PALO VERDE

NUCLEAR GENERATING STATION

1999 EMERGENCY PREPAREDNESS EXERCISE

CONFIDENTIAL

ARIZONA PUBLIC SERVICE COMPANY
PROJECT MANAGER AND OPERATING AGENT

9903160090 990107
PDR ADOCK 05000528
F PDR

PALO VERDE

NUCLEAR GENERATING STATION

1999 EMERGENCY PREPAREDNESS EXERCISE

CONFIDENTIAL

ARIZONA PUBLIC SERVICE COMPANY
PROJECT MANAGER AND OPERATING AGENT

9903160090 990107
PDR ADOCK 05000528
F PDR

SECTION 3

PV GUIDE

This document is controlled by 84DP-0RM32 and is classified as CONFIDENTIAL

SECTION 3

PV GUIDE

1999 EMERGENCY PREPAREDNESS EXERCISE SCENARIO GUIDE

99-E-AEV-03003

SECTION 3 TABLE OF CONTENTS

I. **Timeline Summary** 3

II. **Simulator Preparation** 5
- A. *Logistics* 5
- B. *Equipment Red Danger Tags* 5
- C. *Special Procedures / Equipment* 5
- D. *Qualifications* 5
- E. *Miscellaneous* 6

III. **Simulator Setup** 7
- A. *Initial Conditions* 7
- B. *Special Instructions* 7
- C. *Functions* 7
- D. *Equipment Red Danger Tags* 8
- E. *Other Requirements* 8

IV. **Controller Information** 9
- A. *Simulator Contingencies* 9
- B. *Scenario Guide Organization* 9
- C. *Appendices* 10
- D. *Attachments* 10

V. **Briefing** 11
- A. *Simulator Rules* 11
- B. *Staff Positions* 13

VI. **Shift Turnover** 14
- A. *Plant / Site Conditions* 14
- B. *Miscellaneous* 14

Exercise Scenario 15

Appendix-A Generic Simulator Instructions

Scenario Attachments

I. TIMELINE SUMMARY

0130 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 225 Effective Full Power Days (reference Unit S Cycle 7 Core Data Book). The Unit is operating with the Condensate Demineralizer Bypass Valve CD-HV-195 open (i.e., no Condensate Demineralizers are in service). RCS Boron concentration is 687 ppm per Chemistry sample. Operations Management has requested that 100% power operation be maintained.

0200 Facility time synchronization / begin event timeline.

0215 The Control Room crew receives various control panel alarms and telephone calls regarding felt ground motion indicative of a moderately strong earthquake. The STA performs procedural actions to validate the alarm indications. The Devers 525KV line isolates due to ground faults in California. The EC may conservatively declare an **NUE** (EAL V-110) while waiting for OBE validation by the STA.

0245 The Shift Manager (SM) refers to Technical Specification TRM TLCO 3.3.103. Concurrently, he reviews EALs in accordance with 16DP-0EP13, Emergency Classification, and classifies the event as an **ALERT** based on EAL V-124, Confirmed earthquake > OBE levels per 79IS-9SM01 such that preliminary analysis indicates OBE validity. Offsite agencies are notified of the event within 15 minutes of emergency classification. Onsite and offsite emergency response organizations will be mobilized and emergency response facilities will be staffed and activated within the time frames specified in the PVNGS Emergency Plan (i.e., 1-2 hours during off-hour periods). Per management direction, operators commence a plant shutdown at 8% per hour in accordance with 40OP-9ZZ05, Power Operations, Section 7.0, Decreasing Power by Boration.

0445 Emergency response facilities are staffed and activated. Staffing schedules are completed and alternate teams are released and scheduled for relief.

0700 Personnel begin arriving at state facilities to receive shift turnover and assume ERO responsibilities and duties.

0735 The crew receives increasing RMS indication of a primary system leak in Containment. They perform 40AO-9ZZ02, Excessive RCS Leakrate, to quantify the leak. The Emergency Coordinator (EC) refers to Technical Specification ITS LCO 3.4.14. Concurrently, he reviews EALs in accordance with 16DP-0EP13, Emergency Classification, and determines the event requires an ALERT classification based on EAL V-10, RCS leak > 44 gpm. However, he determines no classification upgrade is necessary due to the current applicability of EAL V-124.

0745 The Control Room crew receives various control panel alarms and telephone calls regarding felt ground motion indicative of a moderately strong seismic aftershock. The crew responds to a gross increase in RCS leakage caused by the aftershock. A reactor trip occurs and the crew commences emergency boration due to 4 CEAs not fully inserting on the trip. During performance of Standard Post Trip Actions (SPTA), the crew recognizes various other abnormalities associated with the seismic event. Additionally, RCS activity levels begin increasing and reactor vessel plenum level lowers to 0%.

0800 The Emergency Coordinator (EC) reviews EALs in accordance with 16DP-0EP13, Emergency Classification, and classifies the event as an **SAE** (Site Area Emergency) based on potential loss of the Fuel Clad and loss of the RCS fission product barriers (EALs V-7 and V-10). Offsite agencies are notified of the event within 15 minutes of emergency classification. The notification also includes recommended protective actions (i.e., shelter within a 2-mile radius) for the state.

0830 As RWT (Refueling Water Tank) level reaches the RAS (Recirculation Actuation Signal) setpoint, a RAS is received. ECCS pump suctions are swapped and Containment sump water serves as a source of core cooling.

0910 The Control Room crew receives various control panel alarms and telephone calls regarding felt ground motion indicative of another moderately strong seismic aftershock. The crew responds to an apparent Turbine Cooling Water System (TC) header rupture resulting from the aftershock. The release of fission product gases into the RCS slowly begins increasing due to further seismic related clad damage. In addition, the event breaches Containment at a main feedwater line penetration envelope, resulting in commencement of a radiological release to the environment. Current meteorological conditions will transport the radioactive plume to the North.

0930 Due to elevated RCS activity and the breach of Containment, the Emergency Coordinator (EC) reviews EALs in accordance with 16DP-0EP13, Emergency Classification. S/he upgrades the current emergency classification to a **GE** (General Emergency) based on a loss of the RCS and Containment barriers and a potential loss of the Fuel Clad Barrier (EALs V-10, V-24 or V-18, and V-9). Offsite agencies are notified of the event within 15 minutes of emergency classification. Additionally, the notification includes recommended protective actions (i.e., evacuation in a 2-mile radius and 5 miles in potentially affected sectors) for the state. The EC instructs the Security Director to initiate procedural actions for a site evacuation.

1030 Efforts continue to mitigate the event and decrease Containment pressure to stop the offsite radiological release. Offsite agencies work to support the state's Protective Action Decisions that are based on the GE. Additionally, any long-term recovery efforts must include the determination and analyses of the amount of damage caused by the earthquake and the seismic aftershocks that followed. Due to radiological deposition associated with Iodine plume entrainment, government officials will expand their emergency response out to 50 miles from the source of the nuclear related incident. In addition, their response may include an expanded sector path due to the plume track.

- Offsite agencies are taking measures to protect the health and safety of the public within the 10-mile EPZ. Since the time of the RAS, RP personnel have 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 estimations to reduce Containment pressure to a value where the radiological release through the main feedwater line Containment penetration envelope can be secured. Further core cooling will reduce the amount of decay heat to a point where the effects of steam production would be negligible. Entry into Containment to subsequently repair the penetration envelope may not occur until weeks into the long-term recovery effort. The expanded government response will ensue following mitigation of the event and subsequent termination of the radiological release. It may take weeks by offsite authorities to fully complete their work associated with this event.

1130 Conclude event timeline.

II. SIMULATOR PREPARATION

A. LOGISTICS

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

B. EQUIPMENT RED DANGER TAGS

1. NONE

C. SPECIAL PROCEDURES / EQUIPMENT

1. Update Plant Status Board information

D. QUALIFICATIONS

1. Simulator operations require PVNGS qualifications in knowledge and operation of the PVNGS Simulators. All functions 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 participants be anticipated. It is imperative that the Simulator Operator(s) possess the capability to ensure that valid Simulator functions are identified and entered into the computer system in a correct and timely manner upon the request for their related effects. In addition, the Simulator Operator(s) should read ahead as the timeline progresses to ensure that functions contingent on actions, rather than prescribed times, are input as required. Appendix-A to this Emergency Preparedness Exercise Scenario, Generic Simulator Instructions, is located immediately following the core scenario and before the scenario attachments, if any. It contains commonly used Simulator instructions outlined in a generic format. The appendix should be used by the Simulator Operator as required.

E. MISCELLANEOUS

1. Ensure the Following:

   a. SGI operating system downloaded and uploaded (software clean-boot)
   b. Daily Operational Readiness Test (DORT) completed
   c. PMS computer and displays set up properly
   d. DEC PDP-11 minicomputer operational, if applicable
   e. RMS DCU program(s) running
   f. RMS loops reinitialized
   g. RMS printer ON
   h. CR / STSC ERFDADS operational
   i. ERFDADS printer(s) ON
   j. Dose projection computer operational
   k. Alarm and log typers ON
   l. Westronics recorders ON (B07)
   m. Chart paper advanced on all recorders
   n. Communications set up (telephone, headsets, radio, FAX)
   o. All procedures up-to-date and available
   p. Plant status boards updated
   q. Flowcharts cleaned and positioned correctly
   r. All required operator aids installed properly
   s. Paper pads and pens available
   t. CR / STSC Participant attendance sheet(s) available
   u. Simulator operations area acceptable
   v. STSC area acceptable
   w. All cameras functioning and directed properly, if applicable
   x. VCR and tape(s) ready, if applicable
   y. Software and Hardware Support personnel available for duration
   z. All trash cans clean

III. SIMULATOR SETUP

A. *INITIAL CONDITIONS*

1. IC-20 (100% Full Power - 225 EFPD - Condensate Demineralizer Bypass Valve CD-HV-195 open - 687 ppm B^{10})

B. *SPECIAL INSTRUCTIONS*

1. Engage INSTRUMENT NOISE ON
2. Engage real-time ERFDADS clock display capability

C. *FUNCTIONS*

1. [MALFUNCTIONS]

a.	EG04 34.67	(Main Generator AC Regulator Setpoint Failure AS-IS)
b.	RD03E	(CEA-86 Stuck)
c.	RD03H	(CEA-04 Stuck)
d.	RD03M	(CEA-07 Stuck)
e.	RD03N	(CEA-52 Stuck)
f.	RH01B	(CTMT Spray Pump B Ground Fault)
g.	SI01A	(HPSI Pump A Ground Fault)

2. [COMPONENT LEVEL FUNCTIONS]

   a. Malfunctions

      1) TR01:RCAPT103 750 (PZR Pressure Transmitter Output Failure HI)

   b. Overrides

      1) ZLEARTHQUAKESE OFF (AJSMN-C01 SSE Lamp OFF)

c. Remote Functions

1) EP05 116 (Wind Direction - source)
2) EP06 1.9 (Wind Speed - mph)
3) EP07 56 (Ambient Temperature - °F)
4) EP09 +1.1 (Δ Temperature - °F)

3. [ANNUNCIATORS]

a. NONE

4. [CAEP / TRIGGERS]

a. Ensure the Following Computer Aided Exercises (CAE) Used in this Scenario Exist:

1) CtmtRU01
2) seismic01
3) seismic02
4) seismic03
5) weather04

D. *EQUIPMENT RED DANGER TAGS*

1. NONE

E. *OTHER REQUIREMENTS*

1. NONE

IV. CONTROLLER INFORMATION

A. *SIMULATOR CONTINGENCIES*

1. The progress of the scenario depends on the capabilities of the personnel involved and on the dependability of the software and hardware associated with the Simulator. If the Simulator should fail during the course of the scenario, either the timeline may be adjusted after Simulator reinitialization or the remaining events induced from scenario hardcopy. All Controllers will be informed in either case.

B. *SCENARIO GUIDE ORGANIZATION*

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

a.	TIME:	Signifies real-time approximations with no applied adjustment
b.	SIM INSTRUCTIONS:	Simulator mnemonic input instructions
c.	MSG:	Message number correlated to Section 4
d.	CTL:	Controller designator
e.	TO:	Participant designator
f.	EVENT SEQUENCE:	Major events sequenced in chronological order
g.	NOTES:	Controller information and/or Simulator Operator instructions

2. Message identifiers used throughout this Scenario Guide (Section 3) are organized by type. ***Numeric***-identified messages are employed for normal occurrences within the 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, but may depend solely on events. ***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 and an additional predetermined amount of time has elapsed, the message should be delivered upon approval from the Exercise Lead Controller. This type of message is utilized to maintain the Exercise on its predetermined course and not on its predetermined timeline. Additionally, the Exercise Lead Controller should be kept informed [by Controllers] of all Participant activities associated with simulated remote actions that may cause Control Room panel response.

C. *APPENDICES*

1. Appendix-A Generic Simulator Instructions

   a. Appendix-A to the Emergency Preparedness Exercise Scenario, Generic Simulator Instructions, is located in this section immediately following the core scenario and before any scenario attachments. The appendix contains commonly used Simulator instructions outlined in a generic format, which are entered as they are requested. The appendix is designed to aid the Simulator Operator in entering the requested component manipulations without the need to expend the time and resources necessary to locate and identify the required instructions.

   b. The following is a brief composite of Appendix-A Generic Simulator Instructions column descriptions:

   1) TIME: This column is intentionally blank. It should be used by the Simulator Operator to enter the current time for the appropriate Function when activated. Since the appendix may become part of the Control Organization documentation, it is imperative that the Function activation time be recorded. Whether the Instruction Set is used for activation or the Alt Instruction (i.e., CAEP) is used, the time when the initial instruction is activated should be the time recorded. Do not record the time of request by the exercise Participant.

   2) FUNCTION: A narrative summary of the Simulator Function is described in this column. In addition, the specific equipment designators may be listed to help identify the exact components manipulated by the Function.

   3) INSTRUCTION SET: This column lists the group of individual Simulator instructions that are required to accurately allow the requested component manipulations to induce Simulator control panel response. They must be input as requested to allow the operators the response necessary to progress with procedure direction.

   4) ALT INSTRUCTION: If available, an entry will be annotated in this column as an alternative method of Simulator input. The alternate instruction listed contains the group of individual Simulator instructions noted in the ***Instruction Set*** Column. In most cases, the alternate instruction will incorporate the time lapses necessary between individual component manipulations to simulate a realistic functional sequence.

   5) NOTES: If pertinent information is available for the Simulator Function, it will be annotated in this column. In addition, the column may contain instructions required for the Simulator Operator to use when activating the appropriate set of instructions.

D. *ATTACHMENTS*

1. NONE

V. BRIEFING

A. *SIMULATOR RULES*

1. The USNRC plans to situate an examiner on the Simulator floor during the Emergency Preparedness Exercise whenever possible (based on available manpower). The NRC's main function during the Exercise is to ensure the operating crew can implement the Emergency Plan satisfactorily. However, they cannot ignore any problems they observe during the 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 Exercise:

   a. Teamwork / communications
   b. Command and control
   c. Diagnostic skills
   d. Procedure usage
   e. Systems knowledge
   f. Log-keeping

4. Logs should be maintained during the Exercise suitable for reconstruction of the events.

5. Designated support personnel will act as Auxiliary Operators, Radiation Protection and Chemistry Technicians, Maintenance Supervisors, Plant Management, etc.

6. An Exercise Controller will provide a shift turnover briefing before the Exercise begins. The briefing 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 intentionally 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. The following items pertain to Exercise logistics:

   a) This Exercise includes full activation of all onsite and offsite emergency response facilities. All procedural actions should take place unless otherwise directed beforehand.

   b) The Simulator telephone system has been reconfigured such that outgoing calls placed from the Simulator floor will reach the prescribed areas as specified in 16TD-0EP201, Telecommunications. Simulator crew members should disregard the red LED display on the telephones equipped to display incoming numbers, as they may not always display the correct number. The telephone numbers to dial from outside areas to reach Simulator-A operators are 7200-7206, as listed on Page 24 of 16TD-0EP201, Telecommunications, Section 4.0.

   c) If and when a site-wide page must be made regarding event classification, please speak slowly and clearly into the microphone to limit echo in outside areas. If Assembly / Accountability or site evacuation is directed, do not make any announcements or sound any signals, as this will be simulated. Be aware, however, that performance of other procedural actions related to Assembly / Accountability and/or site evacuation may be required. In addition, the site-wide Exercise termination announcement should be made from the Simulator before the telephone and paging systems are reconfigured to their prior status.

   d) 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.

   e) With the exception of RFAT communications, all participant radio communications should occur via the ***EPLAN*** TalkGroup. RFAT radio communications should occur via the ***RFAT*** TalkGroup. Do not leave any deskset in the "SCAN" Mode of operation.

   f) Upon conclusion of shift turnover, the crew's Auxiliary Operators will be given time to proceed to the AO staging area in the Unit 1 Operations Support Building. The OSC Controllers will accompany them. Furthermore, each AO will receive a radio to allow them normal communications means with Simulator-A Control Room staff. When portions of Unit specific procedures must be referenced by AOs in the field, Unit 1 procedures should be used. If required, copies of Unit 1 procedural material may be made from the library manuals in the Unit.

   NOTE: *Ensure copies of Message-1 are distributed throughout all facilities.*

10. If any questions concerning the administration of the Exercise exist, please ask them prior to starting.

B. STAFF POSITIONS

1. The crew will assume positions as determined by an Exercise Controller and/or crew supervision:

   a. **SM** Shift Manager
   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.

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 225 Effective Full Power Days (reference Unit S Cycle n Core Data Book).
3. The Unit is operating with the Condensate Demineralizer Bypass Valve CD-HV-195 open (i.e., no Condensate Demineralizers are in service).
4. RCS Boron concentration is 687 ppm per Chemistry sample.
5. Operations Management has requested that 100% power operation be maintained.

B. *MISCELLANEOUS*

1. 20-30 minutes will be allowed for familiarization with the status and condition of the control boards. Additionally, it allows time for the Auxiliary Operators to arrive at the AO staging area in the Unit 1 Operations Support Building and assume their watch duties as part of the Exercise. Initial log entries may have already been prepared or the crew may make the initial log entries for this shift.

NOTE: ***The Exercise timeline begins when the crew assumes duties at 0200.***
The Exercise Lead Controller will establish time synchronization with all Controllers.

TIME	SIM INSTRUCTIONS	MSG	CTL	TO	EVENT SEQUENCE	NOTES
0130	*** SHIFT TURNOVER ***	1	FAC LEAD	FAC	The crew is informed of the Plant / Site Conditions as referenced in Section VI.A previous. Simulator rules and configuration aspects are covered and questions are answered.	After shift turnover, 20-30 minutes will be allowed for familiarization with the status and condition of the control boards. Additionally, it allows time for the Auxiliary Operators to arrive at the AO staging area in the Unit 1 Operations Support Building and assume their watch duties. The Exercise Timeline will begin at 0200.
0145					As emergency response facilities become activated and manned during the course of the Exercise, generic participant information and shift turnover conditions will be conveyed to all participants per Message-1.	The Shift Manager (SM) should review plant conditions, brief the crew, and have the operators walk down their respective areas of responsibility. The operators may, at this time, make the initial log entries for their shift and review the plant status boards. Refer to Section 9 for data associated with failed components and malfunctioning equipment. All Controllers should ensure that participants are acquainted with generic participant information and the initial Scenario Plant / Site Conditions.
0200	********** *** BEGIN SCENARIO TIMELINE *** **********	*** *** ***	*** *** ***	*** *** ***	********** *** BEGIN SCENARIO TIMELINE *** **********	********** *** BEGIN SCENARIO TIMELINE *** **********
	NOTE ALL TIMES SPECIFIED IN COLUMN 1 ARE APPROXIMATE					NOTE THIS SCENARIO INCORPORATES A GENERIC SIMULATOR INSTRUCTIONS APPENDIX

TIME	SIM INSTRUCTIONS	MSG	CTL	TO	EVENT SEQUENCE	NOTES
0200	**ENSURE SIMULATOR SETUP**					Verify all Simulator setup requirements.
0200	**[CAE] weather04** See **"NOTES"** Column for Instructions	A 2 3 4 5	C-1b or C-2	SM or EC	The Control Room crew assumes shift watch duties and responsibilities.	**NOTE:** TSC / EOF Controllers should verify appropriate ERFDADS response from Simulator-A in their respective facilities and then return ERFDADS monitoring capabilities to the as-found condition. In addition, the Exercise Lead Controller will synchronize the timeline with Facility Lead Controllers to that of the Simulator-A Control Room clock. Controllers C-1b and C-2 should review the prescribed messages at this time. CAE "weather04" contains meteorological data for the entire scenario and must be started precisely at 0200.
0215	**[CAE] seismic01** **[MAN ACTION] AJSMN-C01 TEST** See **"NOTES"** Column for Instructions	6 7 8 9	C-1b C-3e C-3g C-8	CREW AO AO C.R. Phone	The Control Room crew receives various control panel alarms and telephone calls regarding felt ground motion indicative of a moderately strong earthquake. Though most alarms are minor in nature, the operators will notice and take procedural action for Annunciator ANW7C14A, Seismic Occurrence. The annunciator response procedure will direct the STA to perform 79IS-9SM01, Analysis of Seismic Event. Approximately 15 minutes will be required for the STA to validate the alarm. Additionally, the Devers 525KV line isolates due to electrical ground faults generated in California. The SM will subsequently associate the validated OBE seismic event to EAL V-124. However, s/he may conservatively declare an NUE (EAL V-110) while waiting for OBE validation by the STA.	**NOTE:** 1) Without being observed, situate a Controller at Seismic Warning Panel AJSMN-C01 (behind Control Panel B05) and establish communications with the Controller. 2) At the time specified (i.e., 0215), simultaneously direct the Controller to press the "TEST" pushbutton on Panel AJSMN-C01 and activate the CAE. 3) Clear the various control board annunciation Overrides as time permits. Controllers C-3e, C-3g, and C-8 must receive approval from the Exercise Lead Controller prior to delivery of Messages-7, -8, and -9. Message-6 delivered to the crew details sensory input regarding felt building motion associated with the seismic event. The instructions (above) will ensure the occurrence of realistic symptoms associated with a seismic event.

This document is controlled by 84DP-0RM32 and is classified as CONFIDENTIAL

TIME	SIM INSTRUCTIONS	MSG	CTL	TO	EVENT SEQUENCE	NOTES
0216	See "NOTES" Column for Instructions	B	C-1b	SM or Site M		NOTE: If ECC personnel are contacted or when enough time has elapsed as determined by the Exercise Lead Controller, the Simulator Operator (as ECC supervision) should direct an 8% per hour Palo Verde load reduction to ensure that generation capabilities and grid stability are maintained. The delivery of Message-B is contingent upon decisions regarding plant power reduction and should only be delivered in the event a decision is made to reduce plant load at a rate different than 8% per hour.
0217		10	C-1b	STA	An operator refers to Annunciator Response Procedure 41AL-1RK7C for instruction and directs the STA to perform 79IS-9SM01, Analysis of Seismic Event, which, in turn, will direct the STA to establish preliminary validation of the seismic occurrence.	Preliminary validation of the seismic event should take the STA approximately 15 minutes. Message-10 provides Panel AJSMN-C01 support information and is delivered to the STA when earned.
0245					The SM refers to Technical Specification TRM TLCO 3.3.103. Concurrently, he reviews EALs and classifies the event as an **ALERT** based on EAL V-124, Confirmed earthquake > OBE levels per 79IS-9SM01 such that preliminary analysis indicates OBE validity. If not already aware, the Site Manager is notified of the event. In addition, contact is made with the Energy Control Center (ECC) regarding the event. Due to procedural options and/or ECC direction, the Site Manager recommends an 8% per hour plant power reduction.	The SM may request to be relieved of EC duties upon arrival of the Site Manager. A discussion may ensue between plant management staff members regarding the rate at which the plant should be taken off-line. If a decision is made that differs from an 8% per hour rate, the Controller will intervene with Message-B, which specifies justification for a moderate and stable plant power reduction as directed by ECC supervision (or Site Manager if present). The message directs Controller intervention in a manner consistent with expected dialogue.
0250		C	C-1b	SM or EC		Message-C is to be delivered in the event of an erroneous classification or of a failure to classify.

This document is controlled by 84DP-0RM32 and is classified as CONFIDENTIAL

TIME	SIM INSTRUCTIONS	MSG	CTL	TO	EVENT SEQUENCE	NOTES
0300	*{Time Block Continues Below}*				Offsite agencies are notified of the ALERT Classification via the NAN by the STSC Communicator. Utility Onshift Emergency Response Organization personnel are notified of the emergency via group pagers and the Autodialer.	Onsite and Offsite emergency response organizations will be mobilized upon notification. Emergency response facilities will subsequently be staffed and activated within the time frames specified in the PVNGS Emergency Plan (i.e., 1-2 hours during off-hour periods).
0300	[OVRRD] ZLEARTHQUAKESE *{Delete}* See **"NOTES"** Column for Instructions				Per management direction, operators commence a plant shutdown at 8% per hour in accordance with 40OP-9ZZ05, Power Operations, Section 7.0, Decreasing Power by Boration. Due to an AC Regulator setpoint failure, an operator switches generator excitation to the DC Mode of operation per 40OP-9MB01, Main Generation and Excitation, Appendix G, Guidelines for AC to DC and DC to AC Voltage Regulation Transfer.	**NOTE:** To restore dynamic functionality to the SSE LED on Panel AJSMN-C01, delete the Override when panel alarms and LEDs have been reset by the operator. The Simulator Operator should contact the crew (about once every hour during load reduction) as an ECC supervisor and request them to adjust megavars (i.e., "buck 40"). An operator will calculate the Boron addition rate for and Xenon effects of the power reduction. During the plant downpower, the SO will detect the AC Regulator setpoint failure and switch generator excitation to the DC Mode of operation. Meanwhile, resolution will continue of other seismic related problems.
0430					Operators continue the plant shutdown in accordance with approved procedures. Meanwhile, response personnel begin arriving on site to assume their emergency duties.	As emergency response facilities become activated, responsibilities for the emergency are transferred to Onsite and Offsite Emergency Response Organization personnel.
0700					Personnel begin arriving at state facilities to receive shift turnover and assume ERO responsibilities and duties.	Shift turnover activities by State of Arizona personnel are anticipated to consume about ½ hour of time. Offsite Controllers should ensure that Objective IV.C.30 is appropriately evaluated for their areas.

This document is controlled by 84DP-0RM32 and is classified as CONFIDENTIAL

TIME	SIM INSTRUCTIONS	MSG	CTL	TO	EVENT SEQUENCE	NOTES
0735	**[MALF] TH03B 0.005** (LOCA - Hot Leg - Loop 2) See **"NOTES"** Column for Instructions				The crew receives increasing RMS indication of a primary system leak in Containment. Subsequently, an operator is directed to perform an RCS leak rate determination in accordance with 40AO-9ZZ02, Excessive RCS Leakrate. RP personnel are notified and the leak is evaluated for impact on plant operations.	**NOTE:** Insert the prescribed Malfunction without a ramp time to induce an instantaneous 50-gpm RCS leak.
0740		D	C-2	EC	The EC refers to Technical Specification ITS LCO 3.4.14. Concurrently, s/he reviews EALs and determines the event requires an **ALERT** classification based on EAL V-10, RCS leak > 44 gpm. However, the EC determines no classification upgrade is necessary due to the current applicability of EAL V-124.	Message-D is to be delivered in the event of an erroneous classification upgrade. Since emergency response facilities have been activated by this time, the EC may provide an information call to offsite agency personnel regarding the RCS leak. (Reactor power ~63%)

This document is controlled by 84DP-0RM32 and is classified as CONFIDENTIAL

TIME	SIM INSTRUCTIONS	MSG	CTL	TO	EVENT SEQUENCE	NOTES
0745	[CAE] seismic02 [MAN ACTION] AJSMN-C01 TEST See "NOTES" Column for Instructions	11 12 13 14 15	C-1b C-1b C-3e C-3g C-8	CREW SO or RO AO AO C.R. Phone	The Control Room crew receives various control panel alarms and telephone calls regarding felt ground motion indicative of a moderately strong seismic aftershock. Though most alarms are minor in nature, the operators will notice the Seismic Occurrence and Loose Parts Vibration Monitoring System Trouble alarms. The crew responds to the gross increase in RCS leakage caused by the seismic aftershock. A reactor trip occurs and the crew enters emergency operations. The Primary Operator commences emergency boration due to 4 CEAs not fully inserting on the reactor trip. During performance of Standard Post-Trip Actions (SPTA), operators notice PZR pressure transmitter PT-103 failed HI and evaluate the failure for impact on ESFAS functions. In addition, RCS activity levels slowly begin increasing due to loose parts impact upon the fuel clad. As plant LOCA conditions subsequently degrade, the crew becomes aware of other seismic related problems. HPSI Pump "A" and Containment Spray Pump "B" fail to start as expected, leaving only 1 train in each system functional.	NOTE: 1) Without being observed, place a *"← FLASHING"* sign inside the Loose Parts Vibration Monitoring System Cabinet denoting Loose Parts Lower Vessel - CH3 (X) LED as system first-out flashing LED and close cabinet door upon completion. 2) Without being observed, situate a Controller at Seismic Warning Panel AJSMN-C01 (behind Control Panel B05) and establish communications with the Controller. 3) At the time specified (i.e., 0745), simultaneously direct the Controller to press the "TEST" pushbutton on Panel AJSMN-C01 and activate the CAE. 4) Clear the various control board annunciation Overrides as time permits. Controllers C-3e, C-3g, and C-8 must receive approval from the Exercise Lead Controller prior to delivery of Messages-13, -14, and -15. Messages-11 and -12 delivered to the crew details sensory input regarding felt building motion associated with the seismic event and the visual / audio response noted at the LPVMS Cabinet, respectively. The instructions (above) will ensure the occurrence of realistic symptoms associated with a major seismic aftershock (i.e., >SSE). The reactor trip will occur automatically in less than 1 minute following the LOCA or a manual trip will be directed by the CRS. Plenum voiding will occur for several minutes, but will eventually recover. With PT-103 failed HI, "A" Train LPSI suction valves (SIA-UV-651 and SIA-UV-655) from the RCS loop are prevented from opening. In addition, the associated Low Temperature / Over-Pressure (LTOP) valve will remain isolated from the RCS.

This document is controlled by 84DP-0RM32 and is classified as CONFIDENTIAL

TIME	SIM INSTRUCTIONS	MSG	CTL	TO	EVENT SEQUENCE	NOTES
0747		16	C-1b	STA	An operator refers to Annunciator Response Procedure 41AL-1RK7C for instruction and directs the STA to perform 79IS-9SM01, Analysis of Seismic Event, which, in turn, will direct the STA to establish preliminary validation of the seismic occurrence.	Preliminary validation of the seismic event should take the STA approximately 15 minutes. Message-16 provides Panel AJSMN-C01 support information and is delivered to the STA when earned.
0748	**[MALF] TH03B 50->100=60 sec** (LOCA - Hot Leg - Loop 2)				LOCA conditions degrade further as a full RCS Hot Leg rupture occurs. Operators maintain safety functions and try to stabilize the plant per emergency operating procedures.	Recovery from the "RVLMS level < 21% plenum" EAL (V-7) is impacted as RCS damage from the seismic aftershock is realized.
0800					The EC reviews EALs in accordance with 16DP-0EP13, Emergency Classification, and upgrades the current emergency classification to an **SAE** based on potential loss of the Fuel Clad and loss of the RCS fission product barriers (EALs V-7 and V-10). As an alternative for a seismic event > SSE levels, the EC may declare the **SAE** based on EAL V-140, Other conditions exist which, in the judgment of the SS/EC, indicate actual or likely major failure of plant functions needed for protection of the public.	If not performed earlier, the EC will request Assembly / Accountability for site personnel. Since this item is simulated (see Item IV.A.9.c for details), the Controller should record the time and discuss A/A in the facility critique following the Exercise. The Controller should not allow participants to transmit the A/A signal, but should ensure that other procedure directed actions are accomplished. Although no radiological release is occurring at this time, the EC may elect to evacuate the Water Reclamation Facility and surrounding area due to the potential radiological impact based on current meteorological conditions.
0805		E	C-2	EC		Message-E is to be delivered in the event of an erroneous classification or of a failure to classify.

This document is controlled by 84DP-0RM32 and is classified as CONFIDENTIAL

TIME	SIM INSTRUCTIONS	MSG	CTL	TO	EVENT SEQUENCE	NOTES
0815					Offsite agencies are notified of the SAE Classification via the NAN by the Government Liaison in the EOF. The notification will also include recommended protective actions for the state.	The minimum Protective Action Recommendation (PAR) transmitted to state personnel should be "Shelter within a 2-mile radius." However, as is customary, State of Arizona emergency response personnel conservatively evacuate the public in affected sectors for a discrete distance upon receipt of Protective Action Recommendations issued with a utility SAE classification level.
0830	**[MALF] TR01:SQNRU9 7.90E-06** (RU-09 RMS Response) See **"NOTES"** Column for Instructions				As Refueling Water Tank (RWT) level reaches the Recirculation Actuation Signal (RAS) setpoint, a RAS is received. Following automatic actions associated with the RAS, operators must take additional manual actions to isolate RWT suction and realign ECCS pump suction to the Containment sump.	**NOTE:** Activate the Simulator Function only after RAS has occurred and the SDC pump(s) has (have) been restarted. This action may not occur at the specified time and is dependent on varying ECCS pump flows since RWT pump-down had commenced. Recirculation Actuation Signal (RAS) setpoint is 2 of 4 level transmitters ≥6.9% and ≤7.9% of RWT level instrumentation span. Though the Containment Spray System nozzle header had been damaged from the seismic events, Containment pressure has been subsequently reduced to < 10 psig over the last 45 minutes. However, pressure may begin to slowly increase during ECCS pump suction transfer operations. Furthermore, the hotter Containment sump water inventory used as a new suction source coupled with the damaged Containment Spray nozzle header may hinder any further Containment pressure decrease. After a RAS has occurred, radiation levels in certain areas of the Auxiliary Building and Penetration Room(s) may increase due to Containment sump volume supplying ECCS pump suction. The water is cooled and pumped back into the RCS.

This document is controlled by 84DP-0RM32 and is classified as CONFIDENTIAL

TIME	SIM INSTRUCTIONS	MSG	CTL	TO	EVENT SEQUENCE	NOTES
0910	[CAE] seismic03 [MAN ACTION] AJSMN-C01 TEST See "NOTES" Column for Instructions	17 18 19 20	C-1b C-3e C-3g C-8	CREW AO AO C.R. Phone	The Control Room crew receives various control panel alarms and telephone calls regarding felt ground motion indicative of another moderately strong seismic aftershock. Though most alarms are minor in nature, the operators again notice the Seismic Occurrence alarm. The crew also responds to an apparent Turbine Cooling Water System (TC) header rupture resulting from the seismic aftershock. The release of fission product gases into the RCS slowly begins increasing due to further seismic related clad damage. In addition, the event breaches Containment at a main feedwater line penetration envelope, resulting in commencement of a radiological release to the environment.	NOTE: 1) Without being observed, situate a Controller at Seismic Warning Panel AJSMN-C01 (behind Control Panel B05) and establish communications with the Controller. 2) At the time specified (i.e., 0910), simultaneously direct the Controller to press the "TEST" pushbutton on Panel AJSMN-C01 and activate the CAE. 3) Clear the various control board annunciation Overrides as time permits. Controllers C-3e, C-3g, and C-8 must receive approval from the Exercise Lead Controller prior to delivery of Messages-18, -19, and -20. Message-17 delivered to the crew details sensory input regarding felt building motion associated with the seismic event. The instructions (above) will ensure the occurrence of realistic symptoms associated with another major seismic aftershock (i.e., >SSE). The second major seismic aftershock results in increased RCS activity, as well as a Turbine Cooling Water System (TC) header rupture downstream of the pump discharge valves on the combined discharge header. Various secondary plant components are affected. In addition, a radiological release to the environment begins due to the breach of Containment. Current meteorological conditions will transport the radioactive plume to the North.

This document is controlled by 84DP-0RM32 and is classified as CONFIDENTIAL

TIME	SIM INSTRUCTIONS	MSG	CTL	TO	EVENT SEQUENCE	NOTES
0912		21	C-1b	STA	An operator refers to Annunciator Response Procedure 41AL-1RK7C for instruction and directs the STA to perform 79IS-9SM01, Analysis of Seismic Event, which, in turn, will direct the STA to establish preliminary validation of the seismic occurrence.	Preliminary validation of the seismic event should take the STA approximately 15 minutes. Message-21 provides Panel AJSMN-C01 support information and is delivered to the STA when earned.
0915		22	C-8b	C.R. Phone	The crew receives a call regarding a Security Officer reporting steam exiting the roof of the Unit 1 Main Steam Support Structure (MSSS Building).	Message-22 details a visual description of the report as seen from Security Headquarters. The crew may dispatch an Auxiliary Operator and/or Radiation Protection personnel to investigate and pinpoint the origin of the release.
0930		F	C-40	Sec Coord	Due to elevated RCS activity and the breach of Containment, the EC reviews EALs in accordance with 16DP-0EP13, Emergency Classification. S/he upgrades the current emergency classification to a GE based on a loss of the RCS and Containment barriers and a potential loss of the Fuel Clad Barrier (EALs V-10, V-24 or V-18, and V-9). Following the GE Classification, the EC instructs the Security Director to initiate procedural actions for a site evacuation.	A site evacuation is mandatory at the GE classification level and will be directed by the EC. Since this item is simulated (see Item IV.A.9.c for details), the Controller should record the time and discuss site evacuation in the facility critique following the Exercise. The Controller should not allow participants to transmit the site evacuation signal, but should ensure that other procedure directed actions are accomplished. Message-F is to be delivered to the Security Coordinator (EOF) in the event of a failure to request assistance from offsite law enforcement agencies (MCSO) per procedure following the site evacuation directive.
0935		G	C-2	EC		Message-G is to be delivered in the event of an erroneous classification or of a failure to upgrade.

This document is controlled by 84DP-0RM32 and is classified as CONFIDENTIAL

TIME	SIM INSTRUCTIONS	MSG	CTL	TO	EVENT SEQUENCE	NOTES
0945					Offsite agencies are notified of the GE Classification via the NAN by the Government Liaison in the EOF. The notification will also include recommended protective actions for the state.	State personnel may have not yet directed an evacuation of affected sectors. However, the Protective Action Recommendation associated with the GE issued by the utility will recommend evacuation in a 2-mile radius and 5 miles in potentially affected sectors. State personnel will base their Protective Action Decision (PAD) on the utility recommendation.
1030					Efforts continue to mitigate the event and decrease Containment pressure to stop the offsite radiological release. Offsite agencies work to support the state's Protective Action Decisions that are based on the GE. Additionally, any long-term recovery efforts must include the determination and analyses of the amount of damage caused by the earthquake and the seismic aftershocks that followed Due to radiological deposition associated with Iodine plume entrainment, offsite agencies and government officials will expand their emergency response out to 50 miles from the source of the nuclear related incident. In addition, their response may include an expanded sector path due to the plume track.	Offsite agencies are taking measures to protect the health and safety of the public within the 10-mile EPZ. Since the time of the RAS, RP personnel have 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 estimations to reduce Containment pressure to a value where the radiological release through the main feedwater line Containment penetration envelope can be secured. Further core cooling will reduce the amount of decay heat to a point where the effects of steam production would be negligible. Entry into Containment to subsequently repair the penetration envelope may not occur until weeks into the long-term recovery effort. The expanded government response will ensue following mitigation of the event and subsequent termination of the radiological release. It may take weeks by offsite authorities to fully complete their work associated with this event.
1130	********** ***** CONCLUDE TIMELINE ***** **********	*** *** ***	*** *** ***	*** *** ***	********** ***** CONCLUDE TIMELINE ***** **********	********** ***** CONCLUDE TIMELINE ***** **********

This document is controlled by 84DP-0RM32 and is classified as CONFIDENTIAL

The current time should be inserted into the *"TIME"* Column for the appropriate Function when activated, as this appendix may become part of the Control Organization documentation. Each generic Instruction Set should be input and activated only as requested, as the Functions may not occur at prescribed times and are dependent upon the pace in procedure usage by the participants. To simulate realism, ensure an appropriate time elapses between the activation of each instruction in an Instruction Set.

TIME	FUNCTION	INSTRUCTION SET	ALT INSTRUCTION	NOTES
	Align Auxiliary Steam Supply from Units 2 and 3	[REM FNC] MS03 100		When using the Instruction Set, allow an appropriate time to elapse before the simulated alignment occurs.
	Cross-tie Auxiliary Steam from another Unit in the following order: • • • • •	[REM FNC] MS25 100 [REM FNC] MS24 ON [MALF] AV02:ASNPV5A [MALF] AV02:ASNPV5B [MALF] AV02:ASNPV[illegible]		When using the Instruction Set, allow 2 minutes to elapse between each subsequent valve manipulation.
	Align S/G 1 HI Rate Blowdown to the condenser in the following order: • SCN-V088 (outlet) • SCN-V071 (outlet)	[REM FNC] WD30 OPEN [REM FNC] WD29 OPEN		When using the Instruction Set, allow 1 - 2 minutes to elapse between each valve manipulation.
	Align S/G 2 HI Rate Blowdown to the condenser in the following order: • SCN-V103 (outlet) • SCN-V073 (outlet)	[REM FNC] WD33 OPEN [REM FNC] WD32 OPEN		When using the Instruction Set, allow 1 - 2 minutes to elapse between each valve manipulation.
	Unisolate S/G 1 Abnormal Rate Blowdown	[REM FNC] WD21 OPEN		When using the Instruction Set, allow an appropriate time to elapse before the simulated alignment occurs.
	Unisolate S/G 2 Abnormal Rate Blowdown	[REM FNC] WD35 OPEN		When using the Instruction Set, allow an appropriate time to elapse before the simulated alignment occurs.

The current time should be inserted into the *"TIME"* Column for the appropriate Function when activated, as this appendix may become part of the Control Organization documentation. Each generic Instruction Set should be input and activated only as requested, as the Functions may not occur at prescribed times and are dependent upon the pace in procedure usage by the participants. To simulate realism, ensure an appropriate time elapses between the activation of each instruction in an Instruction Set.

TIME	FUNCTION	INSTRUCTION SET	ALT INSTRUCTION	NOTES
	Isolate [all] blowdown to the condenser	[REM FNC] WD29 CLOSE [REM FNC] WD30 CLOSE [REM FNC] WD28 CLOSE [REM FNC] WD33 CLOSE [REM FNC] WD31 CLOSE [REM FNC] WD32 CLOSE	[CAE] append03	When using the Instruction Set, allow ½ - 1 minute to elapse between each subsequent valve manipulation. The Alternate Instruction automatically incorporates time lapses between valve manipulations. It is designed to simulate a realistic functional sequence.
	Open MSIV Bypass Valve SGE-UV-169	[OVRRD] ZLSGAHS169A[GREEN] OFF [OVRRD] ZLSGAHS169A[RED] OFF [OVRRD] ZLSGAHS169B[GREEN] OFF [OVRRD] ZLSGAHS169B[RED] OFF [REM FNC] MS52A CLOSE [REM FNC] MS52B 100	[CAE] attach43a-1	When using the Instruction Set, allow 1 minute to elapse between each subsequent manipulation. The Alternate Instruction automatically incorporates time lapses between manipulations. It is designed to simulate a realistic functional sequence.
	Open MSIV Bypass Valve SGE-UV-183	[OVRRD] ZLSGAHS183A[GREEN] OFF [OVRRD] ZLSGAHS183A[RED] OFF [OVRRD] ZLSGAHS183B[GREEN] OFF [OVRRD] ZLSGAHS183B[RED] OFF [REM FNC] MS53A CLOSE [REM FNC] MS53B 100	[CAE] attach43a-2	When using the Instruction Set, allow 1 minute to elapse between each subsequent manipulation. The Alternate Instruction automatically incorporates time lapses between manipulations. It is designed to simulate a realistic functional sequence.
	Adjust Main Feedwater Pump "A" Lube Oil Temperature Controller to 90°F.	[REM FNC] TP17 90		When using the Instruction Set, allow an appropriate time to elapse before the simulated adjustment occurs.
	Adjust Main Feedwater Pump "B" Lube Oil Temperature Controller to 90°F.	[REM FNC] TP18 90		When using the Instruction Set, allow an appropriate time to elapse before the simulated adjustment occurs.

The current time should be inserted into the *"TIME"* Column for the appropriate Function when activated, as this appendix may become part of the Control Organization documentation. Each generic instruction Set should be input and activated only as requested, as the Functions may not occur at prescribed times and are dependent upon the pace in procedure usage by the participants. To simulate realism, ensure an appropriate time elapses between the activation of each instruction in an instruction Set.

TIME	FUNCTION	INSTRUCTION SET	ALT INSTRUCTION	NOTES
	Align NC to EW Train "A"	[REM FNC] CC28 CLOSE [REM FNC] CC29 CLOSE	[CAE] attach243a	When using the Instruction Set, allow 2 minutes to elapse between each valve manipulation. The Alternate Instruction automatically incorporates the time lapse between valve manipulations. It is designed to simulate a realistic functional sequence.

The current time should be inserted into the *"TIME"* Column for the appropriate Function when activated, as this appendix may become part of the Control Organization documentation. Each generic Instruction Set should be input and activated only as requested, as the Functions may not occur at prescribed times and are dependent upon the pace in procedure usage by the participants. To simulate realism, ensure an appropriate time elapses between the activation of each instruction in an Instruction Set.

TIME	FUNCTION	INSTRUCTION SET	ALT INSTRUCTION	NOTES
	Close breakers to power up the SIT isolation valves	[REM FNC] B401:SIBUV614 CLOSE [REM FNC] B401:SIBUV624 CLOSE [REM FNC] B401:SIAUV634 CLOSE [REM FNC] B401:SIAUV644 CLOSE OR [REM FNC] SI14 CLOSE [REM FNC] SI15 CLOSE [REM FNC] SI16 CLOSE [REM FNC] SI17 CLOSE	[CAE] append25	When using the Instruction Set, allow 1 - 2 minutes to elapse between each subsequent breaker closure. The Alternate Instruction automatically incorporates time lapses between breaker closures. It is designed to simulate a realistic functional sequence.
	Reset "A" H_2 Monitor "Common TRBL" Alarm.	[REM FNC] CH05 ACKNOWLEDGE		When using the Instruction Set, allow an appropriate time to elapse before the simulated arrival at "A" H_2 Monitor Control Panel.
	Reset "B" H_2 Monitor "Common TRBL" Alarm.	[REM FNC] CH06 ACKNOWLEDGE		When using the Instruction Set, allow an appropriate time to elapse before the simulated arrival at "B" H_2 Monitor Control Panel.
	Reset miscellaneous plant alarms	[REM FNC] ED164 RESET		When using the Instruction Set, allow an appropriate time to elapse before resetting all plant alarms.
	Emergency Stop Diesel Generator "A"	[REM FNC] EG12 STOP		When using the Instruction Set, allow an appropriate time to elapse before the activity occurs.
	Emergency Stop Diesel Generator "B"	[REM FNC] EG21 STOP		When using the Instruction Set, allow an appropriate time to elapse before the activity occurs.

The current time should be inserted into the *"TIME"* Column for the appropriate Function when activated, as this appendix may become part of the Control Organization documentation. Each generic Instruction Set should be input and activated only as requested, as the Functions may not occur at prescribed times and are dependent upon the pace in procedure usage by the participants. To simulate realism, ensure an appropriate time elapses between the activation of each instruction in an Instruction Set.

TIME	FUNCTION	INSTRUCTION SET	ALT INSTRUCTION	NOTES
	Re-energize non-Class load-shed Motor Control Centers and Essential Lighting Panels in the following order: • M19 • M71 • QBN-D91 • M20 • M72 • QBN-D90	[REM FNC] ED72 OVERRIDE_CLS [REM FNC] ED74 OVERRIDE_CLS [REM FNC] ED76 OVERRIDE_CLS [REM FNC] ED73 OVERRIDE_CLS [REM FNC] ED75 OVERRIDE_CLS [REM FNC] ED77 OVERRIDE_CLS	[CAE] mccon	When using the Instruction Set, allow ½ - 1 minute to elapse between each subsequent breaker closure. The Alternate Instruction automatically incorporates time lapses between breaker closures. It is designed to simulate a realistic functional sequence.

T3.3 INSTRUMENTATION

T3.3.103 Seismic Monitoring

TLCO 3.3.103 The Seismic Monitoring Instrumentation shown in Table 3.3.103-1 shall be OPERABLE.

APPLICABILITY: At all times.

