AFTER ACTION REPORT
Harris Nuclear Plant (HNP) Exercise
REP Program Exercise

[FINAL]

November 29, 2011
Radiological Emergency Preparedness (REP) Program

FEMA

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Administrative Handling Instructions

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Executive Summary

On November 29, 2011, the Department of Homeland Security, Federal Emergency Management Agency (FEMA), Region IV, Radiological Emergency Preparedness (REP) Program staff evaluated a plume exposure pathway exercise in the emergency planning zone (EPZ) around the Shearon Harris Nuclear Plant (HNP). The evaluation of out of sequence activities during the week of October 11-13, and 26, 2011 is included in this report. The activities included: Traffic control points (TCP); protective actions for schools; reception and congregate care centers; emergency worker and vehicle monitoring and decontamination.

The purpose of the exercise was to assess the level of State and local preparedness in responding to a radiological emergency. This exercise was held in accordance with FEMA's policies and guidance concerning the exercise of State and local radiological emergency response plans and procedures. The previous federally evaluated exercise was conducted on March 3, 2009. The qualifying emergency preparedness exercise was conducted February 28, 1987.

Officials and representatives from the State of North Carolina; the risk counties of Chatham, Harnett, Lee and Wake; the Nuclear Regulatory Commission (NRC), Region II; and Progress Energy as well as numerous volunteers participated in this exercise. FEMA Region IV also played in the exercise by providing response liaison personnel to the State of North Carolina, which contributed to exercise realism. The cooperation and teamwork of the participants was evident throughout all phases of the exercise. FEMA wishes to acknowledge the efforts of the many individuals who participated and made the exercise a success.

State and local organizations demonstrated knowledge of their emergency response plans and procedures and successfully implemented them. FEMA did not identify any Deficiencies or Areas Requiring Corrective Action (ARCA) during this exercise. The strength of the working relationships between the various State and local first responder agencies in their mission planning and execution abilities throughout all phases of the exercise was obvious, and confirmed the success of the Harris Task Force organizational structure. The Harris Task Force, co-chaired by representatives from both North Carolina Emergency Management and Progress Energy, has proven to be an excellent example of public and private agency cooperation.

The objectives for the 2011 HNP REP Exercise were as follows:

- **Objective 1:** Demonstrate the ability to provide emergency operations center (EOC) management including direction and control through the State and counties EOC Multi-Agency Coordination Center System (MACCS).

- **Objective 2:** Demonstrate the ability to provide protective action decision-making for State and county emergency workers and the general public through exercise play and discussions of plans and procedures.

- **Objective 3:** Demonstrate the ability to physically implement protective actions for State and county emergency workers and the general public through exercise demonstration.

- **Objective 4:** Demonstrate the ability to activate the Prompt Alert and Notification System using the North Carolina Alert and Notification System through exercise play.

- **Objective 5:** Demonstrate the effectiveness of plans, policies and procedures in the Joint Information Center (JIC) for joint (public and private sector) emergency information communications.

- **Objective 6:** Demonstrate the ability to conduct independent dose assessment, management of field teams, and mobile or fixed laboratory analysis in response to a radiological release.

These objectives encompass the REP Exercise Evaluation Criteria as negotiated in the Extent of Play Agreement in Appendix C.

FEMA will provide an Improvement Plan (IP) to the State of North Carolina that describes Strengths and Areas for Improvement observed during the exercise. The IP will be published under a separate cover and classified For Official Use Only (FOUO) in compliance with HSEEP standards.

Section 1: Exercise Overview

1.1 Exercise Details

Exercise Name
2011 Harris Nuclear Power Plant REP Evaluated Exercise
Type of Exercise
Full-Scale Exercise

Exercise Out of Sequence/Off Scenario Dates
October 11-13, 2011 and October 26, 2011

Exercise Date
November 29, 2011

Locations
See Appendix F for a complete listing of locations of supported exercise activities.

Sponsors

North Carolina Emergency Management
116 West Jones Street
4713 Mail Service Center
Raleigh, North Carolina 27699

Progress Energy
Harris Nuclear Plant
3932 New Hill-Holleman Road
New Hill, North Carolina 28217

Program
FEMA REP Program

Mission
Response

Capabilities

- Emergency Operations Center Management
- Emergency Public Information and Warning
- Citizen Evacuation and Shelter in Place
- Mass Care
- Emergency Public Safety and Security Response
- Hazardous Materials Response and Decontamination
- Triage and Pre-Hospital Treatment
- Public Health Laboratory Testing

Scenario Type
REP, Full Plume Phase EPZ

1.2 Exercise Planning Team Leadership

See App. G for a listing of the members of the exercise planning team leadership.

1.3 Participating Organizations

The following agencies, organizations and units of government participated in the 2011 HNP REP Exercise.

Federal
Department of Homeland Security, FEMA Region IV
State of North Carolina
Office of the Governor • Public Information • Office of Citizen's Affairs
Department of Crime Control and Public Safety (CCPS) • Division of Emergency Management • North Carolina State Highway Patrol • National Guard • Public Affairs Office
Department of Environment and Natural Resources (DENR) • Division of Environmental Health, Radiation Protection Section (RPS) • Wildlife Resources Commission Law Enforcement
Department of Health and Human Services • Division of Public Health – Office of Public Health • Division of Facility Services
Risk Jurisdictions
Chatham County • Chatham County Emergency Management • Chatham County Emergency Medical Service • Chatham County Fire/Rescue • Chatham County Sheriff's Office • Chatham County Board of Education • Chatham County Social Service • Chatham County Health Department • Chatham County Mental Department • Pittsboro Fire Department
Harnett County • Harnett County Emergency Management • Harnett County Emergency Medical Services • Harnett County Fire/Rescue • Harnett County Sheriff's Office • Harnett County Board of Education • Harnett County Social Service

• Harnett County Health Department
Lee County • Lee County Emergency Management • Lee County Fire/Rescue • Lee County Sheriff's Office • Lee County Board of Education • Lee County Social Service • Lee County Health Department •
Wake County • Wake County Emergency Management • Wake County Fire/Rescue • Wake County Sheriff's Office • Wake County Board of Education • Wake County Social Service • Wake County Health Department • Wake County Mental Department • Fuquay- Varina Fire Department /Police Department
Non-Governmental Organizations
Radio Amateur Civil Emergency Services (RACES)/Amateur Radio Emergency Services (ARES)
American Red Cross (ARC)
Progress Energy

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Section 2: Exercise Design Summary

2.1 Exercise Purpose and Design

DHS/FEMA administers the REP Program pursuant to the regulations found in Title 44 Code of Federal Regulation (CFR) parts 350, 351 and 352. 44 CFR 350 codifies 16 planning standards that form the basis for radiological emergency response planning for licensee, State, tribal and local governments impacted by the EPZs established for each nuclear power plant site in the United States. 44 CFR 350 sets forth the mechanisms for the formal review and approval of State, Tribal and local government RERPs and procedures by DHS/FEMA. One of the REP program cornerstones established by these regulations is the biennial exercise of offsite response capabilities. During these exercises State, Tribal and local governments demonstrate their abilities to implement their plans and procedures to protect the health and safety of the public in the event of a radiological emergency at the nuclear plant.

The results of this exercise together with review of the RERPs and procedures and verification of the periodic requirements set forth in NUREG-0654/FEMA-REP-1 through the Annual Letter of Certification and staff assistance visit enables FEMA to provide a statement with the transmission of this final AAR to the NRC that State, Tribal and local plans and preparedness are (1) adequate to protect the health and safety of the public living in the vicinity of the nuclear power facility by providing reasonable assurance that appropriate protective measures can be taken offsite in the event of a radiological emergency; and (2) capable of being implemented.

On March 28, 1988, the State of North Carolina formally submitted the RERP for the HNP to FEMA Region IV. Formal approval of the RERP was granted by FEMA on April 29, 1989 in accordance with 44 CFR 350.

A REP exercise was evaluated on November 29, 2011, and included evaluations of the following out-of-sequence activities held from October 11 through 13, 2011, and on October 26, 2011:

- Chatham County: Emergency worker and equipment monitoring and decontamination at Pittsboro Fire Department, Old Graham Road Fire Station on October 11, 2011; Reception and congregate care center operations at Northwood High School on October 13, 2011.

- Wake County: Protective actions for schools at Fuquay-Varina Senior High School on March 21, 2011; Reception and congregate care center operations at Garner Magnet High School on October 26, 2011. Medical Services Drill (MS-1) at Hospital October 12, 2011.

2.2 FEMA Exercise Objectives and Capabilities

Capabilities-based planning allows for exercise planning teams to develop exercise objectives and observe exercise outcomes through a framework of specific action items that were derived from the Target Capabilities List (TCL). The capabilities listed below form the foundation for the organization of all FEMA Region IV REP Program objectives and observations in this exercise.

- **Emergency Operations Center Management:** Is the capability to provide multi-agency coordination (MAC) for incident management by activating and operating an EOC for a pre-planned or no-notice event. EOC management includes EOC activation, notification, staffing, and deactivation; management, direction, control, and coordination of response and recovery activities; coordination of efforts among neighboring governments at each level and among local, regional, State, and Federal EOCs; coordination public information and warning; and maintenance of the information and communication necessary for coordinating response and recovery activities.

- **Emergency Public Information and Warning**: Is the capability that includes public information, alert/warning and notification. It involves developing, coordinating, and disseminating information to the public, coordinating officials, and incident management and responders across all jurisdictions and disciplines effectively under all hazard conditions.

- **Citizen Evacuation and Shelter in Place:** Is the capability to prepare for, ensure communication of, and immediately execute the safe and effective sheltering-in-place of an at-risk population (and companion animals), and/or the organized and managed evacuation of the at-risk population (and companion animals) to areas of safe refuge in response to a potentially or actually dangerous environment. In addition, this capability involves the safe reentry of the population where feasible.

- **Emergency Public Safety and Security Response:** Is the capability to reduce the impact and consequences of an incident or major event by securing the affected area, including crime/incident scene preservation issues as appropriate, safely diverting the public from hazards, providing security support to other response operations and properties, and sustaining operations from response through recovery. Public Safety and Security Response requires coordination among officials from law enforcement (LE), fire and EMS.

- **Hazardous Materials Response and Decontamination:** Is the capability to assess and manage the consequences of a hazardous materials release, either accidental or as part of a terrorist attack. It includes testing and identifying all likely hazardous substances onsite; ensuring that responders have protective clothing and equipment; conducting rescue operations to remove affected victims from the hazardous environment; conducting geographical survey searches of suspected sources or

contamination spreads and establishing isolation perimeters; mitigating the effects of hazardous materials, decontaminating on-site victims, responders, and equipment; coordinating off-site decontamination with relevant agencies, and notifying environmental, health, and law enforcement agencies having jurisdiction for the incident to begin implementation of their standard evidence collection and investigation procedures.

- **Triage and Pre-Hospital Treatment:** Is the capability to appropriately dispatch EMS resources; to provide feasible, suitable, and medically acceptable pre-hospital triage and treatment of patients; to provide transport as well as medical care en-route to an appropriate receiving facility; and to track patients to a treatment facility.

- **Mass Care:** Is the capability to provide immediate shelter, feeding centers, basic first aid, bulk distribution of needed items, and related services to persons affected by a large-scale incident, including special needs populations. Special needs populations include individuals with physical or mental disabilities who require medical attention or personal care beyond basic first aid. Other special-needs populations include non-English speaking populations that may need to have information presented in other languages. The mass care capability also provides for pet care/handling through local government and appropriate animal-related organizations. Mass care is usually performed by nongovernmental organizations (NGO), such as the ARC, or by local government-sponsored volunteer efforts, such as Citizen Corps. Special-needs populations are generally the responsibility of local government, with medical needs addressed by the medical community and/or its alternate care facilities. State and Federal entities also play a role in public and environmental health by ensuring safe conditions, safe food, potable water, sanitation, clean air, etc.

- **Public Health Laboratory Testing:** The Public Health Laboratory Testing capability is the ongoing surveillance, rapid detection, confirmatory testing, data reporting, investigative support, and laboratory networking to address potential exposure, or known exposure, to all-hazards which include chemical, radiochemical, and biological agents in all matrices including clinical specimens, food and environmental samples, (e.g., water, air, soil). All-hazard threats include those deliberately released with criminal intent, as well as those that may be present as a result of unintentional or natural occurrences.

