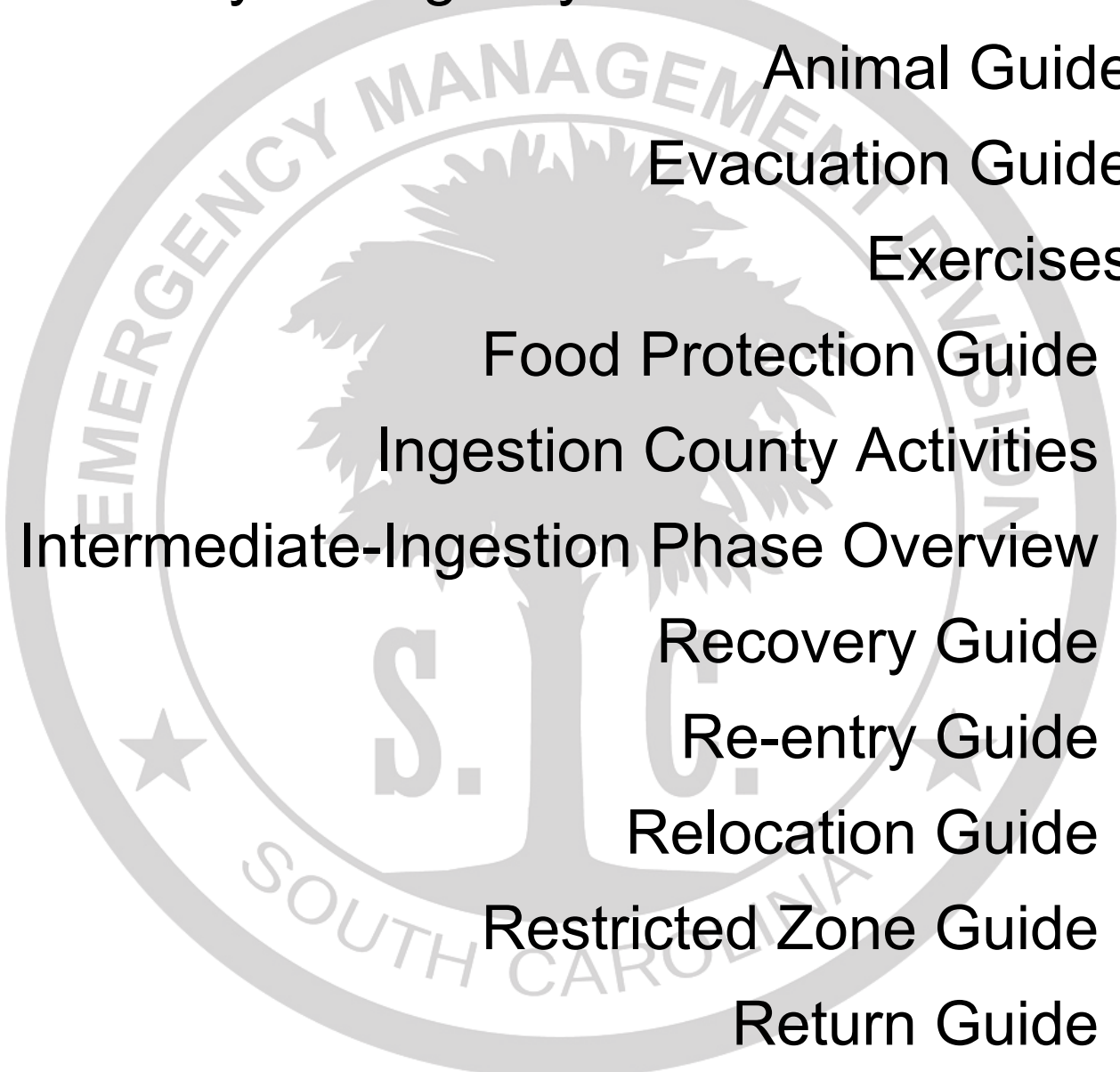




South Carolina
Emergency
Management
Division

Radiological Emergency Preparedness
Fact Sheets

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Radiological Emergency Preparedness

Activities by Emergency Level Classification

State of South Carolina

The state of South Carolina provides direction, control and coordination as outlined in the South Carolina Emergency Operations Plan (SCEOP) and South Carolina operational Radiological Emergency Operations Plan (SCORERP). The State Emergency Operations Center (SEOC) is operated using the incident command structure.

State Activities by Emergency Classification Level

Notification of Unusual Event (NOUE)

1. SCWP verifies county notification.
2. SCWP notifies ESF 10.
3. ESF 10 assesses situation with plant and confirms with SCEMD.
4. SCEMD notifies Governor's Office and OTAG.
5. Escalate response to more severe class if appropriate.
6. Standby until verbal notification of closeout.

NOTE: If the NOUE is due to declaration of Condition B at Lake Jocassee or Keowee Dam:

1. Alert downstream counties: confirm Pickens/Oconee Counties by phone
2. Partially activate the SEOC (Alert).
3. Place DNR/SCHP officers on standby. Consider SCDOT, if required.
4. Monitor conditions at Keowee Dam.

If Keowee Dam declares Condition A, SAE is declared by Oconee Nuclear Station.

Notification of Alert

1. SCWP verifies county notification.
2. SCWP notifies ESF 10.
3. ESF 10 assesses situation with plant and confirms with SCEMD.
4. SCEMD notifies Governor's Office and OTAG, North Carolina, Georgia and FEMA.
5. Governor considers declaring a State of Emergency.
6. Alert key emergency response personnel to standby status.
7. SCEMD Director will determine level of SEOC activation.
8. Consider activating a Joint Information Center and/or deploying Public Information LNOs.
9. Coordinate activation of siren system and EAS in 10-mile EPZ, if recommended.
10. Consider notification of 50-mile EPZ counties.

11. Consider dosimetry distribution.
12. Provide assistance requested from counties and facility.
13. Escalate response to more severe class if appropriate.
14. Maintain Alert status until verbal closeout or reduction of emergency class.
15. Consider deploying state LNOs to affected county EOC.

Site Area Emergency (SAE)

1. SCWP verifies county notification.
2. SCWP notifies ESF 10.
3. ESF 10 assesses situation with plant and confirms with SCEMD.
4. SCEMD coordinates protective action decisions with counties.
5. ESF 10/SCEMD recommends protective actions to Governor.
6. Coordinate activation of public alert system and EAS in 10-mile EPZ, if recommended. Provide public with periodic updates.
7. Prepare to activate shelters as needed.
8. SCEMD notifies State Emergency Response Team (SERT) to send representatives to SEOC.
9. SCEMD notifies Governor's Office, OTAG, North Carolina, Georgia and FEMA.
10. ESF 10 considers activation of mobile Operations Center (MOC).
11. SCEMD dispatches State liaison to affected county EOC(s).
12. Consider activating a Joint information Center and/or deploying Public Information LNOs. Provide periodic press updates for public within at least 10-mile EPZ.
13. Place other emergency personnel on standby status (e.g., those required for evacuation and dispatch to near-site duty stations).
14. ESF 8/10 considers if potassium iodide (KI) should be distributed to emergency workers.
15. ESF 10 considers distribution of KI to shelters, reception centers, hospitals, prisons and nursing homes.
16. Consider dosimetry distribution.
17. Establish 2-mile roadblocks and control access to the area on order.
18. Consider precautionary evacuation of 2-mile EPZ and sheltering of downwind areas.
19. Consider evacuation of lakes, rivers and forests.
20. Provide assistance requested by county and facility.

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Radiological Emergency Preparedness

Activities by Emergency Level Classification

21. Escalate to General Emergency, if appropriate.
22. Maintain Site Area Emergency status until closeout or reduction of emergency class.