ACTIONS

NOTE

The provisions of Specification 3.0.100.3 are not applicable

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more required Seismic Monitoring Instruments of Table 3.3.103-1 inoperable.	A.1 Restore the required instrumentation to OPERABLE status.	30 days
B. Required Action and associated completion time of Condition A not met.	B.1 Submit a Special Report to the Commission detailing the action taken, cause of the inoperability, and plans for restoring the instrument to OPERABLE status.	10 days

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
C. Seismic event (≥ 0.02g)	C.1 Perform TSR 3.3.103.3 on each seismic monitoring instrument actuated	5 days
	AND	
	C.2 Retrieve data from actuated instruments and perform analysis to determine the magnitude of the vibratory ground motion.	Immediately
	AND	
	C.3 Submit a Special Report to the Commission describing the magnitude, frequency spectrum, and resultant effect upon facility features important to safety.	10 days

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
TSR 3.3.103.1 NOTE Applicable to Digital Cassette Recorders and Seismic Switches of Table 3.3.103-1 only.	
Perform a CHANNEL CHECK.	31 days

(continued)

SURVEILLANCE REQUIREMENTS (continued)

TSR 3.3.103.2	----------NOTE---------- Not applicable for the Peak Reading Accelerograph of Table 3.3.103-1. ----------	
	Perform a CHANNEL FUNCTIONAL TEST.	6 months
TSR 3.3.103.3	Perform a CHANNEL CALIBRATION.	18 months

Table 3.3.103-1 (Page 1 of 1)
Seismic Monitoring Instrumentation

INSTRUMENTS AND SENSOR LOCATIONS	MINIMUM INSTRUMENTS OPERABLE
1. Triaxial Accelerometers	
a. Tendon Gallery Floor, 55' level	1
b. RCP Motor Housing, 129' 6" level	1
c. Steam Generator Base, 101' 9" level	1
d. Control Building floor, 74' level	1
e. Auxiliary Building Floor, 40' level	1
f. 25' E. of Turbine Bldg. W. side x 189' 9" S. of Turbine Bldg. S. Side on ground (Ref. Plant N.)	1
2. Peak Reading Accelerograph	
a. Aux. Bldg., Valve Gallery, Class 1 Pipe. 78' 7" level	1
3. Seismic Triggers	
a. Tendon Gallery Floor, 55' level (Setpoint 0.010 g)	1
b. Containment Operating Floor, 140' level (Setpoint 0.020 g)	1
4. Digital Cassette Recorders	
a. Control Room Area, 140' level	1
b. Control Room Area, 140' level	1
c. Control Room Area, 140' level	1
d. Control Room Area, 140' level	1
e. Control Room Area, 140' level	1
f. Control Room Area, 140' level	1
5. Seismic Switches	
a. Tendon Gallery Floor, 55' level	1

	Horizontal	Vertical
Setpoint OBE	0.18 g	0.17 g
Setpoint SSE	0.31 g	0.34 g

99-E-AEV-03003 MONITORED PARAMETERS

	178B	112H	112C	102A	110X	(B02)	(B02)	353A	203A	
TIME	Rx Power	RCS T_H	RCS T_C	PZR Press	PZR Level	Rx Plenum	Rx Head	CTMT Press	RWT Level	Notes
	%	°F	°F	psia	%	%	%	psig	%	
0200	100	610	550	2250	53.0	100	100	0	93.3	1
0215	100	610	550	2250	53.0	100	100	0	93.3	2
0230	100	610	550	2250	53.0	100	100	0	93.3	
0245	100	610	550	2250	53.0	100	100	0	93.3	@ 0245 (ALERT)
0300	100	610	550	2250	53.0	100	100	0	93.3	3
0315	98	609	550	2260	52.5	100	100	0	93.3	
0330	96	607	550	2270	52.0	100	100	0	93.3	
0345	94	606	550	2265	50.1	100	100	0	93.3	
0400	92	604	550	2260	48.2	100	100	0	93.3	
0415	90	602	550	2257	48.2	100	100	0	93.3	
0430	88	600	550	2255	48.2	100	100	0	93.3	
0445	86	600	550	2251	47.9	100	100	0	93.3	
0500	84	599	550	2248	47.6	100	100	0	93.3	
0515	82	599	550	2248	47.3	100	100	0	93.3	
0530	80	599	550	2249	46.9	100	100	0	93.3	
0545	78	598	550	2251	46.5	100	100	0	93.3	
0600	76	598	550	2253	46.0	100	100	0	93.3	
0615	74	597	550	2251	45.1	100	100	0	93.3	
0630	72	595	550	2248	44.1	100	100	0	93.3	
0645	70	594	550	2250	43.0	100	100	0	93.3	
0700	68	592	550	2252	42.2	100	100	0	93.3	4
0715	66	591	550	2251	39.9	100	100	0	93.3	
0730	64	590	550	2250	38.4	100	100	0	93.3	
0735	63	590	550	2254	38.2	100	100	0	93.3	5
0740	62	590	550	2250	38.0	100	100	0	93.3	
0745	61	589	550	2250	37.8	100	100	0	93.3	6
0750	0	310	120	80	0.0	0	0	31	88.1	
0755	0	270	126	45	0.0	47	0	23	78.9	
0800	0	177	134	30	0.0	100	41	8	51.2	@ 0800 (SAE)
0815	0	141	132	30	4.0	100	67	6	20.4	
0830	0	153	154	30	13.0	100	100	10	7.3	7
0845	0	157	159	30	28.0	100	100	13	7.3	
0900	0	158	154	30	60.0	100	100	17	7.3	
0915	0	155	155	30	80.0	100	100	22	7.3	8 / 9
0930	0	153	153	30	97.0	100	100	30	7.3	@ 0930 (GE)
0945	0	151	151	30	100.0	100	100	30	7.3	
1000	0	149	149	30	100.0	100	100	31	7.3	
1015	0	147	147	30	100.0	100	100	30	7.3	
1030	0	145	145	30	100.0	100	100	30	7.3	
1045	0	144	144	30	100.0	100	100	30	7.3	
1100	0	143	143	30	100.0	100	100	30	7.3	
1115	0	142	142	30	100.0	100	100	30	7.3	
1130	0	141	141	30	100.0	100	100	30	7.3	

½-hour window

1 - 1% RWT level = 7537.5 gallons
2 - Initiate Seismic-1 event
3 - Commence plant shutdown at ~8% per hour
4 - Commence state ERO shift turnover
5 - Initiate 50 gpm RCS leak
6 - Initiate Seismic-2 event; LOCA / Rx trip
7 - RAS occurs @ 0830
8 - Initiate Seismic-3 event; fuel pin leakage increases
9 - Commence radiological release via CTMT penetration

99-E-AEV-03003 SEISMIC EVENT 01 DATA

TIME	FUNCTION	MNEMONIC	VALUE	DESCRIPTION
0215	OVERRIDE	AN:1A14B1	ALARM_ON	Annunciator ANW1A-14B Point 01 On
	OVERRIDE	AN:1C9D1	ALARM_ON	Annunciator ANW1C-09D Point 01 On
	OVERRIDE	AN:2A3A6	ALARM_ON	Annunciator ANW2A-03A Point 06 On
	OVERRIDE	AN:2A11A1	ALARM_ON	Annunciator ANW2A-11A Point 01 On
	OVERRIDE	AN:3A2A1	ALARM_ON	Annunciator ANW3A-02A Point 01 On
	OVERRIDE	AN:3A10B1	ALARM_ON	Annunciator ANW3A-10B Point 01 On
	OVERRIDE	AN:5B16C1	ALARM_ON	Annunciator ANW5B-16C Point 01 On
	OVERRIDE	AN:6A2A1	ALARM_ON	Annunciator ANW6A-02A Point 01 On
	OVERRIDE	AN:6A14B1	ALARM_ON	Annunciator ANW6A-14B Point 01 On
	OVERRIDE	AN:6B13A1	ALARM_ON	Annunciator ANW6B-13A Point 01 On
	OVERRIDE	AN:7A4B1	ALARM_ON	Annunciator ANW7A-04B Point 01 On
	OVERRIDE	AN:7C1A1	ALARM_ON	Annunciator ANW7C-01A Point 01 On
	OVERRIDE	AN:7C3B1	ALARM_ON	Annunciator ANW7C-03B Point 01 On
	REM FUNC	ED08	OPEN	Devers 525KV Line Breaker Open
	REM FUNC	ED13	OPEN	Devers 525KV Line Breaker Open

99-E-AEV-03003 SEISMIC EVENT 02 DATA

TIME	FUNCTION	MNEMONIC	VALUE	DESCRIPTION
0745	OVERRIDE	AN:1A14B1	ALARM_ON	Annunciator ANW1A-14B Point 01 On
	OVERRIDE	AN:1C9D1	ALARM_ON	Annunciator ANW1C-09D Point 01 On
	OVERRIDE	AN:2A3A6	ALARM_ON	Annunciator ANW2A-03A Point 06 On
	OVERRIDE	AN:2A11A1	ALARM_ON	Annunciator ANW2A-11A Point 01 On
	OVERRIDE	AN:3A2A1	ALARM_ON	Annunciator ANW3A-02A Point 01 On
	OVERRIDE	AN:3A10B1	ALARM_ON	Annunciator ANW3A-10B Point 01 On
	OVERRIDE	AN:5B16C1	ALARM_ON	Annunciator ANW5B-16C Point 01 On
	OVERRIDE	AN:6A2A1	ALARM_ON	Annunciator ANW6A-02A Point 01 On
	OVERRIDE	AN:6A14B1	ALARM_ON	Annunciator ANW6A-14B Point 01 On
	OVERRIDE	AN:6B13A1	ALARM_ON	Annunciator ANW6B-13A Point 01 On
	OVERRIDE	AN:7A4B1	ALARM_ON	Annunciator ANW7A-04B Point 01 On
	OVERRIDE	AN:7C1A1	ALARM_ON	Annunciator ANW7C-01A Point 01 On
	OVERRIDE	AN:7C3B1	ALARM_ON	Annunciator ANW7C-03B Point 01 On
	OVERRIDE	ZLRCECH3LI	ON	LPVMS Lower Vessel CH-3 [X] LED
	OVERRIDE	ZLRCECH4LI	ON	LPVMS Lower Vessel CH-4 [Y] LED
	OVERRIDE	AN:7C14B1	ALARM_ON	Annunciator ANW7C-14B Point 01 On
	MALF	TH05	0.0005	Fuel Rod Rupture
	MALF	TH03B	0.005->50=180 sec	LOCA - Hot Leg - Loop 2

99-E-AEV-03003 SEISMIC EVENT 03 DATA

TIME	FUNCTION	MNEMONIC	VALUE	DESCRIPTION
0910	OVERRIDE	AN:1C9D1	ALARM_ON	Annunciator ANW1C-09D Point 01 On
	OVERRIDE	AN:3A10B1	ALARM_ON	Annunciator ANW3A-10B Point 01 On
	OVERRIDE	AN:6A14B1	ALARM_ON	Annunciator ANW6A-14B Point 01 On
	OVERRIDE	AN:7A4B1	ALARM_ON	Annunciator ANW7A-04B Point 01 On
	MALF	TP03	100	TC Header Rupture

SECTION 4

PV MESSAGES

This document is controlled by 84DP-0RM32 and is classified as CONFIDENTIAL

CONTROLLER INSTRUCTIONS

PLEASE HIGHLIGHT YOUR MESSAGE DATA APPROPRIATELY

TIME	MSG	CTL	TO	CONTROLLER INSTRUCTION
0130	1	FAC LEAD	FAC	Make an adequate number of copies of the MSG and distribute them throughout your facility. The MSG includes generic Participant information and shift turnover data.
At any time	A	C-1b	SM	Direct the MSG to the SM only if a manual reactor trip is ordered prior to the timeline trip such that an impact to scenario data could hamper efforts required to demonstrate remaining objectives. The MSG is based on an action and not a specific time.
At any time	2	C-1b	SM	Direct the MSG to the SM only if s/he is about to perform the "NUE Notification" Block in the procedure. The MSG text replaces the instructions in the procedure and is based on an action and not a specific time. An NUE classification is possible in this Exercise, but not likely.
At any time	3	C-1b	EC	Direct the MSG to the EC only when s/he is about to perform the "Standard Notification" Block in the procedure. The MSG text replaces the instructions in the procedure and is based on an action and not a specific time.
At any time	4	C-1b or C-2	EC	Direct the MSG to the EC only when s/he is about to perform the "Assembly Notification" Block in the procedure. In addition, contact the Exercise Lead Controller and inform him immediately upon delivery of the MSG. The MSG text replaces the instructions in the procedure and is based on an action and not a specific time.
At any time	5	C-1b or C-2	EC	Direct the MSG to the EC only when s/he is about to perform the "Site Evacuation" Block in the procedure. In addition, contact the Exercise Lead Controller and inform him immediately upon delivery of the MSG. The MSG text replaces the instructions in the procedure and is based on an action and not a specific time.
0215	6	C-1b	CREW	Ensure 0215 event coordination with the Simulator Operator in advance, then distribute copies of the MSG to C.R. personnel. The MSG details sensory input regarding felt building motion associated with a seismic event.
0215	7	C-3e	AO	Ensure 0215 event coordination with the OSC Lead Controller in advance, then direct the MSG to an AO.
0215	8	C-3g	AO	Ensure 0215 event coordination with the OSC Lead Controller in advance, then direct the MSG to an AO.
0215	9	C-8	C.R. Phone	Ensure 0215 event coordination with the Exercise Lead Controller in advance, then call the Simulator-A Control Room (7200-7206) as a Maintenance Technician and transmit the information in the MSG to whoever answers the telephone.
0216	B	C-1b	SM or Site M	Direct the MSG only if the SM / Site Manager has decided on a plant power reduction rate which is different than 8% per hour. The MSG is based on an action and not a specific time. (Contact the Exercise Lead Controller for details.)
0217	10	C-1b	STA	Direct the MSG only if the performer of 79IS-9SM01 responds to the correct location(s) and takes the proper actions to earn the information (i.e., procedural actions are being performed in accordance with 79IS-9SM01, Analysis of Seismic Event, at Seismic Cabinet AJSMN-C01).
0250	C	C-1b	SM or EC	Direct the MSG only if the SM / EC has classified the event erroneously or presents no appearance of classifying the event.
0740	D	C-2	EC	Direct the MSG only if the EC has erroneously upgraded the current emergency classification.

continues...

CONTROLLER INSTRUCTIONS *(continued...)*

PLEASE HIGHLIGHT YOUR MESSAGE DATA APPROPRIATELY

TIME	MSG	CTL	TO	CONTROLLER INSTRUCTION
0745	11	C-1b	CREW	Ensure 0745 event coordination with the Simulator Operator in advance, then distribute copies of the MSG to C.R. personnel. The MSG details sensory input regarding felt building motion associated with a seismic event.
0745	12	C-1b	SO or RO	Direct the MSG only if the performer of 40OP-9SV01 responds to the correct location(s) and takes the proper actions to earn the information (i.e., Section 6.3.5 of 40OP-9SV01 is being performed at the LPVMS Cabinet).
0745	13	C-3e	AO	Ensure 0745 event coordination with the OSC Lead Controller in advance, then direct the MSG to an AO.
0745	14	C-3g	AO	Ensure 0745 event coordination with the OSC Lead Controller in advance, then direct the MSG to an AO.
0745	15	C-8	C.R. Phone	Ensure 0745 event coordination with the Exercise Lead Controller in advance, then call the Simulator-A Control Room (7200-7206) as an Electrical Technician and transmit the information in the MSG to whoever answers the telephone.
0747	16	C-1b	STA	Direct the MSG only if the performer of 79IS-9SM01 responds to the correct location(s) and takes the proper actions to earn the information (i.e., procedural actions are being performed in accordance with 79IS-9SM01, Analysis of Seismic Event, at Seismic Cabinet AJSMN-C01).
0805	E	C-2	EC	Direct the MSG only if the EC has classified the event erroneously or presents no appearance of upgrading the current emergency classification.
0910	17	C-1b	CREW	Ensure 0910 event coordination with the Simulator Operator in advance, then distribute copies of the MSG to C.R. personnel. The MSG details sensory input regarding felt building motion associated with a seismic event.
0910	18	C-3e	AO	Ensure 0910 event coordination with the OSC Lead Controller in advance, then direct the MSG to an AO.
0910	19	C-3g	AO	Ensure 0910 event coordination with the OSC Lead Controller in advance, then direct the MSG to an AO.
0910	20	C-8	C.R. Phone	Ensure 0910 event coordination with the Exercise Lead Controller in advance, then call the Simulator-A Control Room (7200-7206) as an I&C Technician and transmit the information in the MSG to whoever answers the telephone.
0912	21	C-1b	STA	Direct the MSG only if the performer of 79IS-9SM01 responds to the correct location(s) and takes the proper actions to earn the information (i.e., procedural actions are being performed in accordance with 79IS-9SM01, Analysis of Seismic Event, at Seismic Cabinet AJSMN-C01).
0915	22	C-8b	C.R. Phone	Call the Simulator-A Control Room (7200-7206) as a Security Officer and transmit the information in the MSG to whoever answers the telephone.
0930	F	C-40	SEC COORD	Direct the MSG to the Security Coordinator only if no one has requested assistance from offsite law enforcement agencies (MCSO) per procedure following the site evacuation directive. The MSG is based on an action and not a specific time. (Contact the Exercise Lead Controller prior to MSG delivery.)
0935	G	C-2	EC	Direct the MSG only if the EC has classified the event erroneously or presents no appearance of upgrading the current emergency classification.

THIS IS A DRILL		TAKE NO ACTIONS THAT COULD AFFECT UNIT OPERATIONS	
TIME: 0130	FROM: Facility Lead	TO: FAC	
MSG: 1	AREA: All Emergency Response Facilities		

MESSAGE:

The following items are generic in nature and apply to all exercise participants:

1. This exercise includes full activation of all onsite and offsite emergency response facilities. All procedural actions should take place unless otherwise directed beforehand.
2. The Simulator telephone system has been reconfigured such that outgoing calls placed from the Simulator floor will reach the prescribed areas as specified in 16TD-0EP201, Telecommunications. Simulator crew members should disregard the red LED display on the telephones equipped to display incoming numbers, as they may not always display the correct number. The telephone numbers to dial from outside areas to reach Simulator-A operators are 7200-7206, as listed on Page 24 of 16TD-0EP201, Telecommunications, Section 4.0.
3. If and when a site-wide page must be made regarding event classification, please speak slowly and clearly into the microphone to limit echo in outside areas. If Assembly / Accountability or site evacuation is directed, do not make any announcements or sound any signals, as this will be simulated. Be aware, however, that performance of other procedural actions related to Assembly / Accountability and/or site evacuation may be required. In addition, the site-wide Exercise termination announcement should be made from the Simulator before the telephone and paging systems are reconfigured to their prior status.
4. This exercise is a Unit 1 simulation and Unit 1 procedures should be used when required.
5. With the exception of RFAT communications, all participant radio communications should occur via the ***EPLAN*** TalkGroup. RFAT radio communications should occur via the ***RFAT*** TalkGroup. Do not leave any deskset in the "SCAN" Mode of operation.
6. The ERFDADS Unit / Server Switch required to monitor Simulator-A output from the TSC and the EOF is "SIMULATED ERFDADS SUBSYSTEM A".

The following items represent shift turnover conditions at 0130:

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 225 Effective Full Power Days (reference Unit 1 Cycle 8 Core Data Book).
3. The Unit is operating with the Condensate Demineralizer Bypass Valve CD-HV-195 open (i.e., no Condensate Demineralizers are in service).
4. RCS Boron concentration is 687 ppm per Chemistry sample.
5. Operations Management has requested that 100% power operation be maintained.

THIS IS A DRILL		TAKE NO ACTIONS THAT COULD AFFECT UNIT OPERATIONS	
TIME: (At any time)	**FROM:** C-1b	**TO:** SM	
MSG: A	**AREA:** Simulator-A (Unit 1 C.R.)		

MESSAGE:

Though your judgment may indicate the necessity for initiation of a manual reactor trip at this time, the ability to demonstrate the performance of remaining EP objectives would be impacted. Furthermore, data associated with the timeline could become invalid from this point forward.

Please proceed as directed by procedure or plant management. Your reasons for concern may be valid and they will be discussed in the facility critique when the exercise is terminated.

THIS IS A DRILL		TAKE NO ACTIONS THAT COULD AFFECT UNIT OPERATIONS
TIME: (At any time)	**FROM:** C-1b	**TO:** SM / EC
MSG: 2	**AREA:** Simulator-A (Unit 1 C.R.)	

MESSAGE:

Use the foliowing instructions as a replacement for the "NUE Notification" Block in your procedure:

____ If the event in progress is currently classified as a Notification of Unusual Event, transmit the following message over the Unit Evacuation System:

"Attention all plant personnel. Attention all plant personnel. This is a drill. An emergency situation classified as a Notification of Unusual Event exists in Unit 1. All emergency response personnel stand by until further notice. This is a drill."

(Repeat message once. This responsibility can be delegated.)

____ Direct the Security Director to complete supplemental onsite notifications.

THIS IS A DRILL		TAKE NO ACTIONS THAT COULD AFFECT UNIT OPERATIONS	
TIME: (At any time)	**FROM:** C-1b	**TO:** SM / EC	
MSG: 3	**AREA:** Simulator-A (Unit 1 C.R.)		

MESSAGE:

Use the following instructions as a replacement for the "Standard Notification" Block in your procedure:

____ If Assembly is not to be conducted, transmit the following message over the Unit Evacuation System:

"Attention all plant personnel. Attention all plant personnel. This is a drill. An emergency situation classified as a _____ exists in Unit 1. All emergency response personnel report to your emergency location. All other personnel stand by until further notice. This is a drill."

(Provide instructions on areas to avoid as appropriate. Repeat message once. This responsibility can be delegated.)

____ Direct the Security Director to complete supplemental onsite notifications.

THIS IS A DRILL		TAKE NO ACTIONS THAT COULD AFFECT UNIT OPERATIONS	
TIME: (At any time)	**FROM:** C-1b / C-2	**TO:** SM / EC	
MSG: 4	**AREA:** Simulator-A (Unit 1 C.R.) / TSC		

MESSAGE:

Use the following instructions as a replacement for the "Assembly Notification" Block in your procedure:

____ If Assembly is to be conducted, transmit the following message over the Unit Evacuation System:

"Attention all plant personnel. Attention all plant personnel. This is a drill. An emergency situation classified as a _____ exists in Unit 1. This is a drill."

(Provide instructions on areas to avoid as appropriate. Repeat message once.)

____ Inform the Security Director that no Assembly instruction will be broadcast to onsite personnel, but that a simulated Assembly of onsite personnel will occur at this time.

____ Direct the Security Director to complete supplemental onsite notifications.

____ Return to the Onsite Notification Process Flowchart, if appropriate.

THIS IS A DRILL		TAKE NO ACTIONS THAT COULD AFFECT UNIT OPERATIONS	
TIME: (At any time)	**FROM:** C-1b / C-2	**TO:** SM / EC	
MSG: 5	**AREA:** Simulator-A (Unit 1 C.R.)	/ TSC	

MESSAGE:

Use the following instructions as a replacement for the "Site Evacuation" Block in your procedure.

____ If Site Evacuation is to be conducted, determine the evacuation route / site egress point *(with input from either the Radiation Protection Monitor or the Radiological Protection Coordinator)*.

____ Instruct the Security Director to complete supplemental onsite notifications.

THIS IS A DRILL		TAKE NO ACTIONS THAT COULD AFFECT UNIT OPERATIONS	
TIME: 0215	**FROM:** C-1b	**TO:** CREW	
MSG: 6	**AREA:** Simulator-A (Unit 1 C.R.)		

MESSAGE:

You feel building motion for approximately 10 seconds.

THIS IS A DRILL		TAKE NO ACTIONS THAT COULD AFFECT UNIT OPERATIONS	
TIME: 0215	**FROM:** C-3e	**TO:** AO	
MSG: 7	**AREA:** Ops Field		

MESSAGE:

You feel building / ground motion for approximately 10 seconds.

THIS IS A DRILL		TAKE NO ACTIONS THAT COULD AFFECT UNIT OPERATIONS	
TIME: 0215	FROM: C-3g		TO: AO
MSG: 8	AREA: Ops Field		

MESSAGE:

You feel building / ground motion for approximately 10 seconds.

THIS IS A DRILL	TAKE NO ACTIONS THAT COULD AFFECT UNIT OPERATIONS	
TIME: 0215	FROM: C-8	TO: C.R. Phone
MSG: 9	AREA: (Control Cell)	

CONTROLLER INSTRUCTIONS:

Ensure 0215 event coordination with the Exercise Lead Controller, then call the Simulator-A Control Room (7200-7206) as a Maintenance Technician and transmit the message (below) to whoever answers tne telephone.

MESSAGE:

"Hello. I'm John Doe working in the Unit 1 Maintenance Shop and I've just felt the whole shop move for about 10 seconds. I think it may have been an earthquake, but I'm not exactly sure."

THIS IS A DRILL		TAKE NO ACTIONS THAT COULD AFFECT UNIT OPERATIONS
TIME: 0216	**FROM:** C-1b	**TO:** SM / Site M
MSG: B	**AREA:** Simulator-A (Unit 1 C.R.)	

MESSAGE:

Plant management and Energy Control Center (ECC) supervision have determined and directed that Unit 1 plant power should be reduced at a rate of 8% per hour. This rate is based on total western grid generation capability and various major metropolitan area needs. Furthermore, the 8% load reduction rate will ensure that Unit 1 generation capabilities and grid stability are maintained until strategic event mitigation plans have been developed through a coordinated effort by western utilities and have subsequently been implemented.

THIS IS A DRILL		TAKE NO ACTIONS THAT COULD AFFECT UNIT OPERATIONS	
TIME: 0217	**FROM:** C-1b	**TO:** STA	
MSG: 10	**AREA:** Simulator-A (Unit 1 C.R.) Behind B05		

MESSAGE:

Since this specific evolution occurs in a compressed time period and is not directly related to an exercise objective, perform the following actions per 79IS-9SM01 for an accelerated seismic event analysis:

- Perform Step 3.2.3.1, excluding Substep 3.2.3.1.1.
- Data for Step 3.2.3.2 is ***102-01***.
- Data for Step 3.2.3.3 is ***069-0215***.
- Appendix B has been completed and...
  - Spectral lines have 1 asterisk.
  - Steps B 1.6.2.4 and B 1.6.3.6 indicate the OBE has been exceeded.
- Data for Step 3.2.3.6 is ***INTENSITY > OBE***.
- Perform Section 3.3, Steps 3.3.1 through 3.3.4.

THIS IS A DRILL		TAKE NO ACTIONS THAT COULD AFFECT UNIT OPERATIONS
TIME: 0250	FROM: C-1b	TO: SM / EC
MSG: C	AREA: Simulator-A (Unit 1 C.R.)	

MESSAGE:

A seismic event has occurred and preliminary analysis indicates OBE validity.

16DP-0EP13, Emergency Classification, Section 4, HAZ-2 [V-124], should be reviewed as soon as possible.

THIS IS A DRILL		TAKE NO ACTIONS THAT COULD AFFECT UNIT OPERATIONS	
TIME: 0740	FROM: C-2	TO: EC	
MSG: D	AREA: TSC		

MESSAGE:

A potential loss of the RCS Fission Product Barrier [V-10] and a seismic event > OBE [V-124] currently exist.

16DP-0EP15, Technical Support Center Actions, Section 2.2, Subsequent Actions, should be reviewed as soon as possible.

THIS IS A DRILL		TAKE NO ACTIONS THAT COULD AFFECT UNIT OPERATIONS	
TIME: 0745	FROM: C-1b	TO: CREW	
MSG: 11	AREA: Simulator-A (Unit 1 C.R.)		

MESSAGE:

You feel building motion for approximately 10 seconds.

THIS IS A DRILL		TAKE NO ACTIONS THAT COULD AFFECT UNIT OPERATIONS	
TIME: 0745	**FROM:** C-1b	**TO:** SO / RO	
MSG: 12	**AREA:** Simulator-A (Unit 1 C.R.)		

MESSAGE:

Per 40OP-9SV01, Loose Parts and Vibration Monitoring, Section 6.3.5, Step 3, you hear continuous loud clanking and thumping sounds over the speaker.

THIS IS A DRILL		TAKE NO ACTIONS THAT COULD AFFECT UNIT OPERATIONS
TIME: 0745	FROM: C-3e	TO: AO
MSG: 13	AREA: Ops Field	

MESSAGE:

You feel building / ground motion for approximately 10 seconds.

THIS IS A DRILL		TAKE NO ACTIONS THAT COULD AFFECT UNIT OPERATIONS	
TIME: 0745	FROM: C-3g		TO: AO
MSG: 14	AREA: Ops Field		

MESSAGE:

You feel building / ground motion for approximately 10 seconds.

THIS IS A DRILL		TAKE NO ACTIONS THAT COULD AFFECT UNIT OPERATIONS
TIME: 0745	**FROM:** C-8	**TO:** C.R. Phone
MSG: 15	**AREA:** (Control Cell)	

CONTROLLER INSTRUCTIONS:

Ensure 0745 event coordination with the Exercise Lead Controller, then call the Simulator-A Control Room (7200-7206) as an Electrical Technician and transmit the message (below) to whoever answers the telephone.

MESSAGE:

"Hello. I'm Ralph Doe working in the Unit 1 Electrical Shop and I've just felt the whole shop move for about 10 seconds. I think it may have been an earthquake, but I'm not exactly sure."

THIS IS A DRILL		TAKE NO ACTIONS THAT COULD AFFECT UNIT OPERATIONS	
TIME: 0747	**FROM:** C-1b	**TO:** STA	
MSG: 16	**AREA:** Simulator-A (Unit 1 C.R.) Behind B05		

MESSAGE:

Since this specific evolution occurs in a compressed time period and is not directly related to an exercise objective, perform the following actions per 79IS-9SM01 for an accelerated seismic event analysis:

- Perform Step 3.2.3.1, excluding Substep 3.2.3.1.1.
- Data for Step 3.2.3.2 is ***102-02***.
- Data for Step 3.2.3.3 is ***069-0745***.
- Appendix B has been completed and...
  - Spectral lines have 2 asterisks.
  - Steps B 1.6.2.4 and B 1.6.3.6 indicate the OBE has been exceeded.
- Data for Step 3.2.3.6 is ***INTENSITY > OBE***.
- Perform Section 3.3, Steps 3.3.1 through 3.3.4.

THIS IS A DRILL		TAKE NO ACTIONS THAT COULD AFFECT UNIT OPERATIONS
TIME: 0805	FROM: C-2	TO: EC
MSG: E	AREA: TSC	

MESSAGE:

A potential loss of the Fuel Clad and a loss of the RCS Fission Product Barriers exist.

16DP-0EP13, Emergency Classification, Section 3, Fission Product Barrier Reference [V-7] [V-10], should be reviewed as soon as possible.

THIS IS A DRILL		TAKE NO ACTIONS THAT COULD AFFECT UNIT OPERATIONS	
TIME: 0910	**FROM:** C-1b	**TO:** CREW	
MSG: 17	**AREA:** Simulator-A (Unit 1 C.R.)		

MESSAGE:

You feel building motion for approximately 8 seconds.

THIS IS A DRILL		TAKE NO ACTIONS THAT COULD AFFECT UNIT OPERATIONS	
TIME: 0910	FROM: C-3e	TO: AO	
MSG: 18	AREA: Ops Field		

MESSAGE:

You feel building / ground motion for approximately 8 seconds.

THIS IS A DRILL		TAKE NO ACTIONS THAT COULD AFFECT UNIT OPERATIONS
TIME: 0910	FROM: C-3g	TO: AO
MSG: 19	AREA: Ops Field	

MESSAGE:

You feel building / ground motion for approximately 8 seconds.

THIS IS A DRILL		TAKE NO ACTIONS THAT COULD AFFECT UNIT OPERATIONS	
TIME: 0910	**FROM:** C-8	**TO:** C.R. Phone	
MSG: 20	**AREA:** (Control Cell)		

CONTROLLER INSTRUCTIONS:

Ensure 0910 event coordination with the Exercise Lead Controller, then call the Simulator-A Control Room (7200-7206) as an I&C Technician and transmit the message (below) to whoever answers the telephone.

MESSAGE:

"Hello. I'm Larry Doe working in the Unit 1 I&C Shop and I've just felt the whole shop move for about 8 seconds. I think it may have been an earthquake, but I'm not exactly sure."

THIS IS A DRILL		TAKE NO ACTIONS THAT COULD AFFECT UNIT OPERATIONS		
TIME:	0912	**FROM:**	C-1b	**TO:** STA
MSG:	21	**AREA:**	Simulator-A (Unit 1 C.R.) Behind B05	

MESSAGE:

Since this specific evolution occurs in a compressed time period and is not directly related to an exercise objective, perform the following actions per 79IS-9SM01 for an accelerated seismic event analysis:

- Perform Step 3.2.3.1, excluding Substep 3.2.3.1.1.
- Data for Step 3.2.3.2 is ***102-03***.
- Data for Step 3.2.3.3 is ***069-0910***.
- Appendix B has been completed and...
  - Spectral lines have 1 asterisk.
  - Steps B 1.6.2.4 and B 1.6.3.6 indicate the OBE has been exceeded.
- Data for Step 3.2.3.6 is ***INTENSITY > OBE***.
- Perform Section 3.3, Steps 3.3.1 through 3.3.4.

THIS IS A DRILL		TAKE NO ACTIONS THAT COULD AFFECT UNIT OPERATIONS	
TIME: 0915	**FROM:** C-8b		**TO:** C.R. Phone
MSG: 22	**AREA:** (Control Cell)		

CONTROLLER INSTRUCTIONS:

Ensure 0915 event coordination with the Exercise Lead Controller, then call the Simulator-A Control Room (7200-7203) as a Security Officer and transmit the message (below) to whoever answers the telephone.

MESSAGE:

"This is Security Officer Jack Pentrasky and I'm calling from Security Headquarters. There appears to be a lot of steam coming from the roof of the Unit 1 MSSS Building on the plant east side of Containment."

THIS IS A DRILL		TAKE NO ACTIONS THAT COULD AFFECT UNIT OPERATIONS	
TIME: 0930	FROM: C-40	TO: Security Coord	
MSG: F	AREA: EOF		

MESSAGE:

A site evacuation has been directed.

16DP-0EP17, Emergency Operations Facility Actions, Section 13.2, Subsequent Actions - Site Evacuation, should be reviewed as soon as possible regarding traffic control assistance.

THIS IS A DRILL		TAKE NO ACTIONS THAT COULD AFFECT UNIT OPERATIONS	
TIME: 0935	FROM: C-2		TO: EC
MSG: G	AREA: TSC		

MESSAGE:

A potential loss of the Fuel Clad and a loss of the RCS and Containment Fission Product Barriers exist.

16DP-0EP13, Emergency Classification, Section 3, Fission Product Barrier Reference [V-9] [V-10] [V-18 or V-24], should be reviewed as soon as possible.

SECTION 5

OFFSITE GUIDE

This document is controlled by 84DP-0RM32 and is classified as CONFIDENTIAL

SECTION 5

GOVERNMENT CONTROLLER GUIDE

SECTION 5

GOVERNMENT CONTROLLER GUIDE

TABLE OF CONTENTS

PAGE	CONTENTS
Section 5-3	State Emergency Operations Center (EOC)
Section 5-5	Technical Operations Center (TOC)
Section 5-7	Direction and Control
Section 5-8	Maricopa County Emergency Operations Center (MCEOC)
Section 5-11	Maricopa County Warning Point (MCSO)
Section 5-13	On-Scene Command Post (MCSO)
Section 5-16	Backup Warning Teams (MCSO)
Section 5-17	Road Block Teams (MCSO)
Section 5-18	REAT Forward
Section 5-19	REAT Field Monitoring Teams
Section 5-20	Evacuation Groups
Section 5-21	Special Evacuation Group
Section 5-23	Backup Warning Site
Section 5-25	Reception and Care Center (RCC)
Section 5-26	Strategic Communication (STRATCOM)
Section 5-27	Joint Emergency News Center (JENC)
Section 5-28	Rumor Control
Section 5-29	Public Inquiry

GOVERNMENT CONTROLLER GUIDE

STATE EMERGENCY OPERATIONS CENTER (EOC)

DRILL CONTROLLER GUIDE					
Time	Msg	To	Event Summary	Anticipated Response	Controller Notes
0245			ALERT Notification	ADEM Duty Officer notified by DPS Duty Officer. ADEM Duty Officer operator receives notification and verifies authenticator. Alert Assistant Director of RRM and ADEM Comm. Officer ADirRRM notifies ADEM Director and directs activation of the EOC with first shift staff. ADEM staff fan out notification and EOC activation with first staffing to state response organization. OGC declares EOC activated when sufficient staff is in place to man key communications. EOC Staff continues to arrive and function. Staff Demonstrates a shift change	Chief Offsite Controller (COC) and State EOC Controller (EOCC), to be on station in EOC 15 min. prior to the Drill. COC and EOF Controllers set time (EOF 393-6178/6188). EOCC sets real time on EOC clock and fans out real time to controllers on station in MCEOC, JENC and TOC. COC and EOCC on station in EOC communications or EOC arena until notification fan out completed and monitor controller phones. EOCC observes EOC staffing and arrangement in progress. Corrective action, as appropriate. (Direction and Control, Technical Operations Center, Public Inquiry.) EOCC observes staff functions as appropriate. EOCC acts as exercise contact in declaration process, etc. Record time lines of all communications.

GOVERNMENT CONTROLLER GUIDE

STATE EMERGENCY OPERATIONS CENTER (EOC)

DRILL CONTROLLER GUIDE					
Time	Msg	To	Event Summary	Anticipated Response	Controller Notes
0800			SITE AREA EMERGENCY Notification	EOC Communications receives NAN broadcast and verifies authenticator. EOC staff fans out notification. TOC may recommend Protective Action to ExGC based on notification message. (PAR may not coincide with PAR in notification.) ExGC PAR decision announced. (Decision may not coincide with TOC PAR.) Public Inquiry to commence when role players initiate calls. PIO collects and sends releasable information to JENC.	EOCC monitors staff functions. Record time lines, PAR, Siren Activation, EAS and announcements. EOCC acts as contact for initiating role player activities.
0930			GENERAL EMERGENCY Notification	EOC Communications receives NAN broadcast and verifies authenticator. TOC recommends Protective Action to ExGC. ExGC decision announced. (Decision may not coincide with TOC recommendation for Protective Action.) MCDEM liaison transmits decision to Maricopa	COC maintains contact with MCEOC, JENC and PVNGS EOF controllers, as appropriate. EOCC monitors EOC staff functioning. EOC Controller monitors Protective Action Recommendations and decisions. TOCC monitors TOC staff functioning.

GOVERNMENT CONTROLLER GUIDE

TECHNICAL OPERATIONS CENTER (TOC)

DRILL CONTROLLER GUIDE					
Time	Msg	To	Event Summary	Anticipated Response	Controller Notes
0245			ALERT Notification	ARRA Emergency Coordinator notifies Technical Operations Director (TOD).	TOCC in TOC 15 min. prior to ALERT.
					Call EOCC for real time check.
				TOD directs activation of TOC.	Relocate to TOC with TOC staff.
				TOD directs State Liaison to EOF.	
					TOCC observes TOC set up and arrangement, corrective action as appropriate in coordination with EOCC.
				TOC staff relocates to State EOC.	
				TOC staff sets up and organizes TOC.	Record time lines.
				TOC performs communications check.	
				TOC Shift Supervisor reports activation to EOC Shift Supervisor.	
				Initiates situation Assessment And formulate Protective Action Recommendations as required.	Compare dose projection to EOF and TOC, ensure consistency. Check inconsistencies for errors.
	TOC A	TOD	TOC Directs REAT Forward to dispatch Field Monitor Teams to RCC.	Situation Assessment continues until downgrade.	Issue CTM MSG TOC-A when asked by staff, which of several RCCs is the one in play.
	TOC B	TOC SS			Issue CTM MSG TOC-B to TOC Shift Supervisor if TOC staff fails to take action outlined above.
				Staff demonstrates a shift change.	

GOVERNMENT CONTROLLER GUIDE

TECHNICAL OPERATIONS CENTER (TOC)

DRILL CONTROLLER GUIDE					
Time	Msg	To	Event Summary	Anticipated Response	Controller Notes
0800			SITE AREA EMERGENCY Notification	Continue Situation Assessment and may formulate Protective Action Recommendations. (ExGC decision may not coincide with TOC recommendation of PAR.) Situation Assessment continues until downgrade.	TOCC observes TOC functioning; corrective actions as appropriate. Record time lines.
0930			GENERAL EMERGENCY Notification	Situation Assessment continues. Calculate projected dose as required. TOD recommends Protective Actions to ExGC. ExGC 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
0245			ALERT Notification	ADirRRM notified and notifies the Director of ADEM. OGC and EOC Staff set up EOC. ADirRRM directs OGC to activate EOC and fan out Alert and activation instructions. OGC declares EOC activated at his discretion when sufficiently staff in place to man key communications. Director of ADEM and AdirRRM report to the EOC.	Real time check. Key staff for decision should include TOD, Exec Group and MCDEM Liaison. Record time lines.
0800			SITE AREA EMERGENCY Notification	OGC acts upon TOD recommendation for Protective Action. OGC formulates and announces Protective Action Decision to key staff and EOC.	Ensure MCDEM Liaison transcribes Protective Action Decision as stated corrective action as appropriate. Record Time Lines.
0930			GENERAL EMERGENCY Notification	OGC acts upon TOD recommendations for Protective Action. OGC formulates and announces Protective Action decisions to key staff and EOC.	Ensure MCDEM Liaison transcribes Protective Action Decision as stated and corrective actions as appropriate. Record Time Lines. OGC. And/or TOD may be summoned to JENC.

GOVERNMENT CONTROLLER GUIDE

MARICOPA COUNTY EMERGENCY OPERATIONS CENTER (MCEOC)

DRILL CONTROLLER GUIDE					
Time	Msg	To	Event Summary	Anticipated Response	Controller Notes
0245			ALERT Notification	MCDEM Duty Officer receives notification and authenticates message. Notify Senior Coordinator, Communications Officer and MCDEM Director. Initiate activation. Notify State EOC when activated. Advise County Manager concerning situation and MCEOC activation. Advise Response Organization to assemble at MCSO Avondale Substation. EOC staff reports. Place EAS on standby. County Liaison Officer reports to state EOC. Direct On-Scene Commander to deploy Response Organization when assembled. Staff demonstrates a shift change.	Real time check. Record time lines of player arrivals and telecommunications establishment. Emergency Response Organization personnel may be assembled at marshaling areas or deployed to forward Operational sites.
0800			SITE AREA EMERGENCY Notification	MCDEM staff receives NAN broadcast and verifies authenticator. Maintain readiness status of all resources for further actions required. Notify schools within EPZ.	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
0800			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.
	MC-1	MC Ops Group Chief		Direct activation of RCC at specified sites. Prepare and release Public Warning Message to EAS. Activate Sirens (Simulated)	Issue CTG MSG MC-1 to ensure that RCC being evaluated is activated, if Required
	MC-2	MC Comm Officer		Malfunction of sirens reported by Communications Officer. Prepare and release Siren Failure Message.	Issue MSG MC-2 indicating Siren Pole #39 failed.
	MC-A	MC Ops Group Chief		Monitor EAS receipt of warning. Prepare and release Public Warning Message to EAS. Notify Senior Coord and MCDEM Director.	Issue MSG MC-A indicating that this is the RCC that will be activated.
0930			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
0930	MC-B	MC Ops Group Chief	GENERAL EMERGENCY Notification (Continued)	Backup Warning directive sent to On-Scene Command Post.	Issue CTG MSG MC-B if a directive to conduct Backup 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 [illegible]ble 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
0245			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.
0800			SITE AREA EMERGENCY Notification	MCSO Warning Point staff receives NAN broadcast and verifies authenticator. MCSO Conducts internal notification fan-out.	
0930			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
0930			GENERAL EMERGENCY Notification (Continued)		As loudspeakers will not be used, **it is imperative that role players be contacted and read warning message verbatim.** An evaluator will be located at the Backup Warning Site. Role Players representing residents with special problems are to be provided assistance and released to return to PVNGS EIC for lunch. One roadblock is to be established.

GOVERNMENT CONTROLLER GUIDE

ON-SCENE COMMAND POST (OSCP) [MCSO]

DRILL CONTROLLER GUIDE					
Time	Msg	To	Event Summary	Anticipated Response	Controller Notes
0245			ALERT Notification	Response Organization assembles at MCSO Avondale Substation. When directed, deploy under control of OSCP. Set up OSCP and organize Response Organization Assembly Area. Prepare for response.	OSCP Controller on station 15 minutes prior to start of drill. Observe deployment and performance.
	OSC P-1	On-Scene Comm		Simulate Backup Warning activities.	issue MSG OSCP-1 when directed by MCEOC indicating which RCC has been activated.
0800			SITE AREA EMERGENCY **AND**	Receive notification and inform response force to stand ready. Receive Protective Action Decision. Respond to calls for assistance as directed by MCEOC. Receive notification and inform response force to stand ready.	Special evacuees will commence assistance calls to MCEOC. Special evacuees will commence assistance calls to MCEOC.
0930			GENERAL EMERGENCY Notification	Receive Protective Action decision.	

GOVERNMENT CONTROLLER GUIDE

ON-SCENE COMMAND POST (OSCP) [MCSO]

DRILL CONTROLLER GUIDE					
Time	Msg	To	Event Summary	Anticipated Response	Controller Notes
0800	OSCP -A	On-Scene Comm.	SITE AREA EMERGENCY Continued	Backup Warning Team deploys to appropriate Siren coverage area.	Issue CTG MSG OSCP-A if OSCP is not directed to dispatch Backup Warning Team.
				Simulate Backup warning activities.	
			AND		Issue CTG MSG OSCP-B if Roadblock Teams are not dispatched to locations being evacuated.
	OSCP -B	On-Scene Comm.		Issue warning messages to evacuee role players.	
				Traffic Control Teams deployed to assigned locations.	Maricopa County ESD is to provide a tow truck and driver.
0930			GENERAL EMERGENCY Notification	Conduct traffic regulatory activities.	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 released to return to the PVNGS EIC for lunch.
					Barricades and patrol vehicles are to be used to simulate Roadblocks.
					One roadblock is to be established for evacuation.

GOVERNMENT CONTROLLER GUIDE

ON-SCENE COMMAND POST (OSCP) [MCSO]

DRILL CONTROLLER GUIDE					
Time	Msg	To	Event Summary	Anticipated Response	Controller Notes
0930	OSCP-2	On-Scene Com	GENERAL EMERGENCY Notification Continued When directed by MCEOC to assist special evacuees.	On-Scene Commander will direct special evacuees to the Buckeye Union High School not the On-Scene Command Post. Evacuees will not be transported to the RCC but will be released to return to the PVNGS EIC for lunch.	Evacuation and special assistance problems to be simulated by role players. Issue MSG OSCP-2 upon On-scene Commander's first special evacuee directive.
	OSCP-C	On-Scene Comm.	When directed by MCEOC to assist special evacuees.	On-Scene Commander will direct special evacuees to the Buckeye Union High School, not the On-Scene Command Post. Evacuees will not be transported to the RCC but will be released to return to the PVNGS EIC for lunch.	Issue MSG OSCP-C upon On-Scene Commander's first special evacuee directive. Issue as inquiries are made as to progress of evacuating residents.

GO''ERNMENT CONTROLLER GUIDE

SUPPLEMENTAL WARNING TEAMS (MCSO)

DRILL CONTROLLER GUIDE					
Time	Msg	To	Event Summary	Anticipated Response	Controller Notes
0245			ALERT Notification	Response organization assembles at MCSO Avondale Substation.	BW Controller should be on station 15 minutes prior to drill. Observe deployment and performance. Record time lines of key actions.
0800 0930			SITE AREA EMERGENCY **AND** GENERAL EMERGENCY		
	BW-1	BW Team	When directed, BW Team activated and assigned mission.	Backup Route Warning Team receives briefing and mission statement. BW Team deploys to siren coverage area. BW Team simulates Backup Route warning. BW Team issues warning message verbatim to evacuee role players.	Siren, lights and loudspeakers will not be used. Evacuation Group Players will be wearing red armbands. Represents the resident population of the area of coverage of Siren #39 Issue MSG BW-1 to BW Team.

GOVERNMENT CONTROLLER GUIDE

ROAD BLOCK TEAMS (MCSO)

DRILL CONTROLLER GUIDE					
Time	Msg	To	Event Summary	Anticipated Response	Controller Notes
0245			ALERT Notification	Response organization assembles at MCSO Avondale Substation.	RB Controller should be on station 15 minutes prior to drill. Observe deployment and performance. Record time lines of key actions.
0800 0930			SITE AREA EMERGENCY AND GENERAL EMERGENCY When directed, RB Team activated and assigned mission.	Simulate establishment of road blocks/traffic control points.	
	RB-A	RB Team #1			Issue CTG MSG RB-A if roadblock 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
0245			ALERT Notification	REAT Forward will deploy two teams to the Buckeye Airport initially.	REAT Forward Controller on station 15 min. prior to Exercise.
				Establish REAT Forward Center.	Observe assembly and organization of command post.
				Brief and orient Monitor Teams.	Observe operation of command post.
			Initiate monitoring when directed.	REAT Forward Teams assembles and equips.	
				Assign Field Monitor missions.	
				REAT Forward Teams deploy to field locations.	
				Collect and report field data.	Move to field location.
				Demonstrate a shift change.	
0800			SITE AREA EMERGENCY	Continue field-monitoring activities.	Continue to observe operation of command post.
				Collect and report field data.	
				Implement instructions from the TOD.	
0930	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 FIELD MONITOR TEAMS

DRILL CONTROLLER GUIDE					
Time	Msg	To	Event Summary	Anticipated Response	Controller Notes
0245			ALERT Notification	REAT Field Monitor will deploy two teams to the Buckeye Airport initially. Co-locate with REAT Forward Center in assembly area.	REAT Controller should be on station 15 minutes prior to drill. Contact REAT Center Controller for real time check. Observe assembly and deployment.
0800			SITE AREA EMERGENCY Notification	REAT Captain briefs monitors and assigns missions.	Accompany monitor team and observe mission performance.
0930			GENERAL EMERGENCY Notification	Field Teams perform assigned monitoring missions (monitors are to report all background readings). Receives briefing and evacuee monitoring mission. 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
0600			All evacuation group Controllers Assemble	Evacuation Group Controllers assemble at Papago Military Reservation, Phoenix, and report to designated Lead Controller	All EG and SEG Controllers assemble at Papago Military Reservation, Phoenix. AZ.
0615			Assemble and load EG and SEG.	EG assembles at Papago Military Reservation, Phoenix.	Contact Chief Offsite Controller upon arrival for real time check.
No Later Than 0630			Transport EG to PVNGS Energy Information Center.	Travel by van from Papago Military Reservation, Phoenix, to PVNGS Energy Information Center.	
0745				Remain at PVNGS Energy Information Center for refreshments.	Respond to Special Evacuee Controller request for radio operator assignment.
0800			Load EG in vehicles.	Move Volunteers to designated post. Once the evacuees have been contacted by MCSO,the volunteers are to return to PVNGS EIC for lunch.	Inform Chief Offsite Controller upon departure from PVNGS. Upon receiving information from the Public Info Controller that the volunteers have been contacted proceed to the PVNGS EIC for lunch.
As Directed			Return to PVNGS EIC for lunch.	Exercise participation is terminated upon arrival at PVNGS EIC.	

GOVERNMENT CONTROLLER GUIDE

SPECIAL EVACUATION GROUP (Volunteers)

DRILL CONTROLLER GUIDE					
Time	Msg	To	Event Summary	Anticipated Response	Controller Notes
0600			Assemble with EG Controllers.	EG Controliers assemble at Papago Military Reservation, Phoenix and report to designated Lead Controller. Special EG Controllers do likewise.	All EG and SEG Controllers assemble at Papago Military Reservation, Phoenix.
0615			Assist with assembly and loading of EG.	EG assembles at Papago Military Reservation, Phoenix.	Contact Chief Offsite Controller upon arrival for real time check.
No Later Than 0630			Move in convoy with EG to PVNGS Energy Information Center.	Travel by controller vehicle in convoy to PVNGS Energy Information Center.	
0800			Select 4-6 Special Evacuees and telephone callers.	Upon arrival 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	SEG 1			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
	SEG 2	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).	One copy of SEG messages goes to Special Evacuee, one to Counterpart telephone caller. Instruct Special Evacuees to dismount from vehicle and prepare to be evacuated. Controller and party remain in vehicle until assistance arrives. Controller dismounts and issues message SEG-2 to MCSO player. Repeat controller process.

