivals and telecommunications establishment.</p> <p>Emergency Response Organization personnel may be assembled at marshaling areas or deployed to forward operational sites.</p> |
| 1134 to 1159 | | | SITE AREA EMERGENCY Notification | <p>MCDEM staff receives NAN broadcast and verifies authenticator.</p> <p>Maintain readiness status of all deployed resources until further actions required.</p> <p>Notify schools within EPZ.</p> | County EOC should be notified when forces are in position and ready to operate. |

GOVERNMENT CONTROLLER GUIDE

MARICOPA COUNTY EMERGENCY OPERATIONS CENTER (MCEOC)

| DRILL CONTROLLER GUIDE | | | | | | |
|------------------------|------|--------------------------|---------------------------------------|--|---|---|
| Time | Msg | To | Event Summary | Anticipated Response | Controller Notes | |
| 1134 to 1159 | MC-1 | MC Ops Group Chief | SITE AREA EMERGENCY Continues | If Protective Action is directed during the Site Area Emergency, the action is implemented as actual exercise play. | County EOC should be notified when forces are in position and ready to operate. | |
| | | | | Direct activation of RCC at specified sites. | | Issue CTG MSG MC-1 to ensure that RCC being evaluated is activated, if Required |
| | | | | Prepare and release Public Warning Message to EBS. Activate Sirens (Simulated) Malfunction of sirens reported by Communications Officer. | | |
| | MC-2 | MC Comm Officer | | Prepare and release Siren Failure Message. Monitor EBS receipt of warning. | Issue MSG MC-2 indicating Siren Pole #8 failed. | |
| | MC-A | MC Ops Group Chief | | Prepare and release Public Warning Message to EBS. Notify Senior Coord and MCDEM Director. | Issue MSG MC-A indicating that this is the RCC that will be activated. | |
| 1335 to 1400 | | | GENERAL EMERGENCY Notification. | MCDEM staff receives NAN broadcast and verifies authenticator. Receives and implement State EOC Protective Action decision. | County EOC should be notified when forces are in position and ready to operate. | |

GOVERNMENT CONTROLLER GUIDE

MARICOPA COUNTY EMERGENCY OPERATIONS CENTER (MCEOC)

| DRILL CONTROLLER GUIDE | | | | | |
|------------------------|------|--------------------------|---|--|---|
| Time | Msg | To | Event Summary | Anticipated Response | Controller Notes |
| 1335 to 1400 | MC-B | MC Ops Group Chief | GENERAL EMERGENCY Notification (Continued) | Supplemental Warning directive sent to On-Scene Command Post. | Issue CTG MSG MC-B if a directive to conduct supplemental warning is not sent to OSCP. |
| | MC-3 | MC Ops Group Chief | | Traffic control instructions issued to On-Scene Command Post. PIO collect and sends releasable information to JENC. | Issue MSG MC-3 to ensure road block(s) to be evaluated is issued to OSCP. |

GOVERNMENT CONTROLLER GUIDE

MARICOPA COUNTY WARNING POINT (MCSO)

| DRILL CONTROLLER GUIDE | | | | | |
|------------------------|-----|----|----------------------------------|---|---|
| Time | Msg | To | Event Summary | Anticipated Response | Controller Notes |
| 0839 to 0904 | | | Notification of Unusual Event | MCSO Warning Point staff receives NAN broadcast and verifies authenticator. | |
| 0927 to 0952 | | | ALERT Notification | MCSO Warning Point staff receives NAN broadcast and verifies authenticator. MCSO conducts internal notification fan-out. | MCSO Warning Point controller on station 15 min. prior to exercise. Record time lines. Contact MC EOCC for time check. Ensure fan out occurs per MCSO procedures. |
| 1134 to 1159 | | | SITE AREA EMERGENCY Notification | MCSO Warning Point staff receives NAN broadcast and verifies authenticator. MCSO Conducts internal notification fan-out. | |
| 1335 to 1400 | | | GENERAL EMERGENCY Notification | MCSO Warning Point staff receives NAN broadcast and verifies authenticator. MCSO conducts internal notification fan-out. | Maricopa County Department of Transportation to provide barricades, POL vehicle and to post evacuation signs. Maricopa County ESD is to provide a tow truck and driver. Evacuation and special assistance problems to be simulated by role players. Residents are not to be contacted. |

GOVERNMENT CONTROLLER GUIDE
 MARICOPA COUNTY WARNING POINT (MCSO)

| DRILL CONTROLLER GUIDE | | | | | |
|------------------------|-----|----|---|----------------------|---|
| Time | Msg | To | Event Summary | Anticipated Response | Controller Notes |
| 1335 to 1400 | | | GENERAL EMERGENCY Notification (Continued) | | <p>As loudspeakers will not be used, it is imperative that role players be contacted and read warning message verbatim.</p> <p>Role players will be located at the Supplemental Warning Site and the Players will be identification.</p> <p>Role Players representing residents with special problems are to be provided assistance and transportation.</p> <p>One road block is to be established.</p> |

GOVERNMENT CONTROLLER GUIDE
ON-SCENE COMMAND POST (OSCP) [MCSO]

| DRILL CONTROLLER GUIDE | | | | | |
|------------------------|------------|----------------------|--------------------------------------|--|--|
| Time | Msg | To | Event Summary | Anticipated Response | Controller Notes |
| 0839 to 0904 | | | Notification of Unusual Event | None | OSCP Controller on station 15 minutes prior to start of drill. |
| 0927 to 0952 | OSC P-1 | On- Scene Comm | ALERT Notification | <p>Response Organization assembles at MCSO Avondale Substation.</p> <p>When directed, deploy under control of OSCP.</p> <p>Set up OSCP and organize Response Organization Assembly Area.</p> <p>Prepare for response.</p> <p>Simulate Supplemental Warning activities.</p> | <p>Observe deployment and performance.</p> <p>Issue MSG OSCP-1 when directed by MCEOC indicating which RCC has been activated.</p> |
| 1134 to 1159 | | | SITE AREA EMERGENCY | <p>Receive notification and inform response force to stand ready.</p> <p>Receive Protective Action Decision.</p> <p>Respond to calls for assistance as directed by MCEOC.</p> <p>Receive notification and inform response force to stand ready.</p> | <p>Special evacuees will commence assistance calls to MCEOC.</p> <p>Special evacuees will commence assistance calls to MCEOC.</p> |
| 1335 to 1400 | | | GENERAL EMERGENCY Notification | <p>Receive Protective Action decision.</p> | |

GOVERNMENT CONTROLLER GUIDE

ON-SCENE COMMAND POST (OSCP) [MCSO]

| DRILL CONTROLLER GUIDE | | | | | |
|------------------------|----------------|-----------------------|--------------------------------------|--|---|
| Time | Msg | To | Event Summary | Anticipated Response | Controller Notes |
| 1134 to 1159 | OSC P -A | On- Scene Comm. | SITE AREA EMERGENCY Continued | Supplemental Warning Team deploy to appropriate Siren coverage area. | Issue CTG MSG OSCP-A if OSCP is not directed to dispatch supplemental Warning Team. |
| | OSC P -B | On- Scene Comm. | AND | Simulate supplemental warning activities. Issue warning messages to evacuee role players. Traffic Control Teams deployed to assigned locations. Conduct traffic regulatory activities. | Issue CTG MSG OSCP-B if Road Block Teams are not dispatched to locations being evacuated. Maricopa County ESD is to provide a tow truck and driver. MC Dept. of Transportation will provide POL, vehicle barriers, signs, etc. Residents are not to be contacted. As loudspeakers will not be used, it is imperative that evacuees be contacted and read warning messages verbatim. Role players representing residents with special problems are to be provided with assistance and transportation. Barricades and patrol vehicles are to be used to simulate road blocks. One road block is to be established for evacuation. |
| 1335 to 1400 | | | GENERAL EMERGENCY Notification | | |

GOVERNMENT CONTROLLER GUIDE
ON-SCENE COMMAND POST (OSCP) [MCSO]

| DRILL CONTROLLER GUIDE | | | | | |
|------------------------|----------------|-----------------------|--|---|---|
| Time | Msg | To | Event Summary | Anticipated Response | Controller Notes |
| 1335 to 1400 | OSC P -2 | On- Scene Comm. | GENERAL EMERGENCY Notification Continued When directed by MCEOC to assist special evacuees. | On-Scene Commander will direct special evacuees to the Dysart High School not the On-Scene Command Post | Evacuation and special assistance problems to be simulated by role players. Issue MSG OSCP-2 upon On- scene Commander's first special evacuee directive. |
| | OSC P -C | On- Scene Comm. | When directed by MCEOC to assist special evacuees. | On-Scene Commander will direct special evacuees to the Dysart High School, not the On-Scene Command Post. | Issue MSG OSCP-C upon On- Scene Commander's first special evacuee directive. Issue as inquiries are made as to progress of evacuating residents. |

GOVERNMENT CONTROLLER GUIDE
 SUPPLEMENTAL WARNING TEAMS (MCSO)

| DRILL CONTROLLER GUIDE | | | | | |
|--|------|---------|---|--|---|
| Time | Msg | To | Event Summary | Anticipated Response | Controller Notes |
| 0839 to 0904 | | | Notification of Unusual Event | None | SW Controller should be on station 15 minutes prior to Drill. |
| 0927 to 0952 | | | ALERT Notification | Response organization assembles at MCSO Avondale Substation. | Observe deployment and performance. Record time lines of key actions. |
| 1134 to 1159 1335 to 1400 | SW-1 | SW Team | SITE AREA EMERGENCY AND GENERAL EMERGENCY When directed, SW Team activated and assigned mission. | Supplemental Warning Team receives briefing and mission statement. SW Team deploys to siren coverage area. SW Team simulates supplemental warning. SW Team issues warning message verbatim to evacuee role players. | Siren, lights and loudspeakers will not be used. Evacuation Group Players will be wearing red arm bands at or near the vehicle between 331st and Baseline Road. Represents the resident population of the area of coverage of Siren #8 (INTRAC 460). Issue MSG SW-1 to SW Team. |

GOVERNMENT CONTROLLER GUIDE

ROAD BLOCK TEAMS (MCSO)

| DRILL CONTROLLER GUIDE | | | | | |
|--|------|------------|---|---|--|
| Time | Msg | To | Event Summary | Anticipated Response | Controller Notes |
| 0839 to 0904 | | | Notification of Unusual Event | None | RB Controller should be on station 15 minutes prior to Drill. |
| 0927 to 0952 | | | ALERT Notification | Response organization assembles at MCSO Avondale Substation. | Observe deployment and performance. Record time lines of key actions. |
| 1134 to 1159 1334 to 1400 | RB-A | RB Team #1 | SITE AREA EMERGENCY AND GENERAL EMERGENCY When directed, RB Team activated and assigned mission. | Simulate establishment of road blocks/traffic control points. | Issue CTG MSG RB-A if Road Block Team is not informed of RB location when briefed. |

GOVERNMENT CONTROLLER GUIDE

REAT FORWARD

| DRILL CONTROLLER GUIDE | | | | | |
|------------------------|------|----|--|---|--|
| Time | Msg | To | Event Summary | Anticipated Response | Controller Notes |
| 0839 to 0904 | | | Notification of Unusual of Event | None | |
| 0927 to 0952 | | | ALERT Notification Initiate monitoring when directed. | REAT Forward Team will be prestaged at Buckeye Airport. Establish REAT Forward Center. Brief and orient Monitor Teams. REAT Forward Teams assembles and equips. Assign Field Monitor missions. REAT Forward Teams deploy to field locations. Collect and report field data. | REAT Forward Controller on station 15 min. prior to Exercise. Observe assembly and organization of command post. Observe operation of command post. Move to field location. |
| 1134 to 1159 | | | SITE AREA EMERGENCY | Continue field monitoring activities. Collect and report field data. Implement instructions from the TOD. | Continue to observe operation of command post. |
| 1335 to 1400 | RF-A | | GENERAL EMERGENCY Notification | Implement instructions from TOD. | Issue CTG MSG RF-A if RCC locations are not identified by the TOC within 30 minutes of evacuation order. |

GOVERNMENT CONTROLLER GUIDE

REAT FORWARD

| DRILL CONTROLLER GUIDE | | | | | |
|---------------------------|-----|----|---|---|--|
| Time | Msg | To | Event Summary | Anticipated Response | Controller Notes |
| Out of Seque nce | | | Demonstrate Decontamination of vehicle at REAT Forward | <p>Vehicle will be monitored for contamination when reporting to REAT Forward.</p> <p>The designated vehicle will be surveyed for contamination.</p> <p>After the contamination is located on the vehicle, the vehicle will be directed for decontamination. (The Physical Decontamination will be simulated.)</p> <p>The Local Fire Department will support decontamination efforts.</p> | <p>The contaminated vehicle and the decontamination equipment and facilities will be prestaged at REAT Forward.</p> <p>Decontamination of the vehicle at REAT Forward will be demonstrated outside scenario timeline. Physical Decontamination of the vehicle will be simulated.</p> |

GOVERNMENT CONTROLLER GUIDE

REAT FIELD MONITOR TEAMS

| DRILL CONTROLLER GUIDE | | | | | |
|------------------------|-----|----|----------------------------------|---|--|
| Time | Msg | To | Event Summary | Anticipated Response | Controller Notes |
| 0839 to 0904 | | | Notification of Unusual Event | None | REAT Controllers should be on station 15 minutes prior to drill. |
| 0927 to 0952 | | | ALERT Notification | REAT Field Monitor Teams will be prestaged at Buckeye Airport. Co-locate with REAT Forward Center in assembly area. | Contact REAT Center Controller for real time check. Observe assembly and deployment. |
| 1134 to 1159 | | | SITE AREA EMERGENCY Notification | REAT Captain briefs monitors and assigns missions. REAT Captain may direct mission assignment to be executed. | Accompany monitor team and observe mission performance. |
| 1335 to 1400 | | | GENERAL EMERGENCY Notification | Field Teams perform assigned monitoring missions (monitors are to report all background readings). Receives briefing and evacuee monitoring mission when directed by REAT Captain. Field Team deploys to RCC and reports to RCC Mgr. Field Team established personnel monitoring station at RCC. Field Team conducts personnel monitoring of evacuees at RCC. Contamination will be simulated. | Observe mission performance. Issue Field data from data package at appropriate times during mission. Observe deployment and performance. Controller will ensure that evacuees will not carry any type of radioactive materials. |

GOVERNMENT CONTROLLER GUIDE

EVACUATION GROUP (Volunteers)

| DRILL CONTROLLER GUIDE | | | | | |
|------------------------|-----|----|--|--|--|
| Time | Msg | To | Event Summary | Anticipated Response | Controller Notes |
| 0900 | | | All evacuation group Controllers Assemble | Evacuation Group Controllers assemble at American Red Cross, 1510 E. Flower, Phoenix, and report to designated Lead Controller | All EG and SEG Controllers assemble at American Red Cross, 1510, E. Flower, Phoenix. |
| 0930 | | | Assemble and load EG and SEG. | EG assembles at American Red Cross, 1510, E. Flower, Phoenix. | Contact Chief Offsite Controller upon arrival for real time check. |
| No Later than 0930 | | | Transport EG to PVNGS Energy Information Center. | Travel by van from American Red Cross, 1510, E. Flower, Phoenix, to PVNGS Energy Information Center. | |
| 1100 | | | Begin education presentation. | Remain at PVNGS Energy Information Center for presentation and refreshments. | Respond to Special Evacuee Controller request for radio operator assignment. |
| As Directed | | | Upon Direction of Chief Offsite Controller, Load EG in vehicles. | Upon receiving Supplemental Warning from MCSO, proceed to RCC. | Inform Chief Offsite Controller upon departure from PVNGS. Upon receiving information from the Public Info Controller, proceed to RCC. |
| | | | Arrive at RCC. | Exercise participation is terminated upon arrival at Dysart High School. Do not process into the RCC. | |

GOVERNMENT CONTROLLER GUIDE
SPECIAL EVACUATION GROUP (Volunteers)

| DRILL CONTROLLER GUIDE | | | | | |
|------------------------|------|----|--|--|--|
| Time | Msg | To | Event Summary | Anticipated Response | Controller Notes |
| 0900 | | | Assemble with EG Controllers. | EG Controllers assemble at American Red Cross, 1510 E. Flower, Phoenix and report to designated Lead Controller. Special EG Controllers do likewise. | All EG and SEG Controllers assemble at American Red Cross, 1510 E. Flower, Phoenix. |
| 0930 | | | Assist with assembly and loading of EG. | EG assembles at American Red Cross, 1510 E. Flower, Phoenix. | Contact Chief Offsite Controller upon arrival for real time check. |
| No Later than 0930 | | | Move in convoy with EG to PVNGS Energy Information Center. | Travel by controller vehicle in convoy to PVNGS Energy Information Center. | |
| 1100 | | | Select 4-6 Special Evacuees and telephone callers. | Upon arrival, and before educational presentations begin, identify special evacuees and telephone callers. | Inform Lead Controller of selection and request radio operator assignments to Special Evacuees Group and to telephone callers. |
| As Directed | SEG1 | | | Assemble and instruct Special Evacuees, telephone callers and radio operators. Make calls As Directed by the Chief Offsite Controller | Issue SEG messages to Special Evacuees and counterpart telephone callers. SEG-1 (2 copies) |

GOVERNMENT CONTROLLER GUIDE
SPECIAL EVACUATION GROUP (Volunteers)

| DRILL CONTROLLER GUIDE | | | | | |
|------------------------|------|----------------------------|---------------|--|---|
| Time | Msg | To | Event Summary | Anticipated Response | Controller Notes |
| As Directed | SEG2 | MCSO Special Assist. Team. | | Upon arrival at SEG Site #1, radio operator contacts telephone caller and requests message SEG-1 be called in to MCEOC (273-1411). | <p>One copy of SEG messages goes to Special Evacuee, one to Counterpart telephone caller.</p> <p>Instruct Special Evacuees to dismount from vehicle and prepare to be evacuated.</p> <p>Controller and party remain in vehicle until assistance arrives.</p> <p>Controller dismounts and issues message SEG-2 to MCSO player.</p> <p>Repeat controller process.</p> |
| | | | | | |

GOVERNMENT CONTROLLER GUIDE

SUPPLEMENTAL WARNING SITE

| DRILL CONTROLLER GUIDE | | | | | |
|------------------------|-----|----|--|---|---|
| Time | Msg | To | Event Summary | Anticipated Response | Controller Notes |
| 0900 | | | All Evacuation Group Controllers assemble. | Assemble with EG Controllers, SEG Controllers and radio operators at American Red Cross, 1510 E. Flower, Phoenix. | Wear Controller identification and carry Player Armbands. |
| 0530 | | | Assist with assembly and loading of EG. | EG assembles at American Red Cross, 1510 E. Flower, Phoenix. | |
| No Later than 0930 | | | Move in convoy with EG to PVNGS Energy Information Center. | Travel by controller vehicle in convoy to PVNGS Energy Information Center. | |
| 1100 | | | Arrive at PVNGS Energy Information Center. | Upon arrival, organize and brief Supplemental Warning Site party regarding site location, departure time from PVNGS and site set up and function. | Upon arrival request assignment of radio operator from Lead Controller. |
| As Directed | | | Deploy Supplemental Warning site party to site location. | Upon arrival perform site preparation. | Site party consists of 2 controllers and one radio operator. Site location is the vehicle itself, parked on/near 331st Ave and Baseline Road. Notify Lead EG Controller when site preparation is completed. |

GOVERNMENT CONTROLLER GUIDE

SUPPLEMENTAL WARNING SITE

| DRILL CONTROLLER GUIDE | | | | | |
|------------------------|-----|----|--|---|---|
| Time | Msg | To | Event Summary | Anticipated Response | Controller Notes |
| | | | | | Maintain radio contact regarding departure of EG from PVNGS. Wear Controller and Player Identification. |
| As Directed | | | EG departs PVNGS to 331st Ave and Baseline Road. | EG van loads and leaves PVNGS for Supplemental Warning Site. | Maintain radio contact with EG Controllers concerning transport progress. |
| As Directed | | | MCSO Supplemental Warning Team READS warning. | Supplemental Warning Team approaches and identifies Supplemental Warning Site. Supplemental Warning team READS evacuation warning. | When EG controller has been notified that Supp Warning event is completed, proceed to Dysart High School. |

GOVERNMENT CONTROLLER GUIDE

RECEPTION AND CARE CENTER (Dysart High School)

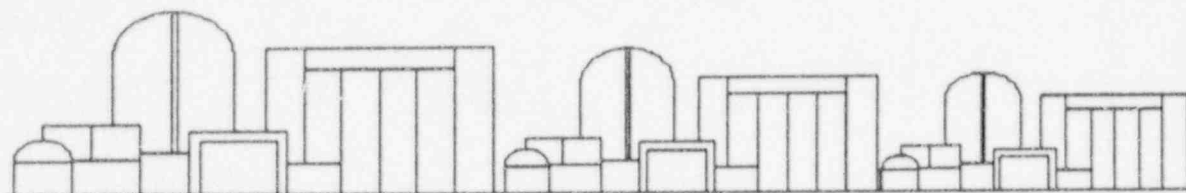
| DRILL CONTROLLER GUIDE | | | | | |
|------------------------|-------|-----------------|---|---|---|
| Time | Msg | To | Event Summary | Anticipated Response | Controller Notes |
| 0839 to 0904 | | | Notification of Unusual Event | None | RCC Controller should be on station 15 minutes prior to Exercise. |
| 0927 to 0952 | | | ALERT Notification and deployment. | Notify Reception and Care Center Resources. Deploy resources to the RCC. | |
| No Later Than 1130 | RCC-A | Shelter Manager | Shelter Coordinator directs establishment of RCC. | Set up RCC at Dysart High School. Assign location for monitoring station. Conduct evacuee processing. | Observe deployment and performance. Issue CTG MSG RCC-A, if required, to organize monitoring and processing. |

**GOVERNMENT CONTROLLER GUIDE
JOINT EMERGENCY NEWS CENTER (JENC)**

| DRILL CONTROLLER GUIDE | | | | | |
|------------------------|-------------------------|--------------|--|---|--|
| Time | Msg | To | Event Summary | Anticipated Response | Controller Notes |
| 0839 to 0904 | | | Notification of Unusual Event | Contact State and County Public Information Spokesperson, initiate and maintain contact with FNC Director. | JENC Controller should be on station 15 minutes prior to Exercise. |
| 0927 to 0952 | | JENC/ MGR | ALERT Notification | Initiate activation, receive hard copy from FNC, determine staffing levels, check equipment operation and prepare for initial press briefing. | |
| 1027 to 1400 | JENC 1 thru 17 | JENC/ MGR | JENC activation completed. | Receive information from EOF, State and County EOCs, draft press releases, relay to EOF and EOCs for approval, disseminate information through press briefings. | |
| 1134 to 1159 | | JENC/ MGR | SITE AREA EMERGENCY Declared | Continue as above. | |
| 1335 to 1400 | | JENC/ MGR | GENERAL EMERGENCY Declared | Continue as above. | |
| ???? | | JENC/ MGR | TERMINATION OF EXERCISE Commence critique, secure facility. | Receive information from EOF, relay to State and County EOCs, Media Rumor Control Group and APS Media Relations. | |

SECTION 06

GOVT MESSAGES



Palo Verde Nuclear Generating Station



SECTION 6

GOVERNMENT MESSAGES

SECTION 6
GOVERNMENT MESSAGES
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SECTION 6

GOVERNMENT MESSAGES

ACRONYMS

| | | |
|----------|---|--|
| ADEM | - | Arizona Division of Emergency Management |
| ADO | - | Assistant Director of Operations |
| ARRA | - | Arizona Radiation Regulatory Agency |
| COC | - | Chief Offsite Controller |
| COMM. O. | - | Communications Officer |
| DC | - | Direction and Control |
| DCC | - | Direction and Control Controller |
| DO | - | Director of Operations |
| DPS | - | Department of Public Safety |
| EBS | - | Emergency Broadcast System |
| EG | - | Evacuation Group |
| EGC | - | Evacuation Group Controller |
| EOC | - | Emergency Operations Center |
| EOCC | - | Emergency Operations Center Controller |
| EOF | - | Emergency Operations Facility |
| EPZ | - | Emergency Planning Zone |
| ESD | - | Equipment Services Department |
| FEMA | - | Federal Emergency Management Agency |
| JENC | - | Joint Emergency News Center |
| KI | - | Potassium iodide |
| MC | - | Maricopa County |
| MCDEM | - | Maricopa County Department of Emergency Management |

APPENDIX D

GOVERNMENT MESSAGES

ACRONYMS (Continued)

| | | |
|-------|---|--|
| MCSO | - | Maricopa County Sheriff's Office |
| NAN | - | Notification Alert Network |
| OGC | - | Operations Group Chief |
| OSCP | - | On-Scene Command Post |
| PI | - | Public Inquiry |
| POC | - | Privately Owned Conveyance |
| POL | - | Petroleum, Oil Lubrication Vehicle |
| PVNGS | - | Palo Verde Nuclear Generating Station |
| RB | - | Road Block |
| RCC | - | Reception and Care Center |
| REAT | - | Radiological Emergency Assistance Team |
| RF | - | REAT Forward |
| RFC | - | REAT Forward Controller |
| SEG | - | Special Evacuation Group |
| SS | - | Shift Supervisor |
| SW | - | Supplemental Warning |
| TOC | - | Technical Operations Center |
| TOCC | - | Technical Operations Center Controller |
| TOD | - | Technical Operations Director |

CONTINGENCY MESSAGE FORM

THIS IS A DRILL

To: TOC Director
Message No.: TOC-A
Time: After the TOC Director has inquired about the location of RCCs.
Location: Technical Operations Center

MESSAGE

The Reception and Care Center for residents is as follows:

Dysart High School

REAT Field Team is to respond to this RCC.

CONTINGENCY MESSAGE FORM

THIS IS A DRILL

To: TOC Shift Supervisor
Message No.: TOC-B
Time: Issue if TOC staff fails to inform TOC/SS of this information.
Location: Technical Operations Center

MESSAGE

The Reception and Care Center for residents is as follows:

Dysart High School

REAT Field Monitoring Team is to respond to this RCC.

EXERCISE MESSAGE FORM

THIS IS A DRILL

To: Maricopa County Operations Group Chief

Message No.: MC-1

Time: Maricopa County EOC

Location:

MESSAGE

The Reception and Care Center ,for residents, to be activated for evaluation is as follows:

Dysart High School

EXERCISE MESSAGE FORM

THIS IS A DRILL

To: Maricopa County Communications and Warning Officer
Message No.: MC-2
Time: After Warning Officer completes Siren Activation Procedure
Location: Maricopa County EOC

MESSAGE

Siren Pole No. 8, INTRAC 460, failed to function.

EXERCISE MESSAGE FORM

THIS IS A DRILL

To: Maricopa County Operations Group Chief

Message No.: MC-3

Time: When ordering On-Scene Commander (MCSO) to establish roadblock.

Location: Maricopa County EOC

MESSAGE

One road block(s) will be evaluated. You must establish the road block at the following location:

1. Old Highway 80 and Desert Rose Road.

CONTINGENCY MESSAGE FORM

THIS IS A DRILL

To: Maricopa County Operations Chief

Message No.: MC-A

Time: When directing activation of RCC

Location: Maricopa County EOC

MESSAGE

The Reception and Care Center ,for residents, being activated for evaluation purposes is as follows:

Dysart High School

CONTINGENCY MESSAGE FORM

THIS IS A DRILL

To: Maricopa County Group Operations Chief

Message No.: MC-B

Time: When supplemental warning instructions are being issued to the On-Scene Command Post (MCSO).

Location: Maricopa County EOC

MESSAGE

Siren Pole No. 8 failed to function. INTRAC 460.

NOTE: Loudspeakers, lights and sirens will not be used by the Supplemental Warning Team.

CONTINGENCY MESSAGE FORM

THIS IS A DRILL

To: On-Scene Commander
Message No.: OSCP-A
Time:
Location: On-Scene Command Post

MESSAGE

Siren Pole No. 8 failed to function. INTRAC 460.

NOTE: Loudspeakers, lights and sirens will not be used by the Supplemental Warning Team.

CONTINGENCY MESSAGE FORM

THIS IS A DRILL

To: On-Scene Commander

Message No.: OSCP-B

Time: When On-Scene Commander is directing the establishment of road block(s).

Location: On-Scene Command Post

MESSAGE

One road block will be evaluated. You must establish the road block at the following location:

1. Old Highway 80 and Desert Rose Road.

CONTINGENCY MESSAGE FORM

THIS IS A DRILL

To: On-Scene Commander

Message No.: OSCP-C

Time: Issue as inquiries are made as to progress of evacuating residents.

Location: On-Scene Command Post

MESSAGE

As inquiries are made concerning evacuation completion, provide the following information:

- * 30 minutes after evacuation is ordered, estimate 40% completion.
- * 45 minutes after evacuation is ordered, estimated 60% completed.
- * 1 hour after evacuation is ordered, estimated 80% completion.

100% completion only after Special Evacuations are complete.

EXERCISE MESSAGE FORM

THIS IS A DRILL

To: On-Scene Commander

Message No.: OSCP-1

Time:

Location: On-Scene Command Post

MESSAGE

The Reception and Care Center ,for residents, being activated is as follows:

Dysart High School

EXERCISE MESSAGE FORM

THIS IS A DRILL

To: On-Scene Commander
Message No.: OSCP-2
Time: Upon receipt of information requesting Special Evacuee assistance.
Location: On-Scene Command Post

MESSAGE

All Special Evacuees need to be picked up. These are actual evacuations.

All Special Evacuees are to be transported to the Reception and Care Center at Dysart High School.

EXERCISE MESSAGE FORM

THIS IS A DRILL

To: Supplement Warning Team

Message No.: SW-1

Time: Upon arrival at the supplemental warning area.

Location: 331st Ave and Baseline Road.

MESSAGE

Drive through affected area and simulate giving supplemental warning.

DO NOT activate siren, lights or loudspeaker.

Make certain evacuation group role players in vehicle at or near 331st Ave and Baseline Road are notified.

The evacuation group role players will be wearing red arm bands.

CONTINGENCY MESSAGE FORM

THIS IS A DRILL

To: Road Block Team #1

Message No.: RB-A

Time: If On-Scene Commander does not assign same location.

Location: In Patrol Car

MESSAGE

Establish a road block for evaluation at Old Highway 80 and Desert Rose Roads.

CONTINGENCY MESSAGE FORM

THIS IS A DRILL

To: REAT Forward Captain

Message No.: RF-A

Time: If information is not received from the TOC within 30 minutes of evacuation order.

Location: REAT Forward

MESSAGE

The Reception and Care Center being activated for residents is as follows:

Dysan High School.

A REAT Field Monitoring Team is to respond to the RCC.

EXERCISE MESSAGE FORM

THIS IS A DRILL

To: REAT Forward

Message No.:

Time: Out of sequence.

Location: REAT Forward.

MESSAGE

A vehicle decontamination demonstration is scheduled to be part of this Exercise. At REAT Forwards convenience and out of sequence with the exercise a controller selected vehicle will be identified as contaminated and directed to an area where decontamination procedures will be demonstrated.

Note: The vehicle will not actually undergo decontamination. However, personnel will show the ability to identify and safely isolate contaminated vehicle.

Waste disposal will not be demonstrated.

EXERCISE MESSAGE FORM

THIS IS A DRILL

To: REAT Forward Controller

Message No.:

Time: Out of sequence.

Location: REAT Forward

MESSAGE

NOTE: This message is for provision of data only. It contains data that will direct Emergency Workers through the decontamination process. It is not to be distributed to players under any circumstances. Maintain this message and provide the data to appropriate monitoring personnel as they demonstrate the surveying of the vehicle.

Instrument background readings will be as read.

| <u>Vehicle:</u> | <u>Initial reading</u> | <u>After Decon.</u> |
|-------------------|------------------------|---------------------|
| Front Left Wheel | 500 CPM> BKGD | 90 CPM> BKGD |
| Front Right Wheel | 400 CPM> BKGD | 80 CPM> BKGD |
| Front Left Floor | 300 CPM> BKGD | 50 CPM> BKGD |

EXERCISE MESSAGE FORM

THIS IS A DRILL

To: Special Evacuee #1 Telephone Caller (Male Caller)

Message No.: SEG-1

Time: At direction of Lead Controller

Location: PVNGS Energy Information Center

MESSAGE

Dial 273-1411 (Maricopa County EOC), when the number answers say:

"THIS IS A DRILL."

"I need help. I'm old and don't see well enough to drive and I need a ride. Can you help me?"

My name is _____ (Role Player's Name) _____. I'm located at the Arlington School Road and Rainbow Road.

"THIS IS A DRILL."

EXERCISE MESSAGE FORM

THIS IS A DRILL

To: MCSO Special Assistance Transportation
Message No.: SEG-2
Time: Upon arrival of the MCSO Assistance Team
Location: Special evacuee pick-up locations

MESSAGE

All Special Evacuees are to be transported to Dysart High School
This is the Reception and Care Center that will be activated for residents.

CONTINGENCY MESSAGE FORM

THIS IS A DRILL

To: Reception and Care Center Manager

Message No.: RCC-A

Time: If required, upon arrival of REAT Field Monitoring Team

Location: Tolleson Union High School

MESSAGE

Ensure that evacuees are monitored near arrival area.

Uncontaminated go to Reception.

Contaminated go to Decontamination (showers).

Note: 1. The use of the showers facilities for contaminated evacuees is to be simulated.

2. Evacuees will not carry any type of radioactive materials.

EXERCISE MESSAGE FORM

THIS IS A DRILL

To: APS Public Information Spokesperson

Message No.: JENC-1

Time: First New Briefing

Location: Joint Emergency New Center

MESSAGE

Was the declaration of ALERT related to an release of radiation ? What really caused the ALERT notification ? Is the public in danger?

EXERCISE MESSAGE FORM

THIS IS A DRILL

To: APS Public Information Spokesperson

Message No.: JENC-2

Time: Second New Briefing

Location: Joint Emergency New Center

MESSAGE

Could the problems that are occurring at Palo Verde right now lead to another Chernobyl ? How about another Three Mile Island ?

EXERCISE MESSAGE FORM

THIS IS A DRILL

To: County Public Information Spokesperson
Message No.: JENC-3
Time: Second New Briefing
Location: Joint Emergency New Center

MESSAGE

We understand that a hole was punched into this containment building, how can anything or anyone punch a hole into this so called three foot thick building? Have all of you people at Palo Verde been leading the public on? Is this building really three feet thick? How do I know that your not just telling us this information to shut the press up and deceive the public into thinking this place is safe?

EXERCISE MESSAGE FORM

THIS IS A DRILL

To: State Public Information Spokesperson
Message No.: JENC-4
Time: Second New Briefing
Location: Joint Emergency New Center

MESSAGE

How many people live in the 10-mile area surrounding Palo Verde, and is the state really prepared to handle the situation if this accident turns into another Chernobyl or Three Mile Island ?

EXERCISE MESSAGE FORM

THIS IS A DRILL

To: State Public Information Spokesperson
Message No.: JENC-5
Time: Next News Briefing
Location: Joint Emergency New Center

MESSAGE

What is the weather forecast ? How far is it estimated that the wind will carry any radiation that might be released ? What happens if there is a wind shift ?

EXERCISE MESSAGE FORM

THIS IS A DRILL

To: APS Public Information Spokesperson
Message No.: JENC-6
Time: Next News Briefing
Location: Joint Emergency New Center

MESSAGE

Although you say that you have conditions under control at Palo Verde, do you have a plan for a worst-case meltdown at the plant ?

EXERCISE MESSAGE FORM

THIS IS A DRILL

To: APS Public Information Spokesperson
Message No.: JENC-7
Time: Next News Briefing
Location: Joint Emergency New Center

MESSAGE

What happens to the employees at the plant site when an accident occurs? Are they sent home?
Is anyone left to run the plant? If so, are they in danger?

EXERCISE MESSAGE FORM

THIS IS A DRILL

To: APS Public Information Spokesperson
Message No.: JENC-8
Time: Next News Briefing
Location: Joint Emergency New Center

MESSAGE

How will this accident affect the other two units? Could this same thing happen to them?

EXERCISE MESSAGE FORM

THIS IS A DRILL

To: APS Public Information Spokesperson
Message No.: JENC-9
Time: 1230 News Briefing
Location: Joint Emergency New Center

MESSAGE

Back to the accident at the plant. How many employees have been killed or injured on the job at Palo Verde?

EXERCISE MESSAGE FORM

THIS IS A DRILL

To: County Public Information Spokesperson
Message No.: JENC-10
Time: 1230-1245 News Briefing
Location: Joint Emergency New Center

MESSAGE

How long does it take to evacuate all of the residents from the 10-mile area surrounding Palo Verde? How do you know when total evacuation is completed?

EXERCISE MESSAGE FORM

THIS IS A DRILL

To: State Public Information Spokesperson
Message No.: JENC-11
Time: Next News Briefing
Location: Joint Emergency New Center

MESSAGE

What information do you have on how long the release of radioactive materials into the atmosphere is likely to last?

EXERCISE MESSAGE FORM

THIS IS A DRILL

To: State Public Information Spokesperson
Message No.: JENC-12
Time: Next News Briefing
Location: Joint Emergency New Center

MESSAGE

What is the estimate of damage to crops and farm animals in the 10-mile area around the plant as a result of the accident at Palo Verde?

EXERCISE MESSAGE FORM

THIS IS A DRILL

To: APS Public Information Spokesperson
Message No.: JENC-13
Time: 1330 News Briefing
Location: Joint Emergency New Center

MESSAGE

Are we likely to see a core meltdown as a result of the events that have taken place at Palo Verde today?

EXERCISE MESSAGE FORM

THIS IS A DRILL

To: APS Public Information Spokesperson

Message No.: JENC-14

Time: 1330 News Briefing

Location: Joint Emergency New Center

MESSAGE

Is today's situation at Palo Verde just another example of sloppy workmanship and poor management?

EXERCISE MESSAGE FORM

THIS IS A DRILL

To: APS Public Information Spokesperson
Message No.: JENC-15
Time: 1330 News Briefing
Location: Joint Emergency New Center

MESSAGE

How long will it take to clean-up after this accident? How much is the estimated cost for this clean-up?

EXERCISE MESSAGE FORM

THIS IS A DRILL

To: APS Public Information Spokesperson
Message No.: JENC-16
Time: Next News Briefing
Location: Joint Emergency New Center

MESSAGE

How soon after conditions at Palo Verde are back under control will we be able to get in and look at the damage ourselves?

EXERCISE MESSAGE FORM

THIS IS A DRILL

To: APS Public Information Spokesperson
Message No.: JENC-17
Time: 1330 News Briefing
Location: Joint Emergency New Center

MESSAGE

With the nuclear production of electricity costing more and more as a result of accidents like this, does APS anticipate more towns like Page and Gilbert Arizona trying to run their own independent electric companies in a better managed and more economical manner?

EXERCISE MESSAGE FORM

THIS IS A DRILL

To: Public Inquiry Controller
Message No.: PI-1
Time: 1030
Location: Public Inquiry Center

MESSAGE

Call the State Public Inquiry Center at the times indicated on the following list of suggested Public Inquiry questions. Each question may be asked of more than one operator. Other free-play questions are encouraged.

PUBLIC INQUIRY QUESTIONS
(Refer to MSG PI-1)

I just heard that there's an accident at Palo Verde. Is this the same type of thing that happened at Chernobyl?

I just heard on the radio that there's a problem at Palo Verde, but I didn't hear any warning sirens go off. I live in Arlington and thought we were supposed to be warned if something went wrong at the plant.

What's an ALERT?

What's happening at Palo Verde?

Should we evacuate now, just to be safe?

Is it safe for me to travel west from Phoenix on Interstate 10?

Is radiation being released from Palo Verde? Will someone tell us if we are in danger?

My husband is a construction worker at Palo Verde. Will he be OK?

I just heard the warning sirens go off, but when I tried to tune to KTAR for instructions, my radio quit working. What should I do?

If we have to leave our home because of the problem at Palo Verde, will someone build us a new home like they did in Russia after the accident at Chernobyl?

Is Palo Verde going to melt-down? Exactly what is a meltdown?

If they can't get this problem at Palo Verde fixed today, are they going to have to shut off our electricity?

Should I stay inside my house if I live in Goodyear?

What's going on at Palo Verde?

Should I bring my pets/farm animals inside? I live east of Tolleson?

Is the state going to take over operation of Palo Verde?

I have to fly over Palo Verde to get to a business meeting in Los Angeles. Am I going to get exposed to radiation?

I keep hearing about something called REMS and MilliREMS. What the heck are these things?

PUBLIC INQUIRY QUESTIONS (Continued)
(Refer to MSG PI-1)

I live in Buckeye. Is it safe for me to go outside?

What is a SITE AREA EMERGENCY? Does it mean we're going to die or get cancer if we live within 10 miles of Palo Verde?

Will Ruth Fisher School be open tomorrow?

How much radiation is being released from Palo Verde?

If we have to evacuate to a Reception and Care Center, how long will it be before we can return to our home?

Is the milk I bought at the Hassayampa Store last night safe to drink?

Someone told me that radiation is more dangerous to children and pregnant woman than to people like my husband. Why?

I'm on my way to a Reception and Care Center. Will someone make certain my house isn't looted while I'm away?

I live in Avondale. Is our water safe to drink, or has the accident at Palo Verde contaminated it?

I have a family living in the 10-mile area surrounding Palo Verde. How do I find out if they have been able to leave the area and are safe?

I heard that the National Guard was going to take over Palo Verde. Is that true? My son's in the Guard and I don't want him near that mess.

I heard that there's a big cloud of steam or something hovering over Palo Verde. Is that radiation or just regular pollution?

When will an evacuation of Phoenix be required?

Are the vegetables from my home garden safe to eat? I live in Youngtown?

My electricity comes from Palo Verde. Is it going to be radioactive? Should I shut off my electricity to protect my family?

Is the radiation going to ruin my cotton crop? I live near Cotton Lane and Interstate 10.

Will I have to throw out the milk from my dairy farm? If so, will APS pay me for it? My farm is near 75th Avenue and Glendale.

PUBLIC INQUIRY QUESTIONS (Continued)
(Refer to MSG PI-1)

I just heard that a GENERAL EMERGENCY has been declared at Palo Verde. Isn't that the same thing that happened in Russia a couple of years ago? I have relatives in Phoenix... are they going to die?

I live in a trailer behind the Red Quail Store near Palo Verde, and I want to get out of the area until it's safe again. Can someone come out and help me?

My wife and I just retired here to Perryville and we're afraid that our house is going to be burnt up just like happened to that nuclear reactor in Russia -Cher- something or other. We don't have much life savings and if our house burned up, we wouldn't have any place to live. What are we going to do?

Is it safe to have sex when that thing is leaking? Will it make me have a deformed baby if I get pregnant?

I saw on the news that California had an earthquake. Did it cause your nuclear reactor to leak? should I sell my stock in Wal-Mart?

Your nuclear place is going to cause my daughter to have a miscarriage. I know this cause I read in the National Inquirer that radioactivity causes miscarriages. If my daughter loses her baby, I'm going to sue.

Hysterical voice on the phone....."My son just told me about the nuclear accident in Arizona and that the Russians are responsible for sabotaging the reactor so that they could send their missiles over while we were busy with this accident. Is this true? Are the Russians sending missiles over right now? I have to know please tell me.....?"

I've heard you've had an explosion. Should I call the travel agency and get my grandkids out of Peoria right now?

My name is Dr. Plethora Sandoch. Ethel Gardner is my patient. How could you tell her that radiation would make her pacemaker stop and scare her so bad? don't you people believe in ethics?

This is John Passisstichvitch from Scottsdale, is it true that nuclear fallout makes everything run backwards? I'm a clock maker and I need to know if all my clocks will start running backwards if the fallout reaches Scottsdale?

I read the newspaper reports when that nuclear place in Russia leaked and destroyed everything for 1000 miles around the plant, is that going to happen here? I'd hate to have my prize roses destroyed?

My water has started tasting bad. I know Glendale is the water supply for my city. Has PVNGS leaked into the Glendale water supply? Will I get sick if I drink the water? Is it safe to water my plants?

PUBLIC INQUIRY QUESTIONS (continued)
(Refer to MSG PI-1)

This is Jane Jones, I am calling from Albany, New York. I just heard about the disaster down there. My boy friend is a student at Arizona State University and I haven't heard from him. How can I find out if he's okay?

My cancer is in remission. I've heard that radiation from nuclear reactors will cause my cancer to come back and I just don't think I could deal with this anymore.

This is Geraldo, I am doing a show on people who have been exposed to radiation. Could PVNGS send some of its personnel to be on my show? I heard some people from your plant actually got direct exposure and I just know the public would like to hear their story.

My baby is a SIDS baby. She is susceptible to Sudden Infant Death Syndrome. Will radiation make her monitor go haywire or stop working? I don't want to lose my baby. How can I protect this monitor from radiation, would placing lead all the way around it work?

My name is Aunt Gardner and I heard that radiation will stop my pacemaker. Should I go to the doctor now and get it checked?

This is Herbert Gardner. My Aunt Ethel is really afraid that her pacemaker is going to stop. Just what did you people tell her when she called?

This is Brenda Sue Hanes from Glendale. I had to do exercises when I was in the Air National Guard on what to do in case of nuclear war. I want to know if I can come down and help you'll out?

How can you people let this happen? We are still trying to clean up after Three Mile Island and it happened 50 years ago and now we have to come and clean up after you. Total incompetence, if you ask me.

This is Larry King's Office. Mr. King would like to do a live interview with your Health Department radiation experts tonight on his show on CNN. Who do I need to talk to arrange this? Will I have to call the Governor?

My name is Kathy Vardaman and my son wants to fly his plane over your reactor and take some pictures. I've heard that directly overhead of a leaking nuclear place a black hole exists, and I'm afraid my son will disappear into that black hole if he flies out there?

How much will my APS bill go up?

I'm at the Circle K in Goodyear, which way should I go?

I'm pregnant will this hurt my baby?

Why do we need Palo Verde anyway?

How long till it explodes?

What are you doing about the problem?

PUBLIC INQUIRY QUESTIONS (continued)
(Refer to MSG PI 1)

After the explosion, how long till I get my power back?

Is my water OK?

Should I turn off my gas?

My husband was hunting rabbits on Sunday about 5 miles from the plant, can we eat them?

I need to go to Yuma, can I take S.R. 89?

I live in Goodyear and the air smells funny, am I being radiated?

I bought groceries in Litchfield Park, should I throw them away?

I have friends driving in from LA on I-10, will they be radioactive and glow in the dark?

How many people do you think will die?

How can I tell if I have been exposed to radiation?

My dog got loose and I live 8 miles from the Palo Verde plant, can you send a helicopter to find him?

I ran out of my heart medicine and have been advised to stay indoors, can I go to Walgreen's if I drive real fast?

My father is on oxygen and his tank is almost empty, how can I get him more?

Can I milk my cows? (I live in Surprise)

My car won't start and I Don't want to stay home, will you come and get me?

How long will this last?

Did a terrorist cause this problem?

I work at the "Drop Inn" bar that's about 2.5 miles from the plant and I didn't leave work until 2:30 A.M. this morning, have I been exposed? Where can I go to get checked?

I'm Bill Smith and I have produce being picked right now, can I sell it?

Hi, this is Bill Smith again, should I do something about the farm workers I have picking in the fields? If they get sick, who will pay their medical bills?

I live at 75th Ave and Thomas, where is the nearest shelter?

I have been told to evacuate. What should I do with my pet Boa constrictor? He requires special lighting and cooling, are there provisions for him at the reception and care centers?

PUBLIC INQUIRY QUESTIONS (continued)
(Refer to MSG PI 1)

I have been advised to stay indoors but didn't know anything was wrong until 10A.M., before that I was tanning from about 8-10 A.M. and I live 3 miles from the plant. Can I breast feed my baby?

I'm supposed to fly on American West to LA, is it safe to fly over the area?

My niece goes to Palo Verde School and I am supposed to pick her up for a dentist appointment, can I come and get her ?

What is Governor Symington doing about this problem?

Has anyone advised President Clinton of this problem?

Is FEMA in charge? If not who is?

I live about 7 miles from the plant and just painted the outside of my house, as a matter of fact the paint is still wet, is it going to be contaminated?

I own 6 acres of land about 15 miles from Palo Verde is the government going to buy it?

I retired from the Nevada Test Site 10 years ago and am a Nuclear Engineer, do you want me to come and help you?

My friend just told me that the fall out is going to land on Tolleson, is this true?

I am a bee farmer, and live 12 miles outside of the plant, What can I do to save my honey?

My goat is pregnant, will her unborn kid be OK?

I own a 15 passenger van and my husband is leaving to help evacuate the area, will he be safe?

Can't you just turn the plant off?

I live just outside the 5 mile marker and I heard instructions for all people inside a 5 mile area to evacuate, what about me?

My name is Sandy Shine and I represent "Prisoners Are Citizen's Too", Why aren't you evacuating the Perryville Prison? Are you trying to play judge and give them all a death sentence?

I saw a UFO over the plant last night, did the extra-terrestrials take over the plant?

I'm house-sitting for my daughter and I heard some sirens awhile ago when I was washing the car when I came in for a beer. The guy said that all people in a 5 mile area should evacuate, am I within 5 miles? My address is 27705 west Buckeye Road.

I live 8 miles from the plant and I was looking out my window with binoculars at the plant and I saw some men in suits and carrying all sorts of equipment, am I contaminated? Will I go blind by looking at the plant through my binoculars?

PUBLIC INQUIRY QUESTIONS (Continued)
(Refer to MSG PI 1)

My name is Wenda Byar and my sister just called me from Pennsylvania and she said that you people will be sending me to a resort in San Diego until this is over, since I only live 4 miles from the plant? What time is my flight and what's the weather like in San Diego right now?

I'm from Rose Lane School and my fourth grade class was scheduled for a tour of Palo Verde today. Will you still be giving tours today?

My brother went hang gliding at the White Tanks Mountains, will he be OK?

This morning my aunt cut her hand and my husband took her to West Valley Emergency Center in Goodyear. Will they be able to come back home?

Why am I being told to evacuate when I see Sheriff's deputies driving around? Why is it OK for them to stay in this area?

I read that if I take salt the radiation won't hurt me. How many tablespoons should I take?

Is it true that all animals at that Wild Animal Park out there are going to die? I'm willing to take in some of them. Who should I call?

My house is right next to siren 11 and after it went off my wife can't hear anything. Why didn't you warn us that you were going to sound the sirens?

I live at the 8 mile marker area and some new neighbors just moved in next door and I don't believe they know about the Plant. The sirens just sounded and I turned on the radio and it said to stay indoors, the neighbors are still outside barbecuing, would it be safe for me to go and tell them to go indoors?

Hi, we just moved in out in the area and were informed that we were to stay indoors, can we eat the steaks we just barbecued?

I forgot to pay my APS bill this month, did you do this just to make me pay?

Hi, my name is Fred Gardner and I planted some carrots and radishes in my garden last week, will they be OK to eat? I live at the corner of Narramore and 333 Avenue.

My pregnant cat, who strayed away last week, just returned home this morning hungry and un-pregnant. Do you think she is contaminated with radiation? I live near Tonopah and I'm getting ready to leave the area, should I bring the cat with me?

I slept last night in my van at Salome. Should I go to the Maricopa County Medical Center and get checked for radiation contamination?

My grandfather travels frequently between Needles and Quartzsite and he may be in Quartzsite now, Do you think he will be in any danger?

Hi, I am willing to fly my aerial sign in and around the 20 mile radius with the words "EVACUATE TO THE EAST OR WEST". What agency or authority do I contact to arrange this excellent method of alerting citizens.

PUBLIC INQUIRY QUESTIONS (continued)
(Refer to MSG PI 1)

I live in Gila Bend and I am supposed to travel to Phoenix tomorrow for a job interview. I normally travel on I-10 East into Phoenix. Do you recommend another route into Phoenix? Is it safe in Phoenix or should I cancel my appointment for this job interview?

I am a wealthy person and I know several others who believe if we were contaminated and expose to radiation, we want the best medical assistance available. We can pay for this assistance. Which hospital do you recommend? I think you should alert the Mayo Clinic to be prepared to assist us.

I reside in the Carefree area North of Scottsdale. If there is a wind shift, will this area be contaminated with radiation? Isn't any amount of radiation contamination harmful? Why don't you advise evacuation of this area. I think I'll just take a vacation and get out of here for awhile. I refused to stay here and allow government officials to decide when I should evacuate. I know of some people in their RV who usually park everyday at the Buckeye Hills Park. It is located on State Route 85 just south of Palo Verde Road. Will they be able to hear a siren? Will they be notified if they should evacuate the area? I would feel real bad if something happened to them out there.

I'm calling in on my cellular phone. The battery is low. Please let me know if I should not be in the Hummingbird Springs Wilderness Area. (I just heard a bulletin over my truck radio but not all of it. I know that it concerns the PVNGS and I did manage to get this phone number.) Can I travel back into Phoenix or should I evacuate in another direction?

I live along the Sun Valley Parkway between Buckeye and Sun City (actually my home is on the West side of the Sun Valley Parkway and directly west of the (backside) White Tanks Mountains. Should I plan to evacuate?

My favorite pass time is to fish at Hassayampa near the Gillespie Dam. Is it OK to continue doing this? Will it be OK to eat the fish I caught late yesterday afternoon? I live near Buckeye. Shouldn't I be leaving the area and which direction should I and my family go? Do you have any suggestions about how far we should travel and where we should stay if we need to evacuate?

I live within the 50 mile radius of the PVNGS. If I hear my sector is to be evacuated, how long should I plan to be gone?

My elderly husband and I are preparing for the worst. However, he has become very pugnacious about this whole incident at Palo Verde. He is resisting the advisories to prepare to evacuate. Who should be advised of this predicament? Will we be forced to leave ever if we do not wish to leave? Our home is in the area of Arlington.

I'm calling because I live and own a business in Quartzite. Will you be evacuating anyone toward the Quartzite area? Please have someone announce that there is a few aircraft with pilots available for rent at the Quartzite airport. We can fly anyone into California from Quartzite, but they must travel light. My phone number is (phone number) for further information.

PUBLIC INQUIRY QUESTIONS (continued)
(refer to MSG PI 1)

My name is Jacob Waltz Jr. and I prospect in the areas of Gila Bend Mts. near Sundad, the Eagle Tail Mts. the Big Horn Mts. and along Centennial Wash (west of Phoenix). I usually prestash plastic gallon jugs of water and some canned foods in these areas for emergencies. I wondered if these supplies will be contaminated? Can I go into these areas today? If I have to stay evacuated from the areas, how long will it be until I can go back?

I am caretaker of some acreage along I-10 between Tonopah and Vicksburg Junction. I need to travel into Phoenix. Will I-10 be open to Eastbound traffic? If not, when will it be open? During this emergency, can I request airlift of food supplies to me (especially if I-10 is closed off)?

I'm calling to let you know that I am psychic and I envision enormous problems with the incident at the PVNGS. In fact, radioactive releases cause me to become extra sensitive to forces beyond the physical world. You may be able to use me to reveal the unknowns associated with this incident. I am a reputable psychic and I have been used by law enforcement to solve mysteries. Anyone needing my help may contact me at (phone number). Please let me know of any interested governmental authorities that might need my help. Actually, you should tell them that I can see a chamber within the plant that is filling with radioactive water. I know the water is very radioactive because it has a cobalt blue glow about it. And, I see red hot boiling bubbling water encompassing some sort of dial indicating high numberals at a pressure sensitive indication mark. I truly hope this helps. Oh, Oh, I am receiving more and more revelations now I see a hand -- someone's hand pushing or turning a button or a valve. Is someone, an employee, in the chamber of the plant? I better hang up now -- I'm getting dizzy, which means a very important message will be coming to me soon. I'll call you back.

When Will President Clinton get here? Where will he be staying?

Hi my name is Kelly and I am in the fourth grade, I am doing a book report on desert plants, can you help me?

I have lived in Goodyear all my life and during the spring I like to collect the Sagaro Cactus Fruit out here, will I be able to do it this spring?

My mom is cooking vegetable soup and she doesn't believe me that were not supposed to eat fresh vegetables, will you talk to her and make some sense to her?

There is supposed to be a big concert this weekend at Blockbuster Sky Pavillion, do you think it will be canceled? If they cancel it where can I turn my ticket in for reimbursement?

I just saw this lady on the news and she said she is with emergency management and you should tell her that her clothes don't match.

My uncle lives in Prescott and said that I better hurry up and get out of Tempe or I'll be contaminated, is this correct?

I have been advised to shelter in place, how many years will it be before I can leave?

If I hike to Squaw Peak will I be able to see the meltdown?

Is this a drill or is the plant really in trouble?

PUBLIC INQUIRY QUESTIONS (continued)
(Refer to MSG PI 1)

The Phoenix Suns are supposed to play tonight, is it safe for them?

I have developed a radiation catcher and if you let me go into the unit I can catch all the radiation in my devise. Who will I contact?

Can I take my ex-husband out there and leave him?

