





Arizona Public Service Company

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EXECUTIVE VICE PRESIDENT  
NUCLEAR

161-02804-WFC/GEC  
January 26, 1990

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Docket Nos. STN 50-528/529/530

Mr. J. B. Martin  
Regional Administrator, Region V  
U. S. Nuclear Regulatory Commission  
1450 Maria Lane, Suite 210  
Walnut Creek, CA 94596-5368

Dear Mr. Martin:

Subject: Palo Verde Nuclear Generating Station (PVNGS)  
Units 1, 2, and 3  
1990 Annual Emergency Plan Exercise  
File: 90-002-493

Attached for your review and comment are the Objectives and Extent of Play for the 1990 PVNGS Annual Emergency Plan Exercise scheduled for April 25, 1990. These Objectives and Extent of Play are submitted pursuant to guidance in IE Information Notice No. 85-55.

If you have any questions or require additional information, please contact Harry Bieling of my staff at (602) 393-6280.

Sincerely,

*J. Bieling for WFC Conway*

WFC/GEC/jle  
Attachment

cc: O. M. DeMichele (1935) (all w/attachments)  
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## EXERCISE OBJECTIVES AND EXTENT OF PLAY

### Objectives

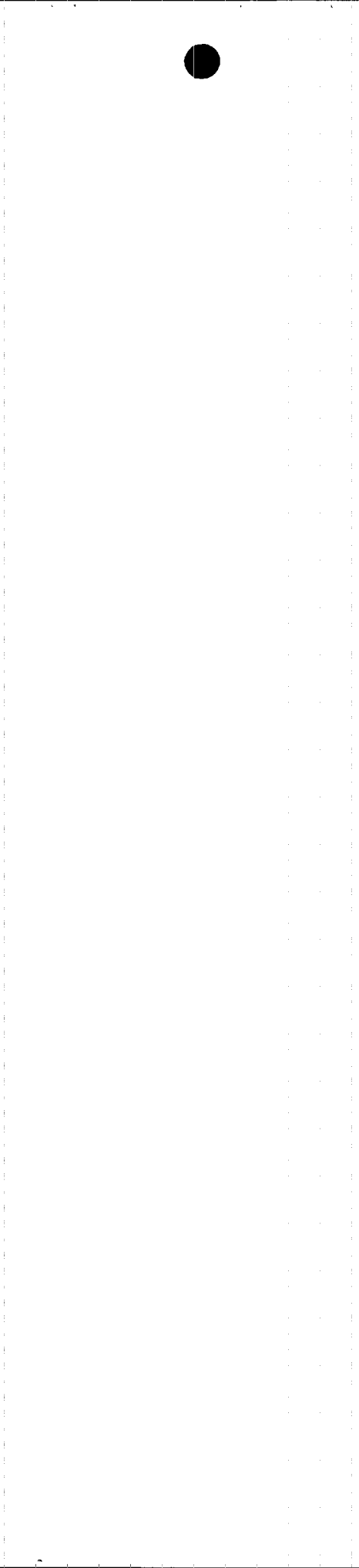
#### Arizona Public Service (APS)/Palo Verde Nuclear Generating Station (PVNGS) Onsite Facilities

##### **A. General Objectives**

- Demonstrate adequacy of the Emergency Plan and Emergency Plan Implementing Procedures (EPIPs) both in terms of management control of an emergency situation and the workability of the procedures at all levels.
- Demonstrate ability to respond to an emergency situation initiated during normal day-shift hours (7:00 AM - 3:30 PM).
- Demonstrate ability to activate APS/PVNGS emergency response facilities (ERFs) in a timely fashion.
- Demonstrate functional adequacy of the APS/PVNGS emergency response facilities, including communications links and equipment.
- Demonstrate ability of key personnel to make timely and effective decisions with respect to a radiological emergency.
- Demonstrate methods established to maintain adequate security access control to emergency facilities.
- Demonstrate ability to maintain timely and accurate information on status boards.
- Demonstrate ability to provide first aid and initial care to a contaminated injured individual and provide associated radiological and contamination controls.

##### **B. Control Room (CR)/Satellite Technical Support Center (STSC)**

- Demonstrate ability to assess plant conditions.
- Prior to Technical Support Center (TSC) activation, demonstrate ability of Shift Supervisor/Onshift Emergency Coordinator to classify events per EPIP-02.