Additionally, each capability is linked to several corresponding activities and tasks to provide additional detail. Based upon the identified exercise objectives, the following capabilities and associated activities are:

- **Objective 1:** Demonstrate the ability to provide EOC management including direction and control through the Counties and State EOC MACCS.
  - **Capability: EOC Management -** Activate EOC/MACC/IOF; Direct

EOC/MACC/IOF Tactical Operations; and Provide EOC/MACC/IOF Connectivity

- **Objective 2:** Demonstrate the ability to provide protective action decision-making for State and County emergency workers and public through exercise play and discussions of plans and procedures.
  - **Capability: EOC Management -** Gather and Provide Information; Identify and Address Issues; and Support and Coordinate Response
  - **Capability: Emergency Public Information and Warning -** Manage Emergency Public Information and Warnings; Activate Emergency Public Information, Alert/Warning, and Notification Plans and Issue Emergency Warnings

- **Objective 3:** Demonstrate the ability to physically implement protective actions for State and Counties' emergency workers and public through exercise demonstration.
  - **Capability: EOC Management -** Direct EOC Tactical Operations; Gather and Provide Information; and Identify and Address Issues
  - **Capability: Emergency Public Safety and Security Response -** Activate Public Safety and Security Response; Control Traffic, Crowd, and Scene; and Command and Control Public Safety and Security Response Operations
  - **Capability: Citizen Evacuation and Shelter-in-Place -** Direct Evacuation and/or In-Place Protection Operations; Activate Evacuation and/or In-Place Protection; Implement Evacuation Orders for General Population; Collect and Evacuate Population Requiring Assistance
  - **Capability: Hazardous Materials Response and Decontamination –** Direct Hazardous Material Response and Decontamination Tactical Operations; Activate Hazardous Material Response and Decontamination; Assess Hazard and Evaluate Risk; and Conduct Decontamination and Clean-up /Recovery Operations
  - **Capability: Mass Care (Sheltering, Feeding, Related Services) -** Establish Shelter Operations and Shelter General Population.
  - **Capability: Triage and Pre-Hospital Treatment -** Direct Triage and Pre-Hospital Treatment Operations; Activate Triage and Pre-Hospital Treatment; Transport; and Provide Treatment

- **Objective 4:** Demonstrate the ability to activate the Prompt Alert and Notification System utilizing the Public Notification System (PNS)/Emergency Alert System (EAS) through exercise play.
  - **Capability: Emergency Public Information and Warning -** Manage Emergency Public Information and Warnings; Activate Emergency Public Information, Alert/Warning, and Notification Plans; and Issue Public Information, Alerts/Warnings, and Notifications.

- **Objective 5:** Demonstrate the effectiveness of plans, policies and procedures in the JIC for joint (public and private sectors) emergency information communications.
  - **Capability: Emergency Public Information and Warning -** Establish JIC;

Conduct JIC Operations; Issue Public Information, Alerts/Warnings, and Notifications; Conduct Media Relations; and Provide Public Rumor Control.

- **Objective 6:** Demonstrate the ability to conduct independent dose assessment, management of field teams, and mobile or fixed laboratory analysis in response to a radiological release.
  - **Capability: Hazardous Materials Response and Decontamination –** Direct Hazardous Material Response and Decontamination Tactical Operations; Activate Hazardous Material Response and Decontamination; Assess Hazard and Evaluate Risk; and Conduct Decontamination and Clean-up /Recovery Operations
  - **Capability: Public Health Laboratory Testing –** Obtain and Direct Laboratory Testing, Surveillance, rapid detection, confirmatory testing, data reporting, investigative support, and laboratory networking to address potential exposure, or known exposure to in all matrices including clinical specimens, food and environmental samples, (e.g., water, air, soil).

2.3 Scenario Summary

0740 All four Turbine Governor Valves go shut. Reactor trip signal on 2/3 coincidence. Reactor Trip Breakers DO NOT open; Reactor IS able to be tripped from SECOND control switch.

Control rods J13, G13 and H14 partially insert into the core.
Safety Injection is required.

Upon Safety Injection Signal, Main Steam Line Isolation Signal fails to shut 'B' MSIV. Condenser Steam Dump Valve, also remains open.

0755 ALERT
EAL SA3.1, Automatic trip fails to shut down the reactor and the manual actions taken from the reactor control console ARE successful in shutting down the reactor.

1030 SG 'B' tube rupture (300 gpm) occurs, near tube sheet. Rupture remains covered throughout the scenario. Safety Injection manually re-initiated. Crew enters Path-2 for SGTR. Release path is through the Turbine Building Vent Stack.

SITE AREA EMERGENCY, based on one of the two EALs below

EAL FS1.1, Loss or Potential Loss of any two barriers

- **LOSS of the Reactor Coolant System Barrier; Ruptured SG results in Emergency Core Cooling System (SI) actuation**
- **LOSS of the Containment System Barrier; Ruptured SG is also faulted outside Containment**

EAL RS1.1, Valid reading on any radiation monitor > Table R-1 column "SAE" for ≥ 15 min (Note 1)

Turbine Building Vent Stack 3A WRGM > 1.27E+08 μCi/sec (wide range gas monitor).

1145 Chemistry produces RCS Sample results that are > 300 mCi/gm dose equivalent I-131. Turbine Building Vent Stack, reads >1.27E+09. μCi/sec

1200 GENERAL EMERGENCY, based on one of the two EALs below

EAL FG1.1, Loss of any two barriers and the Loss or Potential Loss of the third barrier

- **LOSS of the Reactor Coolant System Barrier; Ruptured SG results in ECCS (SI) actuation**
- **LOSS of the Containment System Barrier; Ruptured SG is also faulted outside Containment**
- **Coolant activity > 300 mCi/gm dose equivalent I-131 R**

OR

EAL RG1.1, Valid reading on any radiation monitor > Table R-1 column "GE" for ≥ 15 min (Note 1)

Turbine Building Vent Stack 3A WRGM > 1.27E+09 μCi/sec

1215 Wind direction is from 245°; Wind speed is 1.79 mph. Evacuate 2-mile radius and 5 miles downwind subzones ABC; shelter remaining. State and County notifications of GE, PARS, no KI

1330 Wind Shifts from 245 to 190. Wind Speed changes from 0.5 mph to 2.0 mph. PARS change from Evacuate ABC to evacuate ABCL(added L).

1350 Damage Control Team is able to close MSIV, release is terminated. Trailing edge of plume tracked out of 10-mile EPZ.

1600 Drill termination.

Section 3: Analysis of Capabilities

3.1 Exercise Evaluation and Results

This section contains the results and findings of the evaluation of all jurisdictions and functional entities that participated in the November 29, 2011 plume exercise and OOS interviews and demonstrations of October 11-13, and 26, 2011. Exercise criteria are listed by number and the demonstration status of those criteria are indicated by the use of the following terms:

- Met (No Deficiency or ARCAs assess and no unresolved ARCAs from prior exercise)
- ARCAs assessed or unresolved ARCAs from previous exercises
- Deficiency assessed
- Plan Issues
- Not Demonstrated

3.2 Evaluation Summaries

3.2.1 State of North Carolina

3.2.1.1 State Emergency Operations Center

Emergency Operations Center Management Capability Summary:

This capability was successfully demonstrated by the State Emergency Response Team (SERT) at the State Emergency Operations Center (SEOC) and the Central Branch Office (CBO) Regional Coordination Center (RCC).

The SERT activated the SEOC in a timely manner and effectively demonstrated the State's emergency response actions for a radiological incident involving the HNP. The SERT Leader provided direction and control for the response effort, encouraging his key staff to anticipate necessary actions to be taken should plant or meteorological conditions change. SERT members were knowledgeable of their responsibilities and successfully coordinated necessary actions with the risk counties of Chatham, Harnett, Lee, and Wake, various State and Federal agencies, and the utility. Periodic conference calls and status briefings ensured the counties and agencies had current situational awareness. The SERT Leader and risk counties concurred on appropriate decisions to protect the health and safety of the public and emergency workers.

Emergency Public Information and Warning Capability Summary:

The SERT PIO staff operating from the SEOC demonstrated this capability through activities related to the prompt notification system and the subsequent coordination of emergency information developed by public information personnel supporting the JIC.

Emergency instructions for the public in response to the incident at HNP were prepared, coordinated and disseminated in accordance with Annexes C and E of the North Carolina Radiological Emergency Response Plan. Following concurrence between the State and risk counties on protective action decisions (PAD) for the public, the SERT transmitted the appropriate EAS message to broadcast radio stations via the EMnet system for broadcast at the agreed upon time. Secondary notification was accomplished by faxing the message to the National Weather Service (NWS) for broadcast over the NWS radio system, received by tone alert radios.

The preparation and dissemination of emergency information was accomplished at the JIC. Prior to release, the JIC writers provided draft information releases to the SERT PIO for proof reading and editing of information prior to approval by the SERT Leader. The information releases were then returned to the JIC for final dissemination.

For this capability the following REP Criteria were met: 5.a.1 and 5.b.1

3.2.1.2 Central Branch Office

The CBO demonstrated the capability to effectively activate and manage the RCC through the activation and deployment of selected staff to liaise with the utility, support the joint information effort and coordinate jurisdictional response requirements. While the CBO-RCC effectively executed its responsibilities, two notable actions stood out. First, the CBO-RCC uniquely involved counties in the 50-mile Ingestion Pathway Zone (IPZ), counties not normally involved in plume phase exercises, through the provision of periodic situational updates. This action recognized that the CBO-RCC responsibilities extend to a greater population than in the four risk counties.

Secondly, the CBO-RCC demonstrated its attention to detail and analysis of requirements when they questioned the viability of a selected equipment relocation staging area. This action also helped identify the need for increased dissemination of selected operating guidelines within the response community.

For this capability the following REP Criteria were met: 1.a.1, 1.c.1, 1.d.1, 1.e.1, 2.a.1 and 2.b.2

3.2.1.3 Dose Assessment

Hazardous Materials Response and Decontamination Capability Summary:

During the HNP November 2011 Exercise the State of North Carolina Department of Health and Human Services (DHHS); Radiation Protection Section (RPS) demonstrated the capability to perform the required accident assessment including dose projections and field team surveys to support protective action recommendations (PAR) to the SERT Leader. The RPS Accident Assessment Center was in the SEOC that was located at 116

West Jones Street, in Raleigh, NC. This location is about 22 miles northeast of HNP and outside the plume exposure emergency planning zone.

During the exercise, the RPS staffed all key positions and was operational by 0930. The primary method of communications in the SEOC was landline phones and face-to-face communications within the SEOC. Communications with the Field Monitoring Teams (FMT), Sample courier, SERT Power Plant Liaison at the HNP Emergency Operations Facility (EOF) and the Mobile Laboratory were through the 800 MHz radio system. The FMTs were well equipped, knowledgeable of their procedures and use of survey and air sampling equipment while in the field. They were positioned to detect any releases from the plant and moved accordingly to anticipate any changes in the path of plume travel away from the plant due to changing meteorological conditions. They reported back all requested survey and air sample data in a timely manner.

Dose Assessment personnel continuously monitored the electronic data from the HNP and performed timely dose projections based upon updated data and information from the EOF. The Director RPS provided timely and effective PARs to the SERT Leader based collectively on plant conditions, dose projections, FMT readings and PARs from the plant. When discussing these protective actions with the risk counties, all parties agreed to add several more zones for evacuation based upon local conditions identified on the conference call. Projected exposure information was also provided and discussed with the Department of Public Health concerning radioactive Iodine dose projections which resulted in a recommendation for issuance of KI to both Emergency Workers (EW) and the General Public.

For this capability the following REP Criteria were met: 1.a.1, 1.d.1, 1.e.1, 1.c.1, 2.a.1, 2.b.1 and 2.b.2

3.2.1.4 Fixed Laboratory

Public Health Laboratory Testing Capability Summary:

During the HNP November 29, 2011 Exercise the State of North Carolina DHHS, Laboratory Services Section, Fixed Laboratory demonstrated the capability to perform the required radiological analyses to support PADs. The Fixed Laboratory was located at 306 North Wilmington Street, in Raleigh, NC. This location is about 22 miles northeast of the HNP and outside the plume exposure emergency planning zone.

For the exercise, personnel were at their normal workstations at 1500 hours. The Fixed Laboratory facility consisted of personnel assigned to the Radiochemistry Laboratory Preparation Area (fourth floor Room 417) and the Radio-analysis Count Room (First Floor Room 101) functions. Only one technician in the Laboratory was trained to use the Counting equipment. He was not present during the demonstration conducted by the Laboratory Manager. It was indicated that the Laboratory could be activated on weekends if necessary within one hour. During the exercise, timely communications

were maintained with the RPS SERT Coordinator using the landline line.