General Emergency

1. SCWP verifies county notification.
2. SCWP notifies ESF10. ESF 10 coordinates with SCEMD and recommends protective actions.
3. ESF 8/10/SCEMD recommends areas for evacuation, sheltering and administration of KI to the Governor.
4. SCEMD obtains Governor's order for evacuation and/or sheltering.
5. ESF 8/10 coordinates distribution of KI to shelters, reception centers, hospitals, prisons and nursing homes.
6. SCEMD relays Governor's decision to affected counties.
7. Coordinate activation of public alert system and EAS in 10-mile EPZ, if recommended.
8. SCEMD notifies FEMA, North Carolina and Georgia.
9. SCEMD coordinates evacuation, sheltering and radiological monitoring, if required.
10. Provide periodic press updates for public within at least 10-mile EPZ.
11. Coordinate and allocate state support resources.
12. Request federal support as needed.
13. Provide protective actions in 50-mile EPZ.
14. Maintain General Emergency status until closeout or reduction in emergency class.

Risk County Government

Counties in the EPZ respond to incidents at nuclear generating plants in accordance with their emergency operations plans. Each county's activities are intended to protect lives and property, ensure continuity of government, provide essential services and support local units of government. The county activates its EOC to carry out these activities. The county EOC allows information to be exchanged between county departments and coordinates operations with other counties, state and federal agencies as well as tribal communities. County EOC staff is in direct contact with the state EOC and advised of all recommended protective actions.

Risk County Activities by Emergency Classification Level (ECL)

Notification of Unusual Event

1. Provide fire, medical or security assistance, if required.

2. Escalate response to more severe class if so notified.
3. Standby until verbal notification of closeout.

Alert

1. Provide fire, medical or security assistance on request.
2. Augment resources and bring EOC(s) to standby status. Consider activation of EOC(s) downwind from facility.
3. Bring alert and notification systems to standby status.
4. Activate siren system and EAS in 10-mile EPZ, if recommended.
5. Alert key personnel to standby status.
6. Consider precautionary evacuation of schools.
7. Notify host counties of Alert status.
8. Escalate to more severe class if notified.
9. Maintain Alert status until verbal notification of closeout or reduction of emergency class.
10. Consider deploying county PIO to JIC, if activated.

Site Area Emergency

1. Activate EOC and emergency personnel to full status.
2. Dispatch representatives to the Joint Information Center.
3. Issue dosimeters and KI (if recommended by SCEMD/ESF 10) to emergency workers.
4. Be prepared to assist with radiological monitoring on request.
5. After coordination with SEOC, activate public alert system in 10-mile EPZ (fixed mobile or electronic tone signal), if recommended.
6. Broadcast notification information on direction of the County PIO.
7. Prepare to activate shelters as needed. Notify host counties of impending shelter activation.
8. Establish predetermined Traffic Control Points.
9. Direct protective actions as recommended and deemed appropriate.
10. Request State assistance as needed
11. In an immediate emergency when the SEOC is not operational:
 - a. Initiate protective actions recommended by plant as appropriate;
 - b. Activate the public alert system and EAS for 10-mile EPZ; and
 - c. Take actions appropriate at SAE and Alert.
12. Escalate to General Emergency, if required.
13. Maintain Site Area Emergency status until closeout or reduction of emergency class.

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Radiological Emergency Preparedness

Activities by Emergency Level Classification

General Emergency

1. Activate shelters as needed.
2. Conduct evacuation and/or sheltering as ordered by Governor.
3. Conduct off-site emergency worker radiological monitoring and decontamination as required.
4. Broadcast notification information on direction of the county PIO at the JIC.
5. Provide security for evacuated area.
6. Request state assistance as needed.
7. Direct protective actions as recommended and deemed appropriate.

Utility

Control room operators monitor the operation of nuclear generating plants continuously. When an unexpected event occurs, its effects on the public are evaluated. If necessary, the utility communicates an ECL to federal, state and county governments.

Licensee Activities by Emergency Classification Level (ECL) Notification of Unusual Event

1. Promptly inform SCWP and affected counties of nature of unusual condition as soon as discovered.
2. Augment on-shift resources.
3. Assess and respond.
4. Escalate to a more severe class, if appropriate.
5. Closeout with verbal or written summary to offsite authorities.

Alert

1. Promptly inform SCWP and affected counties of Alert status.
2. Augment resources, activate onsite Technical Support Center (TSC) and onsite Operational Support Center (OSC). Emergency Operations Facility (EOF) and other key personnel to standby.
3. Assess and respond.
4. Consider activating the Joint Information Center.
5. Dispatch onsite monitoring teams and associated communications.
6. Provide plant status updates to offsite authorities (*at least once every hour*).
7. Provide periodic meteorological assessments to offsite authorities and dose estimates for actual releases.
8. Escalate to a more severe class, if appropriate.

9. Closeout or recommend reduction in emergency class to offsite authorities.

Site Area Emergency

1. Promptly inform SCWP and affected counties of Site Area Emergency.
2. Augment resources by activating onsite TSC, onsite OSC and near-site EOF.
3. Assess and respond.
4. Dispatch onsite and offsite monitoring teams and communications
5. Activate Joint Information Center.
6. Provide a dedicated individual for plant status updates to offsite authorities and periodic press briefings.
7. Make senior technical and management staff onsite available for consultation with NRC and State on a periodic basis.
8. Provide meteorological and dose estimates to offsite authorities for actual release via a dedicated individual or automated data transmission system.
9. Provide release and dose projections based on available plant condition information and foreseeable contingencies.
10. Escalate to General Emergency, if appropriate.
11. Closeout or recommend reduction in emergency class by briefing the offsite authorities at EOF and by phone.

General Emergency

1. Promptly inform SCWP and affected counties of General Emergency.
2. Recommend protective actions necessary for public protection.
3. Augment resources by activating onsite TSC, onsite OSC and near-site EOF.
4. Assess and respond.
5. Dispatch onsite and offsite monitoring teams and communications.
6. Provide a dedicated individual for plant status updates to offsite authorities and periodic press briefings.
7. Make senior technical and management staff onsite available for consultation with NRC and State on a periodic basis.
8. Provide meteorological and dose estimates to offsite authorities for actual releases via a dedicated individual or automated data transmission.

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Radiological Emergency Preparedness

Activities by Emergency Level Classification

9. Provide release and dose projections based on available plant condition information and foreseeable contingencies.
10. Closeout or recommend reduction of emergency class by briefing of offsite authorities at EOC and/or by phone.

Intermediate/Ingestion Phase

When the release has ended and the situation brought under control, attention shifts from the immediate actions of the plume phase to the longer term issues of the ingestion phase. These include the establishment of relocation areas, restricted zones, re-entry protocols, return protocols, recovery and additional food control measures.

Relocation Areas Established:

- The initial post-plume priority is to determine if there is contamination in areas outside of the initial evacuation areas that require additional measures (evacuation or relocation) to protect the public.
- Relocation areas are where the removal or continued exclusion of people from contaminated areas is needed to avoid chronic (long-term) radiation exposure.
- These areas are established anywhere there is a concern about long-term exposure due to contamination.
- Relocation from an area is indicated when soil samples exceed EPA protective action guidelines for 1-year, 2-year or 50-year periods of occupancy.

Re-entry/Return Protocols Established

- The orderly return of people to areas where there was no contamination or there is no long-term exposure health risk.
- Following verification and establishment of restricted zone boundaries and traffic control points, some areas can be cleared for return to unrestricted residence or use.
- The timing of the return is coordinated with state and local agencies.

- Although people can return, some of these areas may still have low-level contamination and may require some ingestion pathway food controls or restrictions.

Recovery

- Recovery will involve continued and extensive field sampling, damage and impact assessments and the coordination of federal assistance and nuclear insurance benefits.
- Coordinate remediation of contamination and restoration to pre-event conditions and activities.

Food Control Measures

- Food protections begin with the issuing of a livestock advisory during the site area emergency and an embargo order during the general emergency for all affected areas where evacuation or sheltering has taken place.
- Additional controls may be put in place following the results of field sampling during the intermediate/ingestion phase.
- Additional food embargoes are mandated when lab analysis indicates radiation levels exceeding strict FDA guidelines for annual consumption.
- Food control decisions emphasize public protection and balance the long- and short-term implications for economic damage to the state.

Risk County Activities

- Coordinate establishment of relocation areas, restricted areas, re-entry and return with the state.
- Coordinate recovery issues with the state.