GOVERNMENT CONTROLLER GUIDE

BACKUP ROUTE WARNING SITE

DRILL CONTROLLER GUIDE					
Time	Msg	To	Event Summary	Anticipated Response	Controller Notes
0600			All Evacuation Group Controllers assemble.	Assemble with EG Controllers, SEG Controllers and radio operators at Papago Military Reservation, Phoenix.	Wear Controller identification and carry Player Armbands.
0615			Assist with Assembly and loading of EG.	EG assembles at Papago Military Reservation, Phoenix.	
No Later Than 0630			Move in convoy with EG to PVNGS Energy Information Center.	Travel by controller vehicle in convoy to PVNGS Energy Information Center.	
0800 As Directed			Arrive at PVNGS Energy Information Center. Deploy Backup Warning site party to site location.	Upon arrival, organize and brief Backup Warning Site party regarding site location, departure time from PVNGS and site set up and function. Upon arrival perform site preparation.	Upon arrival request assignment of radio operator from Lead Controller. Site party consists of an Evaluator, controllers and one radio operator. Site location is at or near Siren pole #39. Notify Lead EG Controller when site preparation is completed.

GOVERNMENT CONTROLLER GUIDE

BACKUP 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 Siren pole #39 location on 339th Ave, South of I-10.	EG van loads and leaves PVNGS for Backup Warning Site.	Maintain radio contact with EG Controllers concerning transport progress.
As Directed			MCSO Backup Warning Team **READS** warning.	Backup Warning Team approaches and identifies Backup Warning Site. Backup Warning team **READS** evacuation warning.	When EG controller has been notified that Backup Warning event is completed, proceed to PVNGS EIC for lunch.

GOVERNMENT CONTROLLER GUIDE

RECEPTION AND CARE CENTER (Buckeye Union High School)

DRILL CONTROLLER GUIDE					
Time	Msg	To	Event Summary	Anticipated Response	Controller Notes
0245			ALERT Notification and deployment.	Notify Reception and Care Center Resources. Deploy resources to the RCC.	RCC Controller should be on station 15 minutes prior to Exercise.
No Later Than 0830	RCC -A	Shelter Manager	Shelter Coordinator directs establishment of RCC.	Set up RCC at Buckeye Union High School, 902 Eason, Buckeye, Phoenix. Assign location for monitoring station. Conduct evacuee processing.	Observe deployment and performance. Issue CTG MSG RCC-A, if required, to organize monitoring and processing.

PUBLIC INFORMATION CONTROLLER GUIDE

STRATEGIC COMMUNCIATION (STRATCOM)

DRILL CONTROLLER GUIDE					
Time	Msg	To	Event Summary	Anticipated Response	Controller Notes
0245		STR AT COM /DO	PVNGS Unit 1 Alert	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. Continue to provide above support until activation of the JENC. Deactivate when this is accomplished and then travel to the JENC	

PUBLIC INFORMATION CONTROLLER GUIDE

JOINT EMERGENCY NEWS CENTER (JENC)

DRILL CONTROLLER GUIDE					
Time	Msg	To	Event Summary	Anticipated Response	Controller Notes
0245		JENC / MGR	PVNGS Unit 1 ALERT Notification	Contact State and County public information spokesperson initiates and maintains contact with STRATCOM. Initiate activation, receive hard copy from the STRATCOM, determine staffing levels, check equipment operation and prepare for initial press briefing.	JENC Controller should be on station 15 minutes prior to drill. Perform time-check with chief Controller. Record time lines. Continue to observe staff functions.
0445	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 and disseminate information through press briefings.	Observe staff functioning.
0800		JENC / MGR	PVNGS Unit 1 declares a SITE AREA EMERGENCY.	Continue as above. Demonstrate a shift change.	
0930		JENC / MGR	PVNGS Unit 1 Declares a GENERAL EMERGENCY	Continue as above.	
???? ????		JENC / MGR JENC / MGR	Terminate Exercise. Commence critique and secure facility.	Receive information from EOF, relay to State and County EOCs, Media, Rumor Control Group and APS Media Relations.	

PUBLIC INFORMATION CONTROLLER GUIDE

RUMOR CONTROL

DRILL CONTROLLER GUIDE					
Time	Msg	To	Event Summary	Anticipated Response	Controller Notes
0245		RCG/ SUP V	PVNGS Unit 1 ALERT Notification	Initiate activation, establish contact with JENC Facility Coordinator and PI/SS, determine operation, receives hard copy of press releases from JENC, brief staff.	
0445 to ????	RC G -1	RCG/ SUP V	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 Coordinator and PI/Shift Supervisor or any unusual rumors or questions received.	
????		RCG/ SUP V	Terminate Exercise	Receive termination notification from JENC	
????		RCG/ MGR	Commence critique and secure facility.		

PUBLIC INFORMATION CONTROLLER GUIDE

PUBLIC INQUIRY

DRILL CONTROLLER GUIDE					
Time	Msg	To	Event Summary	Anticipated Response	Controller Notes
0245		PI/SS	PVNGS Unit 1 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.	
0445 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	Receive termination notification from EOC/GPIO.	
????		PI/SS	Commence critique and secure facility.		

SECTION 6

OFFSITE MESSAGES

This document is controlled by 84DP-0RM32 and is classified as CONFIDENTIAL

SECTION 6

GOVERNMENT MESSAGES

SECTION 6

GOVERNMENT MESSAGES

TABLE OF CONTENTS

PAGE	CONTENTS
Section 6-3	Technical Operations Center Message Cards
Section 6-5	County Emergency Operations Center Message Cards
Section 6-10	On-Scene Command Post Message Cards
Section 6-15	Backup Warning Team Message Cards
Section 6-16	Road Block Team Message Cards
Section 6-17	REAT Forward Message Cards
Section 6-18	Special Evacuation Group Message Cards
Section 6-19	MCSO Special Assistance Transportation
Section 6-21	Reception and Care Center Message Cards
Section 6-22	Joint Emergency News Center Message Cards
Section 6-39	Public Inquiry Center Message Cards
Section 6-40	Rumor Control
Section 6-41	Rumor Control / Public Inquiry Questions

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:

Buckeye Union High School, 902 Eason Ave., Buckeye, Arizona

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:

Buckeye Union High School, 902 Eason Ave., Buckeye, Arizona

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 to be activated for evaluation is as follows:

Buckeye Union High School, 902 Eason Ave., Buckeye, Arizona

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. 39 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 roadblock at the following location:

At the intersection of Salome Highway and 339th Avenue.

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 being activated for evaluation purposes is as follows:

Buckeye Union High School, 902 Eason Avenue, Buckeye, Arizona

CONTINGENCY MESSAGE FORM

THIS IS A DRILL

To: Maricopa County Group Operations Chief

Message No.: MC-B

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

Location: Maricopa County EOC

MESSAGE

Siren Pole No. 39 failed to function.

NOTE: The Backup Warning Team will not use Loudspeakers, lights and sirens.

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. 39 failed to function.

NOTE: The Backup Warning Team will not use Loudspeakers, lights and sirens.

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 roadblock(s).

Location: On-Scene Command Post

MESSAGE

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

At the intersection of Salome Highway and 339th Avenue.

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 completed.

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 being activated is as follows:

Buckeye Union High School, 902 Eason Avenue, Buckeye, Arizona

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

Once the Special Evacuees have been responded to, the evacuees are released from the exercise and are to return to the PVNGS EIC for lunch.

EXERCISE MESSAGE FORM

THIS IS A DRILL

To: Backup Warning Team

Message No.: BW-1

Time: Upon arrival at the Backup warning area.

Location: 339th Avenue and I-10

MESSAGE

Drive through affected area and simulate giving Backup warning.

DO NOT activate siren, lights or loudspeaker.

Make certain evacuation group role player(s) at or near Siren 39 are notified.

CONTINGENCY MESSAGE FORM

THIS IS A DRILL

To: Road Block Team

Message No.: RB-A

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

Location: In Patrol Car

MESSAGE

Establish a roadblock for evaluation at the intersection of Salome Highway and 339th Avenue.

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:

Buckeye Union High School, 902 Eason Avenue, Buckeye, Arizona.

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

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've lost my glasses and can't drive without them. Can you help me?

My name is _____(Role Player's Name)_____. I'm located at the 339th Ave. and I-10 at Rip Griffins Truck Stop.

"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: Salome Highway and Dobbins Road

MESSAGE

My car has broken down on Salome Highway and Dobbins Road. I need transportation for six (6) people and my pet pot belly pig can you help? My Name Is

This is a Drill

EXERCISE MESSAGE FORM

THIS IS A DRILL

To: MCSO Special Assistance Transportation

Message No.: SEG-3

Time: Upon arrival of the MCSO Assistance Team

Location: 339th Ave. and Broadway Raod.

MESSAGE

My husband has the car. I need transportation for six children two other adults and myself, can you help? I'm located at the corner of 339 th avenue and Broadway Road. My name is Mrs. _____. I'm calling from a neighbor's cellular phone and they are leaving. How long will it be before you can get here?

This is a Drill

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: Buckeye Union High School

MESSAGE

Ensure that evacuees are monitored near arrival area.

Uncontaminated goes to the Reception Center.

Contaminated go to Decontamination (showers).

Note: 1. The use of the shower 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 a 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 massive evacuations? How many personnel live in these so-called sectors that everyone speaks of?

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 radiation is leaking out of a building that is three feet thick. How can anything or anyone punch a hole into this 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: Next 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: Next 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: Next 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: Next 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: Next 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: Next 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 in Arizona to 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 as 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.

EXERCISE MESSAGE FORM

THIS IS A DRILL

To: Rumor Control Group Controller

Message No.: RCG-1

Time: 0930

Location: Rumor Control Center

MESSAGE

Call the Rumor Control Group Center as 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.

PUBLIC INQUIRY QUESTIONS
(Refer to MSG Rumor Control and Public Inquiry)

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 meltdown? 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 Rumor Control and Public Inquiry)

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 form 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 Rumor Control and Public Inquiry)

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 Wall-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.

I've heard you've had an explosion. Should I call the travel agency and get my grand children 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 Rumor Control and Public Inquiry)

This is Jane Jones; I am calling form 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 would 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?

PUBLIC INQUIRY QUESTIONS (continued)
(Refer to MSG Rumor Control and Public Inquiry)

How long till it explodes?

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 Suprise)

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 for 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?

PUBLIC INQUIRY QUESTIONS (continued)
(Refer to MSG Rumor Control and Public Inquiry)

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 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 Hull doing about this problem?

Has anyone advised President Clinton of this problem?

Is FEMA in charge? If FEMA is not then 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 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.

PUBLIC INQUIRY QUESTIONS (Continued)
(Refer to MSG Rumor Control and Public Inquiry)

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?

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. I don't believe that 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 II 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, which 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?

PUBLIC INQUIRY QUESTIONS (continued)
(Refer to MSG Rumor Control and Public Inquiry)

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

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 my family and I 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.

PUBLIC INQUIRY QUESTIONS (continued)
(Refer to MSG Rumor Control and Public Inquiry)

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.

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 stash plastic gallon jugs of water and some canned foods in these areas for emergencies. I wondered if these supplies would 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 could 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 Pavilion, 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 Rumor Control and Public Inquiry)

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? 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 they're loving mother? Do you call your mother? I bet you let your mom see the grand children 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 and tell them what a rotten child they are and that they should be grateful that you have such a wonderful morn. 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.

PUBLIC INQUIRY QUESTIONS (continued)
(Refer to MSG Rumor Control and Public Inquiry)

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.

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? 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 [illegible]e evacuated?

I am a residen[illegible]est 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?

PUBLIC INQUIRY QUESTIONS (continued)
(Refer to MSG Rumor Control and Public Inquiry)

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?

Hey, we just got word that we have to evacuate out of this area. We're at Old Arlington Canal Road and US 80. 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 me and 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 form 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.

PUBLIC INQUIRY QUESTIONS (continued)
(Refer to MSG Rumor Control and Public Inquiry)

Hello, I work at Westridge Mall. Should I go to work as usual? Isn't this a dangerous situation out there 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 shat 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 does this affect 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?
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 this 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 7

CHEM / RAD

This document is controlled by 84DP-0RM32 and is classified as CONFIDENTIAL

EXPECTED ACTIONS - RADIATION PROTECTION

0200 The exercise begins with only Onshift coverage participating at this time. Simulator-A will function as the affected Unit 1 Control Room / STSC. Units 1, 2, and 3 operating staff will continue to operate and will not be directly involved in the exercise. One RM Technician will be participating in Simulator-A (other available Onshift RM Technicians will not be directly involved in the exercise). The remainder of the available Onshift staff will report to the Unit 1 OSC. The RPM will direct OSC activities from Simulator-A until the TSC is activated.

0215 The initial seismic event (one of three) occurs. No radioactivity is released as a result of this event. The RPM in Simulator-A should review the situation with the RM Technician and the operating staff to verify the situation in each unit (a Control Cell will provide information to the staff of Unit 2 and 3 as required).

0245 An **ALERT** is declared due to the confirmed earthquake. Since the earthquake affects all three units, Unit 1 will declare the event and assume control of the emergency for the site. The Unit 1 STSC (Simulator-A) and OSC (Unit 1) should activate. Offsite staff will be notified. The RPM may stage an RFAT in response to the **ALERT**. Though dispatch is not required (no release indications exist), the situation will be confusing, since the extent of damage due to the seismic event is unknown. The RPM may choose to dispatch an RFAT to verify that no release is in progress.

ISSUES: Simulated meteorological data will be available on Simulated ERFDADS Subsystem-A (SES-A). Real meteorological data will be available if participants select a Unit rather than SES-A on ERFDADS. RMS data in the Units is real and must not be used.

0300 Reactor shutdown begins. The RPM should be monitoring Onshift personnel activities via OSC control in the RCA and Operations interface outside the RCA. No dose assessments will currently be required. The RM Technician(s) should verify that existing release permits are not exceeded.

0445 The EOF and TSC should be activated by this time. Exercise participation will be limited to Simulator-A, the EOF, the TSC, and Unit 1 OSC. No releases will be occurring at this time.

0735 Indications of a LOCA inside Containment are realized. A 50-gpm leak will result in a rise on RU-1 and RU-16 indications.

0745 The second of three seismic events occur. This causes a full LOCA in Containment and the reactor trips. Dose projections should be performed based on RU-148 readings. RU-1 will isolate at this time and the readings on ERFDADS will decay. Onsite teams will find indications of a low-level release on the lee side of Containment. RFAT Teams at the Site Boundary will find nothing at this time, as the leading edge of the plume will not reach the Site Boundary until 0900. The source of the low-level release from Containment is postulated to be the 140' upper equipment hatch area. Teams will see low dose rates at ground level in this area with survey meter "Open Window = Closed Window", indicating the release is primarily overhead. All other surveys will show normal dose rate and airborne levels.

EXPECTED ACTIONS - RADIATION PROTECTION *(continued...)*

0800 The declared **SAE** is based on loss of RCS and Containment fission product barriers. Shelter within a 2-mile radius will be recommended to State personnel, who will most likely act on the recommendation immediately. Ruth Fisher School is in the plume path and additional protective actions may be taken in the vicinity. Control of Interstate-10 traffic may be instituted by State law enforcement personnel, with traffic being diverted south around the Site. As an alternative, State personnel may choose to limit protective actions to shelter at this time. Dose projections will currently show minimal dose with the plume not reaching the Site Boundary until 0820.

0830 A RAS occurs. Dose rates in areas of running pumps and associated piping in the Auxiliary Building will rise to "High Radiation Area" levels. (Dose rates will slowly rise from initial levels per Page 7-14 data.) Airborne levels will remain near normal as reflected by RU-8, -9, and -10 readings. Radiation levels are such that work will be able to be performed in the Auxiliary Building throughout the event. However, OSC RP staff must closely monitor various team locations and stay times, as administrative dose limits could easily be exceeded in some areas.

0915 A third seismic event occurs, causing a Containment breach (a penetration envelope fails around one of the feedwater lines for S/G #1, allowing Containment airborne activity to release directly to the environment). Steam will be visible rising from the MSSS. Additional fuel pin damage occurs from clad impingement. Though not readily detectable, the Containment spray header inside containment is damaged from the aftershock. When spray is initiated, the Operations crew will receive the proper flow indications, but Containment Spray will be severely hampered. Elevated Iodine concentrations will be released directly to the environment via the MSSS roof.

Dose rates on the MSSS and Turbine Building roofs will be high (per Page 7-14 data). The initial phase of the high activity plume will reach the Site Boundary (0.8 miles) by 0930. The plume discharge direction will remain near 348° (junction of Sectors A and R) throughout the release phase. The plume will emanate from the MSSS and rise over the Unit 1 Cooling Towers. It will touch down 0.1 miles before reaching the Site Boundary and continue its trajectory near ground level thereafter.

0930 A **GE** is declared based on loss of the third fission product barrier (i.e., Containment). Evacuation in a 2-mile radius of the site and 5 miles in potentially affected sectors will be recommended to State personnel, who are expected to act immediately. Ruth Fisher School is located approximately 7 miles from PVNGS and will probably be included in the evacuation area. If actions regarding school evacuation are not immediately required by State personnel, the projected dose will exceed 1 REM TEDE at the Site Boundary within an hour, causing State emergency personnel to implement the evacuation.

Teams will be formed to assess the damage, based on steam issuing from the MSSS roof. Team members will not be able to access the MSSS or roof area due to visibility and personnel safety. Initial surveys performed at the high dose release points (plume will be accessible from the Turbine Building roof) will verify the projected levels and place EOF staff on alert that a significant release is in progress.

EXPECTED ACTIONS - RADIATION PROTECTION *(continued...)*

1030 The EOF staff begins to analyze the projection parameters against field dose and will suspect that fuel pin leakage has increased after the trip. Additional RCS sampling to quantify fuel damage will be requested. Questions on the leak flow rate will be categorically impossible to answer. The staff will have to use bounding calculations to compare with field dose rates in an attempt to quantify the leak rate. Another question at this point centers on the release duration. Operations personnel will be unable to stop the release until the plant is cooled down. The amount of time required for the cooldown will be questionable, but will be given as 3 hours or greater as a minimum. The EOF staff should perform some bounding calculations based on release times greater than 2 hours. In addition, ARRA staff will be simultaneously performing RASCAL projections. The results of those calculations should show TEDE dose greater than 1 REM (MESOREM) and greater than 5 REM Thyroid (RASCAL), respectively, at the Site Boundary. It is likely that the appropriate recommended protective actions will already have been taken. If not, these projections will serve to ensure those actions are taken.

Teams will continue to experience problems accessing the MSSS and will be unable to stop the leak. Field team data provided by PVNGS and ARRA will substantiate the dose projections.

1130 Exercise termination.

ONSITE RADIOLOGICAL DATA

Data is provided at important intervals and generally in quarter-hour segments. It may be given strictly in accordance with the times provided or the Controllers may interpolate if they choose and if time permits.

Data is not to be provided unless it is earned. The exercise participant must have the appropriate monitoring instrument and must explain what scales are being used, etc. In addition, the participant must choose when to take dose rate measurements. If the participant fails to re-survey a location, the data should not be disseminated, even if a crucial event is missed.

Dose rates are given in mR/hr and are DDE values. If an open window (OW) instrument is used (in a plume area) and an OW value is requested by the participant, the Controller should provide a value approximately 2 times the closed window (CW) value.

When air samples are taken, the participant may choose to take frisker readings on the particulate and Iodine media. In such cases, the values should be provided in "cpm". This is all that should be disseminated in the field. Only after the samples are taken for analysis should the µCi/cc values be delivered to the participant.

The Count Room in the Unit 1 Chemistry Laboratory will be operable throughout the exercise. If participants need an isotopic analysis from an onsite sample point, the sample needs to be transported by the participants to the Count Room. If the sample was taken by an RFAT team, the sample must be brought back to the site and then taken into the Protected Area and up to the Count Room. In all cases, the samples will be provided to the Chemistry Technician per normal operating practice. After allowing some delay for counting, Chemistry Laboratory Controllers will provide the air sample analysis sheet to the participants, including the gross Iodine and Noble Gas µCi/cc readings **for the time period in which the sample was collected**.

Other than the roof area at the leak source, the plume will be overhead at all points within the Protected Area. It will be visible enough to determine that it is rising and passing over the Turbine Building. **Dose rates under the plume will be from shine only and not from immersion**. If the participant takes OW / CW readings, the OW will be the same as the CW. Allow the participant to determine which dose rate measurements to take.

Page 7-14 data does not include plume data for field samples inside the Site Boundary fence approximately 0.1 miles from where the plume will touch down. Should RFAT personnel be directed to take samples in this area, use the Site Boundary (0.8 mile) data and multiply the numbers by 1.1.

ONSITE / OFFSITE AIRBORNE DATA HANDLING

The only data readily available without bringing samples onsite for an isotopic analysis will be for RFAT teams and the teams at the steam release point. Participants may take frisker readings on the particulate and Iodine sample media and perform a rough conversion in the field to obtain µCi/cc values. If participants take frisker readings on the P&I media, the correct cpm values should be provided. Furthermore, only the cpm values, and not the µCi/cc values, should be provided in the field. The µCi/cc values will be given to the participants later when the sample is brought in for analysis.

Field air samples / stack grab samples, etc. that are delivered for isotopic analysis will be handled as follows:

- The participant performing the air sample collection will complete Form EP-0481, Air Sample Data, and package the filter media (normal practice).

- The samples must be delivered to the simulated Count Room in the Unit 1 OSC and given to the Facility Lead Controller (brief the participant on use of simulated versus actual Count Room activities). It will be assumed that the affected Unit Count Room remains available throughout the event, so samples should be brought there.

- After a simulated time lapse, the OSC Facility Lead Controller will FAX or telephone the results to the participant positions requested on the sample form. This will mimic actual practice.

- RM TECHNICIAN CONTROLLER EXCEPTION:

  If an RM Technician collects a stack grab sample, the RM Tech Controller may collect the sample paperwork (prepared as above) and act as "the Count Room." The RM Tech Controller will FAX or telephone the results to the participant positions requested on the form. Again, the RM Tech Controller should review this process with the RM Technician when the exercise begins.

- PASS SAMPLES:

  The PASS sample team will collect samples as directed in the team briefing. Once those samples are collected and analyzed, the PASS team will complete the sample paperwork, as above, and provide it to the PASS team Controller. The Controller will complete the data and deliver the completed paperwork to the team. The PASS team will provide the data to other participants as requested. The Controller should inform the team of this process.

CHEMISTRY LAB & PASS TEAM CONTROLLER DATA

PRIOR TO EXERCISE:

An Onshift RM Technician may be working under normal duties in the Unit 1 RM Office during the exercise. Instruct that technician to forward all exercise-related calls to the RM Technician exercise participant in Simulator-A (telephone number is 6082).

Simulator-A Control Room personnel may call for current chemistry information prior to initial classification. Therefore, the Chemistry participant should be available in the Chemistry Laboratory when the exercise begins. Be prepared to provide initial (normal operating level) information to the Chemistry Technician participant at this time. Normal duty (non-participating) Chemistry Technicians working in the Laboratory should be instructed to forward all exercise-related calls to the designated exercise participant. To prevent confusion, all exercise participants should wear red player armbands. The Controller should ensure availability of two red armbands, one each for the Chemistry Technician participant and the Unit Chemistry Lead (who may arrive as normal dayshift complement).

DURING THE EXERCISE:

Chemistry Laboratory / PASS Team participants should not call the RM Technician in Simulator-A for RMS data. They should be informed that the Controller will provide RMS data. (Because the times may be unpredictable, Simulator-A RMS response to sampling is not modeled.) Controllers will be the only providers of RMS response data.

The Count Room is assumed to be functional throughout the exercise. Samples to be counted may come from normal Chemistry Technician activities, from PASS Team sampling activities, from RM Technician sampling activities, from OSC Team airborne sampling activities, or from RFAT Team sampling activities. Sample sheets used for the exercise are provided in this package, as well as the data required for isotopic analysis results. Unless sampling is ongoing, readings in the Chemistry Laboratory will indicate "as read".

The Chemistry Laboratory Controller is responsible for overall Chemistry Laboratory control. If a PASS team is dispatched by the OSC, a second Controller will be assigned to assist with data delivery to the RP participant. This second PASS team Controller will provide the general area dose rates and Radiation Monitoring System (RMS) information to the PASS team. The Chemistry Laboratory Controller should interact with this second Controller to ensure the Chemistry participant on the PASS team is provided the correct information if specific chemistry related questions are asked.

The PASS will not be operated during the exercise. However, if a PASS sample is requested, all related actions to collect a PASS sample should be fully simulated. Valve lineups, switch positioning, etc. should be fully simulated. Briefing dress requirements (i.e., dosimetry, protective clothing, etc.) must be followed and demonstrated at least once by each participant. The only actions that may be compressed or simulated for exercise purposes are the sample recirculation times, which may be shortened to a fraction of the actual time. The Chemistry Laboratory Controller may also provide data to TSC personnel prior to performance of PASS team activities. This will be necessary to allow data to flow under the compressed exercise timeline for core damage assessment activities. The PASS team, in such cases, will continue participation-to-completion in real time.

SPECIFIC TIME PERIOD DATA

0200 - 0745 All dose rates and air samples are "as read".

0745 - 0830 Dose rates outside Containment under the 140' equipment hatch general area and out to approximately the Protected Area fence are 0.5 mR/hr OW and/or 0.5 CW (shine from minor overhead plume).

All airborne samples are "as read".

The plume leading edge will touch down at the Protected Area boundary road / fence at 0820. At that time, dose rate will be < 0.1 mR/hr.

0830 - 0915 Dose rates outside Containment under the 140' equipment hatch general area are 5.0 mR/hr OW and/or 5.0 CW. At the Protected Area fence, they are 2.0 mR/hr OW and/or 2.0 CW (both areas consider shine from low level overhead plume).

Dose rates in the Auxiliary Building are normal except for pumps and piping used for Containment recirculation (RAS occurs at 0830).

Running pumps and RAS piping contact:

General Area	10	to	40	mR/hr
Contact piping and pumps	40	to	500	mR/hr

Air samples taken within the Auxiliary Building are "as read".
Plant Vent and Fuel Building Vent Stack samples are "as read".

UNDER PLUME WITHIN PROTECTED AREA AT GROUND LEVEL

Immediately outside Unit 1 directly under plume path: 5.0 mR/hr CW / OW

At North Protected Area boundary: 2.0 mR/hr CW / OW

Air samples taken at ground level in Protected Area: "as read"

The Plume leading edge will reach the Site Boundary, Sectors A / B, by 0900. The initial activity will show < 0.5 mR/hr dose rate levels.

SPECIFIC TIME PERIOD DATA *(continued...)*

0915 - 0930 Dose rates and air samples are "as read" except as follows:

AUXILIARY BUILDING

Dose rates in the Auxiliary Building are normal except for pumps and piping used for Containment recirculation (RAS occurs at 0830).

Running pumps and RAS piping contact:

General Area	10	to	110	mR/hr
Contact piping and pumps	110	to	1000	mR/hr

Air samples taken within the Auxiliary Building are "as read".
Plant Vent and Fuel Building Vent Stack samples are "as read".

MSSS ROOF AND TURBINE BUILDING ROOF NEAR LEAK

A large, visible steam plume is emanating from the MSSS roof and is heading north-northwest, directly over the Turbine Building. ENTRY TO THE MSSS OR MSSS ROOF AREA IS IMPOSSIBLE DUE TO LIVE STEAM. Attempts to enter either area should be handled by the Controller with interjection of steam burns, inability to see, etc. to defeat the attempt. The teams will be able to approach the plume from the Turbine Building roof.

As survey teams approach the plume, measured dose rates will be 622 mR/hr CW -- twice that for the OW reading. These readings reflect as close as the teams can safely approach -- not centerline values. Air samples taken on the Turbine Building roof at this same point will be 2.74E-03 µCi/cc Noble Gas, 6.16E-07 µCi/cc Iodine, and 5.85E-08 µCi/cc Particulate. These readings will initially be seen as 3,660 cpm on the particulate cartridge and 19,300 cpm on the Silver Zeolite / charcoal cartridge.

UNDER PLUME ONSITE AT GROUND LEVEL

Immediately outside Unit 1 directly under plume path:	383 mR/hr CW / OW
At North Protected Area boundary:	319 mR/hr CW / OW
Road to Water Reclamation west of cooling towers:	110 mR/hr CW / OW
Air samples taken at ground level in Protected Area:	"as read"

SPECIFIC TIME PERIOD DATA *(continued...)*

0930 - 0945 Dose rates and air samples are "as read" except as follows:

AUXILIARY BUILDING

Dose rates in Auxiliary Building are normal except for pumps and piping used for Containment recirculation (RAS occurs at 0830).

Running pumps and RAS piping contact:

General Area	10	to	120	mR/hr
Contact piping and pumps	120	to	1100	mR/hr

Air samples taken within the Auxiliary Building are "as read".
Plant Vent and Fuel Building Vent Stack samples are "as read".

TURBINE BUILDING ROOF NEAR LEAK AND UNDER PLUME

A large, visible steam plume is emanating from the MSSS roof and is heading north-northwest, directly over the Turbine Building. ENTRY TO THE MSSS OR MSSS ROOF AREA IS IMPOSSIBLE DUE TO LIVE STEAM. Attempts to enter either area should be handled by the Controller with interjection of steam burns, inability to see, etc. to defeat the attempt. The teams will be able to approach the plume from the Turbine Building roof.

As survey teams approach the plume, measured dose rates will be 5240 mR/hr CW -- twice that for the OW reading. These readings reflect as close as the teams can safely approach -- not centerline values. Air samples taken on the Turbine Building roof at this same point will be 2.28E-02 µCi/cc Noble Gas, 1.56E-05 µCi/cc Iodine, and 1.48E-06 µCi/cc Particulate. These readings will initially be seen as 92,400 cpm on the particulate cartridge and 490,000 cpm on the Silver Zeolite / charcoal cartridge (approximately 8 mR/hr CW on an RO-2).

UNDER PLUME ONSITE AT GROUND LEVEL

Immediately outside Unit 1 directly under plume path:	2860 mR/hr CW / OW
At North Protected Area boundary:	2383 mR/hr CW / OW
Road to Water Reclamation west of cooling towers:	815 mR/hr CW / OW
Air samples taken at ground level in Protected Area:	"as read"

SPECIFIC TIME PERIOD DATA *(continued...)*

0945 - 1000 Dose rates and air samples are "as read" except as follows:

AUXILIARY BUILDING

Dose rates in Auxiliary Building are normal except for pumps and piping used for Containment recirculation (RAS occurs at 0830).

Running pumps and RAS piping contact:

General Area	10	to	130	mR/hr
Contact piping and pumps	130	to	1200	mR/hr

Air samples taken within the Auxiliary Building are "as read".
Plant Vent and Fuel Building Vent Stack samples are "as read".

TURBINE BUILDING ROOF NEAR LEAK AND UNDER PLUME

A large, visible steam plume is emanating from the MSSS roof and is heading north-northwest, directly over the Turbine Building. ENTRY TO THE MSSS OR MSSS ROOF AREA IS IMPOSSIBLE DUE TO LIVE STEAM. Forced entries will result in casualties. (Team members will fail to report.) Search parties will find unresponsive bodies with steam burns.

As survey teams approach the plume, measured dose rates will be 6970 mR/hr CW -- twice that for the OW reading. These readings reflect as close as the teams can safely approach -- not centerline values. Air samples taken on the Turbine Building roof at this same point will be 3.26E-02 µCi/cc Noble Gas, 2.40E-05 µCi/cc Iodine, and 2.28E-06 µCi/cc Particulate. These readings will initially be seen as 143,000 cpm on the particulate cartridge and offscale HI on the Silver Zeolite / charcoal cartridge (approximately 12 mR/hr CW on an RO-2).

UNDER PLUME ONSITE AT GROUND LEVEL

Immediately outside Unit 1 directly under plume path:	3800 mR/hr CW / OW
At North Protected Area boundary:	3167 mR/hr CW / OW
Road to Water Reclamation west of cooling towers:	1083 mR/hr CW / OW
Air samples taken at ground level in Protected Area:	"as read"

SPECIFIC TIME PERIOD DATA *(continued...)*

1000 - 1015 Dose rates and air samples are "as read" except as follows:

AUXILIARY BUILDING

Dose rates in Auxiliary Building are normal except for pumps and piping used for Containment recirculation (RAS occurs at 0830).

Running pumps and RAS piping contact:

General Area	10	to	140	mR/hr
Contact piping and pumps	140	to	1300	mR/hr

Air samples taken within the Auxiliary Building are "as read".
Plant Vent and Fuel Building Vent Stack samples are "as read".

TURBINE BUILDING ROOF NEAR LEAK AND UNDER PLUME

A large, visible steam plume is emanating from the MSSS roof and is heading north-northwest, directly over the Turbine Building. ENTRY TO THE MSSS OR MSSS ROOF AREA IS IMPOSSIBLE DUE TO LIVE STEAM. Forced entries will result in casualties. (Team members will fail to report.) Search parties will find unresponsive bodies with steam burns.

As survey teams approach the plume, measured dose rates will be 8860 mR/hr CW -- twice that for the OW reading. These readings reflect as close as the teams can safely approach -- not centerline values. Air samples taken on the Turbine Building roof at this same point will be 4.48E-02 µCi/cc Noble Gas, 3.42E-05 µCi/cc Iodine, and 3.25E-06 µCi/cc Particulate. These readings will initially be seen as 203,000 cpm on the particulate cartridge and offscale HI on the Silver Zeolite / charcoal cartridge (approximately 17 mR/hr CW on an RO-2).

UNDER PLUME ONSITE AT GROUND LEVEL

Immediately outside Unit 1 directly under plume path:	4830 mR/hr CW / OW
At North Protected Area boundary:	4029 mR/hr CW / OW
Road to Water Reclamation west of cooling towers:	1370 mR/hr CW / OW
Air samples taken at ground level in Protected Area:	"as read"

SPECIFIC TIME PERIOD DATA *(continued...)*

1015 - 1030 Dose rates and air samples are "as read" except as follows:

AUXILIARY BUILDING

Dose rates in Auxiliary Building are normal except for pumps and piping used for Containment recirculation (RAS occurs at 0830).

Running pumps and RAS piping contact:

General Area	10	to	150	mR/hr
Contact piping and pumps	150	to	1400	mR/hr

Air samples taken within the Auxiliary Building are "as read".
Plant Vent and Fuel Building Vent Stack samples are "as read".

TURBINE BUILDING ROOF NEAR LEAK AND UNDER PLUME

A large, visible steam plume is emanating from the MSSS roof and is heading north-northwest, directly over the Turbine Building. ENTRY TO THE MSSS OR MSSS ROOF AREA IS IMPOSSIBLE DUE TO LIVE STEAM. Forced entries will result in casualties. (Team members will fail to report.) Search parties will find unresponsive bodies with steam burns.

As survey teams approach the plume, measured dose rates will be 9130 mR/hr CW -- twice that for the OW reading. These readings reflect as close as the teams can safely approach -- not centerline values. Air samples taken on the Turbine Building roof at this same point will be 4.80E-02 µCi/cc Noble Gas, 3.72E-05 µCi/cc Iodine, and 3.53E-06 µCi/cc Particulate. These readings will initially be seen as 221,000 cpm on the particulate cartridge and offscale HI on the Silver Zeolite / charcoal cartridge (approximately 17 mR/hr CW on an RO-2).

UNDER PLUME ONSITE AT GROUND LEVEL

Immediately outside Unit 1 directly under plume path:	4980 mR/hr CW / OW
At North Protected Area boundary:	4152 mR/hr CW / OW
Road to Water Reclamation west of cooling towers:	1410 mR/hr CW / OW
Air samples taken at ground level in Protected Area:	"as read"

SPECIFIC TIME PERIOD DATA *(continued...)*

1030 - 1045 Dose rates and air samples are "as read" except as follows:

AUXILIARY BUILDING

Dose rates in Auxiliary Building are normal except for pumps and piping used for Containment recirculation (RAS occurs at 0830).

Running pumps and RAS piping contact:

General Area	10	to	160	mR/hr
Contact piping and pumps	160	to	1500	mR/hr

Air samples taken within the Auxiliary Building are "as read".
Plant Vent and Fuel Building Vent Stack samples are "as read".

TURBINE BUILDING ROOF NEAR LEAK AND UNDER PLUME

A large, visible steam plume is emanating from the MSSS roof and is heading north-northwest, directly over the Turbine Building. ENTRY TO THE MSSS OR MSSS ROOF AREA IS IMPOSSIBLE DUE TO LIVE STEAM. Forced entries will result in casualties. (Team members will fail to report.) Search parties will find unresponsive bodies with steam burns.

As survey teams approach the plume, measured dose rates will be 11800 mR/hr CW -- twice that for the OW reading. These readings reflect as close as the teams can safely approach -- not centerline values. Air samples taken on the Turbine Building roof at this same point will be 6.84E-02 µCi/cc Noble Gas, 5.42E-05 µCi/cc Iodine, and 5.15E-06 µCi/cc Particulate. These readings will initially be seen as 322,000 cpm on the particulate cartridge and offscale HI on the Silver Zeolite / charcoal cartridge (approximately 27 mR/hr CW on an RO-2).

UNDER PLUME ONSITE AT GROUND LEVEL

Immediately outside Unit 1 directly under plume path:	6460 mR/hr CW / OW
At North Protected Area boundary:	5385 mR/hr CW / OW
Road to Water Reclamation west of cooling towers:	1830 mR/hr CW / OW
Air samples taken at ground level in Protected Area:	"as read"

SPECIFIC TIME PERIOD DATA *(continued...)*

1045 - 1100 Dose rates and air samples are "as read" except as follows:

AUXILIARY BUILDING

Dose rates in Auxiliary Building are normal except for pumps and piping used for Containment recirculation (RAS occurs at 0830).

Running pumps and RAS piping contact:

General Area	10	to	170	mR/hr
Contact piping and pumps	170	to	1600	mR/hr

Air samples taken within the Auxiliary Building are "as read".
Plant Vent and Fuel Building Vent Stack samples are "as read".

TURBINE BUILDING ROOF NEAR LEAK AND UNDER PLUME

A large, visible steam plume is emanating from the MSSS roof and is heading north-northwest, directly over the Turbine Building. ENTRY TO THE MSSS OR MSSS ROOF AREA IS IMPOSSIBLE DUE TO LIVE STEAM. Forced entries will result in casualties. (Team members will fail to report.) Search parties will find unresponsive bodies with steam burns.

As survey teams approach the plume, measured dose rates will be 7150 mR/hr CW -- twice that for the OW reading. These readings reflect as close as the teams can safely approach -- not centerline values. Air samples taken on the Turbine Building roof at this same point will be 3.82E-02 µCi/cc Noble Gas, 3.16E-05 µCi/cc Iodine, and 3.00E-06 µCi/cc Particulate. These readings will initially be seen as 188,000 cpm on the particulate cartridge and offscale HI on the Silver Zeolite / charcoal cartridge (approximately 16 mR/hr CW on an RO-2).

UNDER PLUME ONSITE AT GROUND LEVEL

Immediately outside Unit 1 directly under plume path:	3900 mR/hr CW / OW
At North Protected Area boundary:	3248 mR/hr CW / OW
Road to Water Reclamation west of cooling towers:	874 mR/hr CW / OW
Air samples taken at ground level in Protected Area:	"as read"

SPECIFIC TIME PERIOD DATA *(continued...)*

1100 - 1115 Dose rates and air samples are "as read" except as follows:

AUXILIARY BUILDING

Dose rates in Auxiliary Building are normal except for pumps and piping used for Containment recirculation (RAS occurs at 0830).

Running pumps and RAS piping contact:

General Area	10	to	180	mR/hr
Contact piping and pumps	180	to	1700	mR/hr

Air samples taken within the Auxiliary Building are "as read".
Plant Vent and Fuel Building Vent Stack samples are "as read".

TURBINE BUILDING ROOF NEAR LEAK AND UNDER PLUME

A large, visible steam plume is emanating from the MSSS roof and is heading north-northwest, directly over the Turbine Building. ENTRY TO THE MSSS OR MSSS ROOF AREA IS IMPOSSIBLE DUE TO LIVE STEAM. Forced entries will result in casualties. (Team members will fail to report.) Search parties will find unresponsive bodies with steam burns.

As survey teams approach the plume, measured dose rates will be 3780 mR/hr CW -- twice that for the OW reading. These readings reflect as close as the teams can safely approach -- not centerline values. Air samples taken on the Turbine Building roof at this same point will be 2.02E-02 µCi/cc Noble Gas, 1.68E-05 µCi/cc Iodine, and 1.60E-06 µCi/cc Particulate. These readings will initially be seen as 100,000 cpm on the particulate cartridge and offscale HI on the Silver Zeolite / charcoal cartridge (approximately 8.5 mR/hr CW on an RO-2).

UNDER PLUME ONSITE AT GROUND LEVEL

Immediately outside Unit 1 directly under plume path:	2060 mR/hr CW / OW
At North Protected Area boundary:	1718 mR/hr CW / OW
Road to Water Reclamation west of cooling towers:	366 mR/hr CW / OW
Air samples taken at ground level in Protected Area:	"as read"

SPECIFIC TIME PERIOD DATA *(continued...)*

1115 - 1130 Dose rates and air samples are "as read" except as follows:

AUXILIARY BUILDING

Dose rates in Auxiliary Building are normal except for pumps and piping used for Containment recirculation (RAS occurs at 0830).

Running pumps and RAS piping contact:

General Area	10	to	180	mR/hr
Contact piping and pumps	180	to	1700	mR/hr

Air samples taken within the Auxiliary Building are "as read".
Plant Vent and Fuel Building Vent Stack samples are "as read".

TURBINE BUILDING ROOF NEAR LEAK AND UNDER PLUME

A large, visible steam plume is emanating from the MSSS roof and is heading north-northwest, directly over the Turbine Building. ENTRY TO THE MSSS OR MSSS ROOF AREA IS IMPOSSIBLE DUE TO LIVE STEAM. Forced entries will result in casualties. (Team members will fail to report.) Search parties will find unresponsive bodies with steam burns.

As survey teams approach the plume, measured dose rates will be 2583 mR/hr CW -- twice that for the OW reading. These readings reflect as close as the teams can safely approach -- not centerline values. Air samples taken on the Turbine Building roof at this same point will be 1.36E-02 µCi/cc Noble Gas, 1.15E-05 µCi/cc Iodine, and 1.09E-06 µCi/cc Particulate. These readings will initially be seen as 68,300 cpm on the particulate cartridge and 360,000 cpm on the Silver Zeolite / charcoal cartridge (approximately 6 mR/hr CW on an RO-2).

UNDER PLUME ONSITE AT GROUND LEVEL

Immediately outside Unit 1 directly under plume path: 1410 mR/hr CW / OW

At North Protected Area boundary: 1171 mR/hr CW / OW

Road to Water Reclamation west of cooling towers: 250 mR/hr CW / OW

Air samples taken at ground level in Protected Area: "as read"

SPECIFIC TIME PERIOD DATA *(continued...)*

1130 - END Dose rates and air samples are "as read" except as follows:

AUXILIARY BUILDING

Dose rates in Auxiliary Building are normal except for pumps and piping used for Containment recirculation (RAS occurs at 0830).

Running pumps and RAS piping contact:

General Area	10	to	180	mR/hr
Contact piping and pumps	180	to	1700	mR/hr

Air samples taken within the Auxiliary Building are "as read".
Plant Vent and Fuel Building Vent Stack samples are "as read".

TURBINE BUILDING ROOF NEAR LEAK AND UNDER PLUME

A large, visible steam plume is emanating from the MSSS roof and is heading north-northwest, directly over the Turbine Building. ENTRY TO THE MSSS OR MSSS ROOF AREA IS IMPOSSIBLE DUE TO LIVE STEAM. Forced entries will result in casualties. (Team members will fail to report.) Search parties will find unresponsive bodies with steam burns.

As survey teams approach the plume, measured dose rates will be 4440 mR/hr CW -- twice that for the OW reading. These readings reflect as close as the teams can safely approach -- not centerline values. Air samples taken on the Turbine Building roof at this same point will be 2.40E-02 µCi/cc Noble Gas, 4.08E-04 µCi/cc Iodine, and 2.93E-05 µCi/cc Particulate. These readings will initially be seen as 183,000 cpm on the particulate cartridge and offscale HI on the Silver Zeolite / charcoal cartridge (approximately 20 mR/hr CW on an RO-2).