The RPS Sample Courier successfully demonstrated the delivery of samples to the loading dock area of the laboratory building. Laboratory personnel successfully demonstrated the receipt of an air sample cartridge, an air sample filter paper and vegetation. The Chain of Custody form was signed and a copy was retained by the Laboratory. Procedures were followed to measure the sample bag contact dose rate. The RPS Sample Control located at the Mobile Laboratory screen, prepare and package samples for transfer to the Fixed Laboratory by the Sample Courier. Procedures were in place to record and track all samples, using a bar code system.

The Fixed Laboratory was equipped with three gas filled Proportional Counters (Canberra Tennelec Series 5) to perform gross alpha or beta-gamma counting of air sample cartridges, filter papers and wipes. One of these counters also had the capability to do gamma spectrometry using a sodium iodide detector. It was new and not yet in operation.

The Laboratory also had two operating Canberra High Purity Germanium Detectors (HP Ge) with a 4096 Multi-Channel analyzer to perform gamma spectrometry for different solid and liquid geometries. The Laboratory routinely performs environmental sample analyses and the Lower Limits of Detection (LLD) were more than sufficient to allow for protective action decision-making based on the US Food and Drug Administration's Derived Intervention Levels (FDA DIL) for food. The HPGe system was calibrated annually. Also, a daily Quality Control check was done using a check source. The preferred counting geometry was a 1-liter Marinelli Container, although the detectors were also calibrated for the 0.5 and 3.5 liter Marinelli geometries.

The Laboratory used sources traceable to the National Institute of Standards and Technology (NIST) for calibration of the HPGe detectors and the proportional counters. Also, the Laboratory purchases blind, spiked samples from Environmental Research Associates (ERA) for an independent check of their accuracy and capability. The results are posted by ERA and action is taken by the laboratory if the results are not in an acceptable range.

The Fixed Laboratory has storage capability for a limited quantity of samples. The RPS SERT Coordinator indicated that the RPS would use the storage capability at their offices. The Fixed Laboratory does not do wet chemistry e.g., strontium-90 analyses. This would be done by a contract commercial laboratory.

For this capability the following REP criteria were met: 1.a.1, 1.d.1, 1.e.1, 3.a.1 and 4.c.1

3.2.2 Joint Operations

3.2.2.1 Emergency Operations Facility

Emergency Operations Center Management Capability Summary:

Direction and Control of emergency management operations were the responsibility of the utility operator and were fulfilled in a professional and effective manner. The State and local government officials dispatched to the EOF served in an all important liaison capacity between the utility operator and their respective EOCs. The government officials in conjunction with the utility operator's Emergency Director, effectively communicated, coordinated and functioned as a cohesive response and recovery unit.

The utility operator's assessment as well as the State's independent assessments of the offsite health and safety considerations supported the PARs. They were initially based solely on plant conditions, and the subsequent PARs were based on sound technical analyses, which included environmental field measurements, computerized dose assessment models, and a thorough understanding of the simulated emergency at hand, as well as discussions and interactions with the utility operator's senior staff. There were adequate supplies and equipment available to support response operations

For this capability the following REP criterion was met: 2.b.1

3.2.2.2 Joint Information Center

Emergency Public Information and Warning Capability Summary:

The agency representative of the JIC demonstrated this capability by developing, coordinating and disseminating emergency public information. The JIC served as the central point of contact for the distribution and release of information to the media and public during an emergency at the HNP. The JIC is maintained by the utility and offers ample space for the Public Information Officers (PIO) and supplemental technical staff from the utility, State of North Carolina, risk counties and the Federal agencies to perform the duties required of them.

For this exercise, in accordance with the Extent of Play Agreement (EOPA), the JIC staff was not prepositioned and responded to the JIC in real time. The JIC was well equipped and has redundancy in communications, which includes landline phones, facsimiles and internet connectivity. Both primary and secondary systems were established and maintained throughout the exercise with no failures observed.

A total of 68 press releases were formulated and distributed by the JIC staff. This included 13 in Spanish by Chatham County. There were four media briefings during the exercise. The spokespersons answered the questions asked of them and were able to discuss what actions have been taken by their organizations. A critical aspect of keeping the

public informed is ensuring the correct information is available and erroneous information is corrected and rumors squelched. Both the State and the Utility's rumor control function were performed in the JIC. The four risk counties performed rumor control at their EOCs. The spokespersons in the JIC were aware of the calls received and addressed trends and rumors during the media briefings. The applicable citizen information numbers were provided to the public during each media briefing and on all press releases.

For this capability the following REP Criteria were met: 1.a.1, 1.d.1 and 1.e.1

3.2.3 Risk Jurisdictions

3.2.3.1 Chatham County, North Carolina

3.2.3.1.1 Emergency Operations Center

Chatham County successfully demonstrated the capability to provide multi-agency coordination (MAC) for incident management by activating and operating the Chatham County EOC. Chatham County Communication Center/Warning Point received the Alert ECL, and notified the Emergency Management Director of the emergency at HNP. At the request of the Director and under the general direction of the County Manager, the EOC personnel were called and the EOC was activated. Chatham County maintains minimum staffing of the EOC during working hours with personnel from the Department of Emergency Services.

The EOC had sufficient equipment and communications for conducting operations and communicating with the State, other counties and local government agencies and departments, including two dedicated telephone systems, computers, faxes and radios.

The Director and the EOC personnel clearly demonstrated the ability to provide an effective emergency response. The Director provided outstanding direction and control throughout the exercise and demonstrated the ability to protect the health and safety of the citizens of the county. The coordination between the Director and the Director of Public Health regarding the decision to order the issuance of KI to EWs and the general public and then to ingest KI was outstanding. All decisions were discussed with other counties, State Public Health and the SEOC.

The EOC protected the only endangered school of the county Moncure Elementary by ordering an early precautionary relocation of about 300 students and teachers to Northwood Senior High School at the Alert ECL. Horton Elementary buses assisted in the relocation of the school. The County also calls the pre-identified Functional needs populations and placed on stand-by at the same time. They relocated these populations at the Site Are Emergency ECL.

For this capability the following REP Criteria were met: 1.a.1, 1.c.1, 1.d.1, 1.e.1, 2.a.1,

2.b.2, 3.a.1, 3.b.1, 3.c.1, 3.c.2, 3.d.1 and 3.d.2

Emergency Public Information and Warning Capability Summary:

Chatham County successfully demonstrated the capability to develop, coordinate and disseminate accurate alerts and emergency information to the media and the public. The siren system was activated from Wake County; a report of the siren activation was faxed and printed by the EOC. Chatham County has the ability to activate the siren system, at a fast-paced event. Under the leadership of the Chair of the County Commission and the Emergency Management Director, the EOC coordinated with the State of North Carolina and the other affected Counties to decide on the appropriate messages to be issued by the State and the times for siren activations and EAS activations. They further demonstrated the capability to do Backup Route Alerting (BRA) as needed. They also provided emergency information to the public through a total of 13 press releases in English and Spanish, and coordinated and resolved Public Inquiry throughout the exercise.

For this capability the following REP Criteria were met: 5.a.1, 5.a.3 and 5.b.1

3.2.3.1.2 Traffic Control Points

Public Safety and Security Response Capability Summary:

Chatham County successfully demonstrated the capability to provide safety and security to the general population of Chatham County during an evacuation. The TCPs demonstration was conducted by interview at the Chatham County EOC. The North Carolina State Highway Patrol (SHP) representative there demonstrated his knowledge of activation and communication capabilities, equipment including dosimetry and KI, and how the 13 pre-identified TCPs in Chatham County would be implemented. He was knowledgeable of how both Self Reading Dosimetry (SRD) and Permanent Record Dosimetry (PRD) would be worn and used, what exposure limits were in place for him as an EW, when and how to record the SRD readings, and what to do at each exposure limit. He had KI (simulated) with written instructions and was aware of it use, limitations, and possible side effects. Using the Standard Operating Guidelines (SOG), he knew who would activate TCPs and when this would take place. He was aware of how possible impediments would be identified and handled.

For this capability the following REP Criteria were met: 1.a.1, 1.d.1, 1.e.1, 3.a.1, 3.b.1, 3.d.1 and 3.d.2

3.2.3.1.3 Backup Route Alerting

Emergency Public Information and Warning Capability Summary:

Chatham County successfully demonstrated the capability to develop, coordinate and disseminate accurate alerts and emergency information to the media and the public.

Backup route alerting was demonstrated by discussion at the Chatham County EOC. The County Fire Marshall at the EOC explained that should one of the Chatham County sirens fail he would notify the local Fire Department for the affected area to conduct mobile back-up route alerting. They would be informed of the siren number and referred to the "Siren BRA - Mobile Route Alerting - Complete Loss of Siren System Capability" SOG. This document details the specific actions the Fire Department would take while performing BRA. Each department would issue dosimetry and KI at their station.

In the event one or more sirens fail the local Fire Department has been supplied with a corresponding map that shows the coverage circle, the area with the roads to be covered, instructions to the Fire Department crew running the route, and the pre-scripted message to be read over the vehicle's public address system. The Fire Marshall stated that each route has been driven and could be completed within 45 minutes from siren failure detection.

For this capability the following REP Criteria were met: 1.a.1, 3.a.1 and 5.a.3

3.2.3.1.4 Emergency Worker and Vehicle Monitoring and Decontamination

Hazardous Materials Response and Decontamination Capability Summary:

The vehicle decontamination demonstration was successfully conducted and followed established standard operating procedures (SOG). The participants are well trained and very knowledgeable of their duties. The exterior layout was practical and efficient. The equipment was in good repair and served its purpose. The survey instruments were fairly new and worked well in inclement weather without failure. Sufficient amounts of equipment and supplies were on hand, and were well organized in labeled bins for easy access. The EWs were familiar with their dosimetry kits, administrative values and the recording of dose values. EWs used the survey instruments properly and consistently utilized teamwork throughout the exercise. Team members displayed excellent organization of responsibilities and thorough monitoring techniques

For this capability the following REP criteria were met: 1.a.1, 1.e.1, 3.a.1, 6.a.1 and 6.b.1

3.2.3.1.5 Reception and Congregate Care Center

Hazardous Materials Response and Decontamination and Mass Care (Sheltering, Feeding and Related Services) Capability Summary:

The Chatham County Department of Social Services (DSS), with support from the Raleigh Triangle Chapter of the American Red Cross (ARC); the Chatham County Board of Education, Environmental Health Department, Sheriff's Department, Emergency Medical Services (EMS) Department, Health Department, Chatham Counseling Center, Amateur Radio Emergency Services and the North Chatham Fire Department successfully demonstrated evacuee monitoring, decontamination, reception and congregate

care. The volunteers and full-time county staff worked well together in implementing well-designed emergency procedures. The staffs were well trained in personal protective measures as well as in activities to safeguard the public.

The Radiogical Officer (RO) was knowledgeable of the equipment, practiced in conducting equipment operational checks, organized and thorough in tracking issuance of equipment. He successfully maintained and conducted site management and control of RCCC equipment and dosimetry.

Evacuees were directed to the reception area or the decontamination showers. Use of fire department escorts, control lines, signage and effective communications among fire department responders were in place to insure no evacuees were permitted to enter the RCCC without having been monitored for contamination and decontaminated, as needed. Emergency Worker (EW) effectively demonstrates the decontamination process by walking contaminated (simulated) Personnel through the decontamination process.

For this capability the following REP criteria were met: 1.a.1, 1.e.1, 3.a.1 and 6.a.1

Mass Care (Sheltering, Feeding and Related Services) Capability Summary:

Chatham County successfully demonstrated this capability at the Northwood High School site. Shelter activities were conducted under the overall supervision Raleigh Triangle Chapter County Chapter of the American Red Cross, supported by the Chatham County DSS, Chatham County Sheriff's Office and Emergency Medical Services (EMS). The staff and volunteers demonstrated excellent competence in the reception and processing of evacuees who had evacuated the area surrounding the HNP following a simulated nuclear incident.

The facility was well laid out and could reasonably accommodate the number of evacuees in the Northwood High School. The shelter staff demonstrated the ability to provide basic health, mental health, and special needs support for evacuees; enable them to enter their contact data in the nation-wide ARC website. All evacuees were registered to facilitate tracking and locations they had started from.

For this capability the following REP criterion was met: 6.c.1

3.2.3.2 Harnett County, North Carolina

3.2.3.2.1 Emergency Operations Center

Emergency Operations Center Management Capability Summary:

The Harnett County Emergency Operation Center successfully demonstrated the ability to activate the EOC and notify key staff during an event at the HNP. Utilizing the Rapid Notify system and multiple communications capabilities, the WP demonstrated proficiency in facilitating the activation of the EOC. The Harnett County EOC was staffed and operational in a timely manner.