Ingestion County Activities

- Receive initial notification of emergency from the SEOC.
- Notify appropriate officials as needed.
- Prepare to receive ingestion brochures and distribute them to food producers in the county.
- Coordinate with the state on the embargo and protection of food products in the county.
- Maintain communications with the SEOC.
- Coordinate any implementation or relocation areas, restricted areas, re-entry and return with the SEOC.

Fact Sheet

Radiological Emergency Preparedness Animal Guide for Emergency Managers

Classes of Animals

There are four possible classes of animals that we may need to be prepared to address:

1. **Livestock** - Includes farm animals such as cattle, sheep, hogs, and poultry.
2. **Exhibition/Large Animals** - Animals intended for show or recreational purposes; not consumption, and not a household pet.
3. **Household Pets** - Domesticated pets including dogs, cats, birds, turtles, rabbits, etc. (can travel in commercial carriers).
4. **Service Animals** - Guide dogs or other animals trained to provide assistance to an individual with a disability.

State Activities by Emergency Classification Level (ECL):

These are the activities that are specific to animal planning and evacuation.

Alert

- As part of the messaging, animal owners are advised of the situation and of the shelter or evacuation decision.
- At this point some owners relocate their exhibition animals (i.e., put the horses into trailers and leave the area).

Site Area Emergency (SAE)

- People are advised to prepare for an evacuation (including preparing to evacuate their household pets or service animal).
- The South Carolina Department of Agriculture in conjunction with the Governor and South Carolina

Department of Health and Environment Control may issue a Livestock Advisory, for livestock owners to shelter their animals and place them on stored feed and water.

General Emergency (GE)

- An evacuation order is given for people in the affected area. Animal advisories are issued well before this, so people at this point can prioritize themselves.
- Evacuees should bring identification, health and immunization records, prescription medications, travel cages and handling equipment for their household pets and service animals to the Reception Centers.
- The South Carolina Department of Agriculture may embargo all shipments of food, feed, livestock, and poultry into and out of the affected area.

Considerations for Evacuation of Animals

- Pre-identify a place to bring your exhibition/large animals and transportation needs.
- Obtain copies of your records (ownership, vaccination, etc.) that are ready to take with you in case you have to evacuate, or leave and shelter your animals.

Discussion Questions for Animal Planning

- How much food and water do you have on hand? Is it stored and covered?
- How many cages will be needed at the reception center to accommodate all the pets?

Fact Sheet

Radiological Emergency Preparedness Evacuation Guide for Emergency Managers

Purpose of this Fact Sheet

This fact sheet is designed to assist in evacuation planning following an incident at a nuclear generating plant, helping to coordinate state and local activities. This fact sheet does not supersede any plans, procedures or guidelines currently in use.

Evacuation is the temporary removal of people (homes, residence, business, etc.) from potential endangered areas to avoid possible exposure to radiation.

Evacuation Procedures

Once you have been notified to evacuate (EAS – Emergency Alert System by radio, television, PA, etc.), follow the instructions given by local and state authorities.

- Stay calm
- Close all structure doors and windows
- Prepare home as leaving on vacation
- Post “NOTIFIED” sign for authorities
- Assist neighbors as needed and if possible
- Report to your county/zone Reception Center
- Keep vehicle windows and vents closed
- During a General Emergency evacuation, administer potassium iodide (KI) when directed and if available
- Do not delay your evacuation to locate or administer KI

Potassium Iodide (KI)

Digestion of potassium iodide is a supplemental protective action to support evacuation. Taken orally, KI only protects the thyroid gland from exposure to radioactive iodine.

Evacuation Items

Bring the following items for evacuation:

- Personal identification
- Prescription medications
- Baby formula and diapers
- Cash, checkbook and credit cards
- Clothing x1 week per person
- Portable radio, flashlight and extra batteries
- First aid kit
- Potassium iodide (KI)
- Personal hygiene items
- Bedding (sleeping bags and pillows)
- Household pets, kennels, supplies and food
- Wet wipes and/or towels

Reception Centers

There are pre-designated county emergency facilities, located outside the plume exposure pathway, to report to for evacuation and evaluation. The following will occur at the reception center:

- Radiological monitoring for contamination (people, pets and vehicles)
- Decontamination, if needed
- Registration
- Medical assistance, if needed

Where to Stay

After registering at the emergency reception center, you can stay with relatives or friends outside of the affected area or at a congregate care center/shelter operated by the American Red Cross or other agency

Special Needs

Local emergency management officials will assist those unable to evacuate on their own. This includes the elderly, physically challenged, hearing impaired, blind, someone without transportation or other needs.

School Children

During a Site Area Emergency or a General Emergency, school children and teachers may be evacuated (bused) to a sister school outside the 10-mile Emergency Planning Zone (EPZ) or pick up point. Children will be fed, sheltered and supervised until parents come for them at the relocation facility. Public information will inform parents of the pick-up location. Parents should not go to their child’s school during the evacuation process. Parents should discuss the evacuation process with their children and tell them they will be picked up at an alternate location. Children who live within the 10-mile EPZ but attend school outside the 10-mile EPZ will not be bused home during an emergency. Parents should pick them up at their current school.

Discussion Questions for Evacuation

- How much time will they be allotted to leave?
- What will you do if they do not leave their homes?
- Are any special services needed for evacuated individuals?
- How would you provide transportation assistance to people who need to evacuate?

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Radiological Emergency Preparedness REP Exercises

Regulatory Requirement for REP Exercises

FEMA and the US Nuclear Regulatory Commission (NRC) cooperate to promote and regulate Radiological Emergency Preparedness in communities near commercial power plants. The responsibilities of FEMA and the NRC in this regard derive from executive and Congressional actions following the March 1979 accident at Three Mile Island nuclear power station.

FEMA is the lead Federal agency for providing assistance to State, Tribal and local governments and for review and evaluation of REP plans and exercises.

Congress directed the NRC to establish emergency preparedness as a criterion for licensing a commercial nuclear power facilities. The NRC is prohibited from issuing an operating license for a power plant unless it finds that “there exists a state, local, or utility plan which provides reasonable assurance that public health and safety is not endangered by the operation of the facility concerned.”

FEMA has issued regulations outlining the process and standards with which they will evaluate the REP program.

FEMA Regulation 44 CFR §350

- Incorporates the joint FEMA/NRC guidance document, NUREG-0654/FEMA-REP-1
- Each state which has a commercial nuclear power plant within its boundaries shall fully participate in an exercise jointly with the nuclear power plant licensee and appropriate local governments at least every two years.

Each state with multiple sites within its boundaries shall fully participate in a joint exercise at some site on a rotational basis at least every two years. When not fully participating in an exercise at a site, the state shall partially participate at that site to support the full participation of appropriate local governments.

FEMA REP Exercise Evaluation Area Criteria

The REP exercise evaluation area criteria restate, in a functional manner, those planning standards and evaluation criteria of NUREG-0654/FEMA-REP-1 that can be demonstrated and observed in exercises. Some evaluation area criteria focus on fundamental radiological emergency response capabilities and should be demonstrated in every exercise. Other evaluation area criteria focus on important

emergency preparedness capabilities that should be demonstrated at least once every eight years by each organization with responsibility for them.

1 – EMERGENCY OPERATIONS MANAGEMENT

1.a – Mobilization – Every Exercise

1.a.1: OROs use effective procedures to alert, notify and mobilize emergency personnel and activate facilities in a timely manner.

1.b – Facilities – Every Exercise

1.b.1: Facilities are sufficient to support the emergency response.

1.c – Direction and Control – Every Exercise

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.

1.d – Communications Equipment – Every Exercise

1.d.1: At least two communication systems are available, at least one operates properly and communication links are established and maintained with appropriate locations. Communications capabilities are managed in support of emergency operations.

1.e – Equipment and Supplies to Support Operations – Every Exercise

1.e.1: Equipment, maps, displays, dosimetry, potassium iodide (KI) and other supplies are sufficient to support emergency operations.

2 – PROTECTIVE ACTION DECISION MAKING

2.a – Emergency Worker Exposure Control – Every Exercise

2.a.1: OROs use a decision-making process, considering relevant factors and appropriate coordination to ensure 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.