Who do those people think they are getting on the TV and telling me what to do? They are telling me where to go and what to do. Just what makes them the experts?

Why hasn't the problem been fixed?

My wife is a firefighter and I'm telling you now that if the plant explodes, you better not make her go to the plant!

I have been told to evacuate but I'm worried that someone is going to steal all of my rocks in the front yard, can you send someone with a truck to help me load them in a truck?

I know this was a conspiracy so that the baseball stadium will not be built out there.

I want to know the name of the person who caused this problem?

Why don't you people just capture all to the radiation with one of those big planes?

My nephew works for NASA and if you want I'll call him and tell him to bring the shuttle here and we can just send the contamination to the moon? What time should I tell him to be here?

I'm lonely and I saw your number on the television. My children are all grown and they never have time for me. When Billy and Sally were little I devoted my whole life to them and look how they treat their loving mother? Do you call your mother? I bet you let your mom see the grandkids more than two times a week? But not my children, oh no they are too busy for an old woman like me! I think you should call them and tell them what a rotten child they are and that they should be grateful that you have such a wonderful mom. You can call Billy at the hospital where he works at Good Samaritan and Sally works at some school, I'm not sure which one but you sound like a smart person and I know you'll find her and tell her.

I have some cattle that I allow to graze at the area bordered by the Hassayampa Gin Road, Centennial Wash, and Agua Caliente Extension Road. Should I send someone out to round them up? What is going to happen to my livestock when I evacuate?

Please, I wonder if you could give me a phone number to the Nuclear Regulatory Commission? I need to call and report all this trouble that the PVNGS and the State of Arizona are causing the citizens. I do not believe that a nuclear plant should be allowed to have accidents. I have been old for years and years about how something like this might happen. If you won't give me their number, I'll just call information and get it. I live in Sun City and I am going to contact my congressman too.

PUBLIC INQUIRY QUESTIONS (continued)
(Refer to MSG P 1)

Is the governor going to release all non-essential State employees from their work to go home and take care of their families? I just heard that PVNGS has a very major emergency problem and evacuations are occurring or will be occurring. I work at the Department of Motor Vehicles and do not believe business should be conducted today. I think, as a precaution, I will just request leave of absence for the rest of the day.

I was watching TV when an EBS message was Broadcast. It said something about referring to your Palo Verde Public Safety Calendar. I don't have one. I know that there is trouble at the Nuclear Power Plant. Could you explain to me what is going on? I live in Laveen and I am certain the EBS message was telling everyone to evacuate. Where would I evacuate to? This sounds pretty serious. There is going to be a live report soon on TV -- you might want to watch it -- Channel 12, I think.

Hello, we operate the Rainbow Valley Dairy in Buckeye. We heard that there is trouble at the PVNGS. Our boss is not here. We believe that when something like this occurs, we are to cease our Dairy Operations, shelter the livestock and wait for further instructions. Is this true? How long will we be inoperable, if we are told to evacuate?

This is Ganley's Funeral Home at 104 East Baseline Road in Buckeye. We realize there is a problem at the PVNGS. Will it be advisable for us to cancel all graveside funeral services until authorities are certain that there is not a threat of radioactive contamination releases into the atmosphere? Can you tell us if this is a long term threat or a short term threat to the population? Should I alert the Funeral Homes in Sun City West of potential problems?

This is Arizona Soaring Adventures. We're located on North Lake Pleasant Road and West of Carefree Highway about 8 miles South of Lake Pleasant. Our gliders do not normally attain very high altitudes. Should we shut our business down during this potential radioactive threat? Does it appear that our will be evacuated?

I am a resident of West Phoenix. I am very concerned about what is going on at PVNGS. Will the population of West Phoenix area be told if radioactivity is transferred here by the wind. Shouldn't we all just leave now and not wait?

This is the manager of the Estrella Mountain Golf Course in Goodyear. I believe that due to the emergency at the PVNGS, people have been advised to leave or take shelter. Shouldn't I evacuate this golf course? Will this area eventually be told to evacuate? Will I receive compensation from the Government for each day I lose business because of the PVNGS emergency? Are you going to alert the Golf Courses over in Sun City West to close?

Hi, my husband is a truck driver and he will be heading into Phoenix from California on I-10 today. Will he be delayed because of this emergency? He carries drug store commodities such as soaps, toilet paper, perfume etc. Will he be allowed into the Phoenix area at all? How is this emergency being handled? Is it going to get worse - - like is the City of Phoenix in any danger?

I'm calling long distance and I need the phone number of every Red Cross Reception and Care Center that opens. I am trying to locate a relative and I believe he will be among the evacuees. Will employees of the PVNGS be checking in at Reception and Care Centers? Is there a phone number that I can call directly to the PVNGS for information about their employees?

PUBLIC INQUIRY QUESTIONS (continued)
(Refer to MSG P11)

Hey, we just got word that we have to evacuate out of this area. We're at Old US 80 and Arlington Canal Road. If this is true, we only have enough gas to drive to Phoenix and we have no extra money for anything else. Will we get some financial help at the Red Cross Shelter? I do not get paid for five more days and, because I have to evacuate, I may not even be able to get my check until this emergency is over. You might want to tell someone to expect us. There is myself, my wife and four children under 10 years old. We're packing as much as we can and we are trying to bring all of our food that we bought with my last paycheck so that it does not spoil and go to waste. Do you think it might already be contaminated?

I would like some information about the Parker area. Is there a chance that this town will be affected by the radioactivity that may have been released from the nuclear generating station West of Phoenix? We have people boating and fishing on the Colorado River. All this outdoor activity is occurring today and we are actually on the Colorado River Indian Reservation. Will the Indian Reservation receive timely notice if there is a threat to the population here? Is the City of Phoenix going to have to evacuate?

Yes, this is Pierce Aviation. I have a concern about my crop dusting business. Should I cancel my scheduled crop dusting activities today? We have several farms in the agriculture areas West of Phoenix -- pretty close to PVNGS. If there is a release of radioactive steam shouldn't we all stop our work and get at 100 miles away from the area?

Hello, I am a student at ASU, Science and Engineering. Could the Emergency Management Organization working the emergency at PVNGS use us? We are perfectly willing to help with sample gathering, monitoring, and/or Lab analysis. Here is our phone number so that someone can get back to us. Some of our Science Club members are very eager to learn what is happening on site at the PVNGS.

I telephoned the Lake Pleasant Park Department to see about reserving an area for a private party next weekend and the Park Ranger told me that they may have to close the Park down depending upon what is happening at the PVNGS. Is this true? If radioactivity is released into the air and the breeze carries it over to Phoenix or Lake Pleasant -- won't it be harmful to the population in those areas? How may I stay informed on what is occurring with this emergency? Thank You

Hello, I had to drive all the way into Morristown to use a phone to call you. I hope you can give me some accurate information. I am a rock hound and part of the time I just prospect in the area of the Hieroglyphic Mountains and Castle Hot Springs. When the weather is nice, I just sleep out under the stars. Will I be in jeopardy of potential radiation from the PVNGS because I am outside all the time? Will my food be OK? Does the situation appear to be escalating? Will my radio be enough to keep me informed? What areas of the state are affected by this right now? If I notice the wildlife acting strange and getting sick should I call you? I thank you. I might call you again.

Hello, I work at Westridge Mall. Should I go to work as usual? Isn't this a dangerous situation out there at the PVNGS?

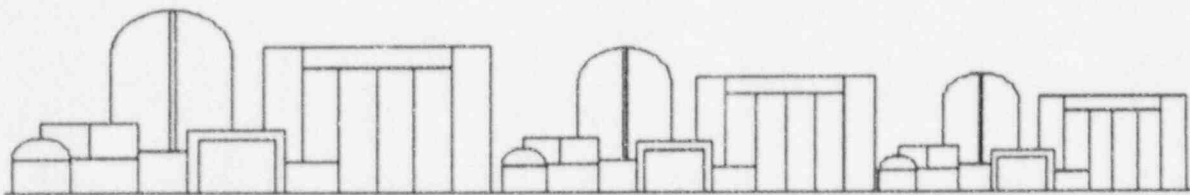
PUBLIC INQUIRY QUESTIONS (continued)
(Refer to MSG PI-1)

I am owner operator of a popular Valley Mexican Food Restaurant. We use daily shipments of lettuce, tomatoes, onions, green chilies, parsley etc. Some of them are obtained locally and some are shipped over from LA and Yuma. Should I expect a cutback or shortage of these fresh produce? Will shipments be halted entirely if problems increase at the PVNGS? Have the local producers/shippers/receivers/wholesalers been informed of this potential predicament? I'm afraid this is going to hurt my business.

If there is a radioactivity found in my neighborhood should I empty my swimming pool before using it again?

SECTION 07

PI GUIDE



Palo Verde Nuclear Generating Station



SECTION 7

PUBLIC INFORMATION CONTROLLER GUIDE

SECTION 7

PUBLIC INFORMATION CONTROLLER GUIDE

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SECTION 7

PUBLIC INFORMATION CONTROLLER GUIDE

ACRONYMS

| | | |
|-------|---|--|
| ADEM | - | Arizona Division of Emergency Management |
| APS | - | Arizona Public Service Company |
| API | - | APS Public Information Spokesperson |
| ARRA | - | Arizona Radiation Regulatory Agency |
| CEC | - | Corporate Emergency Center |
| COC | - | Chief Offsite Controller |
| CPI | - | County Public Information Spokesperson |
| CTG | - | Contingency |
| DC | - | Direction and Control |
| DO | - | Duty Officer |
| EBS | - | Emergency Broadcast System |
| EOC | - | Emergency Operations Center |
| EOF | - | Emergency Operations Facility |
| EPZ | - | Emergency Planning Zone |
| FEMA | - | Federal Emergency Management Agency |
| FM | - | From |
| FNC | - | Forward News Center |
| GPIO | - | Government Public Information Officer |
| JENC | - | Joint Emergency News Center |
| LOCA | - | Loss of Coolant Accident |
| MC | - | Maricopa County |
| MCDEM | - | Maricopa County Department of Emergency Management |
| MCSO | - | Maricopa County Sheriff's Office |

SECTION 7

PUBLIC INFORMATION CONTROLLER GUIDE

ACRONYMS (Continued)

| | | |
|-------|---|--|
| MSG | - | Message |
| NAN | - | Notification Alert Network |
| NRC | - | U.S. Nuclear Regulatory Agency |
| NUE | - | Notification of Unusual Event |
| PI | - | Public Inquiry |
| PVNGS | - | Palo Verde Nuclear Generating Station |
| RCG | - | Rumor Control Group |
| RCP | - | Reactor Coolant Pump |
| RCS | - | Reactor Coolant System |
| REAT | - | Radiological Emergency Assistance Team |
| RF | - | REAT Forward |
| SG | - | Steam Generator |
| SPI | - | State Public Information Spokesperson |
| SS | - | Shift Supervisor |
| TOC | - | Technical Operations Center |
| WRF | - | Water Reclamation Facility |

PUBLIC INFORMATION CONTROLLER GUIDE

FORWARD NEWS CENTER (FNC)

| DRILL CONTROLLER GUIDE | | | | | |
|------------------------|-----|--------|--|---|--|
| Time | Msg | To | Event Summary | Anticipated Response | Controller Notes |
| 0839 to 0904 | | FNC/DO | PVNGS Unit 3 Notification of Unusual Event | Establish contact with Plant Director, develop and issue press releases, access Media Alert, establish contact with APS Media Relations and transmit hard copy to APS Media Relations. | FNC Controller should be on station 15 min. prior to Exercise. |
| 0927 to 0952 | | FNC/DO | Alert | Continue to provide above support until activation of the JENC. Deactivate when this is accomplished and then travel to the JENC | Continue to observe staff functions. |

PUBLIC INFORMATION CONTROLLER GUIDE

JOINT EMERGENCY NEWS CENTER (JENC)

| DRILL CONTROLLER GUIDE | | | | | |
|------------------------|---------------------------|--------------|---|--|---|
| Time | Msg | To | Event Summary | Anticipated Response | Controller Notes |
| 0839 to 0904 | | JENC/ MGR | PVNGS Unit 3 Notification of Unusual Event | None | JENC Controller should be on station 15 minutes prior to Drill. |
| 0927 to 0952 | | JENC/ MGR | PVNGS Unit 3 ALERT Notification | Contact State and County public information spokesperson, initiates and maintains contact with FNC. Initiate activation, receive hard copy from the FNC, determine staffing levels, check equipment operation and prepare for initial press briefing. | Perform time-check with chief Controller. Record time lines. Continue to observe staff functions. |
| 1027 to 1400 | JENC -1 thru -17 | JENC/ MGR | JENC activation completed. | Receive information from EOF and State and County EOCs, draft press releases, relay to EOF and EOCs for approval, disseminate information through press briefings. | Observe staff functioning. |
| 1134 to 1159 | | JENC/ MGR | PVNGS Unit 3 declares a SITE AREA EMERGENCY. | Continue as above. | |
| 1335 to 1400 | | JENC/ MGR | PVNGS Unit 3 declares a GENERAL EMERGENCY | Continue as above. | |
| ???? | | JENC/ MGR | Terminate Exercise. | Receive information from EOF, relay to State and County EOCs, Media, Rumor Control Group and APS Media Relations. | |
| ???? | | JENC/ MGR | Commence critique, secure facility. | | |

PUBLIC INFORMATION CONTROLLER GUIDE

RUMOR CONTROL

| DRILL CONTROLLER GUIDE | | | | | |
|------------------------|-----------|--------------|--|---|------------------|
| Time | Msg | To | Event Summary | Anticipated Response | Controller Notes |
| 0839 to 0904 | | | PVNGS Unit 3 Notification of Unusual Event | None | |
| 0927 to 0952 | | RCG/ SUPV | PVNGS Unit 3 ALERT Notification | Initiate activation, establish contact with JENC Facility Manager and PI/SS, determine operation, receive hard copy of press releases from JENC, brief staff. | |
| 1027 to ???? | RCG -1 | RCG/ SUPV | RCG activation completed. | Respond, from approved press releases and stock information, to questions from the public and the media concerning conditions at PVNGS. Inform the JENC Facility Manager and PI/SS of any unusual rumors or questions received. | |
| ???? | | RCG/ SUPV | Terminate Exercise. | Receives termination notification from JENC. | |
| ???? | | RCG/ MGR | Commence critique, secure facility. | | |
| | | | | | |

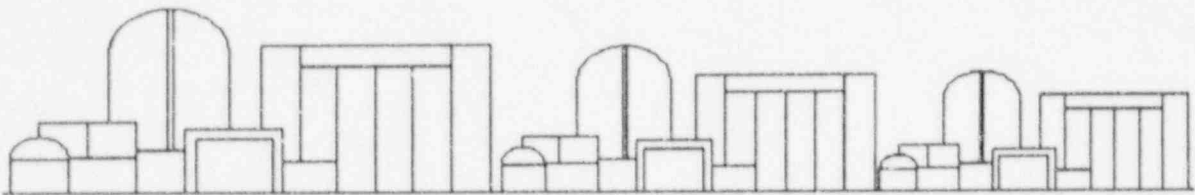
PUBLIC INFORMATION CONTROLLER GUIDE

PUBLIC INQUIRY

| DRILL CONTROLLER GUIDE | | | | | |
|------------------------|----------|-------|---------------------------------------|--|------------------|
| Time | Msg | To | Event Summary | Anticipated Response | Controller Notes |
| 0927 to 0952 | | PI/SS | PVNGS Unit 3 ALERT Notification | Initiate activation, establish contact with EOC/GPIO and RCG/SUPV, determine staffing levels, check equipment operations, receive hard copy of press releases from JENC, brief staff. | |
| 1027 to ???? | PI -1 | PI/SS | PI activation completed. | Respond, from approved press releases and stock information, to questions from the public and the media concerning government response to conditions at PVNGS. Inform the EOC/GPIO and RCG/SUPV of any unusual rumors or questions received. | |
| ???? | | PI/SS | Terminate Exercise. | Receives termination notification from EOC/GPIO. | |
| ???? | | PI/SS | Commence critique, secure facility. | | |

SECTION 08

PI MESSAGES



Palo Verde Nuclear Generating Station



SECTION 8

PUBLIC INFORMATION MESSAGES

SECTION 8

PUBLIC INFORMATION MESSAGES

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SECTION 8

PUBLIC INFORMATION MESSAGES

ACRONYMS

| | | |
|-------|---|--|
| ADEM | - | Arizona Division of Emergency Management |
| APS | - | Arizona Public Service Company |
| API | - | APS Public Information Spokesperson |
| ARRA | - | Arizona Radiation Regulatory Agency |
| CEC | - | Corporate Emergency Center |
| COC | - | Chief Offsite Controller |
| CPI | - | County Public Information Spokesperson |
| CTG | - | Contingency |
| DC | - | Direction and Control |
| DO | - | Duty Officer |
| EBS | - | Emergency Broadcast System |
| EOC | - | Emergency Operations Center |
| EOF | - | Emergency Operations Facility |
| EPZ | - | Emergency Planning Zone |
| FEMA | - | Federal Emergency Management Agency |
| FM | - | From |
| FNC | - | Forward News Center |
| GPIO | - | Government Public Information Officer |
| JENC | - | Joint Emergency News Center |
| LOCA | - | Loss of Coolant Accident |
| MC | - | Maricopa County |
| MCDEM | - | Maricopa County Department of Emergency Management |
| MCSO | - | Maricopa County Sheriff's Office |

SECTION 8

PUBLIC INFORMATION MESSAGES

ACRONYMS (Continued)

| | | |
|-------|---|--|
| MSG | - | Message |
| NAN | - | Notification Alert Network |
| NRC | - | U.S. Nuclear Regulatory Agency |
| NUE | - | Notification of Unusual Event |
| PI | - | Public Inquiry |
| PVNGS | - | Palo Verde Nuclear Generating Station |
| RCG | - | Rumor Control Group |
| RCP | - | Reactor Coolant Pump |
| RCS | - | Reactor Coolant System |
| REAT | - | Radiological Emergency Assistance Team |
| RF | - | REAT Forward |
| SG | - | Steam Generator |
| SPI | - | State Public Information Spokesperson |
| SS | - | Shift Supervisor |
| TOC | - | Technical Operations Center |
| WRF | - | Water Reclamation Facility |

EXERCISE MESSAGE FORM

THIS IS A DRILL

To: APS Public Information Spokesperson
Message No.: JENC-1
Time: First New Briefing
Location: Joint Emergency New Center

MESSAGE

Was the declaration of ALERT related to an release of radiation ? What really caused the ALERT notification ? Is the public in danger?

EXERCISE MESSAGE FORM

THIS IS A DRILL

To: APS Public Information Spokesperson

Message No.: JENC-2

Time: Second New Briefing

Location: Joint Emergency New Center

MESSAGE

Could the problems that are occurring at Palo Verde right now lead to another Chernobyl ? How about another Three Mile Island ?

EXERCISE MESSAGE FORM

THIS IS A DRILL

To: County Public Information Spokesperson
Message No.: JENC-3
Time: Second New Briefing
Location: Joint Emergency New Center

MESSAGE

We understand that a worker at Palo Verde was injured in a work related accident. Can you tell us more about what happened ?

EXERCISE MESSAGE FORM

THIS IS A DRILL

To: State Public Information Spokesperson
Message No.: JENC-4
Time: Second New Briefing
Location: Joint Emergency New Center

MESSAGE

How many people live in the 10-mile area surrounding Palo Verde, and is the state really prepared to handle the situation if this accident turns into another Chernobyl or Three Mile Island ?

EXERCISE MESSAGE FORM

THIS IS A DRILL

To: State Public Information Spokesperson

Message No.: JENC-5

Time: 1100-1115 News Briefing

Location: Joint Emergency New Center

MESSAGE

What is the weather forecast? How far is it estimated that the wind will carry any radiation that might be released? What happens if there is a wind shift?

EXERCISE MESSAGE FORM

THIS IS A DRILL

To: APS Public Information Spokesperson

Message No.: JENC-6

Time: 1100-1115 News Briefing

Location: Joint Emergency New Center

MESSAGE

Although you say that you have conditions under control at Palo Verde, do you have a plan for a worst-case meltdown at the plant ?

EXERCISE MESSAGE FORM

THIS IS A DRILL

To: APS Public Information Spokesperson

Message No.: JENC-7

Time: 1115-1130 News Briefing

Location: Joint Emergency New Center

MESSAGE

What happens to the employees at the plant site when an accident occurs? Are they sent home?
is anyone left to run the plant? If so, are they in danger?

EXERCISE MESSAGE FORM

THIS IS A DRILL

To: APS Public Information Spokesperson

Message No.: JENC-8

Time: 1115-1130 News Briefing

Location: Joint Emergency New Center

MESSAGE

How will this accident affect the other two units? Could this same thing happen to them?

EXERCISE MESSAGE FORM

THIS IS A DRILL

To: APS Public Information Spokesperson
Message No.: JENC-9
Time: 1130-1145 News Briefing
Location: Joint Emergency New Center

MESSAGE

Back to the accident at the plant. How many other employees have been killed or injured on the job at Palo Verde?

EXERCISE MESSAGE FORM

THIS IS A DRILL

To: County Public Information Spokesperson

Message No.: JENC-10

Time: 1130-1145 News Briefing

Location: Joint Emergency New Center

MESSAGE

How long does it take to evacuate all of the residents from the 10-mile area surrounding Palo Verde? How do you know when total evacuation is completed?

EXERCISE MESSAGE FORM

THIS IS A DRILL

To: State Public Information Spokesperson

Message No.: JENC-11

Time: 1145-1200 News Briefing

Location: Joint Emergency New Center

MESSAGE

What information do you have on how long the release of radioactive materials into the atmosphere is likely to last?

EXERCISE MESSAGE FORM

THIS IS A DRILL

To: State Public Information Spokesperson
Message No.: JENC-12
Time: 1145-1200 News Briefing
Location: Joint Emergency New Center

MESSAGE

What is the estimate of damage to crops and farm animals in the 10-mile area around the plant as a result of the accident at Palo Verde?

EXERCISE MESSAGE FORM

THIS IS A DRILL

To: APS Public Information Spokesperson

Message No.: JENC-13

Time: 1200-1215 News Briefing

Location: Joint Emergency New Center

MESSAGE

Are we likely to see a core meltdown as a result of the events that have taken place at Palo Verde today?

EXERCISE MESSAGE FORM

THIS IS A DRILL

To: APS Public Information Spokesperson
Message No.: JENC-14
Time: 1200-1215 News Briefing
Location: Joint Emergency New Center

MESSAGE

Is today's situation at Palo Verde just another example of sloppy workmanship and poor management?

EXERCISE MESSAGE FORM

THIS IS A DRILL

To: APS Public Information Spokesperson

Message No.: JENC-15

Time: 1215-1230 News Briefing

Location: Joint Emergency New Center

MESSAGE

How long will it take to clean-up after this accident? How much is the estimated cost for this clean-up?

EXERCISE MESSAGE FORM

THIS IS A DRILL

To: APS Public Information Spokesperson
Message No.: JENC-16
Time: 1215-1230 News Briefing
Location: Joint Emergency New Center

MESSAGE

How soon after conditions at Palo Verde are back under control will we be able to get in and look at the damage ourselves?

EXERCISE MESSAGE FORM

THIS IS A DRILL

To: APS Public Information Spokesperson

Message No.: JENC-17

Time: 1230-1245 News Briefing

Location: Joint Emergency New Center

MESSAGE

With the nuclear production of electricity costing more and more as a result of accidents like this, does APS anticipate more towns like Page and Gilbert Arizona trying to run their own independent electric companies in a better managed and more economical manner?

EXERCISE MESSAGE FORM

THIS IS A DRILL

To: Rumor Control Group Controller
Message No.: RCG-1
Time: 1030
Location: Rumor Control Center

MESSAGE

Call the Rumor Control Group Center at the times indicated on the following list of suggested Rumor Control questions. Each question may be asked of more than one operator. Other free-play questions are encouraged.

RUMOR CONTROL QUESTIONS

(Refer to MSG RCG-1)

I just heard that there's an accident at Palo Verde. Is this the same type of thing that happened at Chernobyl?

I just heard on the radio that there's a problem at Palo Verde, but I didn't hear any warning sirens go off. I live in Arlington and thought we were supposed to be warned if something went wrong at the plant.

What's an ALERT?

What's happening at Palo Verde?

Should we evacuate now, just to be safe?

Is it safe for me to travel west from Phoenix on Interstate 10?

Is radiation being released from Palo Verde? Will someone tell us if we are in danger?

My husband is a construction worker at Palo Verde. Will he be OK?

I just heard the warning sirens go off, but when I tried to tune to KTAR for instructions, my radio quit working. What should I do?

If we have to leave our home because of the problem at Palo Verde, will someone build us a new home like they did in Russia after the accident at Chernobyl?

Is Palo Verde going to melt-down? Exactly what is a meltdown?

If they can't get this problem at Palo Verde fixed today, are they going to have to shut off our electricity?

Should I stay inside my house if I live in Goodyear?

What's going on at Palo Verde?

Should I bring my pets/farm animals inside? I live east of Tolleson?

Is the state going to take over operation of Palo Verde?

I have to fly over Palo Verde to get to a business meeting in Los Angeles. Am I going to get exposed to radiation?

I keep hearing about something called REMS and MilliREMS. What the heck are these things?

RUMOR CONTROL QUESTIONS
(Refer to MSG RCG-1)

I live in Buckeye. Is it safe for me to go outside?

What is a SITE AREA EMERGENCY? Does it mean we're going to die or get cancer if we live within 10 miles of Palo Verde?

Will Ruth Fisher School be open tomorrow?

How much radiation is being released from Palo Verde?

If we have to evacuate to a Reception and Care Center, how long will it be before we can return to our home?

Is the milk I bought at the Hassayampa Store last night safe to drink?

Someone told me that radiation is more dangerous to children and pregnant women than to people like my husband. Why?

I'm on my way to a Reception and Care Center. Will someone make certain my house isn't looted while I'm away?

I live in Avondale. Is our water safe to drink, or has the accident at Palo Verde contaminated it?

I have a family living in the 10-mile area surrounding Palo Verde. How do I find out if they have been able to leave the area and are safe?

I heard that the National Guard was going to take over Palo Verde. Is that true? My son's in the Guard and I don't want him near that mess.

I heard that there's a big cloud of steam or something hovering over Palo Verde. Is that radiation or just regular pollution?

When will an evacuation of Phoenix be required?

Are the vegetables from my home garden safe to eat? I live in Youngtown?

My electricity comes from Palo Verde. Is it going to be radioactive? Should I shut off my electricity to protect my family?

Is the radiation going to ruin my cotton crop? I live near Cotton Lane and Interstate 10.

Will I have to throw out the milk from my dairy farm? If so, will APS pay me for it? My farm is near 75th Avenue and Glendale.

RUMOR CONTROL QUESTIONS
(Refer to MSG RCG-1)

I just heard that a GENERAL EMERGENCY has been declared at Palo Verde. Isn't that the same thing that happened in Russia a couple of years ago? I have relatives in Phoenix... are they going to die?

I live in a trailer behind the Red Quail Store near Palo Verde, and I want to get out of the area until it's safe again. Can someone come out and help me?

My wife and I just retired here to Perryville and we're afraid that our house is going to be burnt up just like happened to that nuclear reactor in Russia -Cher- something or other. We don't have much life savings and if our house burned up, we wouldn't have any place to live. What are we going to do?

Is it safe to have sex when that thing is leaking? Will it make me have a deformed baby if I get pregnant?

I saw on the news that California had an earthquake. Did it cause your nuclear reactor to leak? should I sell my stock in Wal-Mart?

Your nuclear place is going to cause my daughter to have a miscarriage. I know this cause I read in the National Inquirer that radioactivity causes miscarriages. If my daughter loses her baby, I'm going to sue.

Hysterical voice on the phone....."My son just told me about the nuclear accident in Arizona and that the Russians are responsible for sabotaging the reactor so that they could send their missiles over while we were busy with this accident. Is this true? Are the Russians sending missiles over right now? I have to know please tell me.....?"

I've heard you've had an explosion. Should I call the travel agency and get my grandkids out of Peoria right now?

My name is Dr. Plethora Sandoch. Ethel Gardner is my patient. How could you tell her that radiation would make her pacemaker stop and scare her so bad? don't you people believe in ethics?

This is John Passisstichvitch from Scottsdale, is it true that nuclear fallout makes everything run backwards? I'm a clock maker and I need to know if all my clocks will start running backwards if the fallout reaches Scottsdale?

I read the newspaper reports when that nuclear place in Russia leaked and destroyed everything for 1000 miles around the plant, is that going to happen here? I'd hate to have my prize roses destroyed?

My water has started tasting bad. I know Glendale is the water supply for my city. Has PVNGS leaked into the Glendale water supply? Will I get sick if I drink the water? Is it safe to water my plants?

RUMOR CONTROL QUESTIONS (Refer to MSG RCG-1)

This is Jane Jones, I am calling from Albany, New York. I just heard about the disaster down there. My boy friend is a student at Arizona State University and I haven't heard from him. How can I find out if he's okay?

My cancer is in remission. I've heard that radiation from nuclear reactors will cause my cancer to come back and I just don't think I could deal with this anymore.

This is Geraldo, I am doing a show on people who have been exposed to radiation. Could PVNGS send some of its personnel to be on my show? I heard some people from your plant actually got direct exposure and I just know the public would like to hear their story.

My baby is a SIDS baby. She is susceptible to Sudden Infant Death Syndrome. Will radiation make her monitor go haywire or stop working? I don't want to lose my baby. How can I protect this monitor from radiation, would placing lead all the way around it work?

My name is Aunt Gardner and I heard that radiation will stop my pacemaker. Should I go to the doctor now and get it checked?

This is Herbert Gardner. My Aunt Ethel is really afraid that her pacemaker is going to stop. Just what did you people tell her when she called?

This is Brenda Sue Hanes from Glendale. I had to do exercises when I was in the Air National Guard on what to do in case of nuclear war. I want to know if I can come down and help you'll out?

How can you people let this happen? We are still trying to clean up after Three Mile Island and it happened 50 years ago and now we have to come and clean up after you. Total incompetence, if you ask me.

This is Larry King's Office. Mr. King would like to do a live interview with your Health Department radiation experts tonight on his show on CNN. Who do I need to talk to arrange this? Will I have to call the Governor?

My name is Kathy Vardaman and my son wants to fly his plane over your reactor and take some pictures. I've heard that directly overhead of a leaking nuclear place a black hole exists, and I'm afraid my son will disappear into that black hole if he flies out there?

EXERCISE MESSAGE FORM

THIS IS A DRILL

To: Public Inquiry Controller
Message No.: PI-1
Time: 1030
Location: Public Inquiry Center

MESSAGE

Call the State Public Inquiry Center at the times indicated on the following list of suggested Public Inquiry questions. Each question may be asked of more than one operator. Other free-play questions are encouraged.

PUBLIC INQUIRY QUESTIONS
(Refer to MSG PI-1)

I just heard that there's an accident at Palo Verde. Is this the same type of thing that happened at Chernobyl?

I just heard on the radio that there's a problem at Palo Verde, but I didn't hear any warning sirens go off. I live in Arlington and thought we were supposed to be warned if something went wrong at the plant.

What's an ALERT?

What's happening at Palo Verde?

Should we evacuate now, just to be safe?

Is it safe for me to travel west from Phoenix on Interstate 10?

Is radiation being released from Palo Verde? Will someone tell us if we are in danger?

My husband is a construction worker at Palo Verde. Will he be OK?

I just heard the warning sirens go off, but when I tried to tune to KTAR for instructions, my radio quit working. What should I do?

If we have to leave our home because of the problem at Palo Verde, will someone build us a new home like they did in Russia after the accident at Chernobyl?

Is Palo Verde going to melt-down? Exactly what is a meltdown?

If they can't get this problem at Palo Verde fixed today, are they going to have to shut off our electricity?

Should I stay inside my house if I live in Goodyear?

What's going on at Palo Verde?

Should I bring my pets/farm animals inside? I live east of Tolleson?

Is the state going to take over operation of Palo Verde?

I have to fly over Palo Verde to get to a business meeting in Los Angeles. Am I going to get exposed to radiation?

I keep hearing about something called REMS and MilliREMS. What the heck are these things?

PUBLIC INQUIRY QUESTIONS (Continued)
(Refer to MSG PI-1)

I live in Buckeye. Is it safe for me to go outside?

What is a SITE AREA EMERGENCY? Does it mean we're going to die or get cancer if we live within 10 miles of Palo Verde?

Will Ruth Fisher School be open tomorrow?

How much radiation is being released from Palo Verde?

If we have to evacuate to a Reception and Care Center, how long will it be before we can return to our home?

Is the milk I bought at the Hassayampa Store last night safe to drink?

Someone told me that radiation is more dangerous to children and pregnant women than to people like my husband. Why?

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I'm at the Circle K in Goodyear, which way should I go?

I'm pregnant will this hurt my baby?

Why do we need Palo Verde anyway?

How long till it explodes?

PUBLIC INQUIRY QUESTIONS (continued)
(Refer to MSG PI-1)

What are you doing about the problem?

After the explosion, how long till I get my power back?

Is my water OK?

Should I turn off my gas?

My husband was hunting rabbits on Sunday about 5 miles from the plant, can we eat them?

I need to go to Yuma, can I take S.R. 89?

I live in Goodyear and the air smells funny, am I being radiated?

I bought groceries in Litchfield Park, should I throw them away?

I have friends driving in from LA on I-10, will they be radioactive and glow in the dark?

How many people do you think will die?

How can I tell if I have been exposed to radiation?

My dog got loose and I live 8 miles from the Palo Verde plant, can you send a helicopter to find him?

I ran out of my heart medicine and have been advised to stay indoors, can I go to Walgreen's if I drive real fast?

My father is on oxygen and his tank is almost empty, how can I get him more?

Can I milk my cows? (I live in Surprise)

My car won't start and I Don't want to stay home, will you come and get me?

How long will this last?

Did a terrorist cause this problem?

I work at the "Drop Inn" bar that's about 2.5 miles from the plant and I didn't leave work until 2:30 A.M. this morning, have I been exposed? Where can I go to get checked?

I'm Bill Smith and I have produce being picked right now, can I sell it?

Hi, this is Bill Smith again, should I do something about the farm workers I have picking in the fields? If they get sick, who will pay their medical bills?

I live at 75th Ave and Thomas, where is the nearest shelter?

I have been told to evacuate. What should I do with my pet Boa constrictor? He requires special lighting and cooling, are there provisions for him at the reception and care centers?

PUBLIC INQUIRY QUESTIONS (continued)
(Refer to MSG PI-1)

I have been advised to stay indoors but didn't know anything was wrong until 10 A.M., before that I was tanning from about 8-10 A.M. and I live 3 miles from the plant. Can I breast feed my baby?

I'm supposed to fly on American West to LA, is it safe to fly over the area?

My niece goes to Palo Verde School and I am supposed to pick her up for a dentist appointment, can I come and get her?

What is Governor Symington doing about this problem?

Has anyone advised President Clinton of this problem?

Is FEMA in charge? If not who is?

I live about 7 miles from the plant and just painted the outside of my house, as a matter of fact the paint is still wet, is it going to be contaminated?

I own 6 acres of land about 15 miles from Palo Verde is the government going to buy it?

I retired from the Nevada Test Site 10 years ago and am a Nuclear Engineer, do you want me to come and help you?

My friend just told me that the fall out is going to land on Tolleson, is this true?

I am a bee farmer, and live 12 miles outside of the plant, What can I do to save my honey?

My goat is pregnant, will her kid be OK?

I own a 15 passenger van and my husband is leaving to help evacuate the area, will he be safe?

Can't you just turn the plant off?

I live just outside the 5 mile marker and I heard instructions for all people inside a 5 mile area to evacuate, what about me?

My name is Sandy Shine and I represent "Prisoners Are Citizen's Too", Why aren't you evacuating the Perryville Prison? Are you trying to play judge and give them all a death sentence?

I saw a UFO over the plant last night, did the extra-terrestrials take over the plant?

I'm house-sitting for my daughter and I heard some sirens awhile ago when I was washing the car when I came in for a beer. The TV guy said that all people in a 5 mile area should evacuate, am I within 5 miles? My address is 37705 west Buckeye Road.

I live 8 miles from the plant and I was looking out my window with binoculars at the plant and I saw some men in suits and carrying all sorts of equipment, am I contaminated? Will I go blind by looking at the plant through my binoculars?

PUBLIC INQUIRY QUESTIONS (continued)
(Refer to MSG PI-1)

My name is Wanda Byar and my sister just called me from Pennsylvania and she said that you people will be sending me to a resort in San Diego until this is over, since I only live 4 miles from the plant? What time is my flight and what's the weather like in San Diego right now?

I'm from Rose Lane School and my fourth grade class was scheduled for a tour of Palo Verde today, Will you still be giving tours today?

My brother went hang gliding at the White Tanks Mountains, will he be OK?

This morning my aunt cut her hand and my husband took her to West Valley Emergency Center in Goodyear, Will they be able to come back home?

Why am I being told to evacuate when I see Sheriff's deputies driving around? Why is it OK for them to stay in this area?

I read that if I take salt the radiation won't hurt me. How many tablespoons should I take?

Is it true that all animals at that Wild Animal Park out there are going to die? I'm willing to take in some of them. Who should I call?

My house is right next to siren 11 and after it went off my wife can't hear anything. Why didn't you warn us that you were going to sound the sirens?

I live at the 8 mile marker area and some new neighbors just moved in next door and I don't believe they know about the Plant. The sirens just sounded and I turned on the radio and it said to stay indoors, the neighbors are still outside barbecuing, would it be safe for me to go and tell them to go indoors?

Hi, we just moved in out in the area and were informed that we were to stay indoors, can we eat the steaks we just barbecued?

I forgot to pay my APS bill this month, did you do this just to make me pay?

Hi, my name is Fred Gardner and I planted some carrots and radishes in my garden last week, will they be OK to eat? I live at the corner of Narramore and 333 Avenue.

My pregnant cat, who strayed away last week, just returned home this morning hungry and un-pregnant. Do you think she is contaminated with radiation? I live near Tonopah and I'm getting ready to leave the area, should I bring the cat with me?

I slept last night in my van at Salome. Should I go to the Maricopa County Medical Center and get checked for radiation contamination?

My grandfather travels frequently between Needles and Quartzsite and he may be in Quartzsite now, Do you think he will be in any danger?

Hi, I am willing to fly my aerial sign in and around the 20 mile radius with the words "EVACUATE TO THE EAST OR WEST". What agency or authority do I contact to arrange this excellent method of alerting citizens.

PUBLIC INQUIRY QUESTIONS (continued)
(Refer to MSG PI-1)

I live in Gila Bend and I am supposed to travel to Phoenix tomorrow for a job interview. I normally travel on I-10 East into Phoenix. Do you recommend another route into Phoenix? Is it safe in Phoenix or should I cancel my appointment for this job interview?

I am a wealthy person and I know several others who believe if we were contaminated and expose to radiation, we want the best medical assistance available. We can pay for this assistance. Which hospital do you recommend? I think you should alert the Mayo Clinic to be prepared to assist us.

I reside in the Carefree area North of Scottsdale. If there is a wind shift, will this area be contaminated with radiation? Isn't any amount of radiation contamination harmful? Why don't you advise evacuation of this area. I think I'll just take a vacation and get out of here for awhile. I refused to stay here and allow government officials to decide when I should evacuate. I know of some people in their RV who usually park everyday at the Buckeye Hillis Park. It is located on State Route 85 just south of Palo Verde Road. Will they be able to hear a siren? Will they be notified if they should evacuate the area? I would feel real bad if something happened to them out there.

I'm calling in on my cellular phone. The battery is low. Please let me know if I should not be in the Hummingbird Springs Wilderness Area. (I just heard a bulletin over my truck radio but not all of it. I know that it concerns the PVNGS and I did manage to get this phone number.) Can I travel back into Phoenix or should I evacuate in another direction?

I live along the Sun Valley Parkway between Buckeye and Sun City (actually my home is on the West side of the Sun Valley Parkway and directly west of the (backside) Quartzite Tanks Mountains. Should I plan to evacuate?

My favorite pass time is to fish at Hassayampa near the Gillespie Dam. Is it OK to continue doing this? Will it be OK to eat the fish I caught late yesterday afternoon? I live near Buckeye. Shouldn't I be leaving the area and which direction should I and my family go? Do you have any suggestions about how far we should travel and where we should stay if we need to evacuate?

I live within the 50 mile radius of the PVNGS. If I hear my sector is to be evacuated, how long should I plan to be gone?

My elderly husband and I are preparing for the worst. However, he has become very pugnacious about this whole incident at Palo Verde. He is resisting the advisories to prepare to evacuate. Who should be advised of this predicament? Will we be forced to leave even if we do not wish to leave? Our home is in the area of Arlington.

I'm calling because I live and own a business in Quartzite. Will you be evacuating anyone toward the Quartzsite area? Please have someone announce that there is a few aircraft with pilots available for rent at the Quartzsite airport. We can fly anyone into California from Quartzsite, but they must travel light. My phone number is (phone number) for further information.

PUBLIC INQUIRY QUESTIONS (continued)
(Refer to MSG PI-1)

My name is Jacob Waltz Jr. and I prospect in the areas of Gila Bend Mts. near Sundad, the Eagle Tail Mts. the Big Horn Mts. and along Centennial Wash (West of Phoenix). I usually prestash plastic gallon jugs of water and some canned foods in these areas for emergencies. I wondered if these supplies will be contaminated? Can I go into these areas today? If I have to stay evacuated from these areas, how long will it be until I can go back?

I am caretaker of some acreage along I-10 between Tonopah and Vicksburg Junction. I need to travel into Phoenix. Will I-10 be open to Eastbound traffic? If not, when will it be open? During this emergency, can I request airlift of food supplies to me (especially if I-10 is closed off)?

I'm calling to let you know that I am psychic and I envision enormous problems with the incident at the PVNGS. In fact, radioactive releases cause me to become extra sensitive to forces beyond the physical world. You may be able to use me to reveal the unknowns associated with this incident. I am a reputable psychic and I have been used by law enforcement to solve mysteries. Anyone needing my help may contact me at (phone number). Please let me know of any interested governmental authorities that might need my help. Actually, you should tell them that I can see a chamber within the plant that is filling with radioactive water. I know the water is very radioactive because it has a cobalt blue glow about it. And, I see red hot boiling bubbling water encompassing some sort of dial indicating high numerals at a pressure sensitive indication mark. I truly hope this helps. Oh, Oh, I am receiving more and more revelations now -- I see a hand -- someone's hand pushing or turning a button or a valve. Is someone, an employee, in the chamber of the plant? I better hang up now -- I'm getting dizzy, which means a very important message will be coming to me soon. I'll call you back.

When Will President Clinton get here? Where will he be staying?

Hi my name is Kelly and I am in the fourth grade, I am doing a book report on desert plants, can you help me?

I have lived in Goodyear all my life and during the spring I like to collect the Sagaro Cactus Fruit out here, will I be able to do it this spring?

My mom is cooking vegetable soup and she doesn't believe me that were not supposed to eat fresh vegetables, will you talk to her and make some sense to her?

There is supposed to be a big concert this weekend at Blockbuster Sky Pavillion, do you think it will be canceled? If they cancel it where can I turn my ticket in for reimbursement?

I just saw this lady on the news and she said she is with emergency management and you should tell her that her clothes don't match.

My uncle lives in Prescott and said that I better hurry up and get out of Tempe or I'll be contaminated, is this correct?

I have been advised to shelter in place, how many years will it be before I can leave?

If I hike to Squaw Peak will I be able to see the meltdown?

Is this a drill or is the plant really in trouble?

PUBLIC INQUIRY QUESTIONS (continued)
(Refer to MSG PI-1)

The Phoenix Suns are supposed to play tonight, is it safe for them?

I have developed a radiation catcher and if you let me go into the unit I can catch all the radiation in my devise. Who will I contact?

Can I take my ex-husband out there and leave him?

Who do those people think they are getting on the TV and telling me what to do? They are telling me where to go and what to do. Just what makes them the experts?

Why hasn't the problem been fixed?

My wife is a firefighter and I'm telling you now that if the plant explodes, you better not make her go to the plant!

I have been told to evacuate but I'm worried that someone is going to steal all of my rocks in the front yard, can you send someone with a truck to help me load them in a truck?

I know this was a conspiracy so that the baseball stadium will not be built out there.

I want to know the name of the person who caused this problem?

Why don't you people just capture all to the radiation with one of those big planes?

My nephew works for NASA and if you want I'll call him and tell him to bring the shuttle here and we can just send the contamination to the moon? What time should I tell him to be here?

I'm lonely and I saw your number on the television. My children are all grown and they never have time for me. When Billy an Sally were little I devoted my whole life to them and look how they treat their loving mother? Do you call your mother? I bet you let your mom see the grandkids more than two times a week? But not my children, oh no they are to busy for an old woman like me! I think you should call them an tell them what a rotten child they are and that they should be grateful that you have such a wonderful mom. You can call Billy at the hospital where he works at Good Samaritan and Sally works at some school, I'm not sure which one but you sound like a smart person and I know you'll find her and tell her.

I have some cattle that I allow to graze at the area bordered by the Hassayampa Gin Road, Centennial Wash, and Agua Caliente Extension Road. Should I send someone out to round them up? What is going to happen to my livestock when I evacuate?

Please, I wonder if you could give me a phone number to the Nuclear Regulatory Commission? I need to call and report all this trouble that the PVNGS and the State of Arizona are causing the citizens. I do not believe that a nuclear plant should be allowed to have accidents. I have been old for years and years about how something like this might happen. If you won't give me their umber, I'll just call information and get it. I live in Sun City and I am going to contact my congressman too.

PUBLIC INQUIRY QUESTIONS (continued)
(Refer to MSG PI 1)

Is the governor going to release all non-essential State employees from their work to go home and take care of their families? I just heard that PVNGS has a very major emergency problem and evacuations are occurring or will be occurring. I work at the Department of Motor Vehicles and do not believe business should be conducted today. I think, as a precaution, I will just request leave of absence for the rest of the day.

I was watching TV when an EBS message was Broadcast. It said something about referring to your Palo Verde Public Safety Calendar. I don't have one. I know that there is trouble at the Nuclear Power Plant. Could you explain to me what is going on? I live in Laveen and I am certain the EBS message was telling everyone to evacuate. Where would I evacuate to? This sounds pretty serious. There is going to be a live report soon on TV -- you might want to watch it -- Channel 12, I think.

Hello, we operate the Rainbow Valley Dairy in Buckeye. We heard that there is trouble at the PVNGS. Our boss is not here. We believe that when something like this occurs, we are to cease our Dairy Operations, shelter the livestock and wait for further instructions. Is this true? How long will we be inoperable, if we are told to evacuate?

This is Ganley's Funeral Home at 104 East Baseline Road in Buckeye. We realize there is a problem at the PVNGS. Will it be advisable for us to cancel all graveside funeral services until authorities are certain that there is not a threat of radioactive contamination releases into the atmosphere? Can you tell us if this is a long term threat or a short term threat to the population? Should I alert the Funeral Homes in Sun City West of potential problems?

This is Arizona Soaring Adventures. We're located on North Lake Pleasant Road and West of Carefree Highway about 8 miles South of Lake Pleasant. Our gliders do not normally attain very high altitudes. Should we shut our business down during this potential radioactive threat? Does it appear that our will be evacuated?

I am a resident of West Phoenix. I am very concerned about what is going on at PVNGS. Will the population of West Phoenix area be told if radioactivity is transferred here by the wind. Shouldn't we all just leave now and not wait?

This is the manager of the Estrella Mountain Golf Course in Goodyear. I believe that due to the emergency at the PVNGS, people have been advised to leave or take shelter. Shouldn't I evacuate this golf course? Will this area eventually be told to evacuate? Will I receive compensation from the Government for each day I lose business because of the PVNGS emergency? Are you going to alert the Golf Courses over in Sun City West to close?

Hi, my husband is a truck driver and he will be heading into Phoenix from California on I-10 today. Will he be delayed because of this emergency? He carries drug store commodities such as soaps, toilet paper, perfume etc. Will he be allowed into the Phoenix area at all? How is this emergency being handled? Is it going to get worse - - like is the City of Phoenix in any danger?

I'm calling long distance and I need the phone number of every Red Cross Reception and Care Center that opens. I am trying to locate a relative and I believe he will be among the evacuees. Will employees of the PVNGS be checking in at Reception and Care Centers? Is there a phone number that I can call directly to the PVNGS for information about their employees?

PUBLIC INQUIRY QUESTIONS (continued)
(Refer to MSG PI 1)

Hey, we just got word that we have to evacuate out of this area. We're at Old US 80 and Arlington Canal Road. If this is true, we only have enough gas to drive to Phoenix and we have no extra money for anything else. Will we get some financial help at the Red Cross Shelter? I do not get paid for five more days and, because I have to evacuate, I may not even be able to get my check until this emergency is over. You might want to tell someone to expect us. There is myself, my wife and four children under 10 years old. We're packing as much as we can and we are trying to bring all of our food that we bought with my last paycheck so that it does not spoil and go to waste. Do you think it might already be contaminated?

I would like some information about the Parker area. Is there a chance that this town will be affected by the radioactivity that may have been released from the nuclear generating station West of Phoenix? We have people boating and fishing on the Colorado River. All this outdoor activity is occurring today and we are actually on the Colorado River Indian Reservation. Will the Indian Reservation receive timely notice if there is a threat to the population here? Is the City of Phoenix going to have to evacuate?

Yes, this is Pierce Aviation. I have a concern about my crop dusting business. Should I cancel my scheduled crop dusting activities today? We have several farms in the agriculture areas West of Phoenix -- pretty close to PVNGS. If there is a release of radioactive steam shouldn't we all stop our work and get at 100 miles away from the area?

Hello, I am a student at ASU, Science and Engineering. Could the Emergency Management Organization working the emergency at PVNGS use us? We are perfectly willing to help with sample gathering, monitoring, and/or Lab analysis. Here is our phone number so that someone can get back to us. Some of our Science Club members are very eager to learn what is happening on site at the PVNGS.

I telephoned the Lake Pleasant Park Department to see about reserving an area for a private party next weekend and the Park Ranger told me that they may have to close the Park down depending upon what is happening at the PVNGS. Is this true? If radioactivity is released into the air and the breeze carries it over to Phoenix or Lake Pleasant -- won't it be harmful to the population in those areas? How may I stay informed on what is occurring with this emergency? Thank You

Hello, I had to drive all the way into Morristown to use a phone to call you. I hope you can give me some accurate information. I am a rock hound and part of the time I just prospect in the area of the Hieroglyphic Mountains and Castle Hot Springs. When the weather is nice, I just sleep out under the stars. Will I be in jeopardy of potential radiation from the PVNGS because I am outside all the time? Will my food be OK? Does the situation appear to be escalating? Will my radio be enough to keep me informed? What areas of the state are affected by this right now? If I notice the wildlife acting strange and getting sick should I call you? I thank you. I might call you again.

Hello, I work at Westridge Mall. Should I go to work as usual? Isn't this a dangerous situation out there at the PVNGS?

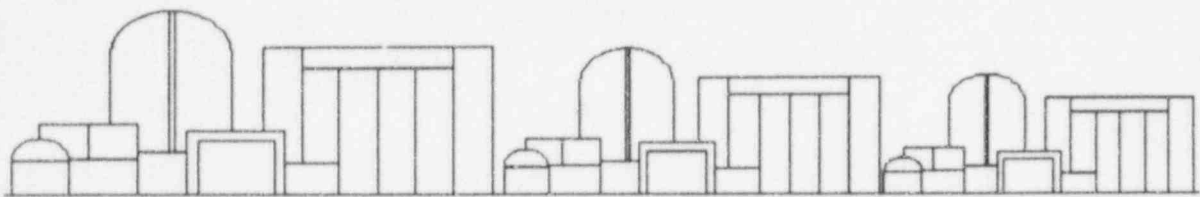
PUBLIC INQUIRY QUESTIONS (continued)
(Refer to MSG PI-1)

I am owner operator of a popular Valley Mexican Food Restaurant. We use daily shipments of lettuce, tomatoes, onions, green chilies, parsley etc. Some of them are obtained locally and some are shipped over from LA and Yuma. Should I expect a cutback or shortage of these fresh produce? Will shipments be halted entirely if problems increase at the PVNGS? Have the local producers/shippers/receivers/wholesalers been informed of this potential predicament? I'm afraid this is going to hurt my business.

If there is a radioactivity found in my neighborhood should I empty my swimming pool before using it again?

SECTION 09

CHEM / RAD



Palo Verde Nuclear Generating Station



RAD DATA OVERVIEW

- 1) Rad data is prepared in three main groups: the P-58 leak area; the lower Aux. Bldg. after the RAS occurs; and one the Chemistry Lab during PASS sampling activities. Each area will have a Controller assigned.
- 2) For the Exercise, all onsite and offsite radiological conditions will be "as read" until 11:21 when a penetration is broken on the outside of containment near the 100' Personnel Hatch (outside). This leak will be the primary source on onsite and offsite radiological problems until the RAS occurs at 1400. The RAS action will cause problems on the 70' Aux Bldg and below only.
- 3) The **140' OSC and RP Island area** remain at "as read" dose rates, contamination and airborne levels throughout the exercise.
- 4) The **Chemistry Lab** will remain at "as read" dose rate, contamination and airborne levels throughout the exercise EXCEPT FOR periods when PASS Sampling is taking place. During those periods the PASS Controller will notify all RMS Controllers that the prepared PASS sampling data is in use.
- 5) The **140' Control Room, STSC** and areas within the heavy steel doors remain at "as read" dose rate, contamination and airborne levels throughout the exercise.
- 5) All levels of the **Control Building** remains at "as read" dose rate, contamination and airborne levels throughout the exercise.
- 6) The **Diesel Generator Buildings** remain at "as read" dose rate, contamination and airborne levels throughout the exercise.
- 7) The **OSB Building** remains at "as read" dose rate, contamination and airborne levels throughout the exercise.
- 8) The **Corridor Building** will remain "as read" throughout the exercise; however, during the 13:25 to 15:15 time period, when you leave the Corridor Bldg on any level to approach the Turbine Hall the shine from the penetration area and some plume shine will be seen on the far end of the walkway. Refer to the MSSS structure maps for dose rates on the walkway areas. There will be no airborne or contamination seen on the walkway or Turbine Hall areas during this exercise as the plume will be carried up and around the south side of the Containment (point out to the players that they can clearly see the steam release being carried up and over the south side of containment). Since the dose rates are significant during the peak release they will be able to see some plume shine dose effect. OW will = CW.

CONTROLLER NOTES FOR LEAK AT P-58

1121 Penetration P-58 is broken at this time. The "Crane Operator" will call in an original report to Control Room. By now OSC will be activated, so a request for an investigative team will be made. Be sure you are dispatched with the team so you can supply the initial perspective.