The Harnett County EMD Director (EMDD) quickly took charge of emergency functions and coordinated discussions with the state and county organizations. The EMDD provided EOC Staff briefings hourly unless critical information arrived earlier. Message logs were maintained, messages numbered, and distributed to designated staff. The EMDD consistently held briefings with key staff personnel and considered their input in his final decisions. The EMDD successfully demonstrated direction and control and made timely decisions throughout the exercise. There were adequate supplies and equipment available to support response operation.

The initial KI decision would have been distributed from the Harnett county EOC to EW activities in the field for onsite supervisors to relay the KI order to EW's. The KI order for the general public was successfully coordinated over the decision line and planned for EAS/NOAA radio notification to the general public.

The Harnett EMDD makes decisions concerning Harnett County Special Populations. The depth of medical needs required for transportation is considered when making decisions for the Special Populations. Typically, Special Populations are evacuated at GE; however, a precautionary move was afforded during ECL SAE. All transportation actions and resources are coordinated between the Harnett EMS, Harnett Health Department and Harnett Area Rapid Transportation System (HARTS).

Harnett County successfully demonstrated the capability to provide resources, technical, and policy support to the Incident Command by coordinating the actions of off-site agencies, organizations and jurisdictions, implementing Mutual Aid Agreements (MAA) and requesting higher-level assistance.

For this capability the following REP Criteria were met: 1.a.1, 1.b.1, 1.c.1, 1.d.1, 1.e.1, 2.a.1, 2.b.2, 2.c.1, 3.a.1, 3.b.1, 3.c.1, 3.c.2, 3.d.1 and 3.d.2

Emergency Public Information and Warning Capability Summary:

Harnett County successfully developed coordinated and disseminated accurate alert and notifications to the media and the public as incidents at HNP unfolded. A Harnett County

PIO representative was at the JIC for coordination between the county and state. Sirens, EAS and NWS Warning systems were activated in sufficient time to notify the at risk public of an emergency. Information messages distributed were accurate, consistent and timely.

Rumor control and public inquiry staff adequately answered calls using available information and approved news releases. If additional information above the county's expertise was required, the callers were referred to the JIC.

For this capability the following REP criteria were met: 5.a.1, 5.a.3 and 5.b.1

3.2.3.2.2 Traffic Control Points

Activate Public Safety and Security Response Capability Summary:

The North Carolina State Highway Patrol (SHP) successfully demonstrated knowledge of the establishment of TCPs. A TCP interview was conducted in accordance with the extent of play at the Harnett County EOC by a Master Trooper, who utilized his plans and procedures to establish and activate nine predetermined TCPs in Harnett County. He was aware of the location of the reception center in the county and the single EW decontamination center. He was knowledgeable on resources available for impediment removal, as well as the process for requesting additional equipment through the dispatch point.

For this capability the following REP criteria were met: 1.a.1, 1.d.1, 1.e.1, 3.a.1, 3.b.1, 3.d.1 and 3.d.2

3.2.3.2.3 Backup Route Alerting

Emergency Public Information and Warning Capability Summary:

Harnett County Fire Department (HCFD) successfully demonstrated a thorough knowledge of BRA for Harnett County in the event of siren failure. An interview was conducted at the Harnett County EOC, the Harnett County Fire Chief briefed that utilizing public address system equipped vehicles, and a pre-scripted message; the Fire vehicles can effectively mobilize and deploy assets to seven pre-established routes in less than 45 minutes. The Fire Chief stated that due to the rural area, Fire vehicles alone would be able to alert the whole area in order to ensure all personnel within the zone are notified within 45 minutes.

For this capability the following REP criteria were met: 1.e.1, 3.a.1 and 5.a.3

3.2.3.3 Lee County, North Carolina

3.2.3.3.1 Emergency Operations Center

Emergency Operations Center Management Capability Summary:

The Lee County Emergency Management Agency successfully demonstrated the capability to alert, notify and mobilize key staff in response to an incident at HNP in accordance with County plans and the Extent of Play Agreement (EOPA). The County Communications Center served as the County WP, received and appropriately communicated the initial notification, and relinquished control of alert and notification in accordance with procedures. The EOC staff were alerted, mobilized and activated in a timely manner. The EOC has sufficient space and equipment to support emergency response efforts. Each agency had an easily identifiable and functional area for conducting its' duties within the EOC. Maps and status boards with vital information were visible and available to the staff for reference and situational awareness. Communications systems were redundant and functional with no observed failures.

The Emergency Management Director (EMD) acted as the EOC Manager and exercised good direction and control. The decision making process was well defined, coordinated, included participation of the County Commissioner and County Manager in deliberation demonstrating their dedication to the safety and welfare of Lee County residents and was paramount to timely and decisive PADs. The EMD conducted numerous staff briefings and updates which considered input from key staff, kept all staff abreast of changing conditions and guided proactive thinking which aided in forecasting and contributed to the efficiency of coordination with the State, affected jurisdictions and internal and external agencies. Staff appeared well trained, proactive, and demonstrated high competence in performing their responsibilities.

Officers of the Sanford Police Department, Lee County Sheriff's Department, North Carolina Highway Patrol and Deep River Valley and Cape Fear Fire Department demonstrated through interview thorough knowledge of the procedures for managing TCPs and BRA.

For this capability the following REP criteria were met: 1.a.1, 1.c.1, 1.d.1, 1.e.1, 2.a.1, 2.b.2, 3.d.1, 3.d.2, 5.a.1 and 5.b.1

Emergency Public Information and Warning Capability Summary:

The Lee County EMD and the EOC PIO successfully demonstrated the capability to develop, coordinate and disseminate emergency information to the public and assure that timely warnings were issued to notify residents of emergency events within the Lee County EPZ. The EMD actively coordinated with the Utility Liaison, the SEOC and risk counties to concur in decisions and scheduled three activations of the siren system to implement four PADs. The EMD carefully reviewed all of the County Public

Information News Releases prior to authorizing their release to the JIC and through the media to the public. Pertinent key decisions in the EOC were developed from pre-scripted news releases, authorized individually by the EMD and quickly distributed to the JIC, SEOC and risk counties. The PIO interacted constantly with the Lee PIO (located in the JIC) and appropriate EOC staff to make sure that all media releases accurately reflected timely and accurate information through the issue of nine news releases. Public inquiries were addressed accurately through coordination with the proper EOC staff and HNP Liaison as required. The EOC staff was kept current with the Lee County News Releases (and other PIO activities) by e-mail messages.

For this capability, the following REP criteria were met: 5.a.1, 5.a.3 and 5.b.1

3.2.3.3.2 Traffic Control Points

Activate Public Safety and Security Response Capability Summary:

The North Carolina State Highway Patrol (NCSHP), Lee County Sheriff Department and the Sanford Police Department have the responsibility for coordination of TCPs. They are responsible for traffic control measures in support of an incident at HNP, to include evacuation of restricted areas, establishing roadblocks, preventing entry into restricted zones and clearing impediments which could hinder zone evacuations. The Department of Transportation (DOT) and the County Public Works Department assist Law Enforcement (LE) in a support role with barricades or other support equipment to aid in the removal of impediments. At ECL Alert, roadblocks and TCP operations are initiated by the EOC Manager and coordinated and implemented by the responsible LE agencies in the EOC. The management piece for this operation was explained by interview in the Lee County EOC, by LE Officers from all three agencies. The Officers were very knowledgeable of TCP locations and operations. They gave details in the use of maps, controlled access and routes. They were also familiar in the use of equipment, kits and communication systems necessary to effectively perform their duties. They explained the procedures for directing evacuees out of the affected area to the reception center and identified ways in which to immediately clear impediments. They explained the use of radiological exposure control equipment, dose rates, turn back rates, reading and reporting requirements and the use of KI. Officer's descriptions of procedures were consistent with plans and procedures and successfully demonstrated the ability to establish and manage TCPs.

For this capability the following REP criteria were met: 1.a.1, 1.d.1, 1.e.1, 3.a.1, 3.b.1, 3.d.1 and 3.d.2

3.2.3.3.3 Backup Route Alerting

Emergency Public Information and Warning Capability Summary:

The Lee County EOC successfully demonstrated the Emergency Public Information and Warning capability in support of BRA. County Fire Department Representatives were interviewed in the EOC regarding the procedures. They were knowledgeable and familiar with the plans and procedures including dosimetry exposure and the use of KI.

Due to siren overlapping, any failed siren would be covered by another siren. To provide an alternative coverage to the overlapping of the siren, BRA is used to alert and notify the public. The Fire Representative/Chief described the procedures to be followed in conducting route alerting, including protective equipment, exposure limits, and recording requirements for personal dosimetry and the use of KI. A pre-scripted message is read and announced at appropriate intervals over a public address system while driving the designated routes. Continued routine training, knowledge of the areas and pre-designated routes, aide the departments in being efficient which enables them to complete the activity across designated routes. The SOG states that a route should be run in about 45 minutes after a siren failure. The interview was consistent with plans and procedures.

BRA is authorized by the EMD. At the time of a siren failure, the Fire Representative/Chief will be tasked by the EMD to run the Backup Routes. "There are no exception areas within the county".

For this capability the following REP criteria were met: 1.a.1, 3.a.1 and 5.a.3

3.2.3.4 Wake County, North Carolina

3.2.3.4.1 Emergency Operations Center

Wake County Emergency Management personnel and EOC staff successfully demonstrated the capability to provide multi-agency coordination for incident management by activating and operating an EOC for a pre-planned event. This capability included EOC activation, notification, staffing, management, direction, control, and coordination of response activities; coordination of efforts among neighboring governments at each level and among local, regional, and State EOCs and Federal Agencies; coordination of public information and warning; and maintenance of the information and communication necessary for coordinating response activities.

The Wake County Emergency Management (WCEM) Duty Officer effectively demonstrated the ability to perform incident notifications, recall essential personnel and stand-up EOC systems to provide a fully staffed and operational EOC in a timely manner. The EOC had adequate equipment and supplies for the staff to perform their duties.

WCEM demonstrated the ability to initiate interoperable communication system

operations, and to maintain, manage, and assure protection of the interoperable communications systems. Each agency location had a laptop and telephones. EOC staff members also communicated using personal and agency cell phones, facsimile, and over the Internet.

The EOC Manager exhibited good direction and control of the EOC Staff and in coordinating PADs with other counties and State agencies and in implementing the protective actions. The EOC Manager used a new tasking/checklist tied into the WebEOC system to effectively delegate actions to EOC agencies and coordinate actions with other counties. This new system allowed the EOC Manager to track action items and tasks while still maintaining overall control of the EOC. This was evident as the EOC Manager continually went to different agencies and talked with them concerning the actions they were taking and any support they needed to complete their tasks. Briefings were held at appropriate times and the EOC Manager polled all agencies to review actions that they had been working, to review plans and checklists for future actions and to insure they were coordinating actions with other agencies. The EOC Manager and the EOC Staff displayed excellent coordination of actions and coordinating with agencies outside of the EOC.

Wake County demonstrated the ability to manage radiological exposure to EWs through discussion and demonstration. The Radiological Emergency Preparedness (REP) Planner and various county EOC staff demonstrated an excellent understanding of as low as reasonably achievable(ALARA), and their plans and procedures allow for an effective monitoring and recording of EWs radiation exposure levels. Wake County has KI in sufficient quantities for the general public and EWs. The county has appropriate instructions for issue, consumption and documentation of issue and consumption of KI both to the general public, institutionalized and EWs.

The special needs population was effectively managed during the exercise by the Wake County Department of Health, Wake County DSS and Wake County Emergency Medical Services. Resources to include transportation assets were adequate to handle the special needs population. The WCEM staff has a database to track special needs personnel and facilities. School officials in the EOC discussed how they would manage moving school students and coordinate with all agencies.

For this capability the following REP criteria were met: 1.a.1, 1.c.1, 1.d.1, 1.e.1, 2.a.1, 2.b.2, 2.c.1, 3.a.1, 3.b.1, 3.c.1, 3.c.2, 3.d.1 and 3.d.2

Emergency Public Information and Warning Capability Summary:

The Wake County EOC Manager (Emergency Management Director), EOC staff and the PIOs successfully demonstrated the capability to develop, coordinate, and disseminate accurate alerts and emergency information to the media and the public prior to an impending emergency and activate warning systems to notify those most at-risk in the event of an emergency.

The PIO prepared eight news releases, all of which were accurate, properly approved by the EOC Manager and coordinated with the JIC. This coordination ensured accurate information would be provided that was consistent with the current situation. The PIO consistently provided documentation to the EOC manager for review and approval prior to release to the JIC. The two Public Inquiry staff fielded ten telephone inquiries to answer public concerns with accurate and timely answers. There were no trends or rumors identified during the exercise.