2.b – Radiological Assessment and Protective Action Recommendations and Decisions for the Plume Phase of the Emergency – Every Exercise

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

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**Radiological Emergency Preparedness
REP Exercises**

well as knowledge of onsite and offsite environmental conditions

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)

2.c – Protective Action Decision Consideration for the Protection of persons with disabilities and access/functional Needs – Every Exercise

2.c.1: Protective action decisions are made, as appropriate, for groups of persons with disabilities and access/functional needs

2.d – Radiological Assessment and Decision-Making for the Ingestion Exposure Pathway – Once in 8 years

2.d.1: Radiological consequences for the ingestion pathway are assessed and appropriate protective action decisions are made based on the ORO planning criteria.

2.e – Radiological Assessment and Decision-Making Concerning Post-Plume Phase Relocation, Re-entry and Return – Once in 8 years

2.e.1: Timely post-plume phase relocation, re-entry and return decisions are made and coordinated as appropriate, based on assessments of radiological conditions and criteria in the ORO’s plan and/or procedures.

3 – PROTECTIVE ACTION IMPLEMENTATIONS

3.a – Implementation of Emergency Worker Exposure Control – Every Exercise

3.a.1: The OROs issue appropriate dosimetry, KI and procedures, and manage radiological exposure to emergency workers in accordance with the plan/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. OROs maintain appropriate recordkeeping of the administration of KI to emergency workers.

3.b – Implementation of KI Decision for Institutionalized Individuals and the General Public – Once in 8 Years

3.b.1: KI and appropriate instructions are available if a decision to recommend use of KI is made. Appropriate record-keeping of the administration of KI for institutionalized individuals is maintained.

3.c – Implementation of Protective Actions for persons with disabilities and access/functional needs – Once in 8 years

3.c.1: Protective action decisions are implemented for persons with disabilities and those with access/functional needs other than schools within areas subject to protective actions.

3.c.2: OROs/School officials implement protective actions for schools.

3.d – Implementation of Traffic and Access Control – Every Exercise

3.d.1: Appropriate traffic and access control is established. Accurate instructions are provided to traffic and access control personnel.

3.d.2: Impediments to evacuation are identified and resolved.

3.e – Implementation of Ingestion Pathway Decisions – Once in 8 years

3.e.1: The ORO demonstrates the availability and appropriate use of adequate information regarding water, food supplies, milk and agricultural production within the ingestion exposure pathway emergency planning zone for implementation of protective actions .

3.e.2: Appropriate measures, strategies and pre-printed instruction material are developed for implementing protective action decisions for contaminated water, food products, milk and agricultural production.

3.f – Implementation of Post-Plume Phase Relocation, Re-entry and Return Decisions – Once in 8 years

3.f.1: Decisions regarding controlled re-entry of emergency workers and relocation and return of the public during the post-emergency phase are coordinated with appropriate organizations and implemented.

4 – FIELD MEASUREMENT AND ANALYSIS

4.a – Plume Phase Field Measurement and Analyses – Every full participation exercise

4.a.1: (RESERVED)

4.a.2: Field teams (2 or more) are managed to obtain sufficient information to help characterize the release and to control radiation exposure.

4.a.3: Ambient radiation measurements are made and recorded at appropriate locations, and radioiodine and particulate samples are collected.

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Radiological Emergency Preparedness REP Exercises

Teams will move to an appropriate low background location to determine whether any significant (as specified in the plan and/or procedures) amount of radioactive has been collected on the sampling media.

4.b – Post-plume Phase Field Measurements and Sampling – Once in 8 years

4.b.1: The field teams (2 or more) demonstrate the capability to make appropriate measurements and to collect appropriate samples (e.g., food crops, milk, vegetation, water and soil) to support adequate assessments and protective action decision-making.

4.c – Laboratory operation – Once in 8 years

4.c.1: The laboratory is capable of performing required radiological analyses to support protective action decisions.

5 – EMERGENCY NOTIFICATION AND PUBLIC INFORMATION

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

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 as a minimum the elements required by current REP guidance.

5.a.2: (RESERVED)

5.a.3: Backup alert and notification of the public is completed within a reasonable time following the detection by the ORO of a failure of the primary alert and notification system – Once in 8 years

5.a.4: Activities associated with FEMA approved exception areas (where applicable) are completed within 45 minutes of the initial decision by authorized offsite emergency officials to notify the public of an emergency situation.

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

5.b.1: OROs provide accurate emergency information and instructions to the public and the news media in a timely manner

6 – SUPPORT OPERATION/FACILITIES

6.a – Monitoring, Decontamination and Registration of Evacuees – Once in 8 years

6.a.1: The reception center facility has appropriate space, adequate resources and trained personnel to provide monitoring, decontamination and registration of evacuees.

6.b – Monitoring and Decontamination of Emergency Workers and their Equipment and Vehicles – Once in 8 years

6.b.1: The facility/ORO has adequate procedures and resources to accomplish monitoring and decontamination of emergency workers and their equipment and vehicles.

6.c – Temporary Care of Evacuees – Once in 8 years

6.c.1: Managers of congregate care facilities demonstrate that the centers have resources to provide services and accommodations consistent with planning guidelines. Managers demonstrate the procedures to assure that evacuees have been monitored for contamination and have been decontaminated as appropriate before entering congregate care facilities.

6.d – Transportation and Treatment of Contaminated Injured Individuals – Every Exercise

6.d.1: The facility/ORO has the appropriate space, adequate resource and trained personnel to provide transport, monitoring, decontamination and medical services to contaminated injured individuals.

Thousands of Items Evaluated

The criteria, as outlined above, function as a general organizing principal for exercise demonstration and evaluation purposes. At each physical location (State EOC, County EOC, Reception Center, etc.), there are numerous criteria selected for evaluation resulting in several hundred (areas" to evaluate. Each "area" may involve the examination of as many as 10 specific "items" producing several thousand total "items" examined by FEMA.

For example, when FMEA evaluates the State's initial warning point, they select criteria 1.a.1 and 1.d.1 for evaluation. These criteria are also selected elsewhere. For instance, Criterion 1.a.1 is also selected for evaluation at the State Emergency Operations Center, the Joint Information Center, the State RAD Team Command Vehicle, the two State Field Teams, the Regional Program

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Radiological Emergency Preparedness REP Exercises

Coordinators, the County Initial Warning Points and the County EOCs.

Criterion 1.a.1 is then subdivided further so that FEMA can examine and evaluate the following:

- Who notifies the ORO of the situation/emergency classification level (ECL)?
- Will the notifications be made in the same manner if the ECL changes?
- What method of notification to the facility should be used for each ECL notification?
- Is verification of ECL changes required?
- As the ECL changes, what staff and other notifications are required? By what means?
- Are key positions within the EOC/facility identified in the ORO's plan/procedure? If so, what are they and which ones require 24-hour staffing?
- If applicable, what is the criteria for the Emergency Operations Center (EOC)/facility to be declared activated and subsequently, operational?
- Does the extent of play agreement allow for repositioning of any participants?
- Does the extent of play agreement allow for any simulation?
- Are any out of sequence demonstrations required? If so, what, when and where?

Exercise Scenario

The scenario for a simulated nuclear power plant accident is developed jointly by the State and Licensee and includes plant conditions and offsite consequences sufficient to drive activities necessary for the demonstration of the agreed-upon exercise evaluation area criteria. The scenario is submitted to the FEMA Regional Offices for review and includes the following information:

- A chronology of all key events
- A narrative description of exercise events and activities
- Meteorological data and forecasts
- Radiological data, e.g., characteristics of release, projected dose, exposure rates and concentrations in the environment
- Injects which include simulated traffic impediments and interruption of communication
- Simulated calls to the information hotline for identifying and tracking rumors and trends

- Out-of-sequence scenarios for the hospital and ambulance

Plume Phase Exercise

During a plume phase exercise, a simulated accident occurs at a Nuclear Generating Plant resulting in the declaration of either a Notification of Unusual Event (NOUE) or an Alert Emergency Classification Level (ECL). Throughout the course of the exercise, simulated conditions continue to worsen and the ECL escalates to a Site Area Emergency (SAE) and ultimately to a General Emergency (GE).