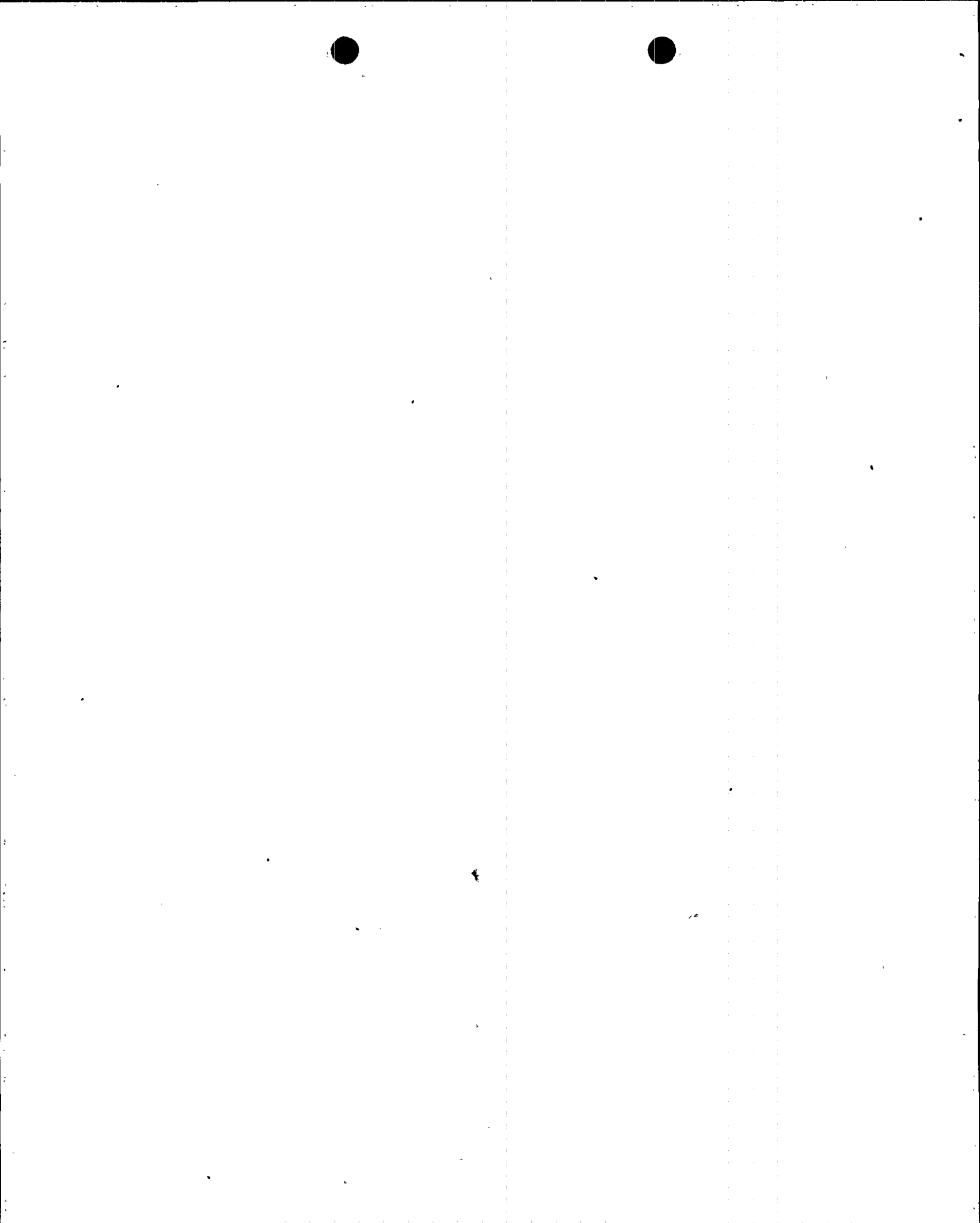


**B. Control Room (CR)/Satellite Technical Support Center (STSC)  
(Continued)**

- Prior to TSC/Emergency Operations Facility (EOF) activation, demonstrate ability to identify projected trends and potential consequences.
- Demonstrate ability to take corrective actions to control the situation and mitigate the consequences.
- Demonstrate ability to alert and notify PVNGS emergency response personnel in a timely manner.
- Prior to EOF activation, demonstrate ability to make initial notifications to state and county agencies within 15 minutes of an emergency declaration and the United States Nuclear Regulatory Commission (NRC) immediately thereafter.
- Prior to EOF activation, demonstrate ability to provide follow-up information as requested by offsite agencies.
- Prior to TSC/EOF activation, demonstrate ability to determine actual or potential onsite and offsite radiological conditions including performance of initial dose projections and preparation for deployment of field monitoring teams.
- Prior to EOF activation, demonstrate ability to make timely Protective Action Recommendations (PARs) to offsite agencies.
- Demonstrate ability to effectively transfer responsibilities from the Onshift Emergency Coordinator to the Onsite Emergency Coordinator and inform the emergency response organization per EPIP-11.
- Prior to Operations Support Center (OSC) activation, demonstrate the ability to communicate effectively with Auxiliary Operators (AOs) and other field personnel utilizing the plant radio system.