WCEM EOC staff coordinated information regarding Public Protective Actions, siren activations and four EAS messages.

For this capability the following REP criteria were met: 5.a.1, 5.a.3, 5.b.1

3.2.3.4.2 Traffic Control Points

Public Safety and Security Response Capability Summary:

The Fuquay-Varina Police Department and Wake Sheriff's Office representatives demonstrated the ability to establish appropriate TCPs. Upon declaration of a General Emergency at the HNP and the subsequent PAD, the Sheriff's Office deputies affectively coordinated the selection of TCPs with the Area Command Post and Staging Area.

TCP personnel reported to the Fuquay- Varina staging area to obtain dosimetry kits and a dosimetry briefing. Dosimetry readings would be called in via radio to the Staging Area. The Fuquay- Varina Police Officer representative stated that they and Wake County have adequate personnel and vehicles to man identified TCPs. If additional personnel were needed, he would request mutual aid from surrounding areas. Necessary equipment including trucks, barricades, etc from Public Works who would also transport barricades to TCP locations. Unmet needs would be requested from the Area Command Post.

For this capability the following REP criteria were met: 1.d.1, 1.e.1, 3.a.1, 3.b.1, 3. d.1 and 3.d.2

3.2.3.4.3 Backup Route Alerting

Emergency Public Information and Warning Capability Summary:

The Fuquay-Varina Police department and Wake County Sheriff Department demonstrated BRA and Notification. They had the ability and knowledge to conduct, coordinate and provide to the public information and warning in a timely manner. During the exercise, the sirens were sounded at SAE and there was a failure of siren W26. Through interview, they explained the process of how they would inform the public and the routes they would take and message that would be play over the PA system. Once the notification is completed, they would provide feedback to the EOC. This activity would be completed in the 45 minutes time limited. Both the Fuquay-

Varina Police department and Wake County Sheriff Department indicated there were enough vehicles, public address equipment and personnel to adequately cover each individual route within the allotted 45 minutes. They were familiar with the 1 R administrative limit, the 5 R turnback limit, and 25 R lifesaving limit and they were aware of the significance of the limits. They also understood the use of potassium iodide (KI). Officers knew how to use dosimeters, when to take readings, and reporting procedures.

For this capability the following REP criteria were met: 3.a.1 and 5.a.3

3.2.3.4.4 Protective Actions for Schools

Emergency Public Information and Warning Capability Summary:

Fuquay-Varina High Schools ,Middle School and Elementary Schools in Wake county demonstrated during an interview in which the principals of an at-risk school and its host school; a representative of the County Schools System, and the county's emergency management agency participated. The interview pointed out that there is close coordination between the agencies/schools and that the SOGs at each level are compatible and consistent. Processes which were discussed included training for staff and faculty; individual and collective responsibilities; coordination with and notification of the parents; availability of resources to relocate students; and the variables that could affect the decision-making process by the schools superintendent. This aspect of the capability was sufficiently demonstrated to indicate the county and school system is prepared to safeguard students, staff and faculty of at risk schools in the event of a nuclear incident at the HNP.

For this capability the following REP criterion was met: 3.c.2

3.2.3.4.5 Medical Services Drill

Triage and Pre-Hospital Treatment Capability Summary:

The emergency response agencies of Wake County and the City of Raleigh in partnership with Rex Hospital successfully demonstrated the ability to respond, transport, treat and decontaminated a radiological contaminated accident victim. The Raleigh Fire Department aided by their Hazardous Materials (HazMat) Team responded to a simulated radiological accident scene. The HazMat team followed all applicable procedures by establishing a control line, then taking the correct measures for personal protection and indentifying the contamination. The Wake County EMS crew acted with a sense of urgency and provided the victim with initial medical care and transportation to the hospital.

The Hospital Emergency Department (ED) staff implemented a code BETA emergency and directed the Radiological Emergency Response Team (RERT) to quickly prepare the decontamination room and prepare the ED for the arrival of the patient. The RERT

frequently changed gloves after contact with the patient to help prevent any spread of contamination. They were periodically reminded to read their dosimetry and report any readings. The team worked well together, with each member understanding their roles. The priority of the victims injuries were considered during the decontamination process.

The HAZMAT Team, EMS crew and Hospital Staff used appropriate medical care and contamination control. Sufficient quantities of supplies and equipment were available during the treatment and decontamination of the accident victim. All actions performed in this drill were in accordance with appropriate plans and procedures. The County agencies and private organizations supporting the HNP established that they were fully capable of effectively providing emergency response support to a radiologically contaminated patient.

For this capability the following REP criterion was met: 6.d.1

3.2.3.4.6 Reception and Congregate Care Center

Hazardous Materials Response and Decontamination and Mass Care (Sheltering, Feeding and Related Services) Capability Summary:

The Wake County RCCC had sufficient equipment to successfully support RCCC operations. EW's are very knowledgeable of the response process and reported in a timely fashion to receive EW equipment and required briefings. The RCCC Manager gave a good radiation safety briefing to all EW's covering pertinent information as well as exercise safety precautions. Six simulated evacuees were processed through the RCCC in accordance with the EOPA. Two of the six simulated evacuees were deemed contaminated and successfully decontaminated in accordance with REP training and Wake County SOG's. The decontamination processes in the male and female restrooms was consistent and the high level of training very apparent in the EW's excellent performance. The overall layout and setup of the facility provided good control of potentially contaminated evacuees.

For this capability the following REP criteria were met: 1.a.1, 1.e.1, 3.a.1 and 6.a.1

Mass Care (Sheltering, Feeding and Related Services) Capability Summary:

The Wake County Department Health and Human Service (DHHS) demonstrated the ability of county staff to meet the congregate care needs of evacuees during a nuclear incident at the HNP. The DHHS employees and volunteers worked together as a team and demonstrated shared responsibilities in meeting the needs of evacuees. It was evident that the DHHS as lead, and all supporting county agencies (Schools, Sheriff, Police, Emergency Medical Services, Health, Mental Health and Animal Control) had coordinated establishing and managing a safe shelter that could expand to meet the needs of evacuating citizens. Personnel participating in the demonstration were knowledgeable in their roles. Consideration to meet the medical and health needs of evacuees was

demonstrated along with the availability of representatives conversant with other services that could assist evacuees. LE was available to provide security in a variety of manners – traffic control, and security of the sheltered. County Animal Control is prepared to assist in the establishment a pet control facility if needed.

The demonstration at Garner High School met the requirements established for this capability

For this capability the following REP criterion was met: 6.c.1

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Section 4: Conclusion

Officials and representatives from the State of North Carolina, Chatham, Harnett, Lee and Wake Counties, the (NRC) Region II, and Progress Energy, as well as numerous volunteers participated in this exercise. The cooperation and teamwork of the participants was evident throughout all the phases of the exercise. The Federal Emergency Management Agency (FEMA) wishes to acknowledge the efforts and hard work of the many individuals who participated in the success of this exercise. FEMA would also like to acknowledge the enthusiasm and contributions of the exercise planning team during the design of the exercise. The introduction of new products and concepts into the design phase of the exercise was embraced by the team, and they exhibited a high degree of eagerness to improve emergency management and response at all levels.

Overall, State and local organizations demonstrated knowledge of their emergency response plans and procedures and successfully implemented them. Communications were identified as a general strength throughout the exercise. Not only was the equipment interoperable and functional, but the personnel utilizing it kept everyone well informed and helped to maintain situational awareness across the board. The evaluation team noted great progress in the coordination of activities between the State, counties, and all other response entities.

During this exercise, FEMA did not identify any Deficiencies or Area Requiring Corrective Actions (ARCA) was identified.

Appendix A contains the exercise timeline. The exercise timeline table provides a summary of exercise results for all participating jurisdictions and functional entities.

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Appendix A: Exercise Timeline (Table 1)

DATE AND SITE: November 29, 2011 - Harris Nuclear Plant

Emergency Classification Level or Event	Time Utility Declared	Time That Notification Was Received or Action Was Taken							
		SERT/ SEOC	RPS Dose Assessment	Central Branch	JIC	Wake County	Chatham County	Harnett County	Lee County
Unusual Event	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alert	0752	0818	0812	0818	0806	0831	0816	0843	0815
Site Area Emergency	1040	1055	1050	1043	1046	1057	1052	1058	1050
General Emergency	1135	1151	1145	1140	1135	1145	1150	1147	1144
Simulated Radiation Release Started	1032	1055	1039	1105	1112	1057	1049	1053	1050
Simulated Radiation Release Ended	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing
Facility Declared Operational	0834	0844	0930	0855	0915	0900	0843	0906	0820
Exercise Terminated	1442	1443	1443	1442	1442	1442	1442	1442	1442
Declaration of State of Emergency Local		N/O	N/A	1140	N/A	1044	1117	1030	1110
State		1108	1130	1130	1125	N/O	N/O	1125	1110
Early Precautionary Actions: Schools:		0958	0958	0900	0935	N/A	0910	N/A	N/A
Special Populations:		N/A	N/A	N/A	N/A	1004	0915	1106	1145
Clear Lake Harris:		0945	0945	0945	0954	0945	0945	N/A	0945
1st Protective Action Decision: Public Warning		1106	1106	1106	1120	1106	1106	1106	1106
1st Siren Activation		1115	1115	1115	1115	1115	1115	1115	1115
1st EAS Message (Stay Tuned)		1120	1120	1120	1120	1120	1120	1120	1120
1st NWS Message (Stay Tuned)		1125	1125	1125	1125	1125	1125	1125	1125
2nd Protective Action Decision: Evaluate Zones: A, B, C, D, E, F, G, H, K, L, N Shelter in Place Zones: I, J, M		1210	1210	1210	N/A	1210	1210	1210	1210
2nd Siren Activation		1215	1215	1215	1215	1215	1215	1215	1215
2nd EAS Message		1220	1220	1220	1220	1220	1220	1220	1220
2nd NWS Message		1225	1225	1225	1225	1225	1225	1225	1225
3rd Protective Action Decision: KI for public in all zones		1213	1213	1213	N/O	1213	1213	1213	1213
3rd EAS Message		1230	1230	1230	1230	1230	1230	1230	1230
3rd NWS Message		1235	1235	1235	1235	1235	1235	1235	1235
4th Protective Action Decision: Evacuate Zones: A, B, C, D, E, F, G, H, K, L, N, M Shelter in Place Zones: I, J		1354	1354	1354	N/O	1354	1354	1354	1354
3rd Siren Activation		1359	1359	1359	1359	1359	1359	1359	1359
4th EAS Message		1404	1404	1404	1404	1404	1404	1404	1404
4th NWS Message		1409	1409	1409	1409	1409	1409	1404	1404
KI Ingestion Decision: Emergency Workers		1111	1114	1111	1155	1112	1115	1106	1112

*N/A – Not Applicable
*N/O – Not Observed

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Appendix B: REP Criterion Evaluation Result Summary (Table 2)

DATE AND SITE: November 29, 2011 - Harris Nuclear Plant

ELEMENT/Sub-Element	STATE SERT/ SEOC	Dose Assess RPS	Fixed Lab	Central Branch Office	JIC	EOF	Chatham County	Harnett County	Lee County	Wake County
1. EMERGENCY OPERATIONS MANAGEMENT										
1.a.1. Mobilization	M	M	M	M	M	M	M	M	M	M
1.b.1. Facilities			M					M		
1.c.1. Direction and Control	M	M		M		M	M	M	M	M
1.d.1. Communications Equipment	M	M		M	M	M	M	M	M	M
1.e.1. Equipment & Supplies to Support Operations	M	M		M	M	M	M	M	M	M
2. PROTECTIVE ACTION DECISION MAKING										
2.a.1. Emergency Worker Exposure Control	M	M					M	M	M	M
2.b.1. Rad Assessment & PARs Based on Available Information		M				M				
2.b.2. Rad Assessment & PADs for the General Public	M	M					M	M	M	M
2.c.1. Protective Action Decisions for Special Populations										
2.d.1. Rad Assessment & Decision Making for Ingestion Exposure										
2.e.1. Rad Assessment & Decision Making for Relocation, Re-entry & Return										
3. PROTECTIVE ACTION IMPLEMENTATION										
3.a.1. Implementation of Emergency Worker Control			M			M	M	M	M	M
3.b.1. Implementation of KI Decisions						M	M	M	M	M
3.c.1. Implementation of PADs for Special Populations							M	M	M	M
3.c.2. Implementation of PADs for Schools										M
3.d.1. Implementation of Traffic & Access Control							M	M	M	M
3.d.2. Impediments to Evacuation & Traffic & Access Control							M	M	M	M
3.e.1. Implementation of Ingestion Decisions Using Adequate Info										
3.e.2. Implementation of IP Decisions Showing Strategies & Instr. Materials										
3.f.1. Implementation of Relocation, Re-entry & Return Decisions										
4. FIELD MEASUREMENT & ANALYSIS										
4.a.1. Plume Phase Field Measurement & Analysis Equipment										
4.a.2. Plume Phase Field Measurement & Analysis Management										
4.a.3. Plume Phase Field Measurements & Analysis Procedures										
4.b.1. Post Plume Field Measurement & Analysis										
4.c.1. Laboratory Operations			M							
5. EMERGENCY NOTIFICATION & PUBLIC INFO										
5.a.1. Activation of Prompt Alert & Notification	M						M	M	M	M
5.a.2. Activation of Prompt Alert & Notification 15-Minute (Fast Breaker)										
5.a.3. Activation of Prompt Alert & Notification Backup Alert & Notification							M	M	M	M
5.b.1. Emergency Info & Instructions for the Public & the Media	M					M				
6. SUPPORT OPERATIONS/FACILITIES										
6.a.1. Monitoring & Decon of Evacuees & EWs & Registration of Evacuees							M			M
6.b.1. Monitoring & Decon of Emergency Worker Equipment							M			
6.c.1. Temporary Care of Evacuees							M			M
6.d.1. Transport & Treatment of Contaminated Injured Individuals										M