UNDER PLUME ONSITE AT GROUND LEVEL

Immediately outside Unit 1 directly under plume path:	2420 mR/hr CW / OW
At North Protected Area boundary:	2017 mR/hr CW / OW
Road to Water Reclamation west of cooling towers:	430 mR/hr CW / OW
Air samples taken at ground level in Protected Area:	"as read"

DATA FOR PASS SAMPLES TAKEN 0745-0915

Prior to Sample Recirculation (Initial Values)

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 General Area	"as read"	mR/hr

At End of Sample Recirculation and Prior to Flush (Highest Readings)

Contact lead bricks	150	mR/hr
Gen. Area by sink	125	mR/hr
In door to sink area	10	mR/hr
RU-158D	100	mR/hr
RU-26	100	mR/hr
RU-23	"as read"	mR/hr
RU-10	"as read"	µCi/cc
Count Room General Area	"as read"	mR/hr

After Flush is Completed

Contact lead bricks	125	mR/hr
Gen. Area by sink	75	mR/hr
In door to sink area	2	mR/hr
RU-158D	40	mR/hr
RU-26	40	mR/hr
RU-23	"as read"	mR/hr
RU-10	"as read"	µCi/cc
Count Room General Area	"as read"	mR/hr

PASS Syringe Dose Rate (UNSHIELDED)

1.0 cc	=	175.0	mR/hr contact	3.0	mR/hr @ 2'
		35.0	mR/hr @ 1'	1.0	mR/hr @ 3'
0.5 cc	=	80.0	mR/hr contact	1.7	mR/hr @ 2'
		17.0	mR/hr @ 1'	1.0	mR/hr @ 3'
0.1 cc	=	13.0	mR/hr contact	1.0	mR/hr @ 2'
		3.0	mR/hr @ 1'	0.5	mR/hr @ 3'

PASS Syringe Dose Rate (SHIELDED)

1.0 cc	=	4.5	mR/hr contact	0.1	mR/hr @ 2'
		0.5	mR/hr @ 1'	0.1	mR/hr @ 3'
0.5 cc	=	1.0	mR/hr contact	0.1	mR/hr @ 2'
		0.1	mR/hr @ 1'	0.1	mR/hr @ 3'
0.1 cc	=	1.0	mR/hr contact	0.1	mR/hr @ 2'
		0.1	mR/hr @ 1'	0.1	mR/hr @ 3'

DATA FOR PASS SAMPLES TAKEN *AFTER* 0915

Prior to Sample Recirculation (Initial Values)

Contact lead bricks	125	mR/hr
Gen. Area by sink	75	mR/hr
In door to sink area	2	mR/hr
RU-158D	40	mR/hr
RU-26	40	mR/hr
RU-23	"as read"	mR/hr
RU-10	"as read"	µCi/cc
Count Room General Area	"as read"	mR/hr

At End of Sample Recirculation and Prior to Flush (Highest Readings)

Contact lead bricks	1450	mR/hr
Gen. Area by sink	1200	mR/hr
In door to sink area	95	mR/hr
RU-158D	1000	mR/hr
RU-26	1000	mR/hr
RU-23	"as read"	mR/hr
RU-10	"as read"	µCi/cc
Count Room General Area	"as read"	mR/hr

After Flush is Completed

Contact lead bricks	1250	mR/hr
Gen. Area by sink	750	mR/hr
In door to sink area	20	mR/hr
RU-158D	400	mR/hr
RU-26	400	mR/hr
RU-23	"as read"	mR/hr
RU-10	"as read"	µCi/cc
Count Room General Area	"as read"	mR/hr

PASS Syringe Dose Rate (UNSHIELDED)

1.0 cc	=	1750.0	mR/hr contact	30.0	mR/hr @ 2'
		350.0	mR/hr @ 1'	10.0	mR/hr @ 3'
0.5 cc	=	800.0	mR/hr contact	17.0	mR/hr @ 2'
		170.0	mR/hr @ 1'	10.0	mR/hr @ 3'
0.1 cc	=	130.0	mR/hr contact	10.0	mR/hr @ 2'
		30.0	mR/hr @ 1'	5.0	mR/hr @ 3'

PASS Syringe Dose Rate (SHIELDED)

1.0 cc	=	45.0	mR/hr contact	1.0	mR/hr @ 2'
		5.0	mR/hr @ 1'	0.1	mR/hr @ 3'
0.5 cc	=	10.0	mR/hr contact	0.5	mR/hr @ 2'
		1.0	mR/hr @ 1'	0.1	mR/hr @ 3'
0.1 cc	=	10.0	mR/hr contact	0.5	mR/hr @ 2'
		1.0	mR/hr @ 1'	0.1	mR/hr @ 3'

CHEMISTRY SAMPLE DATA

RCS HOT LEG ACTIVITY - µCi/cc

NUCLIDE	0200	0745	0915	1015	1035	1100+
I-131	3.68E-04	4.97E-01	2.84E+00	4.26E+00	5.68E+00	7.10E+00
I-132	6.86E-03	3.89E-03	2.22E-02	3.33E-02	4.44E-02	5.55E-02
I-133	4.65E-03	4.83E-01	2.76E+00	4.14E+00	5.52E+00	6.90E+00
I-134	1.18E-02	3.32E-01	1.90E+00	2.84E+00	3.79E+00	4.74E+00
I-135	8.37E-03	2.17E-01	1.24E+00	1.86E+00	2.48E+00	3.10E+00
Ar-41	6.58E-03	7.20E-03	7.62E-03	6.20E-03	5.93E-03	3.17E-05
Kr-85m	9.12E-04	7.84E-02	4.48E-01	6.72E-01	8.96E-01	1.12E+00
Kr-87	2.10E-03	5.25E-05	3.00E-04	4.50E-04	6.00E-04	7.50E-04
Kr-88	2.29E-03	1.64E-01	9.36E-01	1.40E+00	1.87E+00	2.34E+00
Xe-133	5.36E-03	7.56E-02	4.32E-01	6.48E-01	8.64E-01	1.08E+00
Xe-135	7.00E-03	9.87E-02	5.64E-01	8.46E-01	1.13E+00	1.41E+00
Xe-135m	2.79E-03	3.92E-02	2.24E-01	3.36E-01	4.48E-01	5.60E-01
Xe-138	7.39E-03	1.04E-01	5.96E-01	8.94E-01	1.19E+00	1.49E+00
Rb-88	2.56E-03	1.83E-01	1.05E+00	1.57E+00	2.10E+00	2.62E+00
Cs-134	2.69E-04	9.59E-04	5.48E-03	8.22E-03	1.10E-02	1.37E-02
Cs-137	2.58E-04	1.85E-03	1.06E-02	1.58E-02	2.11E-02	2.64E-02
H-3	4.60E-01	6.70E-01	9.00E-01	2.70E-00	3.80E+00	4.50E+00

ONSITE GRAB SAMPLE ACTIVITY - µCi/cc

SAMPLE	0200	0830	0915	1015	1115
RU-143 P	1.36E-11	1.36E-11	1.36E-11	1.36E-11	1.36E-11
RU-143 I	1.00E-11	1.00E-11	1.00E-11	1.00E-11	1.00E-11
RU-143 G	5.92E-07	5.92E-07	5.92E-07	5.92E-07	5.92E-07
RU-145 P	1.03E-11	1.03E-11	1.03E-11	1.03E-11	1.03E-11
RU-145 I	1.00E-11	1.00E-11	1.00E-11	1.00E-11	1.00E-11
RU-145 G	4.55E-07	4.55E-07	4.55E-07	4.55E-07	4.55E-07
100' & above Aux P	1.20E-11	4.11E-11	5.02E-11	5.87E-11	6.22E-11
100' & above Aux I	1.00E-11	2.39E-11	3.02E-11	4.11E-11	5.03E-11
100' & above Aux G	1.37E-06	2.31E-06	3.33E-06	4.09E-06	4.33E-06
Below 100' Aux P	3.02E-11	6.73E-11	8.04E-11	1.69E-10	3.44E-10
Below 100' Aux I	2.05E-11	4.55E-11	6.22E-11	8.78E-11	2.20E-10
Below 100' Aux G	8.92E-07	1.53E-06	3.54E-06	5.49E-06	7.01E-06

SAMPLE DATA SHEET

CHEMISTRY LIQUID SAMPLE RESULTS DATA

SAMPLE LOCATION: _____

COMMENTS: _____

COLLECTION DATE: _____ COLLECTION TIME: _____

COLLECTED BY: _____ FACILITY: _____

ISOTOPE	% ABUNDANCE	µCi/cc
I-131		
I-132		
I-133		
I-134		
I-135		
Total Iodine	100	
Ar-41		
Kr-85m		
Kr-87		
Kr-88		
Xe-133		
Xe-135		
Xe-135m		
Xe-138		
Total Noble Gas	100	
Rb-88		
Cs-134		
Cs-137		
Total Mixed Particulates	100	
H-3	100	

SAMPLE DATA SHEET

AUXILIARY BUILDING / ONSITE AIR SAMPLE RESULTS DATA

SAMPLE LOCATION: _____

COMMENTS: _____

COLLECTION DATE: _____ COLLECTION TIME: _____

COLLECTED BY: _____ RESULTS TO: _____

ISOTOPE	% ABUNDANCE	µCi/cc
I-131	1.23E+01	
I-132	1.24E+01	
I-133	2.53E+01	
I-134	2.60E+01	
I-135	2.40E+01	
Total Iodine	100	
Ar-41	0.00E+00	
Kr-85m	5.01E+00	
Kr-87	8.21E+00	
Kr-88	1.23E+01	
Xe-133	3.32E+01	
Xe-135	7.95E+00	
Xe-135m	9.64E+00	
Xe-138	2.35E+01	
Total Noble Gas	100	
Rb-88	8.28E+01	
Cs-134	8.75E+00	
Cs-137	8.45E+00	
Total Mixed Particulates	100	

FOR SAMPLE TIMES 0200 - 0915

SAMPLE DATA SHEET

AUXILIARY BUILDING / ONSITE AIR SAMPLE RESULTS DATA

SAMPLE LOCATION: _____

COMMENTS: _____

COLLECTION DATE: _____ COLLECTION TIME: _____

COLLECTED BY: _____ RESULTS TO: _____

ISOTOPE	% ABUNDANCE	µCi/cc
I-131	1.86E+01	
I-132	9.75E+00	
I-133	3.56E+01	
I-134	7.04E+00	
I-135	2.90E+01	
Total Iodine	100	
Ar-41	0.00E+00	
Kr-85m	5.28E+00	
Kr-87	3.73E+00	
Kr-88	1.08E+01	
Xe-133	4.93E+01	
Xe-135	1.72E+01	
Xe-135m	1.33E+01	
Xe-138	5.60E-02	
Total Noble Gas	100	
Rb-88	9.87E+01	
Cs-134	5.17E-01	
Cs-137	1.00E+00	
Total Mixed Particulates	100	

FOR SAMPLE TIMES 0915 - 1015

SAMPLE DATA SHEET

AIR SAMPLE RESULTS DATA

SAMPLE LOCATION: _____

COMMENTS: _____

COLLECTION DATE: _____ COLLECTION TIME: _____

COLLECTED BY: _____ FACILITY: _____

ISOTOPE	% ABUNDANCE	µCi/cc
I-131	2.16E+01	
I-132	7.25E+00	
I-133	3.96E+01	
I-134	2.52E+00	
I-135	2.90E+01	
Total Iodine	100	
Ar-41	0.00E+00	
Kr-85m	4.45E+00	
Kr-87	1.75E+00	
Kr-88	7.88E+00	
Xe-133	5.26E+01	
Xe-135	2.06E+01	
Xe-135m	1.22E+01	
Xe-138	6.94E-04	
Total Noble Gas	100	
Rb-88	9.85E+01	
Cs-134	5.15E-01	
Cs-137	9.92E-01	
Total Mixed Particulates	100	

FOR SAMPLE TIMES 1015 - 11:30

SITE / EPZ

PLUME MAP FIELD DATA

PLUME MAP FIELD DATA KEY

(TIME) / (MAP)									
Distance (miles)	PVNGS READINGS				PVNGS AND ARRA		ARRA READINGS		
	Filter cpm	AgX cpm	AgX µCi/cc	Frisker cpm	mR/hr WO	mR/hr WC	Filter cpm	AgX cpm	AgX pCi/m^3
0.0 - 0.1	312,500	*50 mR/hr*	1.00E-04	offscale HI	16,384.00	8,192.00	62,500	133,330	1.00E+08
0.1 - 0.5	31,250	312,500	1.00E-05	offscale HI	8,192.00	4,096.00	31,250	13,333	1.00E+07
0.5 - 1.0	3,125	31,250	1.00E-06	offscale HI	4,096.00	2,048.00	3,125	1,333	1.00E+06
1.0 - 2.0	313	3,125	1.00E-07	offscale HI	2,048.00	1,024.00	313	as read	1.00E+05
2.0 - 3.0	as read	313	1.00E-08	offscale HI	1,024.00	512.00	as read	as read	1.00E+04
3.0 - 4.0	as read	as read	1.00E-09	offscale HI	512.00	256.00	as read	as read	1.00E+03
4.0 - 5.0	as read	as read	1.00E-10	offscale HI	256.00	128.00	as read	as read	1.00E+02
5.0 - 6.0	as read	as read	1.00E-11	offscale HI	128.00	64.00	as read	as read	1.00E+01
6.0 - 7.0	as read	as read	1.00E-12	320,000	64.00	32.00	as read	as read	1.00E+00
7.0 - 8.0	as read	as read	1.00E-13	160,000	32.00	16.00	as read	as read	1.00E-01
8.0 - 9.0	as read	as read	1.00E-14	80,000	16.00	8.00	as read	as read	1.00E-02
9.0 - 10.0	as read	as read	1.00E-15	40,000	8.00	4.00	as read	as read	1.00E-03

NOTE: **Spreadsheet values are examples and are shown for display purposes only**

Numbers Entered into SpreadSheet

PVNGS AgX µCi/cc = Iodine concentration *(from MESOREM calculation)*
PVNGS and ARRA mR/hr WC = External EDE *(from MESOREM calculation)*

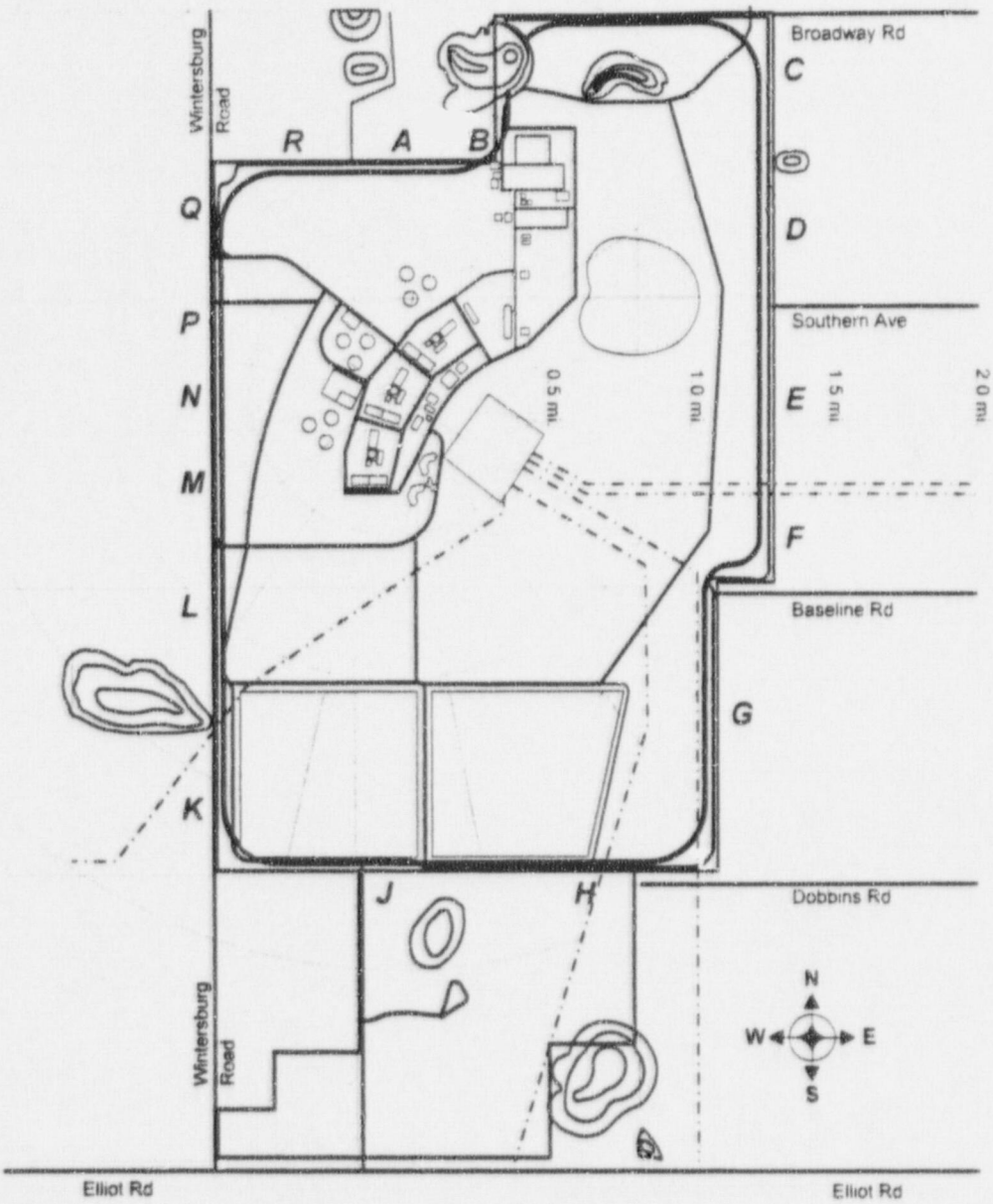
Assumptions

All spreadsheet values indicate plume centerline readings

Calculations

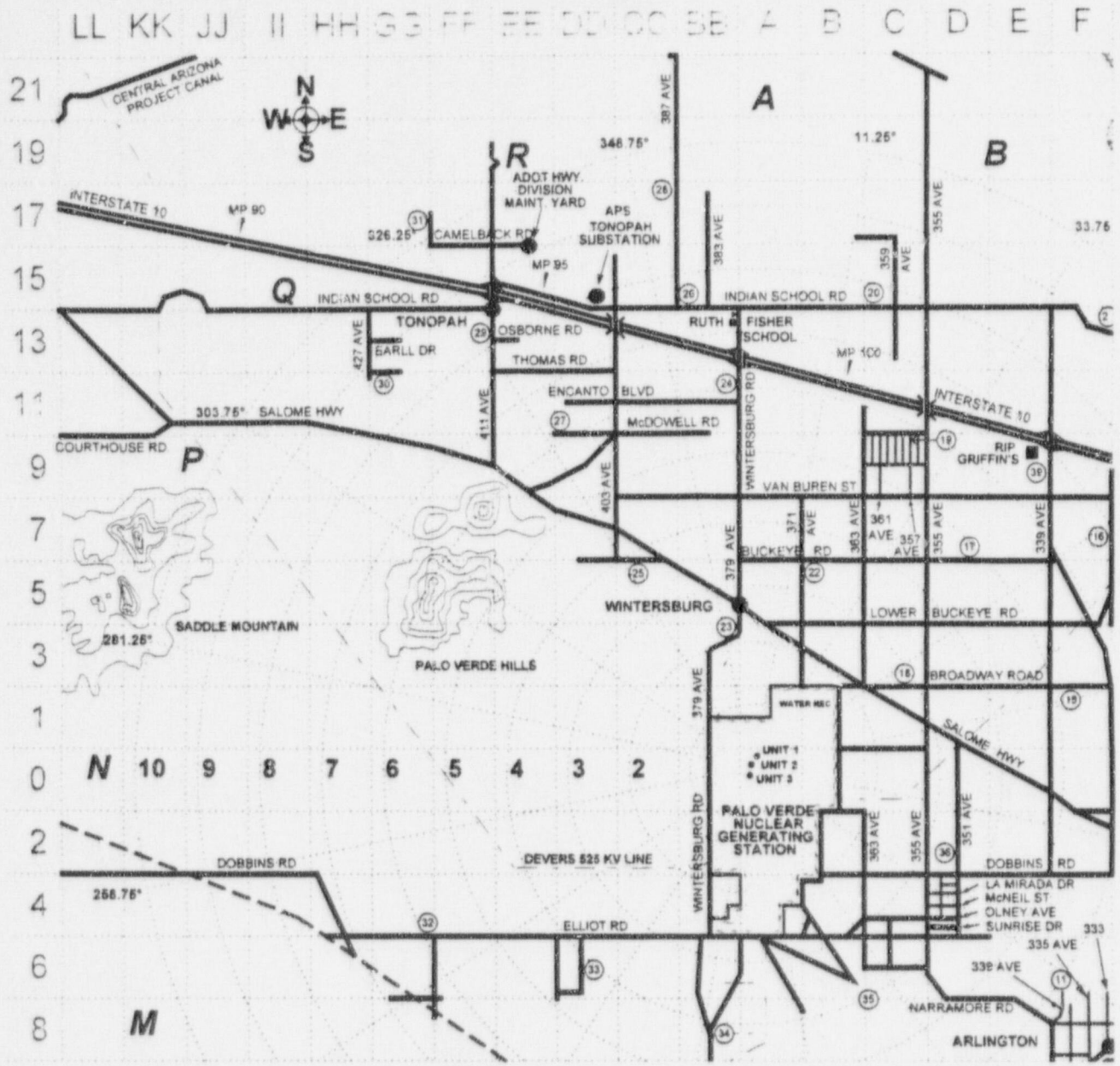
PVNGS Filter cpm = PVNGS AgX cpm / 10
PVNGS AgX cpm * = PVNGS AgX µCi/cc / 3.20E-11
PVNGS Frisker cpm = PVNGS and ARRA mR/hr WC x 10,000
PVNGS and ARRA mR/hr WO = PVNGS and ARRA mR/hr WC x 2
ARRA Filter cpm = ARRA AgX cpm / 10
ARRA AgX cpm = ARRA AgX pCi/m^3 / 750
ARRA AgX pCi/m^3 = PVNGS AgX µCi/cc x 1.00E+12
500,000 cpm = offscale HI on frisker
200 cpm = as read *(offscale LO on frisker)*
0.1 mR/hr = lowest reading on survey meter

* If PVNGS "AgX cpm" value is offscale HI, then column will contain equivalent "mR/hr" value *(i.e., PVNGS AgX µCi/cc / 2.00E-06)* as indicated on appropriate survey meter



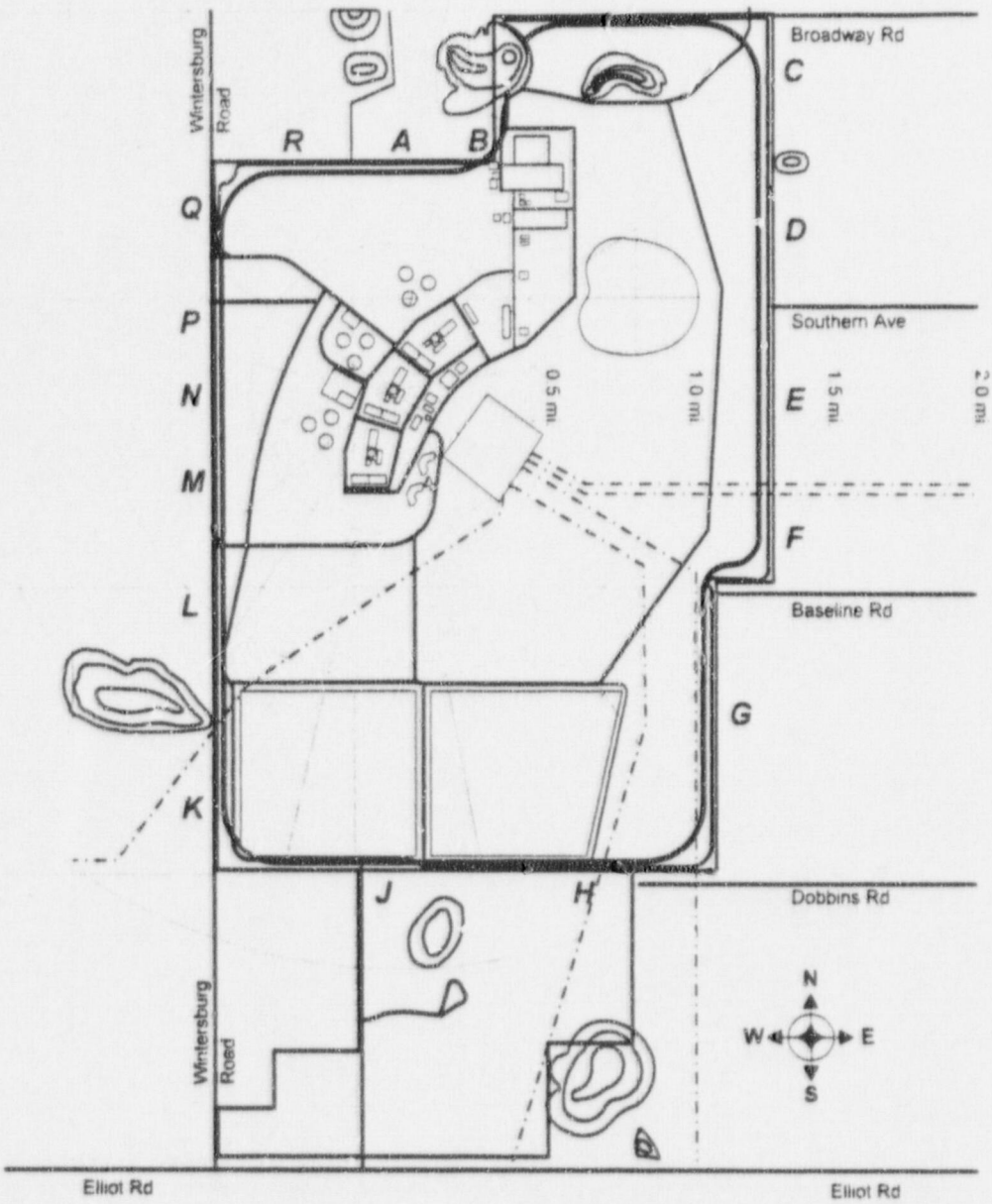
Plume Key: [redacted] ½ table values

0800 - 0815 SITE									1 of 2
Distance (miles)	PVNGS READINGS				PVNGS AND ARRA		ARRA READINGS		
	Filter cpm	AgX cpm	AgX µCi/cc	Frisker cpm	mR/hr WO	mR/hr WC	Filter cpm	AgX cpm	AgX pCi/m^3
0.0 - 0.1	as read	as read	1.09E-09	15,000	3.00	1.50	as read	as read	1.09E+03
0.1 - 0.5	as read	as read	1.02E-12	200	0.04	0.02	as read	as read	1.02E+00
0.5 - 1.0	as read	as read	1.11E-13	as read	0.01	0.00	as read	as read	1.11E-01



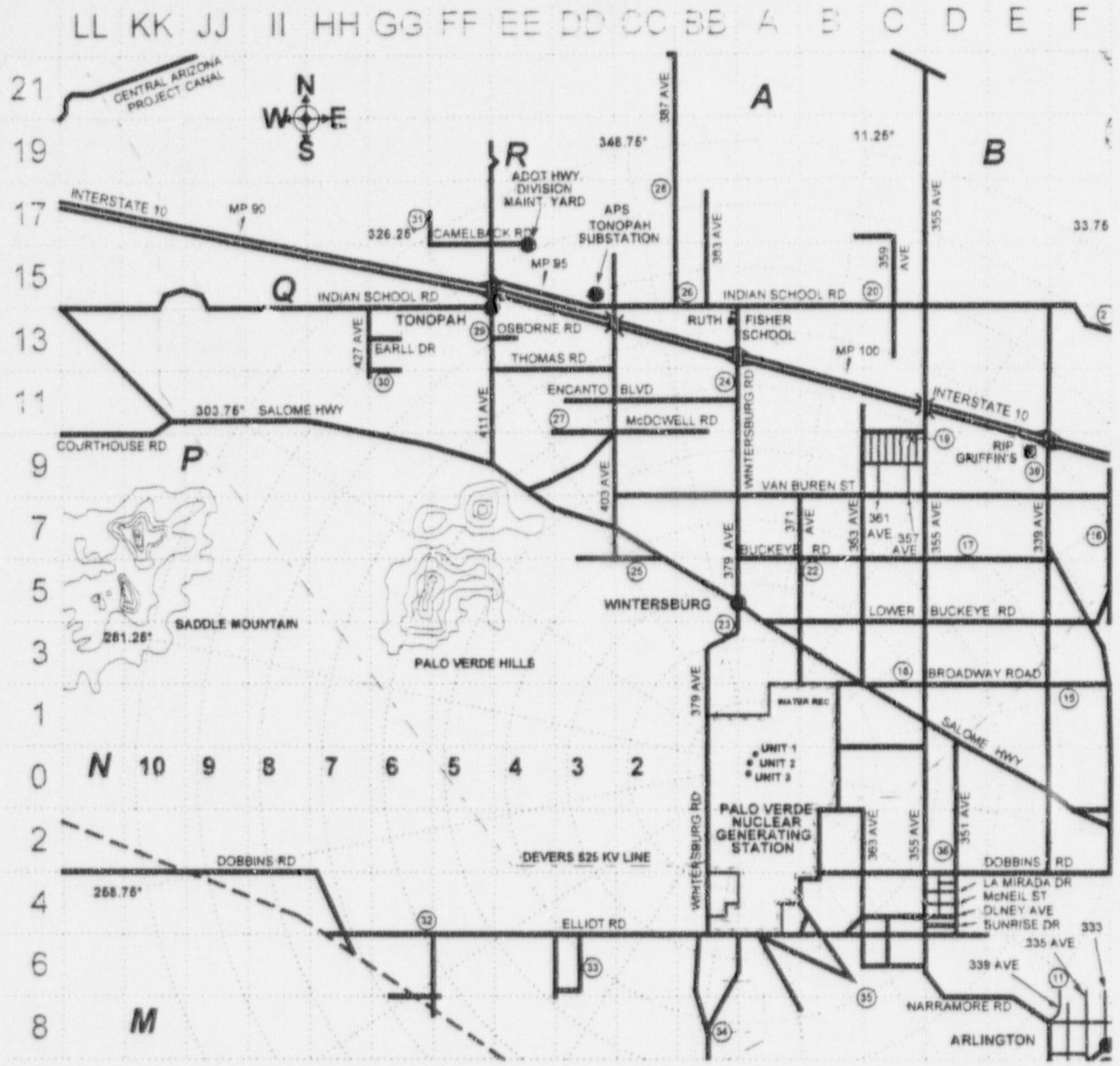
Plume Key: Stable values ½ table values

0800 - 0815 EPZ									2 of 2
Distance (miles)	PVNGS READINGS				PVNGS AND ARRA		ARRA READINGS		
	Filter cpm	AgX cpm	AgX µCi/cc	Frisker cpm	mR/hr WO	mR/hr WC	Filter cpm	AgX cpm	AgX pCi/m^3
1.0 - 2.0	as read	as read	as read	as read	as read	as read	as read	as read	as read
2.0 - 3.0	as read	as read	as read	as read	as read	as read	as read	as read	as read
3.0 - 4.0	as read	as read	as read	as read	as read	as read	as read	as read	as read
4.0 - 5.0	as read	as read	as read	as read	as read	as read	as read	as read	as read
5.0 - 6.0	as read	as read	as read	as read	as read	as read	as read	as read	as read
6.0 - 7.0	as read	as read	as read	as read	as read	as read	as read	as read	as read
7.0 - 8.0	as read	as read	as read	as read	as read	as read	as read	as read	as read
8.0 - 9.0	as read	as read	as read	as read	as read	as read	as read	as read	as read
9.0 - 10.0	as read	as read	as read	as read	as read	as read	as read	as read	as read



Plume Key: [redacted] ½ table values

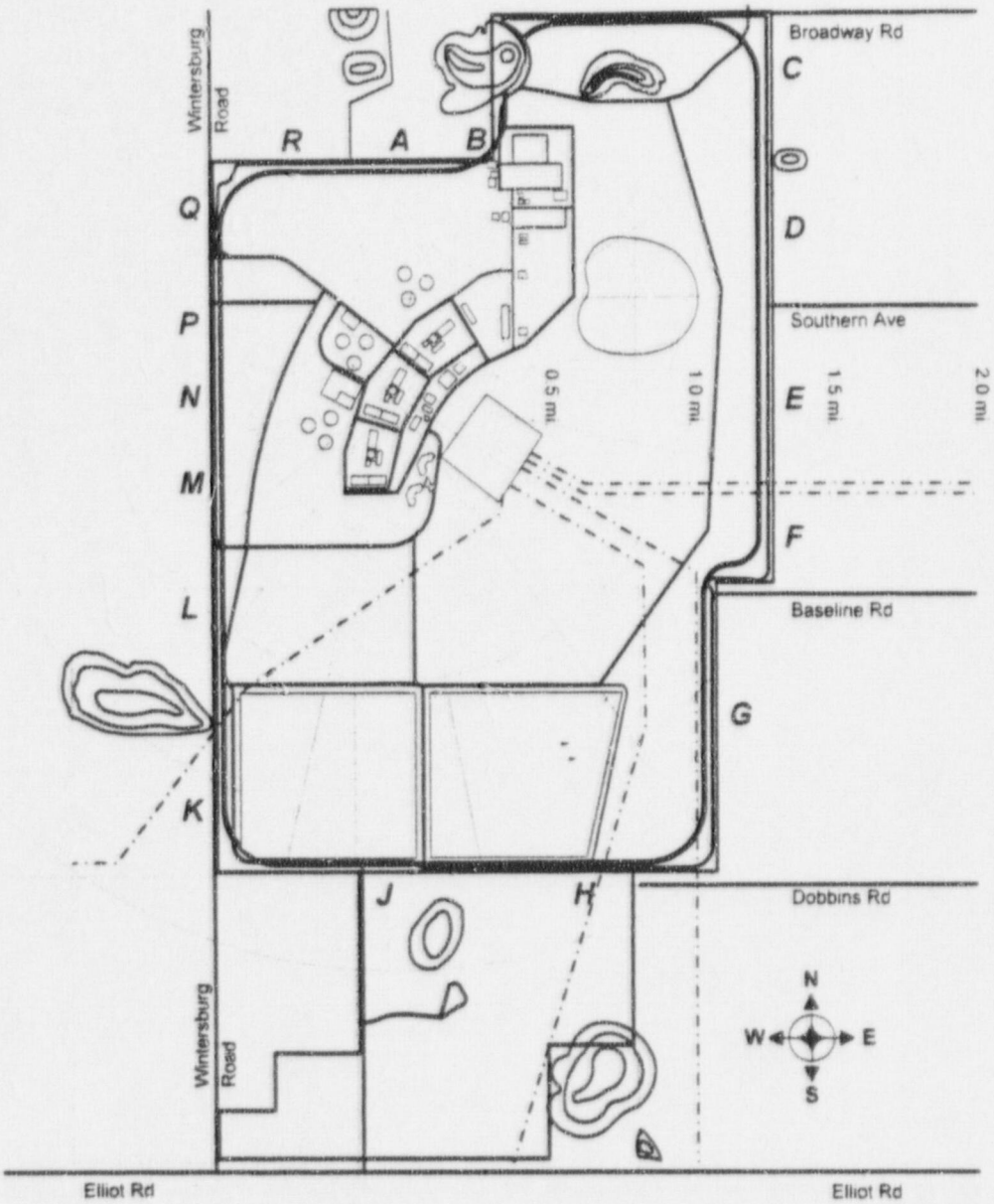
0815 - 0830 SITE									1 of 2
Distance (miles)	PVNGS READINGS				PVNGS AND ARRA		ARRA READINGS		
	Filter cpm	AgX cpm	AgX µCi/cc	Frisker cpm	mR/hr WO	mR/hr WC	Filter cpm	AgX cpm	AgX pCi/m^3
0.0 - 0.1	as read	as read	2.23E-09	22,000	4.40	2.20	as read	as read	2.23E+03
0.1 - 0.5	as read	as read	1.09E-09	15,000	3.00	1.50	as read	as read	1.09E+03
0.5 - 1.0	as read	as read	1.02E-12	200	0.04	0.02	as read	as read	1.02E+00



Plume Key: table value ½ table values

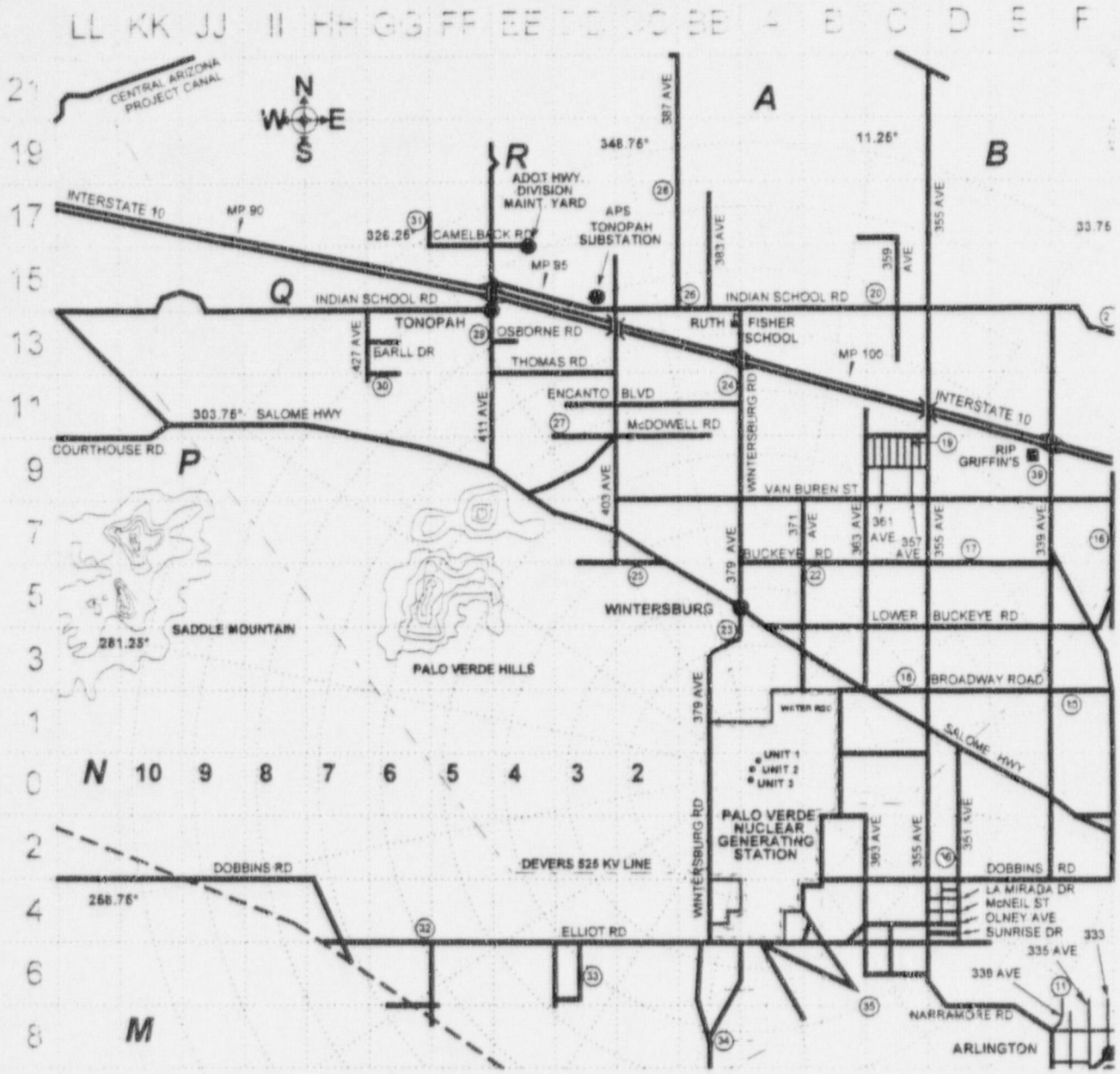
0815 - 0830 EPZ — **2 of 2**

Distance (miles)	PVNGS READINGS				PVNGS AND ARRA		ARRA READINGS		
	Filter cpm	AgX cpm	AgX µCi/cc	Frisker cpm	mR/hr WO	mR/hr WC	Filter cpm	AgX cpm	AgX pCi/m^3
1.0 - 2.0	as read	as read	1.11E-13	as read	0.0	0.00	as read	as read	1.11E-01
2.0 - 3.0	as read	as read	as read	as read	as read	as read	as read	as read	as read
3.0 - 4.0	as read	as read	as read	as read	as read	as read	as read	as read	as read
4.0 - 5.0	as read	as read	as read	as read	as read	as read	as read	as read	as read
5.0 - 6.0	as read	as read	as read	as read	as read	as read	as read	as read	as read
6.0 - 7.0	as read	as read	as read	as read	as read	as read	as read	as read	as read
7.0 - 8.0	as read	as read	as read	as read	as read	as read	as read	as read	as read
8.0 - 9.0	as read	as read	as read	as read	as read	as read	as read	as read	as read
9.0 - 10.0	as read	as read	as read	as read	as read	as read	as read	as read	as read



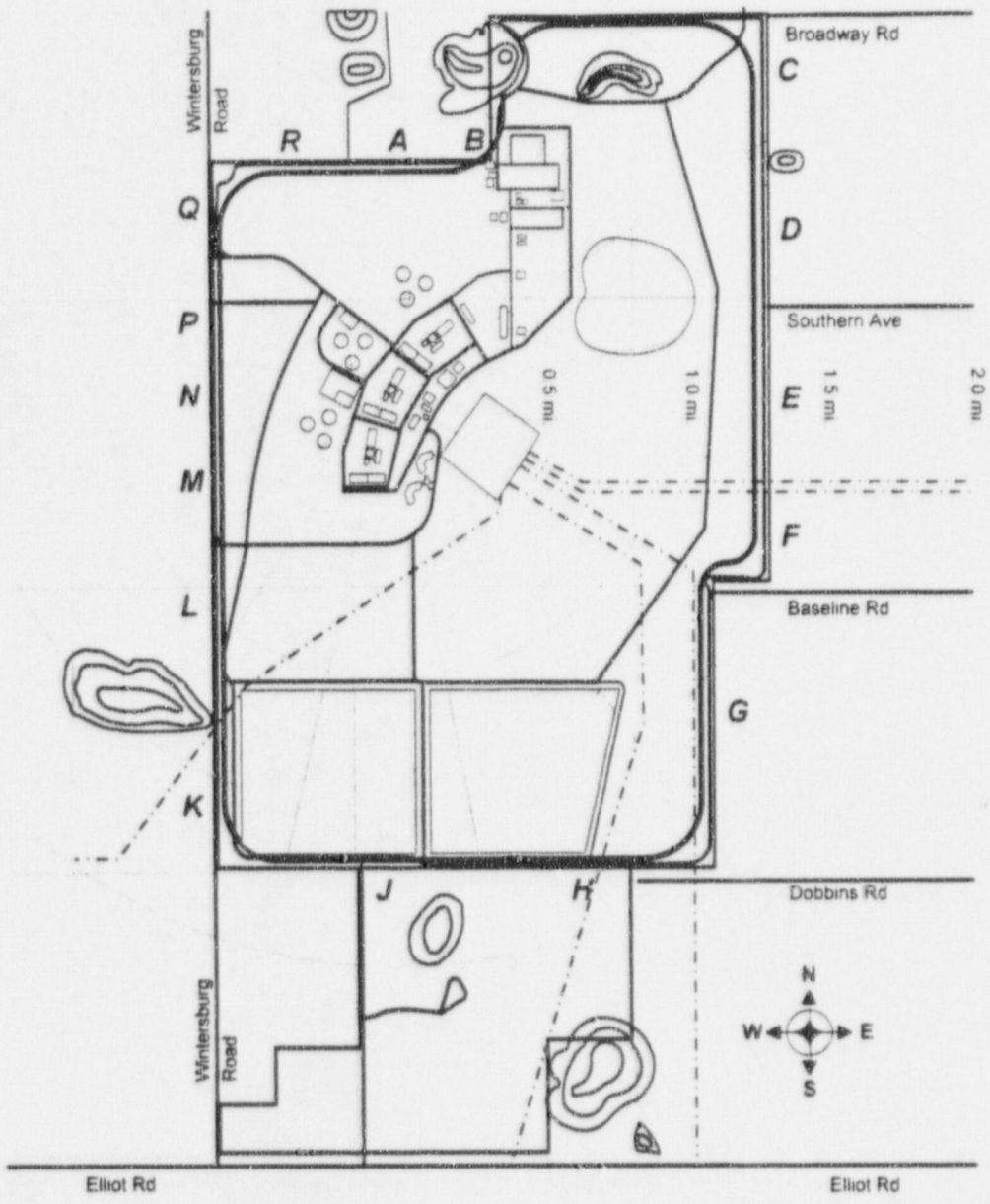
Plume Key: table values ½ table values

0830 - 0845 SITE									1 of 2
Distance (miles)	PVNGS READINGS				PVNGS AND ARRA		ARRA READINGS		
	Filter cpm	AgX cpm	AgX µCi/cc	Frisker cpm	mR/hr WO	mR/hr WC	Filter cpm	AgX cpm	AgX pCi/m^3
0.0 - 0.1	as read	as read	3.08E-09	34,000	6.80	3.40	as read	as read	3.08E+03
0.1 - 0.5	as read	as read	2.98E-09	26,000	5.20	2.60	as read	as read	2.98E+03
0.5 - 1.0	as read	as read	2.19E-11	2,000	0.40	0.20	as read	as read	2.19E+01



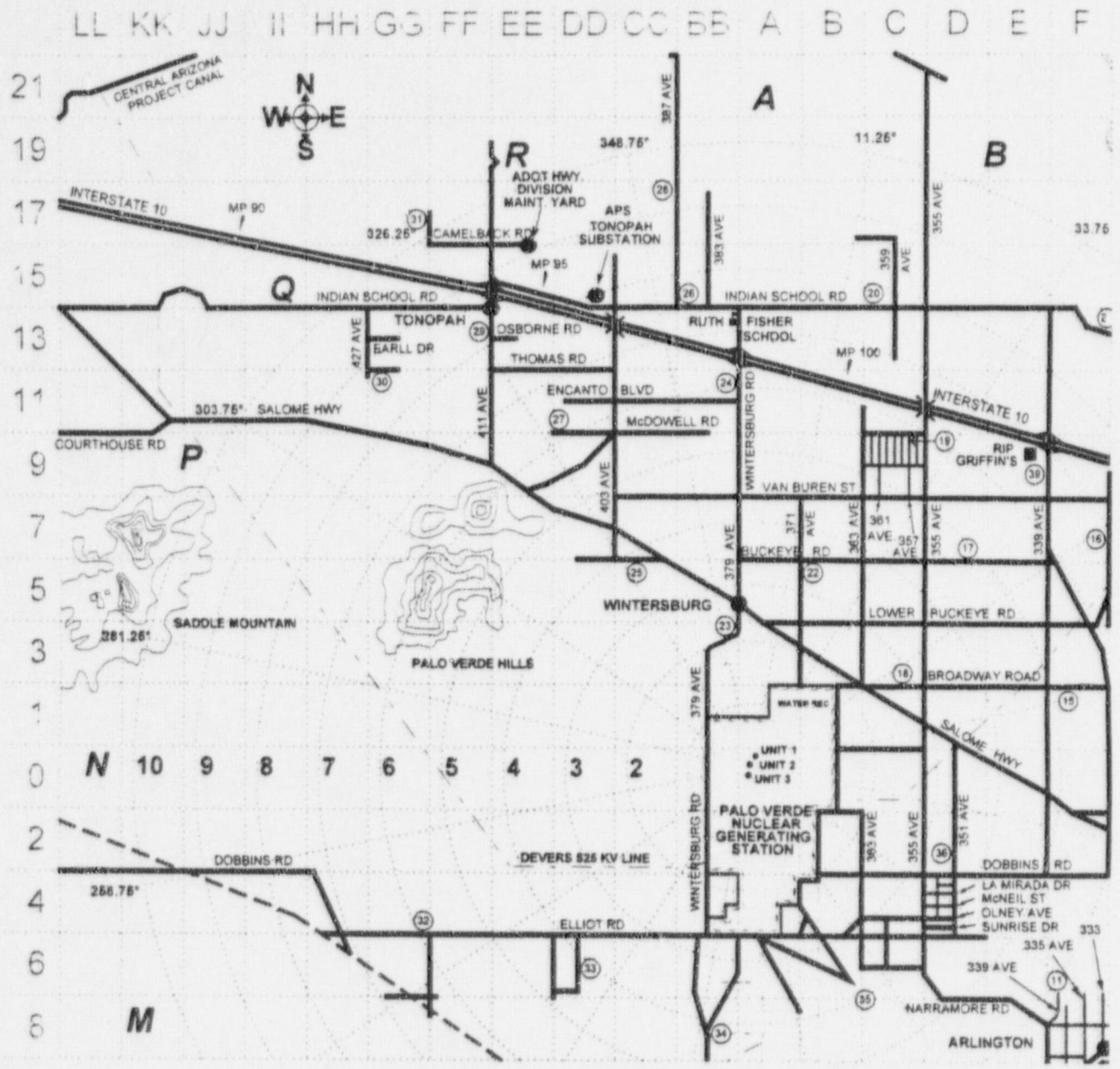
Plume Key: table values ½ table values

0830 - 0845 EPZ									2 of 2
Distance (miles)	PVNGS READINGS				PVNGS AND ARRA		ARRA READINGS		
	Filter cpm	AgX cpm	AgX µCi/cc	Frisker cpm	mR/hr WO	mR/hr WC	Filter cpm	AgX cpm	AgX pCi/m^3
1.0 - 2.0	as read	as read	1.02E-12	300	0.06	0.03	as read	as read	1.02E+00
2.0 - 3.0	as read	as read	1.11E-13	as read	0.01	0.00	as read	as read	1.11E-01
3.0 - 4.0	as read	as read	as read	as read	as read	as read	as read	as read	as read
4.0 - 5.0	as read	as read	as read	as read	as read	as read	as read	as read	as read
5.0 - 6.0	as read	as read	as read	as read	as read	as read	as read	as read	as read
6.0 - 7.0	as read	as read	as read	as read	as read	as read	as read	as read	as read
7.0 - 8.0	as read	as read	as read	as read	as read	as read	as read	as read	as read
8.0 - 9.0	as read	as read	as read	as read	as read	as read	as read	as read	as read
9.0 - 10.0	as read	as read	as read	as read	as read	as read	as read	as read	as read



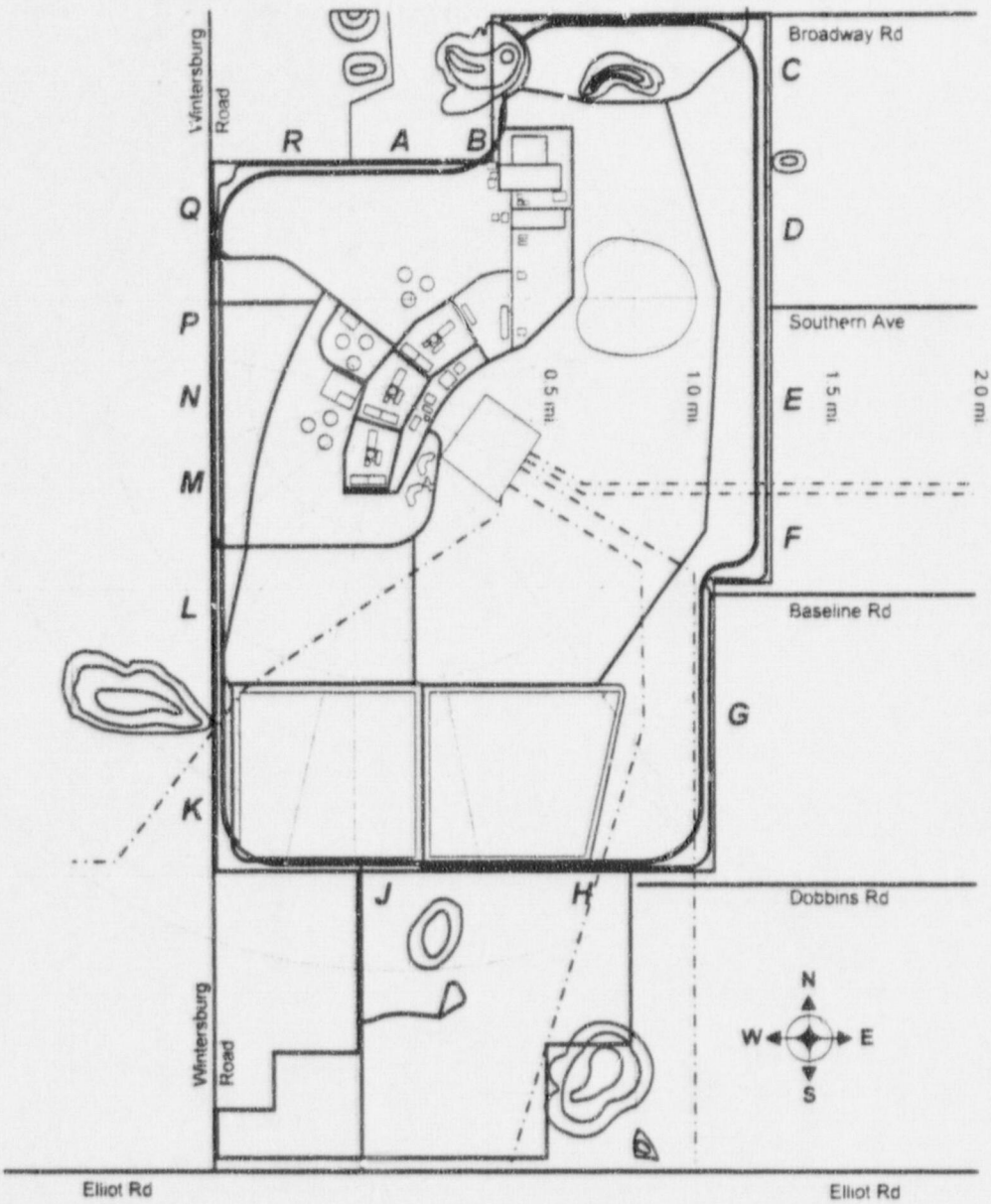
Plume Key: table values ½ table values

0845 - 0900 SITE									1 of 2
Distance (miles)	PVNGS READINGS				PVNGS AND ARRA		ARRA READINGS		
	Filter cpm	AgX cpm	AgX µCi/cc	Frisker cpm	mR/hr WO	mR/hr WC	Filter cpm	AgX cpm	AgX pCi/m^3
0.0 - 0.1	as read	as read	4.61E-09	43,000	8.60	4.30	as read	as read	4.61E+03
0.1 - 0.5	as read	as read	3.77E-09	38,000	7.60	3.80	as read	as read	3.77E+03
0.5 - 1.0	as read	as read	3.78E-10	11,000	2.20	1.10	as read	as read	3.78E+02