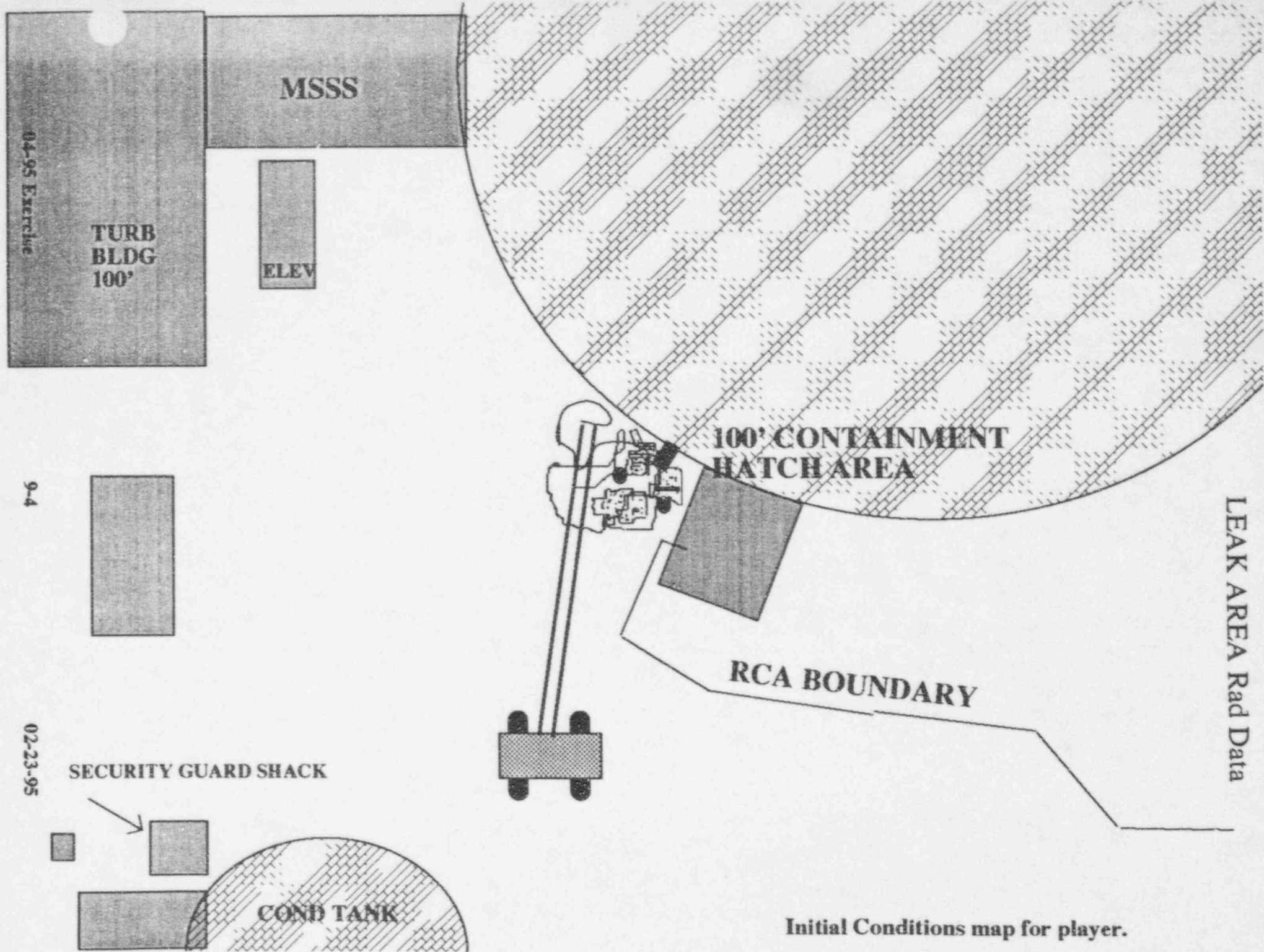
Initial RP Team arrival: inform the team as they are heading from the Corridor Bldg to the reported leak site that they can hear steam being released and can see some steam wafting over the south end of containment. As they round the corner where they can see the penetration supply them with the "original conditions" map (page 9-4) and amplify what the map is depicting. If they are unsure what a "pillbox" is explain that they are looking at large broken chunks of a broken concrete box (the actual pillbox should be at the end of the Turb Hall for explanation purposes). Make it clear that the large amount of concrete is overlaying the penetration and penetration post protectors; also there is a large amount of crane cable snarled up in the debris and still connected to the crane boom. The boom has been lowered to the ground and is also impacting access - the team will have to approach from the side next to the RCA boundary. In the same time frame make it very clear that a steady amount of live steam is being released and can clearly be seen to be carried up over the 100' hatchway and continue on up over the south side of containment. The wind at this time will be from 304° and will generally carry in that direction. It is important that the players are given a clear mental picture of the release path so questions as to whether released activity is being brought into the Aux Bldg or Control Bldg ventilation can be answered. The activity **will not** be brought into the buildings as we do not want to prompt a possible OSC relocation. Work area air samples are provided for this initial period.

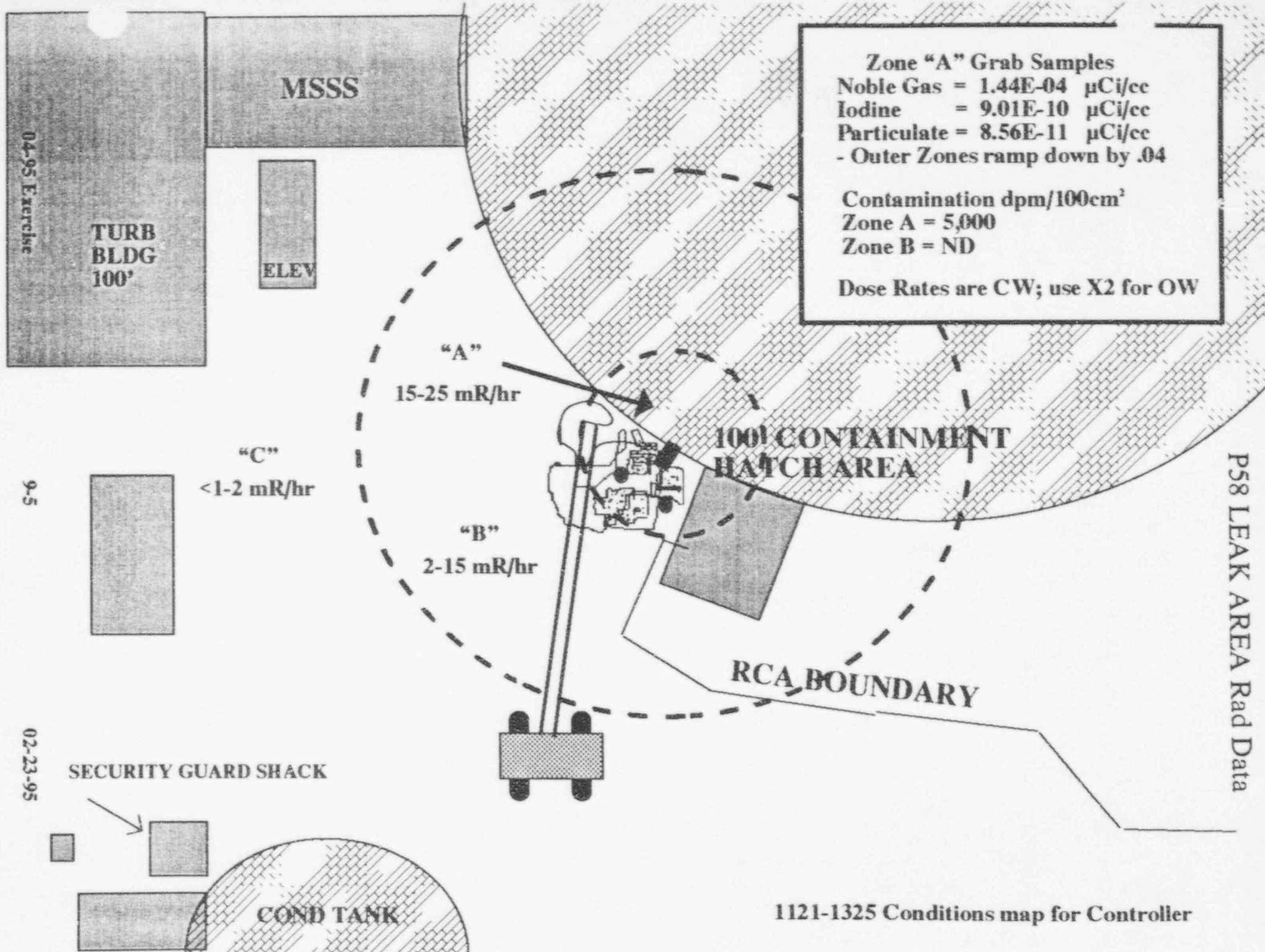
Provide the dose rate data while making clear to the surveyor and any other players that the closest possible approach physical safety allows is 10' from the leak due to steam blowing out. The followup teams to the area may attempt some rapid recovery actions with the intent to somehow stop the leak from the outside. The Controller must delay these actions until 1325 when fuel damage will elevate dose rates to the point where teams will have to withdraw. For drill purposes the only approach to the leak site is from the south side along the RCA boundary. The existing crane was shut off by the operator after the accident - the boom is now down on the ground and over some of the debris. The boom appears bent and the crane cannot be started. If another crane is asked for it will not arrive for 45 minutes after it is asked for; and it will take another 45 minutes to clear the old crane, boom, cables, etc. to the point where any possible actions to begin sealing the penetration might take place. It is difficult to predict what the players may choose to try here; however the bottom line is that the Controller **must** keep recovery attempts from being successful until the extreme dose rate phase.

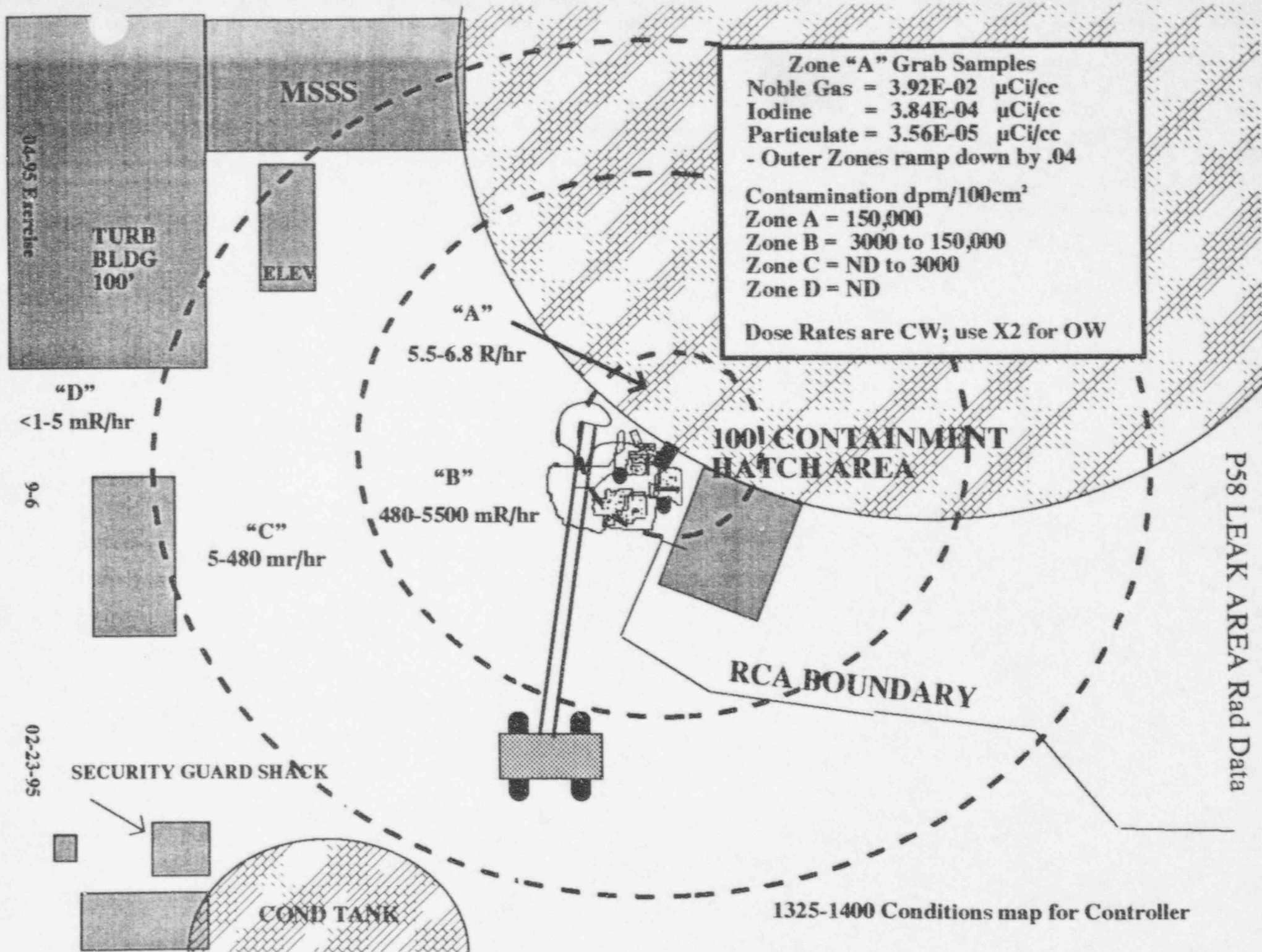
1325 actions: the fuel pin failure causes a very rapid increase in the dose rates; you will need to have the mRem/minute figures well in hand to monitor the work group exposure. They may note the increase immediately and drop back immediately; however if no one is watching their meter or taking a SID reading they may be in the extreme dose rates for some time without knowing and you will have to provide some gross indication of the dose they would have received. Be aware of what RP is doing so you can provide data at a realistic opportunity - there will be no sign outside the building that the activity has increased as the steam volume will stay the same. Also the wind has shifted slightly from 304° to 290° - make it clear to the players that the steam is still rising up over the 100' hatch and over the south side of containment - after 13:25 they will see plume **shine** in the breezeway area and on the upper walkway by the Turbine hall but they will not be **in** the plume. Air samples are provided for work area samples taken during this peak leak period.

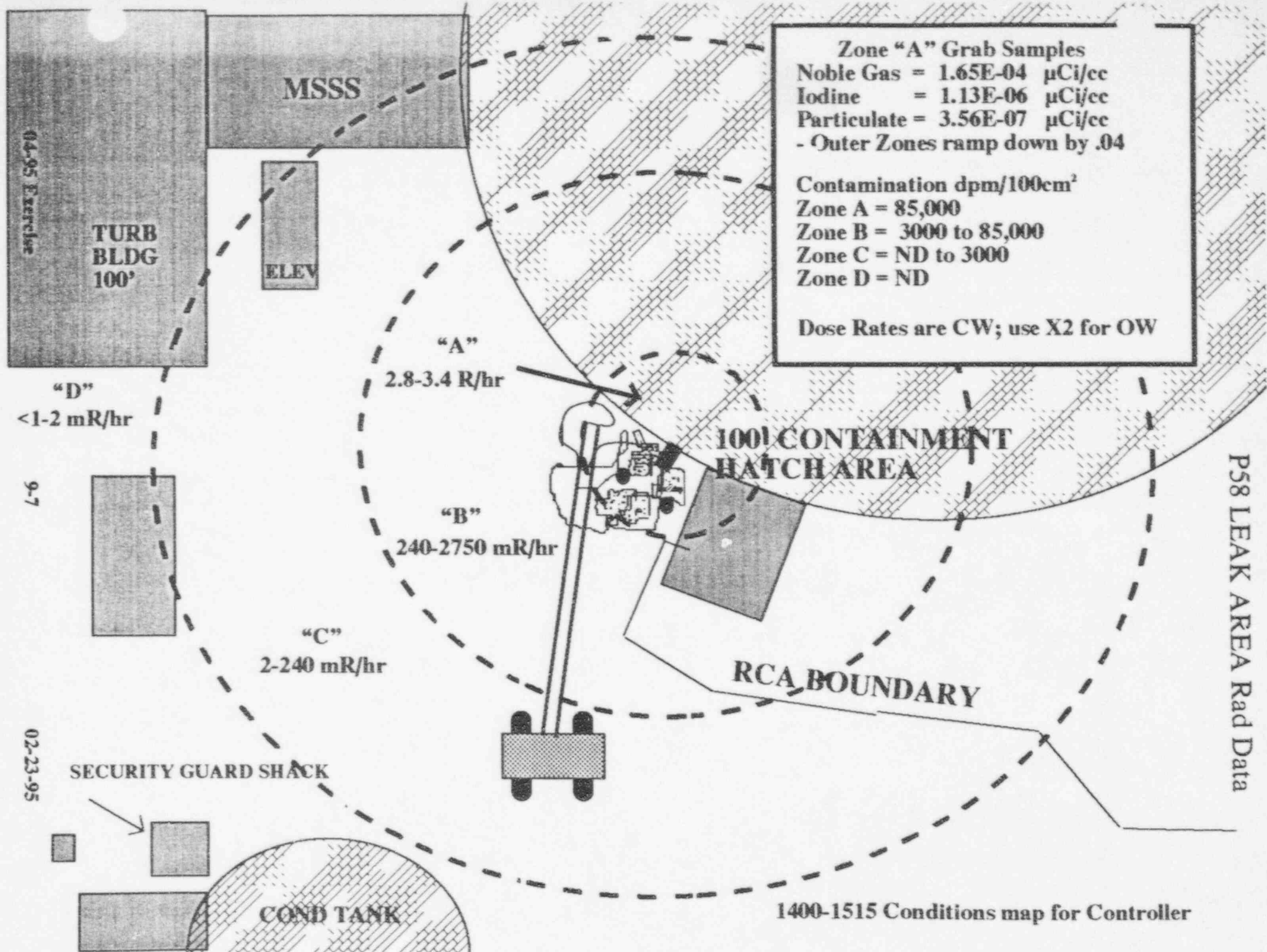
1400 actions: at this time containment spray has been restored and containment pressure begins dropping; dose rates will decrease with decreasing pressure until by 1515 containment pressure is near "0" and the release stops. Data is provided for this period. It is likely that any efforts to seal the leak in this area will stop at this point; if it does get sealed adjust the dose down per the NOTE on the map. Air samples are provided for 1400 to 1515 and for 1515 to drill end for the work area.

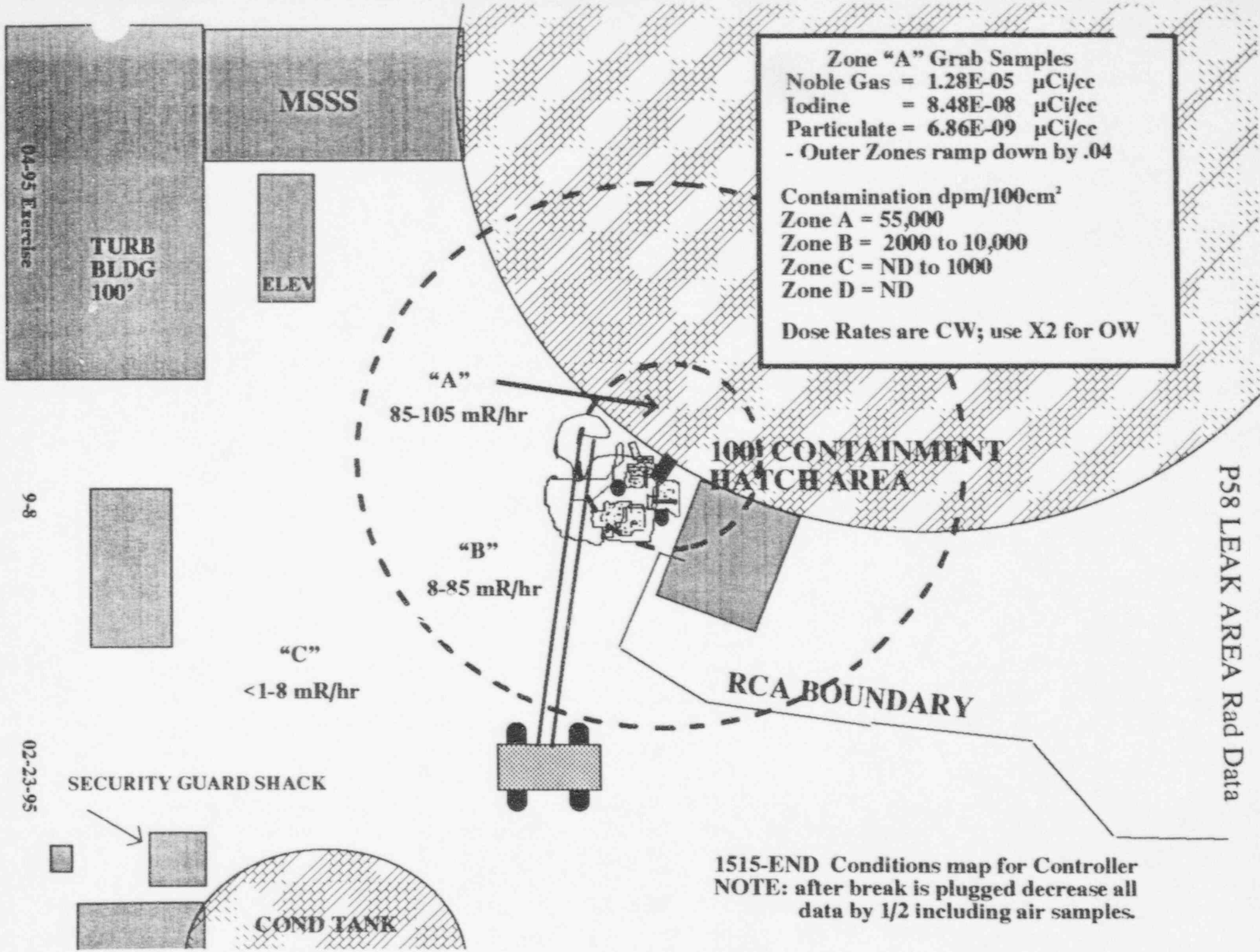
There will be contamination at the penetration area to contend with once the leak starts and from then. All dress and respiratory requirements must be fully demonstrated at least once by each player - be sure to keep up with changing REP requirements (players should have copy of REP with them).



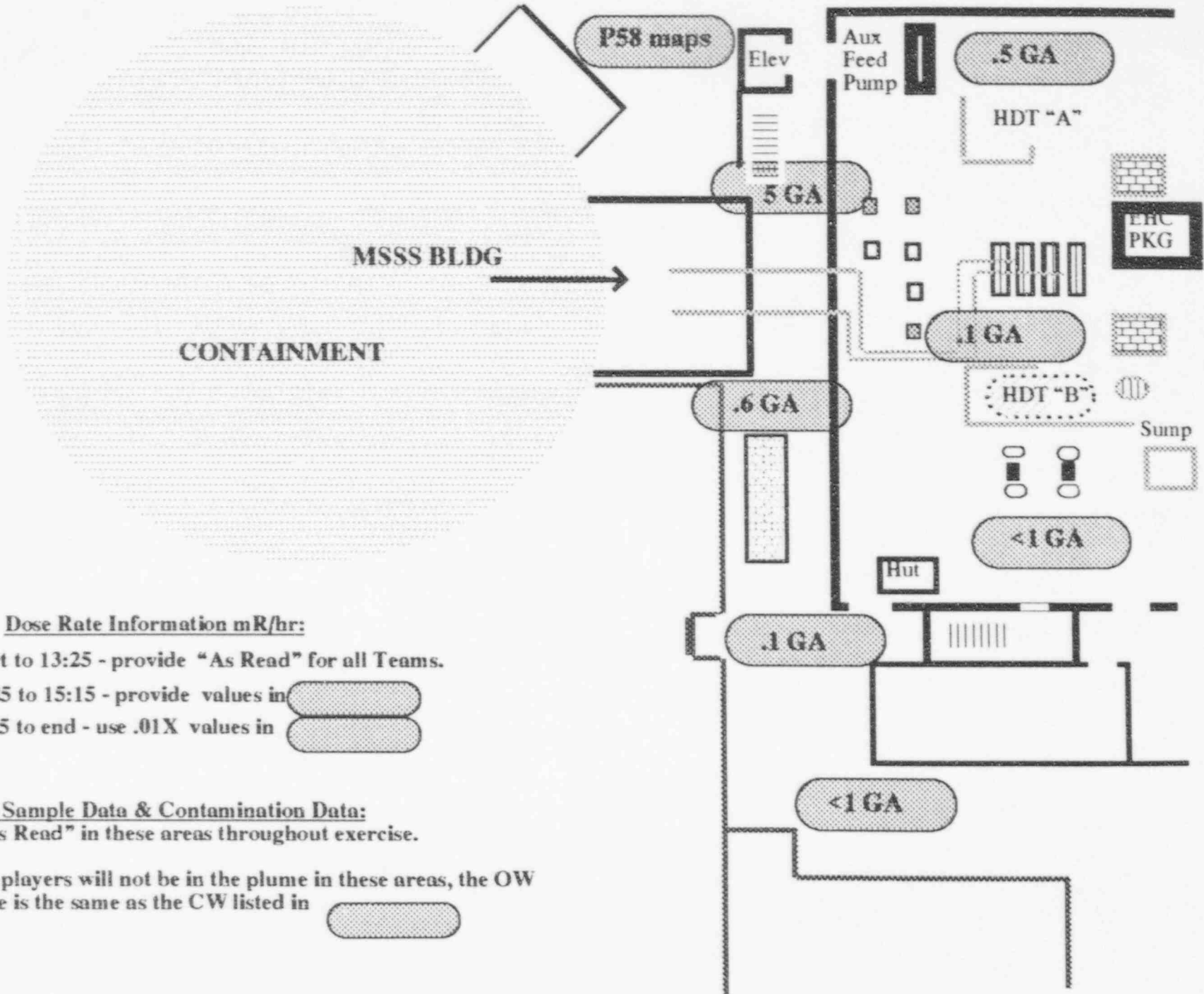








1515-END Conditions map for Controller
 NOTE: after break is plugged decrease all data by 1/2 including air samples.



Dose Rate Information mR/hr:

Start to 13:25 - provide "As Read" for all Teams.

13:25 to 15:15 - provide values in

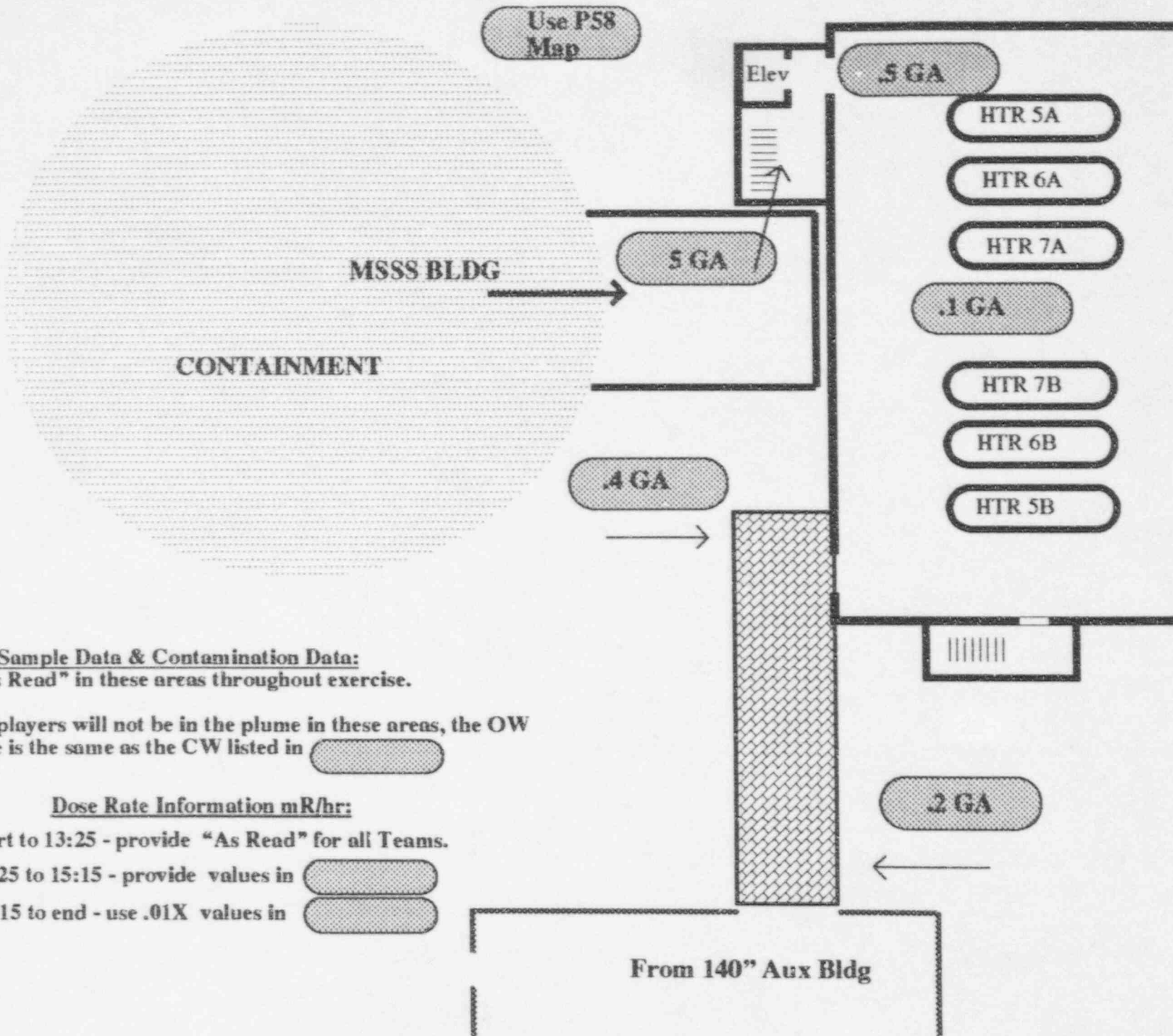
15:15 to end - use .01X values in

Air Sample Data & Contamination Data:

"As Read" in these areas throughout exercise.

As players will not be in the plume in these areas, the OW dose is the same as the CW listed in

100' Breezeway Rad Data



Air Sample Data & Contamination Data:
 "As Read" in these areas throughout exercise.

As players will not be in the plume in these areas, the OW dose is the same as the CW listed in

Dose Rate Information mR/hr:

Start to 13:25 - provide "As Read" for all Teams.

13:25 to 15:15 - provide values in

15:15 to end - use .01X values in

NOTES FOR AUX BLDG

- 0958 The unit loses "B" bus which impacts RMS significantly. All post accident area monitors are lost so no remote indication of dose rates below the 100' will be available; RU-9 and 10 are available; the SIAS around this time frame causes the Fuel Bldg Essential Filtration to line up to the 100' Aux Bldg; RU-145 will be monitoring any release activity from here and it goes on battery backup at this time; no increase in activity seen yet. All dose rates "as read".
- 1114 RCS leakage is increasing in containment causing an airborne increase on the containment monitors but which is not seen outside containment.
- 1121 Penetration is broken on containment near the 100' hatch outside and release begins to the environment; no indication of increased activity seen in Aux Bldg.
- 1320/1325 Containment spray started; followed by failed fuel indication 5 minutes later; dose rates on containment monitors increase rapidly; however no increase seen in Aux Bldg at this time due to effective containment shielding; dose rate at 140' containment hatch goes up to 45 mR/hr because of minimal shielding in hatch area; if personnel place a meter ON containment penetrations where one might expect reduced shielding effectiveness the player will see from 1 mR/hr to a maximum of 25 mR/hr depending on the shielding gap size.
- 1400 A RAS occurs through the "A" train equipment. Dose rates increase primarily in the West Wrap room, the "A" Shutdown HX Room and the "A" HPSI pump room. General areas on the 70' and below increase also; RU-9 increases due to some minimal accumulated leakage although not enough to cause other than a slight rise through the Fuel Bldg Vent release path which is monitored by RU-145 (RU-145 will be lost when the battery backup is lost). Use the data below and on page 9-12 for any entries - few or none are expected as no need for an entry is foreseen.

DOSE RATE INFO TO KEEP TRACK OF PLAYER DOSE:

| | | |
|--------------|-----|-------------|
| .25 Rem/hr = | 4 | mRem/minute |
| 1.0 Rem/hr = | 17 | " |
| 4.0 Rem/hr = | 67 | " |
| 10 Rem/hr = | 170 | " |
| 40 Rem/hr = | 670 | mRem/minute |

AUX BLDG DOSE RATES on LEVELS Below 100'

Drill Start until 1400 dose rates:

For all entries dose rates and air sample data will be "as read". Repair work is expected to be ongoing in the West Wrap to repair SI-672 valve; and entries may be made to look at SI-460 in "A" Shutdown HX Room; and there may be other unexpected team requests.

1400 until end of drill dose rates (post RAS time frame):

Repair work is expected to be completed by now and no actual entries are anticipated; use the below data if an entry does occur.

Peak Piping Contact Levels will read 40 Rem/hr contact :

This includes all contact readings on RAS lines in West Wrap, valve 672 (Containment Spray MOV Isolation Valve), "A" Shutdown HX/piping, "A" HPSI Pump/piping.

Peak Room Dose Rates will be .25 Rem/hr at entry point increasing to 4 Rem/hr at 10' from "A" side equipment.

General Areas in halls from 70' Aux Bldg on down and any unaffected equipment rooms on "A" Side (west side of 70') will read from 10 mR/hr at elevator to 250 mR/hr at entrances to "A" side equipment rooms. All "B" side (east side of 70') will also read from 10 mR/hr to 250 mR/hr as the west end of the levels are approached.

AUX BLDG AIR SAMPLE DATA for LEVELS Below 100'

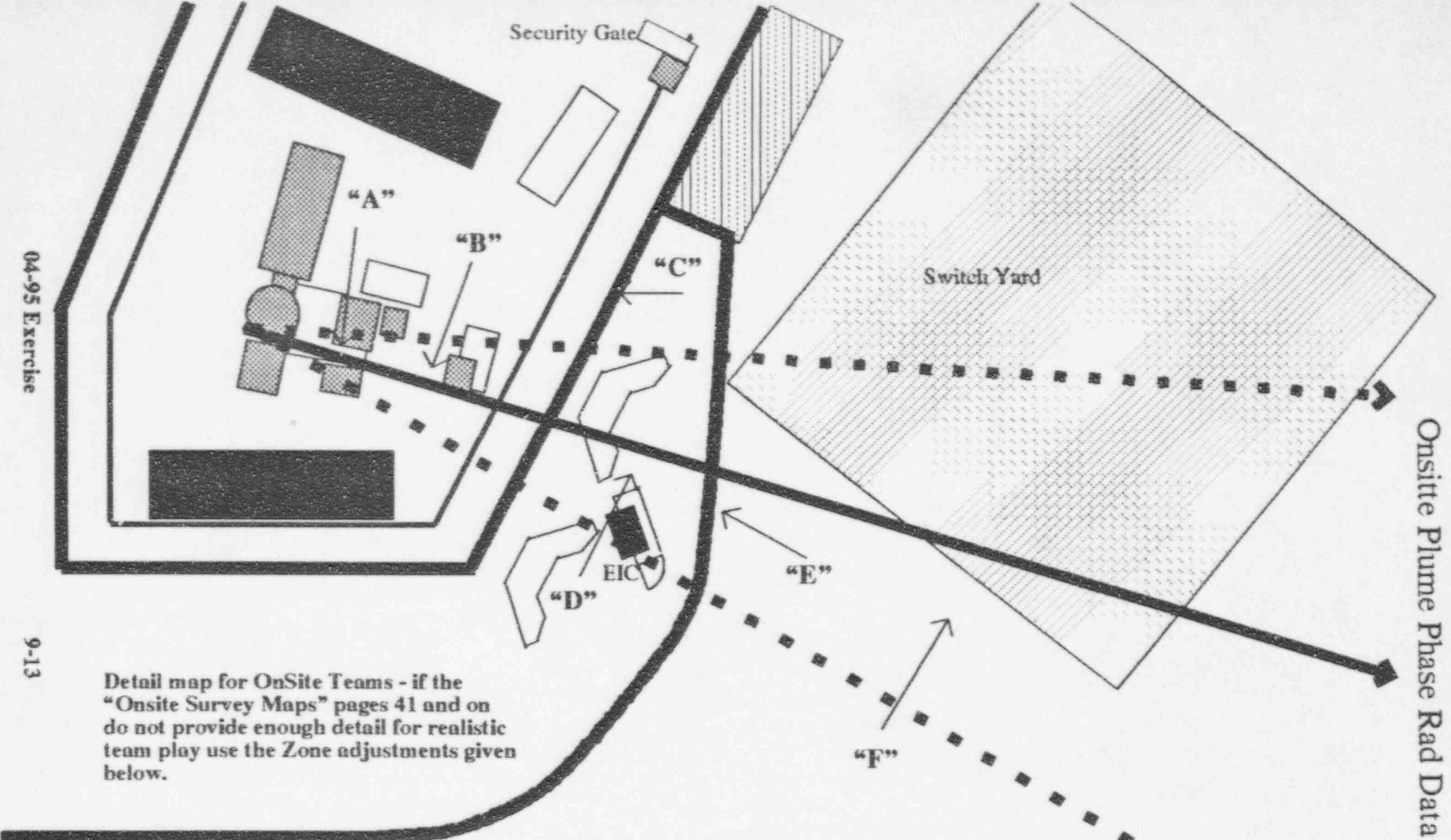
Drill Start until 1400: RU-9 and RU-10 will both indicate normal activity (low $E-7 \mu\text{Ci/cc}$) if release stack samples are taken from the Plant Vent Stack or the Fuel Bldg Exhaust Stack they will also indicate normal "as read" activity.

After 1400: RU-10 will increase slightly (P&I will be "as read"; NG will be $8.2E-7 \mu\text{Ci/cc}$) with no noticeable increase on the Plant Vent Stack sample (RU-143 will be inoperable but a grab sample could be obtained; "as read" if it is).

After 1400: RU-9 will increase about one decade (to $7.9E-6 \mu\text{Ci/cc}$) but will not reach the Alert or Alarm setpoint. RU-145 will be lost due to battery failure by now (a Fuel Bldg Exhaust Stack grab samples will show $6.8E-7 \mu\text{Ci/cc}$ Noble Gas activity with "as read" on Iodine and Particulate samples).

04-95 Exercise

9-13



Detail map for OnSite Teams - if the "Onsite Survey Maps" pages 41 and on do not provide enough detail for realistic team play use the Zone adjustments given below.

- Zone A - Roofs of buildings in Protected Area (use 4X "Protected Area" values)
- Zone B - Between Unit 3 buildings and P.A. (use "Protected Area" values)
- Zone C - Road just outside P.A. fence (use .5X "Protected Area" values)
- Zone D - EIC and Building "A" area (use .5X "Protected Area" values)
- Zone E - on main incoming road under plume (use .5X "Protected Area" values)

- Zone F - refer to Onsite/Offsite maps (use "Site Boundary" values)

02-23-95

ONSITE/OFFSITE AIRBORNE DATA HANDLING

The only data readily available without bringing samples in to the Site for an isotopic analysis will be from the RFAT Teams using the Air Sample Data Sheet cpm-to- $\mu\text{Ci}/\text{cc}$ conversion for iodine and particulate activity. Players must earn that data by using the sheet properly.

Therefore DO NOT GIVE OUT ANY DATA in $\mu\text{C}/\text{cc}$ units. The only air sample data you may give the player is the cpm rate on the iodine and particulate media.

Field air samples/stack grab samples/etc. that are brought in for isotopic analysis will be handled as follows:

- the Controller covering the collection of the air sample should ensure that the sample paperwork being filled out contains
 - the time and specific location where the sample was taken;
 - the types of samples collected (particulate, iodine, noble gas or all three)
 - the player who needs the results (RPC/RAC/whomever)
- the samples must be delivered to the Unit Count Room with the completed paperwork. The Affected Unit Count Room will stay usable throughout the Exercise. For drill purposes the samples will be intersected in the OSC by the Lead Controller who will act as a simulated Count Room.
- after a reasonable time lapse reflecting count time, etc. the Lead Controller will supply an isotopic analysis sheet to the RP Staff in the OSC. They will take care of informing and/or faxing the appropriate players.
- one exception to this is a stack grab sample that the RMS/EFFLUENT Tech may collect. The Controller in the Simulator should have the player talk through the collection process. At that point the Simulator Controller should notify the Chemistry PASS Controller that a stack grab has been collected. Again the time/type/results information as above must be given. The Chemistry PASS Controller will then simulate the Chemistry Count Room and provide the data to the Chemistry player after an appropriate interval. The Chemistry player will then process the information as appropriate.

This methodology will allow the correct isotopic breakdown to be provided for whatever samples the players happen to decide to take and bring in for analysis. It will also provide a realistic sequence of actions for the players to follow.

PASS CONTROLLER DATA

Chem Lab Radiological Drill Conditions:

- 1) During the period the PASS Sample Team is in the Chemistry Lab the Controller will provide the dose and RU monitor information. All players in the area will be affected by the below dose rates when sampling is being done. Note that the Chem Lab is at "as read" values during all periods except for PASS sampling. If possible, notify the Simulator (Chuck Mighells), the EOF (Lynn Fitzrandolph) and the TSC (Ed Walker) when any sampling is done after 13:25. As the dose will not be seen on ERFDADS or the Simulator RMS DCU there may be confusion when readings are reported from the Chem Lab.
- 2) The actual Onshift RMS/Chemistry Technician (non-player) should be informed prior to the start of the Exercise that players may call there incorrectly. Provide a phone number to allow the RMS Tech to correct the callers.
- 3) The Chemistry Player should be available when the Exercise starts in the simulator. The Simulator Control Room Staff will call the Chem Lab with requests prior to OSC activation. The designated player should respond to these requests rather than non-playing Unit Chemistry Techs.
- 4) The PASS System will not actually be operated during the exercise. A separate annual PASS drill is done to fully operate the PASS system. Other than that (no real recirculation, no real samples drawn) all activities need to be fully played out. All briefing dress requirements, dosimetry requirements, etc. need to be followed and demonstrated at least once (if a player has already demonstrated donning PCs, or posting an area then that activity may be simulated thereafter by that player).
- 4) The Count Room is assumed to be operational throughout the exercise. Air samples taken will show the same activity as the 140' OSC area. Therefore, all actions may be played out in Unit 3. Review page 9-14 for stack grab sample handling.

Data for PASS Samples taken prior to 13:25

Prior to Sample Recirc (Initial):

| | | |
|----------------------|-----------|-----------------------|
| Contact lead bricks | "As Read" | mR/hr |
| Gen Area by sink | "As Read" | mR/hr |
| In door to sink area | "As Read" | mR/hr |
| RU-158D | "As Read" | mR/hr (lose at 09:58) |
| RU-26 | "As Read" | mR/hr |
| RU-23 | "As Read" | mR/hr |
| RU-10 | "As Read" | µCi/cc |
| Count Room area | "As Read" | mR/hr |

At end of Sample Recirc prior to flush (high readings):

| | | |
|----------------------|-----------|-----------------------|
| Contact lead bricks | "As Read" | mR/hr |
| Gen Area by sink | "As Read" | mR/hr |
| In door to sink area | "As Read" | mR/hr |
| RU-158D | "As Read" | mR/hr (lose at 09:58) |
| RU-26 | "As Read" | mR/hr |
| RU-23 | "As Read" | mR/hr |
| RU-10 | "As Read" | µCi/cc |
| Count Room area | "As Read" | mR/hr |

After flush is complete:

| | | |
|----------------------|-----------|-----------------------|
| Contact lead bricks | "As Read" | mR/hr |
| Gen Area by sink | "As Read" | mR/hr |
| In door to sink area | "As Read" | mR/hr |
| RU-158D | "As Read" | mR/hr (lose at 09:58) |
| RU-26 | "As Read" | mR/hr |
| RU-23 | "As Read" | mR/hr |
| RU-10 | "As Read" | µCi/cc |
| Count Room area | "As Read" | mR/hr |

PASS Syringe Dose Rates UNSHIELDED:

| | | | | |
|----------|------|---------------|-----|------------|
| 1.0cc is | 80.0 | mR/hr contact | 6.5 | mR/hr @ 1' |
| | 1.5 | mR/hr @ 2' | 1.0 | mR/hr @ 3' |
| .5cc is | 40.0 | mR/hr contact | 3.0 | mR/hr @ 1' |
| | .7 | mR/hr @ 2' | .4 | mR/hr @ 3' |
| .1cc is | 6.0 | mR/hr contact | .6 | mR/hr @ 1' |
| | .2 | mR/hr @ 2' | .1 | mR/hr @ 3' |

PASS Syringe Dose Rates SHIELDED:

| | | | | |
|----------|------|---------------|----|------------|
| 1.0cc is | 23.0 | mR/hr contact | .7 | mR/hr @ 1' |
| | 2.0 | mR/hr @ 2' | .1 | mR/hr @ 3' |
| .5cc is | 10.0 | mR/hr contact | .3 | mR/hr @ 1' |
| | .7 | mR/hr @ 2' | .5 | mR/hr @ 3' |
| .1cc is | 1.0 | mR/hr contact | .3 | mR/hr @ 1' |
| | .1 | mR/hr @ 2' | .1 | mR/hr @ 3' |

Data for PASS Samples taken after 13:25

Prior to Sample Recirc (Initial):

| | | |
|----------------------|-----------|--------|
| Contact lead bricks | "As Read" | mR/hr |
| Gen Area by sink | "As Read" | mR/hr |
| In door to sink area | "As Read" | mR/hr |
| RU-158D | "As Read" | mR/hr |
| RU-26 | "As Read" | mR/hr |
| RU-23 | "As Read" | mR/hr |
| RU-10 | "As Read" | µCi/cc |
| Count Room area | "As Read" | mR/hr |

At end of Sample Recirc prior to flush (high readings):

| | | |
|----------------------|-----------|--------|
| Contact lead bricks | 375 | mR/hr |
| Gen Area by sink | 80-180 | mR/hr |
| In door to sink area | 5 | mR/hr |
| RU-158D | 50 | mR/hr |
| RU-26 | 80 | mR/hr |
| RU-23 | "As Read" | mR/hr |
| RU-10 | "As Read" | µCi/cc |
| Count Room area | "As Read" | mR/hr |

After flush is complete:

| | | |
|----------------------|-----------|--------|
| Contact lead bricks | 35 | mR/hr |
| Gen Area by sink | 8-20 | mR/hr |
| In door to sink area | 1 | mR/hr |
| RU-158D | "As Read" | mR/hr |
| RU-26 | 8 | mR/hr |
| RU-23 | "As Read" | mR/hr |
| RU-10 | "As Read" | µCi/cc |
| Count Room area | "As Read" | mR/hr |

PASS Syringe Dose Rates UNSHIELDED:

| | | | |
|----------|--------------------|-----|------------|
| 1.0cc is | 1500 mR/hr contact | 125 | mR/hr @ 1' |
| | 30 mR/hr @ 2' | 19 | mR/hr @ 3' |
| .5cc is | 750 mR/hr contact | 63 | mR/hr @ 1' |
| | 150 mR/hr @ 2' | 7 | mR/hr @ 3' |
| .1cc is | 115 mR/hr contact | 6 | mR/hr @ 1' |
| | 13 mR/hr @ 2' | 1 | mR/hr @ 3' |

PASS Syringe Dose Rates SHIELDED:

| | | | |
|----------|--------------------|------|------------|
| 1.0cc is | 43.0 mR/hr contact | 14.0 | mR/hr @ 1' |
| | 3.0 mR/hr @ 2' | 2.0 | mR/hr @ 3' |
| .5cc is | 19.0 mR/hr contact | 6.0 | mR/hr @ 1' |
| | 1.5 mR/hr @ 2' | 1.0 | mR/hr @ 3' |
| .1cc is | .1 mR/hr contact | .6 | mR/hr @ 1' |
| | .1 mR/hr @ 2' | .1 | mR/hr @ 3' |

1995 Exercise Chemistry Data

RCS Hot Leg Activity, $\mu\text{Ci/cc}$

| Nuclide | 0900 | 1000 | 1100 | 1130 | 1200 | 1300 | 1400 | 1500 | 1600+ |
|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Ar-41 | 8.6E-06 | 8.6E-06 | 6.4E-06 | 5.4E-06 | 4.6E-06 | 3.2E-06 | 2.2E-06 | 1.6E-06 | 1.1E-06 |
| Kr-85m | 1.1E-01 | 1.1E-01 | 5.5E-02 | 2.8E-02 | 9.3E-03 | 1.6E-03 | 1.6E-01 | 8.0E-02 | 6.2E-02 |
| Kr-87 | 6.0E-02 | 6.0E-02 | 3.0E-02 | 1.5E-02 | 3.0E-03 | 5.6E-04 | 5.6E-02 | 1.9E-02 | 1.1E-02 |
| Kr-88 | 2.0E-01 | 2.0E-01 | 1.0E-01 | 5.0E-02 | 1.2E-02 | 2.8E-03 | 2.8E-01 | 1.3E-01 | 9.4E-02 |
| Xe-133 | 1.8E+01 | 1.8E+01 | 9.0E+00 | 4.5E+00 | 3.0E-01 | 2.0E-02 | 2.0E+00 | 1.2E+00 | 1.0E+00 |
| Xe-133m | 2.2E-01 | 2.2E-01 | 1.1E-01 | 5.5E-02 | 1.2E-03 | 2.6E-05 | 2.6E-03 | 1.8E-03 | 1.8E-03 |
| Xe-135 | 3.5E-01 | 3.5E-01 | 1.7E-01 | 8.5E-02 | 2.6E-02 | 8.0E-03 | 8.0E-01 | 4.8E-01 | 4.4E-01 |
| Xe-135m | 1.3E-02 | 1.3E-02 | 8.5E-03 | 6.5E-03 | 5.4E-03 | 4.6E-03 | 4.6E-01 | 2.4E-01 | 1.9E-01 |
| Xe-138 | 4.4E-02 | 4.4E-02 | 2.2E-02 | 1.1E-02 | 3.7E-05 | 1.2E-07 | 1.2E-05 | 6.3E-06 | 5.0E-06 |
| I-131 | 2.7E-01 | 2.7E+00 | 1.3E+00 | 7.0E-01 | 1.4E-02 | 2.8E-04 | 2.8E-02 | 1.7E-02 | 1.5E-02 |
| I-132 | 1.0E-01 | 1.0E+00 | 5.0E-01 | 2.5E-01 | 4.7E-03 | 8.8E-05 | 8.8E-03 | 3.8E-03 | 2.7E-03 |
| I-133 | 3.8E-01 | 3.8E+00 | 1.9E+00 | 9.5E-01 | 2.2E-02 | 5.1E-04 | 5.1E-02 | 3.0E-02 | 2.6E-02 |
| I-134 | 4.7E-02 | 4.7E-01 | 2.4E-01 | 1.2E-01 | 1.8E-03 | 2.6E-05 | 2.6E-03 | 7.0E-04 | 3.7E-04 |
| I-135 | 1.9E-01 | 1.9E+00 | 9.0E-01 | 4.5E-01 | 1.3E-02 | 3.7E-04 | 3.7E-02 | 2.0E-02 | 1.7E-02 |
| H-3 | 8.6E-01 | 8.6E-01 | 8.6E-01 | 8.6E-01 | 8.6E-01 | 8.6E-01 | 8.6E-01 | 8.6E-01 | 8.6E-01 |
| Rb-88 | 2.0E-01 | 2.0E+00 | 2.0E+00 | 2.0E+00 | 2.0E+00 | 2.0E+00 | 2.0E+00 | 2.0E+00 | 2.0E+00 |
| Cs-134 | 2.5E-02 | 2.5E-01 | 2.5E-01 | 2.5E-01 | 2.5E-01 | 2.5E-01 | 2.5E-01 | 2.5E-01 | 2.5E-01 |
| Cs-137 | 1.8E-02 | 1.8E-01 | 1.8E-01 | 1.8E-01 | 1.8E-01 | 1.8E-01 | 1.8E-01 | 1.8E-01 | 1.8E-01 |
| Cs-138 | 5.4E-02 | 5.4E-01 | 5.4E-01 | 5.4E-01 | 5.4E-01 | 5.4E-01 | 5.4E-01 | 5.4E-01 | 5.4E-01 |

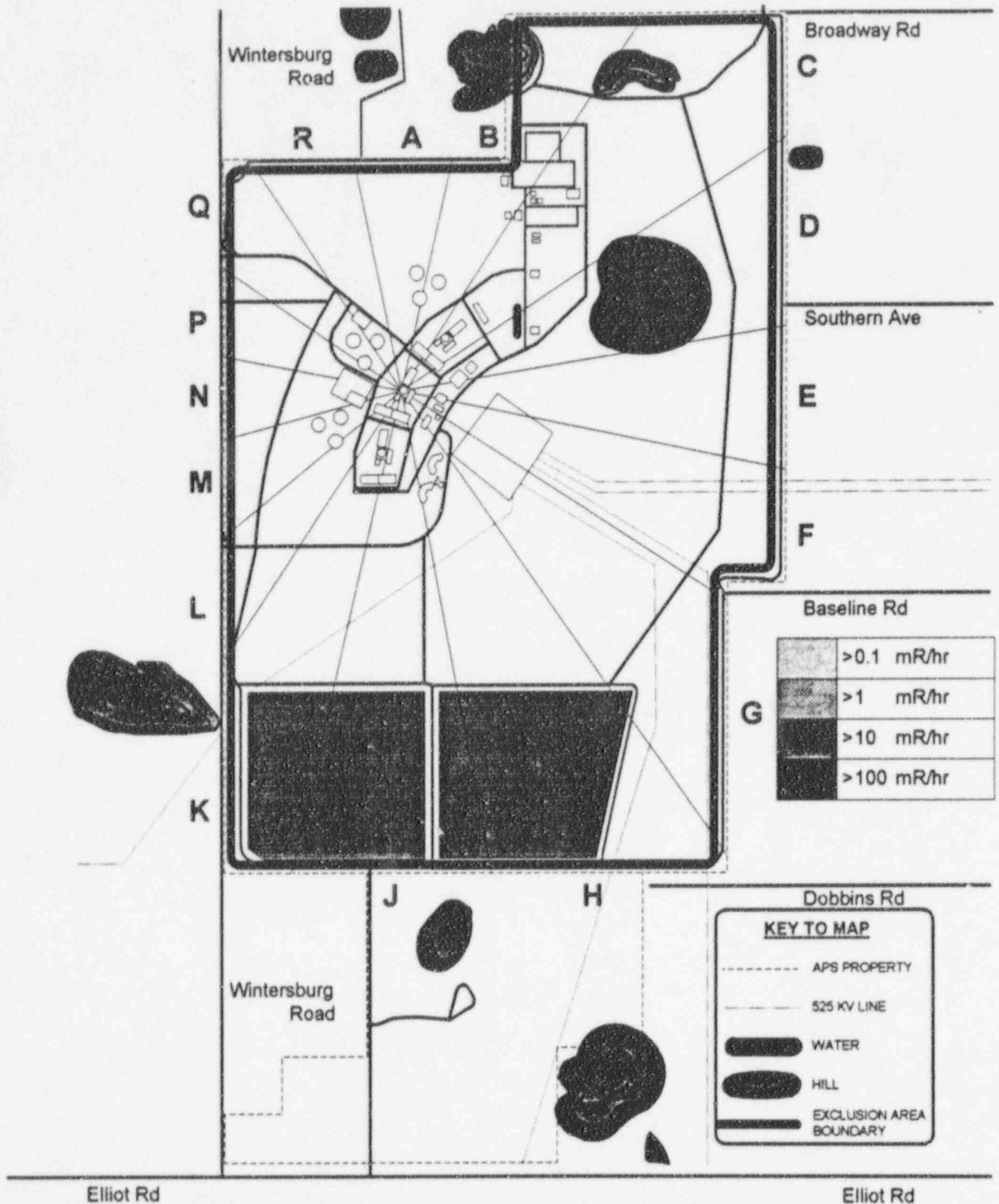
Safety Injection, $\mu\text{Ci/cc}$

| Nuclide | 0900 | 1000 | 1100 | 1130 | 1200 | 1300 | 1400 | 1500 | 1600+ |
|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Ar-41 | As read | As read | As read | As read | As read | As read | 2.2E-06 | 1.6E-06 | 1.1E-06 |
| Kr-85m | As read | As read | As read | As read | As read | As read | 1.6E-01 | 8.0E-02 | 6.2E-02 |
| Kr-87 | As read | As read | As read | As read | As read | As read | 5.6E-02 | 1.9E-02 | 1.1E-02 |
| Kr-88 | As read | As read | As read | As read | As read | As read | 2.8E-01 | 1.3E-01 | 9.4E-02 |
| Xe-133 | As read | As read | As read | As read | As read | As read | 2.0E+00 | 1.2E+00 | 1.0E+00 |
| Xe-133m | As read | As read | As read | As read | As read | As read | 2.6E-03 | 1.8E-03 | 1.8E-03 |
| Xe-135 | As read | As read | As read | As read | As read | As read | 8.0E-01 | 4.8E-01 | 4.4E-01 |
| Xe-135m | As read | As read | As read | As read | As read | As read | 4.6E-01 | 2.4E-01 | 1.9E-01 |
| Xe-138 | As read | As read | As read | As read | As read | As read | 1.2E-05 | 6.3E-06 | 5.0E-06 |
| I-131 | As read | As read | As read | As read | As read | As read | 2.8E-02 | 1.7E-02 | 1.5E-02 |
| I-132 | As read | As read | As read | As read | As read | As read | 8.8E-03 | 3.8E-03 | 2.7E-03 |
| I-133 | As read | As read | As read | As read | As read | As read | 5.1E-02 | 3.0E-02 | 2.6E-02 |
| I-134 | As read | As read | As read | As read | As read | As read | 2.6E-03 | 7.0E-04 | 3.7E-04 |
| I-135 | As read | As read | As read | As read | As read | As read | 3.7E-02 | 2.0E-02 | 1.7E-02 |
| H-3 | As read | As read | As read | As read | As read | As read | 8.6E-01 | 8.6E-01 | 8.6E-01 |
| Rb-88 | As read | As read | As read | As read | As read | As read | 2.0E+00 | 2.0E+00 | 2.0E+00 |
| Cs-134 | As read | As read | As read | As read | As read | As read | 2.5E-01 | 2.5E-01 | 2.5E-01 |
| Cs-137 | As read | As read | As read | As read | As read | As read | 1.8E-01 | 1.8E-01 | 1.8E-01 |
| Cs-138 | As read | As read | As read | As read | As read | As read | 5.4E-01 | 5.4E-01 | 5.4E-01 |