LEGEND: **M** = Met **A** = ARCA **D** = Deficiency *** ARCA identified and corrected through remedial training and re-demonstration.**

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Appendix C: Exercise Evaluators and Assignments

Location	Evaluation Team	Capability and Activity
North Carolina		
Joint Operations		
Emergency Operations Facility (EOF)	Bob Trojanowski (NRC)	Capability: EOC Management Activity 1: Support and Coordinate Response
Joint Information Center (JIC)	Robert Spencer (FEMA) JT Ackerman (FEMA)	Capability: Emergency Public Information and Warning Activity 1: Activate Emergency Public Information, Alert/Warning, and Notification Plans 2. Capability: Emergency Public Information and Warning Activity 2: Manage Emergency Public Information and Warnings
Observer	Kevin Keyes (FEMA)	None
State Emergency Operations Center (SEOC)	John Fill (FEMA) Ron Shaw (FEMA) Jon Sandberg (FEMA)	1. Capability: EOC Management Activity 1: Activate EOC Activity 2: Provide EOC Connectivity Activity 3: Direct EOC Operations 2. Capability: Emergency Public Information and Warning Activity 1: Issue Emergency Warnings Activity 2: Provide Public Inquiry Control
NCEM, Central Branch Office	Bill Larrabee (ICF)	Capability: EOC Management Activity 1: Activate EOC Activity 2: Provide EOC Connectivity Activity 3: Direct EOC Operations
Fixed Laboratory	Reggie Rogers (ICF)	Capability: Direct Public Health Laboratory Testing Activity 1: Site Management and Control
Dose Assessment	Reggie Rogers (ICF)	Capability: Hazardous Materials Response & Decontamination Activity 1: Site Management and Control Activity 2: Hazard Assessment & Risk Evaluation
FMT Management	Alan Bevan (ICF)	Capability: Hazardous Materials Response & Decontamination Activity 1: Site Management and Control Activity 2: Hazard Assessment & Risk Evaluation

Location	Evaluation Team	Capability and Activity
FMT Operations (Red Team and Blue Team)	Jill Leatherman (ICF) Keith Earnshaw (ICF)	Capability: Hazardous Materials Response & Decontamination Activity 1: Site Management and Control Activity 2: Hazard Assessment & Risk Evaluation
RISK COUNTIES		
Chatham County /Director: Mr. Tony Tucker		
Emergency Operations Center (EOC)	Alex Sera (FEMA) Gary Bolender (ICF)	1. Capability: EOC Management Activity 1: Activate EOC Activity 2: Provide EOC Connectivity Activity 3: Direct EOC Operations Activity 4: Support and Coordinate Response 2. Capability: Emergency Public Information and Warning Activity 1: Issue Emergency Warnings Activity 2: Provide Public Inquiry Control
Traffic Control Points (TCP)	Gary Bolender (ICF)	Capability: Public Safety and Security Response Activity 1: Activate Public Safety and Security Response Activity 2: Command and Control Public Safety and Security Response Operations Activity 3: Control Traffic, Crowd, and Scene
Backup Route Alerting	Gary Bolender (ICF)	Capability: Emergency Public Information and Warning Activity 1: Manage Emergency Public Information and Warnings Activity 2: Issue Public Information, Alerts/Warnings, and Notifications
Emergency Worker and Vehicle Monitoring and Decontamination (OOS- 7:00 a.m. on Oct 11 at Pittsboro Fire Dept	Robert Nash (FEMA) Gerald McLemore (FEMA)	Capability: Hazardous Materials Response & Decontamination Activity 1: Site Management and Control Decontamination and Clean-Up/Recovery Operations
Reception and Congregate Care Center (OOS- 7:00 p.m. on Oct 13 at Northwood High School Chatham County)	Robert Nash (FEMA) Gerald Mclemore (FEMA) Robert Spence (FEMA) Odis Spencer (FEMA)	1. Capability: Hazardous Materials Response & Decontamination Activity 1: Site Management and Control Activity 2: Decontamination and Clean-Up/Recovery Operations

Location	Evaluation Team	Capability and Activity
		2. Capability: Mass Care (Sheltering, Feeding, and Related Services) Activity 1: Establish Shelter Operations
Harnett County/Director: Mr. Gary Pope		
Emergency Operations Center (EOC)	Gerald Mclemore (FEMA) Lisa Rink(FEMA) Quintin Ivy (FEMA)	1. Capability: EOC Management Activity 1: Activate EOC Activity 2: Provide EOC Connectivity Activity 3: Direct EOC Operations Activity 4: Support and Coordinate Response 2. Capability: Emergency Public Information and Warning Activity 1: Issue Emergency Warnings Activity 2: Provide Public Inquiry Control
Traffic Control Points	Quintin Ivy (FEMA)	Capability: Public Safety and Security Response Activity 1: Activate Public Safety and Security Response Activity 2: Command and Control Public Safety and Security Response Operations Activity 3: Control Traffic, Crowd, and Scene
Backup Route Alerting	Quintin Ivy (FEMA)	Capability: Emergency Public Information and Warning Activity 1: Manage Emergency Public Information and Warnings Activity 2: Issue Public Information, Alerts/Warnings, and Notifications
Lee County/Director: Mr. Shane Seagroves		
Emergency Operations Center (EOC)	Odis Spencer (FEMA) Lorenzo Lewis(FEMA) Roy Smith(ICF)	1. Capability: EOC Management Activity 1: Activate EOC Activity 2: Provide EOC Connectivity Activity 3: Direct EOC Operations Activity 4: Support and Coordinate Response 2. Capability: Emergency Public Information and Warning Activity 1: Issue Emergency Warnings Activity 2: Provide Public Inquiry Control
Traffic Control Points	Lorenzo Lewis(FEMA)	Capability: Public Safety and Security

Location	Evaluation Team	Capability and Activity
		Response Activity 1: Activate Public Safety and Security Response Activity 2: Command and Control Public Safety and Security Response Operations Activity 3: Control Traffic, Crowd, and Scene
Backup Route Alerting	Lorenzo Lewis(FEMA)	Capability: Emergency Public Information and Warning Activity 1: Manage Emergency Public Information and Warnings Activity 2: Issue Public Information, Alerts/Warnings, and Notifications
Wake County/Director: Mr. Joshua Creighton		
Emergency Operations Center (EOC)	Joe Harworth(FEMA) Mike Dolder(FEMA)	1. Capability: EOC Management Activity 1: Activate EOC Activity 2: Provide EOC Connectivity Activity 3: Direct EOC Operations Activity 4: Support and Coordinate Response 2. Capability: Emergency Public Information and Warning Activity 1: Issue Emergency Warnings Activity 2: Provide Public Inquiry Control
Traffic Control Points	Robert Nash (FEMA)	Capability: Public Safety and Security Response Activity 1: Activate Public Safety and Security Response Activity 2: Command and Control Public Safety and Security Response Operations Activity 3: Control Traffic, Crowd, and Scene
Backup Route Alerting	Robert Nash(FEMA)	Capability: Emergency Public Information and Warning Activity 1: Manage Emergency Public Information and Warnings Activity 2: Issue Public Information, Alerts/Warnings, and Notifications
Protective Actions for Schools	Robert Spence (FEMA) JT Ackerman (FEMA) Robert Nash (FEMA)	Capability: Citizen Evacuation & Shelter in Place Activity 1: Direct Evacuation and/or In-Place Protection Operation

Location	Evaluation Team	Capability and Activity
Medical Services Drill (OOS- 9:00 a.m. on Oct 12	Odis Spencer (FEMA) Robert Spence (FEMA)	Capability: Triage and Pre-Hospital Treatment Activity 1: Activate Triage and Pre-Hospital Treatment Activity 2: Direct Triage and Pre-Hospital Treatment Activity 3: Provide Treatment
Reception & Congregate Care (Out of sequence) October 26,2011 8:00 pm	Robert Nash (FEMA) Gerald Mclemore (FEMA)	1.Capability: Hazardous Materials Response & Decontamination Activity 1: Site Management and Control Activity 2: Decontamination and Clean-Up/Recovery Operations 2.Capability: Mass Care (Sheltering, Feeding, and Related Services) Activity 1: Establish Shelter Operations

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Appendix D: Extent of Play Agreement

Harris Nuclear Power Plant Exercise
2011 Extent of Play Agreement

A. General Information

- Activities will begin at approximately 7:30 a.m. on Tuesday, November 29, 2011, and will conclude when all objectives have been met.
- Sirens will be activated at the Wake County EOC using a "Silent" test. This will occur at the Site Area Emergency and simulated at the General Emergency
- State and county participants may **NOT** be pre-positioned at exercise locations.
- Utility will provide a liaison to State EOC, Chatham, Harnett, Lee, & Wake County EOCs
- A state or county escort will accompany Federal Evaluators to out-of-sequence demonstrations.
- A State Controller will be located in the State EOC, Chatham County EOC, Harnett County EOC, Lee County EOC, Wake County EOC and the JIC.
- Federal Evaluators and a State Controller will be located in each of the EPZ counties.
- Exercise participants will have the opportunity to remediate and re-demonstrate exercise criterion immediately upon identifying any error/s with the approval of the federal evaluator.
- The Joint Information Center and Emergency Operation Centers will be allowed to set-up equipment prior to the start of the exercise.
- Due to the scenario time compression, the Joint Information Center participants can respond to the facility, once notified, per the following timeline:

State and Wake County participants: Real Time
Chatham, Harnett and Lee County participants: 30-minute delay

- All demonstrations will be in accordance with the approved Extent of Play Agreement.

B. Scenario

- Scenario was developed by the Utility in consultation with the State using FEMA guidelines.
- At least one wind shift has been built into the scenario for the PAD making process.
- A communication failure will be discussed at the County and State EOCs.
- ***Evaluation Area 4 - Field Measurement and Analysis activity at the Mobile Lab and Field Monitoring Teams is for Training only.***

C. Meeting Times

I. Federal Evaluator Briefing:

Harris Plant Energy and Environmental Center, HEEC Auditorium A
New Hill-Holleman Road (SR 1127)
New Hill, North Carolina

Date & Time: 2:00 p.m., Monday, November 28, 2011

II. State & County Internal Critique:

Harris Plant Energy and Environmental Center, HEEC Auditorium A
New Hill-Holleman Road (SR 1127)
New Hill, North Carolina

Date & Time: 1:00 p.m., Wednesday, November 30, 2011

This meeting will only take place if needed.

III. Participant's Out Briefing:

Harris Plant Energy and Environmental Center, HEEC Auditorium A
New Hill-Holleman Road (SR 1127)
New Hill, North Carolina

Date & Time: 10:00 a.m. Thursday, December 1, 2011

IV. Public Briefing:

Harris Plant Energy and Environmental Center, HEEC Auditorium A
New Hill-Holleman Road (SR 1127)
New Hill, North Carolina

Date & Time: 11:00 a.m. Thursday, December 1, 2011

1. EMERGENCY OPERATIONS MANAGEMENT

1. a. – Mobilization

Criterion 1.a.1

OROs will use effective procedures to alert, notify, and mobilize emergency personnel and activate facilities in a timely manner.

(NUREG-0654, A.4.,D.3.,4., E.1.,2., H.4.)