The State of SC and the risk counties within the 10-mile EPZ are required to demonstrate many tasks including:

- Setting up and activating their EOCs
- Establishing direction and control of the situation
- Demonstration of functional backup communications
- Demonstrating public messaging and media briefings
- Evacuation of school children and special populations
- Evacuation of the public (simulated)
- Rerouting of traffic around simulated impediments

State-only Requirements include:

- Staffing a public information hotline to track rumors and trends
- Dose assessment and plume modeling
- Use of field teams to track the plume

In order to demonstrate many of the activities listed above, exercise controllers need to supply information about the various simulated conditions to different players at the proper time. These include:

- Information about traffic impediments to reroute traffic
- Artificial loss of communications to demonstrate backup capabilities
- People calling into the public information hotline with pre-scripted calls
- Mock media to ask questions during the media briefings
- Release rate and meteorological conditions for plume modeling and dose assessment
- Field team sampling date for plume tracking

Fact Sheet

Radiological Emergency Preparedness REP Exercises

Intermediate /Ingestion Phase Exercise

Some evaluation criteria are required to be demonstrated once in every 8-year cycle. These include, but are not limited, to the following:

- Decision-making and implementation of ingestion phase Protective Action Recommendation (PARs)
- Radiological assessment, decision-making and implementation of re-entry, relocation and return
- Post-plume field measuring and sampling
- Laboratory operations

Demonstration of these evaluation area criteria requires an extra day where the Emergency Operations Centers in the State and Risk counties are active. There is also participation of some of the counties within the 5-mile Ingestion Planning Zone (IPZ) as well as participation of Federal Agencies, which may include:

- FRMAC
- USDA
- FDA
- CDC
- FEMA
- USDOT

Additionally, more controller data is required to support this phase of the exercise.

- Injects to drive responses directed towards re-entry, relocation, return, food protections

- Field team plume deposition data
- Maps that have incorporated field measurement data and radiological doses
- Samples necessary for laboratory analysis

Out-of-Sequence Demonstrations

Due to the limited number of available controllers and evaluators and the time constraints placed upon a typical exercise, many criteria are demonstrated out-of-sequence with the rest of the exercise:

- Emergency Worker monitoring and decontamination
- Reception Centers
 - Monitoring and decontamination of general public vehicles
 - Monitoring and decontamination of evacuated people
 - Monitoring and decontamination of pets
 - Registration of the evacuees
- Ambulances
- Hospitals
- Schools
- Laboratory Demonstrations

Fact Sheet

Radiological Emergency Preparedness

Food Protection Guide for Emergency Managers

Purpose of this Fact Sheet

This fact sheet is designed to augment planning for food control measures following an incident at a nuclear generating plant. This fact sheet does not supersede any plans, procedures or guidelines currently in use.

Food protections begin in the plume phase:

Site Area Emergency

Livestock advisory is issued for the entire 10-mile emergency planning zone (EPZ). The Department of Agriculture in conjunction with the Department of Health and Environmental Control also will issue a media release outlining the appropriate protective actions for livestock.

General Emergency

The Department of Agriculture may issue an embargo order to all areas where protective action recommendations (PAR) to evacuate or shelter have been mandated.

Embargo refers to protecting the food supply by preventing food and feeds from entering commerce and otherwise acting to limit human consumption. The water supply may also be subject to embargo.

Additional controls may be put in place following the results of field sampling during the intermediate ingestion phase.

Additional food embargoes are mandated when lab analysis indicates radiation levels exceeding strict Food and Drug Administration (FDA) guidelines for annual consumption.

Protective Action Guideline

The guidelines issued by the FDA establish revised protective action guidelines (PAG) that restrict:

- Internal whole body radiation dose (committed effective dose equivalent – CEDE) to 0.5 rem or
- Internal radiation dose to a single organ (committed dose equivalent – CDE) to 5 rem, whichever is most limiting
- In addition, the water supplies are subject to the Environmental Protection Agency (EPA) Clean Water Act with limits of 0.004 rem per year.

The FDA PAGs are expressed in terms of measurable quantities called derived intervention levels (DIL). DILs are limits on the concentration of radioactive material in food. A DIL corresponds to the concentration of radioactivity in food, which could lead to an individual receiving a dose equal to or greater than the FDA PAG if no intervention was taken for one year.

Basis for Guidelines

FDA guidance is based on preventing contaminated items from entering the food chain. The FDA limit is based on an individual consuming that product in proportion to the total diet for one year.

This limit is conservative so there is no immediate health impact but there is urgency in taking protective action. The high priority item is **milk from any source** since grazing concentrates the amount of radioactive iodine in milk and poses the greatest risk exposure to a child's thyroid.

Other food products and feed are dependent upon the growing season and when the product is being taken to market.

Note: Counties within the 10-mile EPZ will already be in the process of dealing with embargoes, since embargo orders will be in place from the plume phase. This needs to be considered during protective action recommendation (PAR) approval and initial implementation planning.

Protective Action Recommendations

The Department of Health and Environmental Control (DHEC) will develop the PAR for food protection.

- A map detailing the affected area will be provided.
- The Department of Agriculture will be asked to prepare a list of the growers, producers and distributors affected in relation to the growing season.
- A technical advisor will explain this PAR in terms of risk level so that the state incident manager (SIM) and operations chief can communicate it to the governor or governor's authorized representative (GAR), state agencies and counties.
- After the PAR is coordinated with the state and county agencies, it will be given to a SIM for approval. Once approved, it becomes a protective action decision (PAD).

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Radiological Emergency Preparedness

Food Protection Guide for Emergency Managers

- A media release about the PAD will be made through the joint information center (JIC).
- An initial implementation plan will be developed after the PAR is approved.

Considerations for Implementation of Food Protection

Food control decisions emphasize public protection and balance the long- and short-term implications for economic damage to the state:

The following guidance may be used to develop an initial implementation plan:

1. A high priority on the sample plan is to survey farms inside the embargoed area to determine if contamination is present with the goal of rezoning the embargoed area.
2. Review normal food protections and processing actions to mitigate any additional cross-contamination.
3. Discuss if stations can be setup where produce, food or feed in transit may go to be tested and reimbursed for added expense and if food is condemned (**state/American Nuclear Insurers – ANI**)
4. Request the county assist with designation of testing and reimbursement sites (e.g., identify large areas where many vehicles may be parked – county assembly sites if not in use) (**state, county**)
5. Designate how traffic control points should be setup. Is law enforcement required at each intersection around the embargoed area? (**state, county**)
6. Designate intersections where the traffic control points will be located and determine if extra staffing is needed. (**State HP, county**)
7. Develop a media release for residents and immobile populations (e.g., hospitals) regarding safe food/water handling (**JIC**)
8. Contact rail and road transporters to return shipments for testing (**SCDOT**)
9. Determine where embargoed products will be disposed (**state, county**)
10. Ensure that ingestion brochure distribution is taking place in the counties (**state, county**)
11. Discuss strategies weighing both the minimization of the embargo's short-term economic damage versus the long-term reputation of SC agriculture. Develop strategies for food products that exceed the DIL (**state**)

12. Accurate and coordinated media releases
 - a. Request PIO from the county or local jurisdiction to come to the JIC.
 - b. Coordinate state agencies for a media release

Hunting and Fishing Considerations

Hunting and fishing restrictions may be larger in area than that of an embargo. This is due to the transitory nature of wildlife and fish. The season of the year will also play a role in this recommendation. The SC Department of Natural Resources (DNR) is the agency responsible for implementation and enforcement.

Long-Term Ingestion Issues

Milk Protection Considerations

1. What types of protection actions would be imposed and by whom to protect the milk supply?
2. How many dairy farms were affected?
3. How would embargoes be enforced?
4. How will a long-term milk sampling program be enforced?
5. How will contaminated feed and milk be disposed?
6. How will the information be distributed to farmers regarding the protective action decisions?
7. Is it likely that all dairy farms will be unable to put livestock on stored feed and covered water?
8. How is animal feed obtained, paid for and transported into the embargo area?
9. How will contaminated milk be disposed?