Containment Atmosphere, $\mu\text{Ci/cc}$

| Nuclide | to 1115 | 1115 | 1130 | 1200 | 1300 | 1400 | 1500 | 1600+ |
|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Ar-41 | 3.2E-07 | 3.2E-07 | 2.7E-07 | 2.3E-07 | 1.6E-07 | 1.1E-07 | 8.0E-08 | 5.7E-08 |
| Kr-85m | As read | 3.7E-06 | 5.2E-06 | 5.6E-06 | 5.8E-06 | 8.2E-04 | 4.0E-04 | 3.1E-04 |
| Kr-87 | As read | 3.8E-06 | 4.8E-06 | 4.2E-06 | 3.0E-06 | 2.8E-04 | 9.5E-05 | 5.5E-05 |
| Kr-88 | As read | 8.2E-06 | 1.1E-05 | 1.1E-05 | 1.1E-05 | 1.4E-03 | 6.3E-04 | 4.7E-04 |
| Xe-133 | 2.1E-06 | 3.0E-05 | 4.3E-05 | 5.0E-05 | 6.2E-05 | 1.0E-02 | 5.8E-03 | 5.2E-03 |
| Xe-133m | As read | As read | As read | As read | As read | 1.3E-05 | 8.9E-06 | 9.0E-06 |
| Xe-135 | 8.1E-08 | 9.1E-06 | 1.4E-05 | 1.7E-05 | 2.3E-05 | 4.0E-03 | 2.4E-03 | 2.2E-03 |
| Xe-135m | As read | 8.7E-06 | 1.2E-05 | 1.4E-05 | 1.5E-05 | 2.3E-03 | 1.2E-03 | 9.7E-04 |
| Xe-138 | As read | 5.8E-07 | 4.5E-07 | As read | As read | As read | As read | As read |
| I-131 | 1.2E-10 | 1.2E-10 | 1.2E-10 | 1.2E-10 | 1.6E-10 | 3.5E-05 | 2.1E-05 | 1.9E-05 |
| I-132 | 2.6E-11 | 1.8E-11 | 1.6E-11 | 1.4E-11 | 1.1E-11 | 1.1E-05 | 4.8E-06 | 3.4E-06 |
| I-133 | 2.1E-10 | 2.1E-10 | 2.1E-10 | 2.4E-10 | 3.1E-10 | 6.4E-05 | 3.7E-05 | 3.3E-05 |
| I-134 | As read | As read | As read | As read | As read | 3.3E-06 | 8.8E-07 | 4.6E-07 |
| I-135 | 1.3E-10 | 1.3E-10 | 1.7E-10 | 2.0E-10 | 2.4E-10 | 4.6E-05 | 2.5E-05 | 2.1E-05 |
| H-3 | 6.6E-08 | 8.8E-08 | 7.6E-07 | 6.7E-06 | 5.4E-05 | 4.3E-04 | 3.3E-03 | 3.3E-03 |
| Br-82 | 1.6E-10 | 1.6E-10 | 2.0E-10 | 2.2E-10 | 2.7E-10 | 5.2E-05 | 2.9E-05 | 2.5E-05 |

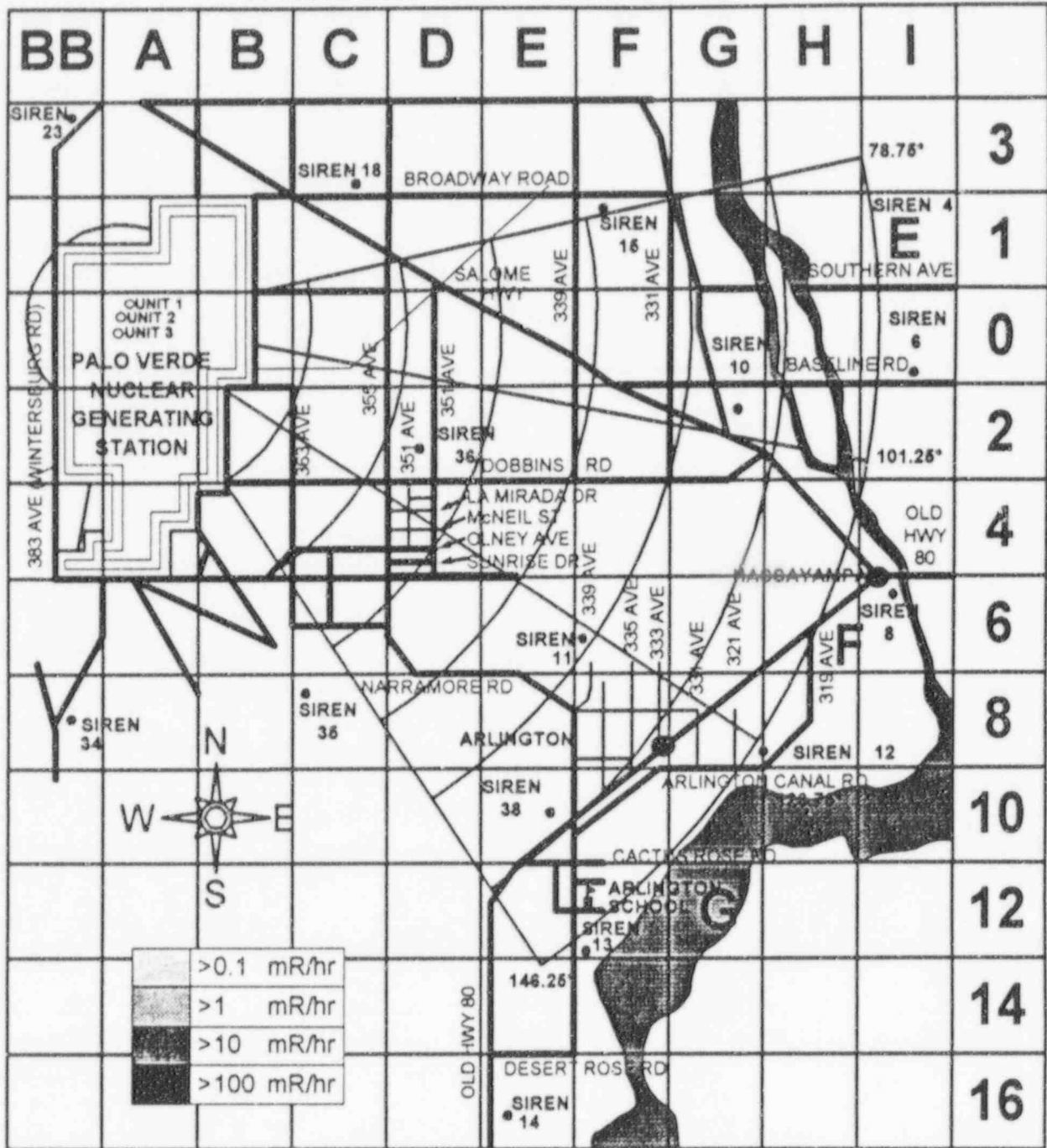
ONSITE SURVEY INFORMATION - 0800-1115



OFFSITE SURVEY INFORMATION - 0800-1115

| Distance, Miles | Centerline 3' & 3" readings | | | Centerline air samples | | | | | | |
|--------------------|-----------------------------|-------------|--------------|------------------------|---------|-----------------------|---------------|---------|----------------------|---------|
| | mR/hr WO | mR/hr WC | PVNGS cpm | PVNGS readings | | | ARRA readings | | | |
| | | | | Filter | AgX | AgX $\mu\text{Ci/cc}$ | Filter | AgX | AgX pCi/m^3 | |
| All | as read | as read | as read | cs read | as read | as read | as read | as read | as read | as read |

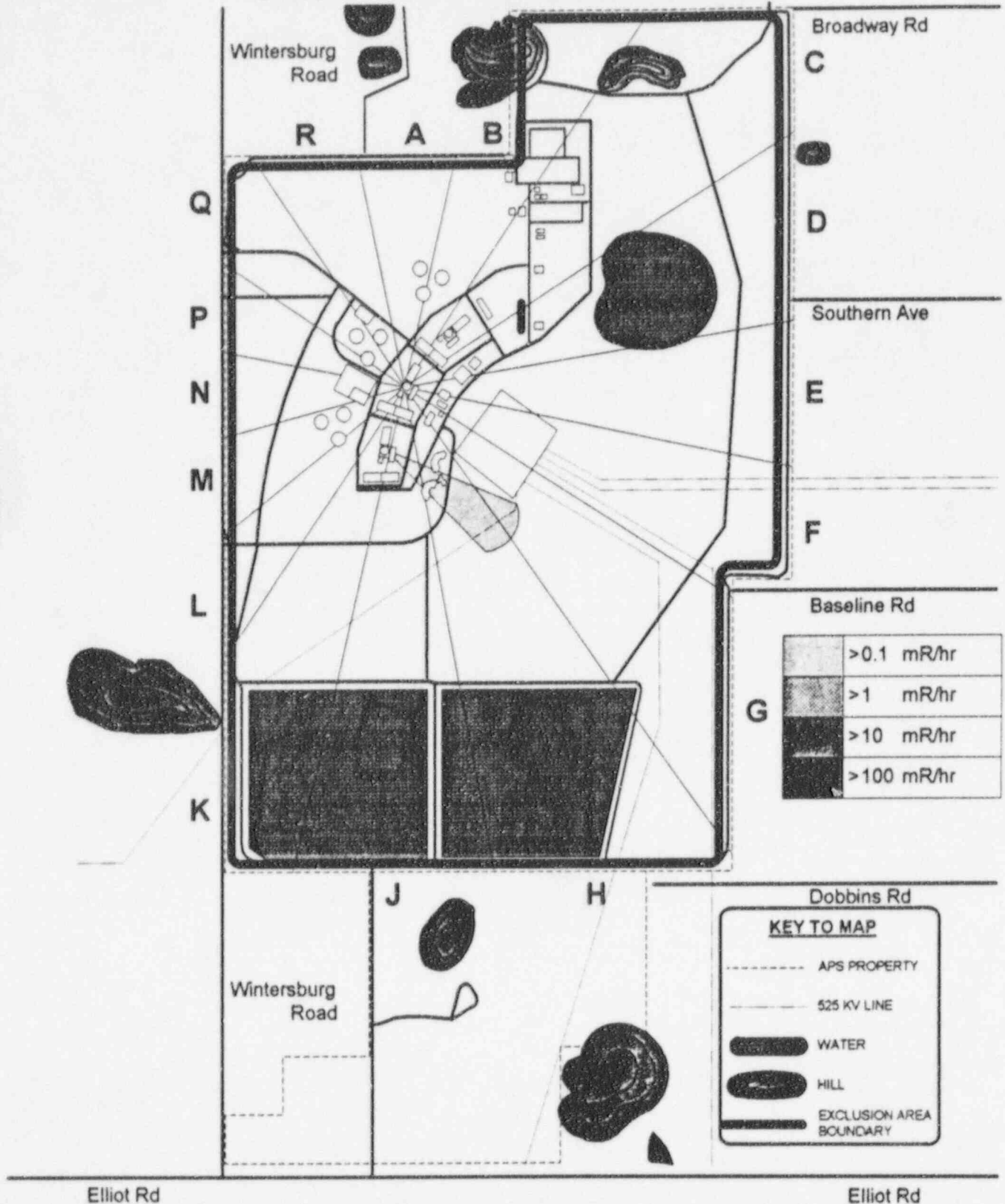
OFFSITE SURVEY INFORMATION - 0800-1115



OFFSITE SURVEY INFORMATION - 0800-1115

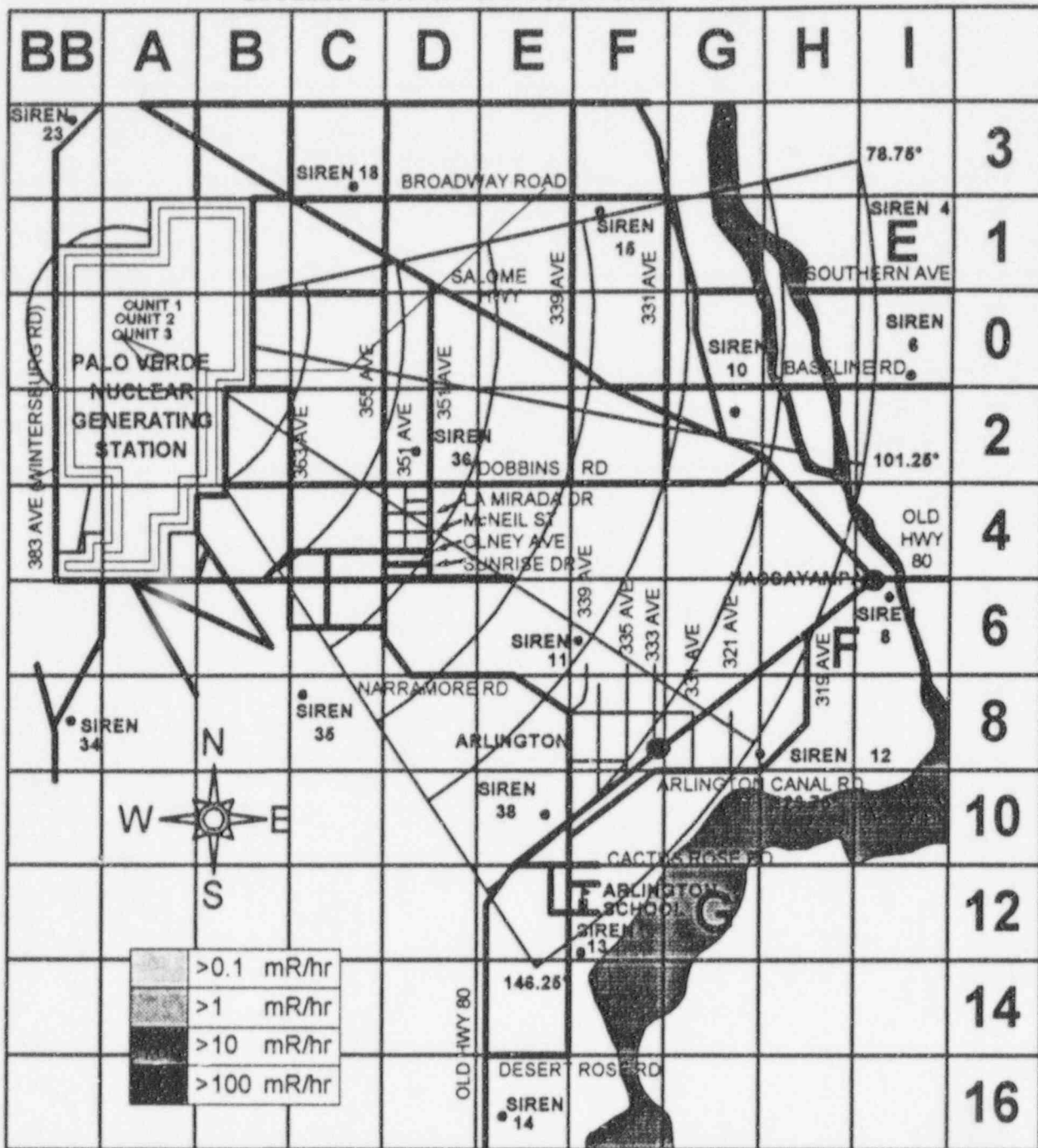
| Distance, Miles | Centerline 3' & 3" readings | | | Centerline air samples | | | | | |
|--------------------|-----------------------------|---------|---------|------------------------|---------|-----------------------|---------------|---------|----------------------|
| | mR/hr | mR/hr | PVNGS | PVNGS readings | | | ARRA readings | | |
| | WO | WC | cpm | Filter | AgX | AgX $\mu\text{Ci/cc}$ | Filter | AgX | AgX pCi/m^3 |
| All | as read | as read | as read | as read | as read | as read | as read | as read | as read |

ONSITE SURVEY INFORMATION - 1115-1130



| SURVEY INFORMATION - 1115-1130 | | | | | | | | | |
|--------------------------------|-----------------------------|---------|---------|------------------------|---------|-----------------------|---------------|---------|----------------------|
| Distance, Miles | Centerline 3' & 3" readings | | | Centerline air samples | | | | | |
| | mR/hr | mR/hr | PVNGS | PVNGS readings | | | ARRA readings | | |
| | WO | WC | cpm | Filter | AgX | AgX $\mu\text{Ci/cc}$ | Filter | AgX | AgX pCi/m^3 |
| 0.0-0.5 | 3.0 | 1.5 | 15000 | as read | as read | as read | as read | as read | as read |
| 0.5-1.0 | as read | as read | as read | as read | as read | as read | as read | as read | as read |

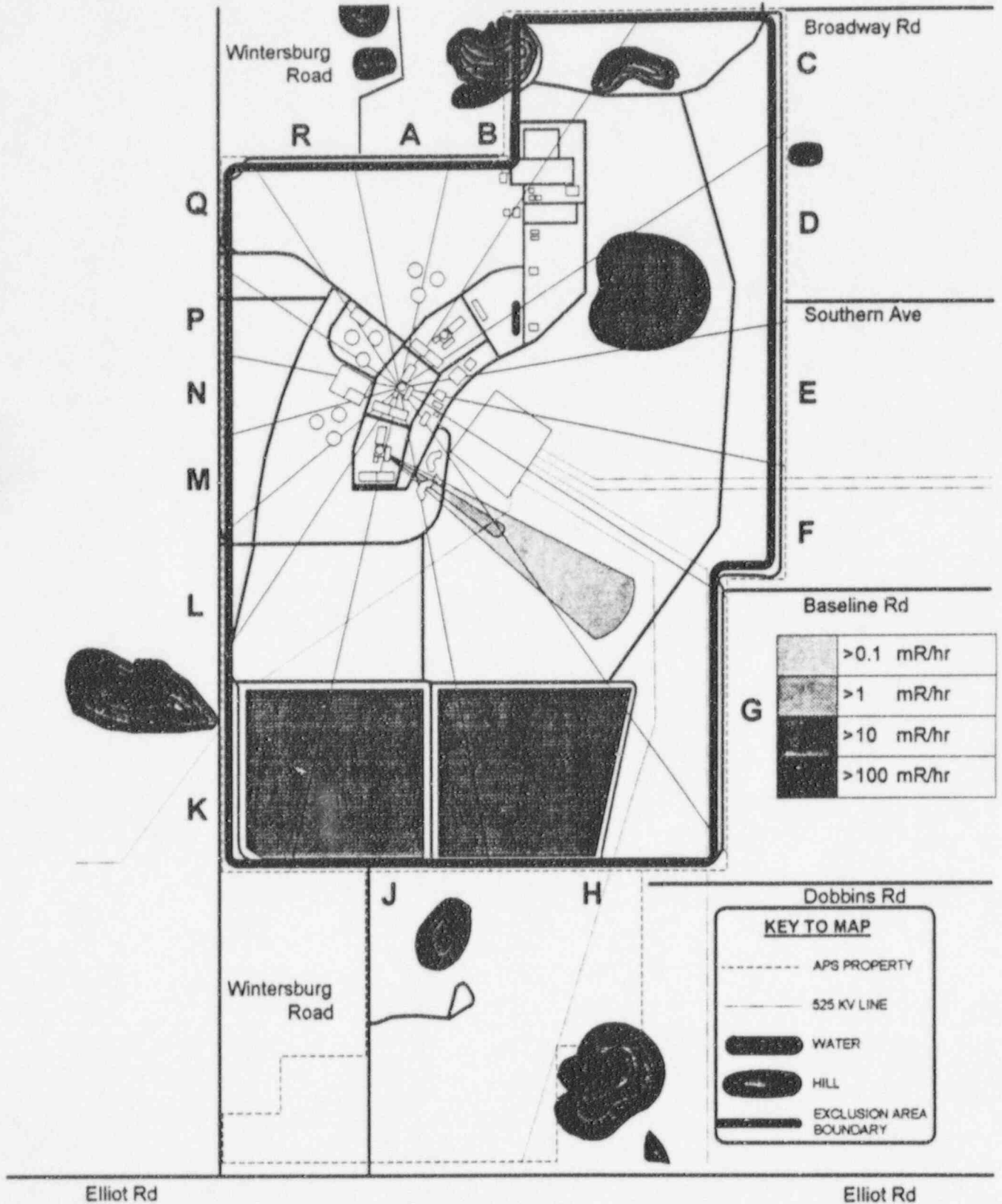
OFFSITE SURVEY INFORMATION - 1115-1130



OFFSITE SURVEY INFORMATION - 1115-1130

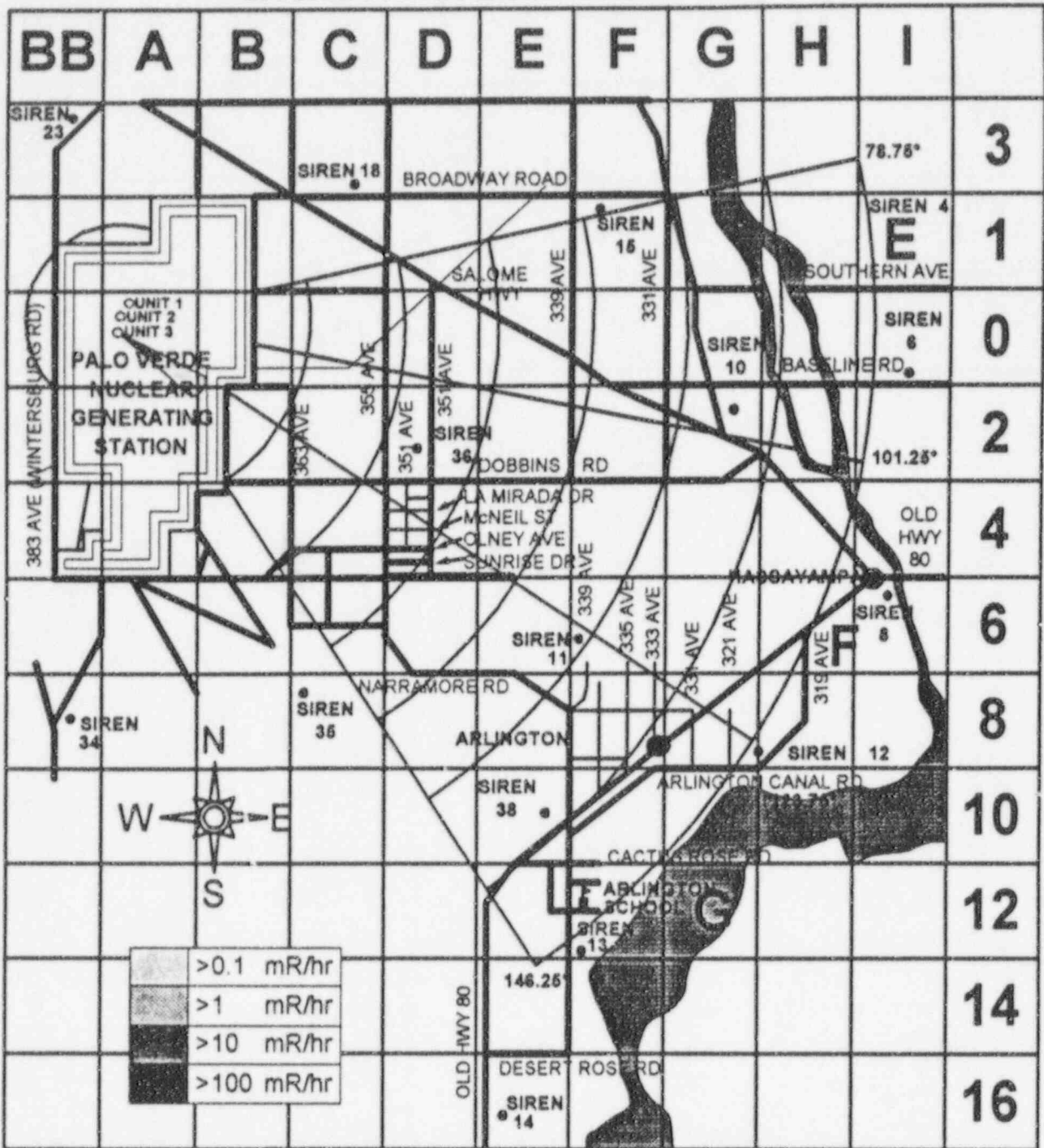
| Distance, Miles | Centerline 3' & 3" readings | | | Centerline air samples | | | | | |
|--------------------|-----------------------------|---------|---------|------------------------|---------|-----------------------|---------------|---------|----------------------|
| | mR/hr | mR/hr | PVNGS | PVNGS readings | | | ARRA readings | | |
| | WO | WC | cpm | Filter | AgX | AgX $\mu\text{Ci/cc}$ | Filter | AgX | AgX pCi/m^3 |
| 0.0-0.5 | 3.0 | 1.5 | 15000 | as read | as read | as read | as read | as read | as read |
| 0.5-1.0 | as read | as read | as read | as read | as read | as read | as read | as read | as read |

ONSITE SURVEY INFORMATION - 1130-1145



| SURVEY INFORMATION - 1130-1145 | | | | | | | | | |
|--------------------------------|-----------------------------|----------|-----------|------------------------|---------|-----------------------|---------------|---------|----------------------|
| Distance, Miles | Centerline 3' & 3" readings | | | Centerline air samples | | | | | |
| | mR/hr WO | mR/hr WC | PVNGS cpm | PVNGS readings | | | ARRA readings | | |
| | | | | Filter | AgX | AgX $\mu\text{Ci/cc}$ | Filter | AgX | AgX pCi/m^3 |
| 0.0-0.5 | 4.0 | 2 | 20000 | as read | as read | as read | as read | as read | as read |
| 0.5-1.0 | 1.0 | 0.5 | 5000 | as read | as read | as read | as read | as read | as read |

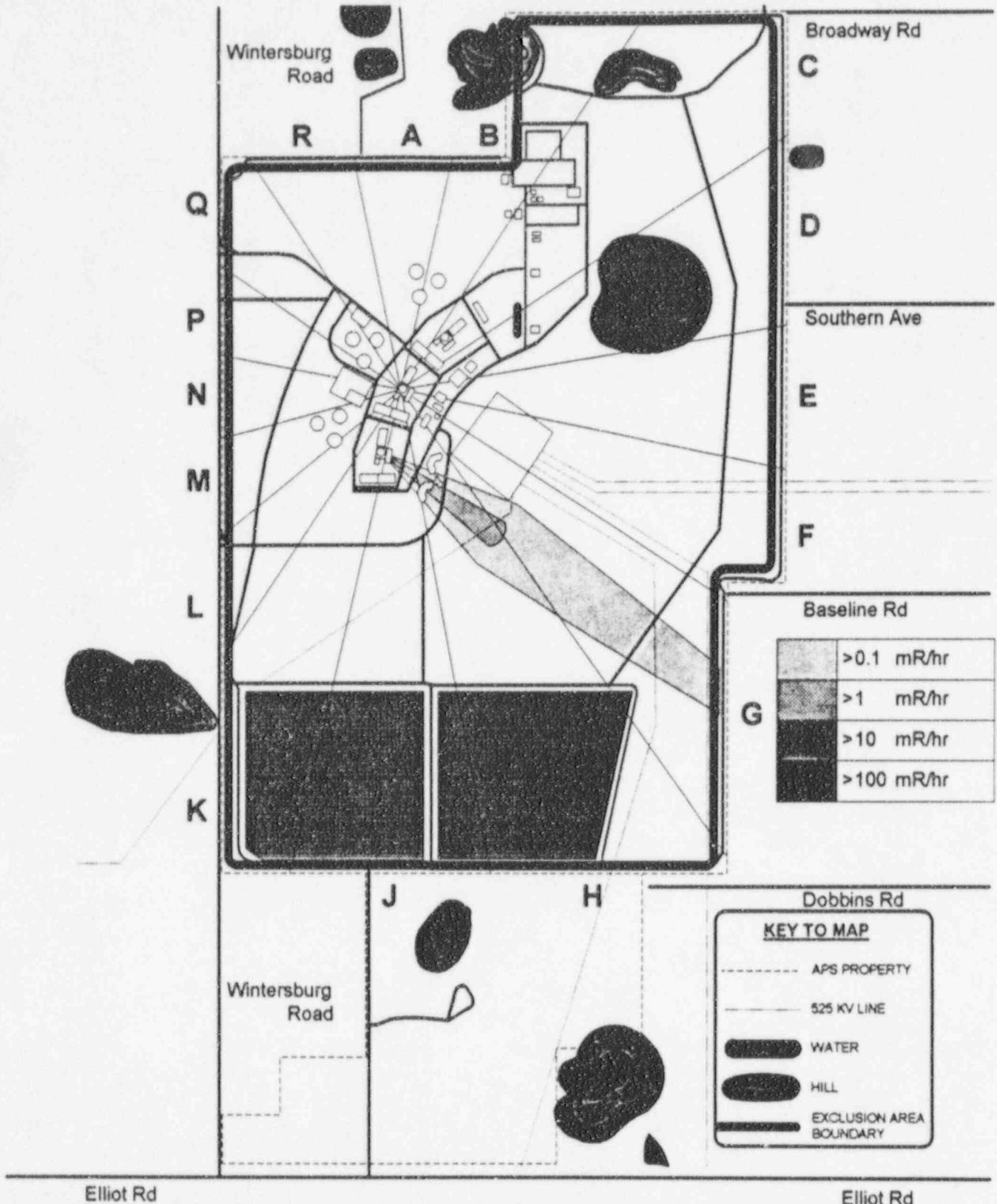
OFFSITE SURVEY INFORMATION - 1130-1145



SURVEY INFORMATION - 1130-1145

| Distance, Miles | Centerline 3' & 3" readings | | | Centerline air samples | | | | | |
|--------------------|-----------------------------|-------------|--------------|------------------------|---------|-----------------------|---------------|---------|----------------------|
| | mR/hr WO | mR/hr WC | PVNGS cpm | PVNGS readings | | | ARRA readings | | |
| | | | | Filter | AgX | AgX $\mu\text{Ci/cc}$ | Filter | AgX | AgX pCi/m^3 |
| 0.0-0.5 | 4.0 | 2 | 20000 | as read | as read | as read | as read | as read | as read |
| 0.5-1.0 | 1.0 | 0.5 | 5000 | as read | as read | as read | as read | as read | as read |
| 1.0-1.5 | as read | as read | as read | as read | as read | as read | as read | as read | as read |

ONSITE SURVEY INFORMATION - 1145-1200



| SURVEY INFORMATION - 1145-1200 | | | | | | | | | |
|--------------------------------|-----------------------------|-------|-------|------------------------|---------|-----------------------|---------------|---------|----------------------|
| Distance, Miles | Centerline 3' & 3" readings | | | Centerline air samples | | | | | |
| | mR/hr | mR/hr | PVNGS | PVNGS readings | | | ARRA readings | | |
| | WO | WC | cpm | Filter | AgX | AgX $\mu\text{Ci/cc}$ | Filter | AgX | AgX pCi/m^3 |
| 0.0-0.5 | 4.2 | 2.1 | 21000 | as read | as read | as read | as read | as read | as read |
| 0.5-1.0 | 1.0 | 0.5 | 5000 | as read | as read | as read | as read | as read | as read |

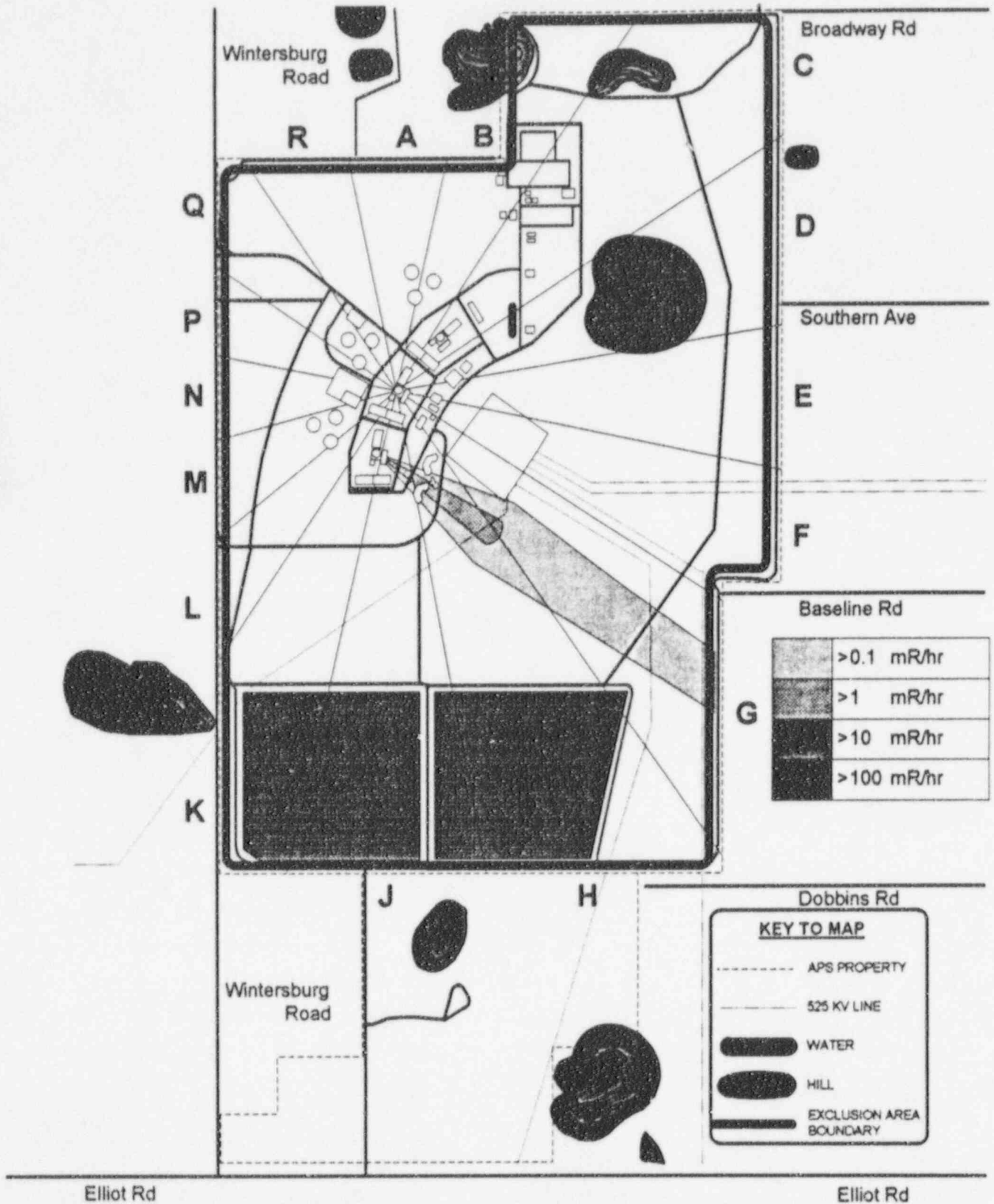
OFFSITE SURVEY INFORMATION - 1145-1200



SURVEY INFORMATION - 1145-1200

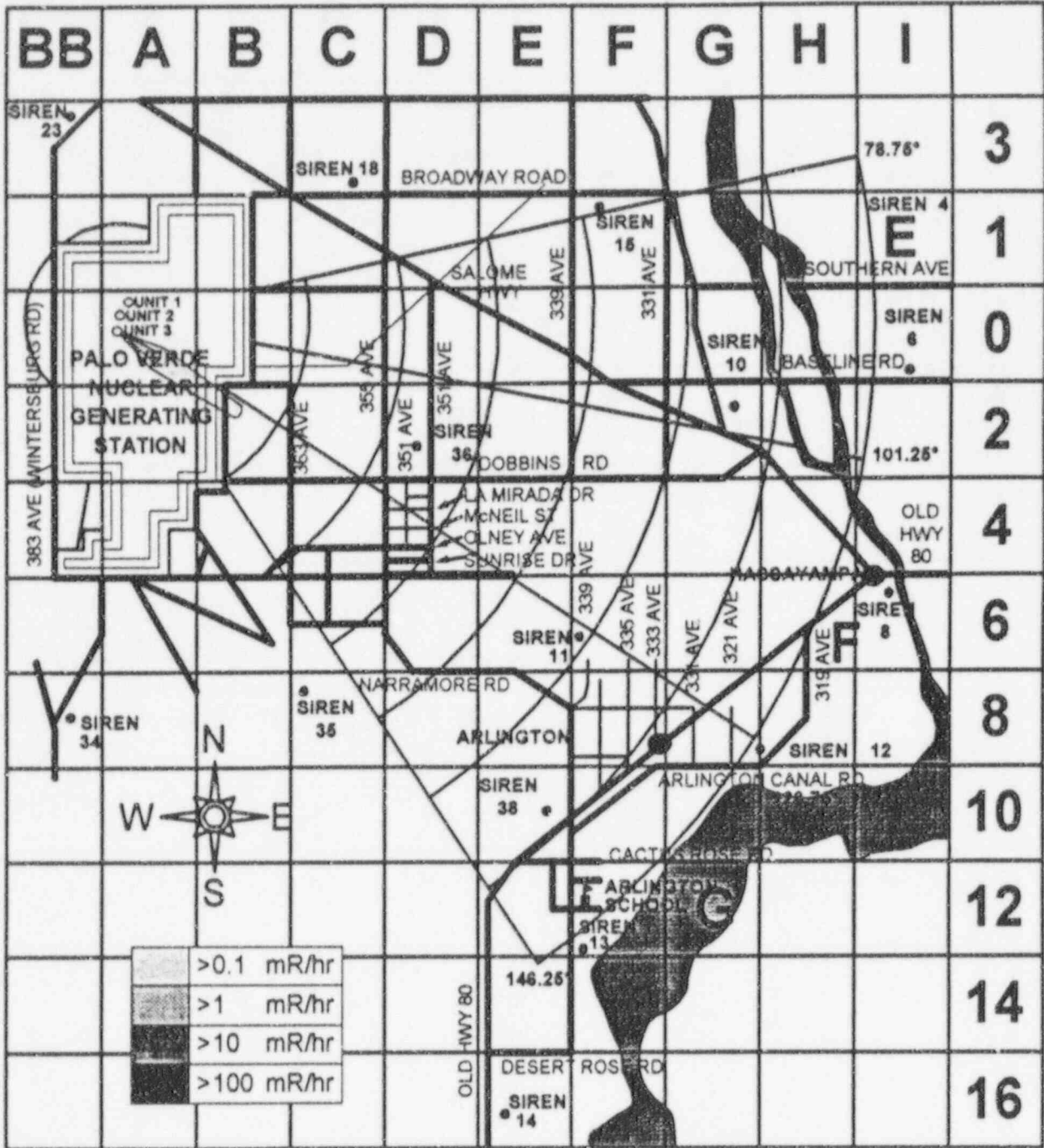
| Distance, Miles | Centerline 3' & 3" readings | | | Centerline air samples | | | | | |
|--------------------|-----------------------------|-------------|--------------|------------------------|---------|-----------------------|---------------|---------|----------------------|
| | mR/hr WO | mR/hr WC | PVNGS cpm | PVNGS readings | | | ARRA readings | | |
| | | | | Filter | AgX | AgX $\mu\text{Ci/cc}$ | Filter | AgX | AgX pCi/m^3 |
| 0.0-0.5 | 4.2 | 2.1 | 21000 | as read | as read | as read | as read | as read | as read |
| 0.5-1.0 | 1.0 | 0.5 | 5000 | as read | as read | as read | as read | as read | as read |
| 1.0-1.5 | 0.6 | 0.3 | 3000 | as read | as read | as read | as read | as read | as read |
| 1.5-2.0 | 0.4 | 0.2 | 2000 | as read | as read | as read | as read | as read | as read |
| 2.0-2.5 | 0.2 | 0.1 | 1000 | as read | as read | as read | as read | as read | as read |
| 2.5-3.0 | as read | as read | as read | as read | as read | as read | as read | as read | as read |

ONSITE SURVEY INFORMATION - 1200-1215



| SURVEY INFORMATION - 1200-1215 | | | | | | | | | |
|--------------------------------|-----------------------------|----------|-----------|------------------------|---------|-----------------------|---------------|---------|----------------------|
| Distance, Miles | Centerline 3' & 3" readings | | | Centerline air samples | | | | | |
| | mR/hr WO | mR/hr WC | PVNGS cpm | PVNGS readings | | | ARRA readings | | |
| | | | | Filter | AgX | AgX $\mu\text{Ci/cc}$ | Filter | AgX | AgX pCi/m^3 |
| 0.0-0.5 | 4.2 | 2.1 | 21000 | as read | as read | as read | as read | as read | as read |
| 0.5-1.0 | 1.0 | 0.5 | 5000 | as read | as read | as read | as read | as read | as read |

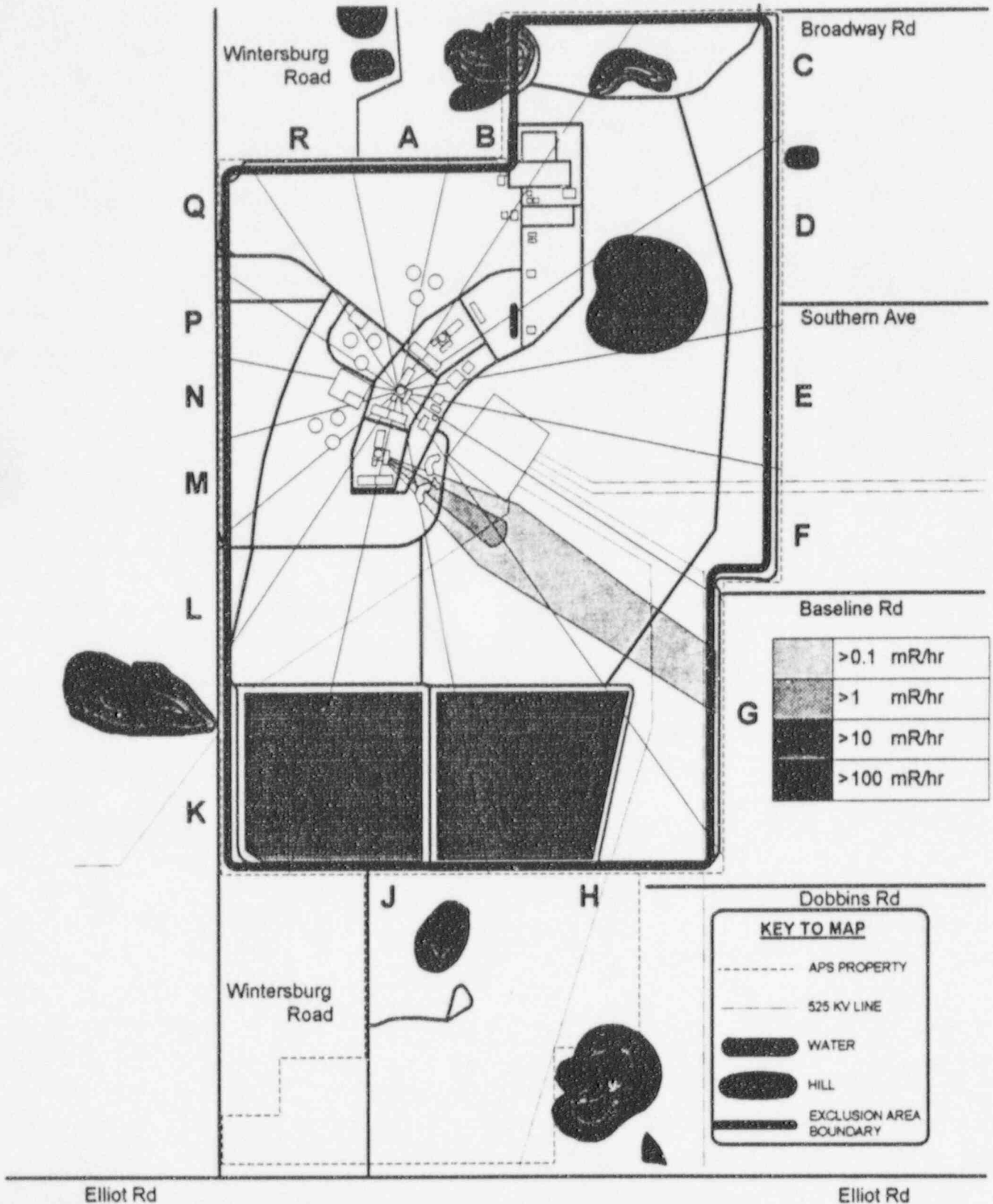
OFFSITE SURVEY INFORMATION - 1200-1215



SURVEY INFORMATION - 1200-1215

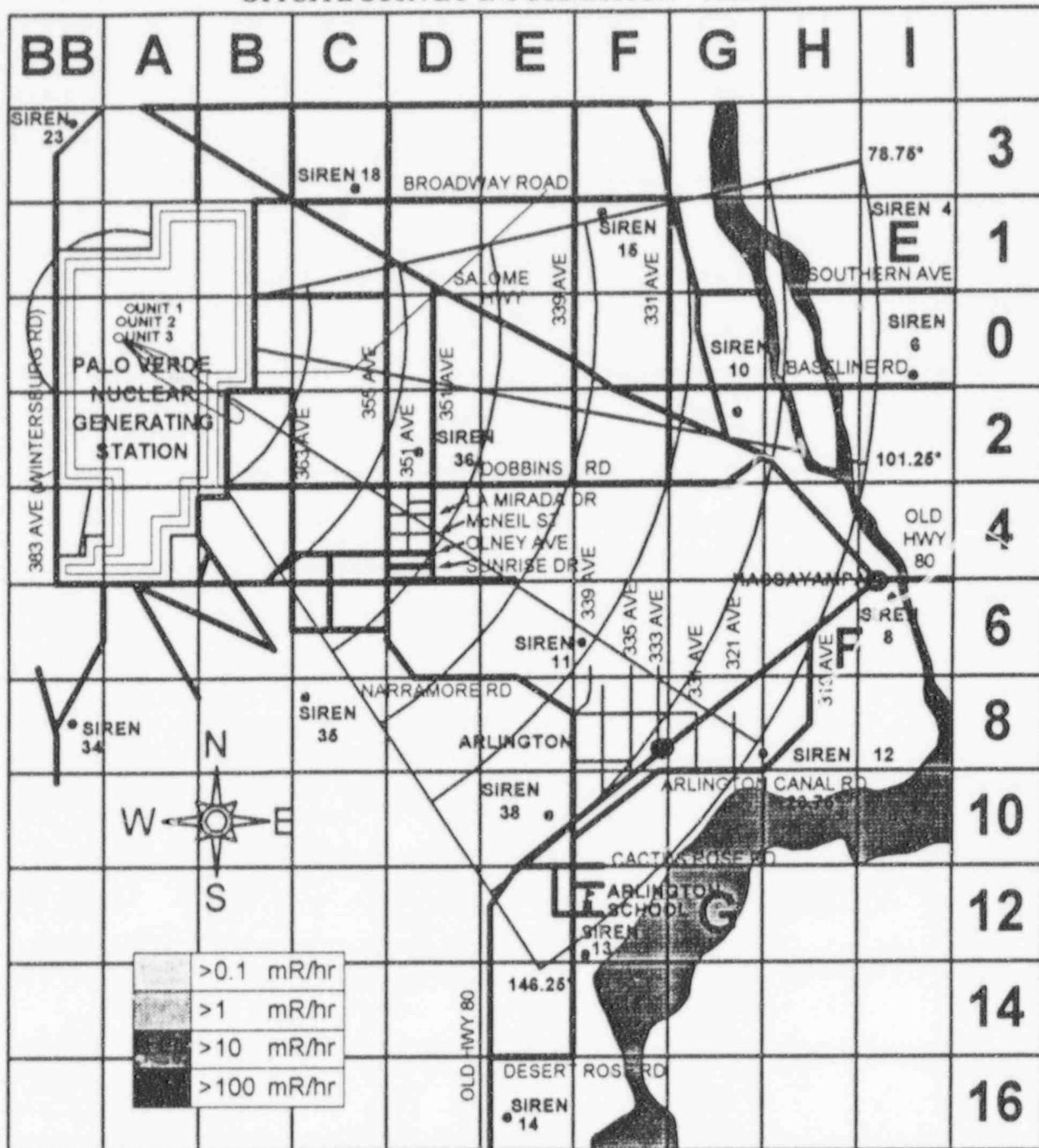
| Distance, Miles | Centerline 3' & 3" readings | | | Centerline air samples | | | | | |
|--------------------|-----------------------------|-------------|--------------|------------------------|---------|-----------------------|---------------|---------|----------------------|
| | mR/hr WO | mR/hr WC | PVNGS cpm | PVNGS readings | | | ARRA readings | | |
| | | | | Filter | AgX | AgX $\mu\text{Ci/cc}$ | Filter | AgX | AgX pCi/m^3 |
| 0.0-0.5 | 4.2 | 2.1 | 21000 | as read | as read | as read | as read | as read | as read |
| 0.5-1.0 | 1.0 | 0.5 | 5000 | as read | as read | as read | as read | as read | as read |
| 1.0-1.5 | 0.6 | 0.3 | 3000 | as read | as read | as read | as read | as read | as read |
| 1.5-2.0 | 0.2 | 0.1 | 1000 | as read | as read | as read | as read | as read | as read |
| 2.0-2.5 | 0.2 | 0.1 | 1000 | as read | as read | as read | as read | as read | as read |
| 2.5-3.0 | as read | as read | as read | as read | as read | as read | as read | as read | as read |

ONSITE SURVEY INFORMATION - 1215-1230



| SURVEY INFORMATION - 1215-1230 | | | | | | | | | |
|--------------------------------|-----------------------------|----------|-----------|------------------------|---------|-----------------------|---------------|---------|----------------------|
| Distance, Miles | Centerline 3' & 3" readings | | | Centerline air samples | | | | | |
| | mR/hr WO | mR/hr WC | PVNGS cpm | PVNGS readings | | | ARRA readings | | |
| | | | | Filter | AgX | AgX $\mu\text{Ci/cc}$ | Filter | AgX | AgX pCi/m^3 |
| 0.0-0.5 | 4.4 | 2.2 | 22000 | as read | as read | as read | as read | as read | as read |
| 0.5-1.0 | 1.0 | 0.5 | 5000 | as read | as read | as read | as read | as read | as read |

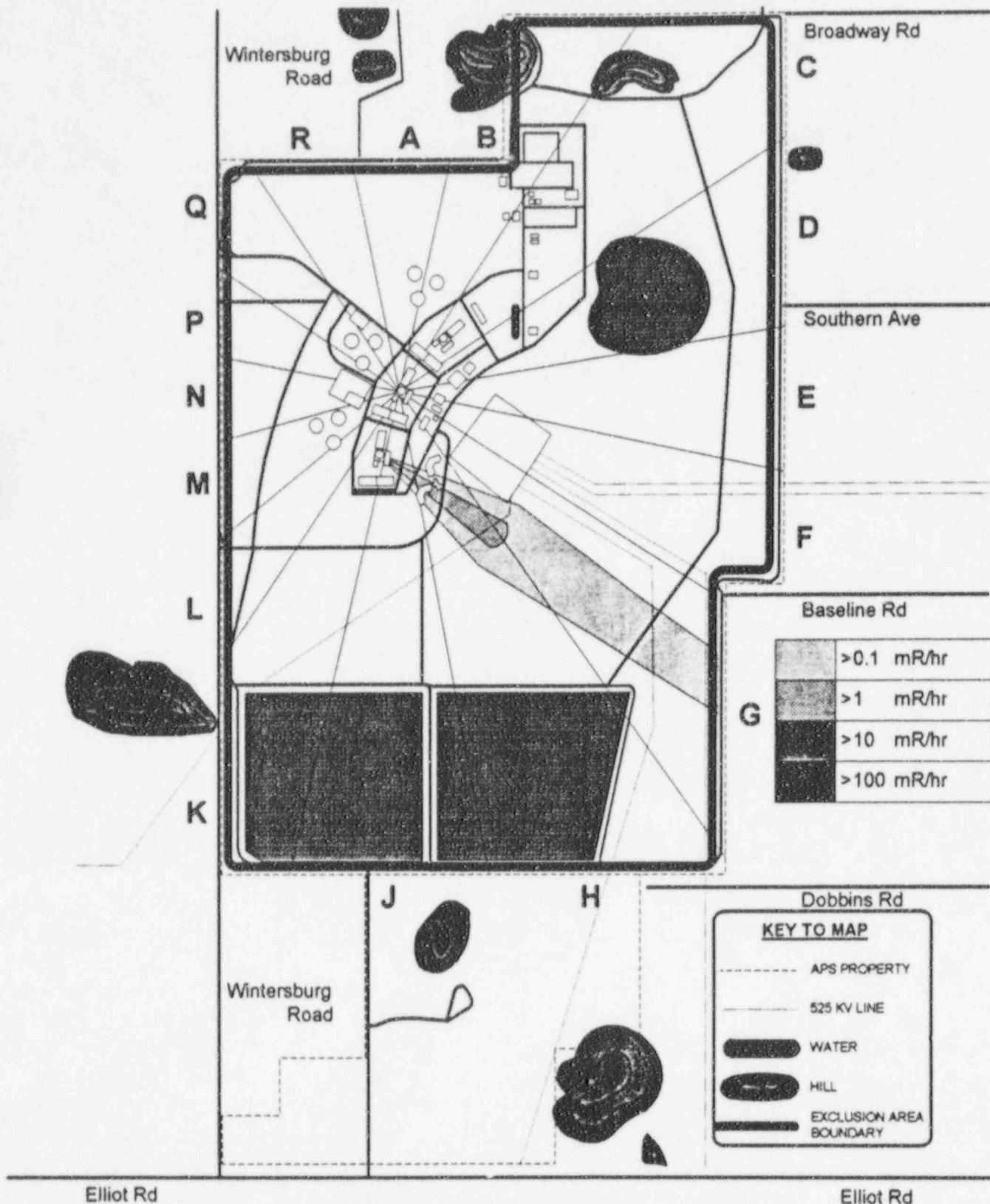
OFFSITE SURVEY INFORMATION - 1215-1230



SURVEY INFORMATION - 1215-1230

| Distance, Miles | Centerline 3' & 3" readings | | | Centerline air samples | | | | | |
|--------------------|-----------------------------|-------------|--------------|------------------------|---------|-----------------------|---------------|---------|----------------------|
| | mR/hr WO | mR/hr WC | PVNGS cpm | PVNGS readings | | | ARRA readings | | |
| | | | | Filter | AgX | AgX $\mu\text{Ci/cc}$ | Filter | AgX | AgX pCi/m^3 |
| 0.0-0.5 | 4.4 | 2.2 | 22000 | as read | as read | as read | as read | as read | as read |
| 0.5-1.0 | 1.0 | 0.5 | 5000 | as read | as read | as read | as read | as read | as read |
| 1.0-1.5 | 0.6 | 0.3 | 3000 | as read | as read | as read | as read | as read | as read |
| 1.5-2.0 | 0.2 | 0.1 | 1000 | as read | as read | as read | as read | as read | as read |
| 2.0-2.5 | as read | as read | as read | as read | as read | as read | as read | as read | as read |

ONSITE SURVEY INFORMATION - 1230-1245



| SURVEY INFORMATION - 1230-1245 | | | | | | | | | |
|--------------------------------|-----------------------------|----------|-----------|------------------------|---------|-----------------------|---------------|---------|----------------------|
| Distance, Miles | Centerline 3' & 3" readings | | | Centerline air samples | | | | | |
| | mR/hr WO | mR/hr WC | PVNGS cpm | PVNGS readings | | | ARRA readings | | |
| | | | | Filter | AgX | AgX $\mu\text{Ci/cc}$ | Filter | AgX | AgX pCi/m^3 |
| 0.0-0.5 | 4.4 | 2.2 | 22000 | as read | as read | as read | as read | as read | as read |
| 0.5-1.0 | 1.0 | 0.5 | 5000 | as read | as read | as read | as read | as read | as read |