EXTENT OF PLAY:

Participants: NC SERT, Chatham, Harnett, Lee & Wake Counties

- State and local response personnel may **not** be pre-positioned.
- Notification rosters will be available to FEMA evaluators upon request. Emergency management personnel will discuss alert notification procedures with the evaluator.

1. b. – Facilities

Criterion 1.b.1

Facilities are sufficient to support the Emergency Response.

(NUREG-0654, H.)

EXTENT OF PLAY:

Participants: NCSEOC, Chatham, Harnett, Lee & Wake Counties

- State, Chatham and Wake Counties EOC facilities baseline for this exercise evaluation criterion was established in 2002.
- Lee County EOC's baseline was established in 2009.
- Harnett County EOC is a new facility and requires evaluation of facility and support system adequacy.

1. c – Direction and Control:

Criterion 1.c.1:

Key personnel with leadership roles for the ORO provide Direction and Control to that part of the overall response effort for which they are responsible.

(NUREG-0654, A.1.d.,2.a.,b.)

EXTENT OF PLAY:

- **Participants**: NC SERT, Chatham, Harnett, Lee & Wake Counties

Wake County will be the lead-coordinating county for the Harris Counties until Site Area Emergency. Following the "Silent Test" sounding of sirens and issuance of the first PAD recommendations to the public, Wake County will request the State assume direction and control.

1.d – Communications Equipment:

Criterion 1.d.1:

At least two communication systems are available and operate properly, and communication links are established with appropriate locations. Communications capabilities are managed in support of emergency operations. (NUREG-0654, F.1,2.)

Participants: NC SERT, Chatham, Harnett, Lee & Wake Counties

- Communication breakdown/failures will be discussed with the federal evaluators during the exercise at state and county EOCs **unless an actual loss of communication occurs and the back-up process identified is operational.**

- WebEOC is the crisis communication system for the State EOC.

1.e – Equipment and Supplies to Support Operation:

Criterion 1.e.1:

Equipment, maps, displays, dosimeters, potassium iodide (KI) and other supplies are sufficient to support emergency operations.

(NUREG-0654, H., J.10.a.b.e.f.j.k., 11, K.3.a.)

Participants: Chatham, Harnett, Lee & Wake Counties

- Availability and currency of emergency worker KI will be verified by a FEMA Staff Assistance Visit to the EPZ Counties prior to or during the exercise.

- Dosimeters will be inspected by FEMA during the Staff Assistance Visit to the EPZ Counties prior to or during the exercise.

Chatham County:

- Staff Assistance Visit will take place off-scenario, July 26, 2011 at 1:00 p.m., at the Chatham County EOC, located at 297 West St. Pittsboro, NC.

Harnett County:

- Staff Assistance Visit will take place off-scenario, on July 27, 2011 at 9:00 a.m. at the Harnett County EOC, 1005 Edwards Drive, Lillington, NC

Lee County:

- Staff Assistance Visit will take place off-scenario, July 28, 2011 at 1:00 p.m. at the Lee County Emergency Management Offices at, 225 Steele Street, Sanford, NC 27330

Wake County:

- Staff Assistance Visit will take place off-scenario, July 25, 2011 at 2:00 p.m. at the Wake County Emergency Management Offices at 331 S. McDowell Street, Raleigh, NC., 27601

2. PROTECTIVE ACTION DECISION MAKING

2.a – Emergency Worker Exposure Control:

Criterion 2.a.1:

OROs use a decision making process, considering relevant factors and appropriate coordination, to insure that an exposure control system, including the use of KI, is in place for emergency workers including provisions to authorize radiation exposure in excess of administrative limits or protective action guides.

(NUREG-0654, K.4).

EXTENT OF PLAY:

- **Participants:** NC SERT, Chatham, Harnett, Lee & Wake Counties

- No distribution of actual or simulated KI will be accomplished during the exercise.

2. b - Radiological assessment and protective action recommendations and Decisions for the Plume Phase of the Emergency:

Criterion 2.b.1:

Appropriate protective action recommendations are based on available information on plant conditions, field-monitoring data, and licensee and ORO dose projections, as well as knowledge of on-site and off-site environmental conditions.

(NUREG-0654, I.8.,10.,11. & Supplement 3.)

EXTENT OF PLAY:

- **Participants:** NC SERT

- Radiation Protection will establish an independent dose assessment and projection team at the State EOC. This team will communicate with the Utility EOF, State Mobile Lab and deployed field survey teams to obtain data for developing dose projections.

- Back-up dose assessment will be demonstrated at State EOC.

Criterion 2.b.2:

A decision-making process involving consideration of appropriate factors and necessary coordination is used to make protective action decisions (PADs) for the general public (including the recommendation for the use of KI, if ORO policy).

(NUREG-0654, J.9.,10.m.)

EXTENT OF PLAY:

- **Participants:** NC SERT, Chatham, Harnett, Lee & Wake Counties

- Radiation Protection and Public Health will analyze technical data and make recommendations to SERT Leader who in turn will make recommendations to the County EM Coordinators and Public Health Directors.

- Weather data will be pre-determined and will include a wind shift during the exercise in order to demonstrate OROs capability to adapt to changes requiring protective actions.

- Evaluated counties will participate in the decision making process for PADs.

- Demonstration of KI distribution for the General Public will be accomplished during Off-Scenario activity by local Public Health officials through discussion and with presentation of distribution documentation to the Federal Evaluator. (Demonstration will be during the Staff Assistance Visits.)

2.c – Protective Action Decisions for Protection of Special Populations:

Criterion 2.c.1:

Protective action decisions are made, as appropriate, for special population groups.

(NUREG-0654, J.9.,10.c.d.e.g.)

- **Participants:** Chatham, Harnett, Lee & Wake Counties

- Counties will demonstrate their procedures through discussion with the Federal Evaluator, by using a special populations list.

- Distribution of KI to institutionalized individuals, who cannot be evacuated, will be discussed with the Federal Evaluator.

3. PROTECTIVE ACTION IMPLEMENTATION

3.a – Implementation of Emergency Worker Exposure Control:

Criterion 3.a.1:

The OROs issue appropriate dosimeters and procedures, and manage radiological exposure to emergency workers in accordance with the plans and procedures. Emergency workers periodically and at the end of each mission read their dosimeters and record the readings on the appropriate exposure record or chart.

(NUREG-0654, K.3.)

EXTENT OF PLAY:

- **Participants:** NC SERT, Chatham, Harnett, Lee & Wake Counties

- Chatham, Lee, Harnett and Wake Counties will *demonstrate* their process during out-of-sequence activities.

- Radiation Protection will provide technical advice and assistance to the state and counties.

3.b – Implementation of KI Decision:

Criterion 3.b.1:

KI and appropriate instructions are available should a decision to recommend Use of KI be made. Appropriate record keeping of the administration of KI for emergency workers and institutionalized individuals is maintained.

(NUREG-0654, E.7., J.10. e, f.)

EXTENT OF PLAY:

- **Participants:** NC SERT, Chatham, Harnett, Lee & Wake Counties
- Demonstration of KI will be through "Discussion Only" at State and County EOCs.
- No distribution of actual or simulated KI will be accomplished during the exercise.
- Demonstration of KI distribution for the General Public will be accomplished during Off-Scenario activity by local Public Health officials through discussion and with presentation of distribution documentation to the Federal Evaluator. (Demonstration will be during the Staff Assistance Visit.)

3.c – Implementation of Protective Actions for Special Populations.

Criterion 3.c.1:

Protective action decisions are implemented for special population groups within areas subject to protective actions.

(NUREG-0654, E.7.,J.9.,10.c.d.e.g.)

EXTENT OF PLAY:

- **Participants:** Chatham, Harnett, Lee & Wake Counties
- A current list of Special Needs Populations will be provided to the Federal Evaluator for review.
- **Evacuation/relocation requirements will be demonstrated through discussions at the EOCs, based on the scenario and county implementation procedures.**

- *Distribution of KI to institutionalized individuals, who cannot be evacuated, will be discussed with the Federal Evaluator.*

- Contact via telephone with special population groups for PADs and transportation resources will be simulated.

Criterion 3.c.2:

OROs/School officials decide upon and implement protective actions for schools. **(NUREG-0654, J.10.c.,d.,g.)**

EXTENT OF PLAY:

- **Participants:** Wake County
- School evacuation procedures and interviews will be demonstrated via discussion with key school staff members, including school bus drivers, *off* scenario at a Fuquay Varina High School.

- Law enforcement agencies will discuss school bus escort procedures during their traffic and access control interviews as described in 3.d.

Wake Schools for evaluation include:

Fuquay-Varina Senior High School
Fuquay-Varina Middle School
Lincoln Heights Elementary School
Herbert Aikens Elementary School

Location:
Fuquay-Varina Senior High School
201 Bengal Drive
Fuquay-Varina, NC 27526

Time: Off-Scenario, **March 21, 2011 at 3:45 a.m.**

Chatham County

Chatham County will demonstrate Moncure Elementary School in 2013; it was last demonstrated in 2009.

3.d – Implementation of Traffic and Access Control.

Criterion 3.d.1:

Appropriate traffic and access control is established. Accurate instructions are provided to traffic and access control personnel.

(NUREG-0654, J.10.g, j, k.)

EXTENT OF PLAY:

Participants: SERT, Chatham, Harnett, Lee & Wake Counties

- Traffic control points will be discussed with the Federal Evaluator at each County EOC. Law enforcement personnel will discuss proper procedures, equipment and turn back values. At least one agency representative will be available for interview.

- When State is in direction & control the SERT Leader will determine appropriate access control measures to restrict access to contaminated areas.

Chatham County representatives available for interview include:
NC State Highway Patrol
Time: On-scenario, November 29, 2011

Harnett County Representatives available for interview include:
NC State Highway Patrol
Harnett County Sheriff's Department (Back-up)

Time: On-scenario, November 29, 2011

Lee County Representatives available for interview include:

Lee County Sheriff's Office
State Highway Patrol
Time: On-scenario, November 29, 2011

Wake County Representatives available for interview include:

Wake County Sheriff's Office
Time: On-scenario, November 29, 2011

Criterion 3.d.2:

Impediments to evacuation are identified and resolved

(NUREG-0654, J.10.,j.,k.)

EXTENT OF PLAY:

- Participants: NC SERT, Chatham, Harnett, Lee & Wake Counties
- During the interview process, as scheduled in 3.d.1 above, officers will identify impediments to evacuation based on a simulated set of circumstances and questions posed by the federal evaluator.

4. FIELD MEASUREMENT AND ANALYSIS

4.a – Plume Phase Field Measurement & Analysis

Criterion 4.a.1:

The field teams are equipped to perform field measurements of direct radiation exposure (cloud and ground shine) and to sample airborne radioiodine and particulates. (NUREG-0654, H.10, I.8., 9.,11.)

EXTENT OF PLAY**:**

- **Participants:** NC SERT, Radiation Protection
- Radiation Protection will demonstrate this criterion using two field survey teams.
- **This criterion will be demonstrated for "Training Only" as part of the joint federal/state partnership agreement.**

Criterion 4.a.2:

Field teams are managed to obtain sufficient information to help characterize the release and to control radiation exposure.

(NUREG-0654, I.8., 11., J.10.a).

EXTENT OF PLAY:

- **Participants:** NC SERT, Radiation Protection
- Radiation Protection will demonstrate this criterion using two field survey teams.

- **This criterion will be demonstrated for "Training Only" as part of the joint federal/state partnership agreement.**

Criterion 4.a.3:

Ambient radiation measurements are made and recorded at appropriate locations, and radioiodine and particulate samples are collected. Teams must move to an appropriate low background location to determine whether any significant (as specified in the plan and/or procedures) amount of radioactivity has been collected on the sampling media.

(NUREG-0654, I.8., 9., 11.)

EXTENT OF PLAY:

- **Participants:** NC SERT, Radiation Protection
- Radiation Protection will demonstrate this criterion using two field survey teams.
- **This criterion will be demonstrated for "Training Only" as part of the joint federal/state partnership agreement.**

4. c – Laboratory Operations

Criterion 4.c:

The laboratory is capable of performing required radiological analyses to support protective action decisions.

(NUREG-0654, C.3,I.8.,9.,J.11)

EXTENT OF PLAY:

Participants: NC Radiation Protection Fixed Laboratory

5. EMERGENCY NOTIFICATION AND PUBLIC INFORMATION

5.a – Activation of the Prompt Alert and Notification System:

Criterion 5.a.1:

Activities associated with primary alerting and notification of the public are completed in a timely manner following the initial decision by authorized offsite emergency officials to notify the public of an emergency situation. The initial instructional message to the public must include: (1) identification of the State or local government organization and the official with the authority for providing the

alert signal and instructional message; (2) identification of the commercial nuclear power plant and a statement that an emergency situation exists at the plant; (3) reference to REP-specific emergency information (e.g., brochures and information in telephone books) for use by the general public during an emergency; and (4) a closing statement asking the affected and potentially affected population to stay tuned for additional information.