Food Protection Considerations

1. What protective actions would be imposed to protect the food supply?
2. What crops are in various stages of growing/harvesting? Will they be treated the same?
3. Will contaminated farms be able to plant next year?
4. What is an estimated value for affected farms/crops/agricultural products? To whom do you provide this information?
5. How many food processing plants were affected?
6. How will food product movement within the state and outside the state be controlled?
7. How will contaminated food/crops be disposed?
8. What steps can be taken to insure the non-contamination of South Carolina agricultural products?
9. Will personal gardens be sampled? How?
10. Are food shortages anticipated?

Radiological Emergency Preparedness

Food Protection Guide for Emergency Managers

Livestock Protection Considerations

1. What protective actions would be imposed to protect livestock?
2. What services would farmers require for care of livestock (particularly if they are unwilling to re-enter to tend their herds)?
3. What methods will be used to dispose of contaminated farm animals and animals which may have died or need to be euthanized?
4. How would meat be sampled and how would the public perception of mass contamination be dealt with?
5. How would farm animals be decontaminated? Would that be done?

Wildlife Protection Considerations

1. What is the present hunting and fishing season?
2. What protective actions would be made regarding fish? Game? Fowl, etc.?
3. What would be a strategy for long-term sampling?
4. Who is responsible for mushroom and berry picking restrictions and sampling?
5. Where would restrictions be placed?
6. Is the river safe for fishing and recreational use?

Fact Sheet

Radiological Emergency Preparedness

Ingestion County Activities by Emergency Level Classification

State of South Carolina

New federal mandates require the ingestion counties to participate in a full scale exercise, tabletop exercise or training every eight years. The mandates also include specific planning requirements and enhancements to county emergency operations plans.

The State of South Carolina provides direction, control and coordination as outlined in the South Carolina Emergency Operations Plan (SCEOP) and South Carolina Operational Radiological Emergency Response Plan (SCORERP) for nuclear generating plant preparedness and actual emergencies.

The counties in the 50 mile radius are considered Ingestion Counties and would be asked to support the response necessary to protect population from long-term exposure and the food supply from radiological material contamination. Ingestion counties may be asked to support relocation activities should it become necessary.

Areas outside the 10-mile Emergency Planning Zone should not need emergency evacuations but may be asked to implement protective actions aimed at protecting the population from long-term exposure to low levels of radioactive contamination.

Ingestion Pathway Counties

The South Carolina Ingestion Pathway Counties for the Catawba Nuclear Plant are: Cherokee, Chester, Chesterfield, Fairfield, Kershaw, Lancaster, Laurens, Newberry, Spartanburg, and Union

The South Carolina Ingestion Pathway Counties for the HR Robison Nuclear Plant are: Kershaw, Marlboro, Dillon, Marion, Florence, Williamsburg, Clarendon, Sumter, Richland, Fairfield, Lancaster, and Chester

The South Carolina Ingestion Pathway Counties for the Oconee Nuclear Plant are: Abbeville, Anderson, Greenville, Greenwood, Laurens, Oconee, Pickens, and Spartanburg

The South Carolina Ingestion Pathway Counties for the VC Summer Nuclear Plant are: Cherokee, York, Lancaster, Union, Chester, Laurens, Greenwood, Saluda, Aiken,

Edgefield, Calhoun, Kershaw, Sumter, Spartanburg, Lee, McCormick, and Orangeburg

The South Carolina Ingestion Pathway Counties for the Vogtle/SRS Plant are: Bamberg, Edgefield, Hampton, Orangeburg, Colleton, Lexington, Saluda, and Jasper

Ingestion County Expected Activities by Emergency Classification Level (ECL)

The following describes the activities most likely to occur in an Ingestion County during a nuclear generating plant emergency:

Notification of Unusual Event (NOUE)

- No formal notification is made to the Ingestion Counties.
- No action is expected by the Ingestion Counties at this level.

Alert

- The Ingestion County Emergency Manager may be notified of the Alert Declaration by the State Emergency Operations Center (SEOC).
- The SEOC will maintain communications with Ingestion County Emergency Managers.
- Ingestion Counties are expected to notify their elected officials and the local jurisdictions in the county of the event.
- Ingestion Counties are expected to maintain communications with the REM or the SEOC.
- Ingestion Counties are expected to log into WebEOC and maintain situational awareness for the event.
- Ingestion Counties are expected to communicate their concerns to the SEOC through the REM.
- Provide support to the Community Reception Centers if they are located in your county.
- Communicate any special events (large public gatherings) that are underway in the county.
- Alert status is maintained until verbal termination, ECL reduction or escalation to a higher ECL takes place.

Site Area Emergency

- The Ingestion County Emergency Manager will be notified of the SAE Declaration by the State Emergency Operations Center (SEOC).

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Radiological Emergency Preparedness

Ingestion County Activities by Emergency Level Classification

- The SEOC will maintain communications with Ingestion County Emergency Managers.
- Ingestion Counties are expected to notify their elected officials and the local jurisdictions in the count of the current ECL.
- Ingestion Counties are expected to maintain communications with the REM in the SEOC.
- Ingestion Counties are expected to log into WebEOC and maintain situational awareness for the event.
- Ingestion Counties are expected to communicate their concerns to the SEOC through the REM.
- Provide support to the Community Reception Centers if they are located in your county.
- Communicate any special events (large public gatherings) that are underway in the county.
- SAE status is maintained until verbal termination. ECL reduction or escalation to a higher ECL takes place.
- Participate in a daily SEOC conference call or videoconference.
- Support the efforts of field sampling and monitoring teams.
- Prepare to receive Ingestion Brochures and food protection information and distribute them to food producers in the county.
- Provide support to the Community Reception Centers if they are located within your county.
- GE status is maintained until verbal termination, ECL reduction or escalation to a higher ECL takes place.
- Coordinate any implementation of relocation areas, restricted areas, re-entry and return with the SEOC as requested.

General Emergency

- The ingestion County Emergency Manager will be notified of the GE Declaration by the State Emergency Operations Center (SEOC).
- The SEOC will maintain communications with Ingestion County Emergency Managers.
- Communicate any special events (large public gatherings) that are underway in the county.
- Ingestion Counties are expected to notify their elected officials and the local jurisdictions in the county of the ECL.
- Ingestion Counties are expected to maintain communications with the REM in the SEOC.
- Ingestion Counties are expected to log into WebEOC and maintain situational awareness for the event.
- Ingestion Counties are expected to communicate their concerns to the SEOC through the REM.
- The Ingestion County is expected to open their EOC and maintain at least minimal 24-7 staffing.
- The Ingestion County is expected to notify the agricultural agencies in the county of the event.
- The Ingestion County is expected to support implementation of protective actions needed to protect the population for a possible contaminated food supply. This would include food embargoes, restrictions on livestock movement and hunting and fishing restrictions.

Intermediate/Ingestion Phase

When the release has ended and the situation has been brought under control, attention shifts from the immediate actions of the plume phase to the longer term issues of the ingestion phase. These include the establishment of relocation areas, restricted zones, re-entry protocols, return protocols, recovery and additional food control measures.

Support the Establishment of Food Control Measures

- Food protections begin with the issuing of an embargo order when flyover data indicates contamination is detected outside the evacuation areas.
- Additional food protection controls may be put in place following the results of field sampling during the intermediate/ingestion phase.
- Additional food embargoes are mandated when lab analysis indicates radiation levels exceeding strict FDA guidelines for annual consumption.
- Food control decisions emphasize public protection and balance the long- and short-term implications for economic damage to the State.
- Coordinate with the state on the embargo and protection of food products in the county.
- Identify areas where trucks can be held when an embargo is issued.

Radiological Emergency Preparedness

Ingestion County Activities by Emergency Level Classification

Support the Establishment of Relocation Areas outside the EPZ Counties if needed

- The initial post-plume priority is to determine if there is contamination in areas outside of the initial evacuation areas that require additional measure (relocation) to protect the public from long-term exposure to low level radioactive material.
- Relocation areas are where the removal or continued exclusion of people from contaminated areas is needed to avoid long-term radiation exposure.
- Relocation is indicated when the dose exceeds the EPA protective action guidelines (2 rem 1st year, 0.5 rem/year of any subsequent year).