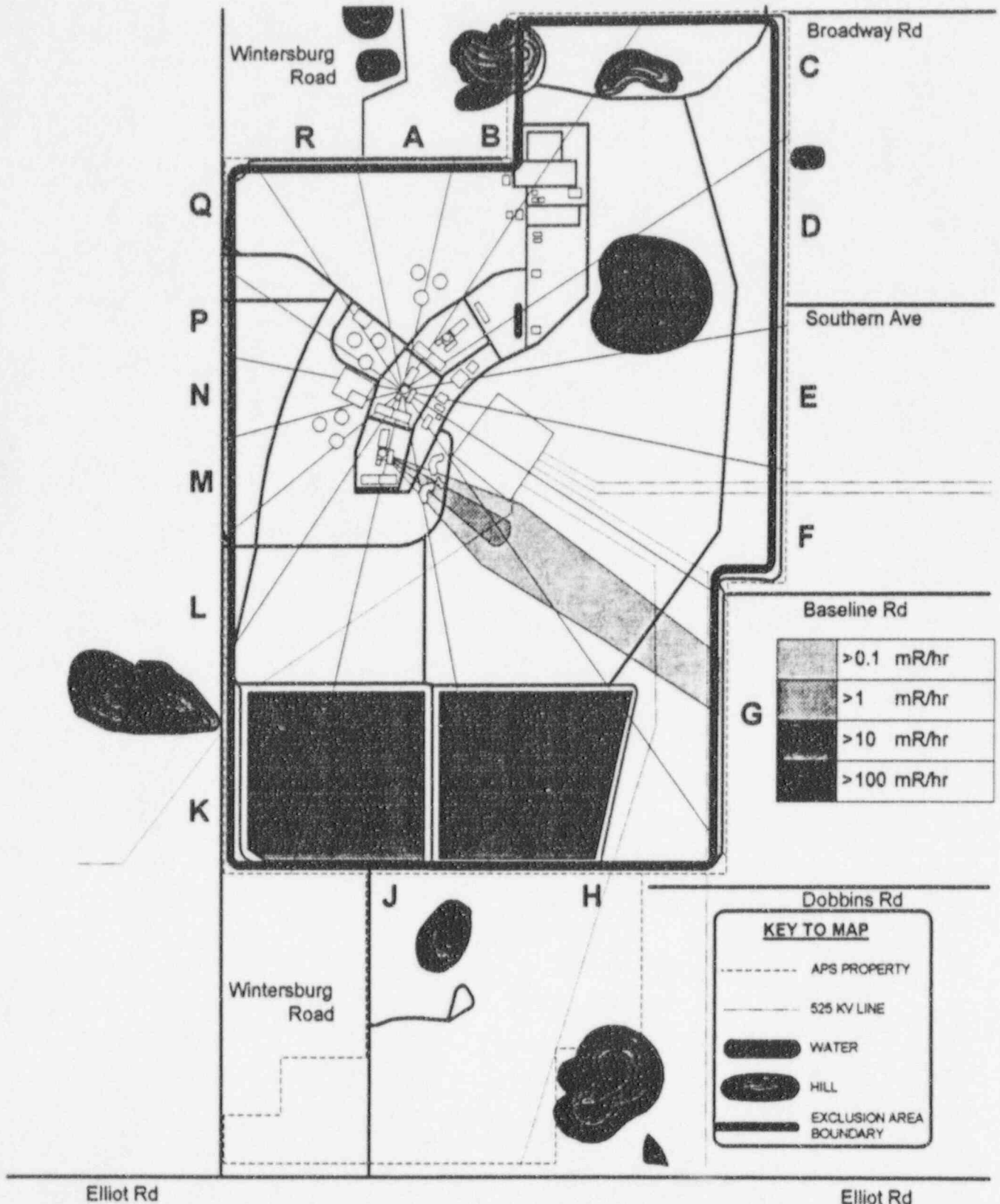
OFFSITE SURVEY INFORMATION - 1230-1245



SURVEY INFORMATION - 1230-1245

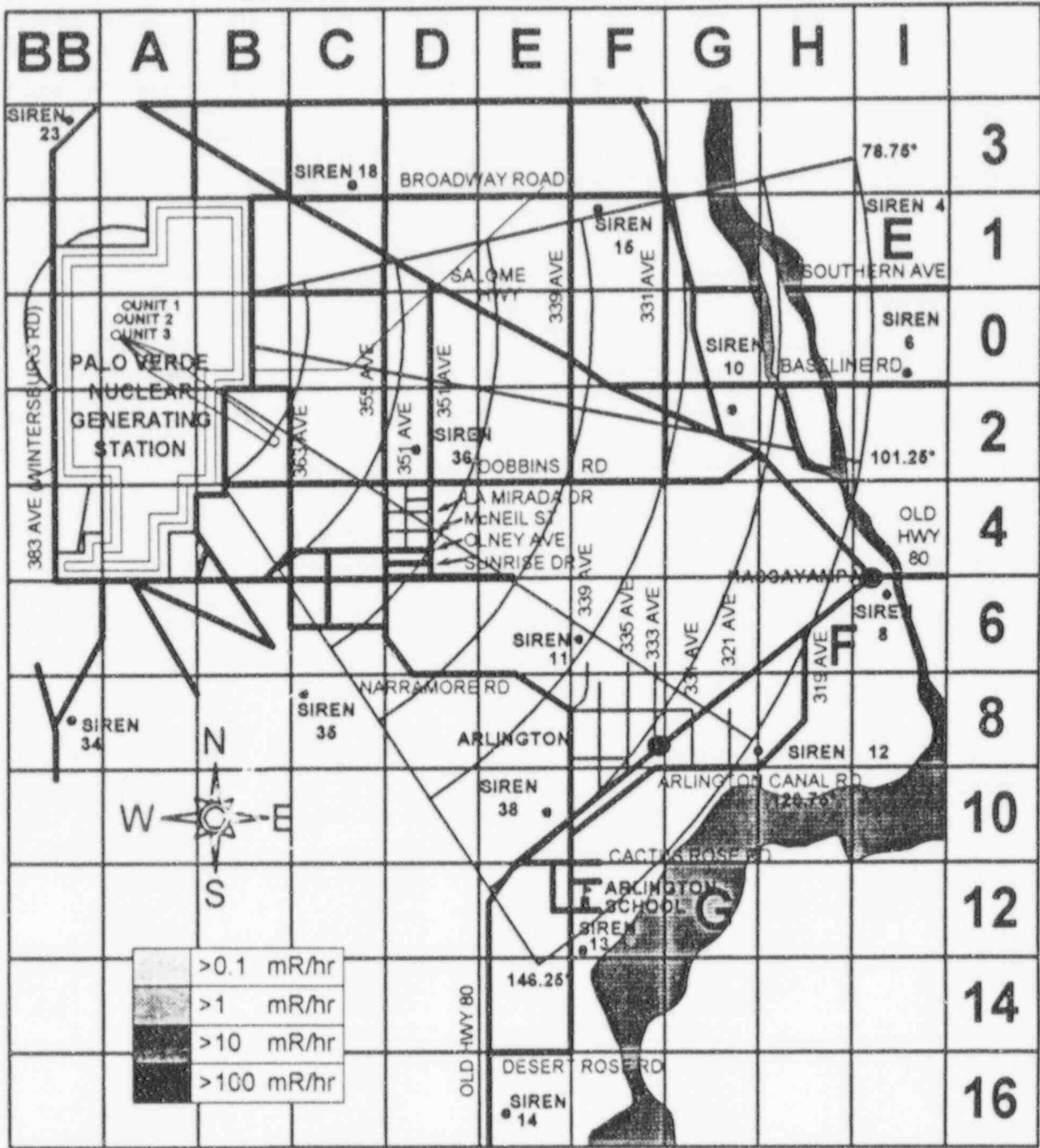
| Distance, Miles | Centerline 3' & 3" readings | | | Centerline air samples | | | | | |
|--------------------|-----------------------------|-------------|--------------|------------------------|---------|-----------------------|---------------|---------|----------------------|
| | mR/hr WO | mR/hr WC | PVNGS cpm | PVNGS readings | | | ARRA readings | | |
| | | | | Filter | AgX | AgX $\mu\text{Ci/cc}$ | Filter | AgX | AgX pCi/m^3 |
| 0.0-0.5 | 4.4 | 2.2 | 22000 | as read | as read | as read | as read | as read | as read |
| 0.5-1.0 | 1.0 | 0.5 | 5000 | as read | as read | as read | as read | as read | as read |
| 1.0-1.5 | 0.6 | 0.3 | 3000 | as read | as read | as read | as read | as read | as read |
| 1.5-2.0 | 0.4 | 0.2 | 2000 | as read | as read | as read | as read | as read | as read |
| 2.0-2.5 | 0.2 | 0.1 | 1000 | as read | as read | as read | as read | as read | as read |
| 2.5-3.0 | as read | as read | as read | as read | as read | as read | as read | as read | as read |

ONSITE SURVEY INFORMATION - 1245-1300



| SURVEY INFORMATION - 1245-1300 | | | | | | | | | |
|--------------------------------|-----------------------------|----------|-----------|------------------------|---------|-----------------------|---------------|---------|----------------------|
| Distance, Miles | Centerline 3' & 3" readings | | | Centerline air samples | | | | | |
| | mR/hr WO | mR/hr WC | PVNGS cpm | PVNGS readings | | | ARRA readings | | |
| | | | | Filter | AgX | AgX $\mu\text{Ci/cc}$ | Filter | AgX | AgX pCi/m^3 |
| 0.0-0.5 | 4.4 | 2.2 | 22000 | as read | as read | as read | as read | as read | as read |
| 0.5-1.0 | 1.0 | 0.5 | 5000 | as read | as read | as read | as read | as read | as read |

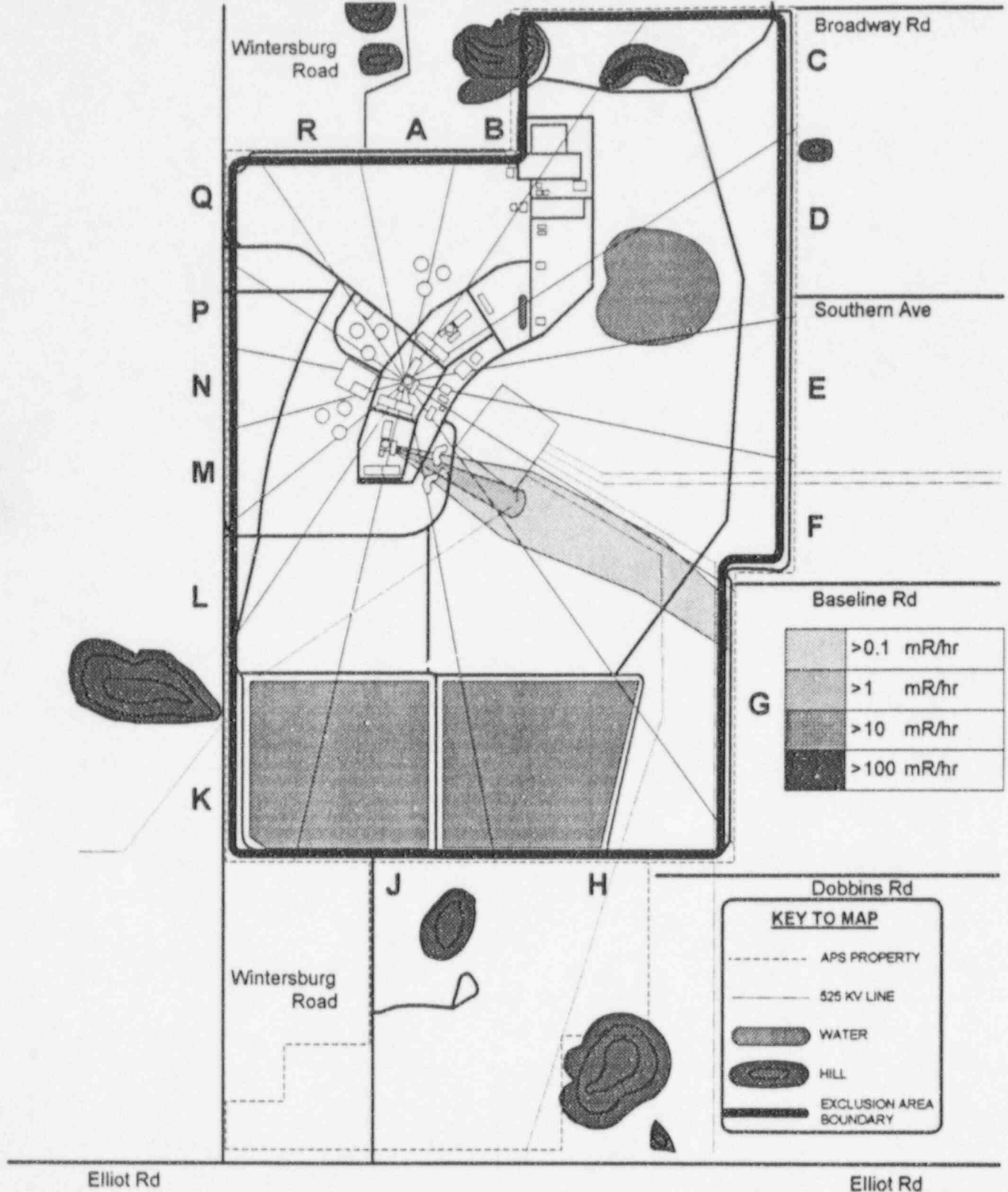
OFFSITE SURVEY INFORMATION - 1245-1300



SURVEY INFORMATION - 1245-1300

| Distance, Miles | Centerline 3' & 3" readings | | | Centerline air samples | | | | | |
|--------------------|-----------------------------|-------------|--------------|------------------------|---------|-----------------------|---------------|---------|----------------------|
| | mR/hr WO | mR/hr WC | PVNGS cpm | PVNGS readings | | | ARRA readings | | |
| | | | | Filter | AgX | AgX $\mu\text{Ci/cc}$ | Filter | AgX | AgX pCi/m^3 |
| 0.0-0.5 | 4.4 | 2.2 | 22000 | as read | as read | as read | as read | as read | as read |
| 0.5-1.0 | 1.0 | 0.5 | 5000 | as read | as read | as read | as read | as read | as read |
| 1.0-1.5 | 0.6 | 0.3 | 3000 | as read | as read | as read | as read | as read | as read |
| 1.5-2.0 | 0.4 | 0.2 | 2000 | as read | as read | as read | as read | as read | as read |
| 2.0-2.5 | 0.2 | 0.1 | 1000 | as read | as read | as read | as read | as read | as read |
| 2.5-3.0 | as read | as read | as read | as read | as read | as read | as read | as read | as read |

ONSITE SURVEY INFORMATION - 1300-1315



| SURVEY INFORMATION - 1300-1315 | | | | | | | | | |
|--------------------------------|-----------------------------|----------|-----------|------------------------|---------|-----------------------|---------------|---------|----------------------|
| Distance, Miles | Centerline 3' & 3" readings | | | Centertine air samples | | | | | |
| | mR/hr WO | mR/hr WC | PVNGS cpm | PVNGS readings | | | ARRA readings | | |
| | | | | Filter | AgX | AgX $\mu\text{Ci/cc}$ | Filter | AgX | AgX pCi/m^3 |
| 0.0-0.5 | 4.4 | 2.2 | 22000 | as read | as read | as read | as read | as read | as read |
| 0.5-1.0 | 1.0 | 0.5 | 5000 | as read | as read | as read | as read | as read | as read |

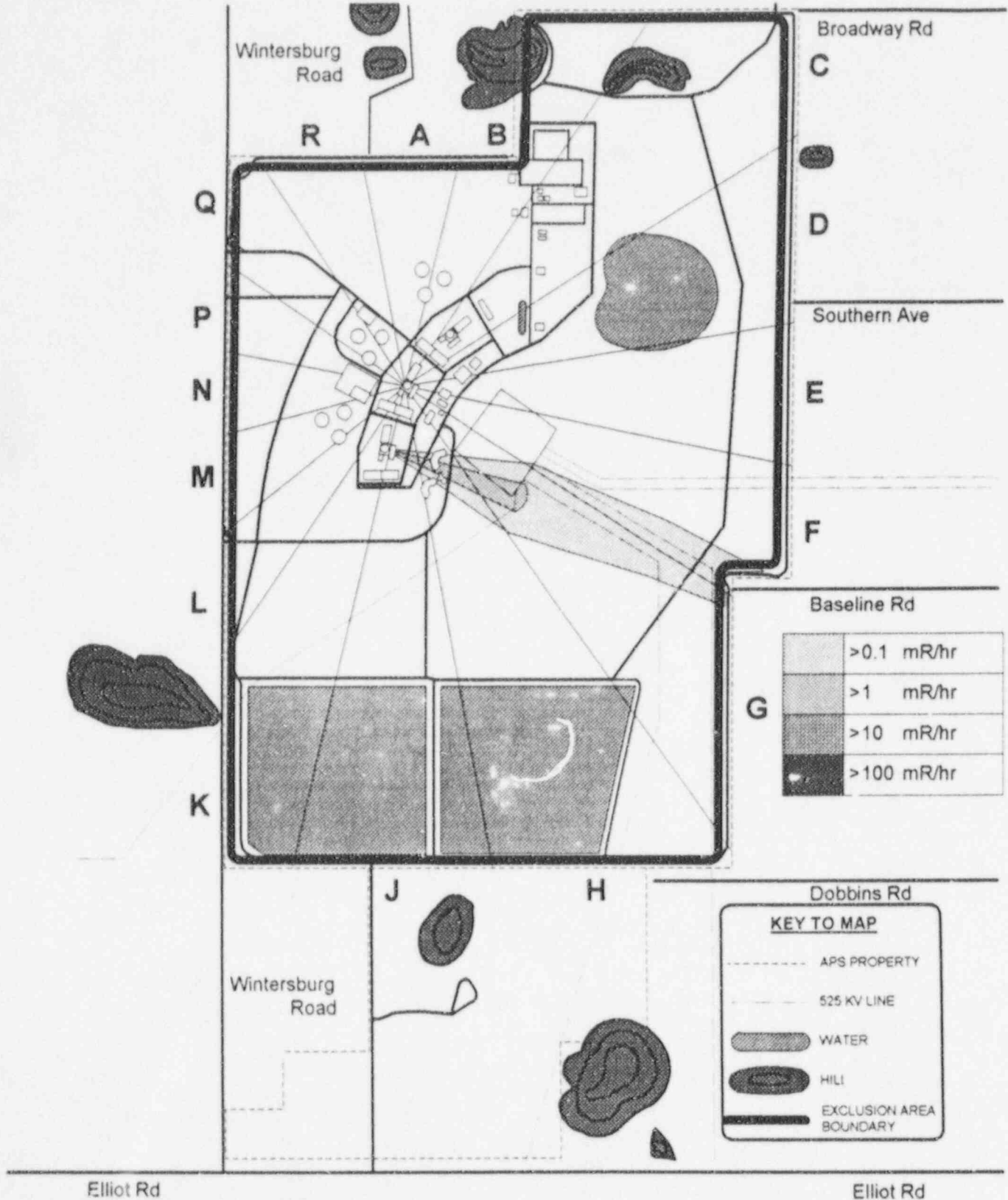
OFFSITE SURVEY INFORMATION - 1300-1315



SURVEY INFORMATION - 1300-1315

| Distance, Miles | Centerline 3' & 3" readings | | | Centerline air samples | | | | | |
|--------------------|-----------------------------|-------------|--------------|------------------------|---------|-----------------------|---------------|---------|----------------------|
| | mR/hr WO | mR/hr WC | PVNGS cpm | PVNGS readings | | | ARRA readings | | |
| | | | | Filter | AgX | AgX $\mu\text{Ci/cc}$ | Filter | AgX | AgX pCi/m^3 |
| 0.0-0.5 | 4.4 | 2.2 | 22000 | as read | as read | as read | as read | as read | as read |
| 0.5-1.0 | 1.0 | 0.5 | 5000 | as read | as read | as read | as read | as read | as read |
| 1.0-1.5 | 0.6 | 0.3 | 3000 | as read | as read | as read | as read | as read | as read |
| 1.5-2.0 | 0.4 | 0.2 | 2000 | as read | as read | as read | as read | as read | as read |
| 2.0-2.5 | 0.2 | 0.1 | 1000 | as read | as read | as read | as read | as read | as read |
| 2.5-3.0 | as read | as read | as read | as read | as read | as read | as read | as read | as read |

ONSITE SURVEY INFORMATION - 1315-1330



| SURVEY INFORMATION - 1315-1330 | | | | | | | | | |
|--------------------------------|-----------------------------|-------|-------|------------------------|---------|-----------------|---------------|---------|------------------------|
| Distance, Miles | Centerline 3' & 3" readings | | | Centerline air samples | | | | | |
| | mR/hr | mR/hr | PVNGS | PVNGS readings | | | ARRA readings | | |
| | WO | WC | cpm | Filter | AgX | AgX μ Ci/cc | Filter | AgX | AgX pCi/m ³ |
| 0.0-0.5 | 4.8 | 2.4 | 24000 | as read | as read | as read | as read | as read | as read |
| 0.5-1.0 | 1.2 | 0.6 | 6000 | as read | as read | as read | as read | as read | as read |

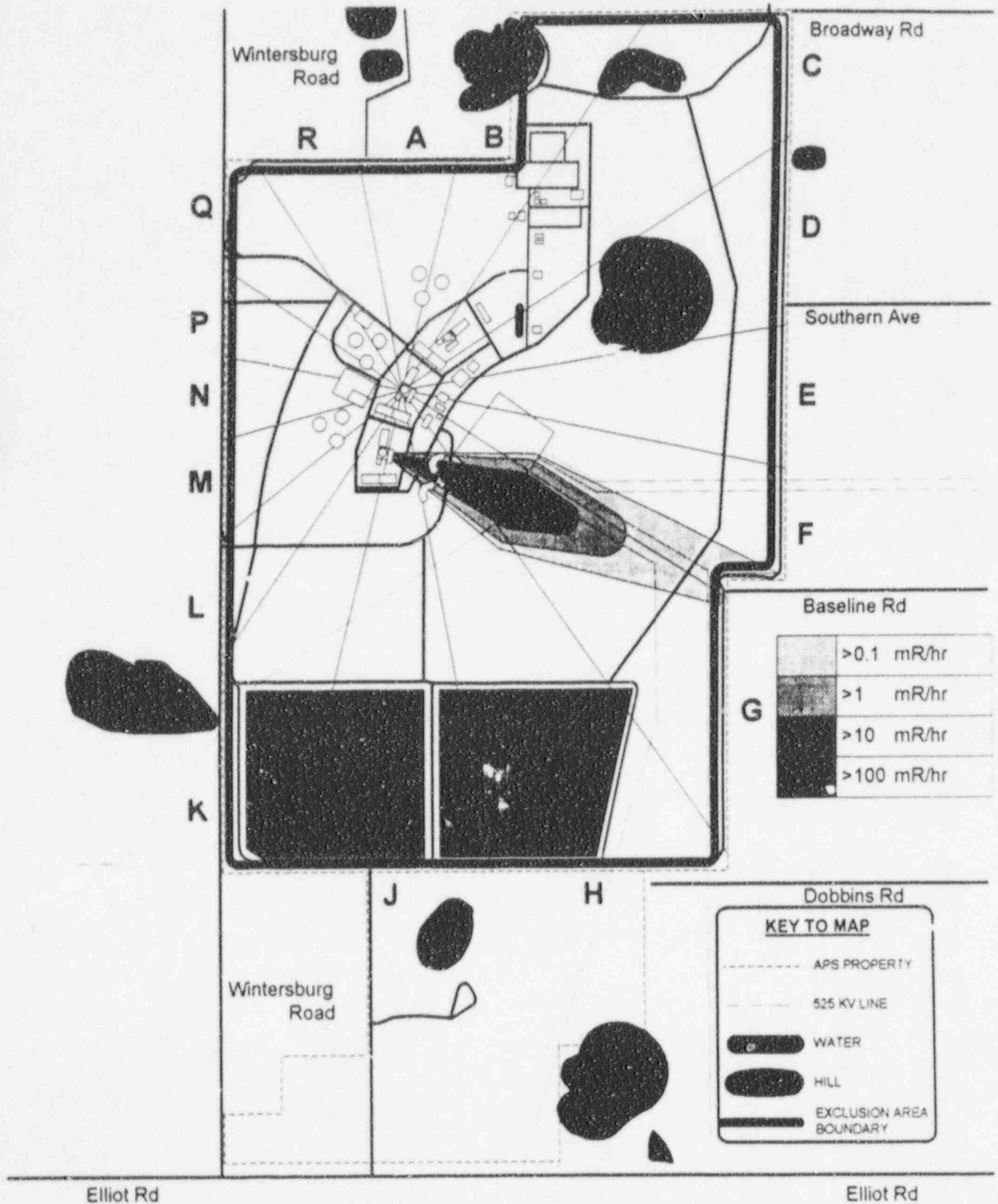
OFFSITE SURVEY INFORMATION - 1315-1330



SURVEY INFORMATION - 1315-1330

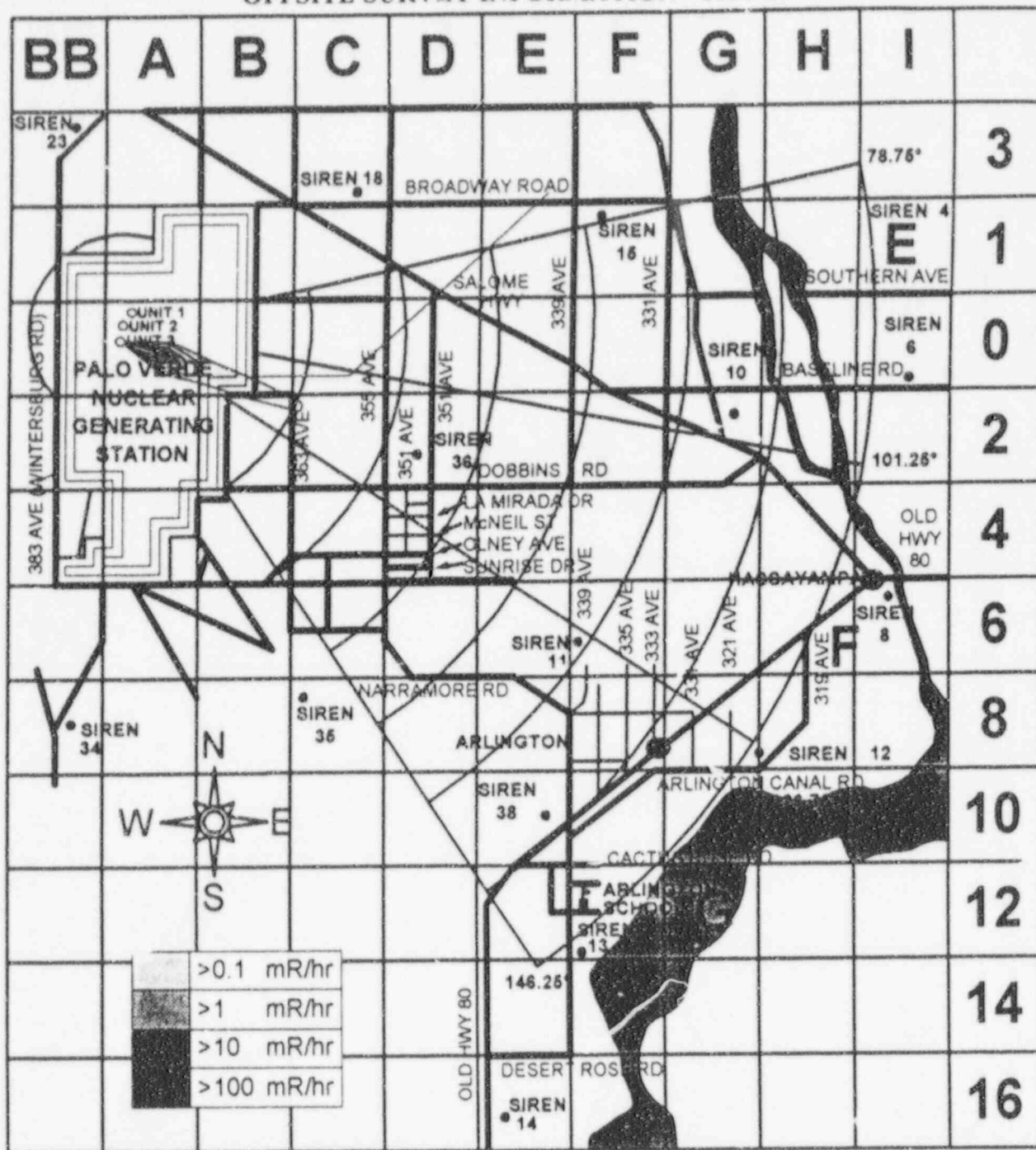
| Distance, Miles | Centerline 3' & 3" readings | | | Centerline air samples | | | | | |
|--------------------|-----------------------------|-------------|--------------|------------------------|---------|-----------------------|---------------|---------|----------------------|
| | mR/hr WO | mR/hr WC | PVNGS cpm | PVNGS readings | | | ARRA readings | | |
| | | | | Filter | AgX | AgX $\mu\text{Ci/cc}$ | Filter | AgX | AgX pCi/m^3 |
| 0.0-0.5 | 4.8 | 2.4 | 24000 | as read | as read | as read | as read | as read | as read |
| 0.5-1.0 | 1.2 | 0.6 | 6000 | as read | as read | as read | as read | as read | as read |
| 1.0-1.5 | 0.6 | 0.3 | 3000 | as read | as read | as read | as read | as read | as read |
| 1.5-2.0 | 0.4 | 0.2 | 2000 | as read | as read | as read | as read | as read | as read |
| 2.0-2.5 | 0.2 | 0.1 | 1000 | as read | as read | as read | as read | as read | as read |
| 2.5-3.0 | as read | as read | as read | as read | as read | as read | as read | as read | as read |

ONSITE SURVEY INFORMATION - 1330-1345



| SURVEY INFORMATION - 1330-1345 | | | | | | | | | |
|--------------------------------|-----------------------------|----------|-----------|------------------------|----------|-----------------------|---------------|---------|----------------------|
| Distance, Miles | Centerline 3' & 3" readings | | | Centerline air samples | | | | | |
| | mR/hr WO | mR/hr WC | PVNGS cpm | PVNGS readings | | | ARRA readings | | |
| | | | | Filter | AgX | AgX $\mu\text{Ci/cc}$ | Filter | AgX | AgX pCi/m^3 |
| 0.0-0.5 | 1360.0 | 680.0 | offscale | 118000 | 21 mR/hr | 3.80E-05 | 4900 | 49400 | 3.80E+07 |
| 0.5-1.0 | 1.6 | 0.8 | 8000 | as read | as read | as read | as read | as read | as read |

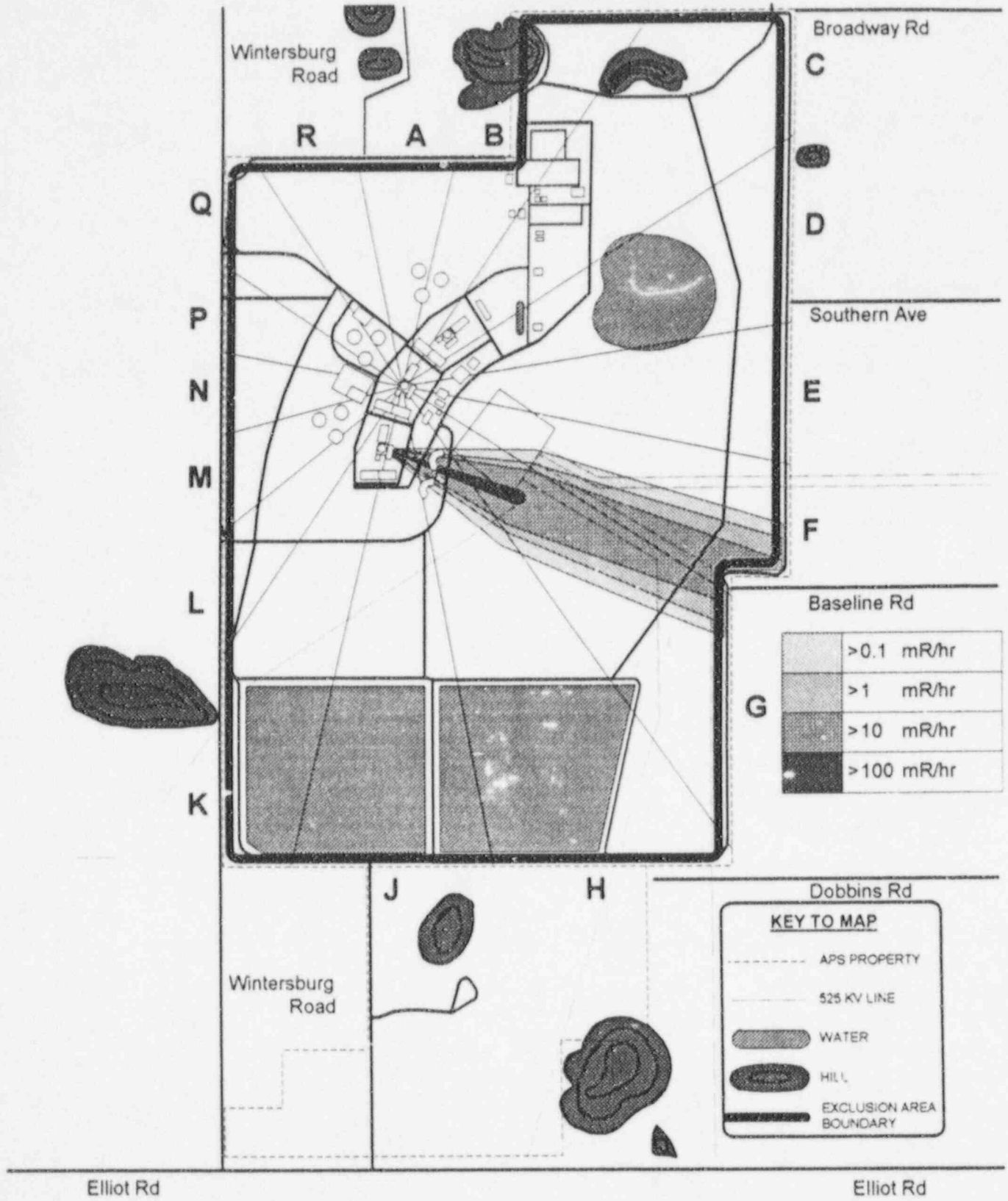
OFFSITE SURVEY INFORMATION - 1330-1345



SURVEY INFORMATION - 1330-1345

| Distance, Miles | Centerline 3' & 3" readings | | | Centerline air samples | | | | | |
|--------------------|-----------------------------|---------|----------|------------------------|----------|-----------------------|---------------|---------|----------------------|
| | mR/hr | mR/hr | PVNGS | PVNGS readings | | | ARRA readings | | |
| | WC | WC | cpm | Filter | AgX | AgX $\mu\text{Ci/cc}$ | Filter | AgX | AgX pCi/m^3 |
| 0.0-0.5 | 1360.0 | 680.0 | offscale | 118000 | 21 mR/hr | 3.80E-05 | 4900 | 49400 | 3.80E+07 |
| 0.5-1.0 | 1.6 | 0.8 | 8000 | as read | as read | as read | as read | as read | as read |
| 1.0-1.5 | 0.6 | 0.3 | 3000 | as read | as read | as read | as read | as read | as read |
| 1.5-2.0 | 0.4 | 0.2 | 2000 | as read | as read | as read | as read | as read | as read |
| 2.0-2.5 | 0.2 | 0.1 | 1000 | as read | as read | as read | as read | as read | as read |
| 2.5-3.0 | as read | as read | as read | as read | as read | as read | as read | as read | as read |

ONSITE SURVEY INFORMATION - 1345-1400



SURVEY INFORMATION - 1345-1400

| Distance, Miles | Centerline 3' & 3" readings | | | Centerline air samples | | | | | |
|-----------------|-----------------------------|-------|----------|------------------------|----------|-----------------------|---------------|-------|----------------------|
| | mR/hr | mR/hr | PVNGS | PVNGS readings | | | ARRA readings | | |
| | WO | WC | cpm | Filter | AgX | AgX $\mu\text{Ci/cc}$ | Filter | AgX | AgX pCi/m^3 |
| 0.0-0.5 | 1100.0 | 540.0 | offscale | 91000 | 16 mR/hr | 2.93E-05 | 3800 | 38000 | 2.93E+07 |
| 0.5-1.0 | 260.0 | 130.0 | offscale | 24000 | 236000 | 7.61E-06 | 1000 | 9900 | 7.61E+06 |

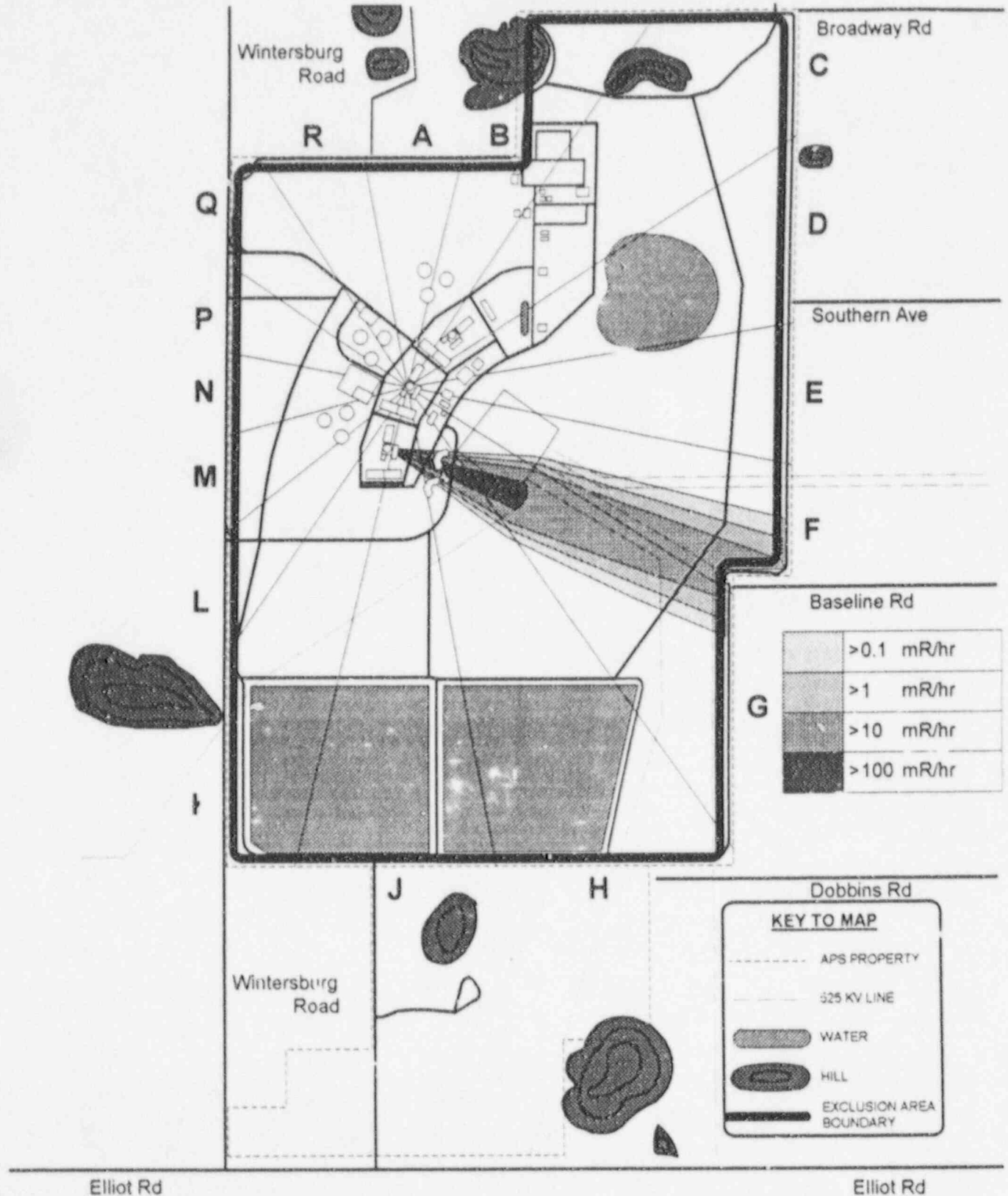
OFFSITE SURVEY INFORMATION - 1345-1400



SURVEY INFORMATION - 1345-1400

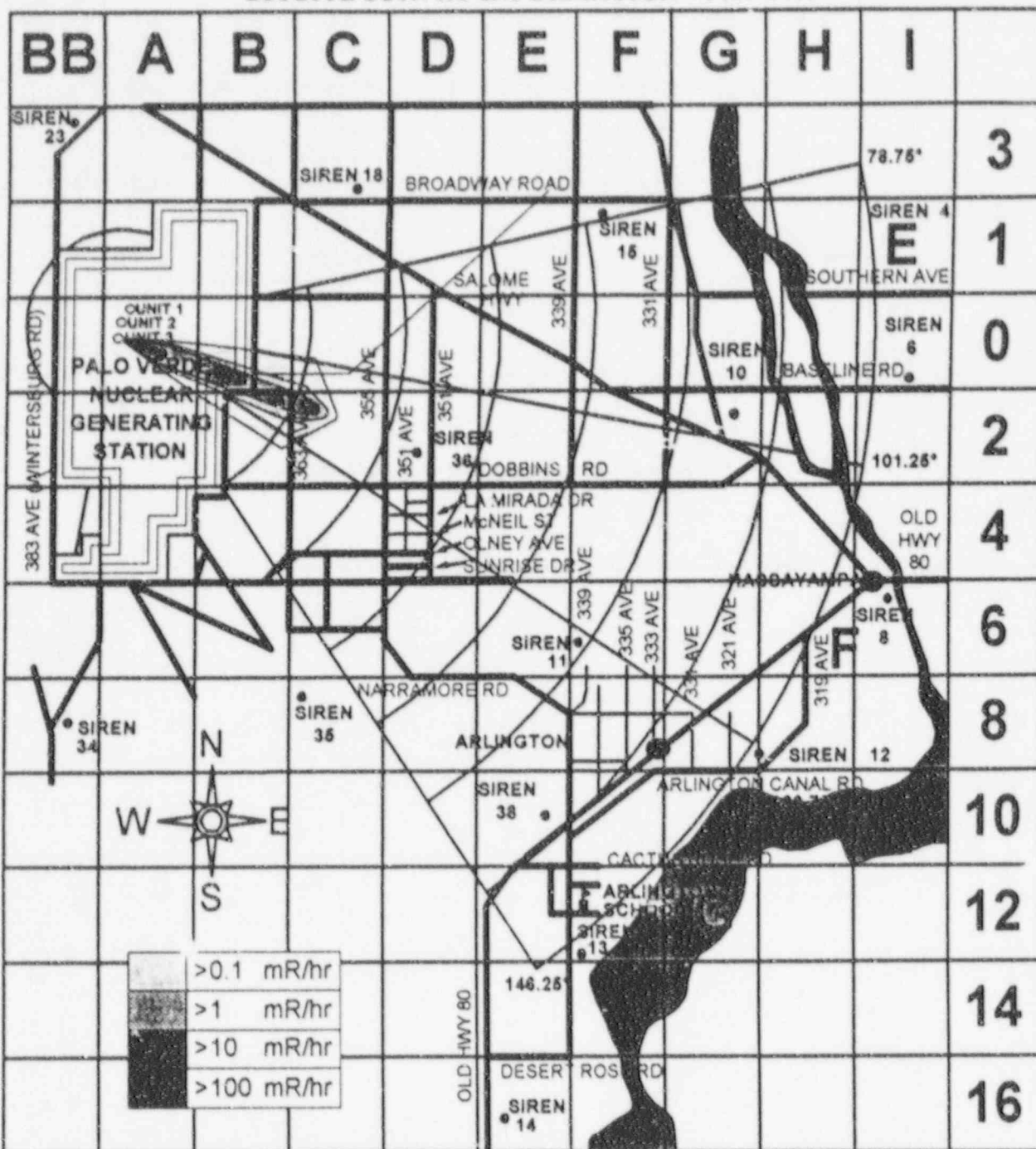
| Distance, Miles | Centerline 3' & 3" readings | | | Centerline air samples | | | | | |
|--------------------|-----------------------------|-------------|--------------|------------------------|----------|-----------------------|---------------|---------|----------------------|
| | mR/hr WO | mR/hr WC | PVNGS cpm | PVNGS readings | | | ARRA readings | | |
| | | | | Filter | AgX | AgX $\mu\text{Ci/cc}$ | Filter | AgX | AgX pCi/m^3 |
| 0.0-0.5 | 1100.0 | 540.0 | offscale | 91000 | 16 mR/hr | 2.93E-05 | 3800 | 38000 | 2.93E+07 |
| 0.5-1.0 | 260.0 | 130.0 | offscale | 24000 | 236000 | 7.61E-06 | 1000 | 9900 | 7.61E+06 |
| 1.0-1.5 | 0.6 | 0.3 | 3000 | as read | as read | as read | as read | as read | as read |
| 1.5-2.0 | 0.4 | 0.2 | 2000 | as read | as read | as read | as read | as read | as read |
| 2.0-2.5 | 0.2 | 0.1 | 1000 | as read | as read | as read | as read | as read | as read |
| 2.5-3.0 | as read | as read | as read | as read | as read | as read | as read | as read | as read |

ONSITE SURVEY INFORMATION - 1400-1415



| SURVEY INFORMATION - 1400-1415 | | | | | | | | | |
|--------------------------------|-----------------------------|----------|-----------|------------------------|--------|-----------------------|---------------|-------|----------------------|
| Distance, Miles | Centerline 3' & 3" readings | | | Centerline air samples | | | | | |
| | mR/hr WO | mR/hr WC | PVNGS cpm | PVNGS readings | | | ARRA readings | | |
| | | | | Filter | AgX | AgX $\mu\text{Ci/cc}$ | Filter | AgX | AgX pCi/m^3 |
| 0.0-0.5 | 620.0 | 310.0 | offscale | 49000 | 493000 | 1.59E-05 | 2100 | 20700 | 1.59E+07 |
| 0.5-1.0 | 150.0 | 75.0 | offscale | 13500 | 135000 | 4.36E-06 | 600 | 5700 | 4.36E+06 |

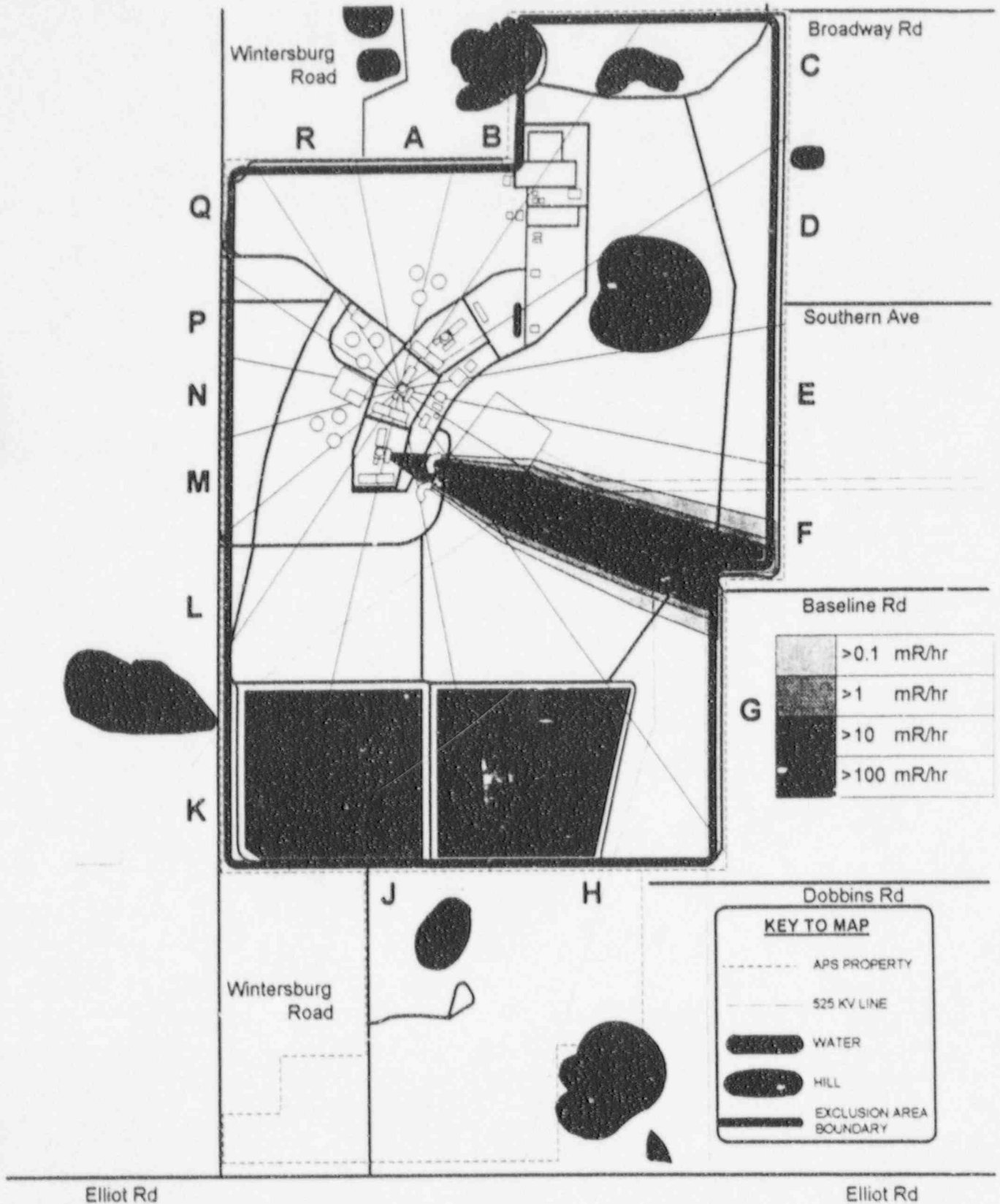
OFFSITE SURVEY INFORMATION - 1400-1415



SURVEY INFORMATION - 1400-1415

| Distance, Miles | Centerline 3' & 3" readings | | | Centerline air samples | | | | | |
|--------------------|-----------------------------|-------------|--------------|------------------------|---------|-----------------------|---------------|---------|----------------------|
| | mR/hr WC | mR/hr WC | PVNGS cpm | PVNGS readings | | | ARRA readings | | |
| | | | | Filter | AgX | AgX $\mu\text{Ci/cc}$ | Filter | AgX | AgX pCi/m^3 |
| 0.0-0.5 | 620.0 | 310.0 | offscale | 49000 | 493000 | 1.59E-05 | 2100 | 20700 | 1.59E+07 |
| 0.5-1.0 | 150.0 | 75.0 | offscale | 13500 | 135000 | 4.36E-06 | 600 | 5700 | 4.36E+06 |
| 1.0-1.5 | 76.0 | 38.0 | 380000 | 7700 | 77000 | 2.47E-06 | 300 | 3200 | 2.47E+06 |
| 1.5-2.0 | 48.0 | 24.0 | 240000 | 5300 | 53000 | 1.71E-06 | 200 | 2200 | 1.71E+06 |
| 2.0-2.5 | as read | as read | as read | as read | as read | as read | as read | as read | as read |

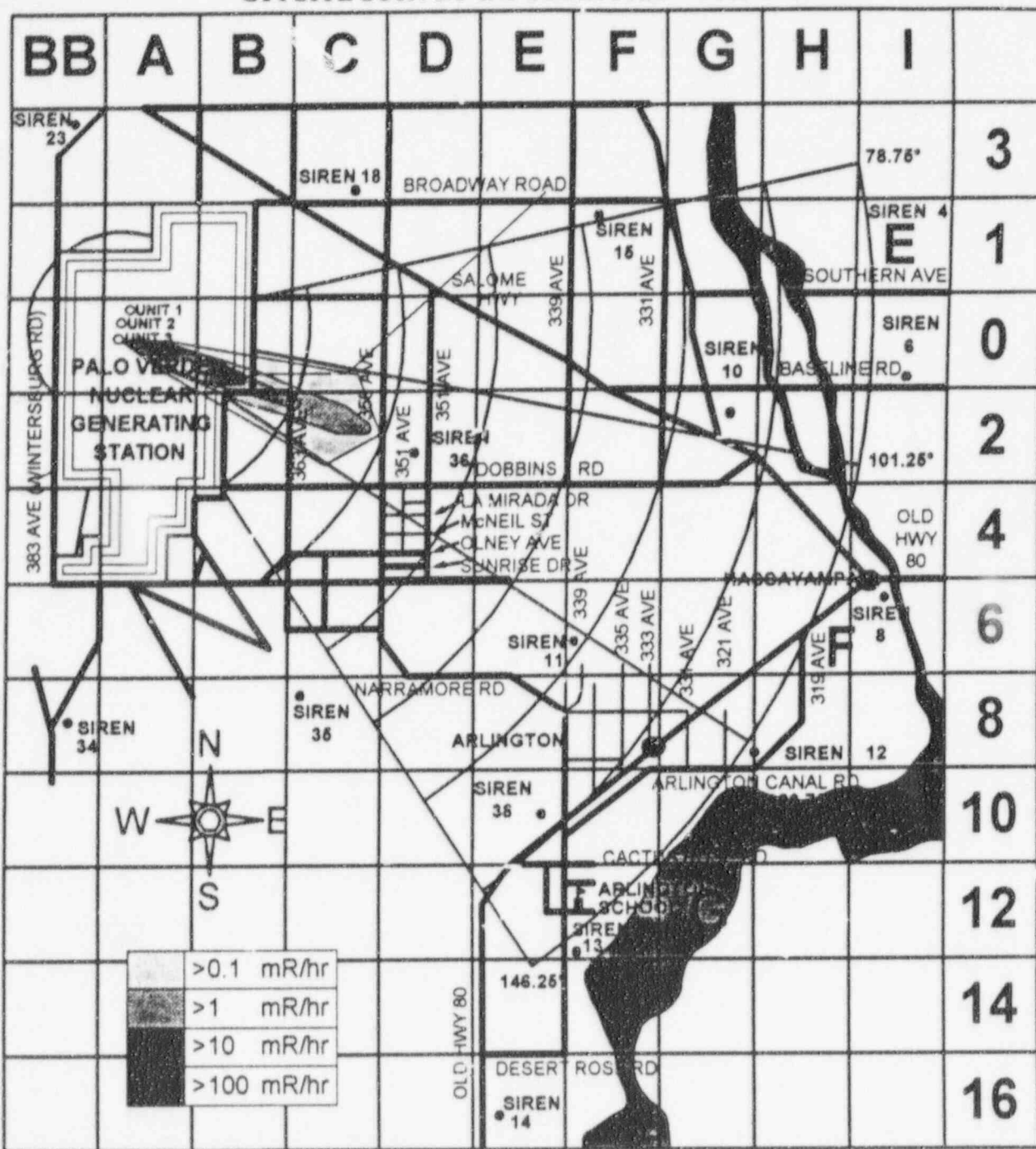
ONSITE SURVEY INFORMATION - 1415-1430



SURVEY INFORMATION - 1415-1430

| Distance, Miles | Centerline 3' & 3" readings | | | Centerline air samples | | | | | |
|--------------------|-----------------------------|-------|----------|------------------------|--------|-----------------------|---------------|-------|----------------------|
| | mR/hr | mR/hr | PVNGS | PVNGS readings | | | ARRA readings | | |
| | WO | WC | cpm | Filter | AgX | AgX $\mu\text{Ci/cc}$ | Filter | AgX | AgX pCi/m^3 |
| 0.0-0.5 | 320 | 160 | offscale | 25200 | 252000 | 8.14E-06 | 1100 | 10600 | 8.14E+06 |
| 0.5-1.0 | 80 | 40 | 400000 | 6900 | 69000 | 2.23E-06 | 300 | 2900 | 2.23E+06 |