(NUREG 10 CFR Part 50, Appendix E & NUREG-0654, E.1.,4.,5.,6.,7)

EXTENT OF PLAY:

- **Participants:** NC SERT, Chatham, Harnett, Lee & Wake Counties

- At Site Area Emergency North Carolina's counties will be in Direction and Control. Following the sounding of the sirens (using the "silent test") and the first PAD recommendations to the public, Wake County will request the state to take over direction and control.

- Wake County will be the "Lead County" and will coordinate the simulated siren activation. An actual silent test will be conducted to simulate the sounding of sirens. In the event of a siren failure, procedures to address siren failures will be discussed with federal evaluators.

- EAS messages will be in accordance with Part 11 of FCC Rules and Regulations, previously approved for North Carolina by FEMA.

- PAD messages and news releases will be coordinated by the state and counties.

Criterion 5.a.3:

Activities associated with FEMA approved exception areas (where applicable) are completed within 45 minutes following the initial decision by authorized offsite emergency officials to notify the public of an emergency situation. Backup alert and notification of the public is completed within 45 minutes following the detection by the ORO of a failure of the primary alert and notification system.

(NUREG-0654, E.6., Appendix 3.B.2.c.)

EXTENT OF PLAY:

- **Participants**: NC SERT, Chatham, Harnett, Lee & Wake Counties

- **An actual silent test will be conducted. A feedback sheet will show if a siren has failed and if backup route alerting around the failed siren would be necessary.**

- **If a siren is deemed to have failed, back-up alerting will be discussed with the federal evaluator for a pre-determined zone (siren failure simulated).**

- **Waterway Warning will be accomplished through a demonstration of Jordan Lake, Harris Lake, Cape Fear River, Haw River and Deep River at Jordan Lake (Off-scenario**.) NC Wildlife, *NC Park Service***, State Highway Patrol** Aviation **and US Army Corps of Engineers will have required number of boats available to complete the waterway warning in the time requirement. At least one boat will be available to take** federal evaluator out on the lake if requested. If bad weather occurs during this time, a discussion will occur with federal evaluators and above agencies.

- ***Depending on resource, allocation/weather conditions the SHP, aviation support may not be available. Discussion will be used in lieu of demonstration.***

- **The River/Trail area Warning** portion in Harnett County will be in discussion **format** during the off-scenario activities for back-up route alerting. **Harnett County is the back up to the State Highway Patrol aviation.**

- **Wake County will demonstrate this criteria via discussion at the Fuquay Staging Area, at the appropriate time in the scenario. An actual running of the route will not occur.**

5.b – Emergency Information and Instructions for the Public and the Media

Criterion 5.b.1:
OROs provide accurate emergency information and instructions to the public and the news media in a timely manner.
(NUREG-0654, E.5.,7., G.3.a., G.4.a.,b.,c.)

EXTENT OF PLAY:

- **Participants**: NC SERT, Chatham, Harnett, Lee & Wake Counties

- PIOs or designated staff will receive rumor control calls at the JIC once it is activated. Approximately six calls per hour will be made to each state and county ***Lead PIO or designee*** represented at the JIC.

- Counties will receive two calls per hour prior to the activation of the JIC and will prepare “one” news release. News releases shall come from the counties prior to JIC activation.

- Once JIC is operational, two trends will be identified and appropriate actions taken to address them.

- State will relocate the news writers to the SEOC. This is a physical re-assignment of people, but does not change the duties or coordination. **This will be demonstrated for Training Only.**

6. SUPPORT OPERATION/FACILITIES

6.a – Monitoring and Decontamination of Evacuees and Emergency Workers and Registration of Evacuees

Criterion 6.a.1:
The reception center/emergency worker facility has adequate space, resources and trained personnel to provide monitoring, decontamination and registration of emergency workers and evacuees.
(NUREG-0654, J.10.h; K.5.b.)

EXTENT OF PLAY:

- **Participants:** Chatham and Wake Counties
- One portal monitor will be demonstrated at each reception center.
- Six evacuees will be monitored; *two **(1 male and 1 female)*** will be found to be contaminated.
- Evacuee decontamination procedures will be via discussion and walk through of facilities (***No actual or simulated decontamination of evacuees***)
- Two emergency workers per county will be monitored.
- Emergency Worker decontamination procedures will be via discussion and walk through of facilities (***No actual decontamination of workers***).
- One emergency vehicle per county will be decontaminated (simulated using water)

Chatham County:

Public Reception Center, Monitoring and Decontamination:
Northwood High School
310 Northwood High School Road
Pittsboro, NC 27312
919/542-4181

Attention: SAME FACILITY; NEW INSIDE SETUP
Date & Time: Off-scenario, October 13, 2011 **at 7:00 p.m.**
Emergency Worker and Vehicle Decontamination:
Pittsboro Fire Department will demonstrate at:

Attention: NEW FACILITY
Old Graham Road Fire Station
4170 Old Graham Road
Pittsboro, NC 27312
919/542-1103

Date & Time: Off-scenario, October 11-13, 2011 at 7:00 p.m**.**

For training purposes only **previously demonstrated for evaluation was April 2007; will demonstrate for evaluation in 2013.**

Public Reception Center:
Garner Magnet High School
2101 Spring Drive
Garner, NC 27529

Date & Time: Off-scenario, October 26, 2011 at 8:00 p.m.

Public Vehicle Decontamination/Isolation
Garner Magnet High School
2101 Spring Drive
Garner, NC 27529

Date & Time: Off-scenario, October 26, 2011 at 8:00 p.m.

6.b – Monitoring and Decontamination of Emergency Worker Equipment:

Criterion 6.b.1:

The facility/ORO has adequate procedures and resources for the accomplishment of monitoring and decontamination of emergency worker equipment including vehicles.

(NUREG-0654, K.5.b.)

EXTENT OF PLAY:

Participants: Chatham, Harnett, Lee & Wake County.

- One vehicle will be monitored and decontaminated (simulated) at each of the following times and locations. ***If inclement weather occurs a discussion will be performed by the evaluator and the participants:***

Chatham County:

Pittsboro Fire Department will demonstrate at:

Attention: NEW FACILITY
Old Graham Road Fire Station
4170 Old Graham Road
Pittsboro, NC 27312
919/542-1103

Date & Time: Off-scenario, October 11, 2011 at 7:00 p.m.

For training purposes only **previously demonstrated for evaluation was April 2007; will demonstrate for evaluation in 2013.**

6.c – Temporary Care of Evacuees:

Criterion 6.c.1:
Managers of congregate care facilities demonstrate that the centers have resources to provide services and accommodations consistent with American Red Cross planning guidelines. Managers demonstrate the procedures to assure that evacuees have been monitored for contamination and have been decontaminated as appropriate prior to entering congregate care facilities.
(NUREG-0654, J.10.h.,12.)

EXTENT OF PLAY:

- **Participants:** Chatham and Wake Counties

Six individuals per monitoring site will be demonstrated.

The shelter portion of the congregate care facilities may demonstrate setup of the facility by using a "sampler" approach to the repetitive setup requirements. Examples would include such things as cots, bedding, chairs, etc.

Chatham County:

DSS, Public Health and American Red Cross will demonstrate at:

Northwood High School
310 Northwood High School Road
Pittsboro, NC 27312
919/542-4181
Date & Time: Off-scenario, October 13, 2011 at 7:00 p.m.

Wake County:

Wake County Human Services will demonstrate at

Garner Magnet High School
2101 Spring Drive
Garner, NC 27529

Date & Time: Off-scenario, October 26, 2011 at 8:00 p.m.

6.d – Transportation and Treatment of Contaminated Injured Individuals:

Criterion 6.d.1:
The facility/ORO has the appropriate space, adequate resources and trained personnel to provide transport, monitoring, decontamination and medical services to contaminated injured individuals. (NUREG-0654, F.2., H.10., K.5.a.,b., L.1.,4.)

EXTENT OF PLAY:

Rex Hospital will demonstrate this activity October 12, 2011.

Appendix E: Acronyms

Acronym	Meaning
AAC	After Action Conference
AAR	After Action Report
ARC	American Red Cross
ARCA	Area Requiring Corrective Action
ARES	Amateur Radio Emergency Services
CFR	Code of Federal Regulations
CMC	Corporate Media Center
DEMD	Deputy Emergency Management Director
DHS	Department of Homeland Security
DENR	Department of Environmental Natural Resources
DOC	Department of Commerce
DOE	Department of Energy
DOI	Department of the Interior
DOT	Department of Transportation
DPH	Department of Public Health
DRD	Direct Reading Dosimeter
DSS	Department of Social Services
EAL	Emergency Action Level
EAS	Emergency Alert System
ECL	Emergency Classification Level
EEG	Exercise Evaluation Guide
EMA	Emergency Management Agency
EMD	Emergency Management Director
EMNET	Emergency Management Information Tracking System
EMS	Emergency Medical Services
EOC	Emergency Operations Center
EOF	Emergency Operations Facility
EOPA	Extent of Play Agreement
EPA	Environmental Protection Agency
EPIP	Emergency Plan Implementing Procedure
EPZ	Emergency Planning Zone
ER	Emergency Room
ERC	Emergency Response Coordinator

ERDS	Emergency Response Data System
ERP	Emergency Response Plan
ESF	Emergency Support Function
EW	Emergency Worker
EWD	Emergency Worker Decontamination
EXPLAN	Exercise Plan
FEMA	Federal Emergency Management Agency
FEOC	Forward Emergency Operations Center
FMT	Field Monitoring Team
FOUO	For Official Use Only
FRMAC	Federal Radiological Monitoring and Assessment Center
GE	General Emergency
GIS	Geographic Information System
GM	Geiger-Muller (detector)
GPS	Geographic Positioning System
HAZMAT	Hazardous Materials
HNP	Harris Nuclear Plant
HO	Health Order
HQ	Headquarters
HSEEP	Homeland Security Exercise and Evaluation Program
IC	Incident Commander
ICS	Incident Command System
IMT	Incident Management Team
IP	Improvement Plan
IPZ	Ingestion Pathway Zone
IRG	Information Response Group
IRIS	Internet Routed Information System
JIC	Joint Information Center
KI	Potassium Iodide
LP-1	Local Primary -1
MNS	McGuire Nuclear Station
MOC	Mobile Operations Center
MOU	Memorandum of Understanding
mR	milliroentgen
mR/h	milliroentgen per hour

NAWAS	National Warning System
NC	North Carolina
NCEM	North Carolina Emergency Management
NCMP	North Carolina Marine Patrol
NCWRC	North Carolina Wildlife Resources Commission
NGO	Non-Governmental Organization
NHCEM	New Hanover County Emergency Management
NIMS	National Incident Management System
NOUE	Notification of Unusual Event
NPP	Nuclear Power Plant
NRC	Nuclear Regulatory Commission
NUREG-0654	NUREG-0654/FEMA-REP-1, Rev. 1, *"Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," November 1980*
NWS	National Weather Service
OOS	Out-of-Sequence
ORO	Offsite Response Organization
PA	Public Announcement
PAD	Protective Action Decision
PAG	Protective Action Guide
PAR	Protective Action Recommendation
PIO	Public Information Officer
PPE	Personal Protective Equipment
PRD	Permanent Record Dosimetry
R	Roentgen
R/h	Roentgen(s) per hour
RAC	Regional Assistance Committee
RACES	Radio Amateur Civil Emergency Service
REA	Radioactive Emergency Area
REM	Roentgen Equivalent Man
REMO	Radiation Emergency Management Organization
REP	Radiological Emergency Preparedness
REPP	Radiological Emergency Preparedness Program
RERP	Radiological Emergency Response Plan
RO	Radiological Officer

SAE	Site Area Emergency
SEOC	State Emergency Operations Center
SHP	State Highway Patrol
SIMCELL	Simulation Cell
SIP	Shelter-in-Place
SMRAP	Southern Mutual Radiological Assistance Plan
SOG	Standard Operating Guide
SOP	Standard Operating Procedure
SRD	Self-Reading Dosimeter
SSS	Selective Signaling System
TCL	Target Capabilities List
TCP	Traffic Control Point
THD	Technological Hazard Division
TLD	Thermoluminescent dosimeter
UNC-W	University of North Carolina - Wilmington
USCG	United States Coast Guard
USDA	U.S. Department of Agriculture
UTL	Universal Task List
VFD	Volunteer Fire Department

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