Plume Key: table values ½ table values

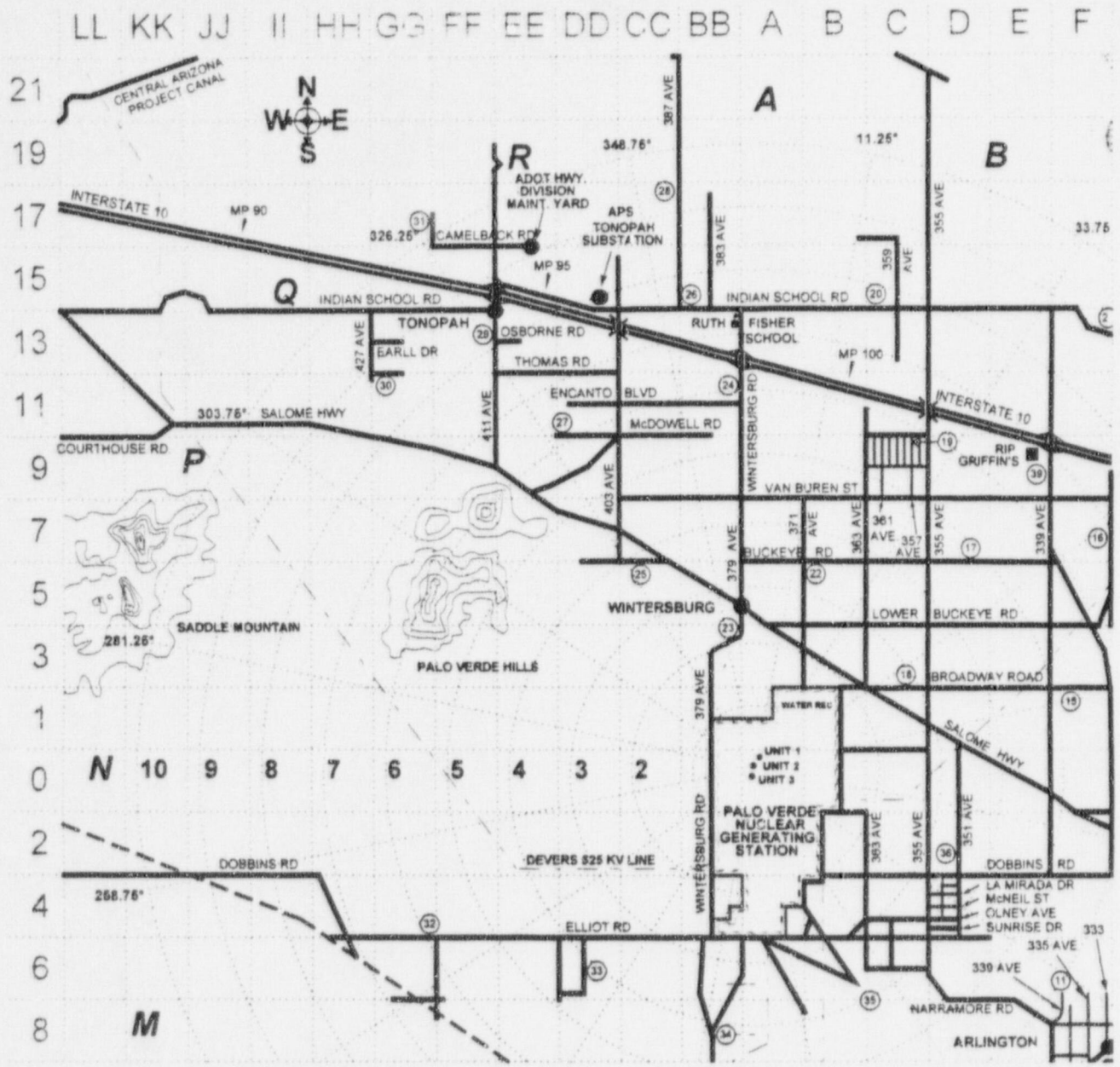
0845 - 0900 EPZ									2 of 2
Distance (miles)	PVNGS READINGS				PVNGS AND ARRA		ARRA READINGS		
	Filter cpm	AgX cpm	AgX µCi/cc	Frisker cpm	mR/hr WO	mR/hr WC	Filter cpm	AgX cpm	AgX pCi/m^3
1.0 - 2.0	as read	as read	6.33E-11	3,000	0.60	0.30	as read	as read	6.33E+01
2.0 - 3.0	as read	as read	1.11E-13	as read	0.01	0.00	as read	as read	1.11E-01
3.0 - 4.0	as read	as read	as read	as read	as read	as read	as read	as read	as read
4.0 - 5.0	as read	as read	as read	as read	as read	as read	as read	as read	as read
5.0 - 6.0	as read	as read	as read	as read	as read	as read	as read	as read	as read
6.0 - 7.0	as read	as read	as read	as read	as read	as read	as read	as read	as read
7.0 - 8.0	as read	as read	as read	as read	as read	as read	as read	as read	as read
8.0 - 9.0	as read	as read	as read	as read	as read	as read	as read	as read	as read
9.0 - 10.0	as read	as read	as read	as read	as read	as read	as read	as read	as read



Plume Key: table values ½ table values

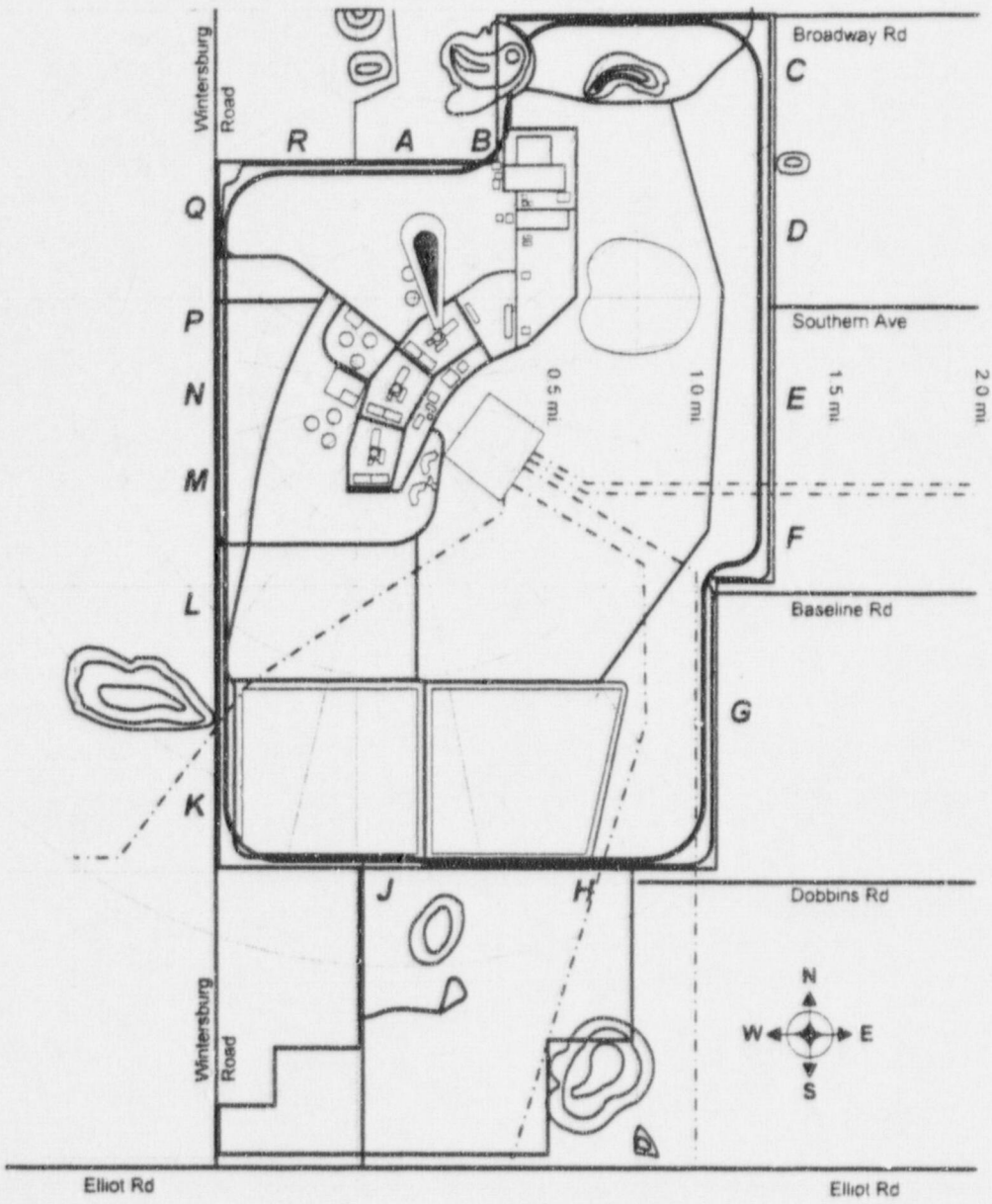
0900 - 0915 SITE 1 of 2

Distance (miles)	PVNGS READINGS				PVNGS AND ARRA		ARRA READINGS		
	Filter cpm	AgX cpm	AgX µCi/cc	Frisker cpm	mR/hr WO	mR/hr WC	Filter cpm	AgX cpm	AgX pCi/m^3
0.0 - 0.1	as read	as read	5.23E-09	57,000	11.40	5.70	as read	as read	5.23E+03
0.1 - 0.5	as read	as read	4.08E-09	41,000	8.20	4.10	as read	as read	4.08E+03
0.5 - 1.0	as read	as read	5.81E-10	4,500	0.90	0.45	as read	as read	5.81E+02



Plume Key: table values ½ table values

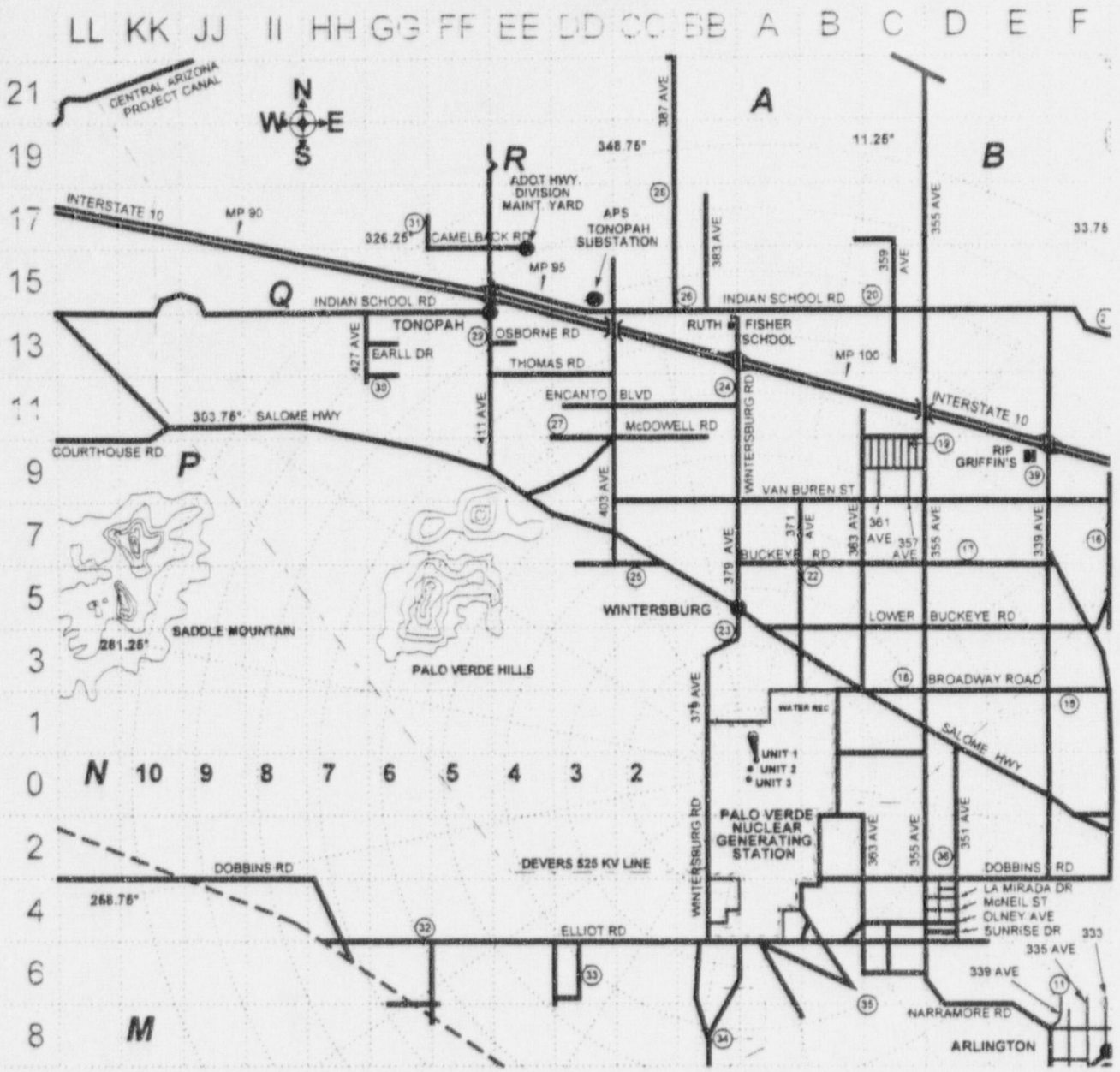
0900 - 0915 EPZ									2 of 2
Distance (miles)	PVNGS READINGS				PVNGS AND ARRA		ARRA READINGS		
	Filter cpm	AgX cpm	AgX µCi/cc	Frisker cpm	mR/hr WO	mR/hr WC	Filter cpm	AgX cpm	AgX pCi/m^3
1.0 - 2.0	as read	as read	4.03E-11	2,800	0.56	0.28	as read	as read	4.03E+01
2.0 - 3.0	as read	as read	1.11E-13	as read	0.01	0.00	as read	as read	1.11E-01
3.0 - 4.0	as read	as read	as read	as read	as read	as read	as read	as read	as read
4.0 - 5.0	as read	as read	as read	as read	as read	as read	as read	as read	as read
5.0 - 6.0	as read	as read	as read	as read	as read	as read	as read	as read	as read
6.0 - 7.0	as read	as read	as read	as read	as read	as read	as read	as read	as read
7.0 - 8.0	as read	as read	as read	as read	as read	as read	as read	as read	as read
8.0 - 9.0	as read	as read	as read	as read	as read	as read	as read	as read	as read
9.0 - 10.0	as read	as read	as read	as read	as read	as read	as read	as read	as read



Plume Key: table values ½ table values

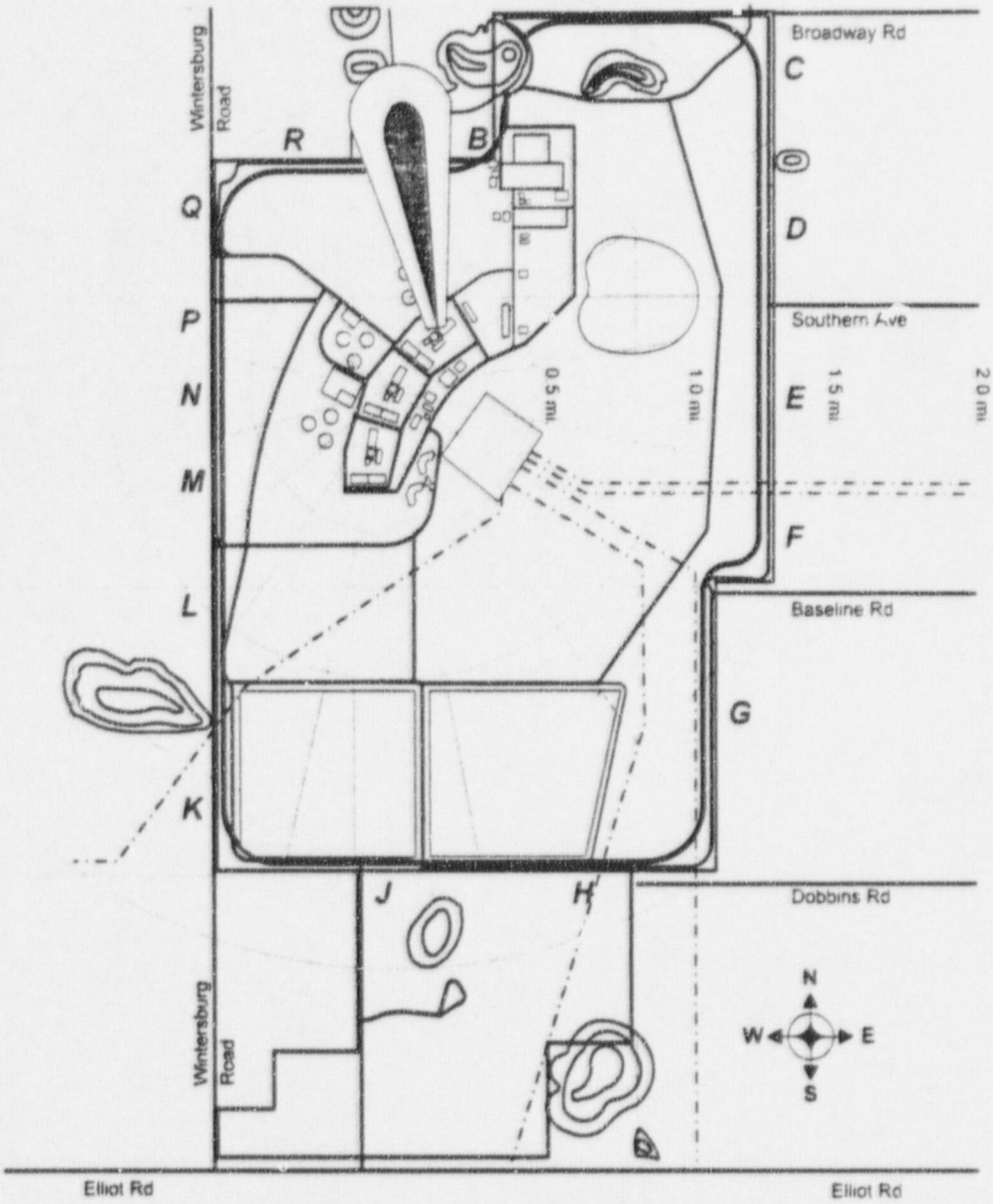
0915 - 0930 SITE									1 of 2
Distance (miles)	PVNGS READINGS				PVNGS AND ARRA		ARRA READINGS		
	Filter cpm	AgX cpm	AgX µCi/cc	Frisker cpm	mR/hr WO	mR/hr WC	Filter cpm	AgX cpm	AgX pCi/m^3
0.0 - 0.1	316	3,156	1.01E-07	offscale HI	306.00	153.00	316	as read	1.01E+05
0.1 - 0.5	as read	as read	2.23E-09	22,000	4.40	2.20	as read	as read	2.23E+03
0.5 - 1.0	as read	as read	8.23E-10	6,000	1.20	0.60	as read	as read	8.23E+02

1999 EMERGENCY PREPAREDNESS EXERCISE 99-E-AEV-03003



Plume Key: table values ½ table values

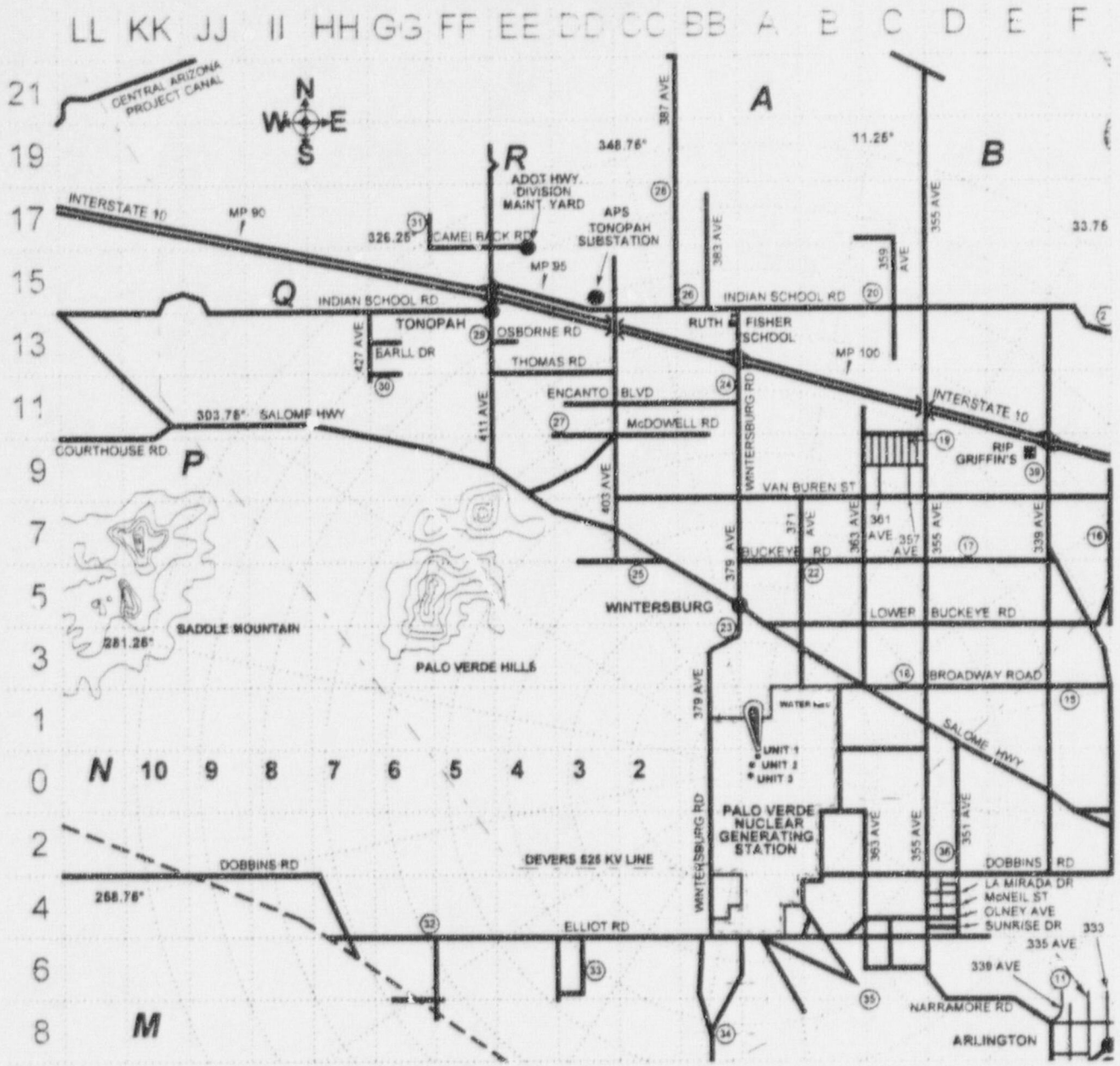
0915 - 0930 EPZ									2 of 2
Distance (miles)	PVNGS READINGS				PVNGS AND ARRA		ARRA READINGS		
	Filter cpm	AgX cpm	AgX µCi/cc	Frisker cpm	mR/hr WO	mR/hr WC	Filter cpm	AgX cpm	AgX pCi/m^3
1.0 - 2.0	as read	as read	1.06E-10	3,000	0.60	0.30	as read	as read	1.06E+02
2.0 - 3.0	as read	as read	1.02E-12	200	0.04	0.02	as read	as read	1.02E+00
3.0 - 4.0	as read	as read	as read	as read	as read	as read	as read	as read	as read
4.0 - 5.0	as read	as read	as read	as read	as read	as read	as read	as read	as read
5.0 - 6.0	as read	as read	as read	as read	as read	as read	as read	as read	as read
6.0 - 7.0	as read	as read	as read	as read	as read	as read	as read	as read	as read
7.0 - 8.0	as read	as read	as read	as read	as read	as read	as read	as read	as read
8.0 - 9.0	as read	as read	as read	as read	as read	as read	as read	as read	as read
9.0 - 10.0	as read	as read	as read	as read	as read	as read	as read	as read	as read



Plume Key: table values ½ table values

0930 - 0945 SITE 1 of 2

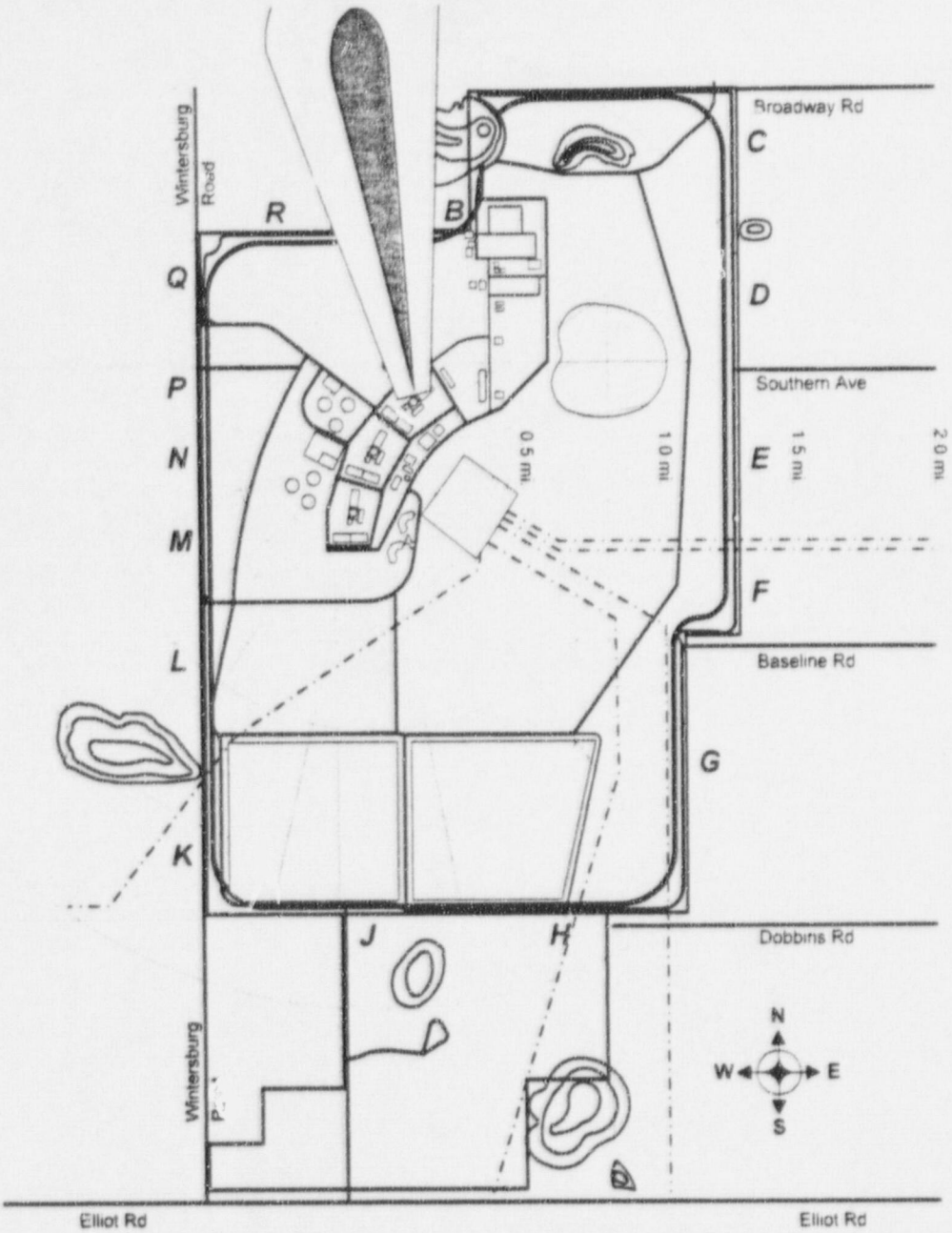
Distance (miles)	PVNGS READINGS				PVNGS AND ARRA		ARRA READINGS		
	Filter cpm	AgX cpm	AgX µCi/cc	Frisker cpm	mR/hr WO	mR/hr WC	Filter cpm	AgX cpm	AgX pCi/m^3
0.0 - 0.1	963	9,625	3.08E-07	offscale HI	638.00	319.00	963	411	3.08E+05
0.1 - 0.5	328	3,281	1.05E-07	offscale HI	220.00	110.00	328	as read	1.05E+05
0.5 - 1.0	as read	800	2.56E-08	236,000	47.20	23.60	as read	as read	2.56E+04



Plume Key: Table Values ½ table values

0930 - 0945 EPZ — 2 of 2

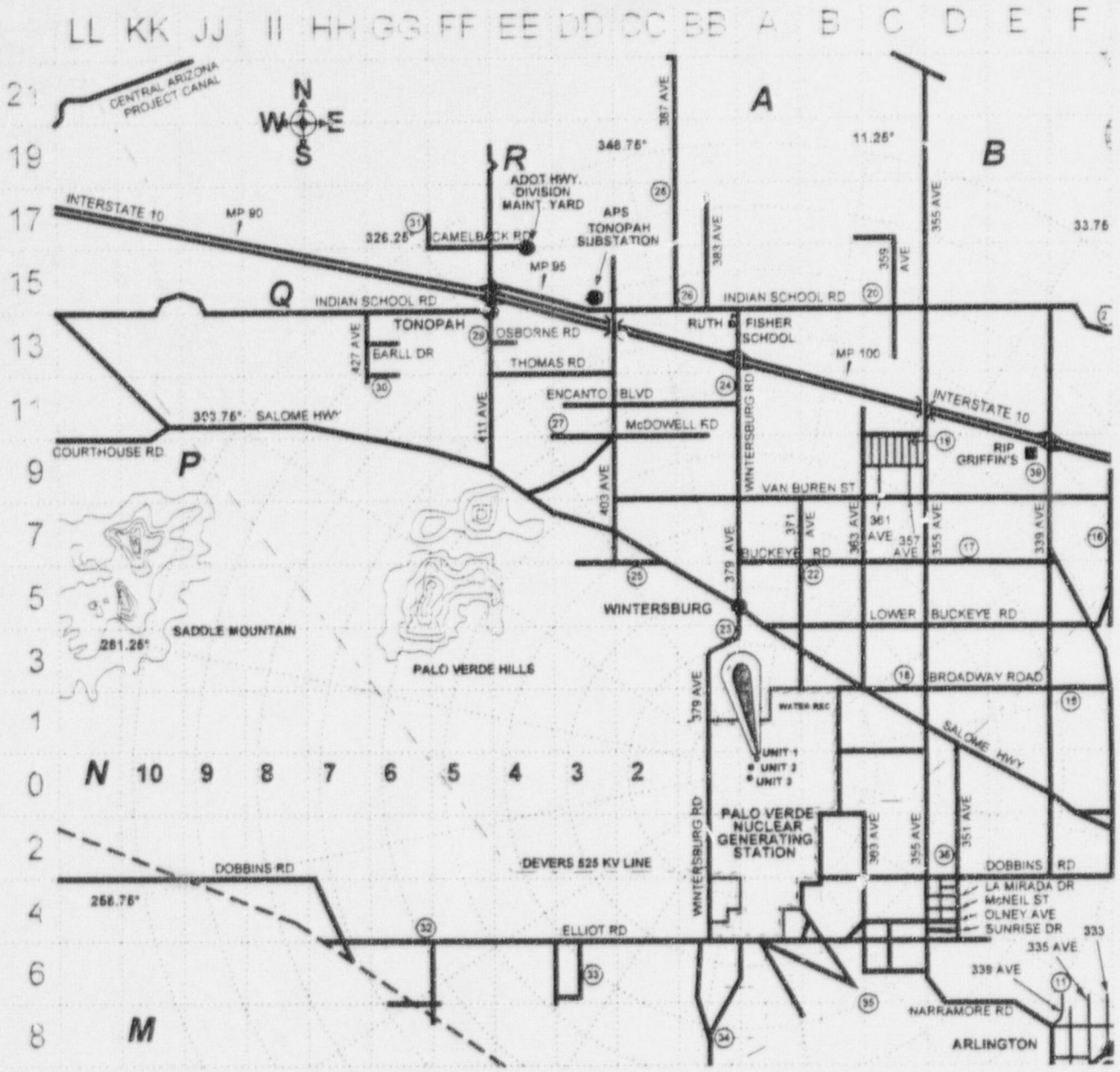
Distance (miles)	PVNGS READINGS				PVNGS AND ARRA		ARRA READINGS		
	Filter cpm	AgX cpm	AgX µCi/cc	Frisker cpm	mR/hr WO	mR/hr WC	Filter cpm	AgX cpm	AgX pCi/m^3
1.0 - 2.0	as read	as read	1.02E-12	200	0.04	0.02	as read	as read	1.02E+00
2.0 - 3.0	as read	as read	1.11E-13	as read	0.01	0.00	as read	as read	1.11E-01
3.0 - 4.0	as read	as read	as read	as read	as read	as read	as read	as read	as read
4.0 - 5.0	as read	as read	as read	as read	as read	as read	as read	as read	as read
5.0 - 6.0	as read	as read	as read	as read	as read	as read	as read	as read	as read
6.0 - 7.0	as read	as read	as read	as read	as read	as read	as read	as read	as read
7.0 - 8.0	as read	as read	as read	as read	as read	as read	as read	as read	as read
8.0 - 9.0	as read	as read	as read	as read	as read	as read	as read	as read	as read
9.0 - 10.0	as read	as read	as read	as read	as read	as read	as read	as read	as read



Plume Key: table values ½ table values

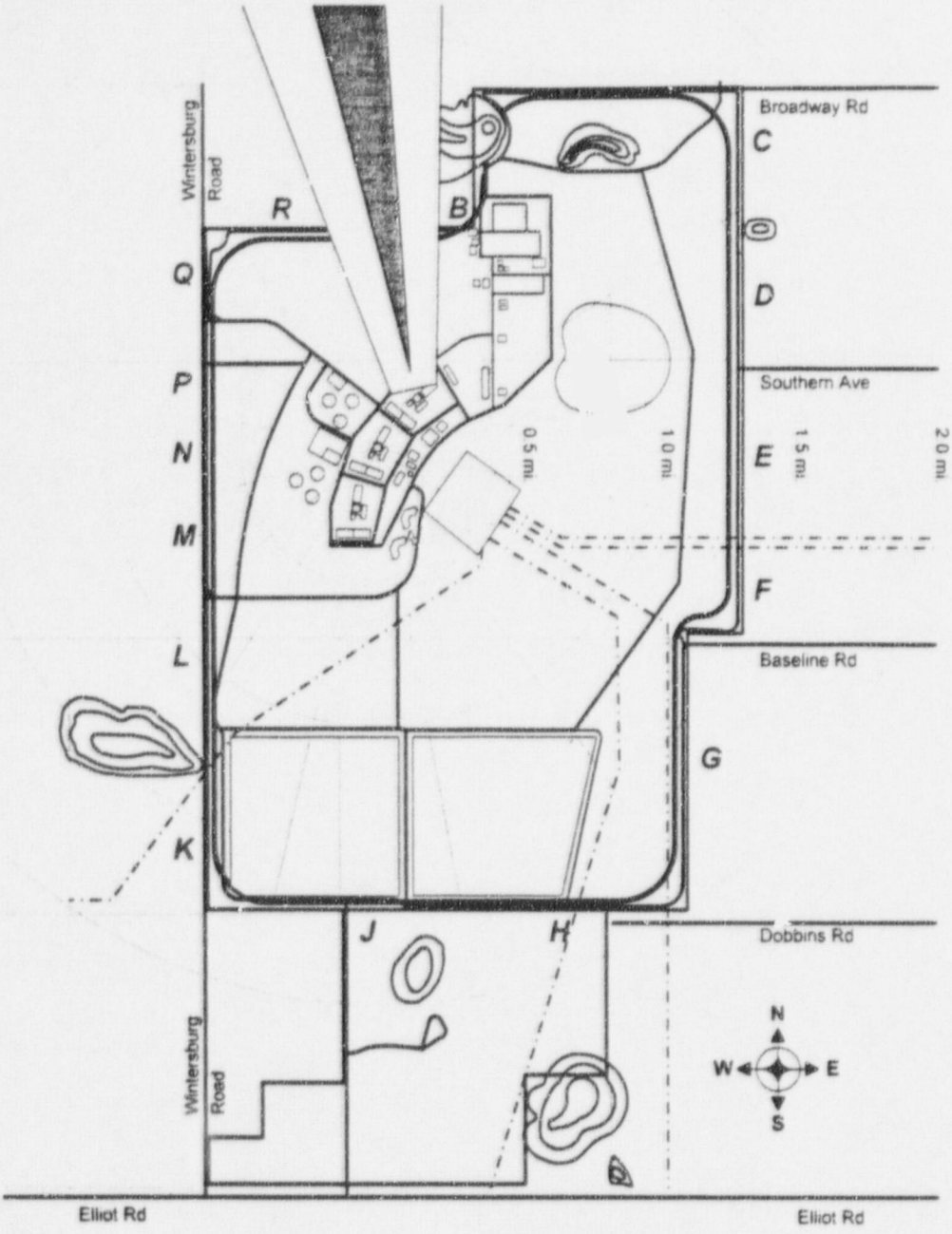
0945 - 1000 SITE — 1 of 2

Distance (miles)	PVNGS READINGS				PVNGS AND ARRA		ARRA READINGS		
	Filter cpm	AgX cpm	AgX µCi/cc	Frisker cpm	mR/hr WO	mR/hr WC	Filter cpm	AgX cpm	AgX pCi/m^3
0.0 - 0.1	24,313	243,125	7.78E-06	offscale HI	4,766.00	2,383.00	24,313	10,373	7.78E+06
0.1 - 0.5	1,872	18,719	5.99E-07	offscale HI	300.00	150.00	1,872	799	5.99E+05
0.5 - 1.0	as read	1,950	6.24E-08	offscale HI	114.00	57.00	as read	as read	6.24E+04



Plume Key: table values ½ table values

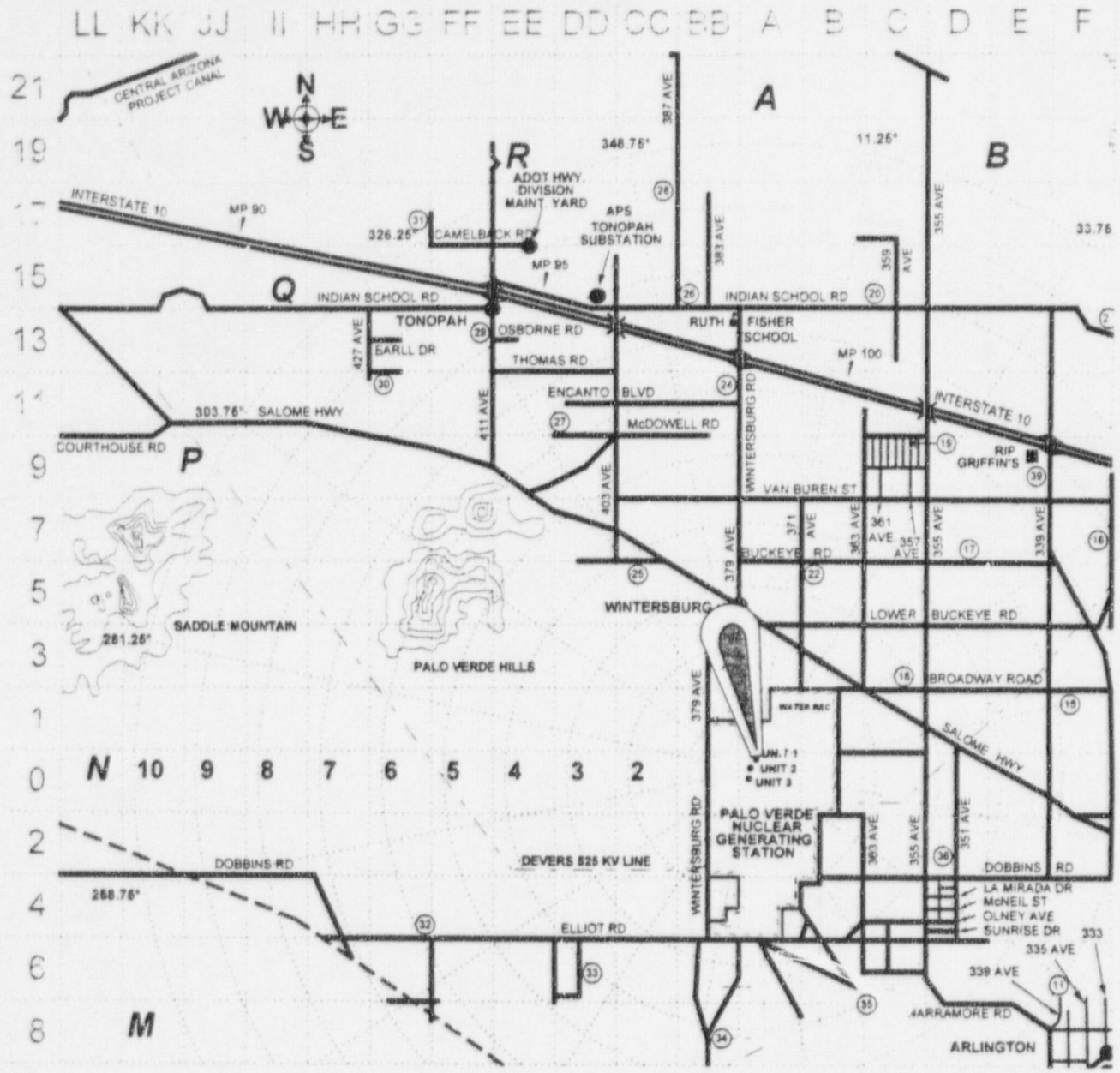
0945 - 1000 EPZ									2 of 2
Distance (miles)	PVNGS READINGS				PVNGS AND ARRA		ARRA READINGS		
	Filter cpm	AgX cpm	AgX µCi/cc	Frisker cpm	mR/hr WO	mR/hr WC	Filter cpm	AgX cpm	AgX pCi/m^3
1.0 - 2.0	as read	229	7.34E-09	70,000	14.00	7.00	as read	as read	7.34E+03
2.0 - 3.0	as read	as read	1.02E-12	200	0.04	0.02	as read	as read	1.02E+00
3.0 - 4.0	as read	as read	as read	as read	as read	as read	as read	as read	as read
4.0 - 5.0	as read	as read	as read	as read	as read	as read	as read	as read	as read
5.0 - 6.0	as read	as read	as read	as read	as read	as read	as read	as read	as read
6.0 - 7.0	as read	as read	as read	as read	as read	as read	as read	as read	as read
7.0 - 8.0	as read	as read	as read	as read	as read	as read	as read	as read	as read
8.0 - 9.0	as read	as read	as read	as read	as read	as read	as read	as read	as read
9.0 - 10.0	as read	as read	as read	as read	as read	as read	as read	as read	as read



Plume Key: ½ table values

1000 - 1015 SITE 1 of 2

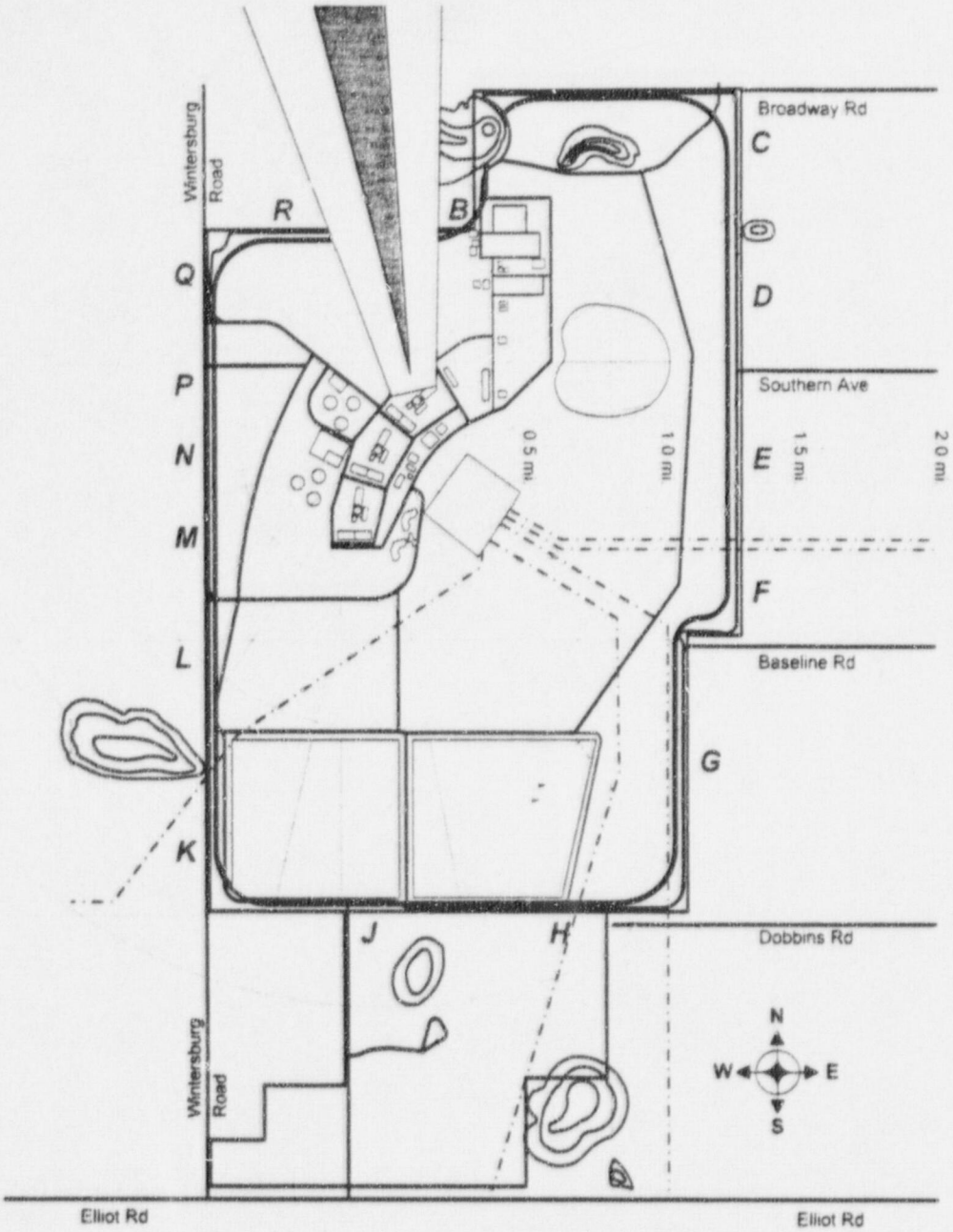
Distance (miles)	PVNGS READINGS				PVNGS AND ARRA		ARRA READINGS		
	Filter cpm	AgX cpm	AgX µCi/cc	Frisker cpm	mR/hr WO	mR/hr WC	Filter cpm	AgX cpm	AgX pCi/m^3
0.0 - 0.1	37,500	375,000	1.20E-05	offscale HI	6,334.00	3,167.00	37,500	16,000	1.20E+07
0.1 - 0.5	13,219	132,188	4.23E-06	offscale HI	2,206.00	1,103.00	13,219	5,640	4.23E+06
0.5 - 1.0	2,019	20,188	6.46E-07	offscale HI	324.00	162.00	2,019	861	6.46E+05



Plume Key: Table values ½ table values

1000 - 1015 EPZ 2 of 2

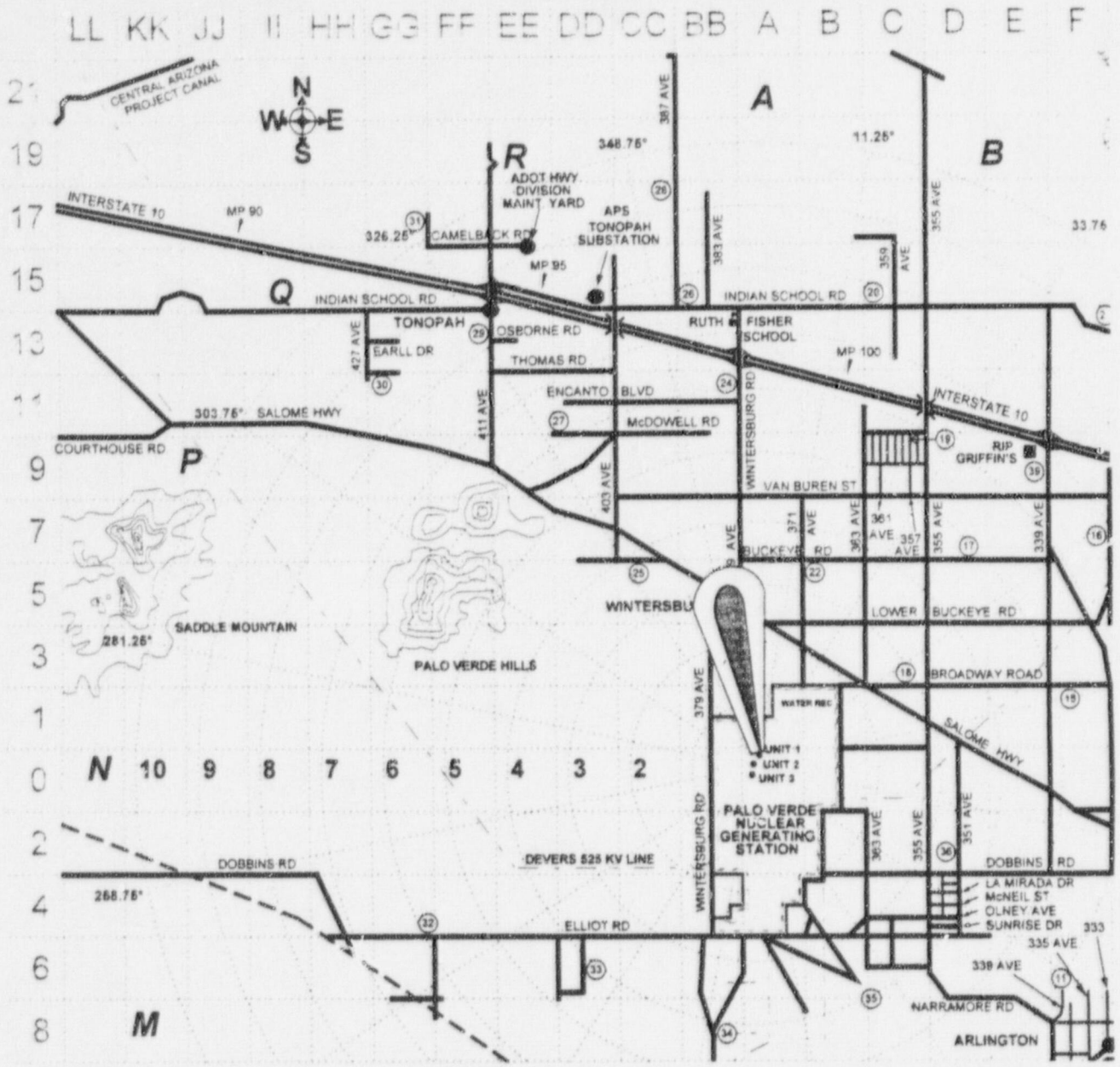
Distance (miles)	PVNGS READINGS				PVNGS AND ARRA		ARRA READINGS		
	Filter cpm	AgX cpm	AgX µCi/cc	Frisker cpm	mR/hr WO	mR/hr WC	Filter cpm	AgX cpm	AgX pCi/m^3
1.0 - 2.0	as read	988	3.16E-08	210,000	42.00	21.00	as read	as read	3.16E+04
2.0 - 3.0	as read	229	7.34E-09	70,000	14.00	7.00	as read	as read	7.34E+03
3.0 - 4.0	as read	as read	1.11E-13	as read	0.01	0.00	as read	as read	1.11E-01
4.0 - 5.0	as read	as read	as read	as read	as read	as read	as read	as read	as read
5.0 - 6.0	as read	as read	as read	as read	as read	as read	as read	as read	as read
6.0 - 7.0	as read	as read	as read	as read	as read	as read	as read	as read	as read
7.0 - 8.0	as read	as read	as read	as read	as read	as read	as read	as read	as read
8.0 - 9.0	as read	as read	as read	as read	as read	as read	as read	as read	as read
9.0 - 10.0	as read	as read	as read	as read	as read	as read	as read	as read	as read