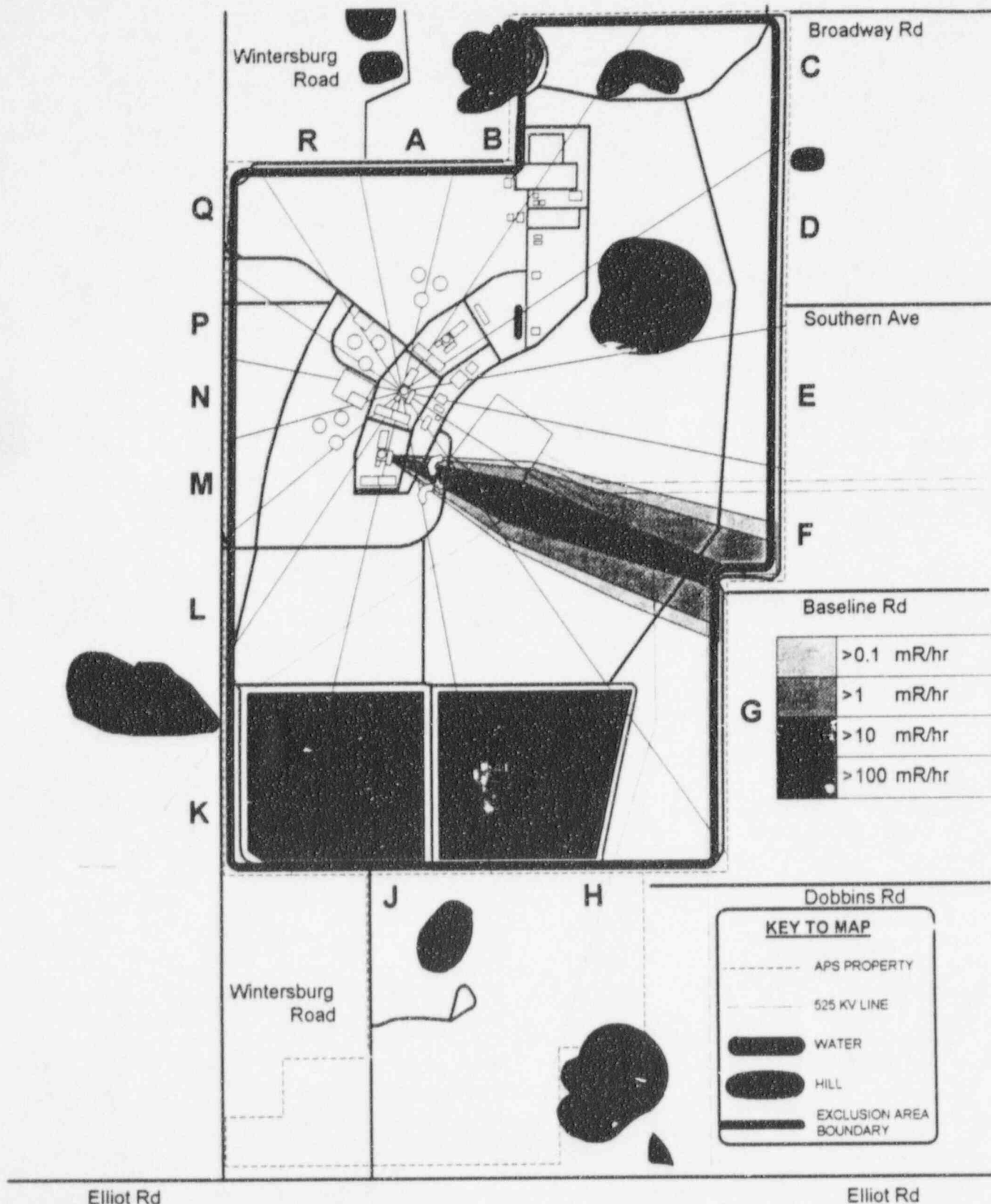
OFFSITE SURVEY INFORMATION - 1415-1430



SURVEY INFORMATION - 1415-1430

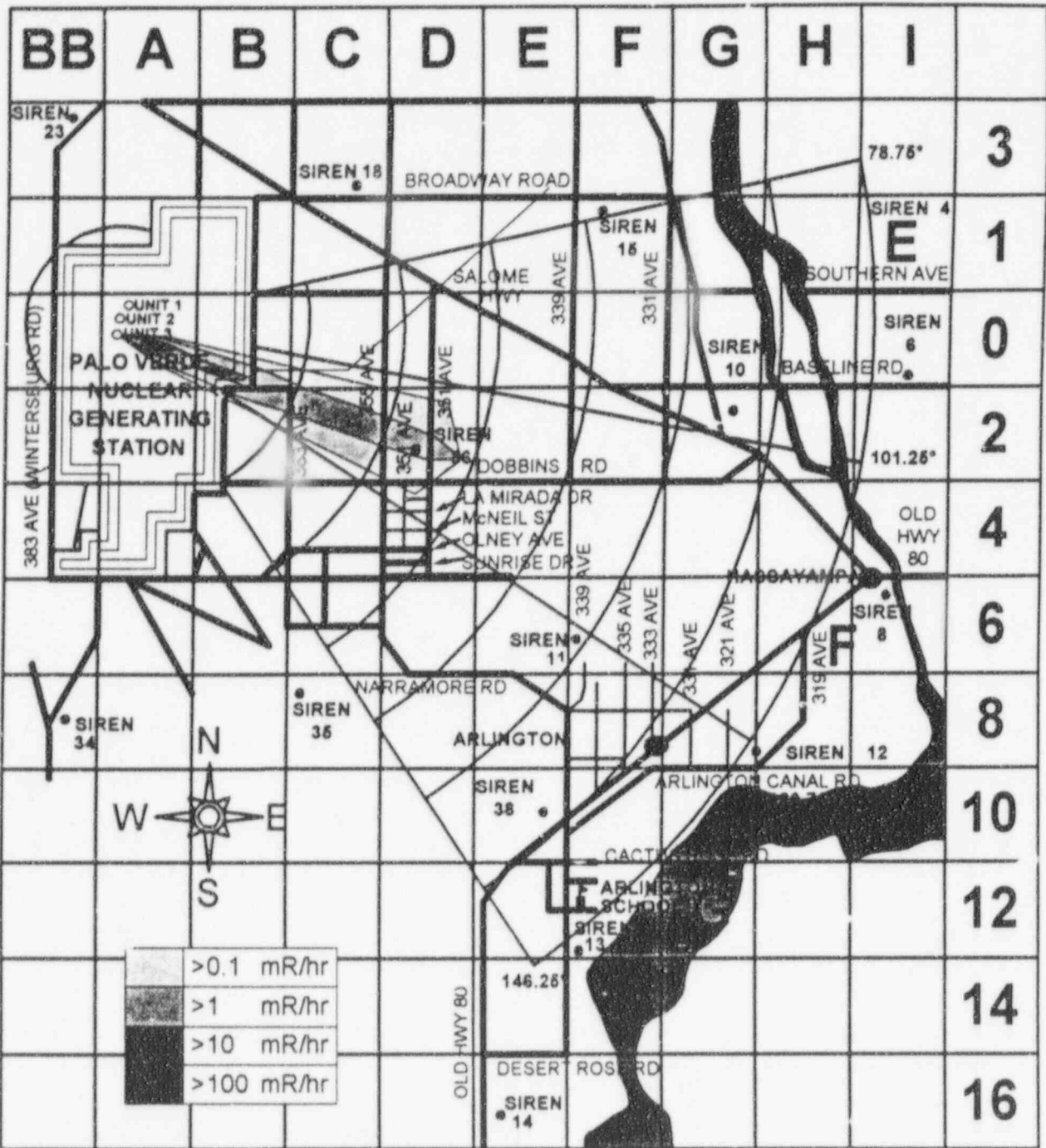
| Distance, Miles | Centerline 3' & 3" readings | | | Centerline air samples | | | | | |
|-----------------|-----------------------------|----------|-----------|------------------------|---------|-----------------------|---------------|---------|----------------------|
| | mR/hr WO | mR/hr WC | PVNGS cpm | PVNGS readings | | | ARRA readings | | |
| | | | | Filter | AgX | AgX $\mu\text{Ci/cc}$ | Filter | AgX | AgX pCi/m^3 |
| 0.0-0.5 | 320 | 160 | offscale | 25200 | 252000 | 8.14E-06 | 1100 | 10600 | 8.14E+06 |
| 0.5-1.0 | 80 | 40 | 400000 | 6900 | 69000 | 2.23E-06 | 300 | 2900 | 2.23E+06 |
| 1.0-1.5 | 42 | 21 | 210000 | 3900 | 39000 | 1.26E-06 | 160 | 1600 | 1.26E+06 |
| 1.5-2.0 | 26 | 13 | 130000 | 2700 | 27000 | 8.73E-07 | 100 | 1100 | 8.73E+05 |
| 2.0-2.5 | 18 | 9 | 90,000 | 2000 | 20000 | 6.36E-07 | as read | 800 | 6.36E+05 |
| 2.5-3.0 | as read | as read | as read | as read | as read | as read | as read | as read | as read |

ONSITE SURVEY INFORMATION - 1430-1445



| SURVEY INFORMATION - 1430-1445 | | | | | | | | | |
|--------------------------------|-----------------------------|----------|-----------|------------------------|--------|-----------------------|---------------|------|----------------------|
| Distance, Miles | Centerline 3' & 3" readings | | | Centerline air samples | | | | | |
| | mR/hr WO | mR/hr WC | PVNGS cpm | PVNGS readings | | | ARRA readings | | |
| | | | | Filter | AgX | AgX $\mu\text{Ci/cc}$ | Filter | AgX | AgX pCi/m^3 |
| 0.0-0.5 | 200 | 100 | offscale | 14000 | 140000 | 4.53E-06 | 600 | 5900 | 4.53E+06 |
| 0.5-1.0 | 50 | 25 | 250000 | 3800 | 38000 | 1.24E-06 | 160 | 1600 | 1.24E+06 |

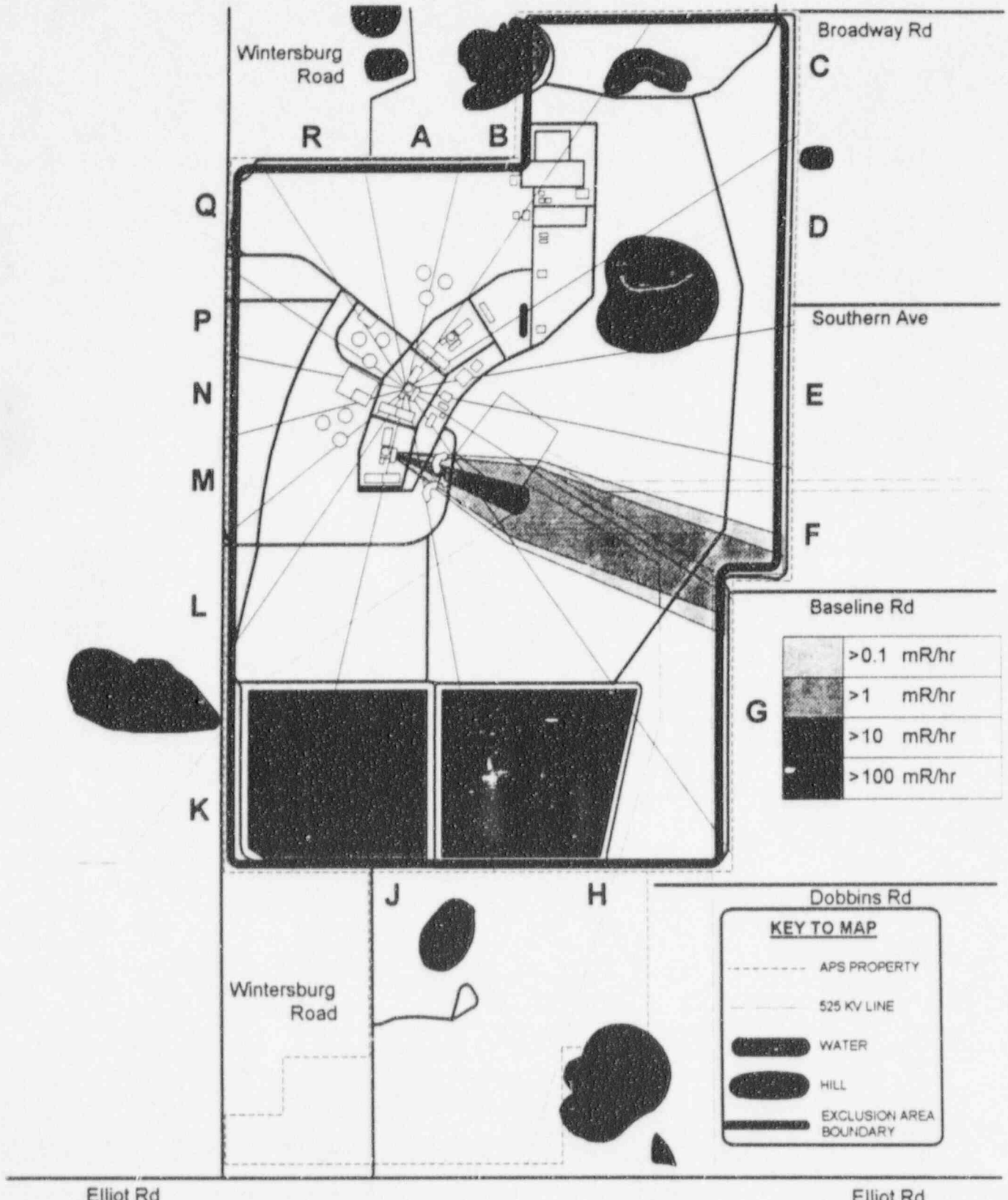
OFFSITE SURVEY INFORMATION - 1430-1445



SURVEY INFORMATION - 1430-1445

| Distance, Miles | Centerline 3' & 3" readings | | | Centerline air samples | | | | | |
|--------------------|-----------------------------|-------------|--------------|------------------------|---------|-----------------------|---------------|---------|----------------------|
| | mR/hr WC | mR/hr WC | PVNGS cpm | PVNGS readings | | | ARRA readings | | |
| | | | | Filter | AgX | AgX $\mu\text{Ci/cc}$ | Filter | AgX | AgX pCi/m^3 |
| 0.0-0.5 | 200 | 100 | offscale | 14000 | 140000 | 4.53E-06 | 600 | 5900 | 4.53E+06 |
| 0.5-1.0 | 50 | 25 | 250000 | 3800 | 38000 | 1.24E-06 | 160 | 1600 | 1.24E+06 |
| 1.0-1.5 | 26 | 13 | 130000 | 2200 | 22000 | 7.03E-07 | as read | 900 | 7.03E+05 |
| 1.5-2.0 | 16 | 8 | 81000 | 1500 | 15000 | 4.86E-07 | as read | 600 | 4.86E+05 |
| 2.0-2.5 | 11 | 6 | 55000 | 1100 | 11000 | 3.54E-07 | as read | 460 | 3.54E+05 |
| 2.5-3.0 | 8 | 4 | 39000 | 850 | 8500 | 2.74E-07 | as read | 360 | 2.74E+05 |
| 3.0-3.5 | 6 | 3 | 29000 | 700 | 7000 | 2.26E-07 | as read | 300 | 2.26E+05 |
| 3.5-4.0 | as read | as read | as read | as read | as read | as read | as read | as read | as read |

ONSITE SURVEY INFORMATION - 1445-1500



SURVEY INFORMATION - 1445-1500

| Distance, Miles | Centerline 3' & 3" readings | | | Centerline air samples | | | | | |
|-----------------|-----------------------------|----------|-----------|------------------------|-------|-----------------------|---------------|------|----------------------|
| | mR/hr WO | mR/hr WC | PVNGS cpm | PVNGS readings | | | ARRA readings | | |
| | | | | Filter | AgX | AgX $\mu\text{Ci/cc}$ | Filter | AgX | AgX pCi/m^3 |
| 0.0-0.5 | 82 | 41 | 410000 | 6100 | 61000 | 1.98E-06 | 260 | 2600 | 1.98E+06 |
| 0.5-1.0 | 20 | 10 | 100000 | 1700 | 17000 | 5.41E-07 | as read | 700 | 5.41E+05 |

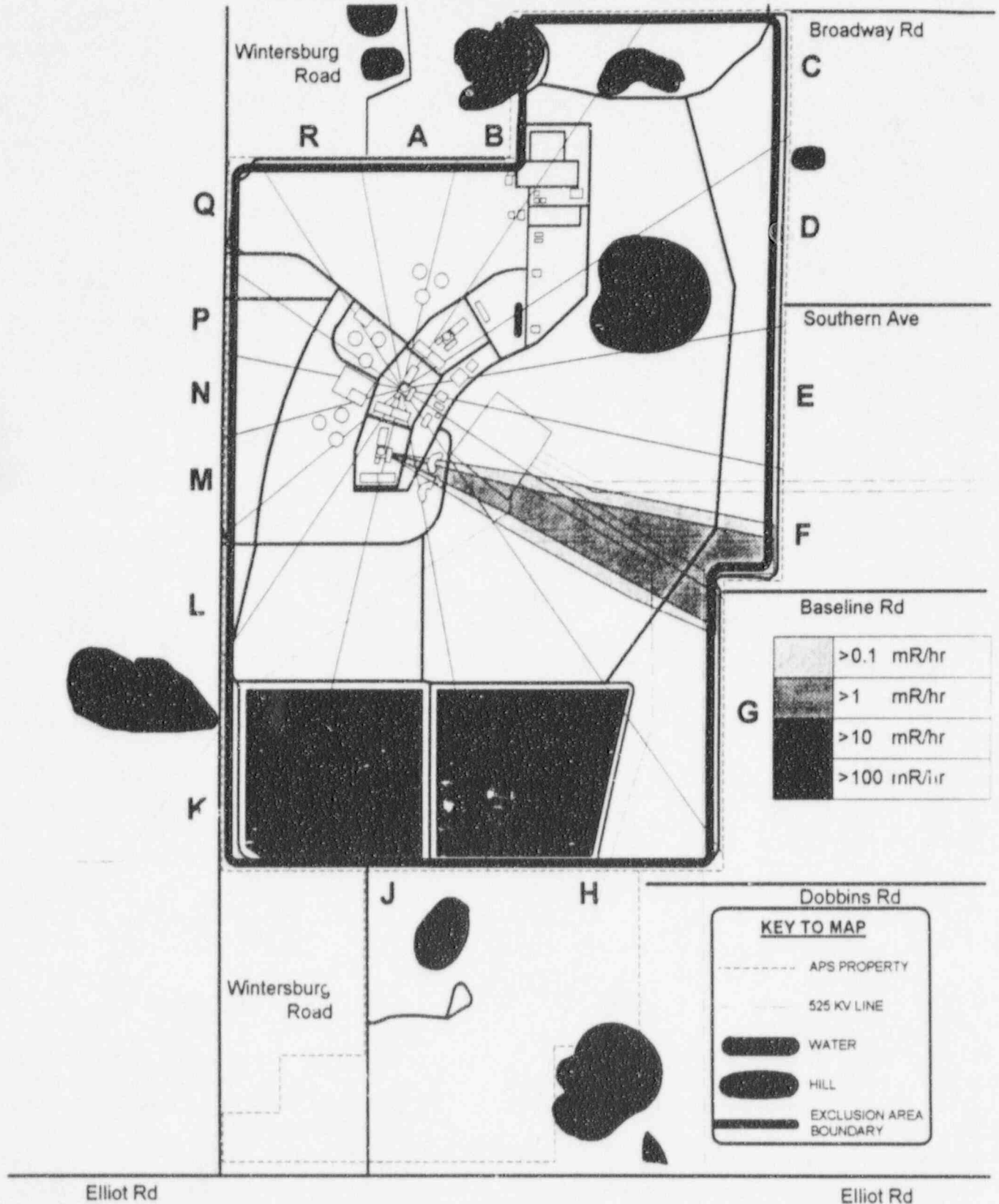
OFFSITE SURVEY INFORMATION - 1445-1500



SURVEY INFORMATION - 1445-1500

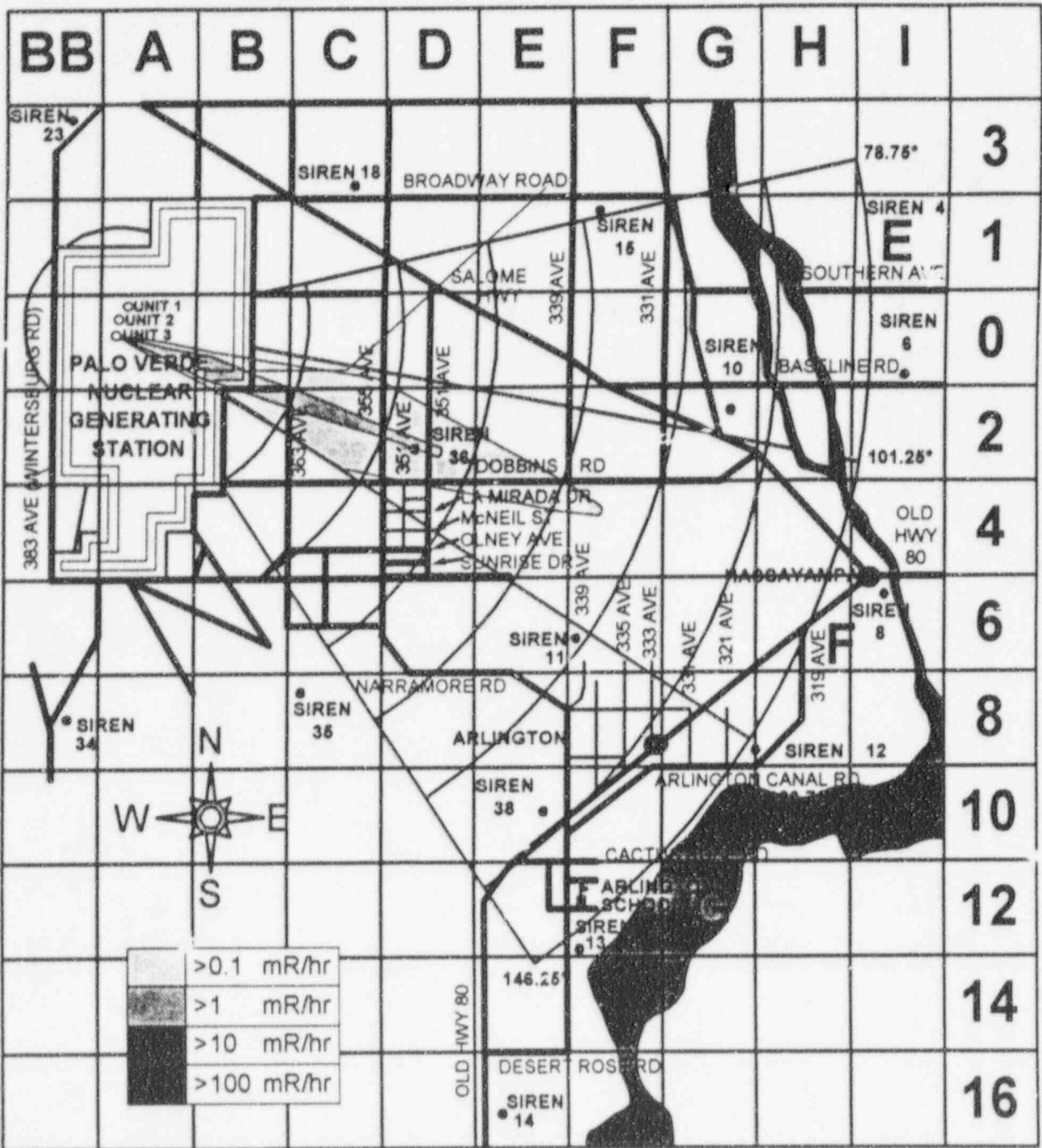
| Distance, Miles | Centerline 3' & 3" readings | | | Centerline air samples | | | | | |
|--------------------|-----------------------------|-------------|--------------|------------------------|---------|-----------------------|---------------|---------|----------------------|
| | mR/hr WO | mR/hr WC | PVNGS cpm | PVNGS readings | | | ARRA readings | | |
| | | | | Filter | AgX | AgX $\mu\text{Ci/cc}$ | Filter | AgX | AgX pCi/m^3 |
| 0.0-0.5 | 82 | 41 | 410000 | 6100 | 61000 | 1.98E-06 | 260 | 2600 | 1.98E+06 |
| 0.5-1.0 | 20 | 10 | 100000 | 1700 | 17000 | 5.41E-07 | as read | 700 | 5.41E+05 |
| 1.0-1.5 | 11 | 5 | 51000 | 1000 | 9500 | 3.07E-07 | as read | 400 | 3.07E+05 |
| 1.5-2.0 | 7 | 3 | 33000 | 700 | 6600 | 2.12E-07 | as read | 300 | 2.12E+05 |
| 2.0-2.5 | 5 | 2 | 23000 | 500 | 4800 | 1.54E-07 | as read | 200 | 1.54E+05 |
| 2.5-3.0 | 3 | 1.6 | 16000 | 400 | 3700 | 1.19E-07 | as read | 150 | 1.19E+05 |
| 3.0-3.5 | 2 | 1.2 | 12000 | 300 | 3100 | 9.85E-08 | as read | as read | as read |
| 3.5-4.0 | 1.2 | 0.6 | 6000 | 150 | 1600 | 5.04E-08 | as read | as read | as read |
| 4.0-4.5 | as read | as read | as read | as read | as read | as read | as read | as read | as read |

ONSITE SURVEY INFORMATION - 1500-1515



| SURVEY INFORMATION - 1500-1515 | | | | | | | | | |
|--------------------------------|-----------------------------|----------|-----------|------------------------|-------|-----------------------|---------------|-----|----------------------|
| Distance, Miles | Centerline 3' & 3" readings | | | Centerline air samples | | | | | |
| | mR/hr WO | mR/hr WC | PVNGS cpm | PVNGS readings | | | ARRA readings | | |
| | | | | Filter | AgX | AgX $\mu\text{Ci/cc}$ | Filter | AgX | AgX pCi/m^3 |
| 0.0-0.5 | 5 | 2 | 24000 | 350 | 3500 | 1.12E-07 | as read | 150 | 1.12E+05 |
| 0.5-1.0 | 20 | 10 | 100000 | 1700 | 17000 | 5.41E-07 | as read | 700 | 5.41E+05 |

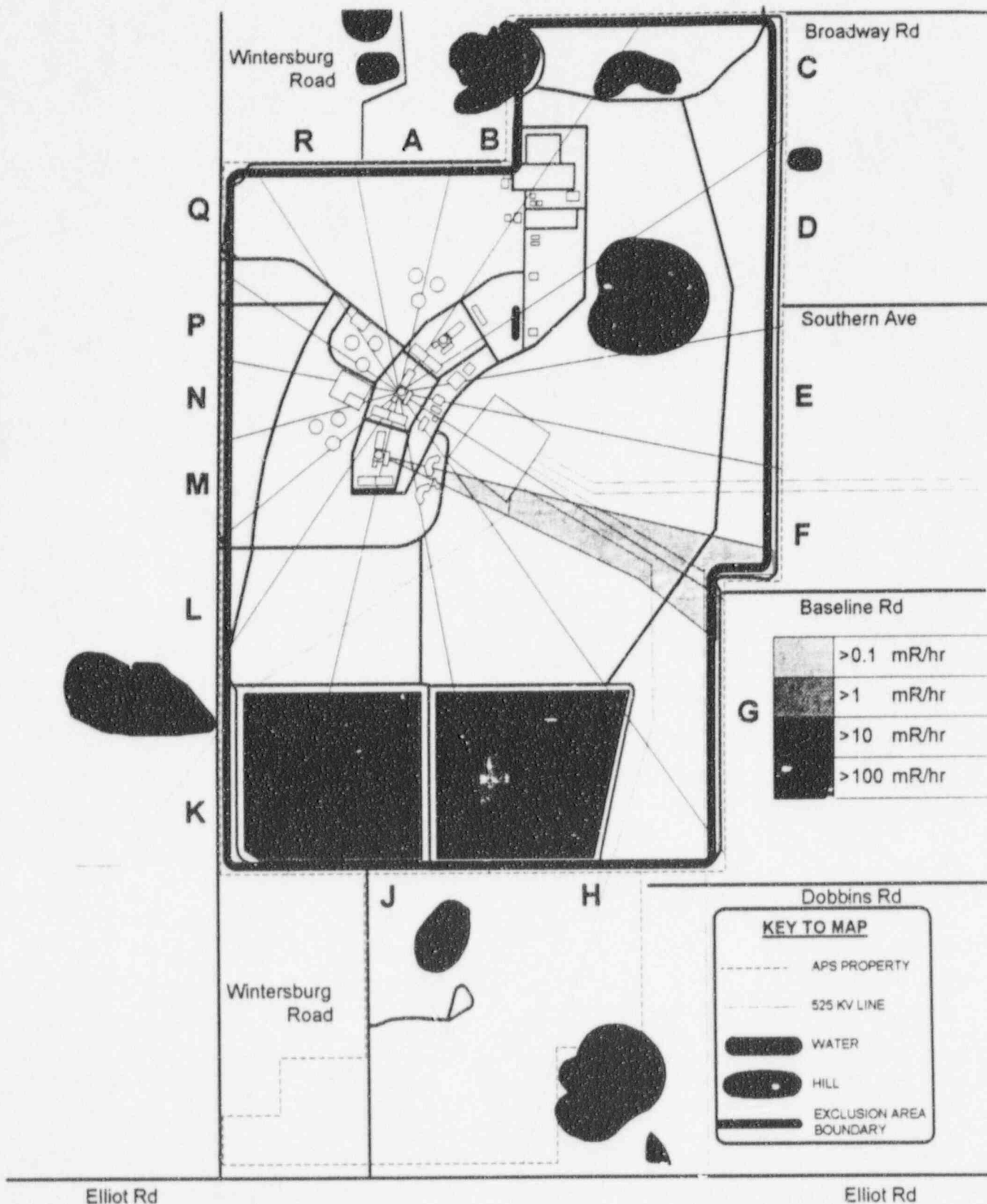
OFFSITE SURVEY INFORMATION - 1500-1515



SURVEY INFORMATION - 1500-1515

| Distance, Miles | Centerline 3' & 3" readings | | | Centerline air samples | | | | | |
|--------------------|-----------------------------|-------------|--------------|------------------------|---------|-----------------------|---------------|---------|----------------------|
| | mR/hr WO | mR/hr WC | PVNGS cpm | PVNGS readings | | | ARRA readings | | |
| | | | | Filter | AgX | AgX $\mu\text{Ci/cc}$ | Filter | AgX | AgX pCi/m^3 |
| 0.0-0.5 | 5 | 2 | 24000 | 350 | 3500 | 1.12E-07 | as read | 150 | 1.12E+05 |
| 0.5-1.0 | 20 | 10 | 100000 | 1700 | 17000 | 5.41E-07 | as read | 700 | 5.41E+05 |
| 1.0-1.5 | 10 | 5 | 51000 | 1000 | 9500 | 3.07E-07 | as read | 400 | 3.07E+05 |
| 1.5-2.0 | 7 | 3 | 33000 | 700 | 6600 | 2.12E-07 | as read | 300 | 2.12E+05 |
| 2.0-2.5 | 5 | 2 | 23000 | 500 | 4800 | 1.54E-07 | as read | 200 | 1.54E+05 |
| 2.5-3.0 | 3 | 1.6 | 16000 | 400 | 3700 | 1.19E-07 | as read | 150 | 1.19E+05 |
| 3.0-3.5 | 2 | 1.2 | 12000 | 300 | 3100 | 9.85E-08 | as read | as read | as read |
| 3.5-4.0 | 1.2 | 0.6 | 6000 | 150 | 1600 | 5.04E-08 | as read | as read | as read |
| 4.0-4.5 | 0.8 | 0.4 | 4000 | 100 | 1200 | 3.73E-08 | as read | as read | as read |
| 4.5-5.0 | 0.6 | 0.3 | 3000 | as read | 800 | 2.50E-08 | as read | as read | as read |
| 5.0-5.5 | as read | as read | as read | as read | as read | as read | as read | as read | as read |

ONSITE SURVEY INFORMATION - 1515-1530



| SURVEY INFORMATION - 1515-1530 | | | | | | | | | |
|--------------------------------|-----------------------------|----------|-----------|------------------------|------|-----------------------|---------------|---------|----------------------|
| Distance, Miles | Centerline 3' & 3" readings | | | Centerline air samples | | | | | |
| | mR/hr WO | mR/hr WC | PVNGS cpm | PVNGS readings | | | ARRA readings | | |
| | | | | Filter | AgX | AgX $\mu\text{Ci/cc}$ | Filter | AgX | AgX pCi/m^3 |
| 0.0-0.5 | 0.8 | 0.4 | 4000 | as read | 250 | 8.41E-09 | as read | as read | 8.41E+03 |
| 0.5-1.0 | 2 | 0.8 | 8000 | 100 | 1000 | 3.07E-08 | as read | as read | 3.07E+04 |

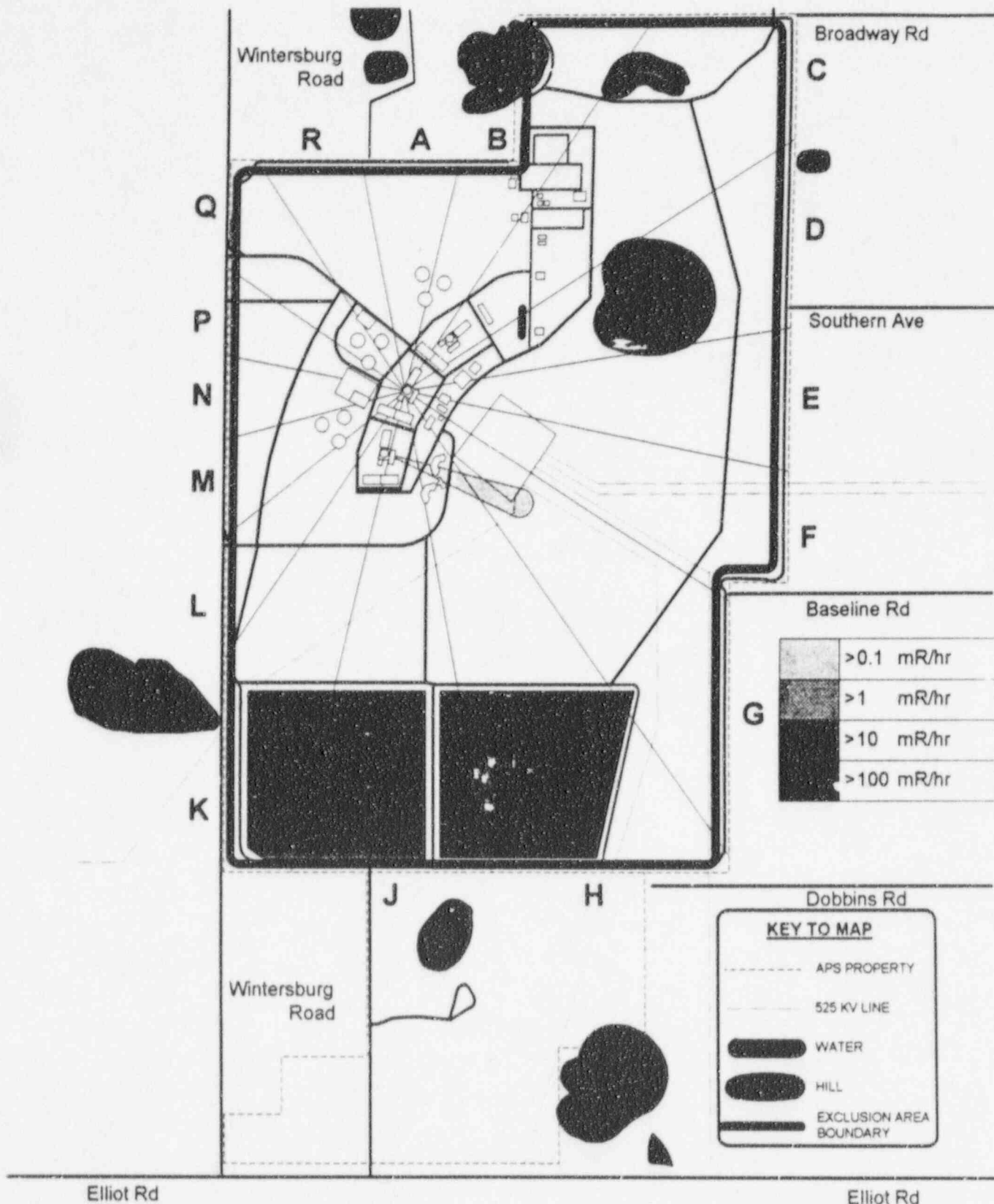
OFFSITE SURVEY INFORMATION - 1515-1530



SURVEY INFORMATION - 1515-1530

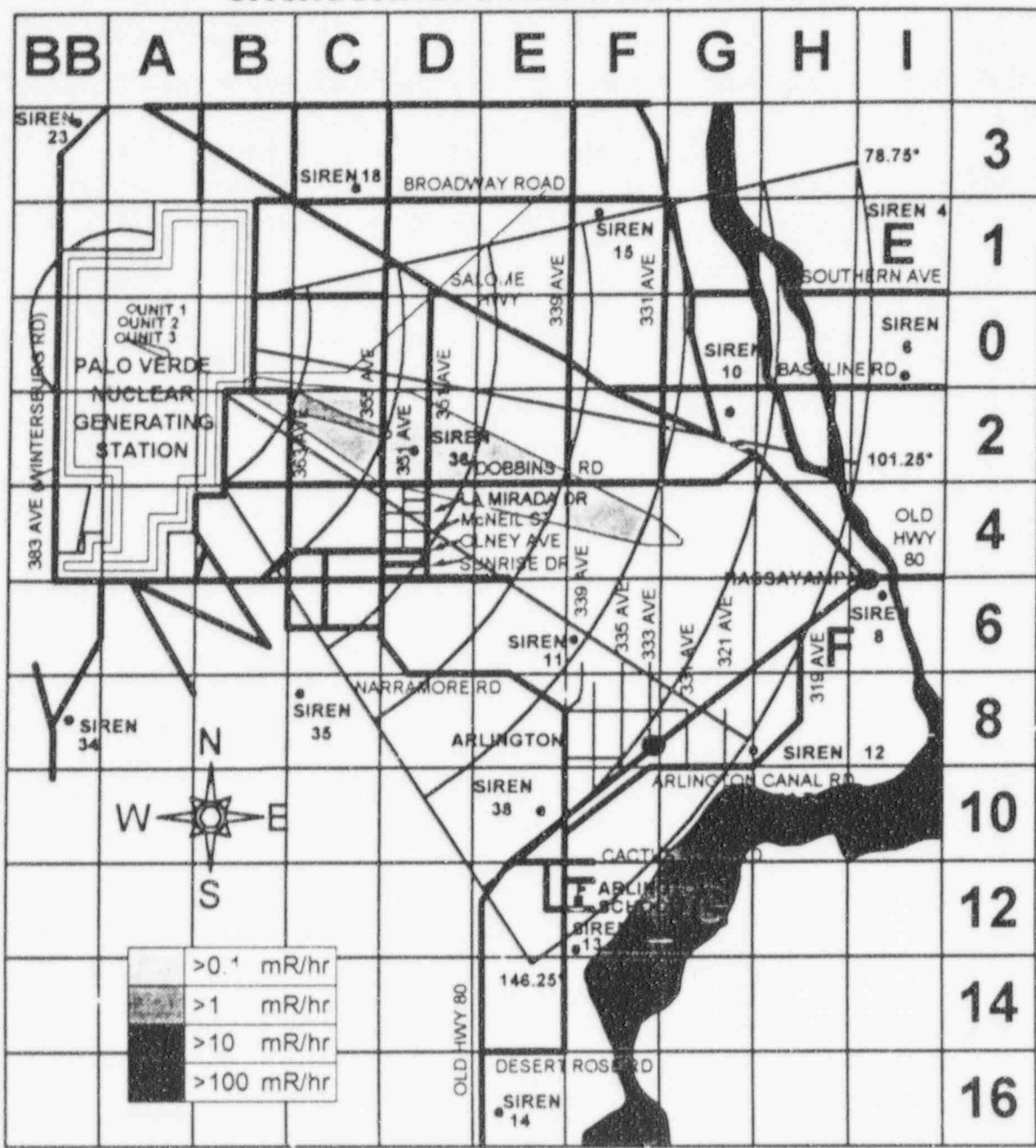
| Distance, Miles | Centerline 3' & 3" readings | | | Centerline air samples | | | | | |
|--------------------|-----------------------------|-------------|--------------|------------------------|---------|-----------------------|---------------|---------|----------------------|
| | mR/hr WO | mR/hr WC | PVNGS cpm | PVNGS readings | | | ARRA readings | | |
| | | | | Filter | AgX | AgX $\mu\text{Ci/cc}$ | Filter | AgX | AgX pCi/m^3 |
| 0.0-0.5 | 0.8 | 0.4 | 4000 | as read | 250 | 8.41E-09 | as read | as read | 8.41E+03 |
| 0.5-1.0 | 2 | 0.8 | 8000 | 100 | 1000 | 3.07E-08 | as read | as read | 3.07E+04 |
| 1.0-1.5 | 11 | 5 | 53000 | 1000 | 9500 | 3.07E-07 | as read | 400 | 3.07E+05 |
| 1.5-2.0 | 5 | 3 | 30000 | 700 | 6600 | 2.12E-07 | as read | 300 | 2.12E+05 |
| 2.0-2.5 | 3.8 | 1.9 | 19000 | 500 | 4800 | 1.54E-07 | as read | 200 | 1.54E+05 |
| 2.5-3.0 | 3 | 1.3 | 13000 | 400 | 3700 | 1.19E-07 | as read | 150 | 1.19E+05 |
| 3.0-3.5 | 1.8 | 0.9 | 9000 | 300 | 3100 | 9.65E-08 | as read | as read | as read |
| 3.5-4.0 | 1.4 | 0.7 | 7000 | 150 | 1600 | 5.04E-08 | as read | as read | as read |
| 4.0-4.5 | 1.0 | 0.5 | 5000 | 100 | 1200 | 3.73E-08 | as read | as read | as read |
| 4.5-5.0 | 0.8 | 0.4 | 4000 | as read | 800 | 2.50E-08 | as read | as read | as read |
| 5.0-5.5 | 0.6 | 0.3 | 3000 | as read | 750 | 2.43E-08 | as read | as read | as read |
| 5.5-6.0 | as read | as read | as read | as read | as read | as read | as read | as read | as read |

ONSITE SURVEY INFORMATION - 1530-1545



| SURVEY INFORMATION - 1530-1545 | | | | | | | | | |
|--------------------------------|-----------------------------|-------|-------|------------------------|---------|-----------------------|---------------|---------|----------------------|
| Distance, Miles | Centerline 3' & 3" readings | | | Centerline air samples | | | | | |
| | mR/hr | mR/hr | PVNGS | PVNGS readings | | | ARRA readings | | |
| | WO | WC | cpm | Filter | AgX | AgX $\mu\text{Ci/cc}$ | Filter | AgX | AgX pCi/m^3 |
| 0.0-0.5 | 0.8 | 0.4 | 4000 | as read | 250 | 8.06E-09 | as read | as read | as read |
| 0.5-1.0 | 0.1 | 0.1 | 600 | as read | as read | as read | as read | as read | as read |

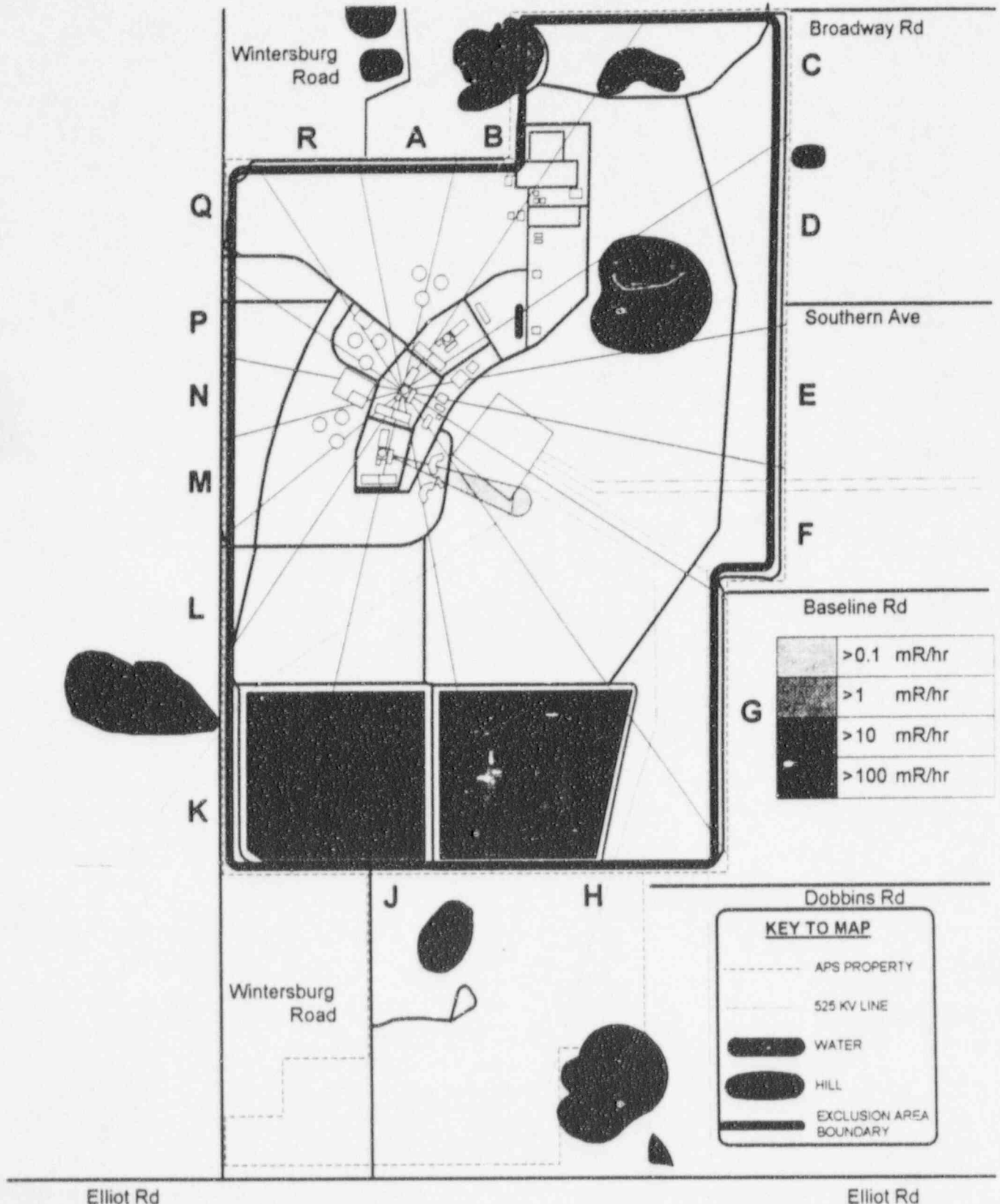
OFFSITE SURVEY INFORMATION - 1530-1545



SURVEY INFORMATION - 1530-1545

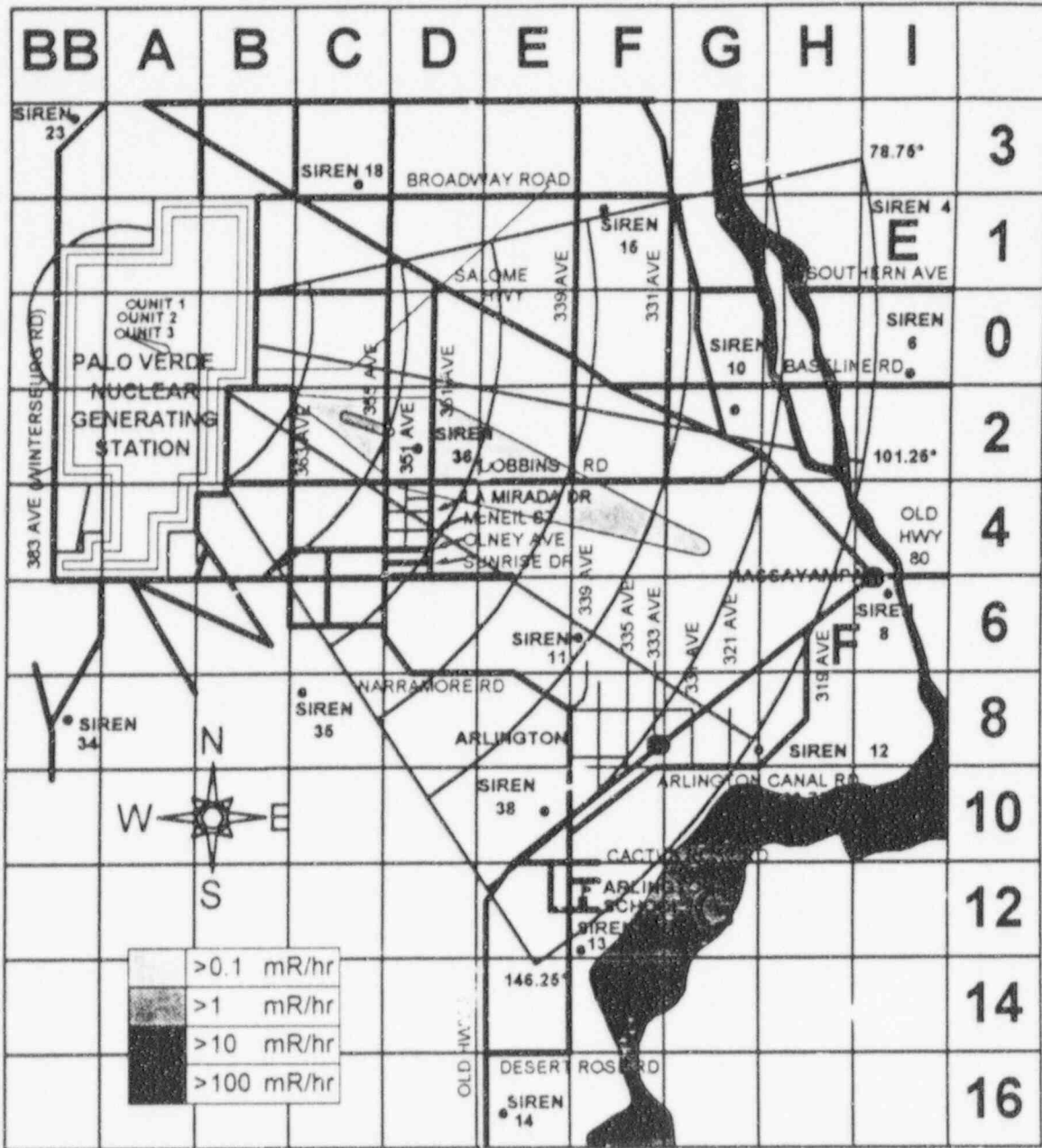
| Distance, Miles | Centerline 3' & 3" readings | | | Centerline air samples | | | | | |
|--------------------|-----------------------------|---------|---------|------------------------|---------|-----------------------|---------------|---------|----------------------|
| | mR/hr | mR/hr | PVNGS | PVNGS readings | | | ARRA readings | | |
| | WO | WC | cpm | Filter | AgX | AgX $\mu\text{Ci/cc}$ | Filter | AgX | AgX pCi/m^3 |
| 0.0-0.5 | 0.8 | 0.4 | 4000 | as read | 250 | 8.06E-09 | as read | as read | as read |
| 0.5-1.0 | 0.1 | 0.1 | 600 | as read | as read | as read | as read | as read | as read |
| 1.0-1.5 | 0.6 | 0.3 | 3000 | as read | 500 | 1.74E-08 | as read | as read | as read |
| 1.5-2.0 | 6 | 3 | 30000 | 700 | 6600 | 2.12E-07 | as read | 300 | 2.12E+05 |
| 2.0-2.5 | 4 | 1.9 | 19000 | 500 | 4800 | 1.54E-07 | as read | 200 | 1.54E+05 |
| 2.5-3.0 | 2 | 1.2 | 12000 | 400 | 3700 | 1.19E-07 | as read | 150 | 1.19E+05 |
| 3.0-3.5 | 1.8 | 0.9 | 9000 | 300 | 3100 | 9.85E-08 | as read | as read | as read |
| 3.5-4.0 | 1.4 | 0.7 | 7000 | 150 | 1600 | 5.04E-08 | as read | as read | as read |
| 4.0-4.5 | 1.0 | 0.5 | 5000 | 100 | 1200 | 3.73E-08 | as read | as read | as read |
| 4.5-5.0 | 0.8 | 0.4 | 4000 | as read | 800 | 2.50E-08 | as read | as read | as read |
| 5.0-5.5 | 0.6 | 0.3 | 3000 | as read | 750 | 2.43E-08 | as read | as read | as read |
| 5.5-6.0 | 0.6 | 0.3 | 3000 | as read | 650 | 2.13E-08 | as read | as read | as read |
| 6.0-6.5 | as read | as read | as read | as read | as read | as read | as read | as read | as read |

ONSITE SURVEY INFORMATION - 1545-1600



| SURVEY INFORMATION - 1545-1600 | | | | | | | | | |
|--------------------------------|-----------------------------|----------|-----------|------------------------|---------|------------------------------|---------------|---------|-----------------------------|
| Distance, Miles | Centerline 3' & 3" readings | | | Centerline air samples | | | | | |
| | mR/hr WO | mR/hr WC | PVNGS cpm | PVNGS readings | | | ARRA readings | | |
| | | | | Filter | AgX | AgX $\mu\text{Ci}/\text{cc}$ | Filter | AgX | AgX pCi/m^3 |
| 0.0-0.5 | 0.8 | 0.4 | 4000 | as read | 250 | 8.06E-09 | as read | as read | as read |
| 0.5-1.0 | as read | as read | as read | as read | as read | as read | as read | as read | as read |

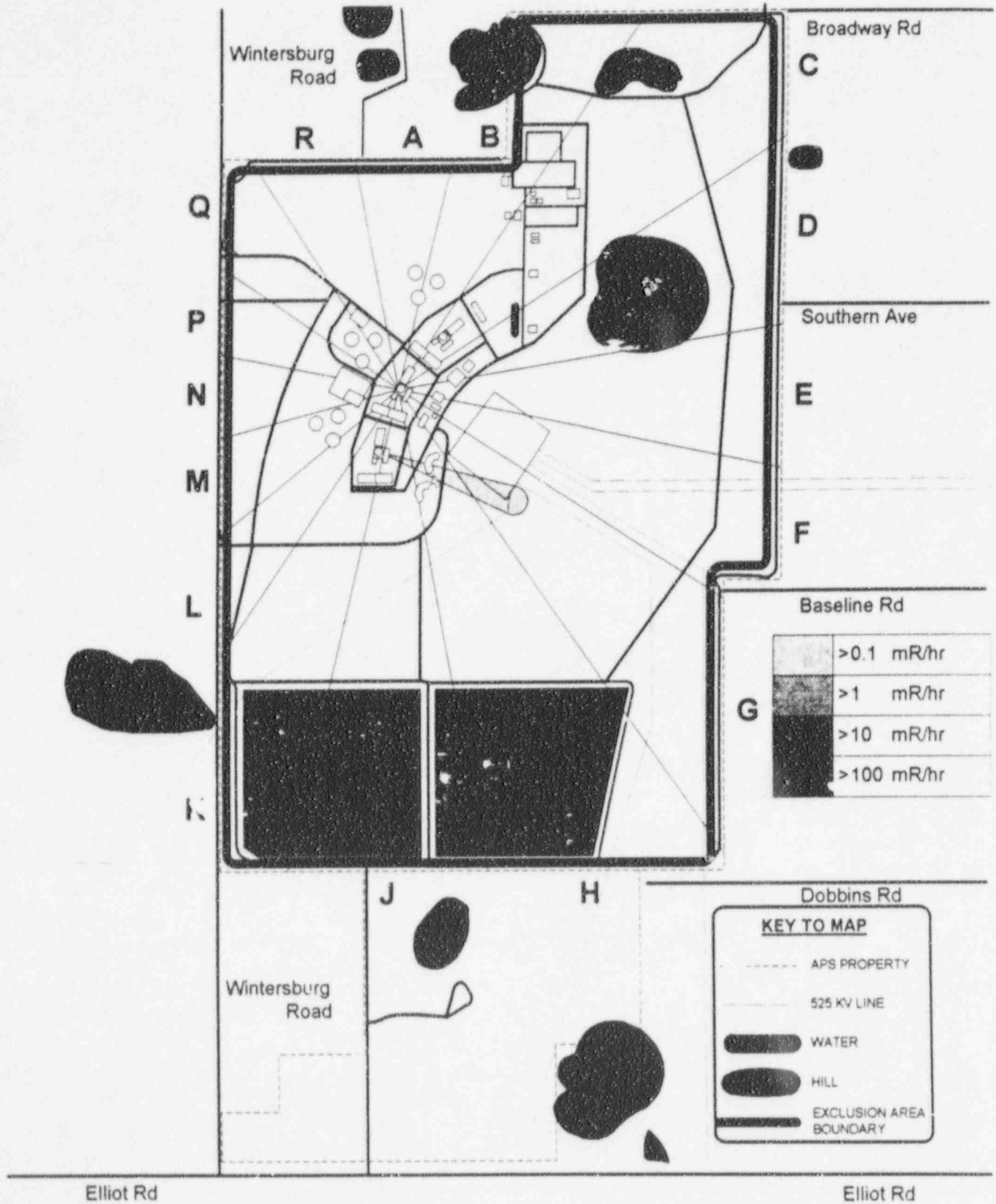
OFFSITE SURVEY INFORMATION - 1545-1600



SURVEY INFORMATION - 1545-1600

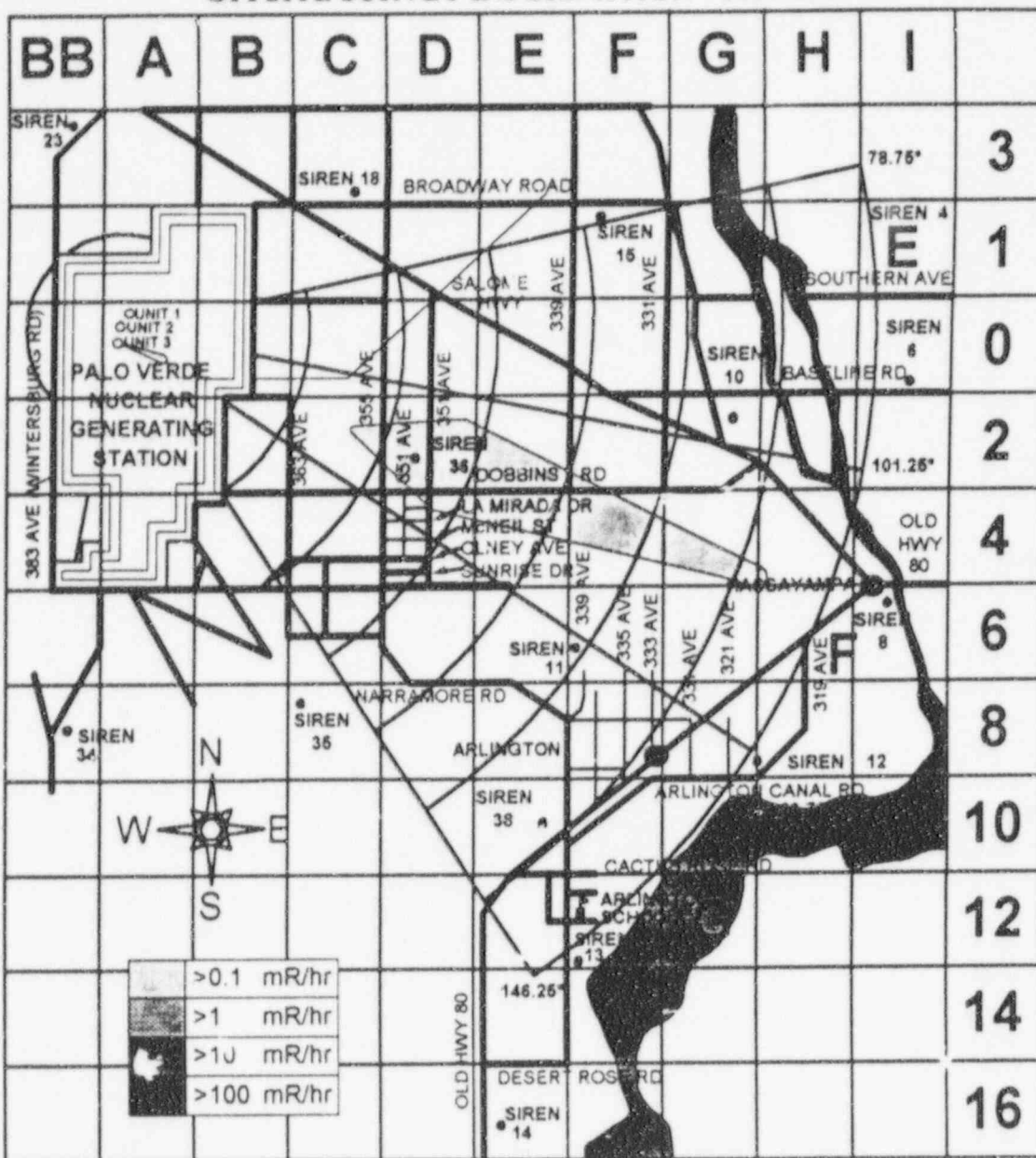
| Distance, Miles | Centerline 3' & 3" readings | | | Centerline air samples | | | | | |
|--------------------|-----------------------------|-------------|--------------|------------------------|---------|-----------------------|---------------|---------|----------------------|
| | mR/hr WO | mR/hr WC | PVNGS cpm | PVNGS readings | | | ARRA readings | | |
| | | | | Filter | AgX | AgX $\mu\text{Ci/cc}$ | Filter | AgX | AgX pCi/m^3 |
| 0.0-0.5 | 0.8 | 0.4 | 4000 | as read | 250 | 8.06E-09 | as read | as read | as read |
| 0.5-1.0 | as read | as read | as read | as read | as read | as read | as read | as read | as read |
| 1.0-1.5 | as read | as read | as read | as read | as read | as read | as read | as read | as read |
| 1.5-2.0 | 0.4 | 0.2 | 2000 | as read | as read | as read | as read | as read | as read |
| 2.0-2.5 | 4 | 1.9 | 19000 | 500 | 4800 | 1.54E-07 | as read | 200 | 1.54E+05 |
| 2.5-3.0 | 2 | 1.2 | 12000 | 400 | 3700 | 1.19E-07 | as read | 150 | 1.19E+05 |
| 3.0-3.5 | 1.8 | 0.9 | 9000 | 300 | 3100 | 9.85E-08 | as read | as read | as read |
| 3.5-4.0 | 1.4 | 0.7 | 7000 | 150 | 1600 | 5.04E-08 | as read | as read | as read |
| 4.0-4.5 | 1.0 | 0.5 | 5000 | 100 | 1200 | 3.73E-08 | as read | as read | as read |
| 4.5-5.0 | 0.8 | 0.4 | 4000 | as read | 800 | 2.50E-08 | as read | as read | as read |
| 5.0-5.5 | 0.6 | 0.3 | 3000 | as read | 750 | 2.43E-08 | as read | as read | as read |
| 5.5-6.0 | 0.6 | 0.3 | 3000 | as read | 650 | 2.13E-08 | as read | as read | as read |
| 6.0-6.5 | 0.4 | 0.2 | 2000 | as read | 550 | 1.86E-08 | as read | as read | as read |
| 6.5-7.0 | as read | as read | as read | as read | as read | as read | as read | as read | as read |