**C. Technical Support Center (TSC)**

- Demonstrate ability to effectively transfer responsibilities from the Onshift Emergency Coordinator to the Onsite Emergency Coordinator and inform the emergency response organization per EPIP-11.





**C. Technical Support Center (TSC) (Continued)**

- Demonstrate effective command and control of the TSC personnel by the Onsite Emergency Coordinator.
- Demonstrate effective direction and control of inplant monitoring and repair teams.
- Demonstrate capability to staff and maintain a manpower roster for protracted operations, ensuring sufficient personnel have been activated and a 24-hour schedule is developed.
- Demonstrate ability to perform health physics practices including contamination control and routine habitability surveys.
- Demonstrate ability to receive and analyze inplant radiological data.
- Demonstrate capability of the Onsite Emergency Coordinator to classify events per EPIP-02.
- Demonstrate ability to obtain adequate plant documents, drawings, plans and procedures in support of Control Room activities.
- Demonstrate ability to establish (and if requested by NRC, maintain) communications with the NRC regarding plant operations.
- Demonstrate ability to manage onsite emergency response functions, emergency maintenance, safety and hazards control, engineering/technical analysis, radiation protection and reactor analysis.

**D. Operations Support Center (OSC)**

- Demonstrate effective command and control of the OSC personnel by the OSC Coordinator.
- Demonstrate ability of the OSC Coordinator to effectively communicate with the TSC on team assignment and status.
- Demonstrate the ability of OSC personnel to maintain a comprehensive communications log for the duration of the emergency event.



**D. Operations Support Center (OSC) (Continued)**

- Demonstrate effective assembly and dispatch of inplant monitoring and repair teams in a timely manner.
- Demonstrate ability to implement personnel dosimetry for emergency response personnel.
- Demonstrate ability to gather samples in a field setting.
- Demonstrate capability to perform contamination control, habitability surveys and maintain doses As Low As Reasonably Achievable (ALARA).
- Demonstrate the ability to communicate and maintain field team awareness of plant status and emergency actions through frequent updates.

**E. Emergency Operations Facility (EOF)**

- Demonstrate ability to maintain awareness of plant conditions, projected trends and potential consequences.
- Demonstrate ability to notify state and county agencies within fifteen (15) minutes of an emergency declaration.
- Demonstrate ability to provide follow-up information to offsite agencies.
- Demonstrate ability to make Protective Action Recommendations (PAR's) to offsite agencies.
- Demonstrate ability to direct offsite field monitoring teams for the purposes of tracking plume passage.
- Demonstrate ability to perform onsite and offsite dose assessment and projections in a timely manner.
- Demonstrate ability of the Emergency Operations Director to coordinate onsite and offsite emergency response activities.
- Demonstrate ability to provide approved information on inplant and onsite conditions/activities for release to the media/public.
- Demonstrate the ability to perform a core damage calculation in a timely fashion.



## STATE of ARIZONA/COUNTY of MARICOPA EXERCISE OBJECTIVES

### GROUP A.

#### EMERGENCY CLASSIFICATION LEVELS

1. Demonstrate the ability to monitor, understand and use Emergency Classification Levels (ECL) through the appropriate implementation of emergency functions and activities corresponding to ECL's as required by the scenario. The four ECL's are: Notification of Unusual Event, Alert, Site Area Emergency and General Emergency.

#### MOBILIZATION OF EMERGENCY PERSONNEL

2. Demonstrate the ability to fully alert, mobilize and activate personnel for both facility and field-based emergency functions.

#### DIRECTION AND CONTROL

3. Demonstrate the ability to direct, coordinate and control emergency activities.

#### COMMUNICATIONS

4. Demonstrate the ability to communicate with all appropriate locations, organizations and field personnel.

#### FACILITIES EQUIPMENT AND DISPLAYS

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

#### EMERGENCY WORKER EXPOSURE CONTROL

6. Demonstrate the ability to continuously monitor and control emergency worker exposure.

#### FIELD RADIOLOGICAL MONITORING

7. Demonstrate the appropriate equipment and procedures for determining field radiation measurements.
8. Demonstrate the appropriate equipment and procedures for the measurement of airborne radioiodine concentrations as low as  $10^{-7}$  microcuries per cc in the presence of noble gases.



GROUP A. (Continued)

FIELD RADIOLOGICAL MONITORING

9. Demonstrate the ability to obtain samples of particulate activity in the airborne plume and promptly perform laboratory analyses.

PLUME DOSE PROJECTION

10. Demonstrate the ability, within the plume exposure pathway, to project dosage to the public via plume exposure, based on plant and field data.