Plume Key: table values ½ table values

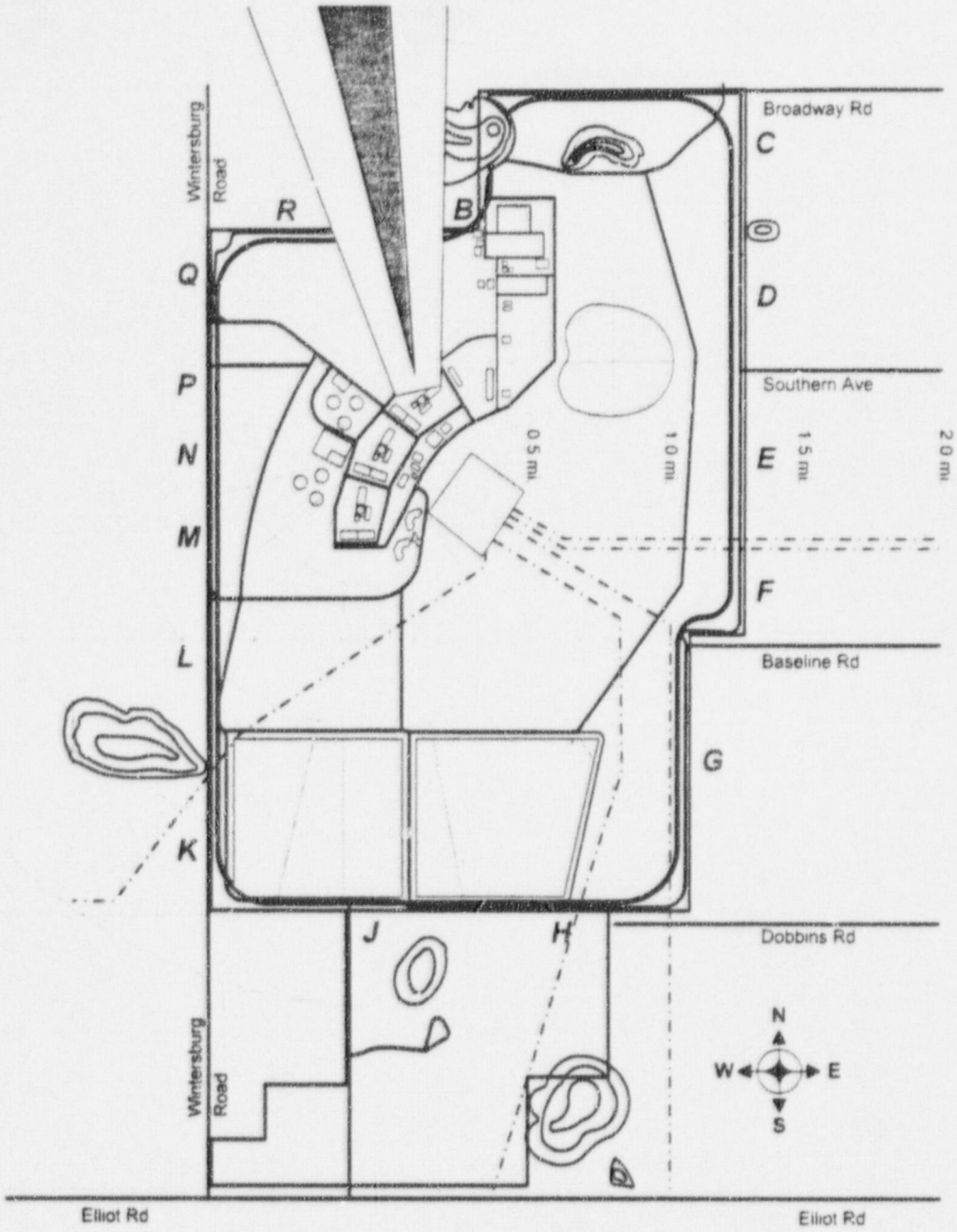
1015 - 1030 SITE 1 of 2

Distance (miles)	PVNGS READINGS				PVNGS AND ARRA		ARRA READINGS		
	Filter cpm	AgX cpm	AgX µCi/cc	Frisker cpm	mR/hr WO	mR/hr WC	Filter cpm	AgX cpm	AgX pCi/m^3
0.0 - 0.1	53,438	*8.5 mR/hr*	1.71E-05	offscale HI	8,058.00	4,029.00	53,438	22,800	1.71E+07
0.1 - 0.5	19,875	198,750	6.36E-06	offscale HI	3,050.00	1,525.00	19,875	8,480	6.36E+06
0.5 - 1.0	3,069	30,688	9.82E-07	offscale HI	500.00	250.00	3,069	1,309	9.82E+05



Plume Key: Table Values ½ table values

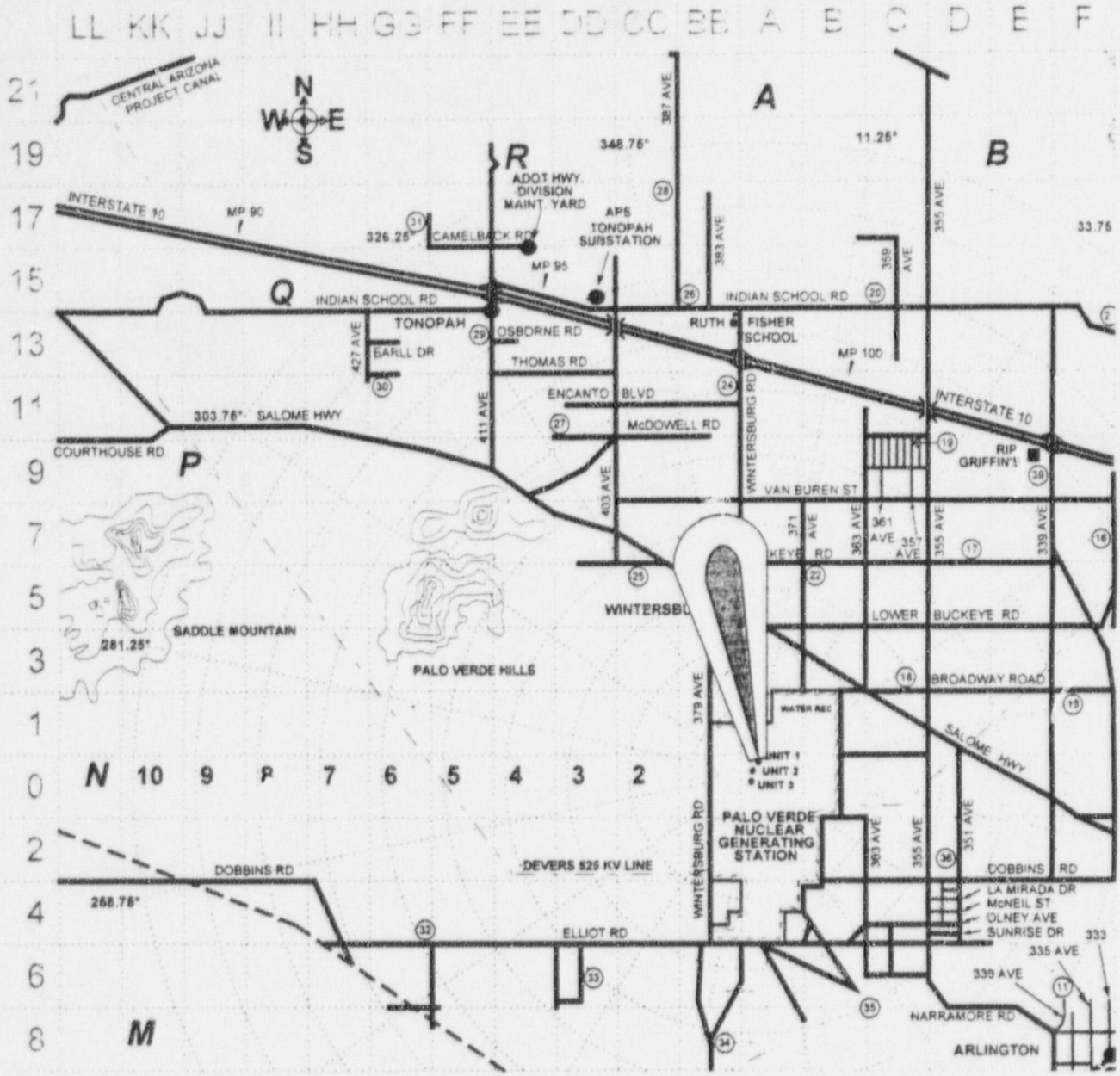
1015 - 1030 EPZ									2 of 2
Distance (miles)	PVNGS READINGS				PVNGS AND ARRA		ARRA READINGS		
	Filter cpm	AgX cpm	AgX µCi/cc	Frisker cpm	mR/hr WO	mR/hr WC	Filter cpm	AgX cpm	AgX pCi/m^3
1.0 - 2.0	as read	1,713	5.48E-08	offscale HI	102.00	51.00	as read	as read	5.48E+04
2.0 - 3.0	as read	as read	1.36E-09	11,000	2.20	1.10	as read	as read	1.36E+03
3.0 - 4.0	as read	as read	1.11E-13	as read	0.01	0.00	as read	as read	1.11E-01
4.0 - 5.0	as read	as read	as read	as read	as read	as read	as read	as read	as read
5.0 - 6.0	as read	as read	as read	as read	as read	as read	as read	as read	as read
6.0 - 7.0	as read	as read	as read	as read	as read	as read	as read	as read	as read
7.0 - 8.0	as read	as read	as read	as read	as read	as read	as read	as read	as read
8.0 - 9.0	as read	as read	as read	as read	as read	as read	as read	as read	as read
9.0 - 10.0	as read	as read	as read	as read	as read	as read	as read	as read	as read



Plume Key: Table values ½ table values

1030 - 1045 SITE 1 of 2

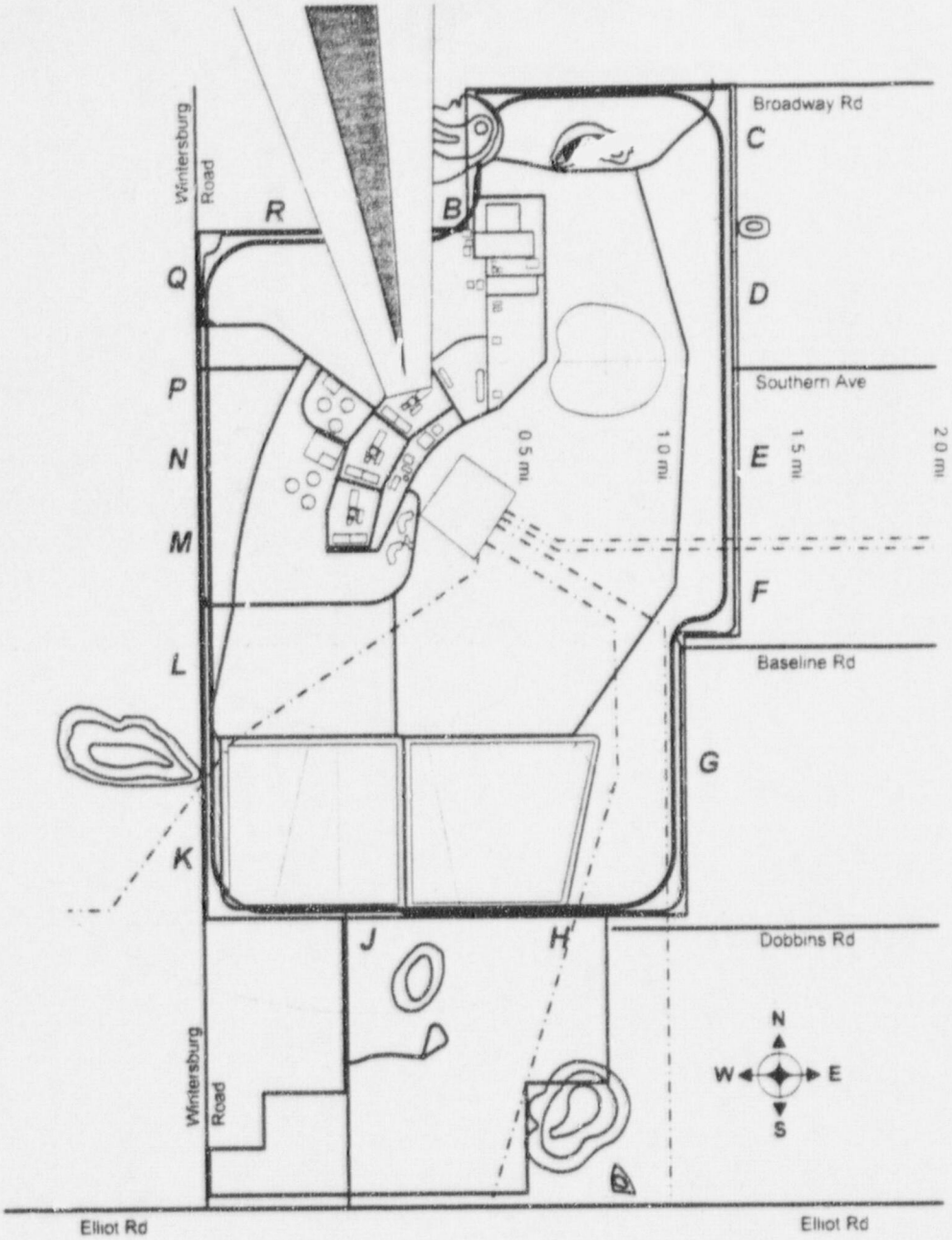
Distance (miles)	PVNGS READINGS				PVNGS AND ARRA		ARRA READINGS		
	Filter cpm	AgX cpm	AgX µCi/cc	Frisker cpm	mR/hr WO	mR/hr WC	Filter cpm	AgX cpm	AgX pCi/m^3
0.0 - 0.1	58,125	*9.3 mR/hr*	1.86E-05	offscale HI	8,304.00	4,152.00	58,125	24,800	1.86E+07
0.1 - 0.5	26,313	263,125	8.42E-06	offscale HI	4,224.00	2,112.00	26,313	11,227	8.42E+06
0.5 - 1.0	4,094	40,938	1.31E-06	offscale HI	468.00	234.00	4,094	1,747	1.31E+06



Plume Key: Table values ½ table values

1030 - 1045 EPZ — 2 of 2

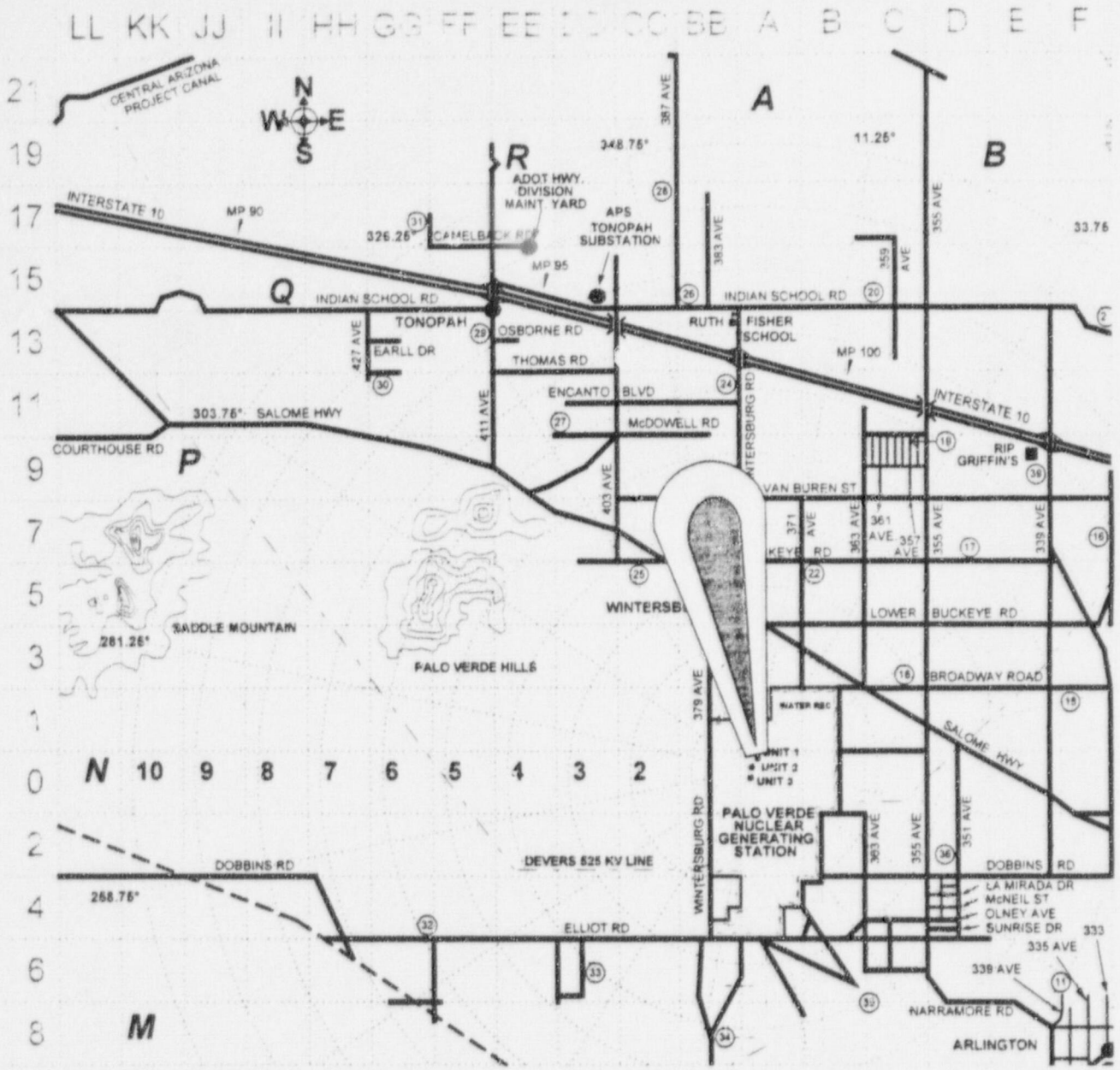
Distance (miles)	PVNGS READINGS				PVNGS AND ARRA		ARRA READINGS		
	Filter cpm	AgX cpm	AgX µCi/cc	Frisker cpm	mR/hr WO	mR/hr WC	Filter cpm	AgX cpm	AgX pCi/m^3
1.0 - 2.0	2,447	24,469	7.83E-07	offscale HI	440.00	220.00	2,447	1,044	7.83E+05
2.0 - 3.0	as read	290	9.28E-09	150,000	30.00	15.00	as read	as read	9.28E+03
3.0 - 4.0	as read	as read	3.41E-09	38,000	7.60	3.80	as read	as read	3.41E+03
4.0 - 5.0	as read	as read	1.02E-12	200	0.04	0.02	as read	as read	1.02E+00
5.0 - 6.0	as read	as read	as read	as read	as read	as read	as read	as read	as read
6.0 - 7.0	as read	as read	as read	as read	as read	as read	as read	as read	as read
7.0 - 8.0	as read	as read	as read	as read	as read	as read	as read	as read	as read
8.0 - 9.0	as read	as read	as read	as read	as read	as read	as read	as read	as read
9.0 - 10.0	as read	as read	as read	as read	as read	as read	as read	as read	as read



Plume Key: [redacted] ½ table values

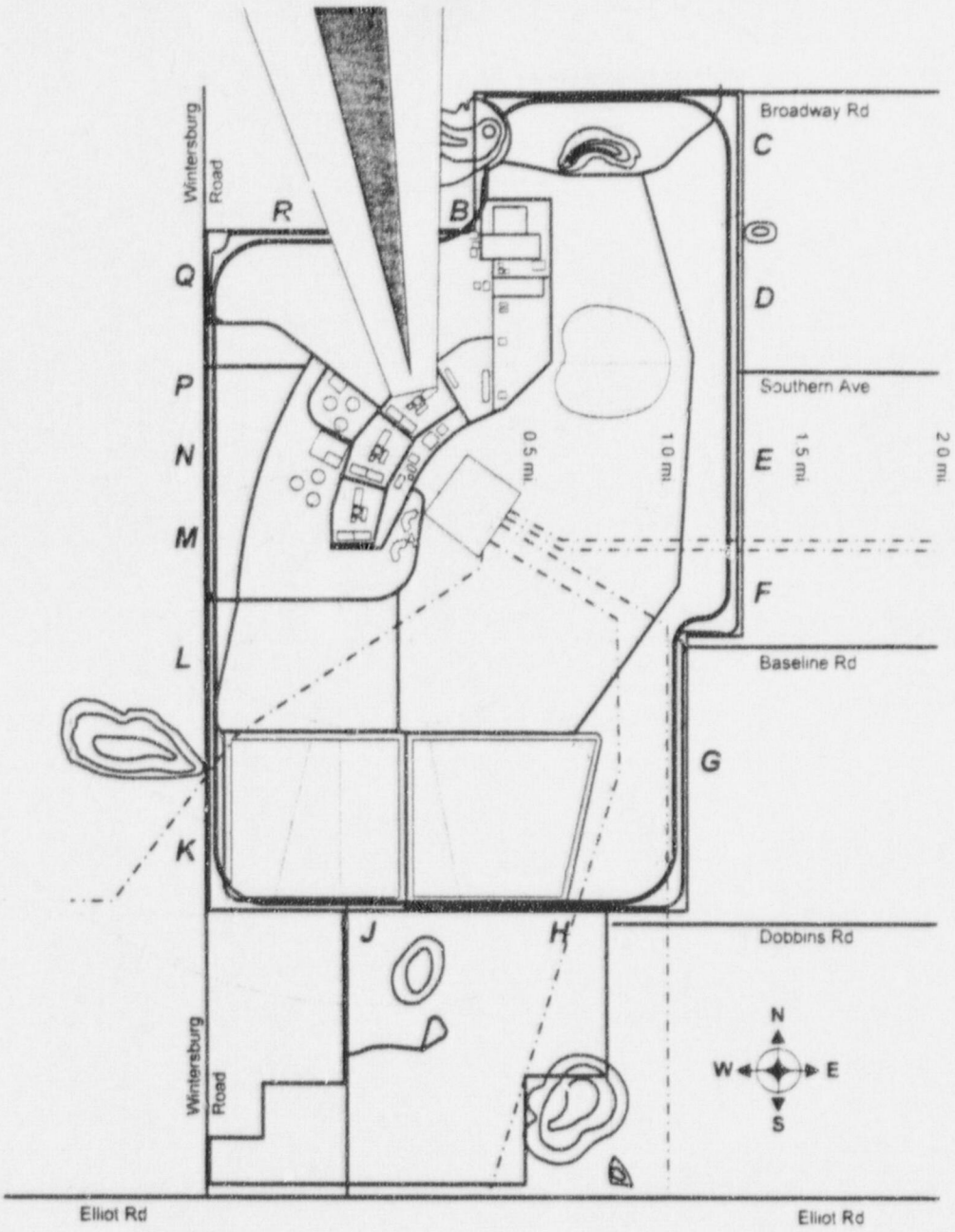
1045 - 1100 SITE 1 of 2

Distance (miles)	PVNGS READINGS				PVNGS AND ARRA		ARRA READINGS		
	Filter cpm	AgX cpm	AgX µCi/cc	Frisker cpm	mR/hr WO	mR/hr WC	Filter cpm	AgX cpm	AgX pCi/m^3
0.0 - 0.1	84,688	13.5 mR/hr	2.71E-05	offscale HI	10,770.00	5,385.00	84,688	36,133	2.71E+07
0.1 - 0.5	28,031	280,313	8.97E-06	offscale HI	3,180.00	1,590.00	28,031	11,960	8.97E+06
0.5 - 1.0	4,438	44,375	1.42E-06	offscale HI	508.00	254.00	4,438	1,893	1.42E+06



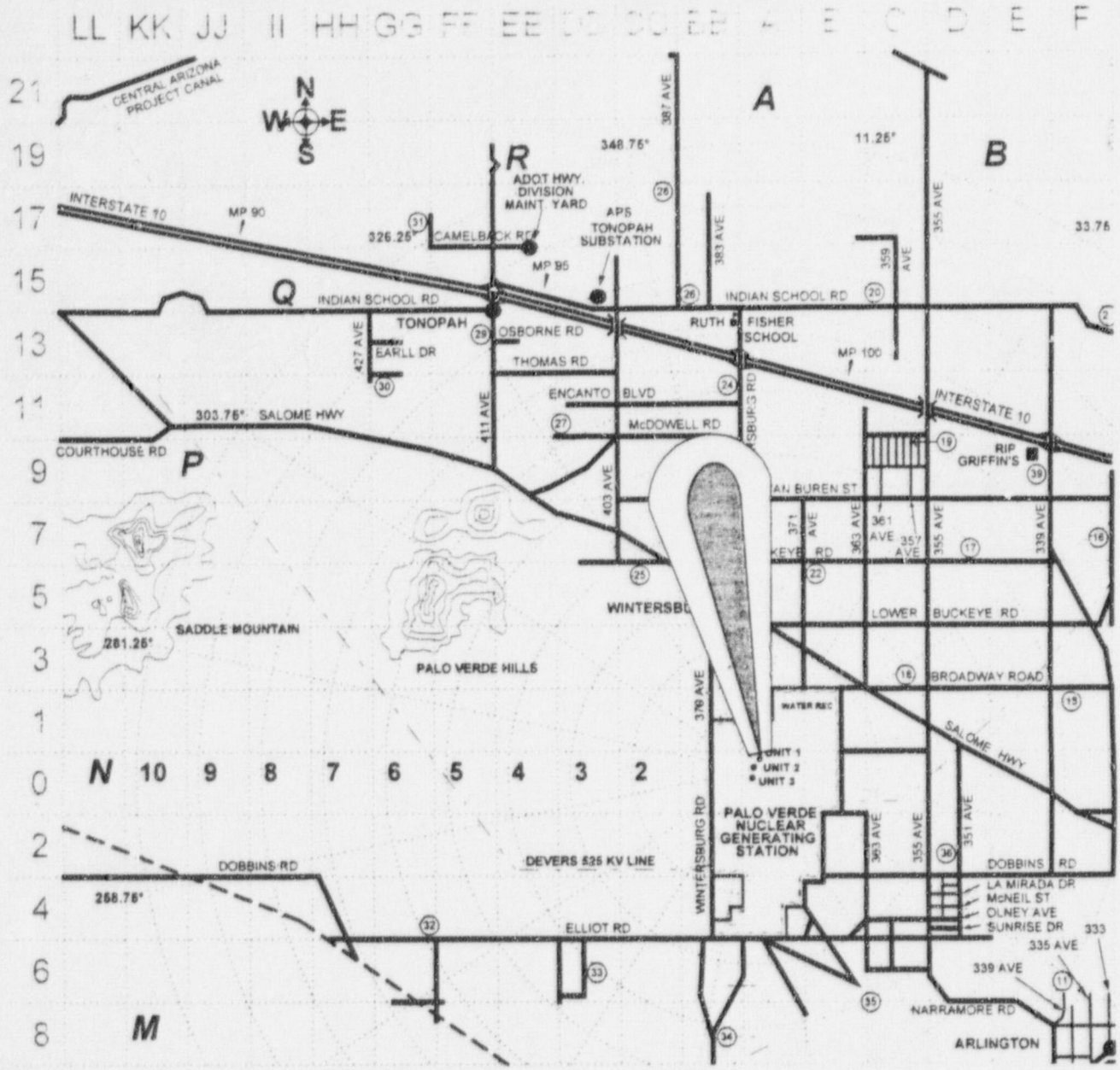
Plume Key: [redacted] ½ table values

1045 - 1100 EPZ									2 of 2
Distance (miles)	PVNGS READINGS				PVNGS AND ARRA		ARRA READINGS		
	Filter cpm	AgX cpm	AgX µCi/cc	Frisker cpm	mR/hr WO	mR/hr WC	Filter cpm	AgX cpm	AgX pCi/m^3
1.0 - 2.0	1,988	19,875	6.36E-07	offscale HI	216.00	108.00	1,988	848	6.36E+05
2.0 - 3.0	as read	1,456	4.66E-08	230,000	46.00	23.00	as read	as read	4.66E+04
3.0 - 4.0	as read	232	7.42E-09	58,000	11.60	5.80	as read	as read	7.42E+03
4.0 - 5.0	as read	as read	1.02E-12	200	0.04	0.02	as read	as read	1.02E+00
5.0 - 6.0	as read	as read	as read	as read	as read	as read	as read	as read	as read
6.0 - 7.0	as read	as read	as read	as read	as read	as read	as read	as read	as read
7.0 - 8.0	as read	as read	as read	as read	as read	as read	as read	as read	as read
8.0 - 9.0	as read	as read	as read	as read	as read	as read	as read	as read	as read
9.0 - 10.0	as read	as read	as read	as read	as read	as read	as read	as read	as read



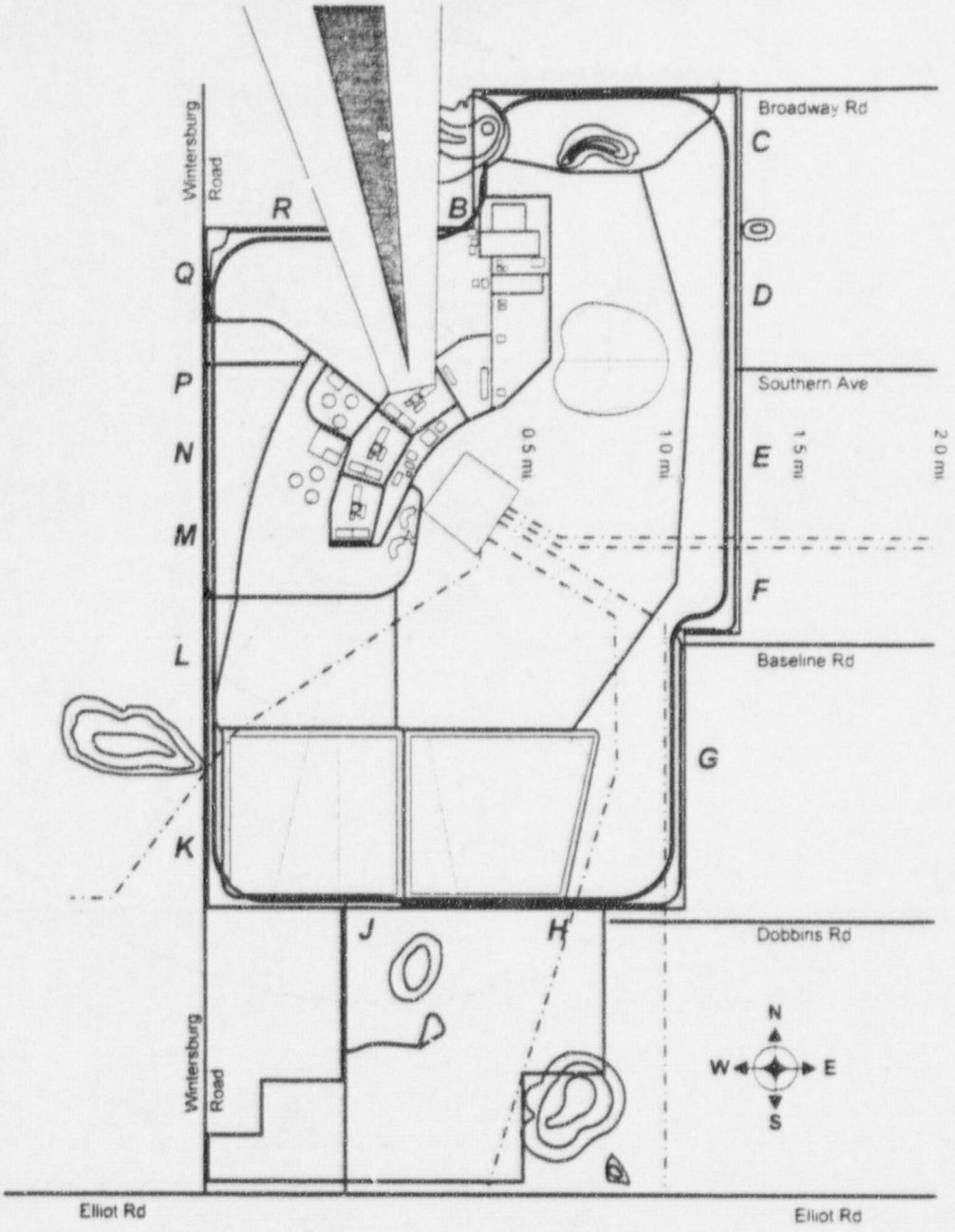
Plume Key: table values ½ table values

1100 - 1115 SITE									1 of 2
Distance (miles)	PVNGS READINGS				PVNGS AND ARRA		ARRA READINGS		
	Filter cpm	AgX cpm	AgX µCi/cc	Frisker cpm	mR/hr WO	mR/hr WC	Filter cpm	AgX cpm	AgX pCi/m^3
0.0 - 0.1	84,688	*13.5 mR/hr*	2.71E-05	offscale HI	10,770.00	5,385.00	84,688	36,133	2.71E+07
0.1 - 0.5	28,813	288,125	9.22E-06	offscale HI	3,660.00	1,830.00	28,813	12,293	9.22E+06
0.5 - 1.0	6,406	64,063	2.05E-06	offscale HI	636.00	318.00	6,406	2,733	2.05E+06



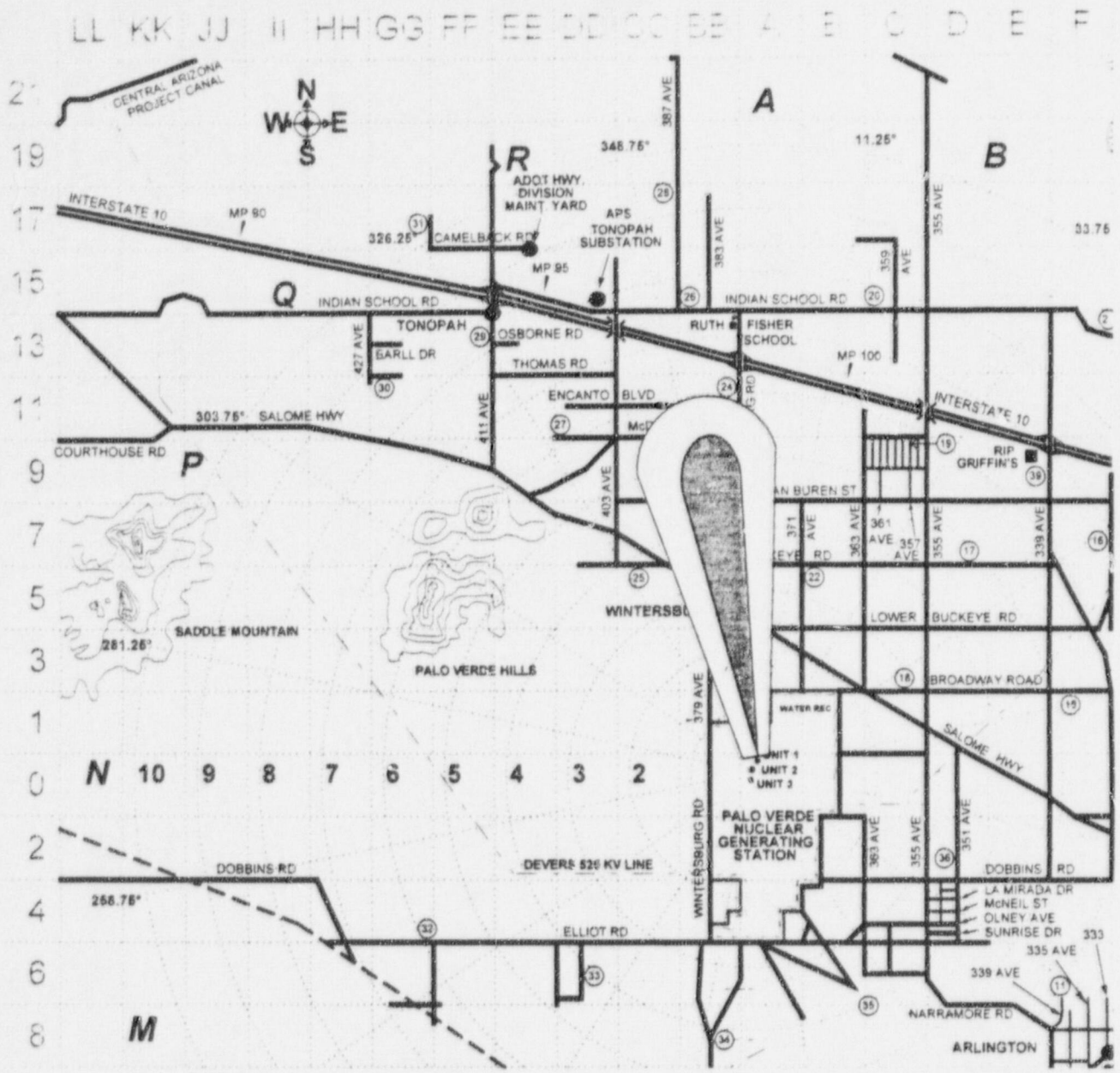
Plume Key: [redacted] ½ table values

1100 - 1115 EPZ									2 of 2
Distance (miles)	PVNGS READINGS				PVNGS AND ARRA		ARRA READINGS		
	Filter cpm	AgX cpm	AgX µCi/cc	Frisker cpm	mR/hr WO	mR/hr WC	Filter cpm	AgX cpm	AgX pCi/m^3
1.0 - 2.0	1,009	10,094	3.23E-07	440,000	88.00	44.00	1,009	431	3.23E+05
2.0 - 3.0	279	2,788	8.92E-08	310,000	62.00	31.00	279	as read	8.92E+04
3.0 - 4.0	as read	322	1.03E-08	120,000	24.00	12.00	as read	as read	1.03E+04
4.0 - 5.0	as read	as read	2.60E-09	12,000	2.40	1.20	as read	as read	2.60E+03
5.0 - 6.0	as read	as read	1.11E-13	as read	0.01	0.00	as read	as read	1.11E-01
6.0 - 7.0	as read	as read	as read	as read	as read	as read	as read	as read	as read
7.0 - 8.0	as read	as read	as read	as read	as read	as read	as read	as read	as read
8.0 - 9.0	as read	as read	as read	as read	as read	as read	as read	as read	as read
9.0 - 10.0	as read	as read	as read	as read	as read	as read	as read	as read	as read



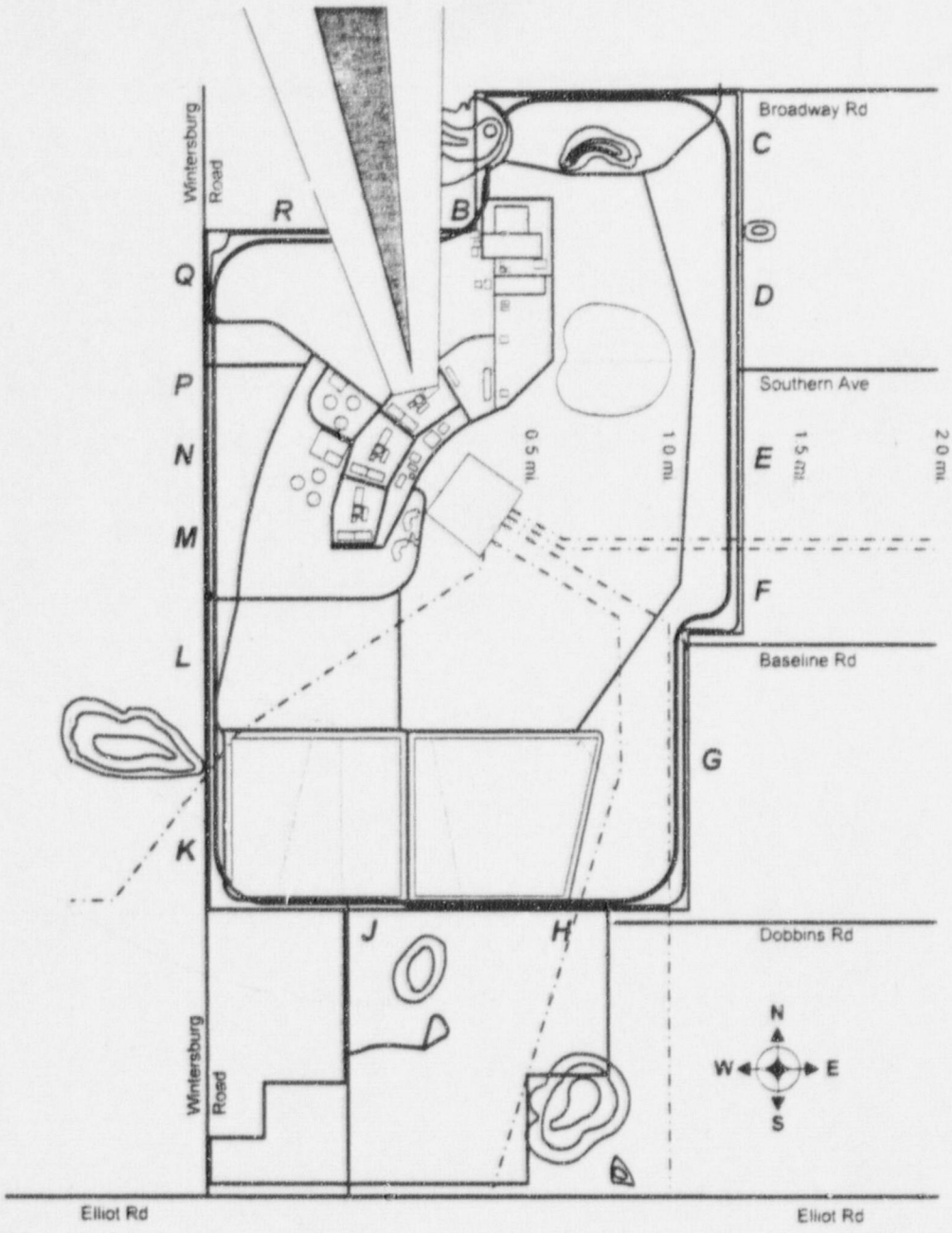
Plume Key: [redacted] ½ table values

1115 - 1130 SITE									1 of 2
Distance (miles)	PVNGS READINGS				PVNGS AND ARRA		ARRA READINGS		
	Filter cpm	AgX cpm	AgX µCi/cc	Frisker cpm	mR/hr WO	mR/hr WC	Filter cpm	AgX cpm	AgX pCi/m^3
0.0 - 0.1	63,125	*10.1 mR/hr*	2.02E-05	offscale HI	10,126.00	5,063.00	63,125	26,933	2.02E+07
0.1 - 0.5	28,438	284,375	9.10E-06	offscale HI	3,640.00	1,820.00	28,438	12,133	9.10E+06
0.5 - 1.0	6,406	64,063	2.05E-06	offscale HI	636.00	318.00	6,406	2,733	2.05E+06



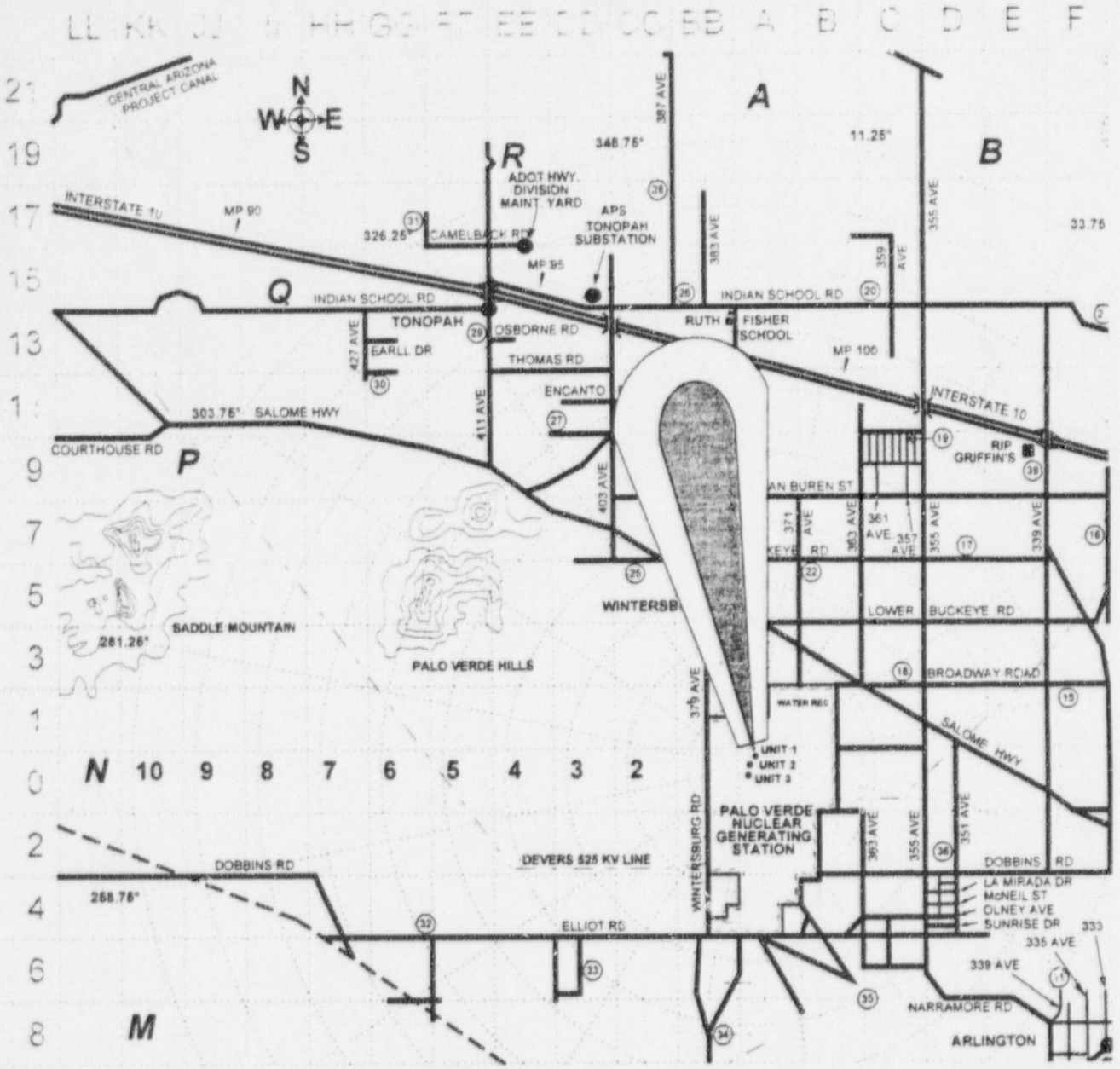
Plume Key: [redacted] ½ table values

1115 - 1130 EPZ									2 of 2
Distance (miles)	PVNGS READINGS				PVNGS AND ARRA		ARRA READINGS		
	Filter cpm	AgX cpm	AgX µCi/cc	Frisker cpm	mR/hr WO	mR/hr WC	Filter cpm	AgX cpm	AgX pCi/m^3
1.0 - 2.0	2,738	27,375	8.76E-07	offscale HI	238.00	119.00	2,738	1,168	8.76E+05
2.0 - 3.0	613	6,125	1.96E-07	360,000	72.00	36.00	613	261	1.96E+05
3.0 - 4.0	as read	1,456	4.66E-08	230,000	46.00	23.00	as read	as read	4.66E+04
4.0 - 5.0	as read	232	7.42E-09	58,000	11.60	5.80	as read	as read	7.42E+03
5.0 - 6.0	as read	as read	1.02E-12	200	0.04	0.02	as read	as read	1.02E+00
6.0 - 7.0	as read	as read	as read	as read	as read	as read	as read	as read	as read
7.0 - 8.0	as read	as read	as read	as read	as read	as read	as read	as read	as read
8.0 - 9.0	as read	as read	as read	as read	as read	as read	as read	as read	as read
9.0 - 10.0	as read	as read	as read	as read	as read	as read	as read	as read	as read



Plume Key: ½ table values

1130 - 1145 SITE									1 of 2
Distance (miles)	PVNGS READINGS				PVNGS AND ARRA		ARRA READINGS		
	Filter cpm	AgX cpm	AgX µCi/cc	Frisker cpm	mR/hr WO	mR/hr WC	Filter cpm	AgX cpm	AgX pCi/m^3
0.0 - 0.1	481,250	*77.0 mR/hr*	1.54E-04	offscale HI	4,034.00	2,017.00	481,250	205,333	1.54E+08
0.1 - 0.5	101,563	*16.2 mR/hr*	3.25E-05	offscale HI	860.00	430.00	101,563	43,333	3.25E+07
0.5 - 1.0	747	7,469	2.39E-07	415,000	83.00	41.50	747	319	2.39E+05



Plume Key: table values ½ table values

1130 - 1145 EPZ									2 of 2
Distance (miles)	PVNGS READINGS				PVNGS AND ARRA		ARRA READINGS		
	Filter cpm	AgX cpm	AgX µCi/cc	Frisker cpm	mR/hr WO	mR/hr WC	Filter cpm	AgX cpm	AgX pCi/m^3
1.0 - 2.0	1,828	18,281	5.85E-07	offscale HI	114.00	57.00	1,828	780	5.85E+05
2.0 - 3.0	416	4,156	1.33E-07	350,000	70.00	35.00	416	as read	1.33E+05
3.0 - 4.0	as read	1,878	6.01E-08	180,000	36.00	18.00	as read	as read	6.01E+04
4.0 - 5.0	282	2,822	9.03E-08	48,000	9.60	4.80	282	as read	9.03E+04
5.0 - 6.0	as read	as read	2.60E-09	12,000	2.40	1.20	as read	as read	2.60E+03
6.0 - 7.0	as read	as read	1.11E-13	as read	0.01	0.00	as read	as read	1.11E-01
7.0 - 8.0	as read	as read	as read	as read	as read	as read	as read	as read	as read
8.0 - 9.0	as read	as read	as read	as read	as read	as read	as read	as read	as read
9.0 - 10.0	as read	as read	as read	as read	as read	as read	as read	as read	as read

SECTION 8

METEOROLOGICAL

This document is controlled by 84DP-0RM32 and is classified as CONFIDENTIAL

99-E-AEV-03003 METEOROLOGICAL DATA

	EP05	EP06	EP07	EP09
TIME	WIND SOURCE	WIND SPEED	TEMP	Δ TEMP
0200 - 0215	117	2.0	55	+ 1.1
0215 - 0230	117	2.1	55	+ 1.1
0230 - 0245	119	2.1	56	+ 1.2
0245 - 0300	121	2.6	57	+ 1.4
0300 - 0315	120	2.9	56	+ 1.5
0315 - 0330	122	2.8	57	+ 1.4
0330 - 0345	125	2.8	59	+ 1.6
0345 - 0400	125	3.1	59	+ 1.8
0400 - 0415	124	3.2	60	+ 2.0
0415 - 0430	128	3.7	61	+ 1.9
0430 - 0445	130	3.7	61	+ 2.0
0445 - 0500	133	4.0	62	+ 2.1
0500 - 0515	140	4.0	62	+ 2.1
0515 - 0530	145	4.1	63	+ 2.3
0530 - 0545	140	4.1	63	+ 2.4
0545 - 0600	143	4.4	64	+ 2.4
0600 - 0615	145	4.5	64	+ 2.6
0615 - 0630	149	4.7	65	+ 2.7
0630 - 0645	152	4.9	65	+ 3.0
0645 - 0700	155	4.9	66	+ 3.1
0700 - 0715	160	5.5	66	+ 3.1
0715 - 0730	163	5.7	67	+ 3.5
0730 - 0745	167	5.8	67	+ 3.3
0745 - 0800	170	5.5	68	+ 3.1
0800 - 0815	171	5.1	68	+ 3.0
0815 - 0830	173	4.8	69	+ 2.8
0830 - 0845	170	4.2	69	+ 2.6
0845 - 0900	168	3.0	70	+ 2.6
0900 - 0915	166	2.9	70	+ 2.4
0915 - 0930	172	1.6	71	+ 2.0
0930 - 0945	170	1.5	71	+ 2.0
0945 - 1000	171	1.1	72	+ 1.7
1000 - 1015	168	1.2	72	+ 1.7
1015 - 1030	167	1.0	72	+ 1.6
1030 - 1045	172	1.2	73	+ 0.8
1045 - 1100	173	1.4	73	- 0.5
1100 - 1115	169	2.0	74	- 1.3
1115 - 1130	168	1.5	74	- 1.3

General Weather Scenario

Spring 1999 PVNGS Plume Exposure Pathway Exercise

General Synopsis:

In the 24 hours preceding the event, a dry and weak cold front has moved southward across most of Arizona. At the beginning of the exercise event, the low level pressure center located over southern California is expected to remain nearly stationary for the next 24 to 48 hours. Weak east to southeast low level winds prevail throughout most of the event. Since the winds are light and only a few high clouds are expected, near normal seasonal temperatures occur. Toward the end of the exercise period, light mixing in the lower levels can be expected.