ONSITE SURVEY INFORMATION - 1600-1615



| SURVEY INFORMATION - 1600-1615 | | | | | | | | | |
|--------------------------------|-----------------------------|---------|---------|------------------------|---------|-----------------------|---------------|---------|----------------------|
| Distance, Miles | Centerline 3' & 3" readings | | | Centerline air samples | | | | | |
| | mR/hr | mR/hr | PVNGS | PVNGS readings | | | ARRA readings | | |
| | WO | WC | cpm | Filter | AgX | AgX $\mu\text{Ci/cc}$ | Filter | AgX | AgX pCi/m^3 |
| 0.0-0.5 | 0.8 | 0.4 | 4000 | as read | 250 | 8.06E-09 | as read | as read | as read |
| 0.5-1.0 | as read | as read | as read | as read | as read | as read | as read | as read | as read |

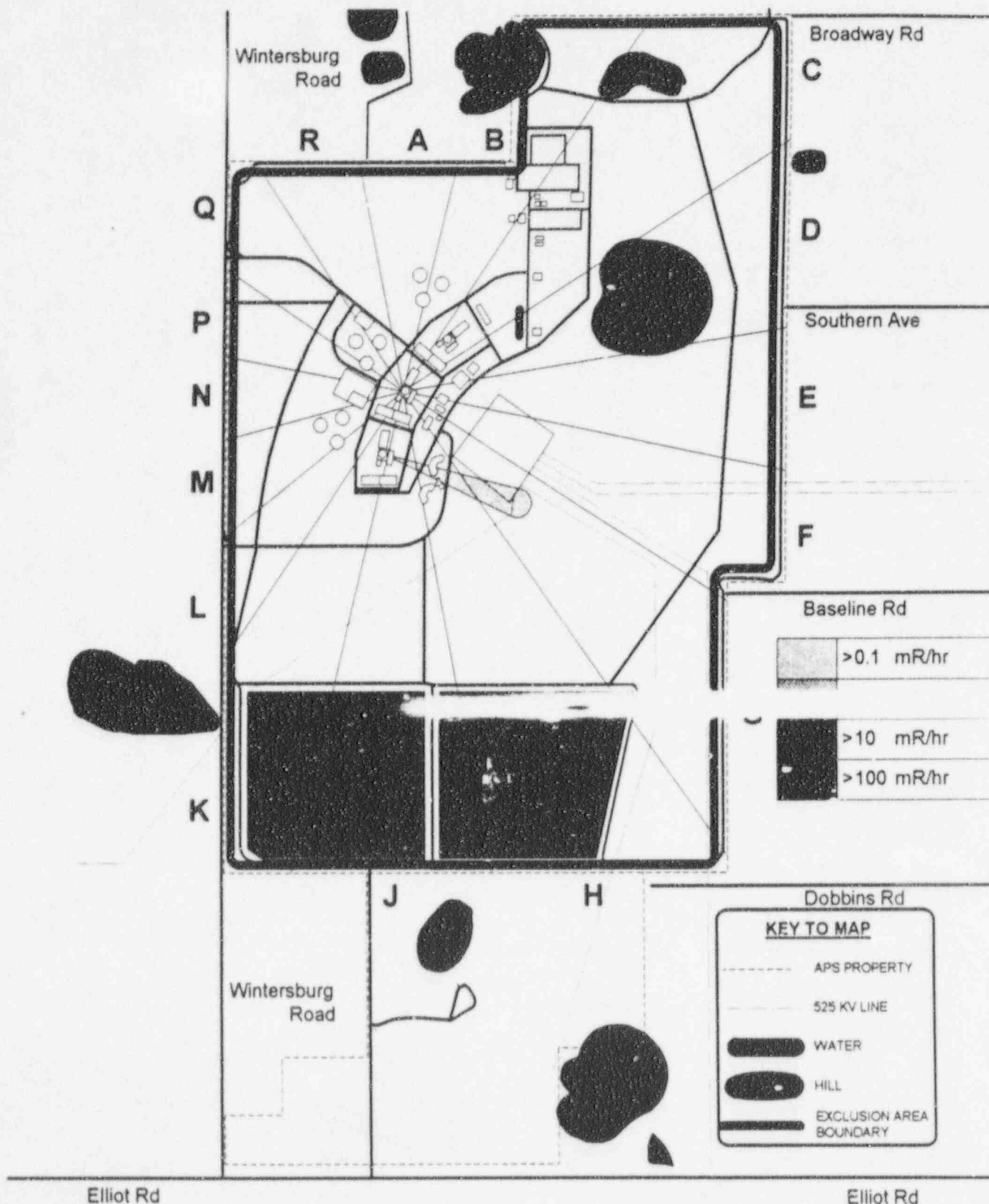
OFFSITE SURVEY INFORMATION - 1600-1615



SURVEY INFORMATION - 1600-1615

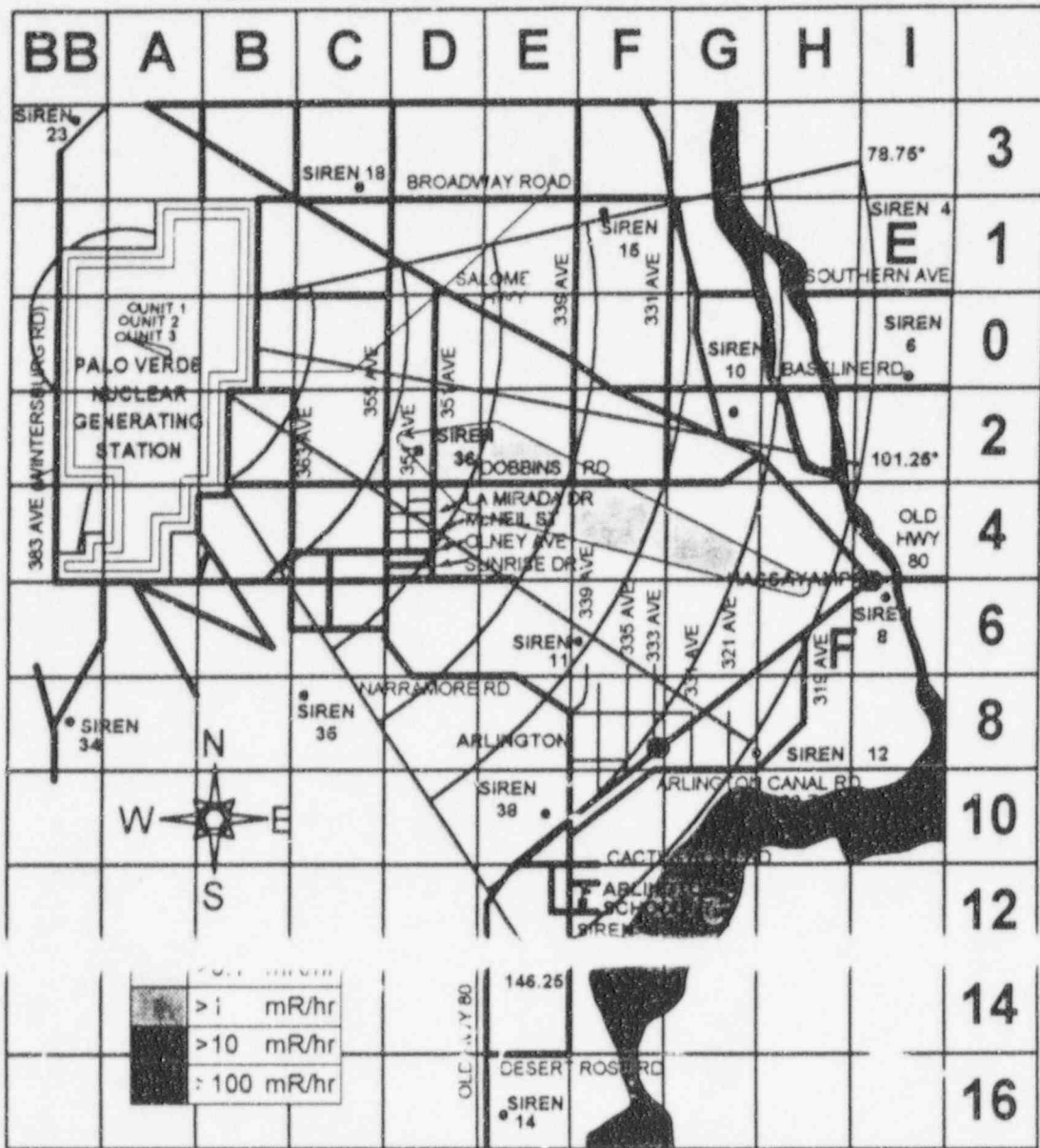
| Distance, Miles | Centerline 3' & 3" readings | | | Centerline air samples | | | | | |
|-----------------|-----------------------------|----------|---------------|------------------------|---------|-----------------|---------------|---------|------------------------|
| | mR/hr VO | mR/hr WC | PVNGS μ m | PVNGS readings | | | ARRA readings | | |
| | | | | Filter | AgX | AgX μ Ci/cc | Filter | AgX | AgX pCi/m ³ |
| 0.0-0.5 | 0.8 | 0.4 | 4000 | as read | 250 | 8.06E-09 | as read | as read | as read |
| 0.5-1.0 | as read | as read | as read | as read | as read | as read | as read | as read | as read |
| 1.0-1.5 | as read | as read | as read | as read | as read | as read | as read | as read | as read |
| 1.5-2.0 | as read | as read | as read | as read | as read | as read | as read | as read | as read |
| 2.0-2.5 | 0.4 | 0.2 | 2000 | as read | as read | as read | as read | as read | as read |
| 2.5-3.0 | 2 | 1.1 | 11000 | 275 | 2750 | 8.80E-08 | as read | as read | as read |
| 3.0-3.5 | 1.6 | 0.8 | 8000 | 200 | 2000 | 6.40E-08 | as read | as read | as read |
| 3.5-4.0 | 1.2 | 0.6 | 6000 | 150 | 1500 | 4.80E-08 | as read | as read | as read |
| 4.0-4.5 | 0.8 | 0.4 | 4000 | 100 | 1000 | 3.20E-08 | as read | as read | as read |
| 4.5-5.0 | 0.6 | 0.3 | 3000 | as read | 750 | 2.40E-08 | as read | as read | as read |
| 5.0-5.5 | 0.4 | 0.2 | 2000 | as read | 500 | 1.60E-08 | as read | as read | as read |
| 5.5-6.0 | 0.4 | 0.2 | 2000 | as read | 500 | 1.60E-08 | as read | as read | as read |
| 6.0-6.5 | 0.3 | 0.2 | 1500 | as read | 375 | 1.20E-08 | as read | as read | as read |
| 6.5-7.0 | 0.2 | 0.1 | 1000 | as read | 250 | 8.00E-09 | as read | as read | as read |
| 7.0-7.5 | as read | as read | as read | as read | as read | as read | as read | as read | as read |

ONSITE SURVEY INFORMATION - 1615-1630



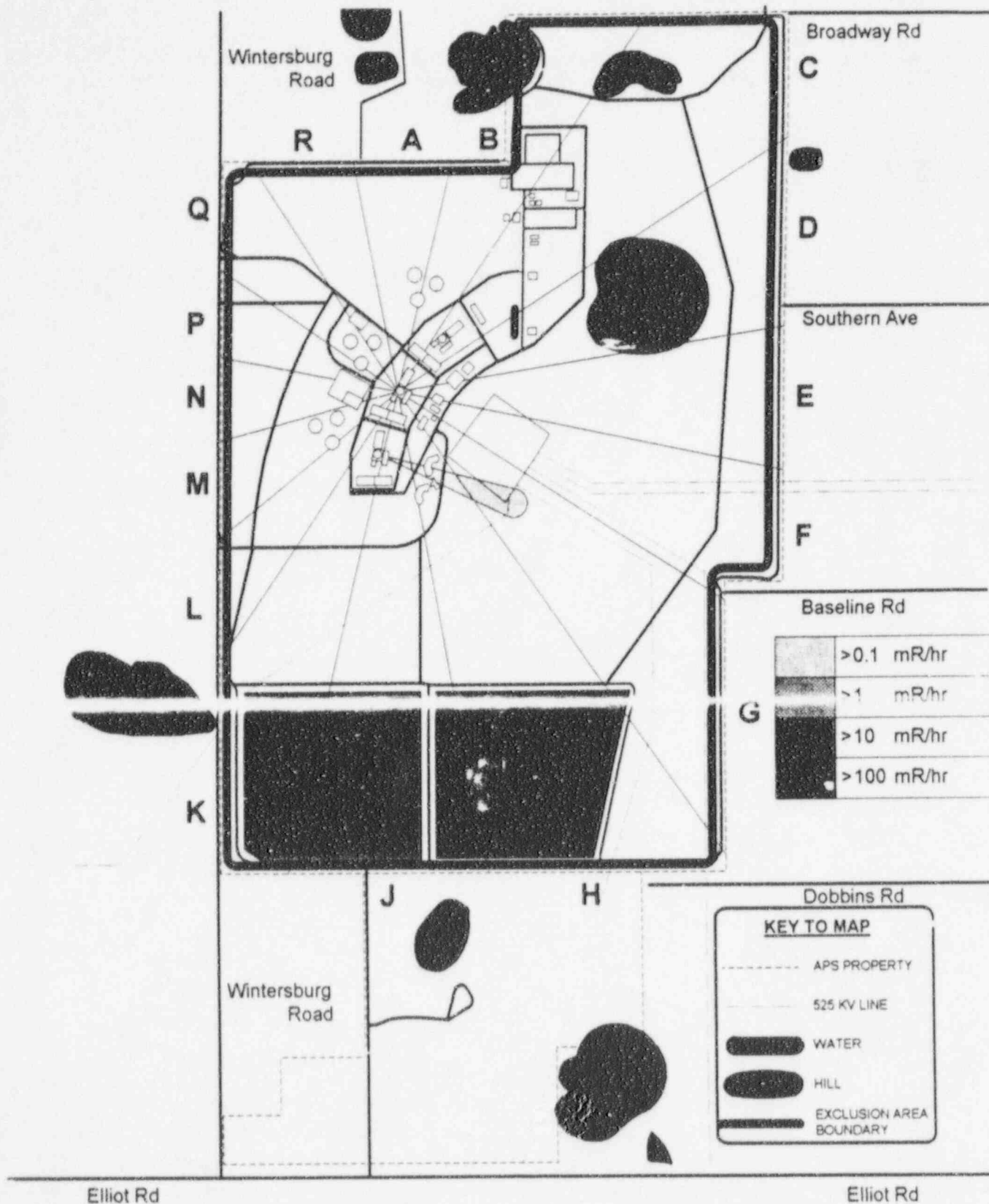
| SURVEY INFORMATION - 1615-1630 | | | | | | | | | |
|--------------------------------|-----------------------------|----------|-----------|------------------------|---------|-----------------------|---------------|---------|----------------------|
| Distance, Miles | Centerline 3' & 3" readings | | | Centerline air samples | | | | | |
| | mR/hr WO | mR/hr WC | PVNGS cpm | PVNGS readings | | | ARRA readings | | |
| | | | | Filter | AgX | AgX $\mu\text{Ci/cc}$ | Filter | AgX | AgX pCi/m^3 |
| 0.0-0.5 | 0.8 | 0.4 | 4000 | as read | 250 | 8.06E-09 | as read | as read | as read |
| 0.5-1.0 | as read | as read | as read | as read | as read | as read | as read | as read | as read |

OFFSITE SURVEY INFORMATION - 1615-1630



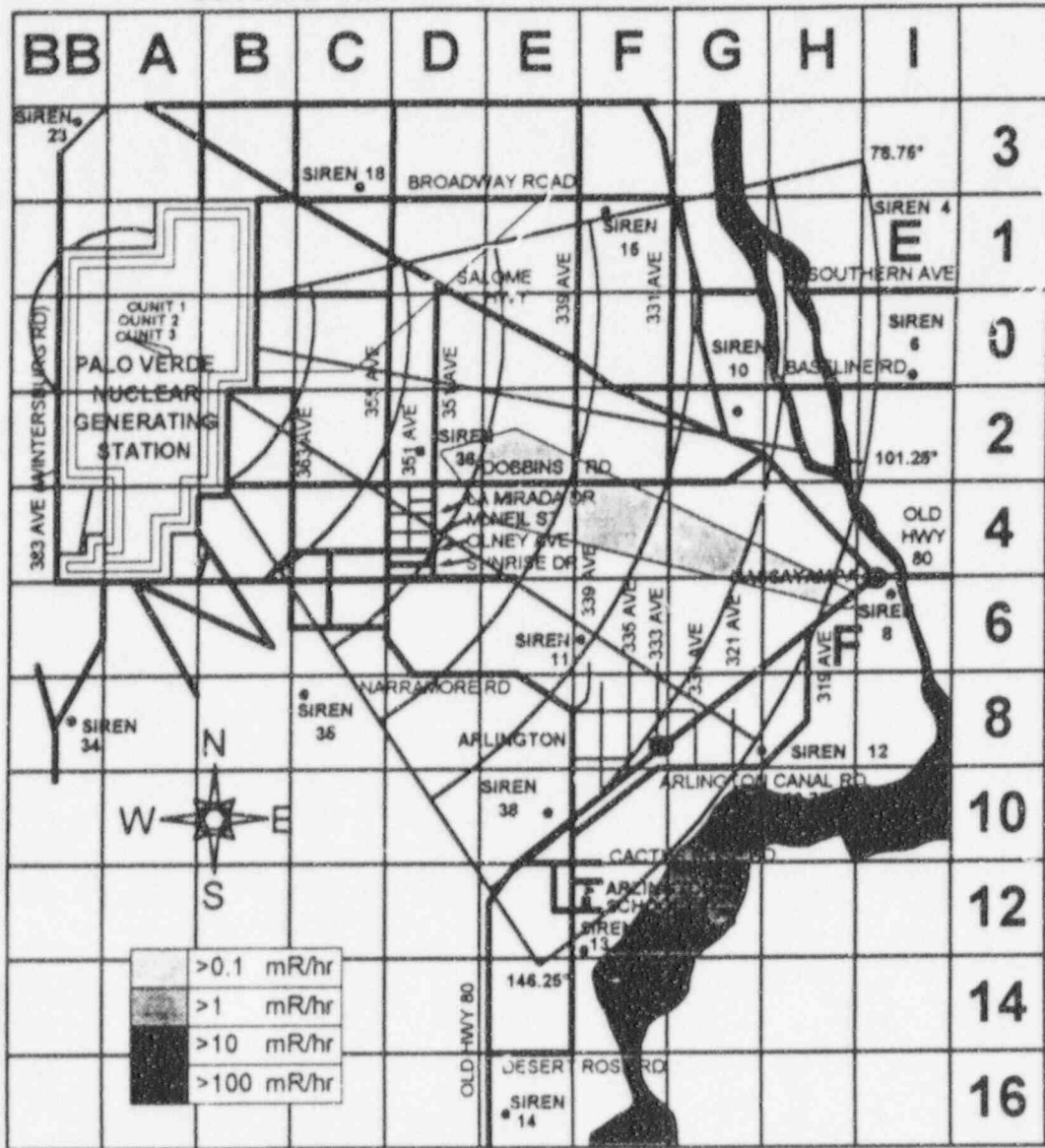
| SURVEY INFORMATION - 1615-1630 | | | | | | | | | |
|--------------------------------|-----------------------------|----------|-----------|------------------------|---------|-----------------------|---------|---------|----------------------|
| Distance, Miles | Centerline 3' & 3" readings | | | Centerline air samples | | | | | |
| | mR/hr WO | mR/hr WC | PVNGS cpm | Filter | AgX | AgX $\mu\text{Ci/cc}$ | Filter | AgX | AgX pCi/m^3 |
| 0.0-0.5 | 0.8 | 0.4 | 4000 | as read | 250 | 8.06E-09 | as read | as read | as read |
| 0.5-1.0 | as read | as read | as read | as read | as read | as read | as read | as read | as read |
| 1.0-1.5 | as read | as read | as read | as read | as read | as read | as read | as read | as read |
| 1.5-2.0 | as read | as read | as read | as read | as read | as read | as read | as read | as read |
| 2.0-2.5 | as read | as read | as read | as read | as read | as read | as read | as read | as read |
| 2.5-3.0 | 0.4 | 0.2 | 2000 | as read | as read | as read | as read | as read | as read |
| 3.0-3.5 | 1.6 | 0.8 | 8000 | 200 | 2000 | 6.40E-08 | as read | as read | as read |
| 3.5-4.0 | 1.2 | 0.6 | 6000 | 150 | 1500 | 4.80E-08 | as read | as read | as read |
| 4.0-4.5 | 0.8 | 0.4 | 4000 | 100 | 1000 | 3.20E-08 | as read | as read | as read |
| 4.5-5.0 | 0.6 | 0.3 | 3000 | as read | 750 | 2.40E-08 | as read | as read | as read |
| 5.0-5.5 | 0.4 | 0.2 | 2000 | as read | 500 | 1.60E-08 | as read | as read | as read |
| 5.5-6.0 | 0.4 | 0.2 | 2000 | as read | 500 | 1.60E-08 | as read | as read | as read |
| 6.0-6.5 | 0.3 | 0.2 | 1500 | as read | 375 | 1.20E-08 | as read | as read | as read |
| 6.5-7.0 | 0.2 | 0.1 | 1000 | as read | 250 | 8.00E-09 | as read | as read | as read |
| 7.0-7.5 | 0.2 | 0.1 | 800 | as read | 200 | 6.40E-09 | as read | as read | as read |
| 7.5-8.0 | as read | as read | as read | as read | as read | as read | as read | as read | as read |

ONSITE SURVEY INFORMATION - 1630-1645



| SURVEY INFORMATION - 1630-1645 | | | | | | | | | |
|--------------------------------|-----------------------------|---------|---------|------------------------|---------|-----------------------|---------------|---------|----------------------|
| Distance, Miles | Centerline 3' & 3" readings | | | Centerline air samples | | | | | |
| | mR/hr | mR/hr | PVNGS | PVNGS readings | | | ARRA readings | | |
| | WO | WC | cpm | Filter | AgX | AgX $\mu\text{Ci/cc}$ | Filter | AgX | AgX pCi/m^3 |
| 0.0-0.5 | 0.8 | 0.4 | 4000 | as read | 250 | 8.06E-09 | as read | as read | as read |
| 0.5-1.0 | as read | as read | as read | as read | as read | as read | as read | as read | as read |

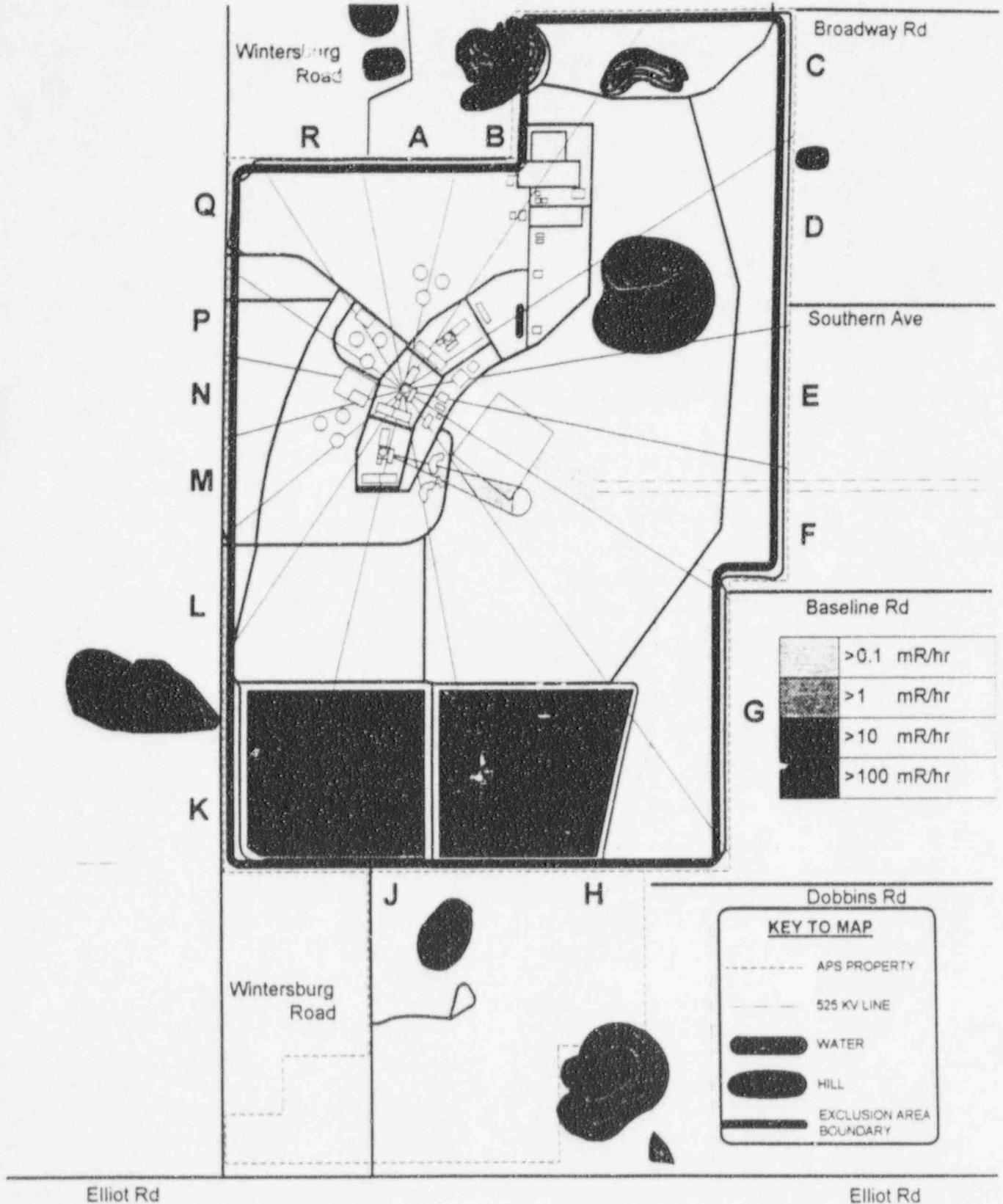
OFFSITE SURVEY INFORMATION - 1630-1645



SURVEY INFORMATION - 1630-1645

| Distance, Miles | Centerline 3' & 3" readings | | | Centerline air samples | | | | | |
|--------------------|-----------------------------|-------------|--------------|------------------------|---------|-----------------------|---------------|---------|----------------------|
| | mR/hr WO | mR/hr WC | PVNGS cpm | PVNGS readings | | | ARRA readings | | |
| | | | | Filter | AgX | AgX $\mu\text{Ci/cc}$ | Filter | AgX | AgX pCi/m^3 |
| 0.0-0.5 | 0.8 | 0.4 | 4000 | as read | 250 | 8.06E-09 | as read | as read | as read |
| 0.5-1.0 | as read | as read | as read | as read | as read | as read | as read | as read | as read |
| 1.0-1.5 | as read | as read | as read | as read | as read | as read | as read | as read | as read |
| 1.5-2.0 | as read | as read | as read | as read | as read | as read | as read | as read | as read |
| 2.0-2.5 | as read | as read | as read | as read | as read | as read | as read | as read | as read |
| 2.5-3.0 | as read | as read | as read | as read | as read | as read | as read | as read | as read |
| 3.0-3.5 | 0.4 | 0.2 | 2000 | as read | as read | as read | as read | as read | as read |
| 3.5-4.0 | 1.2 | 0.6 | 6000 | 150 | 1500 | 4.80E-08 | as read | as read | as read |
| 4.0-4.5 | 0.8 | 0.4 | 4000 | 100 | 1000 | 3.20E-08 | as read | as read | as read |
| 4.5-5.0 | 0.6 | 0.3 | 3000 | as read | 750 | 2.40E-08 | as read | as read | as read |
| 5.0-5.5 | 0.4 | 0.2 | 2000 | as read | 500 | 1.60E-08 | as read | as read | as read |
| 5.5-6.0 | 0.4 | 0.2 | 2000 | as read | 500 | 1.60E-08 | as read | as read | as read |
| 6.0-6.5 | 0.3 | 0.2 | 1500 | as read | 375 | 1.20E-08 | as read | as read | as read |
| 6.5-7.0 | 0.2 | 0.1 | 1000 | as read | 250 | 8.00E-09 | as read | as read | as read |
| 7.0-7.5 | 0.2 | 0.1 | 800 | as read | 200 | 6.40E-09 | as read | as read | as read |
| 7.5-8.0 | as read | as read | 600 | as read | 150 | 4.80E-09 | as read | as read | as read |
| 8.0-8.5 | as read | as read | as read | as read | as read | as read | as read | as read | as read |

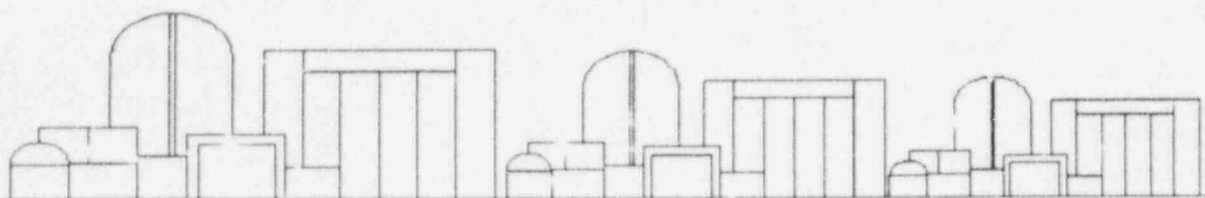
ONSITE SURVEY INFORMATION - 1645-1700



| SURVEY INFORMATION - 1645-1700 | | | | | | | | | |
|--------------------------------|-----------------------------|----------|-----------|------------------------|---------|-----------------------|---------------|---------|----------------------|
| Distance, Miles | Centerline 3' & 3" readings | | | Centerline air samples | | | | | |
| | mR/hr WO | mR/hr WC | PVNGS cpm | PVNGS readings | | | ARRA readings | | |
| | | | | Filter | AgX | AgX $\mu\text{Ci/cc}$ | Filter | AgX | AgX pCi/m^3 |
| 0.0-0.5 | 0.8 | 0.4 | 4000 | as read | 250 | 8.06E-09 | as read | as read | as read |
| 0.5-1.0 | as read | as read | as read | as read | as read | as read | as read | as read | as read |

SECTION 10

METEOROLOGICAL



Palo Verde Nuclear Generating Station



1995 EMERGENCY PREPAREDNESS EXERCISE 95-E-AEV-04002

Meteorological Data

| TIME | | WIND FROM | WIND SPEED | TEMP | Δ TEMP |
|------|------|-----------|------------|------|--------|
| FROM | TO | | | | |
| 0800 | 0815 | 240 | 3.0 | 77 | 2.5 |
| 0815 | 0830 | 248 | 3.2 | 77 | 2.3 |
| 0830 | 0845 | 246 | 3.1 | 77 | 2.0 |
| 0845 | 0900 | 247 | 3.0 | 77 | 1.8 |
| 0900 | 0915 | 248 | 3.0 | 77 | 1.6 |
| 0915 | 0930 | 250 | 3.0 | 77 | 1.5 |
| 0930 | 0945 | 253 | 3.1 | 78 | 1.4 |
| 0945 | 1000 | 256 | 3.1 | 78 | 1.2 |
| 1000 | 1015 | 260 | 3.0 | 78 | 1.0 |
| 1015 | 1030 | 259 | 3.0 | 78 | 0.6 |
| 1030 | 1045 | 257 | 2.9 | 79 | 0.3 |
| 1045 | 1100 | 260 | 3.0 | 79 | -0.1 |
| 1100 | 1115 | 285 | 3.3 | 79 | -0.4 |
| 1115 | 1130 | 304 | 3.1 | 80 | -0.5 |
| 1130 | 1145 | 304 | 3.0 | 80 | -0.5 |
| 1145 | 1200 | 305 | 3.0 | 80 | -0.5 |
| 1200 | 1215 | 304 | 3.0 | 81 | -0.5 |
| 1215 | 1230 | 304 | 3.0 | 81 | -0.5 |
| 1230 | 1245 | 304 | 3.0 | 81 | -0.5 |
| 1245 | 1300 | 304 | 3.1 | 81 | -0.5 |
| 1300 | 1315 | 295 | 3.0 | 81 | -0.5 |
| 1315 | 1330 | 290 | 2.9 | 82 | -0.5 |
| 1330 | 1345 | 290 | 3.0 | 82 | -0.5 |
| 1345 | 1400 | 290 | 3.0 | 82 | -0.5 |
| 1400 | 1415 | 290 | 3.1 | 82 | -0.6 |
| 1415 | 1430 | 290 | 3.0 | 82 | -0.6 |
| 1430 | 1445 | 290 | 2.9 | 82 | -0.7 |
| 1445 | 1500 | 290 | 3.0 | 83 | -0.7 |
| 1500 | 1515 | 290 | 3.0 | 83 | -0.8 |
| 1515 | 1530 | 290 | 3.0 | 83 | -0.8 |
| 1530 | 1545 | 290 | 3.0 | 83 | -0.9 |
| 1545 | 1600 | 290 | 3.0 | 83 | -1.0 |
| 1600 | 1615 | 290 | 3.0 | 83 | -1.0 |
| 1615 | 1630 | 290 | 3.0 | 83 | -1.0 |
| 1630 | 1645 | 290 | 3.0 | 83 | -1.0 |
| 1645 | 1700 | 290 | 3.0 | 83 | -1.0 |

GENERAL METEOROLOGICAL DATA

APRIL 12, 1995 - PVNGS PLUME EXPOSURE PATHWAY EXERCISE

NOTE: PARTLY CLOUDY...NO PRECIPITATION
SLIGHTLY BELOW NORMAL DAYTIME TEMPERATURES
NEAR NORMAL NIGHTTIME TEMPERATURES
NORMAL BAROMETRIC PRESSURE

FORECAST WINDS:

TODAY: VERY LIGHT WEST-SOUTHWEST WINDS MOSTLY 3 MPH,
BECOMING WEST-NORTHWEST BY ABOUT NOON, AND
CONTINUING LIGHT WEST-NORTHWEST WINDS ABOUT 3
MPH THROUGHOUT THE AFTERNOON.

TONIGHT: VERY LIGHT WEST-NORTHWEST AROUND 3 MPH,
BECOMING CALM WINDS DURING THE EVENING HOURS.

GENERAL WEATHER SCENARIO

APRIL 12, 1995 - PVNGS PLUME EXPOSURE PATHWAY EXERCISE

SYNOPSIS:

A WEAK UPPER LEVEL LOW PRESSURE SYSTEM HAS DEVELOPED OVER THE WESTERN UNITED STATES. A LOW PRESSURE AREA AT THE SURFACE WAS ASSOCIATED WITH THE UPPER LEVEL LOW PRESSURE SYSTEM. THE SURFACE LOW PRESSURE AREA WAS LOCATED OVER SOUTHEAST IDAHO AND NORTHERN UTAH THIS MORNING. THE UPPER LEVEL AND SURFACE SYSTEMS WERE MOVING EASTWARD.

A RATHER WEAK PACIFIC COLD FRONT TRAILED SOUTH-SOUTHWEST FROM THE IDAHO AND UTAH SURFACE LOW PRESSURE AREA. IT EXTENDED THROUGH FAR SOUTHERN NEVADA AND FAR SOUTHEASTERN CALIFORNIA. THE WEAK COLD FRONT WILL MOVE INTO WESTERN ARIZONA DURING THIS MORNING, AND MOVE ACROSS MUCH OF THE STATE BY LATE THIS AFTERNOON AND EVENING. THE COLD FRONT WILL MOVE THROUGH THE GREATER PHOENIX AREA ABOUT NOONTIME.

MOST OF THE WEATHER ACTIVITY ASSOCIATED WITH THE UPPER LEVEL AND SURFACE SYSTEMS WAS OCCURRING OVER NEVADA, UTAH AND FAR NORTHERN ARIZONA THIS MORNING, WELL NORTH OF THE GREATER PHOENIX AREA. THE STORMY CONDITIONS ARE EXPECTED TO REMAIN WELL NORTH OF PHOENIX DURING TODAY AND INTO TONIGHT. TEMPERATURES WILL BE ONLY SLIGHTLY COOLER THAN NORMAL TODAY.

WEATHER FORECAST:

TODAY: PARTLY CLOUDY AND MILD. HIGH IN THE LOWER 80S.

VERY LIGHT WEST-SOUTHWEST WINDS MOSTLY 3 MPH, BECOMING WEST-NORTHWEST BY ABOUT NOON, AND CONTINUING LIGHT WEST-NORTHWEST WINDS ABOUT 3 MPH THROUGHOUT THE AFTERNOON.

TONIGHT: GENERALLY FAIR AND MILD. LOW NEAR 60.

VERY LIGHT WEST-NORTHWEST AROUND 3 MPH, BECOMING CALM WINDS DURING THE EVENING HOURS.

CHARTS AVAILABLE TO THE EMERGENCY OPERATIONS METEOROLOGIST

APRIL 12, 1995 - PVNGS PLUME EXPOSURE PATHWAY EXERCISE

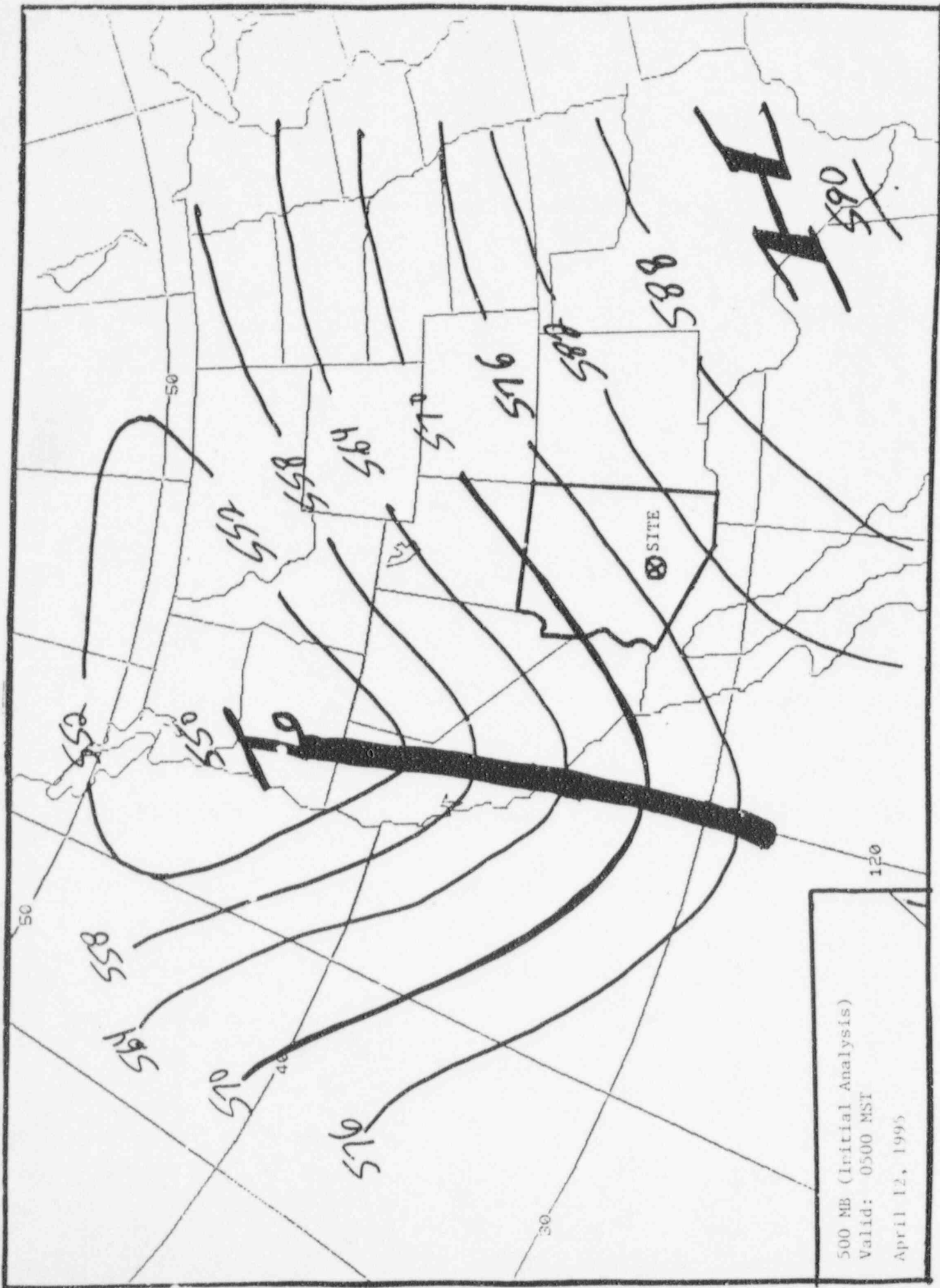
THE FOLLOWING CHARTS WILL BE GIVEN INITIALLY:

| VALID TIME (DESCRIPTION) | VALID DAY |
|----------------------------------|---------------------------|
| 0500 MST 500 MB (INIT ANAL) | WEDNESDAY, APRIL 12, 1995 |
| 0500 MST 700 MB (INIT ANAL) | WEDNESDAY, APRIL 12, 1995 |
| 0500 MST SURFACE (INIT ANAL) | WEDNESDAY, APRIL 12, 1995 |
| 0500 MST RADAR SUMMARY | WEDNESDAY, APRIL 12, 1995 |
| 0500 - 1100 MST QPF (6 HR PROG) | WEDNESDAY, APRIL 12, 1995 |
| 1100 - 1700 MST QPF (12 HR PROG) | WEDNESDAY, APRIL 12, 1995 |
| 1100 MST SURFACE (6 HR PROG) | WEDNESDAY, APRIL 12, 1995 |
| 1700 MST 500 MB (12 HR PROG) | WEDNESDAY, APRIL 12, 1995 |
| 1700 MST 700 MB (12 HR PROG) | WEDNESDAY, APRIL 12, 1995 |

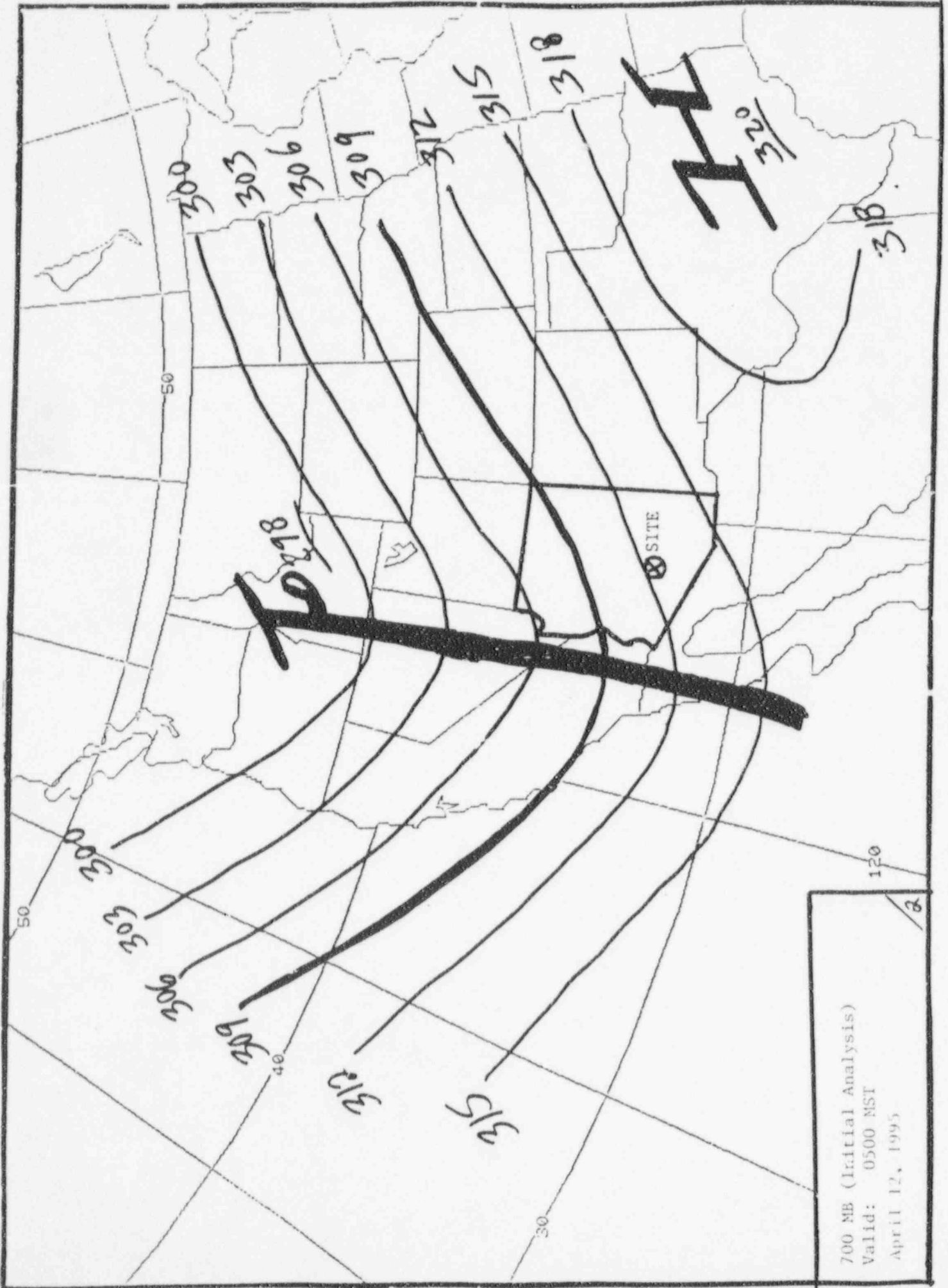
THE FOLLOWING ADDITIONAL CHARTS ARE AVAILABLE:

| VALID TIME (DESCRIPTION) | VALID DAY |
|-------------------------------|---------------------------|
| 1100 MST RADAR SUMMARY | WEDNESDAY, APRIL 12, 1995 |
| 1700 MST SURFACE (12 HR PROG) | WEDNESDAY, APRIL 12, 1995 |

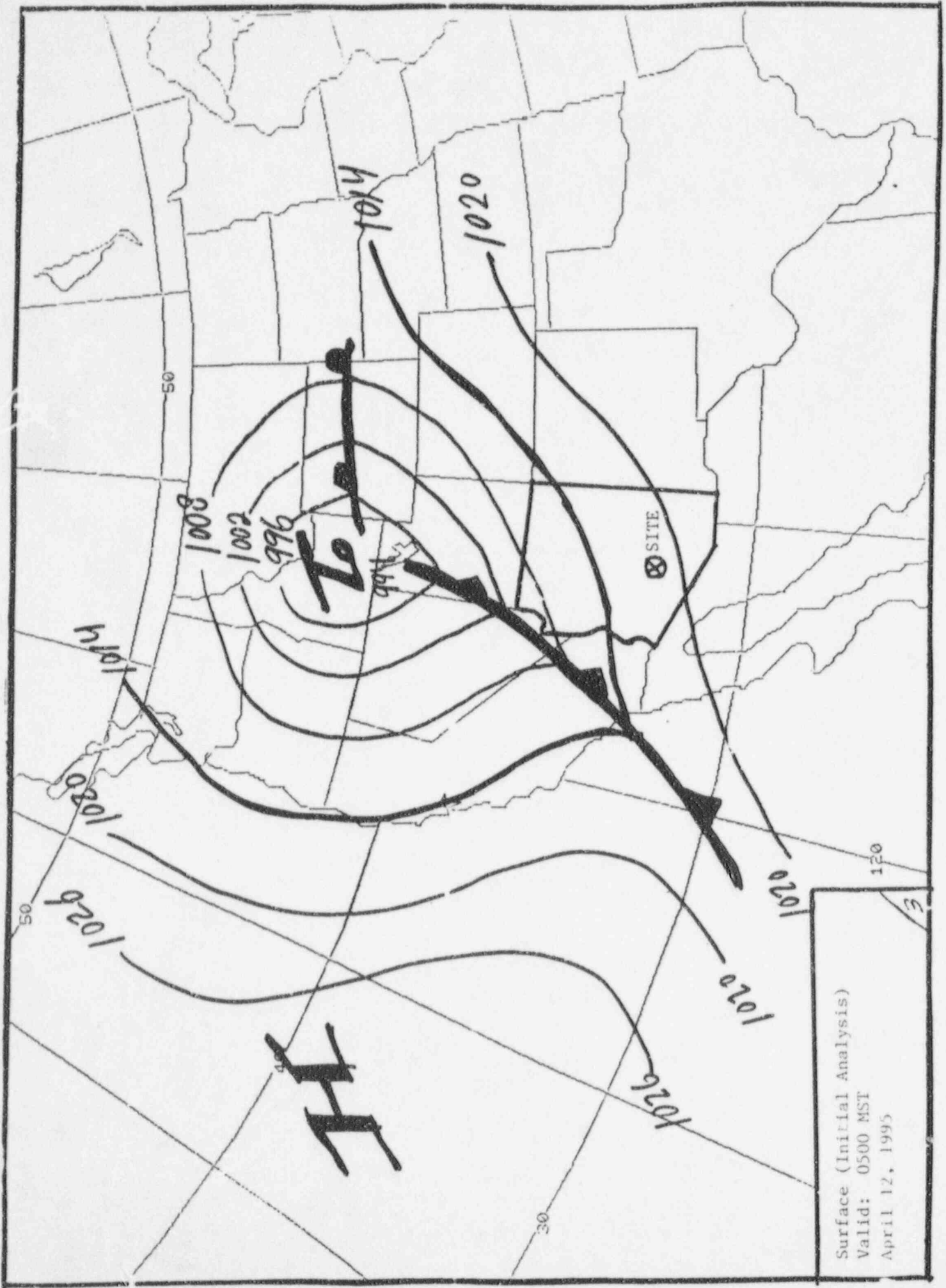
NOTE: ASSUME THAT ALL PROGS ARE PERFECT PROGS.