Support the Establishment of Restricted Zones as needed

- Restricted zones are established to protect area residents from the potential effects of chronic exposure to low-level radiation
- These are areas with controlled access from which the population has been evacuated or relocated.
- Re-entry into the restricted zone is initially limited to essential personnel only.
- All persons entering a restricted zone must be registered, briefed on radiation exposure, given dosimetry and many need to be escorted.
- People leaving a restricted area will need to be monitored for radiological contamination and may need to be decontaminated.
- An area remains restricted until a combination of remediation efforts and the natural decay of radiation allow for safe long-term residency.

Support the Establishment of Re-entry Protocols as needed

- Protocols and procedures are implemented to authorize the temporary re-entry into a restricted zone for activities including:
 - Protection of valuable infrastructure
 - Law enforcement
 - Firefighting
 - Tending livestock
 - Control of industrial processes and public utilities
 - Animal rescue and control

Support the Establishment of Return Areas Established

- The orderly return of people to areas where there was no contamination or long-term exposure health risk
- Following verification and establishment of restricted zone boundaries and traffic control points, some areas can be cleared for return to unrestricted residence or use.
- The timing of return is coordinated with State and local agencies.
- Although people can return, some of these areas may still have low-level contamination and may require some ingestion pathway food controls or restrictions.

Support the Establishment of Recovery

- Recovery will involve continued and extensive field sampling, damage and impact assessments and the coordination of federal assistance and nuclear insurance benefits.
- Coordinate remediation of contamination and restoration to pre-event conditions and activities.

Count Emergency Operations Plan Requirements

Ingestion County Emergency Operations Plans will need to include the following information in a Nuclear Generating Plant Radiological Emergency Preparedness Section:

- A description of when the County Emergency Operations Center would be activated and staffed for a nuclear generating plant emergency.
- Identify by title and position the person(s) responsible for:
 - Coordinating with the agricultural industries in the count for implementation of food and agricultural product embargoes
 - Coordinating traffic and access control points to restrict the movement of people, animals and agricultural products
 - Coordinating the implementation of restrictions on consumption of food products
 - Coordinating the relocation of people from a restricted zone should one be necessary in the county
 - Coordinating the release of information to the public in cooperation with the State Joint Information Center

Radiological Emergency Preparedness

Ingestion County Activities by Emergency Level Classification

- A brief description of what the county will do for each Emergency Classification Level (NOUE, Alert, SAE and GE)
- Describe how the county will support the implementation of:
 - Food control measures
 - Support the establishment of relocation areas if needed
 - Support the establishment of restricted areas if needed
 - Support the establishment of re-entry protocols if needed
 - Support the establishment of return areas if needed
 - Recovery strategies if needed

SCEMD will be providing outreach and training for all ingestion counties on an ongoing basis. SCEMD will be developing a plan template that can be used for supplementing the county plan.

Fact Sheet

Radiological Emergency Preparedness Intermediate/Ingestion Phase Exercise Overview

Purpose

Give a general overview of:

- The radiological emergency preparedness (REP) program
- The intermediate/ingestion phase
- Exercise issues that are different from a plume phase exercise

REP Program Overview

On December 7, 1979, following the Three Mile Island nuclear power plant accident in Pennsylvania, President Carter transferred the federal lead role in offsite radiological emergency planning and preparedness activities from the US Nuclear Regulatory Commission (NRC) to the Federal Emergency management Agency (FEMA).

FEMA established the radiological emergency preparedness (REP) program to:

- Ensure the health and safety of citizens living around the commercial nuclear power plants would be adequately protected in the event of a nuclear power plant accident
- Inform and educate the public about radiological emergency preparedness

REP program responsibilities encompass only “offsite” activities. It includes state, tribal and local government emergency planning and preparedness activities that take place beyond the nuclear power plant boundaries. Onsite activities continue to be the responsibility of the NRC.

The South Carolina REP Program

The mission of the South Carolina Emergency Management Division REP Program is to ensure the health and safety of the public is protected in the event of a radiological incident at Catawba, HB Robinson, Oconee, VC Summer or Vogtle/SRS. This is a comprehensive program that includes annual training, exercises and emergency plan reviews to ensure state agencies, local jurisdictions and the utility are ready to respond should an incident occur.

Three Phases of a Nuclear Power Plant Accident

Planning for a nuclear generating plant accident is divided into three operational phases:

1. Early/Plume Phase

- The plant has a release in progress and the plume is in the air.
- Protective action decisions (PAD) are initially based on computer models and subsequently confirmed by the field team data.
- Each nuclear generating plant exercise this phase every other year.

2. Intermediate/Ingestion Phase

- The release has stopped.
- Decisions are based primarily on data coming from the field and the lab.
- This phase is exercised once every eight-years.

3. Late/Recovery Phase

- Long-term recovery
- Decontamination
- Permanent relocation

Two Types of REP Exercises

1. Plume phase exercise applies to exercises when there is no exercise play involving the ingestion exposure pathway and relocation, restricted zones, re-entry and return functions. The state of South Carolina and local governments in the area surrounding nuclear power plants fully participate in a plume phase exercise at each site every two years.

2. Ingestion phase exercise adds a second day to a normal plume phase exercise. This involves ingestion exposure pathway protective action decision-making and implementation to an area within 50 miles of the plant, specifically in the areas of relocation, restricted zones, re-entry and return.

The state of South Carolina and local governments up to 50 miles from all nuclear power plants fully participate in an ingestion phase exercise at least once every six years.

Fact Sheet

Radiological Emergency Preparedness

Intermediate/Ingestion Phase Exercise Overview

Planning Zones

There are two planning zones surrounding a nuclear power plant that are used to prioritize the health and safety of people in either the direct pathway of a plume or in the ingestion exposure pathway.

1. 10-mile Emergency Planning Zone (EPZ)

- The area of concern during a plume phase exercise within a 10-mile radius of the plant.
- Planning priority is to move quickly in the early phase to protect the public from direct exposure to radiation from the plume from a nuclear power plant release by sheltering in place or evacuation.

2. 50-mile ingestion Planning Zone (IPZ)

- Additional area of concern during an ingestion phase exercise that includes a 50-mile radius surrounding the plant.
- Planning priority is to implement protective actions from any radioactive materials in the release that could potentially contaminate water supplies, food crops and livestock above FDA guidelines, or result in ground contamination above EPA guidelines.

Special Intermediate/Ingestion Phase Concerns

In comparison with a plume phase exercise, new issues are introduced during the intermediate phase:

Relocation

- The removal of continued exclusion of people from contaminated areas to avoid chronic radiation exposure.
- Relocation from an area is indicated when soil samples exceed EPA protective action guidelines for one-year, any subsequent year, or a 50-year cumulative period of occupancy.
- Relocation may be necessary both inside and outside the 10-mile EPZ.

Restricted Zones

- Restricted zones are established to protect residents from the potential effects of chronic exposure to low-level radiation.
- These are areas with controlled access from which the population has been evacuated or relocated.

- Re-entry into the restricted zone is limited to essential personnel only.
- An area remains restricted until a combination of remediation efforts and the natural decay of radiation allow for safe long-term residency.

Re-entry

- Temporary return of emergency workers and others authorized for:
 - Protection of valuable infrastructure
 - Law enforcement
 - Firefighting
 - Securing or removing property
 - Tending livestock
 - Control of industrial processes and public utilities
 - Animal rescue and control

Return

- The re-occupation of areas cleared for unrestricted residence or use.
- Early return, following verification and correction of restricted zone boundaries, may still include contaminated areas and require ingestion pathway controls.

Recovery

- Recovery will involve continued and extensive field sampling, damage and impact assessments and the coordination of federal assistance and nuclear insurance benefits
- Will require the coordinated remediation of contamination and restoration to pre-event conditions and activities

Food Protections

- Food protections begin in the early phase:
 - South Carolina Department of Agriculture issues a livestock advisory during the site area emergency (SAE) classification level for the entire 10-mile EPZ.
 - An embargo order is issued during the general emergency (GE) for all areas where protective action recommendations (evacuate or shelter) have been mandated.