FORECAST:

TODAY...MOSTLY SUNNY. HIGH IN THE UPPER 70S. LIGHT WIND...BECOMING SOUTHEAST 5 TO 10 MPH THIS AFTERNOON.

TONIGHT..CLEAR. LOW NEAR 60. LIGHT WIND.

Weather Scenario and Charts Avuilabel to NWSFO Staff at ADEM EOC

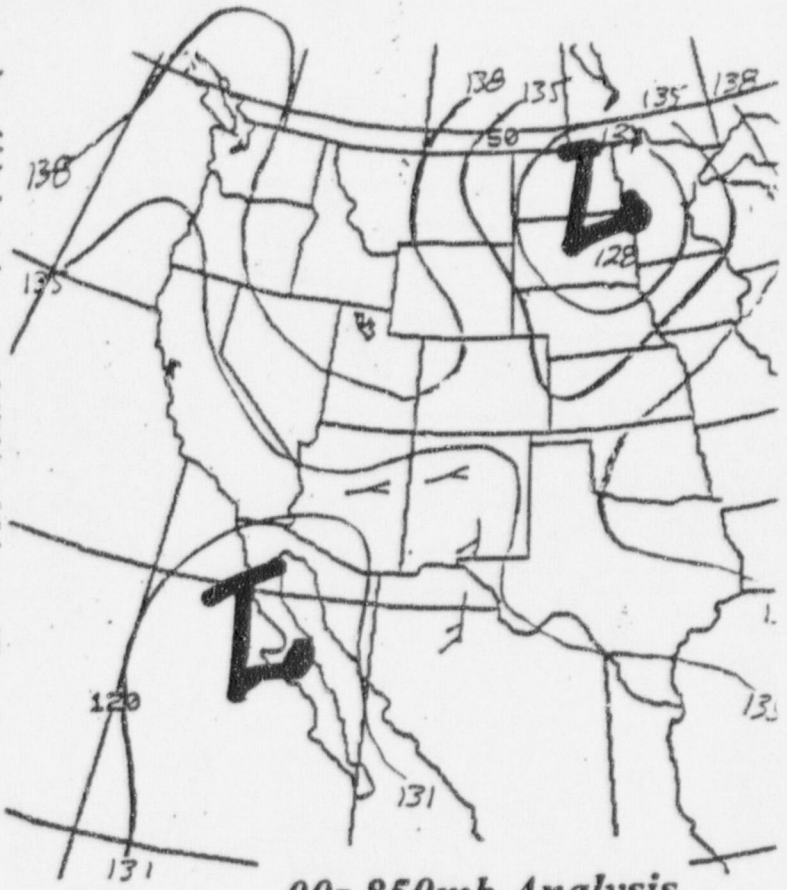
Spring 1999

PVNGS Plume Exposure Pathway Exercise

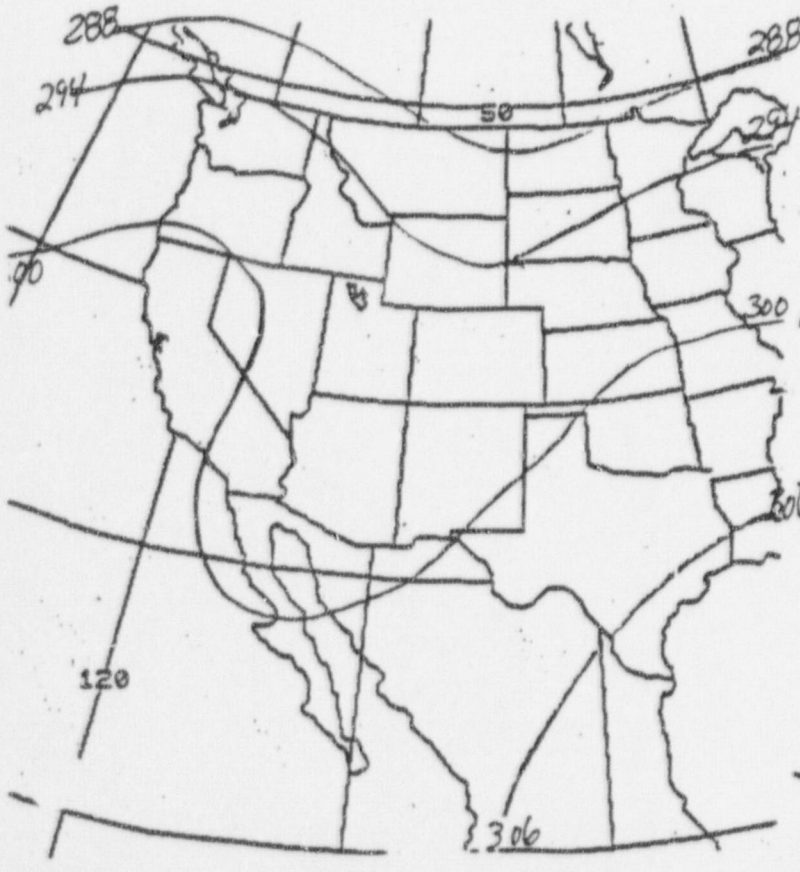
Valid Time	Chart (Description)
0000z (500 pm MST)	850 mb Analysis
0000z (500 pm MST)	700 mb Analysis
0000z (500 pm MST)	500 mb Analysis
0600z (1100 pm MST)	Surface Analysis
0900z (200 am MST)	Surface Analysis
1200z (500 am MST)	850 mb Prog (RUC Model)
1200z	700 mb Prog (RUC Model)
1200z	500 mb Prog (RUC Model)
1200z (500 am MST)	Surface Analysis
1500z (800 am MST)	850 mb Prog (RUC Model)
1500z	700 mb Prog (RUC Model)
1500z	500 mb Prog (RUC Model)
1500z (500 am MST)	Surface Analysis
1800z (800 am MST)	850 mb Prog (RUC Model)
1800z	700 mb Prog (RUC Model)
1800z	500 mb Prog (RUC Model)
1800z (500 am MST)	Surface Analysis
2100z (800 am MST)	850 mb Prog (RUC Model)
2100z	700 mb Prog (RUC Model)
2100z	500 mb Prog (RUC Model)

* All RUC models verify

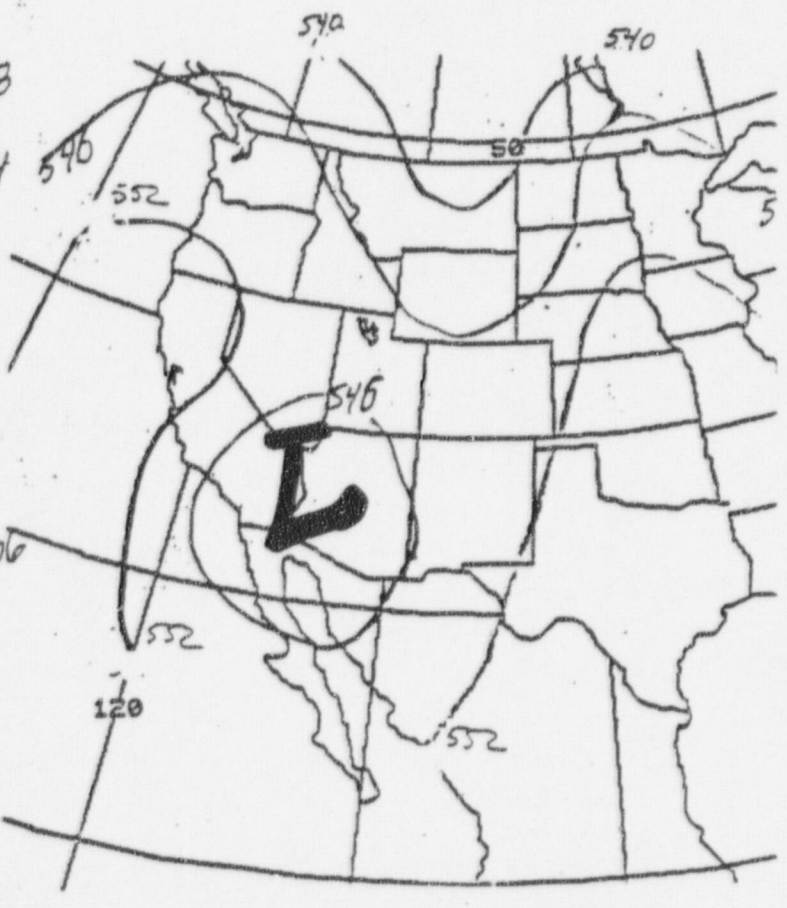
SFC 06z Analysis



00z 850mb Analysis

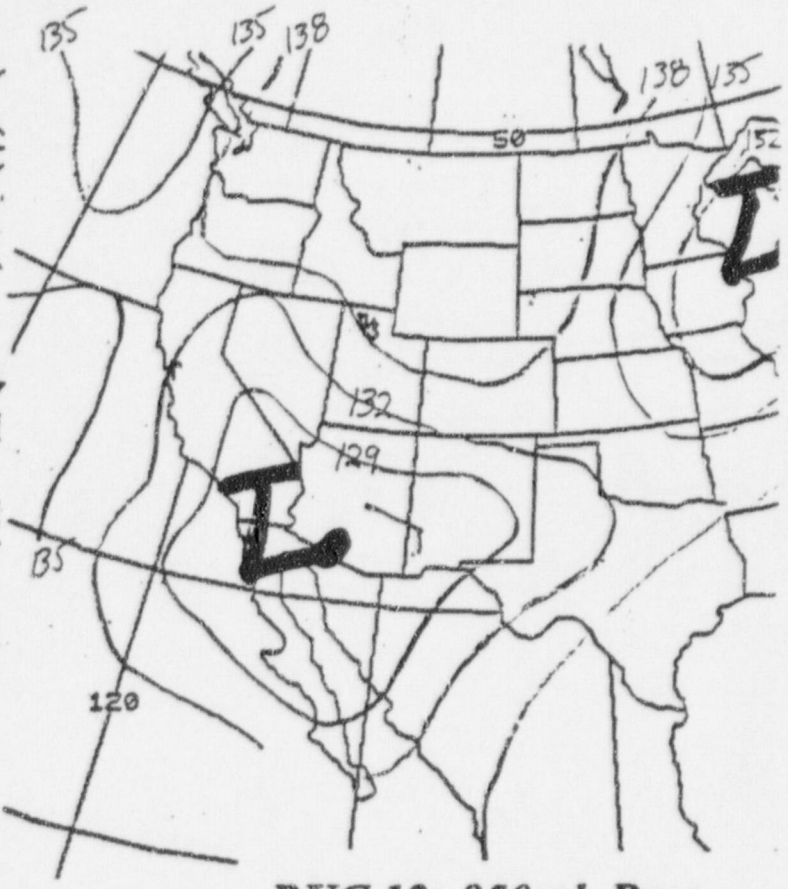


00z 700mb Analysis

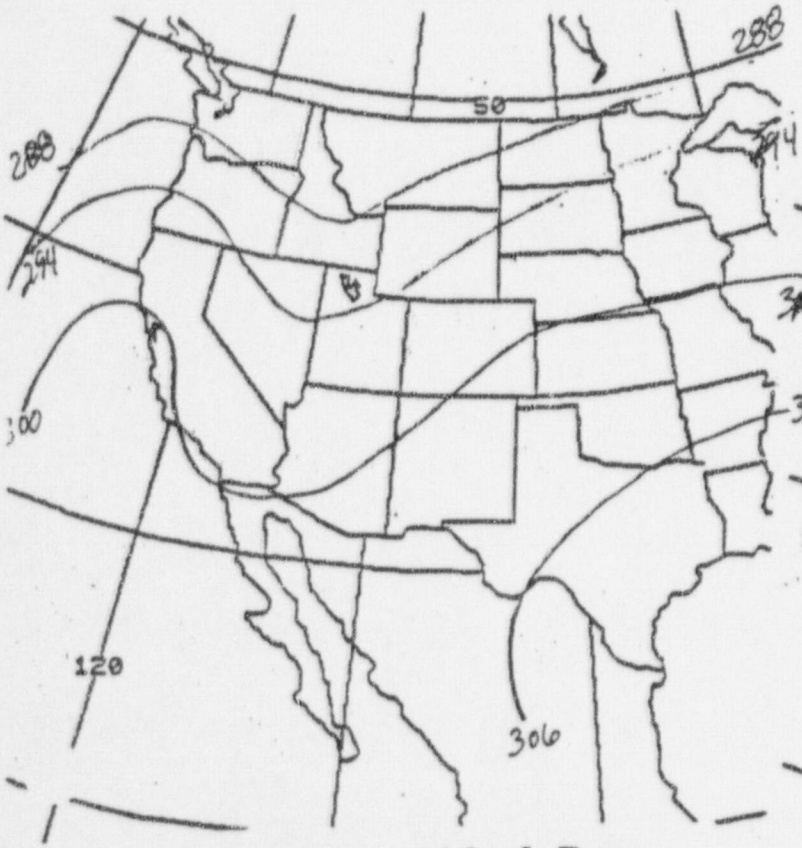


00z 500mb Analysis

SFC 09z Analysis



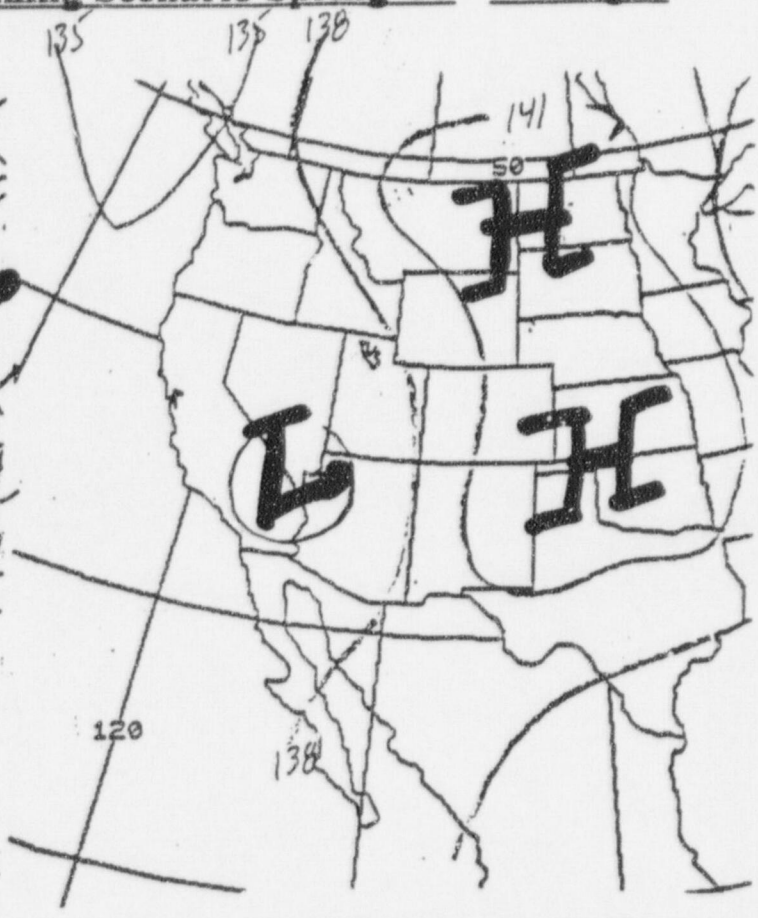
RUC 12z 850mb Prog



RUC 12z 700mb Prog

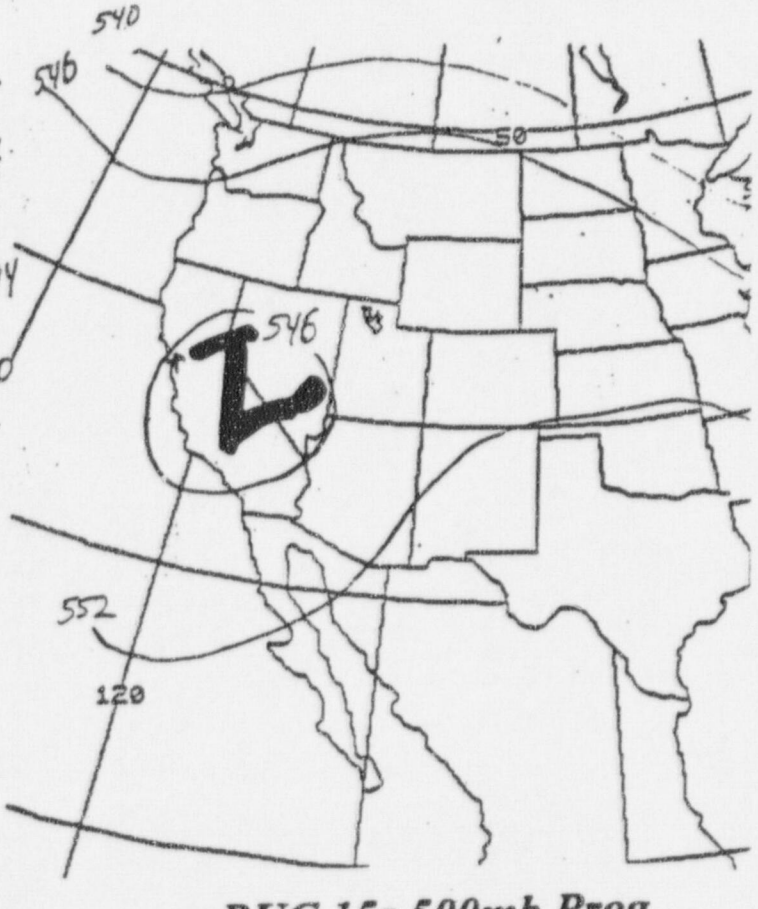
RUC 12z 500mb Prog

SFC 12z Analysis



RUC 15z 850mb Prog

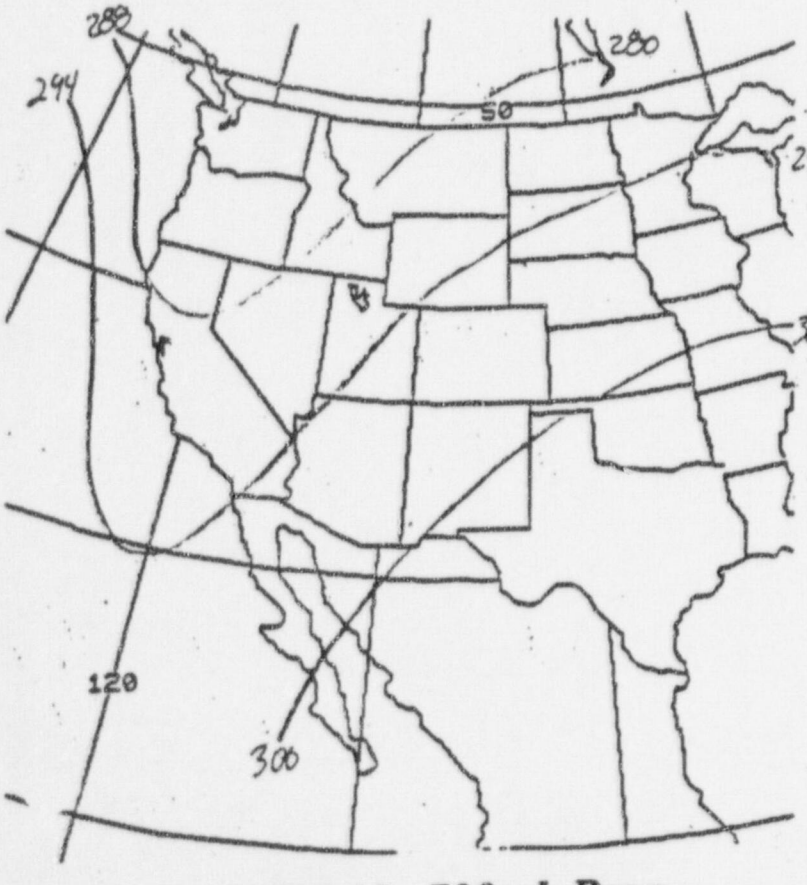
RUC 15z 700mb Prog



RUC 15z 500mb Prog

SFC 15z Analysis

RUC 18z 850mb Prog



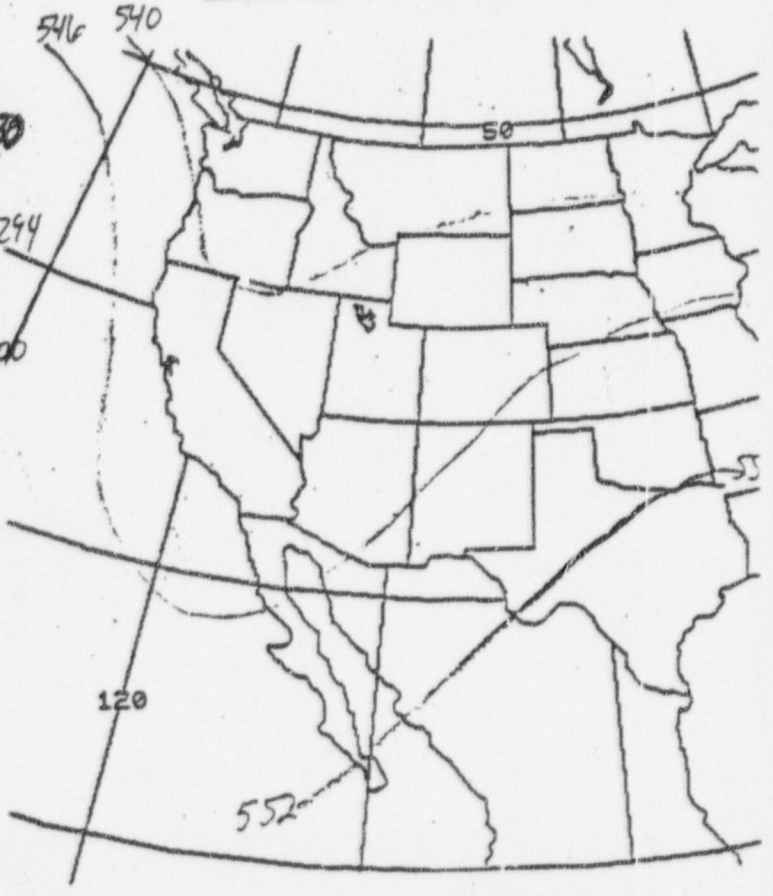
RUC 18z 700mb Prog

RUC 18z 500mb Prog

SFC 18z Analysis

RUC 21z 850mb Prog

RUC 21z 700mb Prog



RUC 21z 500mb Prog

SECTION 9

EQUIPMENT

This document is controlled by 84DP-0RM32 and is classified as CONFIDENTIAL

COMPONENT / MALFUNCTION **PAGE**

Seismic Events 2

AC Voltage Regulator 3

LOCA - Reactor Coolant System Loop-2 Hot Leg 4

Loose Parts Vibration Monitoring System 5

Stuck Control Element Assemblies 6

Fuel Clad 7

Containment Spray Pump B 8

Containment Spray Header 9

High Pressure Safety Injection Pump A 10

Pressurizer Pressure Transmitter PT-103 11

Turbine Cooling Water System Header Rupture 12

Feedwater Line Containment Penetration Envelope 13

SEISMIC EVENTS

INITIAL CONDITION:

This scenario includes one major seismic event followed by two major aftershocks. Together, they comprise the backbone of the scenario. The seismic events, coupled with the major issues invoked by them, will ultimately lead to a **GE** condition.

The initial seismic event occurs very early in the scenario and is subsequently determined to be an event that satisfies Operating Basis Earthquake (OBE) criteria. An **ALERT** will be declared and offsite agencies will be notified. (As an option, the Shift Manager may conservatively declare an **NUE** while waiting for OBE validation by the STA.) Emergency responders will be notified and mobilized following the offsite agency notifications. The second of the three seismic events occurs after emergency response facilities have been activated and is determined to be an event that satisfies Safe Shutdown Earthquake (SSE) criteria. Furthermore, the seismic event causes an RCS LOCA condition, leading to declaration of an **SAE**. The last of the three seismic events occurs later in the scenario and is determined to be less severe than the preceding seismic event. However, this seismic occurrence causes major damage to a feedwater line Containment penetration envelope, thereby initiating a radiological offsite release to the environment.

ANTICIPATED RESPONSE:

Each of the three seismic events can be diagnosed by operators and validated by the Shift Technical Advisor. 16DP-0EP13, Emergency Classification, relies solely on preliminary validation of a seismic event for entry into an appropriate Emergency Action Level. Only the initial event leads to emergency classification in and of itself, as the time periods associated with the second and third events involve preceding emergency declarations based on fission product barrier criteria. This manual contains support messages and information to effect seismic event validations in accepted time frames. Using this data, the operators and STA will proceed accordingly and arrive at the proper conclusions.

The circumstantial effects brought about by each of the three seismic events are realistic and it is anticipated that Operations personnel and support organization staff will respond appropriately. The two types of seismic events (i.e., >OBE and >SSE) used in the scenario are FSAR analyzed, with effects similar to those incorporated within the scenario regime.

AC VOLTAGE REGULATOR

INITIAL CONDITION:

The Main Generator AC Voltage Regulator is a component designed to help the operator maintain proper voltage control during normal plant operation or when changing generator load. Early in the scenario shortly following commencement of the plant power reduction, an Energy Control Center (ECC) supervisor will contact Control Room personnel in accordance with standard utility practice. S/he will request that megavars be maintained at a value conducive to ECC operations. The Secondary Operator will subsequently attempt to adjust megavar loading per the ECC request.

ANTICIPATED RESPONSE:

While attempting to adjust megavar loading, the operator will notice the lack of system response and will switch main generator voltage control to the DC Mode of operation. Though voltage control will have to be maintained in the DC Mode during the remainder of the load reduction, no major impact to plant operations is expected. Neither Operations nor Maintenance resources are expected to be impacted, as this malfunction will pose no real hardship on plant operations and personnel can easily accommodate DC regulated voltage control. The component malfunction is inserted for realistic expectations following a seismic event of this nature. It will be irrelevant to the scenario timeline whether the AC Voltage Regulator is restored to a functional status.

LOCA - REACTOR COOLANT SYSTEM LOOP-2 HOT LEG

INITIAL CONDITION:

The Loss of Coolant Accident (LOCA) occurs on the Loop-2 Hot Leg of the Reactor Coolant System and will initially be equivalent to approximately 50 gallons per minute when input. This condition will be sustained for 10 minutes in the scenario prior to major malfunction adjustment. The 10-minute time period is designed to allow for Technical Support Center involvement in plant activities potentially requiring emergency classification. The short time period will also allow for recognition by the crew and support organizations of degrading RCS conditions that have the potential for major problems. Following the 10-minute period of 50-gpm RCS leakage, a major LOCA occurs, causing the reactor trip and subsequent ESFAS initiations. The size of the LOCA on the Loop-2 Hot Leg is an approximate 80,000 gallons per minute and is ramped over an interrupted 300-second time period. The cause is directly related to the first major earthquake aftershock.

ANTICIPATED RESPONSE:

This event is easily diagnosed by operators and mitigated per the appropriate emergency operating procedure. However, when this event is coupled with additional accident type scenarios, the problem becomes complex and must be mitigated through use of a functional recovery procedure. In this instance, event mitigation is based on fulfillment of safety function criteria as well as event specific strategies. Since the scenario timeline invokes a Containment breach at a later point, the operators will be directed to the Functional Recovery Procedure. The goals of this event will be to re-establish core cooling and inventory control and reduce the subsequent high Containment pressure condition. Furthermore, reducing Containment pressure will mitigate the effects of the radiological plume on the health and safety of the public.

LOOSE PARTS VIBRATION MONITORING SYSTEM

INITIAL CONDITION:

The Loose Parts Vibration Monitoring System (LPVMS) continuously monitors the Reactor Coolant System (RCS) components for the presence of internal loose parts, the Reactor Coolant Pumps (RCP) for vibration, and internal motion or core vibration within the reactor vessel. The monitoring system cabinet is located within the back-board area of the Control Room and is designed to alert the operator to possible problems with RCS components. When the second of three seismic events occur, a trouble alarm is received on Board 7 for the LPVMS. The operator will respond to the alarm and retrieve the system operating procedure to diagnose the condition, which is indicated by LEDs for "Lower Vessel Channels 3 and 4 Loose Parts." Vibration Group personnel or the duty Shift Technical Advisor (STA) will continue to analyze the problem.

ANTICIPATED RESPONSE:

This incident acts as a precursor to scenario events associated with the first seismic aftershock. The alarm symptoms do not reset and the crew will assume the condition is valid. The effects of this condition eventually tie to fuel clad integrity problems. In itself, the lower vessel loose parts indications are used as a basis on which to evaluate the condition. Moreover, this event is used to provide a correlation to and support a smooth transition into a realistic functional sequence of subsequent events.

STUCK CONTROL ELEMENT ASSEMBLIES

INITIAL CONDITION:

Control Element Assemblies (CEA) are components of the reactor used to control the fission process. They are also inserted into the core automatically (i.e., gravity) upon generation of a reactor trip signal. When a reactor trip signal is generated part way through the scenario, four of the eighty-nine Control Element Assemblies do not insert. The condition is caused by mechanical binding of the four CEAs as a result of the first of three seismic events earlier in the scenario. The four Control Element Assemblies affected are the following:

- CEA 86 Group 04 Subgroup 27
- CEA 04 Group 03 Subgroup 01
- CEA 07 Group A Subgroup 03
- CEA 52 Group P2 Subgroup 12

The event will no longer be relevant to the scenario following the reactor trip. Procedures controlling the evolutions in progress at the time contain discrete, well-defined direction for the condition.

ANTICIPATED RESPONSE:

Upon evidence to the crew at the time of the reactor trip that four CEAs did not fully insert into the core as required, the Primary Operator will be directed to emergency borate the Reactor Coolant System via CH - Charging. This evolution will occur as expected and will not consume an inordinate amount of time. Neither Operations nor Maintenance resources are expected to be impacted, as this malfunction will pose no real hardship on plant operations and personnel can easily accommodate the emergency boration evolution. The component malfunctions are inserted for realistic expectations following a seismic event of this nature.

FUEL CLAD

INITIAL CONDITION:

The zircalloy cladding encasing the Uranium fuel pellets in the reactor vessel serves as the first of three fission product barriers protecting the health and safety of the public. Based on the first earthquake aftershock (seismic event 2), the Loose Parts Vibration Monitoring System alarms and alerts operators to a possible threat to fuel clad integrity. The threat is later realized as fuel clad becomes impacted, manifesting itself with increasing Containment radiation levels. Radiological plume measurements increase slightly late in the scenario as gas gap activity is released into the Containment atmosphere and expelled through the breached feedwater line Containment penetration envelope. Does projections may produce results mandating changes to Protective Action Recommendations issued to state personnel.

ANTICIPATED RESPONSE:

Emergency response personnel are expected to follow their course of action in emergency management. Plant operators will continue their task of depressurizing Containment. Radiological Field Assessment Teams (RFAT) will continue to monitor and sample the radiological plume. In addition, the State of Arizona Radiological Emergency Assessment Teams (REAT) will continue to assess conditions downwind of the plant. State of Arizona personnel may change their Protective Action Decisions if Site Boundary dose rates cause a change to the site's Protective Action Recommendations.

CONTAINMENT SPRAY PUMP B

INITIAL CONDITION:

Containment Spray Pump B is used for Containment pressure control following a LOCA or other high energy steam release in Containment. The system supplies high volume water flow to spray nozzles on ring headers located in the Containment dome area. Containment Spray Pump B can be supplied from either of two redundant 1E Class power sources, as can the Train A pump.

Containment Spray Pump B will exhibit a ground fault condition during ESFAS sequencing such that it will trip immediately upon receiving a "start" signal. The failure is caused by electrical malfunctions associated with the seismic events and the pump will not be available for the remainder of the scenario following this failure. Only Containment Spray Pump A will be available for high volume water flow to the spray nozzles during the events.

ANTICIPATED RESPONSE:

Operations will determine that the pump's failure is one of many associated with the seismic events and may pursue a repair for the pump and/or its supply breaker. Engineering personnel may expend resources in probabilistic determinations for contingencies associated with the loss of the pump. However, they will determine it is not immediately required for the specific LOCA condition, as Containment Spray Pump A is functioning to provide the required high volume water flow to the spray nozzles.

This event will add to Engineering resource difficulties as other associated seismic event failures continue to burden available Engineering expertise.

CONTAINMENT SPRAY HEADER

INITIAL CONDITION:

The Containment Spray header is a component of the Containment Spray System and is used for Containment pressure control following a LOCA or other high energy steam release in Containment. The system supplies high volume water flow to spray nozzles attached to ring headers located in the Containment dome area. The system is comprised of two redundant trains, each independently capable of mitigating high Containment pressure conditions following a high energy steam release in Containment.

As a result of the first seismic event, several areas of piping weld damage occur to the Containment Spray header in Containment. The Train A Containment Spray Pump will continue to function as designed during the event. However, the breached spray header will subsequently impact the flow of water required for the spray nozzles, resulting in a longer-than-anticipated Containment pressure reduction following the RAS. More importantly, the reduced Containment Spray flow will greatly influence the system's ability to remove radioactive Iodine from the Containment environment. Eventually, the component failure becomes responsible for elevated Iodine concentrations released to the outside environment following the Containment breach later in the scenario.

ANTICIPATED RESPONSE:

Operations personnel will notice no abnormalities with the system and will not correlate the sluggish post-RAS Containment pressure decrease or the subsequent elevated Iodine concentrations to inadequate Containment Spray System performance. As such, they will not pursue a repair to the system spray header. However, Radiation Protection or Radiological Monitoring personnel may equate the elevated Iodine concentrations to design anomalies or inadequate Containment Spray System performance as a result of dose projection evaluations. If requested, Engineering personnel may expend resources in probabilistic determinations associated with possible Spray System degradation.

This event may add to Radiation Protection, Radiological Monitoring, and Engineering resource difficulties if the anomaly is pursued.

HIGH PRESSURE SAFETY INJECTION PUMP A

INITIAL CONDITION:

High Pressure Safety Injection Pump A is used for cold leg injection following a SIAS to supply high pressure RCS makeup following a LOCA. It can be supplied from either of two redundant 1E Class power sources, as can the B Train pump.

HPSI Pump A will exhibit a ground fault condition during ESFAS sequencing such that it will trip immediately upon receiving a "start" signal. The failure is caused by electrical malfunctions associated with the seismic events and the pump will not be available for the remainder of the scenario following this failure. Only HPSI Pump B will be available for high pressure RCS makeup during the events.

ANTICIPATED RESPONSE:

Operations will determine that the pump's failure is one of many associated with the seismic events and will not pursue a repair. Engineering personnel may expend resources in probabilistic determinations for contingencies associated with the loss of the pump, but will determine it is not required for the specific LOCA condition.

This event will add to Engineering resource difficulties as other associated seismic event failures continue to burden available Engineering expertise.

PRESSURIZER PRESSURE TRANSMITTER PT-103

INITIAL CONDITION:

Pressurizer Pressure Transmitter PT-103 is a cold-calibrated pressure instrument normally used under cold, depressurized RCS conditions. It is a non-Class instrument and integrates a displayed output on Control Panel B-03. In addition to the display, the instrument provides logic input signals to the Train A Low Pressure Safety Injection suction valves from the RCS loop, SIA-UV-651 and SIA-UV-655. The PT-103 instrument fails HI (relay problem) as a result of the first of three seismic events and will prevent opening of the associated valves. Furthermore, the instrument provides logic input signals to the associated Low Temperature / Over-Pressure (LTOP) valve, which remains isolated from the RCS during the instrument's failed-HI condition.

ANTICIPATED RESPONSE:

Neither Operations, Engineering, nor Maintenance resources are expected to be impacted, as this malfunction will pose no real hardship on plant operations during LOCA mitigation evolutions. Personnel can easily accommodate the failure, as no impact to ESFAS functions will exist. Following the LOCA, RCS pressure will have been reduced to the point where the appropriate components fed by the instrument logic signals are no longer required. This instrument malfunction is inserted for realistic expectations following the seismic event. In addition, it will be irrelevant to the scenario timeline whether the instrument failure is detected by operating personnel.

TURBINE COOLING WATER SYSTEM HEADER RUPTURE

INITIAL CONDITION:

Turbine Cooling Water is a system employed in the steam plant and used as a cooling mechanism for various secondary system components. It is one of the major cooling systems in the plant and, for this reason, incorporates redundancy in its design. Though the second seismic aftershock damages a Containment penetration envelope and the result is an offsite radiological release, the aftershock also ruptures the combined Turbine Cooling Water discharge header immediately downstream of the pump's discharge valves. The leak size will grossly exceed Demineralized Water makeup capacity to the TC Surge Tank, resulting in a complete loss of Turbine Cooling Water. The loss will affect all components cooled by TC.

ANTICIPATED RESPONSE:

Operations, Engineering, and Maintenance resources may be impacted, as this system failure may pose a hardship on plant operations. Though an offsite release is in progress, attention may become partially diverted to the TC problem as various supported components are affected. Efforts to mitigate the radiological offsite release will be of primary importance and will be managed as a priority, but loss of the Turbine Cooling Water System will eventually lead to a multitude of secondary plant problems. The Instrument Air System may ultimately influence the seismic event mitigation efforts, as this system is one of the most important TC supported systems. Nitrogen supplies backup instrument control, but can lead to personnel safety hazard issues when employed. Additionally, several other components normally relied upon for support may negatively impact the more important aspects of the emergency.

FEEDWATER LINE CONTAINMENT PENETRATION ENVELOPE

INITIAL CONDITION:

The failure of this component, as part of the scenario, is responsible for events that ultimately lead to the declaration of a **GE**. The component failure occurs with the third seismic event, breaching Containment integrity in the process and allowing for the commencement of a lengthy offsite radiological release to the environment.

The envelopes surrounding the main feedwater lines penetrating the Containment wall are specially built to handle the shock of potential water-hammer events and are protected spatially by supporting reinforcements. In addition, they are each designed to bear maximum Containment design pressure of 60 pounds per square inch. However, they are not analyzed for a major seismic occurrence during LOCA conditions. It is during this condition that one of them fails, resulting in a Containment breach. Furthermore, Containment spray flow had been severely impacted during a previous seismic event, resulting in a pressurized Containment atmosphere not reduced to the point expected. Coupled with degraded fuel clad conditions, the Containment environment released through the failed feedwater line penetration envelope will now contain elevated Iodine concentrations.

ANTICIPATED RESPONSE:

A radiological release of this nature will present grave concern for emergency management personnel. The radiological release will be maintained at the highest priority to onsite and offsite emergency personnel from the point of commencement. Operations, Engineering, Maintenance, Radiation Protection, Radiological Monitoring, and offsite emergency resources will be impacted, as the result of this component failure will definitely pose a hardship on emergency management. The goal of this event will be to reduce the differential pressure across the Containment barrier and mitigate the effects of the radiological plume on the health and safety of the public.

SECTION 0

CONTROL DATA

This document is controlled by 84DP-0RM32 and is classified as CONFIDENTIAL

9901120196 990107
CF ADOCK 05000528
CF

DRILL / EXERCISE PARTICIPANT ATTENDANCE

Facility: *Date:*

Name *(print)*	SSN	Signature	ERO Position

DRILL / EXERCISE PARTICIPANT ATTENDANCE

Facility: *Date:*

Name *(print)*	SSN	Signature	ERO Position

FACILITY LEAD CONTROLLER CHECKLIST

TIME DEPENDENT ACTIONS

Circle the facility observed and complete the applicable fields with current times

***Facility** (circle one):*

STSC TSC OSC EOF

Event Date:

CLASSIFICATIONS

	EAL Parameter(s) Met or Exceeded	Emergency Declaration
NUE		
ALERT		
SAE		
GE		

NOTIFICATIONS

	Offsite Notification Initiated	USNRC Notification
NUE		
ALERT		
SAE		
GE		

ACTIVATIONS

	Facility Activation	ERDS Activation
NUE		
ALERT		
SAE		
GE		

OTHER

	Core Damage Assess	RFAT Field Team(s)	Accountability Request	Accountability Complete
NUE				
ALERT				
SAE				
GE				

(Controller Name) *(Controller Signature)* *(Date)*

FACILITY LEAD CONTROLLER CHECKLIST

TIME DEPENDENT ACTIONS

Circle the facility observed and complete the applicable fields with current times

Facility *(circle one):*	***Event Date:***
STSC TSC OSC EOF	

CLASSIFICATIONS

	EAL Parameter*(s)* Met or Exceeded	Emergency Declaration
NUE		
ALERT		
SAE		
GE		

NOTIFICATIONS

	Offsite Notification Initiated	USNRC Notification
NUE		
ALERT		
SAE		
GE		

ACTIVATIONS

	Facility Activation	ERDS Activation
NUE		
ALERT		
SAE		
GE		

OTHER

	Core Damage Assess	RFAT Field Team*(s)*	Accountability Request	Accountability Complete
NUE				
ALERT				
SAE				
GE				

(Controller Name)	*(Controller Signature)*	*(Date)*

CONTROLLER EVENT LOG

Controller Name:	Date:
Location:	Page: _____ of _____

TIME	ACTIVITY / EVENT

CONTROLLER EVENT LOG

Controller Name:	Date:
Location:	Page: _____ of _____

TIME	ACTIVITY / EVENT

CONTROLLER EVENT LOG

Controller Name:	Date:
Location:	Page: _____ of _____

TIME	ACTIVITY / EVENT

POST-DRILL / EXERCISE CRITIQUE OUTLINE

PURPOSE:

- to assist each Facility Lead Controller and facility manager in conducting a complete and comprehensive critique regarding participant duties, responsibilities, procedures, and actions
- to provide for feedback regarding observations and possible enhancements to the PVNGS Emergency Preparedness Program
- to establish compliance with 10 CFR 50, Appendix E.IV.F.2.g

It is recommended that the facility manager conduct the critique

CRITIQUE:

1. Provide a brief summary of events and timeline of the scenario. Ensure all participants are present and have a thorough understanding of the scenario events.

2. Provide an overall assessment of the following items:

   ___ objectives evaluated *(see list)*

   ___ facility participant performance *(staffing, activation, command and control)*

   ___ adequacy of the Emergency Plan and associated procedures

   ___ the facility and associated equipment and supplies

   ___ participant log-keeping and maintenance of documentation

   ___ intra- and inter-facility communications, including use of 3-legged communications techniques

3. Address any specific problem areas noted in this session:

   _____

   _____

4. Solicit specific assessments and comments from participants and Controllers.

5. Obtain comments from participants *(Controller duty)*. Ensure all worthy comments are recorded on Form EP-0800, EP Comment.

6. Assemble all comments and deliver to the Lead Controller for evaluation and documentation of the session.

EP COMMENT

ORIGINATOR

Name:	Phone:	Station:
ERO Position Title:	Facility:	Date:

Basis *(circle one)*: *TRAINING* *DRILL* *ANNUAL EXERCISE* *ACTUAL EMERGENCY* *OTHER*

INDIVIDUAL COMMENT

RECOMMENDATION

Response requested? ☐ YES ☐ NO

Originator: *Please do not write below this line. Forward this comment to PVNGS Emergency Planning, Mail Station 6050*

CATEGORY

1) Does comment satisfy deficiency criteria specified in 10 CFR 50.54(s)(2)(ii)? ☐ YES ☐ NO

2) Does comment satisfy weakness criteria specified in 16DP-0EP11 Section 4.0? ☐ YES ☐ NO

3) Does comment satisfy CRDR applicability per 90DP-0IP03? ☐ YES ☐ NO

ACTION TAKEN

Signature: _____ Date: _____

EP COMMENT

ORIGINATOR

Name:	Phone:	Station:
ERO Position Title:	Facility:	Date:

Basis *(circle one)*: *TRAINING* *DRILL* *ANNUAL EXERCISE* *ACTUAL EMERGENCY* *OTHER*

INDIVIDUAL COMMENT

RECOMMENDATION

Response requested? ☐ YES ☐ NO

••*Originator: Please do not write below this line. Forward this comment to PVNGS Emergency Planning, Mail Station 6050*••

CATEGORY

1) Does comment satisfy deficiency criteria specified in 10 CFR 50.54(s)(2)(ii)? ☐ YES ☐ NO

2) Does comment satisfy weakness criteria specified in 16DP-0EP11 Section 4.0? ☐ YES ☐ NO

3) Does comment satisfy CRDR applicability per 90DP-0IP03? ☐ YES ☐ NO

ACTION TAKEN

Signature: _____ Date: _____

EP COMMENT

ORIGINATOR

Name:	Phone:	Station:
ERO Position Title:	Facility:	Date:

Basis *(circle one)*: *TRAINING* *DRILL* *ANNUAL EXERCISE* *ACTUAL EMERGENCY* *OTHER*

INDIVIDUAL COMMENT

RECOMMENDATION

Response requested? ☐ YES ☐ NO

Originator: Please do not write below this line. Forward this comment to PVNGS Emergency Planning, Mail Station 6050

CATEGORY

1) Does comment satisfy deficiency criteria specified in 10 CFR 50.54(s)(2)(ii)? ☐ YES ☐ NO

2) Does comment satisfy weakness criteria specified in 16DP-0EP11 Section 4.0? ☐ YES ☐ NO

3) Does comment satisfy CRDR applicability per 90DP-0IP03? ☐ YES ☐ NO

ACTION TAKEN

Signature: _____ Date: _____

EP COMMENT

ORIGINATOR

Name:	Phone:	Station:
ERO Position Title:	Facility:	Date:

Basis *(circle one)*: *TRAINING* *DRILL* *ANNUAL EXERCISE* *ACTUAL EMERGENCY* *OTHER*

INDIVIDUAL COMMENT

RECOMMENDATION

Response requested? ☐ YES ☐ NO

Originator: *Please do not write below this line. Forward this comment to PVNGS Emergency Planning, Mail Station 6050*

CATEGORY

1) Does comment satisfy deficiency criteria specified in 10 CFR 50.54(s)(2)(ii)? ☐ YES ☐ NO

2) Does comment satisfy weakness criteria specified in 16DP-0EP11 Section 4.0? ☐ YES ☐ NO

3) Does comment satisfy CRDR applicability per 90DP-0IP03? ☐ YES ☐ NO

ACTION TAKEN

Signature: _____ Date: _____

EP COMMENT

ORIGINATOR

Name:	Phone:	Station:
ERO Position Title:	Facility:	Date:

Basis *(circle one)*: *TRAINING* *DRILL* *ANNUAL EXERCISE* *ACTUAL EMERGENCY* *OTHER*

INDIVIDUAL COMMENT

RECOMMENDATION

Response requested? ☐ YES ☐ NO

••*Originator: Please do not write below this line. Forward this comment to PVNGS Emergency Planning, Mail Station 6050*••

CATEGORY

1) Does comment satisfy deficiency criteria specified in 10 CFR 50.54(s)(2)(ii)? ☐ YES ☐ NO

2) Does comment satisfy weakness criteria specified in 16DP-0EP11 Section 4.0? ☐ YES ☐ NO

3) Does comment satisfy CRDR applicability per 90DP-0IP03? ☐ YES ☐ NO

ACTION TAKEN

Signature: _____ Date: _____

DRILL / EXERCISE RULES

1.0 GENERAL RULES

1.1 Stop participating immediately if personnel / 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. Participants should indicate components to be operated and the operation to be performed. Controllers will give information on the 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 Normal radiological control practices shall be followed throughout the course of the drill or exercise.