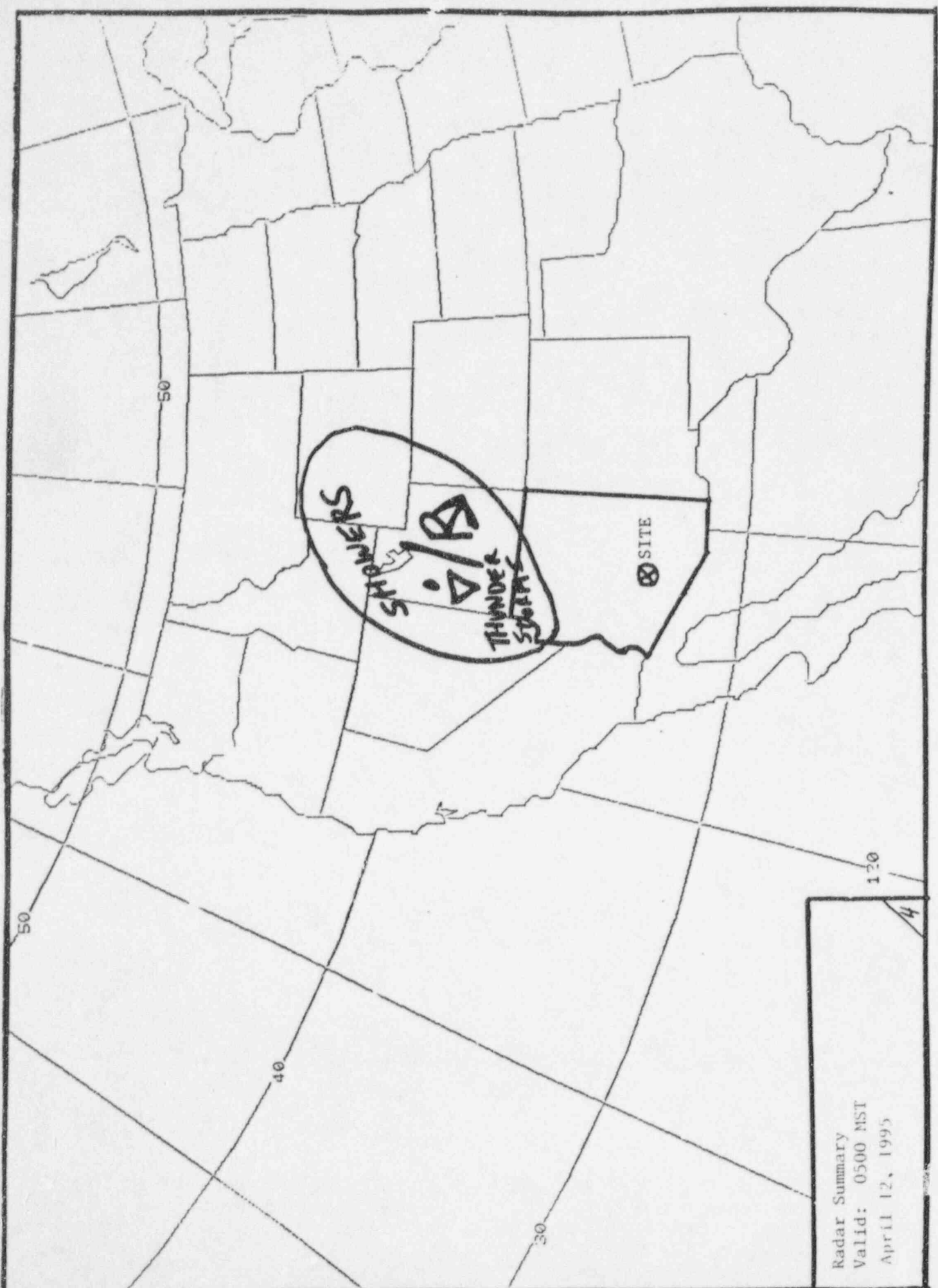
500 MB (Initial Analysis)
 Valid: 0500 MST
 April 12, 1995



700 MB (Initial Analysis)
 Valid: 0500 MST
 April 12, 1995



Surface (Initial Analysis)
Valid: 0500 MST
April 12, 1995

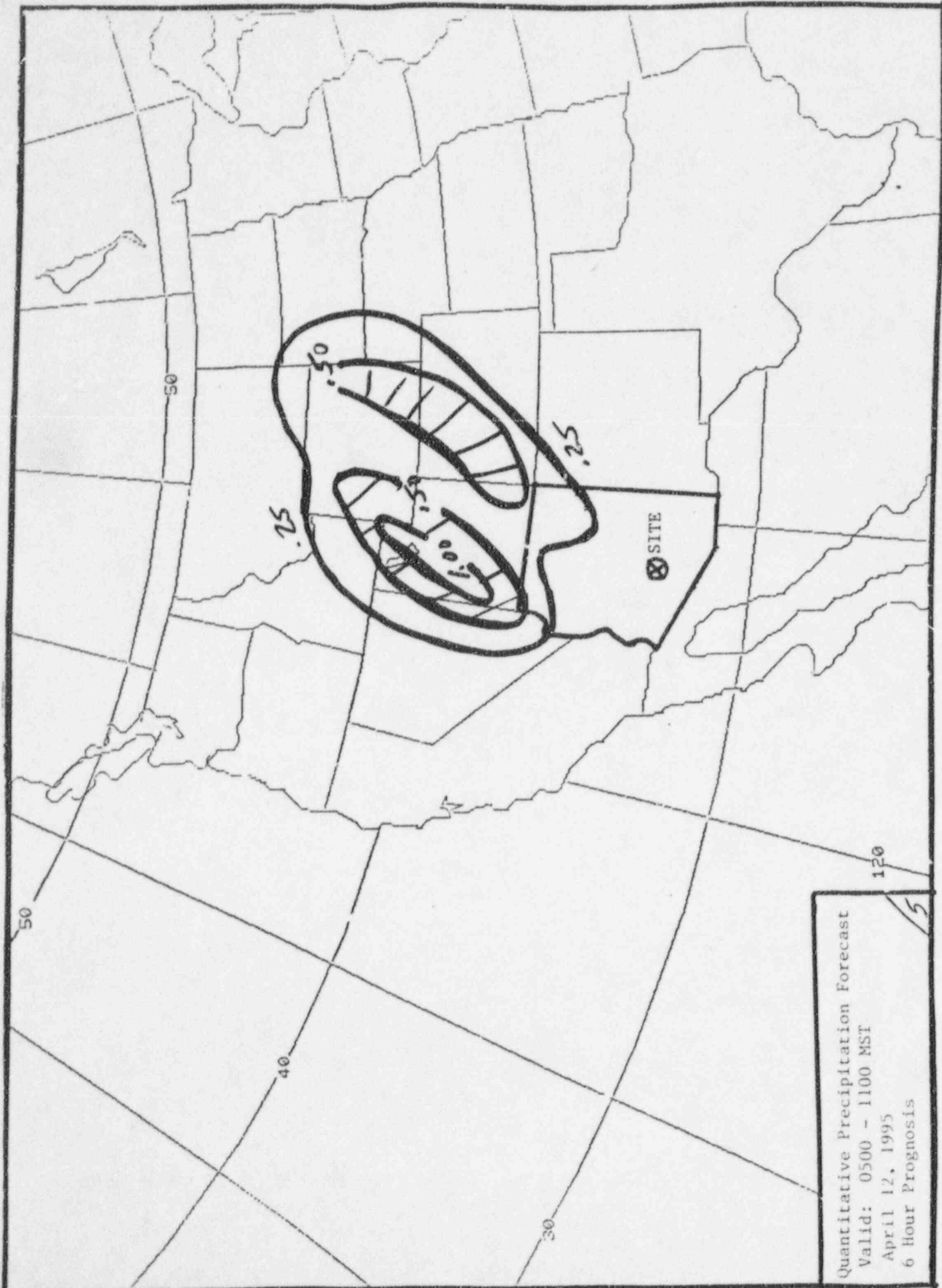


SHIMMERS
5/19
THUNDER STORM

⊗ SITE

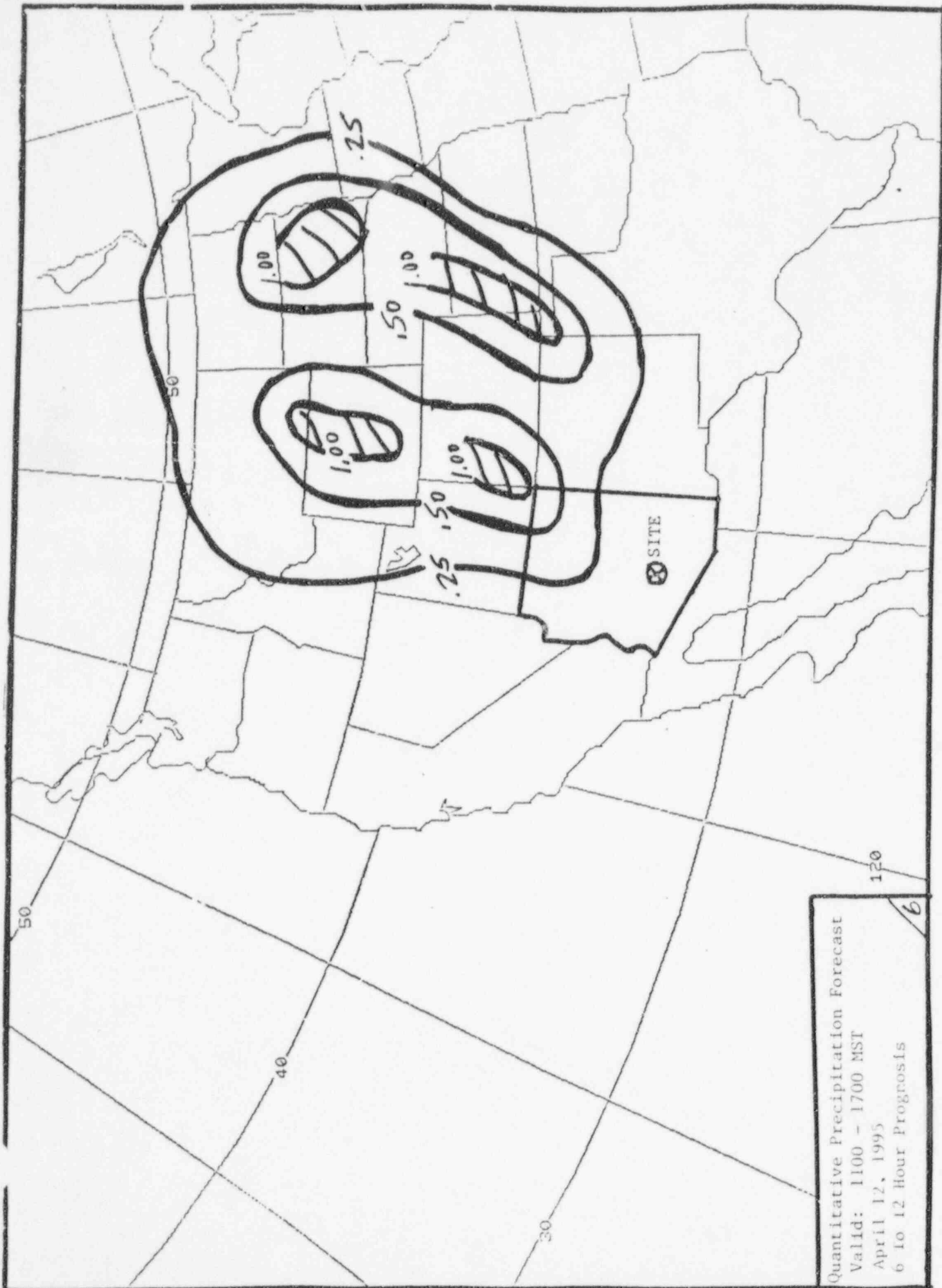
Radar Summary
Valid: 0500 MST
April 12, 1995

4



Quantitative Precipitation Forecast
Valid: 0500 - 1100 MST
April 12, 1995
6 Hour Prognosis

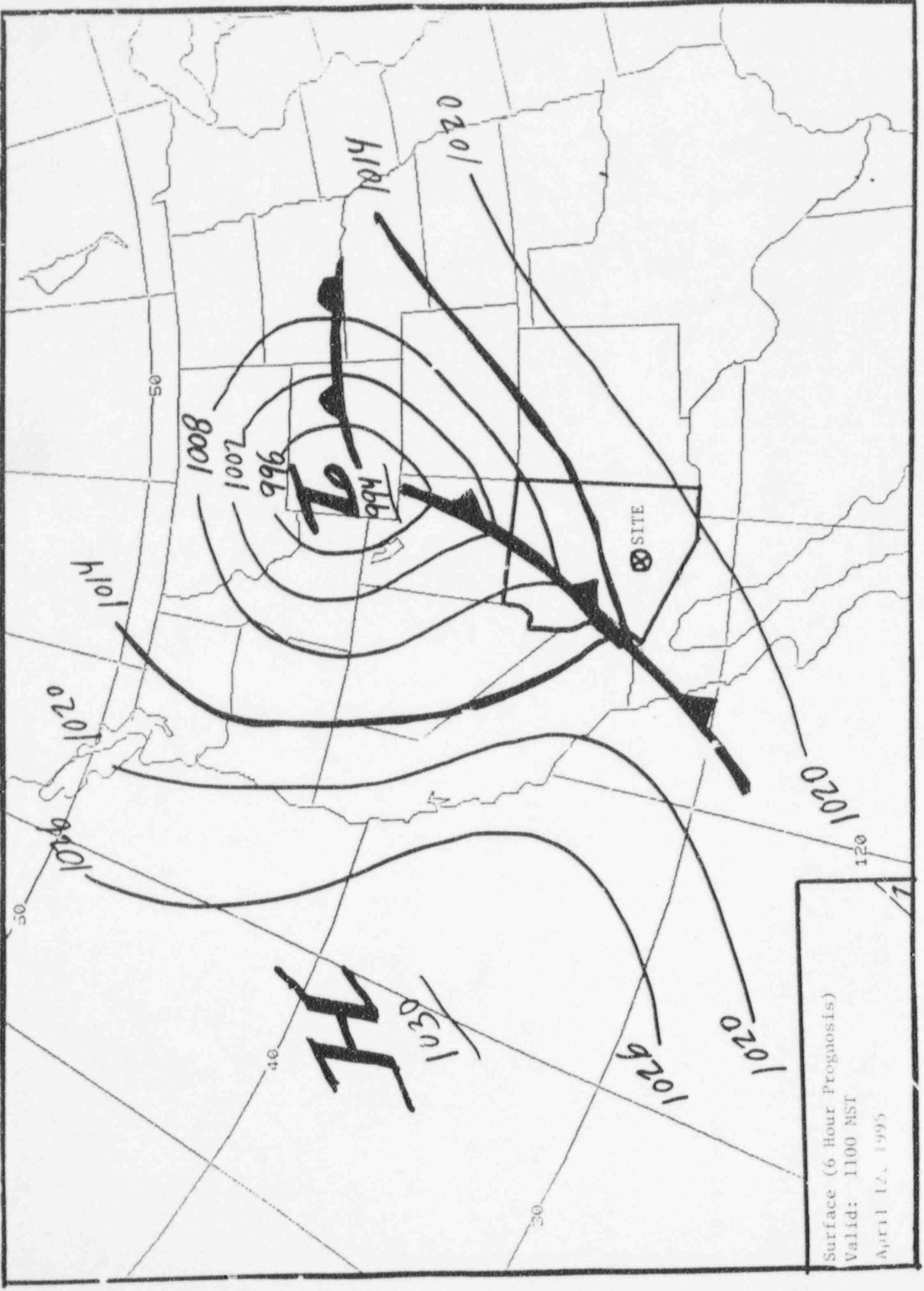
5



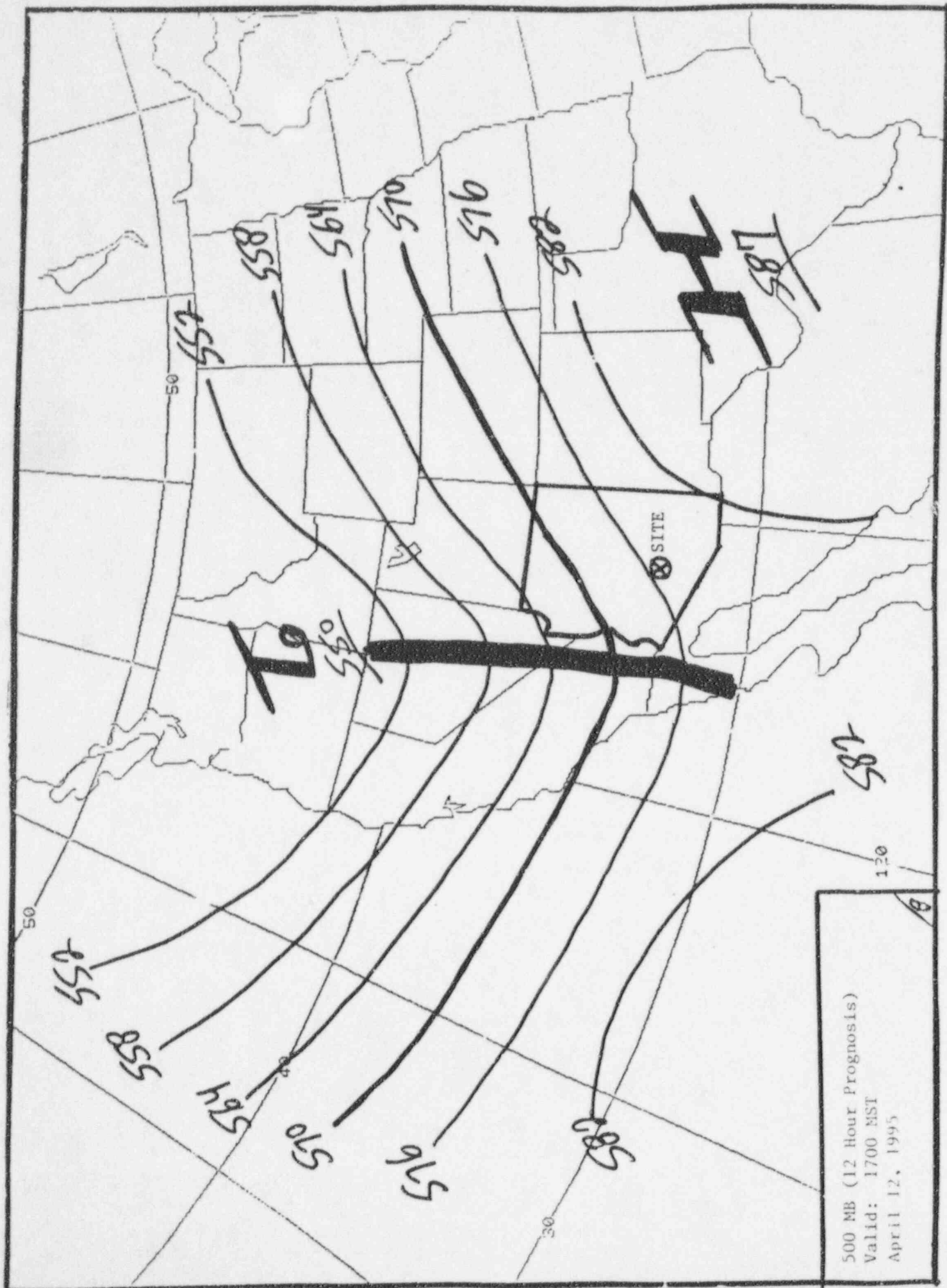
Quantitative Precipitation Forecast
Valid: 1100 - 1700 MST
April 12, 1995
6 to 12 Hour Prognosis

120

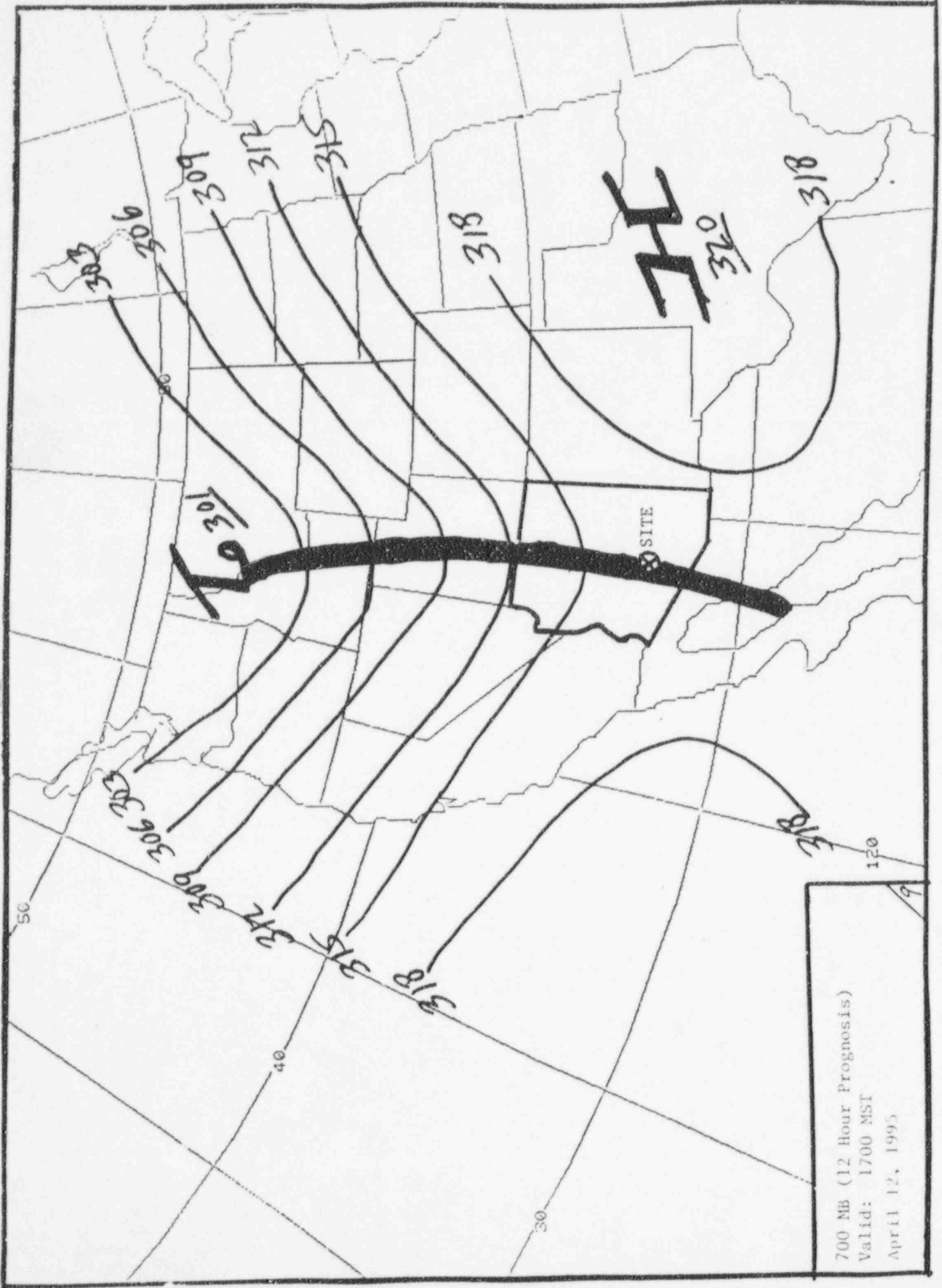
6



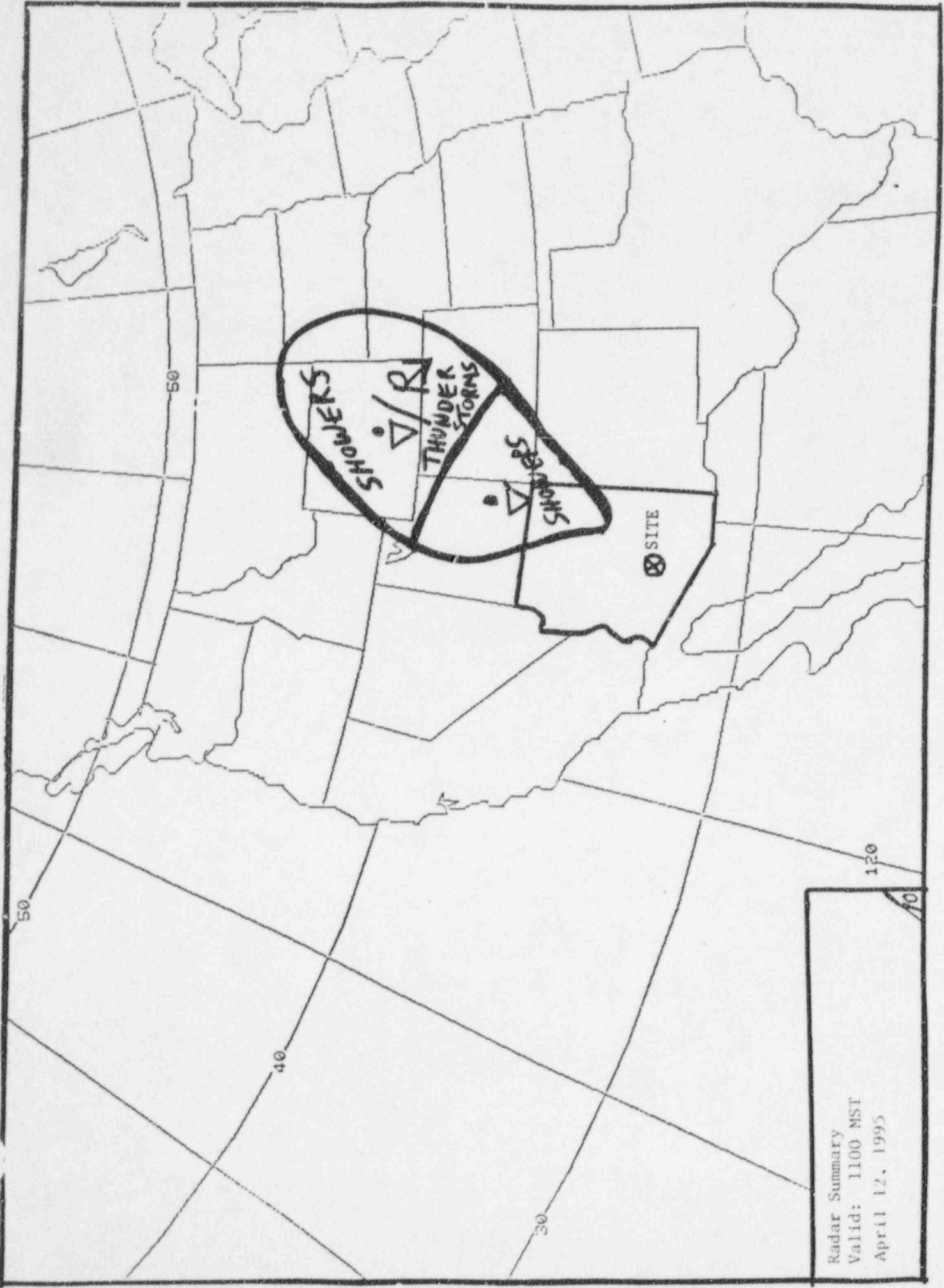
Surface (6 Hour Prognosis)
Valid: 1100 MST
April 12, 1995



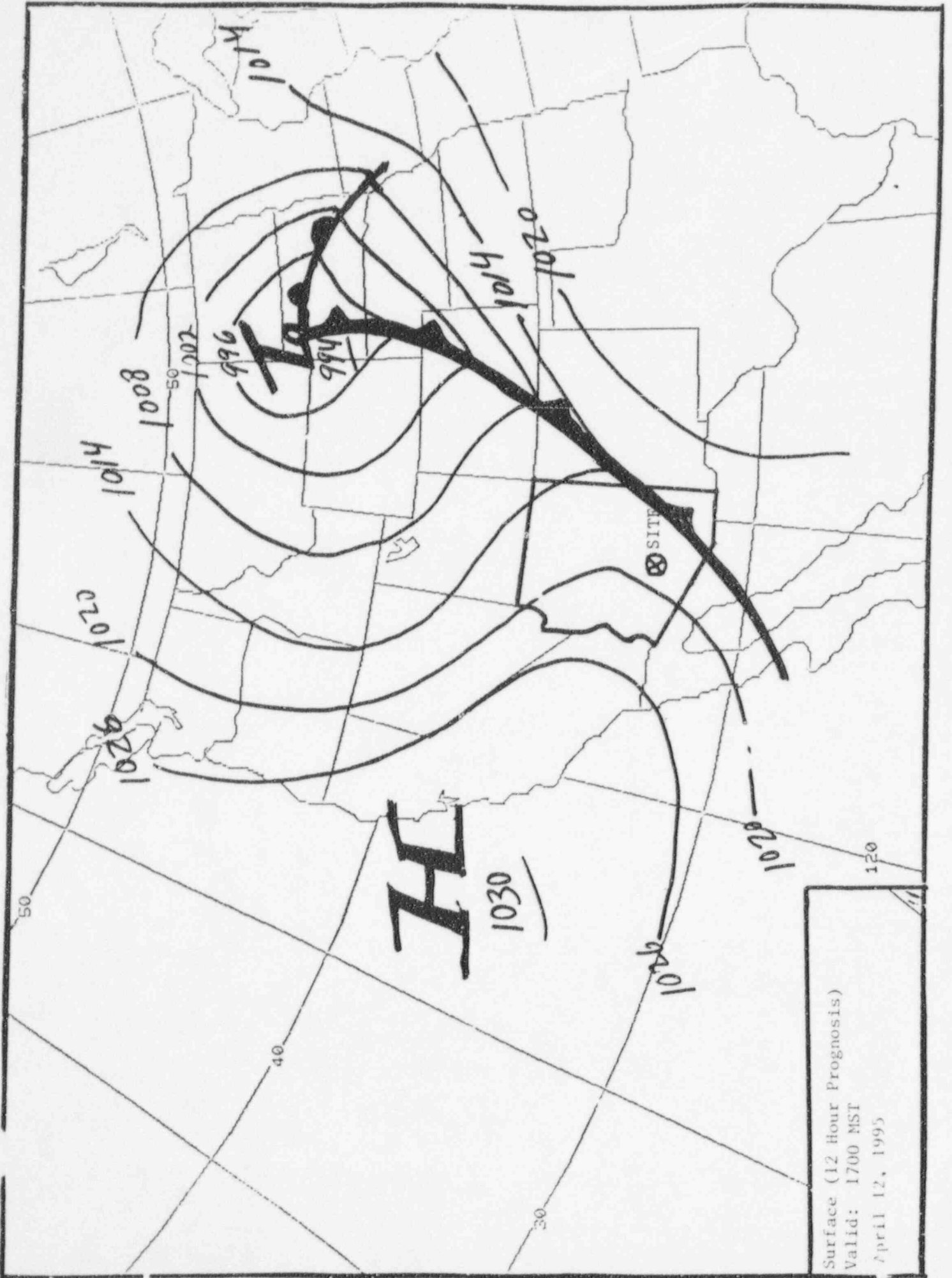
500 MB (12 Hour Prognosis)
 Valid: 1700 MST
 April 12, 1995



700 MB (12 Hour Prognosis)
 Valid: 1700 MST
 April 12, 1995



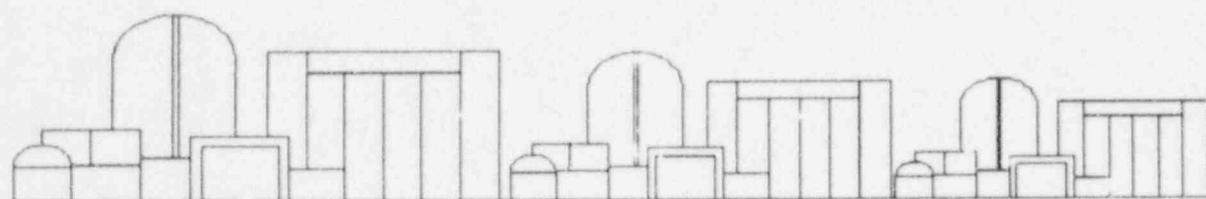
Radar Summary
Valid: 1100 MST
April 12, 1995



Surface (12 Hour Prognosis)
Valid: 1700 MST
April 12, 1995

SECTION 11

MEDICAL



Palo Verde Nuclear Generating Station



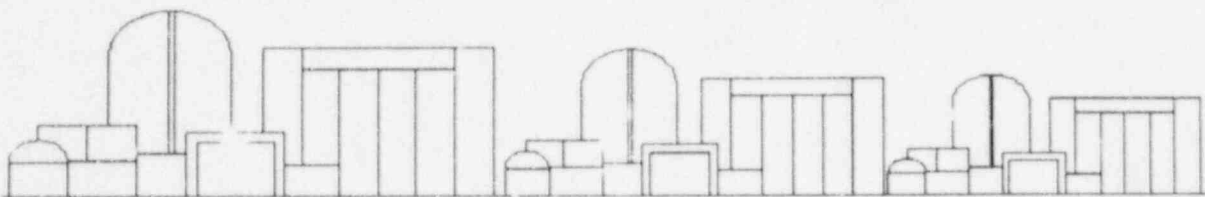
1995 EMERGENCY PREPAREDNESS EXERCISE - 95-E-AEV-04002

MEDICAL

Transportation of a contaminated injured person will be demonstrated separately in a Medical Drill involving Good Samaritan Hospital and AirEvac at a date in 1995 to be determined and will not be demonstrated in this Exercise.

SECTION 12

EQUIPMENT



Palo Verde Nuclear Generating Station



EQUIPMENT

| <u>COMPONENT</u> | <u>PAGE</u> |
|-------------------------------------|-------------|
| AFB-P01 | 02 |
| Pillbox / ILRT Penetration-58 | 03 |
| Hassayampa Feeder Line | 05 |
| Westwing-2 525 KV Line | 06 |
| PBB-S04 | 07 |
| SI-V460 | 09 |
| SIA-UV-672 | 11 |
| Fuel Pin | 13 |

EQUIPMENT

AUXILIARY FEEDWATER PUMP AFB-P01

INITIAL CONDITION:

"B" Train Class Auxiliary Feedwater Pump AFB-P01 is tagged out-of-service 7 hours prior to the start of the scenario for inboard bearing replacement and is expected back for surveillance testing in approximately 18 hours from the start of the scenario. Technical Specification LCO 3.7.1.2, Action Statement "a.", was entered and the pump declared INOPERABLE at the time it was tagged out-of-service. This pump will not be available for the remainder of the scenario.

ANTICIPATED RESPONSE:

The crew may initially try to anticipate the scenario events as involving some type of loss of feedwater or inability to maintain RCS heat removal. However, as the scenario progresses, it will become increasingly clear that a tagged out component does not always indicate failure mechanisms tied to events in the scenario. Industry statistics show that probabilities are very high that the status of an unavailable component will heighten the awareness of operators to events which could possibly involve areas within the component's domain. The crew may initially review procedures for loss of feedwater events, which is generally classified as a good operator practice, but other events will take place early in the scenario that should negate the suspicions about the tagged auxiliary feedwater pump.

Note that no diagram or layout showing the failure mechanism of the pump is included in this section, as this component is not encompassed within any portion of the scenario. The tagged pump is included as part of the shift turnover merely to simulate actual day-to-day logistics of an operator's watch duties.

EQUIPMENT

PILLBOX / ILRT PENETRATION-58

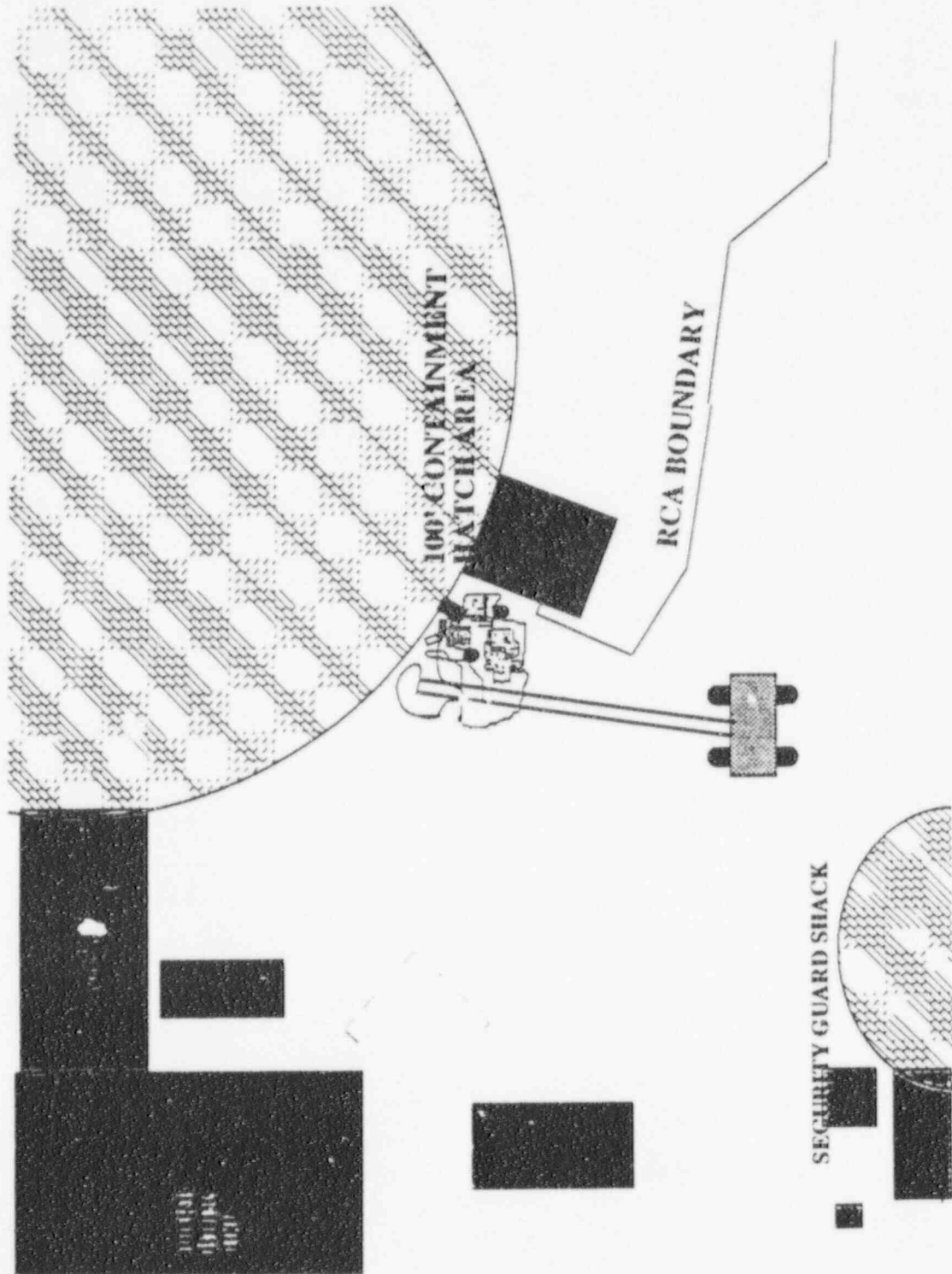
INITIAL CONDITION:

Security has requested movement of the 16,000-pound "pillbox" which is located at the north-west corner of the Turbine Building to a new defensive position near the nitrogen tanks. Mechanical Maintenance personnel will be using a crane to do the move over the first few hours into the scenario and will advise Operations when they are completed.

ANTICIPATED RESPONSE:

The crew may initially try to anticipate the scenario events as involving some type of catastrophe in the yard later in the scenario. They may foresee a personnel injury or accident mechanism concerning the crane, etc. However, it will never be exactly clear to them the type of problem this component will cause until it occurs. This component serves as the basis for initiating the radiological release to the environment and, subsequently, for upgrading the Alert emergency classification level to a Site Area Emergency. Some time after the LOCA has occurred, the Control Room crew receives a call stating that the crane operator working on the concrete "pillbox" relocation effort has accidentally swung the crane boom in the wrong direction and hit the side of containment with the boom. He states that the "pillbox" broke from the cable after contacting the containment side and fell some 45 feet onto a large pipe protruding out from the containment wall on the north side of containment. He thinks he broke the pipe, since smoke or steam is now billowing from the penetration and making a very loud hissing noise. The pipe is the ILRT connection which is periodically used to pressurize containment to design pressure for testing purposes. The crew's priority, after the event, is to minimize pressure in containment to mitigate the radiological release. Their response will be to repair the valve which is preventing containment spray flow, since the containment release path cannot be sealed from outside the building with containment at a pressure in excess of 30 psig.

EQUIPMENT



EQUIPMENT

HASSAYAMPA FEEDER LINE

INITIAL CONDITION:

Water Reclamation has taken the 66" effluent feeder line from the Hassayampa Pumping Station out of service 4 hours ago to repair a leaking flange 2 miles east of the site. The line is expected back in service in approximately 26 hours. Water Rec will advise when repairs are completed. This feeder line will not be available for the remainder of the scenario.

ANTICIPATED RESPONSE:

The crew may initially try to anticipate the scenario events as involving some type of loss of circulating water or inability to prevent flooding onsite. However, as the scenario progresses, it will become increasingly clear that a component removed from service does not always indicate failure mechanisms tied to events in the scenario. Industry statistics show that probabilities are very high that the status of an unavailable component will heighten the awareness of operators to events which could possibly involve areas within the component's domain. The crew may initially review procedures related to accidents associated with huge water volumes, which is generally classified as a good operator practice, but other events will take place early in the scenario that should negate the suspicions about the tagged effluent feeder line.

Note that no diagram or layout showing the failure mechanism of the leaking feeder line flange is included in this section, as this component is not encompassed within any portion of the scenario. The unavailable feeder line is included as part of the shift turnover merely to simulate actual day-to-day logistics of an operator's watch duties.

EQUIPMENT

WESTWING-2 525 KV LINE

INITIAL CONDITION:

The Energy Control Center is planning to remove the Westwing-2 525 KV line from service within the next 6 hours after the start of the scenario and will call Unit 1 with preliminary action plans when they are ready to do so. A reactor bank located in the Westwing Switchyard must be replaced and the line is required to be de-energized for that operation. SRP will coordinate activities with APS personnel and Unit 1 Operations will inform the other Units prior to taking the line out of service.

ANTICIPATED RESPONSE:

The crew may initially try to anticipate the scenario events as involving some type of loss of offsite power or worse, a site blackout. However, as the scenario progresses, it will become increasingly clear that a component removed from service does not always indicate failure mechanisms tied to events in the scenario. However, since power supply problems can occur at any time and generally have no precursors associated with them, this component may serve to cause lingering suspicions with the crew for the better part of the scenario. Industry statistics show that probabilities are very high that the status of an unavailable component will heighten the awareness of operators to events which could possibly involve areas within the component's domain. The crew may initially review procedures associated with power supply problems or they may review the Blackout Emergency Operating Procedure, which is generally classified as a good operator practice, but other events taking place early in the scenario should lessen the anxiety concerning the 525 KV line.

Note that no diagram or layout showing the isolation mechanism of the 525 KV line is included in this section, as this component is not encompassed within any portion of the scenario. The plans for removing the 525 KV line from service are included as part of the shift turnover merely to simulate actual day-to-day logistics of an operator's watch duties.

EQUIPMENT

4.16 KV CLASS BUS PBB-S04

INITIAL CONDITION:

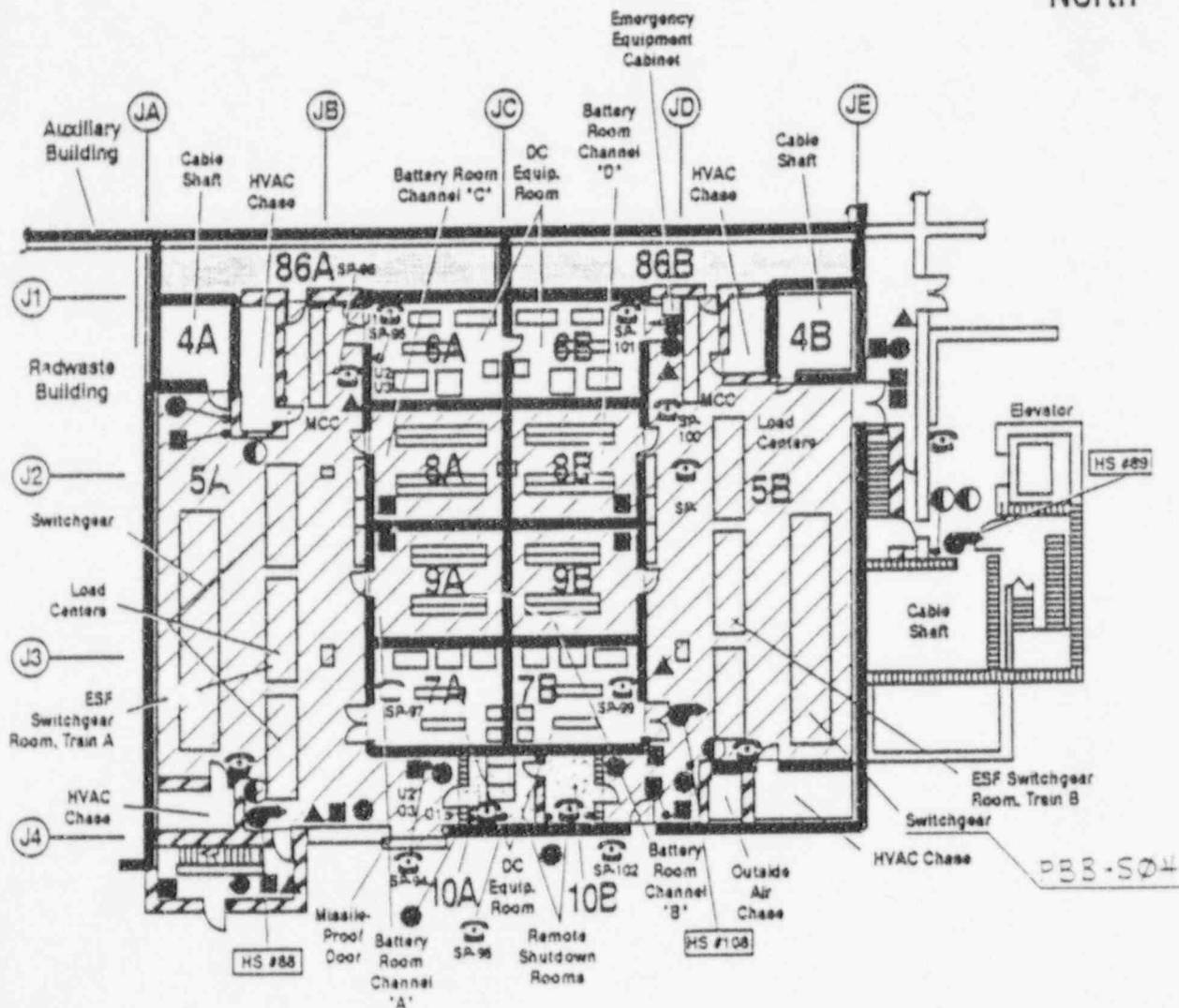
The operators observe that 4.16 KV Class Bus PBB-S04 de-energizes when the reactor is tripped. (The bus actually loses power when reactor power falls below 25%.) The SS directs an AO to respond to the loss of power at PBB-S04. Upon arrival at the bus and after a few brief moments, the AO reports that 4.16 KV Breaker PBB-S04K appears to be destroyed and that evidence of charring exists on the breaker cubicle door. To be more realistic, breaker PBB-S04K is demolished. Pieces of it are everywhere. The breaker cubicle door is charred, but there is no fire or smoke. Inside the cubicle, the bus-work for that breaker is severely damaged. Other portions of the bus are damaged as well. Almost every relay on the bus is tripped. The mechanism of failure results from an instantaneous overcurrent condition on the bus. This fault propagates to the incoming feeder breaker, where a semi-deteriorated condition leads to blowout of the breaker closing mechanism, resulting in severe arcing and eventual failure of the breaker and that portion of the bus housing the breaker. This 4.16 KV bus will not be available for the remainder of the scenario.

ANTICIPATED RESPONSE:

If the crew dispatches Electrical Maintenance to the scene, similar conditions will be reported. Based on this report, it should become quite evident that the Class "B" Train bus must undergo major repairs before it can be expected to function as designed. However, with a plant trip on their hands and RCS integrity deteriorating, the crew should accept the fact that 1 train of safeguards equipment is all that remains at their disposal, if required. It should also be clear that a catastrophic electrical failure such as this requires an appreciable amount of time to repair, far too much time for the immediate necessity the operators put on this equipment. In all likely respects, it is anticipated that the crew will forgo their attention to this bus and try to live with the remaining equipment they have, at least for the time being.

EQUIPMENT

Control Building
Elev. 100' - 0"



PBB-504

EQUIPMENT

SI-V460

INITIAL CONDITION:

An unproceduralized method exists to cross-connect the "A" Train Containment Spray Pump to the "B" Train spray header using a valve lineup which employs the use of 2 manual isolation valves separating the 2 trains of CS Systems. Since train separation is mandatory, these 2 valves are closed and locked in that position. (However, incorporation of this valve lineup would not allow successful completion of the scenario objectives.)

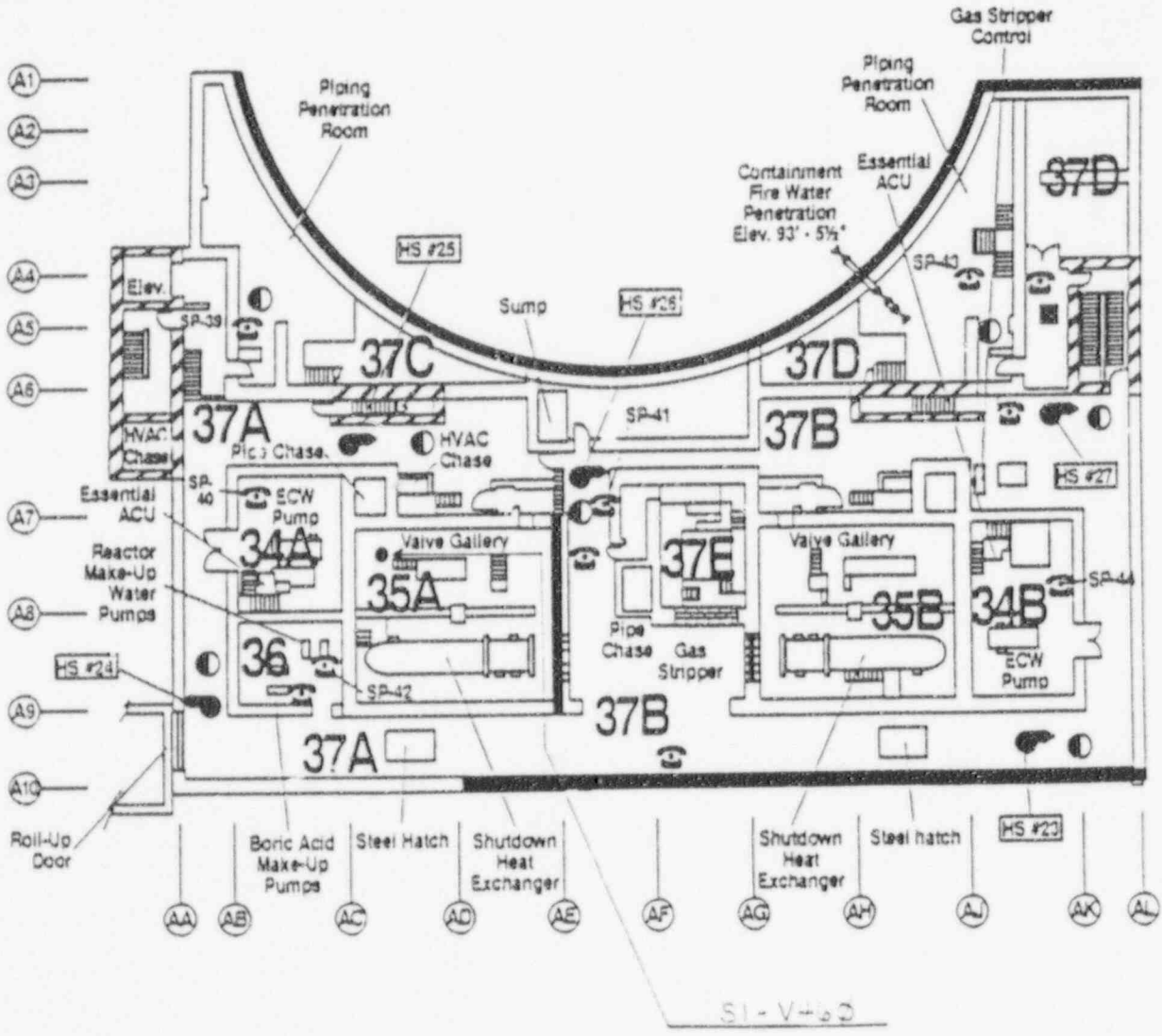
During manual manipulation of one of these valves, SI-V460, the AO discovers that it cannot be moved from its "SHUT" position. (The degree of probability for this to happen is higher than would be for valves that are cycled more frequently.) The valve is stuck shut, but must be opened for the crew to successfully cross-connect the 2 trains of Containment Spray. If the Shift Supervisor approves the use of a "valve persuader", the AO will use it and cause the valve stem to break. The valve handwheel will spin freely; it should be clear to everyone that the valve stem either pulled out of its disk or the valve stem broke. The mechanism of failure involves corrosion products binding the valve disk to its seat, effectively causing the 2 parts to become rusted tight. Successful repairs to this valve encompass a full overhaul of the valve bonnet assembly and lap work to the valve body seat.

ANTICIPATED RESPONSE:

Since major events are currently unfolding, it is anticipated that the crew, as well as ERO personnel, will divert their attention away from this item and focus on more pressing needs. For one thing, a successful CS System cross-connect using this lineup would result in containment spray flow fed through a 6-inch line, rather than the 10-inch design size. Reduced flow results in hampered depressurization and nothing is to be gained when a valve must be repaired, regardless of which one is chosen. Concentrating efforts on repairing SIA-UV-672 is advantageous to concentrating efforts on repairing the manual valve. Time frames to effect repairs are lower for SIA-UV-672 than they are for SI-V460. Design spray flow via its designed path is much preferred over this alternate method.

EQUIPMENT

Auxiliary Building
Elev. 70' - 0"



EQUIPMENT

SIA-UV-672

INITIAL CONDITION:

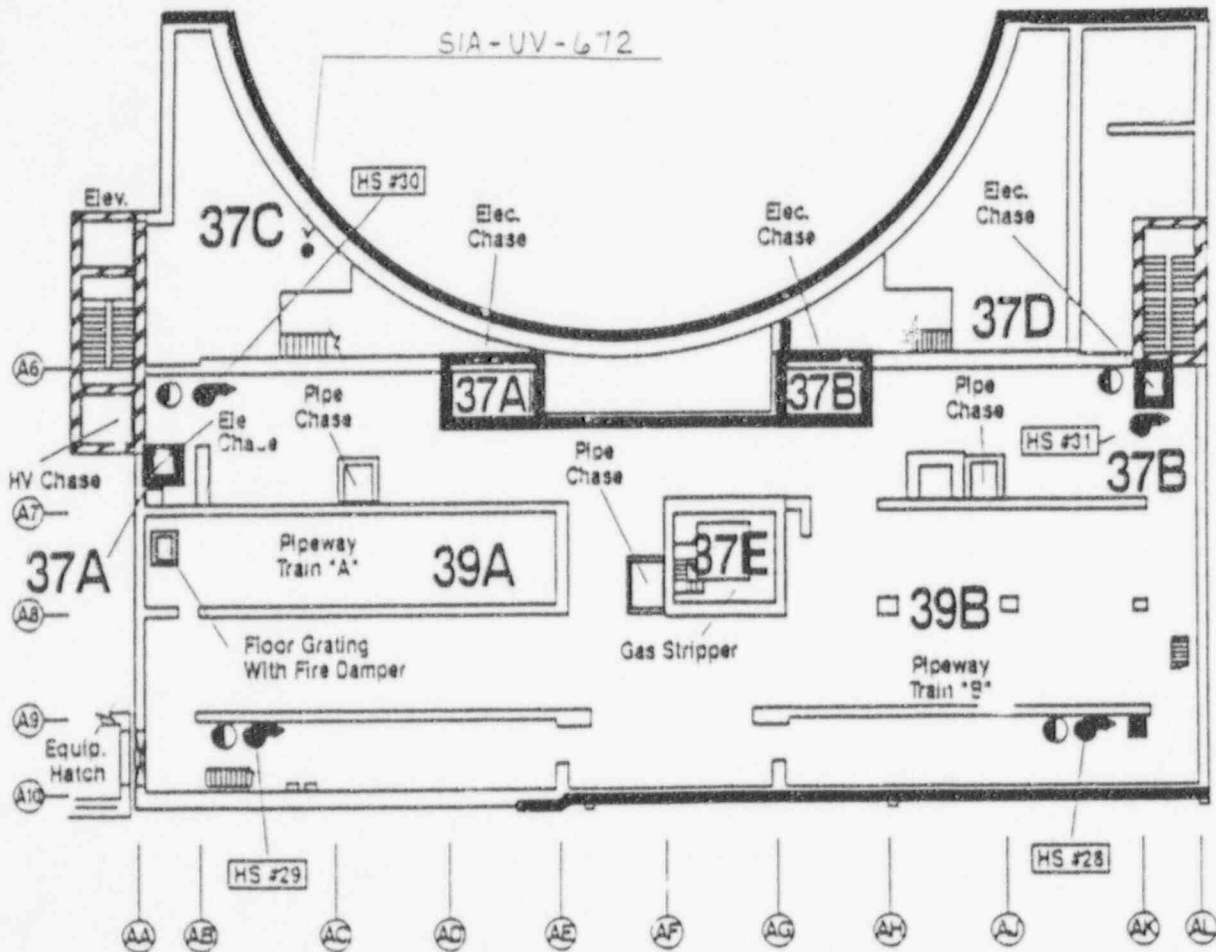
At the time of the LOCA, containment pressure rises rapidly and approaches the 8.5 psig threshold setpoint for automatic Containment Spray actuation. When the setpoint is reached, a Containment Spray Actuation Signal is generated and both trains of containment spray normally actuate. However, "B" Train equipment had lost power a while ago. "A" Train CS is now required, since it is the only train of containment spray remaining. Actuated equipment on "A" Train responds correctly, with the exception of SIA-UV-672, which remains closed. The Reactor Operator is directed to insert the key into the lock-switch and attempt to manually open the valve. When no valve response is indicated, an AO is dispatched through the OSC in an attempt to manually open the valve. Upon his arrival, and later substantiated by Maintenance, it is determined that the valve motor operator housing is dripping with oil and appears damaged.

ANTICIPATED RESPONSE:

Response to this event becomes the highest prioritized one of the scenario. Plant staff knows that opening this valve to allow containment spray is probably the only avenue of success for mitigating the radiological release to the environment in a timely manner. They know the success of repairing SI-V460 would yield containment spray, but at a much less flow rate greatly hindering the slow containment depressurization which would take place under ideal conditions with 1 intact train of containment spray. They also are very aware that an attempt to seal the containment penetration from outside the building under 30 pounds of pressure per square inch from within would be futile, at best. Since they quickly determine that repairs to SIA-UV-672 are top priority, all efforts to accomplish this are directed at resources required for the task.

EQUIPMENT

Auxiliary Building
Elev. 88' - 0"



EQUIPMENT

FUEL PIN

INITIAL CONDITION:

Radiation monitor readings in containment suddenly begin soaring during the slow containment pressure decrease. It soon becomes evident that a loss of fuel cladding integrity has occurred. RU-148 increases to levels beyond 1200 R/hr within a few minutes. Radioactive plume readings slowly increase as the total gas gap activity (i.e., 2168 Curies) from several fuel elements is released into the primary coolant, where it mixes with the containment atmosphere and is expelled to the environment out through the broken containment penetration. With a radioactive release to the environment in progress, the sudden release of activity into the containment atmosphere will eventually drive Site Boundary dose rates to levels approaching GE thresholds. Dose projections may produce results mandating changes to protective action recommendations made to the state.

ANTICIPATED RESPONSE:

Plant operators continue their task of depressurizing containment. Radiological Field Assessment Teams (RFAT) continue to monitor and sample the radioactive discharge plume. The State of AZ Radiological Emergency Assessment Teams (REAT) continue to assess conditions downwind of the plant. If Site Boundary dose rates exceed General Emergency thresholds, protective action decisions made by the state will change.