PLUME PROTECTIVE ACTION DECISION MAKING

11. Demonstrate the ability to make appropriate protective action decisions, based on projected or actual dosage, EPA PAG's, availability of adequate shelter, evacuation time estimates and other relevant factors.

ALERT, NOTIFICATION AND EMERGENCY INFORMATION

12. Demonstrate the ability to initially alert the public within the 10-mile EPZ and begin dissemination of an instructional message within 15 minutes of a decision by appropriate state and/or local official(s).
13. Demonstrate the ability to coordinate the formulation and dissemination of accurate information and instructions to the public in a timely fashion after the initial alert and notification has occurred.
14. Demonstrate the ability to brief the media in an accurate, coordinated and timely manner.
15. Demonstrate the ability to establish and operate rumor control in a coordinated and timely fashion.

GROUP B.

USE OF KI

16. Demonstrate the ability to make the decision to recommend the use of KI to emergency workers and institutionalized persons, based on predetermined criteria, as well as to distribute and administer it once the decision is made, if necessitated by radioiodine releases.





GROUP B. (Continued)

IMPLEMENTATION OF PROTECTIVE ACTIONS

18. Demonstrate the ability and resources necessary to implement appropriate protective actions for the impacted permanent and transient plume EPZ population (including transit-dependant persons, special needs populations, handicapped persons and institutionalized persons).
19. Demonstrate the ability and resources necessary to implement appropriate protective actions for school children within the plume EPZ.

TRAFFIC CONTROL

20. Demonstrate the organizational ability and resources necessary to control evacuation traffic flow and to control access to evacuated and sheltered areas.

RELOCATION CENTERS (REGISTRATION, MONITORING, CONGREGATE CARE AND DECONTAMINATION)

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

MEDICAL SERVICES (TRANSPORTATION AND FACILITIES)

23. Demonstrate the adequacy of vehicles, equipment, procedures and personnel for transporting contaminated, injured or exposed individuals.
24. Demonstrate the adequacy of medical facilities, equipment, procedures and personnel for handling contaminated, injured or exposed individuals.

GROUP C.

SUPPLEMENTARY ASSISTANCE (FEDERAL/OTHER)

26. Demonstrate the ability to identify the need for and call upon Federal and other outside support agencies' assistance.



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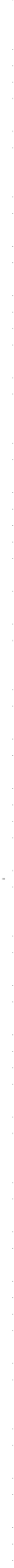
## EXTENT of PLAY

Activation of all Emergency Response Facilities (ERF's) in accordance with plans and procedures.

- PVNGS Unit 3 Control Room and Satellite Technical Support Center (STSC), Technical Support Center (TSC), Operations Support Center (OSC), Emergency Operations Facility (EOF), and Forward News Center (FNC). Corporate Emergency Center (CEC) activities will be simulated.
- State Emergency Operations Center (EOC)/Technical Operations Center (TOC) including:
  - Public Inquiry Center
  - Joint Emergency News Center (JENC)
  - Maricopa County EOC
- Radiological Emergency Assessment Team (REAT) Center (Arizona Radiation Regulatory Agency (ARRA) Offices)
- REAT Forward
- Maricopa County Sheriff's Office (MCSO) On-Scene Command Post
- Reception and Care Center (1)

### Response

- Use of Notification Alert Network (NAN)
- Alert government response organizations.
- Mobilize state and county response agencies.
- Deploy state and county response organization.
- Evacuation of representative resident group (25 to 30 individuals).
- Evacuation of representative resident group with special needs (approximately 2-3 individuals).
- Road Block/Access Control Points (2) demonstrate function, then secure.
- Radiological Field Assessment Teams three (3) utility, four (4) state (one of the state teams to be detailed for evacuee monitoring).



Response (Continued)

- Use of primary and backup communications links as required by the exercise.
- The siren portion of the PVNGS Site Warning Siren/Public Address System will be simulated. The public address portion of this system will be used.
- Use of the Offsite Siren Activation System will be simulated. Siren sounding will not occur, Emergency Broadcast System (EBS) messages will be generated and distributed, but not broadcast. The warnings will be disseminated among the exercise participants through the emergency communications system and to the representative resident group through a supplemental warning team for the evacuation.
- Onsite Evacuation, Assembly and Accountability will be simulated.
- The onsite monitoring teams will don protective clothing as appropriate to the scenario. All offsite teams will simulate the use of protective clothing if indicated by the scenario.
- Inplant teams will don protective clothing as appropriate to the scenario.
- A simulated contaminated injured individual will be transported offsite for treatment at Good Samaritan Hospital by AirEvac helicopter.
- The CEC will not respond. CEC activity simulation will be provided by Controllers for the duration of the Exercise.
- The JENC staff will produce coordinated press releases and conduct oral briefing of actual and simulated media personnel.