1.5 It is important to perform all actions as much as possible to convincingly demonstrate the proper emergency response. Except for actual manipulation of plant equipment, no actions should be simulated unless approved by a Controller.

1.6 Controllers cannot give participants information the participants would normally not 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 Unit 1 Control Room and STSC.

1.8 Site evacuation, use of the Emergency Alert System, use of the Offsite Siren Warning System, and use of the siren portion of the PVNGS Unit Evacuation System will be simulated. The public address portion of the Unit Evacuation System *(PA System)* will be used.

1.9 Participants should not become obsessed with diagnosing the exact cause of an event or accident. As in the case of many real emergencies, the cause may not be fully determined until months after the event occurs.

1.10 Not all PVNGS personnel will be participating and not all personnel will be participants. To identify those involved in the drill or exercise, the following color identification schemes are used:

- Participants: **RED**
- Controllers: **GREEN**
- Evaluators: **PURPLE**
- Observers: **YELLOW**

NOTE: Lapel badges or armbands may be used.

1.11 Federal regulations provide guidelines and requirements for licensee emergency preparedness programs, including planning standards that must incorporate specific elements. Exercise objectives are based on these elements and must be demonstrated at regular intervals. Sufficient and timely facility briefings help to sustain the effectiveness in demonstrating that licensee emergency preparedness is adequate to satisfy program requirements. The need to participate in facility briefings should be viewed as support for the licensee to effectively test these planning standard elements.

1.12 At the conclusion of the exercise, please return your exercise manual, if applicable, to a Controller or the area from where you received it. The binders are expensive and will be used again.

2.0 PARTICIPANT RULES

2.1 Controllers provide messages or safety guidelines to participants who require information necessary to assure continuity of the events described in the exercise scenario. If you are dispatched from the facility as part of a response team, you must take a Controller with you to provide the readings or conditions simulated in the plant. Controllers may not prompt or coach you during an exercise, but they may be required as a data source.

2.2 Controllers will be noting all actions, good and bad. They will be the main source of input at the PVNGS critique.

2.3 The exercise will be conducted in real time unless otherwise specified by a Controller.

2.4 Arriving at your facility before it is activated is known as "pre-staging." This is prohibited in an evaluated exercise. Wait until the activation announcements are made before proceeding to your facility. This item is very important, as an indication of pre-staging has the potential for a full remedial exercise performance.

2.5 Since an evaluated exercise is a comprehensive test of emergency response capabilities by the licensee, double-staffing on any position must not occur unless specifically authorized by procedural direction. Though all ERO personnel may be directed to respond to their facility, the scheduled duty team should assume response activities when it has been determined that adequate position coverage exists. The other responders should vacate the facility and return only if requested.

2.6 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 is to keep the scenario data synchronized with the rest of the actions that are necessary to demonstrate the exercise objectives. Take this in stride and realize that scripted emergencies will always present these problems.

2.7 Identify yourself by name and function to the Controllers and evaluators. Speak aloud to identify your important actions and decisions. This may seem artificial and unrealistic, but will assist in the evaluation process.

2.8 You must act as if radiation levels are actually present in response to the information you have received. This will require consideration for normal radiological protective measures, including the wearing of protective clothing *(except offsite)*, if applicable, into the area you are entering.

2.9 Remember to remain 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 occur next. Map out your response strategy or use the time to organize your response area, complete your paperwork, and review your procedures.

2.10 Participants inside the Power Block should have with them the safety equipment they would normally have available *(i.e., hard hats, safety glasses, etc.)*.

2.11 ***All teams dispatched from the OSC should have Team Briefing Forms in-hand as they leave***, as suggested by 16DP-0EP16, Operations Support Center Actions. If multi-copy Team Briefing forms are not available, copies must be reproduced from the original and distributed. This will ensure each team has a copy of the form prior to dispatch. In addition, the "Team Member" section of the form should contain the person's name, and not the person's job title.

2.0 PARTICIPANT RULES *(continued...)*

2.12 Decision-making processes rely on correct, pertinent data. Do not always base Protective Action Recommendations and other important decisions on current values when a trend history of parameters may be more appropriate to the process.

2.13 If Assembly / Accountability or site evacuation is directed, do not make any announcements or sound any signals, as this will be simulated. Be aware, however, that performance of other procedural actions related to Assembly / Accountability and/or site evacuation may be required. When information has been earned, an exercise Controller will provide you with the necessary data to ensure that response activities can continue.

2.14 Procedure familiarity is one item typically identified in drills / exercises as an area requiring improvement. Some comments may be precluded if the participant follows procedure instruction. Procedures cannot be improved unless a genuine effort is made by the procedure user to follow the instructions explicitly.

2.15 Comment sheets *(Form EP-0800)* will be available to all participants for feedback throughout the exercise. If an observation is identified during a facility critique, only one person should annotate it. Redundant observations will be discarded. The individual generating the comment will be tasked with detailing the noted observations and providing possible evaluation. Apply scrutiny and sufficient detail to comments. The comment observation must be specifically detailed so that a determination can be made regarding CRDR applicability. Please list no more than one comment on each sheet, as tracking and disposition becomes almost impossible when forms contain multiple comments. Forms containing more than one observation or comment will be returned to the initiator for itemization onto individual comment forms.

2.16 If required, the Unit 1 Cycle 8 Core Data Book should be used as reference by TSC and EOF personnel, as this is similar to current basis modeling of Simulator-A.

2.17 Participants using radios for communications must use the ***EPLAN*** TalkGroup *(RFAT TalkGroup for RFAT transmissions)*. In addition, ensure no facility radio desksets are maintained in the "SCAN" Mode of operation.

2.18 Communications plays a vital role in overall coordination of emergency related activities by the Emergency Response Organization. This area always seems to need improvement. Both inter- and intra-facility communications must occur in a smooth, concise manner to efficiently manage the emergency. Ensure you use the 3-legged loop principle of communications *(i.e., transmit, repeat, acknowledge)*, especially where an exchange of vital information is concerned.

2.19 If the chain-of-command process is normally used in Palo Verde day-to-day operations, then it must also be used as the process in an exercise. After OSC activation, Auxiliary Operators should be dispatched through the OSC. In addition, if personnel must be contacted for in-plant field team support, then they should be requested appropriately through the normal chain-of-command process.

2.20 If you are challenged by a member of the public or the news media asking about the exercise, inform them it is a training simulation and refrain from further comment or discussion. Direct all such inquiries to your Controller.

2.21 It is imperative that all documents and paperwork produced during the course of the exercise be gathered and turned over to your facility manager prior to leaving the area at the conclusion of the exercise. These documents are vital in reconstructing the timeline of events.

SECTION 1

INTRODUCTION

This document is controlled by 84DP-0RM32 and is classified as CONFIDENTIAL

TABLE OF CONTENTS

NOTE

The events in this scenario would normally include response and participation site-wide. However, since participation in this exercise is limited to Unit 1, only Unit 1 response and participation will be evaluated.

1.0 INTRODUCTION

1.1 Purpose

1.2 Participating Agencies

1.3 Response Locations / Extent of Play

1.4 General Response

1.5 Acronyms and Abbreviations

2.0 OBJECTIVES

2.1 Objectives / Evaluations

3.0 PV GUIDE

3.1 PVNGS Scenario Controller Guide

4.0 PV MESSAGES

5.0 OFFSITE GUIDE

6.0 OFFSITE MESSAGES

7.0 CHEM / RAD

8.0 METEOROLOGICAL

9.0 EQUIPMENT

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

Federal Emergency Management Agency - Region-IX (FEMA)
National Weather Service (NOAA-NWS)
Nuclear Regulatory Commission - Region-IV (USNRC)

1.2.3 State

Arizona Corporate Commission (ACC)
Arizona Division of Emergency Management (ADEM)
Arizona Department of Public Safety (DPS)
Arizona Department of Transportation (ADOT)
Arizona National Guard
Arizona Radiation Regulatory Agency (ARRA)
Department of Administration
Department of Agriculture (DA)
Department of Environmental Quality (DEQ)
Department of Health Services (DHS)
Department of Water Resources (DWR)
Buckeye Union High School

1.2.4 County

Maricopa County Department of Emergency Management (MCDEM)
Maricopa County Department of Transportation (MCDOT)
Maricopa County Environmental Services (MCES)
Maricopa County Sheriff's Office (MCSO)
Maricopa Integrated Health System

1.2.5 Volunteer Agencies

Arizona Chapter - American Red Cross (ARC)
Arizona Wing - Civil Air Patrol (CAP)
Outdoor Emergency and Education Bureau
Radio Amateur Civil Emergency Services (RACES)

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 1 Control Room (Simulator-A)

Unit 1 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 1, 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 1 Operations Support Center (OSC)

Unit 1 OSC will be fully activated.

1.3.1.5 Emergency Operations Facility (EOF)

The EOF will be fully activated.

1.3.1.6 Palo Verde Communications

Palo Verde Communications may be notified at a Notification of Unusual Event (NUE) classification (optional) and informational responsibilities will transfer to the Joint Emergency News Center (JENC) upon event escalation.

1.3.2 Federal

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

FEMA will engage as observers and evaluators. The activities associated with offsite agency exercise participation will be measured to Federal standards by the FEMA 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 Nuclear Regulatory Commission - Region-IV (USNRC)

USNRC Region-IV personnel will engage as evaluators. The activities associated with licensee exercise participation will be measured to Federal standards and to the PVNGS Emergency Plan by the NRC evaluators.

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.

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 with two teams. A change of shift will encompass involvement by four teams. Charcoal filters will substitute for Silver Zeolite in performance of sampling techniques.

1.3.3.5 Reception and Care Center

The participating Reception and Care Center is located at Buckeye Union High School, 902 Eason Avenue, Buckeye AZ 85326. No personnel decontamination or vehicle monitoring / decontamination will be performed.

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 Department of Transportation (MCDOT)

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

1.3.4.3 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 Arizona Chapter - American Red Cross (ARC)

Deployment of the Arizona Chapter of the ARC will occur. The ARC EOC will be fully activated.

1.4 General Response

1.4.1 The Notification Alert Network (NAN) will be used. Government response organizations will be notified.

1.4.2 State, county, and volunteer response organizations will be mobilized.

1.4.3 The demonstration of evacuation for affected citizens within the EPZ will be simulated out-of-sequence. The evacuees will be pre-staged at the Reception and Care Center (RCC).

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

1.4.5 State Protective Action Decisions (PAD) will be transmitted to affected schools. Evacuation of the schools will not be demonstrated.

1.4.6 Road Blocks / Access Control Points (1 for evaluation) will be implemented to demonstrate this function and then secured.

1.4.7 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.

1.4.8 In-plant teams will don protective clothing appropriate to the scenario as directed by the Facility Lead Controller.

1.4.9 Primary communications systems will be utilized as required by the scenario.

1.4.10 The siren portion of the Unit Evacuation 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.

1.4.11 Use of the Offsite Siren Activation System will be simulated. Siren sounding will not occur. Emergency Alert System (EAS) 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.

1.4.12 The media will be simulated for emergency information dispensation. Public Inquiry will be activated and simulated inquiries will take place.

1.4.13 Onsite assembly and accountability will be simulated. Evacuation will also be simulated.

1.4.14 The JENC staff will produce coordinated press releases and conduct oral briefings to actual and simulated media personnel.

1.4.15 The distribution of Potassium Iodide (KI) to offsite emergency workers will be simulated. The appropriate drill Controller will receive verbal notification that an announcement has been transmitted to affected personnel.

1.5 Acronyms and Abbreviations

AC	Alternating Current
ACAD	Automated Control Access Device
ADEM	Arizona Division [of] Emergency Management
ADirRRM	Assistant Director Response, Recovery [and] Mitigation
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
BLDG	Building
Bnn	Board number (Control Room Panel)
BOP	Balance-of-Plant
BWR	Boiling Water Reactor
C-nn	PVNGS Controller number
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
COC	Chief Offsite Controller
Comm. O.	Communications Officer

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
DC	Direction [and] Control
DCC	Direction [and] Control Controller
DDE	Deep Dose Equivalent
DE	Dose Equivalent
DG	Diesel Generator
DNBR	Departure [from] Nucleate Boiling Ratio
DO	Director [of] Operations
DOT	Department of Transportation
DPS	[Arizona] Department [of] Public Safety
E-BAR	Average Disintegration Energy
EAL	Emergency Action Level
EAS	Emergency Alert System
EC	Emergency Coordinator
ECCS	Emergency Core Cooling System
EDE	Effective Dose Equivalent
EDG	Emergency Diesel Generator
EDT	Equipment Drain Tank
EG	Evacuation Group
EGC	Evacuation Group Controller
EMT	Emergency Medical Technician
ENS	Emergency Notification System
EOC	Emergency Operations Center
EOCC	Emergency Operations Center Controller
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
ERO	Emergency Response Organization
ESD	Equipment Services Department
ESF	Engineered Safety Features
ESFAS	Engineered Safety Features Actuation System
ExGC	Executive Group Chief
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
MC	Maricopa County

MCC	Motor Control Center
MCDEM	Maricopa County Department [of] Emergency Management
MCEOC	Maricopa County Emergency Operations Center
µCi	microCurie
MCSO	Maricopa County Sheriff's Office
MOV	Motor Operated Valve
MPC	Maximum Permissible Concentration
mph	miles per hour
mR	milliRoentgen
mrem	millirem
MSF	Member [of the] Security Force
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 (see NEI)
NWS	National Weather Service
OBE	Operating Basis Earthquake
OCS	Operations Computer Support
ODCM	Offsite Dose Calculation Manual
OGC	Operations Group Chief
OSC	Operations Support Center
OSCP	On-Scene Command Post
PAG	Protective Action Guideline
PAR	Protective Action Recommendation
PASS	Post-Accident Sampling System
PBX	Private Branch eXchange
PC(s)	Protective Clothing
PI	Public Inquiry
PMS	Plant Monitoring System
PO	Primary Operator
POC	Privately Owned Conveyance
POL	Petroleum, Oil Lubrication Vehicle
PORV	Power Operated Relief Valve
ppm	parts per million
PPS	Plant Protection System
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
RB	Road Block
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 Assistance Team
REP	Radiation Exposure Permit
RF	REAT Forward
RFAT	Radiological Field Assessment Team
RFC	REAT Forward Controller
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
SEG	Special Evacuation Group
SFP	Spent Fuel Pool
SG	Steam Generator
SGTR	Steam Generator Tube Rupture
SIAS	Safety Injection Actuation Signal
SIT	Safety Injection Tank

SM	Shift Manager
SSL	Security Section Leader
SO	Secondary Operator
SOER	Significant Operating Experience Report
SP	Spray Pond (Ultimate Heat Sink)
SPDS	Safety Parameter Display System
SRO	Senior Reactor Operator
ST	Surveillance Test
STA	Shift Technical Advisor
STL	Security Team Leader
STSC	Satellite Technical Support Center
SW	Supplemental Warning
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
TOCC	Technical Operations Center Controller
TOD	Technical Operations Director
TS	Technical Specification
TSC	Technical Support Center
TSCCR	Technical Specification Component Condition Record
UDL	Unit Department Leader
UE	Unusual Event (see NUE)
UFSAR	Updated Final Safety Analysis Report
UHS	Ultimate Heat Sink
UJTC	Unheated Junction Thermocouple
V	Volt
VCT	Volume Control Tank
WRF	Water Reclamation Facility

SECTION 2

OBJECTIVES

This document is controlled by 84DP-0RM32 and is classified as CONFIDENTIAL

PREFACE

Content

This section contains a subset of the PVNGS Authorized Master List of Emergency Planning Objectives, Revision 04, organized into individualized objective evaluation sheets. Only those objectives to be evaluated are page-numbered in the QUICK REFERENCE and are included in this section. Page headers denote objective type or group. In addition, each objective is supported by unique evaluation criteria listed below it.

Utilization

The minimum criteria required to evaluate a specific objective includes the use of the objective as the topic item coupled with that objective's individual evaluation criteria pertaining to the area evaluated. Thus, to evaluate a particular portion of the exercise, locate the pertinent objective and review its evaluation criteria. Select the particular criteria applicable to the evaluation. As more than one evaluation criterion may apply, specific ones may only apply to a particular facility or area of evaluation. Together, the combination of objective and criteria will comprise the evaluation item. Criteria not applicable to a given evaluation area should be circled "N/A" (Not Applicable).

The evaluation criteria supporting each objective includes the means normally used to evaluate that objective and only a portion of the criteria may apply. In addition, evaluator judgment is required when using these criteria as an indicator of the performance standards. Failure to satisfy a given set of criteria may not necessarily be indicative of insufficient demonstration of the applicable objective. In some cases, follow-up questioning of the participant may be needed to further aid the evaluator in clarifying outstanding issues related to performance standards application.

Responsibility

As a Controller, you are responsible for evaluating those objectives pertinent to your area of observation. Each Controller, during the conduct of the exercise, should observe as much of the participant's actions as possible while recording key events or items on an event log. These observations and notes will form the basis for determining whether a particular objective has been demonstrated.

QUICK REFERENCE

Topic	Page
Preface	1
I. PVNGS Annual Objectives	
01 - Communications	3
02 - Radiological	4
03 - Sampling	
04 - Medical	
05 - Assembly	
II. PVNGS Biennial Objectives	
06 - Assessment	5
07 - Classification	6
08 - Notifications	7
09 - Facility Activation	8
10 - PAR	9
11 - Staffing	10
12 - ERF Functionality	11
13 - Media	12
III. PVNGS 6-Year Objectives	
14 - Fire	
15 - Accountability	
16 - Evacuation	
17 - Alternate ERF	
18 - Shift Change	
19 - Off-Hours	13
20 - Unannounced Initiation	14
21 - B/U Communications	
22 - KI	
23 - Emergency Power	
24 - Corporate Support	
25 - Ingestion Pathway	
26 - Security	
27 - Recovery	
28 - Backup EOF	
29 - SAMG	

Topic	Page
IV. State / County Objectives	
Group-A	
01 - Mobilization	15
02 - Facilities	16
03 - Control	17
04 - Communicate	18
05 - Exposure	19
06 - Radiation	20
07 - Dose Projection	21
08 - Radioiodine	22
09 - PAD	23
10 - Public Alerting	24
11 - Public Information	25
12 - Media Information	26
13 - Rumor Control	27
Group-B	
14 - KI-Public	28
15 - Special Populations	29
16 - Children	30
17 - Traffic Control	31
18 - Evacuees	32
19 - Congregate Care	33
20 - Medical Transport	
21 - Medical Facilities	
22 - Vehicles	
23 - Assistance	34
Group-C	
24 - Samples	
25 - Laboratory	
26 - Ingestion Dose	
27 - Ingestion PAR	
28 - Reentry Decisions	
29 - Reentry Implement	
30 - Staffing Continuous	35
31 - Evacuation Support	36
32 - Unannounced	37
33 - Off-Hours Response	38
34 - ORO Interface	

I. PVNGS ANNUAL OBJECTIVE

Number: 01 ***Key:*** Communications ***Due:*** 1999

Demonstrate the adequacy of onsite / offsite communications capabilities

Root: NUREG-0654 II.E.2, II.E.4, II.F.1, II.F.2, II.H.6
NUREG-0737 Supp-1 8.1-8.4

Evaluation Criteria:

1)	Communications system hardware was functionally adequate to support personnel duties	YES	NO	N/A
2)	Use of communications systems was satisfactory to allow personnel to complete their duties	YES	NO	N/A
3)	The Emergency Response Data System *(ERDS)* was activated within 60 minutes following an Alert or higher emergency classification	YES	NO	N/A
4)	The USNRC was notified within 60 minutes following the initial emergency classification	YES	NO	N/A
5)	Personnel used 3-legged communications techniques regularly for vital information exchange *(i.e., transmit-repeat-acknowledge)*	YES	NO	N/A

Briefly explain any "NO" answer(s) from above:

OBJECTIVE DEMONSTRATED: ◯ YES ◯ NO

Evaluator: ***Facility:*** ***Date:***

This document is controlled by 84DP-0RM32 and is classified as CONFIDENTIAL

I. PVNGS ANNUAL OBJECTIVE

Number: 02 ***Key:*** Radiological ***Due:*** 1999

Demonstrate the adequacy of onsite / offsite radiological capabilities

Root: NUREG-0654 II.I.3, II.I.4, II.I.6-II.I.11, II.J.3, II.J.6, II.K.1-II.K.3, II.K.5, II.K.6, II.N.2(d)

Evaluation Criteria:

1)	Data, documentation, and equipment were sufficiently adequate to support personnel duties	YES	NO	N/A
2)	Technical issues were sufficiently resolved to support personnel duties	YES	NO	N/A
3)	Procedural and equipment requirements were fulfilled	YES	NO	N/A
4)	When appropriate, at least one offsite survey team was deployed within 30 minutes following an ***Alert*** or higher emergency classification	YES	NO	N/A
5)	Radiological monitoring and assessments were performed correctly	YES	NO	N/A

Briefly explain any "NO" answer(s) from above:

OBJECTIVE DEMONSTRATED: ◯ **YES** ◯ **NO**

Evaluator: ***Facility:*** ***Date:***

II. PVNGS BIENNIAL OBJECTIVE

Number: 06 ***Key:*** Assessment ***Due:*** 2000

Demonstrate the ability to assess plant conditions

Root: NUREG-0654 II.I.1, II.I.2, Table B-1

Evaluation Criteria:

1) Data, documentation, indications, and equipment were sufficiently adequate to support personnel assessment duties	YES	NO	N/A
2) Core damage assessment was performed within 30 minutes following initial event classification	YES	NO	N/A
3) Technical issues were sufficiently resolved to support personnel assessment duties	YES	NO	N/A
4) Assessments were sufficiently adequate to support decisions	YES	NO	N/A

Briefly explain any "NO" answer(s) from above:

OBJECTIVE DEMONSTRATED: ◯ YES ◯ NO

Evaluator: ***Facility:*** ***Date:***

II. PVNGS BIENNIAL OBJECTIVE

Number: 07 ***Key:*** Classification ***Due:*** 2000

Demonstrate the ability to classify *(or upgrade)* the event in accordance with the emergency classification procedure

Root: NUREG-0654 II.D.1, II.D.2
Reg Guide 1.101-3
EPPOS No. 2 - 01AUG95

Evaluation Criteria:

1) Classification was performed within 15 minutes after EAL threshold*(s)* were met or exceeded	YES	NO	N/A
2) Classification was performed accurately in accordance with procedural direction	YES	NO	N/A
3) Classification basis was appropriately justified	YES	NO	N/A

Briefly explain any "NO" answer(s) from above:

OBJECTIVE DEMONSTRATED: ◯ YES ◯ NO

Evaluator: ***Facility:*** ***Date:***

This document is controlled by 84DP-0RM32 and is classified as CONFIDENTIAL

II. PVNGS BIENNIAL OBJECTIVE

Number: 08 ***Key:*** Notifications ***Due:*** 2000

Demonstrate the ability to notify offsite agencies within 15 minutes of emergency declaration *(or termination)* or change in protective action recommendation

Root: 10CFR50 App E.IV.D.3
NUREG-0654 II.E.1-II.E.3, II.J.1

Evaluation Criteria:

1) Notifications were commenced within required times	YES	NO	N/A
2) Notifications were performed via the Notification Alert Network *(NAN)*	YES	NO	N/A
3) Procedural and equipment requirements were fulfilled	YES	NO	N/A

Briefly explain any "NO" answer(s) from above:

OBJECTIVE DEMONSTRATED: ◯ YES ◯ NO

Evaluator: ***Facility:*** ***Date:***

II. PVNGS BIENNIAL OBJECTIVE

Number: 09 ***Key:*** Facility Activation ***Due:*** 2000

Demonstrate the ability to staff and activate emergency response facilities within the time frames specified in the PVNGS Emergency Plan

Root: NUREG-0654 II.B.7-II.B.9, II.E.2, II.H.4

Evaluation Criteria:

1)	Onsite / offsite ERO personnel were notified and mobilized in a timely manner	YES	NO	N/A
2)	Facility activation was performed within required times	YES	NO	N/A
3)	Staffing was maintained at required levels during the activation period	YES	NO	N/A
4)	Continuous personnel accountability was maintained in Protected Area emergency response facilities during the activation period	YES	NO	N/A

Briefly explain any "NO" answer(s) from above:

OBJECTIVE DEMONSTRATED: ◯ YES ◯ NO

Evaluator: ***Facility:*** ***Date:***

II. PVNGS BIENNIAL OBJECTIVE

Number: 10 ***Key:*** PAR ***Due:*** 2000

Demonstrate prompt notification of recommended protective actions to offsite agencies

Root: NUREG-0654 II.J.7

Evaluation Criteria:

1) Data, documentation, and equipment were sufficiently adequate to support personnel duties	YES	NO	N/A
2) Technical issues were sufficientiy resolved to allow personnel to complete thei/ notification duties	YES	NO	N/A
3) Protective Action Recommendations were issued within 15 minutes via the Notification Alert Network *(NAN)*	YES	NO	N/A

Briefly explain any "NO" answer(s) from above:

OBJECTIVE DEMONSTRATED: ◯ YES ◯ NO

Evaluator: ***Facility:*** ***Date:***

II. PVNGS BIENNIAL OBJECTIVE

Number: 11 ***Key:*** Staffing ***Due:*** 2000

Demonstrate that staffing augmentation is adequate for 24-hour per day emergency response

Root: NUREG-0654 II.A.1, II.A.4

Evaluation Criteria:

1)	Use of communications systems was satisfactory to allow personnel to complete their duties	YES	NO	N/A
2)	Onsite / offsite ERO personnel were notified in a timely manner	YES	NO	N/A
3)	Duty call-out and scheduling requirements were fulfilled	YES	NO	N/A
4)	Fitness-for-Duty *(FFD)* call-out requirements were addressed correctly, if applicable	YES	NO	N/A
5)	Staffing was maintained at required levels during the activation period	YES	NO	N/A

Briefly explain any "NO" answer(s) from above:

OBJECTIVE DEMONSTRATED: ◯ YES ◯ NO

Evaluator: ***Facility:*** ***Date:***

II. PVNGS BIENNIAL OBJECTIVE

Number: 12 ***Key:*** ERF Functionality ***Due:*** 2000

Demonstrate the functional adequacy of the emergency response facilities

Root: NUREG-0654 II.C.1, II.C.2(b), II.G.3, II.G.4, II.H.5-II.H.9, II.H.12

Evaluation Criteria:

1) Data, documentation, and equipment were sufficiently adequate to support personnel duties	YES	NO	N/A
2) Technical issues were sufficiently resolved to support personnel duties	YES	NO	N/A
3) Use of communications systems was satisfactory to allow personnel to complete their duties	YES	NO	N/A
4) Security access control measures were effectively used where appropriate	YES	NO	N/A
5) Habitability conditions were periodically verified in accordance with procedural requirements	YES	NO	N/A
6) Government representatives were accommodated when appropriate	YES	NO	N/A
7) Facility command and control was adequate during the activation / event period	YES	NO	N/A

Briefly explain any "NO" answer(s) from above:

OBJECTIVE DEMONSTRATED: ◯ YES ◯ NO

Evaluator: ***Facility:*** ***Date:***

II. PVNGS BIENNIAL OBJECTIVE

Number: 13 ***Key:*** Media ***Due:*** 2000

Demonstrate timely information release to the media via coordinated onsite / offsite elements

Root: NUREG-0654 II.G.3, II.G.4

Evaluation Criteria:

1)	Data, documentation, equipment, and space were sufficiently adequate to support personnel duties	YES	NO	N/A
2)	Coordinated arrangements were available and effectively used for addressing rumors	YES	NO	N/A
3)	Communications system hardware was functionally adequate to support personnel duties	YES	NO	N/A
4)	Use of communications systems was satisfactory to allow personnel to complete their duties	YES	NO	N/A

Briefly explain any "NO" answer(s) from above:

OBJECTIVE DEMONSTRATED: ◯ YES ◯ NO

Evaluator: ***Facility:*** ***Date:***

III. PVNGS 6-YEAR OBJECTIVE

Number: 19 ***Key:*** Off-Hours ***Due:*** 1999

Demonstrate the ability to respond to an emergency which initiates on off-days or between the hours of 1800 and 0400 on workdays

Root: NUREG-0654 II.N.1(b)

Evaluation Criteria:

1)	Communications system hardware / software was functionally adequate to support personnel notification	YES	NO	N/A
2)	Onsite / offsite ERO personnel were notified and mobilized in a timely manner	YES	NO	N/A
3)	Emergency response facilities were activated and staffed within the required time periods	YES	NO	N/A
4)	Facility command and control was adequate during the activation period	YES	NO	N/A
5)	Procedural requirements were fulfilled	YES	NO	N/A

Briefly explain any "NO" answer(s) from above:

OBJECTIVE DEMONSTRATED: ◯ YES ◯ NO

Evaluator: ***Facility:*** ***Date:***

III. PVNGS 6-YEAR OBJECTIVE

Number: 20 ***Key:*** Unannounced Initiation ***Due:*** 1999

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

Root: NUREG-0654 II.N.1(b)

Evaluation Criteria:

1)	Communications system hardware / software was functionally adequate to support personnel notification	YES	NO	N/A
2)	Onsite / offsite ERO personnel were notified and mobilized in a timely manner	YES	NO	N/A
3)	Emergency response facilities were activated and staffed within the required time periods	YES	NO	N/A
4)	Facility command and control was adequate during the activation period	YES	NO	N/A
5)	Procedural requirements were fulfilled	YES	NO	N/A

Briefly explain any "NO" answer(s) from above:

OBJECTIVE DEMONSTRATED: ◯ YES ◯ NO

Evaluator: ***Facility:*** ***Date:***

IV. STATE / COUNTY OBJECTIVE

Number: 01 Group-A ***Key:*** Mobilization ***Completed:*** 1998

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

Root: NUREG-0654 II.A.4, II.D.3, II.D.4, II.E.1, II.E.2, II.H.4, II.N.1(a)

Evaluation Criteria:

1)	Communications system hardware / software was functionally adequate to support personnel notification	YES	NO	N/A
2)	Emergency personnel were notified and mobilized in a timely manner	YES	NO	N/A
3)	Emergency response facilities were activated and staffed within the required time periods	YES	NO	N/A
4)	Staffing was maintained at required levels during the activation period	YES	NO	N/A

Briefly explain any "NO" answer(s) from above:

OBJECTIVE DEMONSTRATED: ◯ YES ◯ NO

Evaluator: ***Facility:*** ***Date:***

IV. STATE / COUNTY OBJECTIVE

Number: 02 Group A ***Key:*** Facilities ***Completed:*** 1998

Demonstrate the adequacy of facilities, equipment, displays, and other materials to support emergency operations.

Root: NUREG-0654 II.H.3, II.H.4, II.H.7, II.H.10-II.H.12, II.J.10(a), II.J.10(b), II.J.11, II.N.1(a), II.P.5

Evaluation Criteria:

1)	Data, documentation, and equipment were sufficiently adequate to support personnel duties	YES	NO	N/A
2)	Communications system hardware was functionally adequate to support personnel duties	YES	NO	N/A
3)	Security access control measures were effectively used where appropriate	YES	NO	N/A
4)	Procedural requirements were fulfilled	YES	NO	N/A

Briefly explain any "NO" answer(s) from above:

OBJECTIVE DEMONSTRATED: ◯ YES ◯ NO

Evaluator: ***Facility:*** ***Date:***

IV. STATE / COUNTY OBJECTIVE

Number: 03 Group-A ***Key:*** Control ***Completed:*** 1998

Demonstrate the capability to direct and control emergency operations

Root: NUREG-0654 II.A.1(d), II.A.2(a), II.A.2(b), II.N.1(a)

Evaluation Criteria:

1) Facility command and control was adequate during the activation / event period	YES	NO	N/A
2) Technical issues were sufficiently resolved to support personnel duties	YES	NO	N/A
3) Effective use of procedural documentation by managerial staff was adequate	YES	NO	N/A

Briefly explain any "NO" answer(s) from above:

OBJECTIVE DEMONSTRATED: ◯ YES ◯ NO

Evaluator: ***Facility:*** ***Date:***

IV. STATE / COUNTY OBJECTIVE

Number: 04 Group-A ***Key:*** Communicate ***Completed:*** 1998

Demonstrate the capability to communicate with all appropriate emergency personnel at facilities and in the field

Root: NUREG-0654 II.F.1, II.F.2, II.N.1(a)

Evaluation Criteria:

1)	Communications system hardware was functionally adequate to support personnel duties	YES	NO	N/A
2)	Use of communications systems was satisfactory to allow personnel to complete their duties	YES	NO	N/A
3)	Procedural and equipment requirements were fulfilled	YES	NO	N/A

Briefly explain any "NO" answer(s) from above:

OBJECTIVE DEMONSTRATED: ◯ YES ◯ NO

Evaluator: ***Facility:*** ***Date:***

IV. STATE / COUNTY OBJECTIVE

Number: 05 Group-A ***Key:*** Exposure ***Completed:*** 1998

Demonstrate the ability to continuously monitor and control radiation exposure to emergency workers

Root: NUREG-0654 II.H.10, II.K.3(a), II.K.3(b), II.K.4, II.N.1(a)

Evaluation Criteria:

1) Data, documentation, indications, and equipment were sufficiently adequate to support personnel assessment duties	YES	NO	N/A
2) Appropriate dosimetry was used for exposure control	YES	NO	N/A
3) Procedural requirements regarding radiological exposure control were fulfilled and managed effectively	YES	NO	N/A
4) Assessments were sufficiently adequate to support decisions associated with personnel deployment	YES	NO	N/A

Briefly explain any "NO" answer(s) from above:

OBJECTIVE DEMONSTRATED: ◯ YES ◯ NO

Evaluator: ***Facility:*** ***Date:***

IV. STATE / COUNTY OBJECTIVE

Number: 06 Group-A ***Key:*** Radiation ***Completed:*** 1998

Demonstrate the appropriate use of equipment and procedures for determining field radiation measurements

Root: NUREG-0654 II.I.8, II.I.11, II.N.1(a)

Evaluation Criteria:

1)	Data, documentation, and equipment were sufficiently adequate to support personnel duties	YES	NO	N/A
2)	Procedural and equipment requirements were fulfilled	YES	NO	N/A
3)	Assessments were sufficiently adequate to support decisions associated with personnel deployment	YES	NO	N/A
4)	Radiological monitoring and reporting actions were performed correctly	YES	NO	N/A

Briefly explain any "NO" answer(s) from above:

OBJECTIVE DEMONSTRATED: ◯ YES ◯ NO

Evaluator: ***Facility:*** ***Date:***

IV. STATE / COUNTY OBJECTIVE

Number: 07 Group-A ***Key:*** Dose Projection ***Completed:*** 1998

Demonstrate the capability to develop dose projections and protective action recommendations regarding evacuation and sheltering

Root: NUREG-0654 II.I.8, II.I.10, II.I.11, II.N.1(a)

Evaluation Criteria:

1)	Data, documentation, and equipment were sufficiently adequate to support personnel duties	YES	NO	N/A
2)	Technical issues were sufficiently resolved to support personnel duties	YES	NO	N/A
3)	Radiological assessments were performed correctly	YES	NO	N/A
4)	Procedural and equipment requirements were fulfilled	YES	NO	N/A

Briefly explain any "NO" answer(s) from above:

OBJECTIVE DEMONSTRATED: ◯ YES ◯ NO

Evaluator: ***Facility:*** ***Date:***

This document is controlled by 84DP-0RM32 and is classified as CONFIDENTIAL

IV. STATE / COUNTY OBJECTIVE

Number: 08 Group-A ***Key:*** Radioiodine ***Completed:*** 1998

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

Root: NUREG-0654 II.H.10, II.I.7-II.I.9, II.I.11, II.N.1(a)

Evaluation Criteria:

1)	Data, documentation, and equipment were sufficiently adequate to support personnel duties	YES	NO	N/A
2)	Procedural and equipment requirements were fulfilled	YES	NO	N/A
3)	Equipment and instrumentation were functionally able to support field sampling	YES	NO	N/A
4)	Field measurement data was promptly and accurately transmitted in an appropriate manner	YES	NO	N/A
5)	Field samples were delivered and dispositioned in accordance with prescribed procedural direction	YES	NO	N/A

Briefly explain any "NO" answer(s) from above:

OBJECTIVE DEMONSTRATED: ◯ YES ◯ NO

Evaluator: ***Facility:*** ***Date:***

IV. STATE / COUNTY OBJECTIVE

Number: 09 Group-A ***Key:*** PAD ***Completed:*** 1998

Demonstrate the capability to make timely protective action decisions *(PAD)*

Root: NUREG-0654 II.J.9, II.J.10(m), II.N.1(a)

Evaluation Criteria:

1)	Data, documentation, and equipment were sufficiently adequate to support personnel duties	YES	NO	N/A
2)	Technical issues were sufficiently resolved to support personnel duties	YES	NO	N/A
3)	Protective Action Decisions were issued correctly	YES	NO	N/A

Briefly explain any "NO" answer(s) from above:

OBJECTIVE DEMONSTRATED: ◯ YES ◯ NO

Evaluator: ***Facility:*** ***Date:***

This document is controlled by 84DP-0RM32 and is classified as CONFIDENTIAL

IV. STATE / COUNTY OBJECTIVE

Number: 10 Group-A ***Key:*** Public Alerting ***Completed:*** 1998

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

Root: NUREG-0654 II.E.5-II.E.7, II.N.1(a)

Evaluation Criteria:

1)	Notifications were commenced within required times	YES	NO	N/A
2)	Backup / supplementary route alerting and notifications were performed correctly and within the required times	YES	NO	N/A
3)	Signal / instructional message transmissions were performed correctly and within the required times when appropriate	YES	NO	N/A
4)	Procedural and equipment requirements were fulfilled	YES	NO	N/A

Briefly explain any "NO" answer(s) from above:

OBJECTIVE DEMONSTRATED: ◯ YES ◯ NO

Evaluator: ***Facility:*** ***Date:***

IV. STATE / COUNTY OBJECTIVE

Number: 11 Group-A ***Key:*** Public Information ***Completed:*** 1998

Demonstrate the capability to coordinate the formulation and dissemination of accurate information and instructions to the public

Root: NUREG-0654 II.A.1(b), II.E.5, II.E.7, II.G.4(a), II.G.4(c), II.J.9, II.J.11, II N.1(a)

Evaluation Criteria:

1)	Communications system hardware was functionally adequate to support personnel duties	YES	NO	N/A
2)	Use of communications systems was satisfactory to allow personnel to complete their duties	YES	NO	N/A
3)	Messages were consistent with official decisions	YES	NO	N/A
4)	Messages were clear and facilitated initiation of recommended protective actions to the public	YES	NO	N/A
5)	Messages were coordinated with appropriate staff and organizations	YES	NO	N/A
6)	When appropriate, information and instructions were available for reproduction / distribution to pre-determined individuals / businesses	YES	NO	N/A

Briefly explain any "NO" answer(s) from above:

OBJECTIVE DEMONSTRATED: ◯ YES ◯ NO

Evaluator: ***Facility:*** ***Date:***

IV. STATE / COUNTY OBJECTIVE

Number: 12 Group-A ***Key:*** Media Information ***Completed:*** 1998

Demonstrate the capability to coordinate the development and dissemination of clear, accurate, and timely information to the news media

Root: NUREG-0654 II.G.3(a), II.G.4(a)-II.G.4(c), II.E.7, II.N.1(a)

Evaluation Criteria:

1)	A central location was provided for the media	YES	NO	N/A
2)	Communications system hardware was functionally adequate to support dissemination of information	YES	NO	N/A
3)	Use of communications systems was satisfactory to allow personnel to complete their duties	YES	NO	N/A
4)	Procedural and equipment requirements were fulfilled	YES	NO	N/A

Briefly explain any "NO" answer(s) from above:

OBJECTIVE DEMONSTRATED: ◯ YES ◯ NO

Evaluator: ***Facility:*** ***Date:***

IV. STATE / COUNTY OBJECTIVE

Number: 13 Group-A ***Key:*** Rumor Control ***Completed:*** 1998

Demonstrate the capability to establish and operate rumor control in a coordinated and timely manner

Root: NUREG-0654 II.G.4(a)-II.G.4(c), II.N.1(a)

Evaluation Criteria:

1)	Staff responded promptly and accurately to calls	YES	NO	N/A
2)	Communications system hardware was functionally adequate to support rumor control	YES	NO	N/A
3)	Use of communications systems was satisfactory to allow personnel to complete their duties	YES	NO	N/A
4)	Coordinated arrangements were available and effectively used for addressing rumors	YES	NO	N/A
5)	Measures were appropriately taken to control the spread of adverse rumors	YES	NO	N/A
6)	Procedural requirements were fulfilled	YES	NO	N/A

Briefly explain any "NO" answer(s) from above:

OBJECTIVE DEMONSTRATED: ◯ YES ◯ NO

Evaluator: ***Facility:*** ***Date:***

IV. STATE / COUNTY OBJECTIVE

Number: 14 Group-B ***Key:*** KI-Public ***Completed:*** 1998

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

Root: NUREG-0654 II.J.10(e), II.J.10(f), II.N.1(a)

Evaluation Criteria:

1)	Where appropriate, sufficient quantities of KI were available for emergency workers, institutionalized individuals, and the general public	YES	NO	N/A
2)	Administration of KI was adequately documented	YES	NO	N/A
3)	Instructions were available for those advised to take KI	YES	NO	N/A
4)	Procedural requirements were fulfilled	YES	NO	N/A

Briefly explain any "NO" answer(s) from above:

OBJECTIVE DEMONSTRATED: ◯ YES ◯ NO

Evaluator: ***Facility:*** ***Date:***

IV. ST TE / COUNTY OBJECTIVE

Number: 15 Group-B ***Key:*** Special Populations ***Completed:*** 1998

Demonstrate the capability and resources necessary to implement appropriate protective actions for special populations

Root: NUREG-0654 II.E.7, II.J.10(c)-II.J.10(e), II.J.10(g), II.N.1(a)

Evaluation Criteria:

1)	Special populations were identified and alerted / notified in a timely manner	YES	NO	N/A
2)	Transportation resources were identified and contacted as required	YES	NO	N/A
3)	Resources required for disabled individuals were available and were secured	YES	NO	N/A

Briefly explain any "NO" answer(s) from above:

OBJECTIVE DEMONSTRATED: ◯ YES ◯ NO

Evaluator: ***Facility:*** ***Date:***

IV. STATE / COUNTY OBJECTIVE

Number: 16 Group-B ***Key:*** Children ***Completed:*** 1998

Demonstrate the capability and resources necessary to implement protective actions for school children within the plume pathway emergency planning zone *(EPZ)*

Root: NUREG-0654 II.E.5, II.E.7, II.J.9, II.J.10(c), II.J.10(d), II.J.10(g), II.N.1(a)

Evaluation Criteria:

1) School officials were provided protective action recommendations in a timely manner	YES	NO	N/A
2) Protective actions were implemented by school officials	YES	NO	N/A
3) School officials promptly and accurately provided status information to offsite response organizations	YES	NO	N/A

Briefly explain any "NO" answer(s) from above:

OBJECTIVE DEMONSTRATED: ◯ YES ◯ NO

Evaluator: ***Facility:*** ***Date:***

IV. STATE / COUNTY OBJECTIVE

Number: 17 Group-B ***Key:*** Traffic Control ***Completed:*** 1998

Demonstrate the organizational capability and resources necessary to control evacuation traffic flow and to control access to evacuated and sheltered areas

Root: NUREG-0654 II.C.1(a), II.C.1(b), II.J.10(g), II.J.10(j), II.J.10(k), II.N.1(a)

Evaluation Criteria:

1)	Locations and instructions for traffic / access control points were determined and were issued	YES	NO	N/A
2)	Traffic / access control points were established in a timely manner	YES	NO	N/A
3)	When necessary, assistance was requested to establish and maintain traffic / access control points	YES	NO	N/A
4)	Impediments were identified and promptly removed, when necessary	YES	NO	N/A

Briefly explain any "NO" answer(s) from above:

OBJECTIVE DEMONSTRATED: ◯ YES ◯ NO

Evaluator: ***Facility:*** ***Date:***

IV. STATE / COUNTY OBJECTIVE

Number: 18 Group-B ***Key:*** Evacuees ***Completed:*** 1998

Demonstrate the adequacy of procedures, facilities, equipment, and personnel for the radiological monitoring, decontamination, and registration of evacuees.

Root: NUREG-0654 II.H.10, II.I.8, II.J.9, II.J.10(h), II.J.12, II.N.1(a)

Evaluation Criteria:

1)	Reception center was activated in a timely manner	YES	NO	N/A
2)	Adequate staffing, resources, and space were available for the registration, monitoring, and decontamination of evacuees and their possessions	YES	NO	N/A
3)	Evacuees were properly registered	YES	NO	N/A
4)	Procedural and equipment requirements were fulfilled	YES	NO	N/A

Briefly explain any "NO" answer(s) from above:

OBJECTIVE DEMONSTRATED: ◯ YES ◯ NO

Evaluator: ***Facility:*** ***Date:***

IV. STATE / COUNTY OBJECTIVE

Number: 19 Group-B ***Key:*** Congregate Care ***Completed:*** 1998

Demonstrate the adequacy of facilities, equipment, supplies, personnel, and procedures for congregate care of evacuees

Root: NUREG-0654 II.J.10(d), II.J.10(h), II.J.12, II.N.1(a)

Evaluation Criteria:

1)	Congregate care providers were adequately identified and contacted when provided the need for activation	YES	NO	N/A
2)	Adequate congregate care facility resources were available consistent with American Red Cross guidelines	YES	NO	N/A
3)	Procedural requirements were fulfilled ensuring that evacuees were decontaminated prior to entry into a congregate care facility	YES	NO	N/A

Briefly explain any "NO" answer(s) from above:

OBJECTIVE DEMONSTRATED: ◯ YES ◯ NO

Evaluator: ***Facility:*** ***Date:***

IV. STATE / COUNTY OBJECTIVE

Number: 23 Group-B ***Key:*** Assistance ***Completed:*** 1998

Demonstrate the capability to identify the need for external assistance and to request such assistance from Federal or other support organizations

Root: NUREG-0654 II.C.1(a)-II.C.1(c), II.C.3, II.C.4, II.N.1(a)

Evaluation Criteria:

1)	Information was sufficiently adequate to determine the need for external assistance	YES	NO	N/A
2)	Technical issues were sufficiently resolved to support personnel duties	YES	NO	N/A
3)	Supplementary assistance was requested when the need for outside support was determined	YES	NO	N/A
4)	External organizational response was supported by offsite response organization staff, as required	YES	NO	N/A

Briefly explain any "NO" answer(s) from above:

OBJECTIVE DEMONSTRATED: ◯ YES ◯ NO

Evaluator: ***Facility:*** ***Date:***

IV. STATE / COUNTY OBJECTIVE

Number: 30 Group-C ***Key:*** Staffing Continuous ***Completed:*** 1993

Demonstrate the capability to maintain staffing on a continuous 24-hour basis through an actual shift change

Root: NUREG-0654 II.A.4, II.N.1(a)

Evaluation Criteria:

1)	Shift change of personnel was adequate for all major areas of responsibility	YES	NO	N/A
2)	The continuity of operations was not interrupted during the shift transition	YES	NO	N/A
3)	Briefings were adequate appropriate to the emergency	YES	NO	N/A
4)	Staffing was maintained at required levels during the shift change	YES	NO	N/A

Briefly explain any "NO" answer(s) from above:

OBJECTIVE DEMONSTRATED: ◯ YES ◯ NO

Evaluator: ***Facility:*** ***Date:***

IV. STATE / COUNTY OBJECTIVE

Number: 31 Group-C ***Key:*** Evacuation Support ***Completed:*** 1998

Demonstrate the capability to provide offsite support for the evacuation of onsite personnel

Root: NUREG-0654 II.J.2, II.N.1(a)

Evaluation Criteria:

1)	Offsite support was adequate to assist with site evacuation of personnel	YES	NO	N/A
2)	Radiological and logistical hazards were adequately addressed	YES	NO	N/A
3)	When required, arrangements were coordinated with other organizations to expedite the evacuation	YES	NO	N/A
4)	Site evacuation occurred in a safe and expeditious manner	YES	NO	N/A

Briefly explain any "NO" answer(s) from above:

OBJECTIVE DEMONSTRATED: ◯ YES ◯ NO

Evaluator: ***Facility:*** ***Date:***

IV. STATE / COUNTY OBJECTIVE

Number: 32 Group-C ***Key:*** Unannounced ***Completed:*** 1993

Demonstrate the capability to carry out emergency response functions in an unannounced exercise or drill

Root: NUREG-0654 II.E.1, II.E.2, II.N.1(a), II.N.1(b)

Evaluation Criteria:

1) Communications system hardware was functionally adequate to support emergency response functions	YES	NO	N/A
2) Emergency personnel were notified and mobilized in a timely manner	YES	NO	N/A
3) At least one staff member was mobilized to the Emergency Operations Center	YES	NO	N/A
4) Emergency facilities were activated and staffed within the required time periods, if appropriate	YES	NO	N/A
5) Facility command and control was adequate during the activation period	YES	NO	N/A
6) Procedural requirements were fulfilled	YES	NO	N/A

Briefly explain any "NO" answer(s) from above:

OBJECTIVE DEMONSTRATED: ◯ YES ◯ NO

Evaluator: ***Facility:*** ***Date:***

IV. STATE / COUNTY OBJECTIVE

Number: 33 Group-C ***Key:*** Off-Hours Response ***Completed:*** 1993

Demonstrate the capability to carry out emergency response functions during an off-hours exercise or drill

Root: NUREG-0654 II.E.1, II.E.2, II.N.1(a), II.N.1(b)

Evaluation Criteria:

1)	Communications system hardware was functionally adequate to support emergency response functions	YES	NO	N/A
2)	Emergency personnel were notified and mobilized in a timely manner	YES	NO	N/A
3)	At least one staff member was mobilized to the Emergency Operations Center	YES	NO	N/A
4)	Emergency facilities were activated and staffed within the required time periods, if appropriate	YES	NO	N/A
5)	Facility command and control was adequate during the activation period	YES	NO	N/A
6)	Procedural requirements were fulfilled	YES	NO	N/A

Briefly explain any "NO" answer(s) from above:

OBJECTIVE DEMONSTRATED: ◯ YES ◯ NO

Evaluator: ***Facility:*** ***Date:***