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Radiological Emergency Preparedness

Intermediate/Ingestion Phase Exercise Overview

- Additional controls may be put in place beyond this following the results of sampling during the intermediate phase.
- Food control decisions emphasize public protection and balance the long- and short-term implications for economic damage to the state.

The Eight-Year REP Exercise Schedule

The radiological emergency preparedness (REP) exercise process involves many organizations in an interrelated set of activities. It is based on an eight-year cycle, framed by various evaluation criteria; planning standards are outlined in NUREG-0654. Each criterion relates to a specific offsite response organization (ORO) and its capacity to perform emergency functions as outlined in the plan. Examples include communication, dose assessment, public information and notification of the public.

These criteria are demonstrated at varying frequencies: some must be demonstrated at each exercise, others are dependent upon the scenario, but all must be demonstrated by the OROs at least once during the eight-year period. Certain core activities are demonstrated by all organizations in every exercise and some area demonstrated less frequently. Others focus on specific emergency response or preparedness capabilities demonstrated only by certain OROs. The specific participating organizations are determined by scenario events, exercise play and the eight-year exercise schedule.

The Evaluated Ingestion Phase Exercise

The in-sequence events of the exercise itself last two full days. The full-scale drill is scheduled first followed by the evaluated exercise:

Day 1

- Plume phase exercise
- Field team evaluations
- Advanced party conference call
- Sample plan development

Day 2

- Consists of a combination of tabletop and functional exercises
- Data process by the PAC and field team samples analyzed by the MDH lab will determine:
 - Relocation
 - Restricted zones
 - Re-entry
 - Return
 - Food controls
- Implementation of the PARs by the IPTF through communication with the risk and ingestion counties

Out-of-Sequence Events

- Medical services
- School evacuations
- Emergency worker decontamination
- Reception centers
- DHEC public health lab

Fact Sheet

Radiological Emergency Preparedness Recovery Guide for Emergency Managers

Purpose of this Fact Sheet

This fact sheet is designed to assist in planning for recovery following an accident at a nuclear generating plant. This fact sheet does not supersede any plans, procedures, or guidelines currently in use.

Recovery is the end goal following an accident at a nuclear generating plant, when life, access and commerce return to pre-incident conditions.

Considerations for the Implementation of Recovery

Recovery will involve continued and extensive field sampling, damage and impact assessments, and coordination of federal assistance and nuclear insurance benefits. Many variables are present in any incident and the conditions and time frame in which the late phase issues of recovery are reached will be individual and varied.

The focus of recovery planning will be as follows:

- Identify priorities for remediation and recovery of contaminated areas. It will be important to re-open the following as soon as is reasonable:
 - Major roadways
 - Major waterways
 - Reduction of airspace restrictions
 - Railroad traffic
 - River Traffic
 - Critical infrastructure facilities
 - Government facilities
 - Businesses
 - Homes
 - Coordinated remediation of contamination and restoration to pre-event conditions and activities. Initial priorities will include:
 - Major roadways
 - Major waterways
 - Reduction of airspace restrictions
 - Railroad traffic
 - River traffic
 - Critical infrastructure facilities
 - Government facilities
 - Agricultural areas
 - Recreational areas.
 - Coordinate the establishment of disaster assistance and recovery enters as needed.
- Coordinate with the utility and American Nuclear Insurers on compensation issues for the following populations:
 - Farmers and producers affected by the agricultural embargo
 - Residents evacuated or relocated from their homes
 - Individuals out of work because of their place of employment is in a restricted zone.
 - Governmental Agencies
 - Provide public information and outreach addressing public health concerns as well as food and water safety.
 - Ensure planning processes are in place at all levels of government to address the recovery transition and facilitate long range reduction of exposure rates and concentrations to acceptable levels, when possible, allowing unconditional occupancy and use.

Long Term Recovery Discussion Areas General

1. What is the role of the South Carolina Recovery Taskforce in this type of event?
2. What would be the priorities for long term recovery?

Damage Assessment

1. Who would conduct damage assessment?
2. What type of damage or losses would be considered in this assessment? How would they be tracked?

Housing

1. What type of temporary housing is available for persons who cannot return?
2. What financial assistance is available for temporary and long term housing? What about people who refuse to return?
3. Will buyouts be available? For whom?
4. What support services will all residents need? How are they different for the differently impacted areas?
5. Who will provide these services?

Health

1. What is the policy on the people who refuse to evacuate regarding future liability for latent health effects from radiation?
2. What health resources would be available for the public affected by exposure (if any)? How would the health resources be delivered?

Fact Sheet

Radiological Emergency Preparedness Recovery Guide for Emergency Managers

3. Who develops a long term health monitoring plan?
4. How would you deal with vulnerable populations (i.e. infants, pregnant women, elderly)?
5. What mental health services are available? How would this be funded and administered?
6. Is there an acceptable contamination level for different types of food and water?
7. How are health risks communicated to the public?
8. How would you address people's fears (Including those who don't live in the contaminated area)?

Environment

1. Discuss effect on drinking water. How would we continue to sample for a long period of time? What advice would be given to returning people regarding drinking water?
2. What water intakes are downstream? How would these be affected?
3. Would there be any restriction placed on the water? Would they be different for commercial purposes and private use? For how long?
4. What is clean? Who determines that the area is clean or acceptable?

5. What are possible long term environmental impacts?
6. Would you clean up the area? Who pays for the cleanup?
7. Who is responsible for packaging and removing contaminated waste? Where will it be stored?

Economy

1. What is involved in determining the economic impact of this accident? Where would you get that information?
2. How would you deal with the loss of tourism/reputation?
3. What impact would this have on electric ratepayers? Where would we make up for the loss of the plant's grid? Who would be involved in these discussions?
4. What are the responsibility of corporate, federal, state and county government for economic redevelopment?
5. How would you maintain continuity of business and government in your county?
6. How many people could be unemployed because of the accident? How long?

Fact Sheet

Radiological Emergency Preparedness Re-entry Guide for Emergency Managers

Purpose of this Fact Sheet

This fact sheet is designed to assist in planning for re-entry into a restricted zone following an accident at a nuclear generating plant. This fact sheet does not supersede any plans, procedures or guidelines currently in use.

Re-entry is an approved, temporary entry inside a restricted zone for essential purpose. These activities may include:

- Protection of valuable infrastructure
- Law enforcement
- Fire fighting
- Tending to livestock and exhibition animals
- Control of industrial processes and public utilities
- Animal rescue/control

Priorities for Re-entry

The priority activities for re-entry are:

- Life safety
- Incident stabilization
- Animal care
- Critical infrastructure and services
- Recovery

The counties have the primary responsibility for implementation/coordination of re-entry. This includes:

- Establishing locations where re-entry access control occurs.
- Coordinating requests for re-entry.
- Providing briefings, dosimetry, potassium iodide (KI) and just in time training for people re-entering.
- Providing escorts for people re-entering as needed.

All persons re-entering an evacuated or restricted zone are considered emergency workers and are to be treated as emergency workers for exposure control and personal protection concerns.

Implementation of Re-entry

The implementation of re-entry starts as soon as an evacuation area is established and access to the area is controlled. Re-entry will continue for an extended period of time and will include entry into the restricted area once established.

Initial Re-entry

- Radiological monitoring teams will be the first people assigned to work in evacuated or restricted areas. Monitoring teams have protocols for entering evacuated or restricted areas and their own exposure control procedures.
- Access to the evacuated or restricted areas by other people will be coordinated by the county emergency manager (EM).
- Re-entry into the evacuated area must be permitted for essential purposes and people entering the evacuated area should (recommended) have a security escort to ensure they only go to the location indicated in the re-entry request.
- Re-entry into the evacuated area outside and upwind of the plume footprint (actual or projected) will not have radiological exposure stay time projections since there is no contamination there. Stay time should be based on the time needed to complete the task and should not exceed a day (eight-hour scheduled work shift). Longer stay times may be authorized on a case-by-case basis.
- Re-entry into an area inside, around or downwind of a plume footprint (actual or projected) should initially be limited to life safety purposes, persons entering must be escorted and should have projected stay times based on actual or projected contamination levels.
- Everyone entering an evacuated or restricted area will be considered as an emergency worker and treated as such.

Sustained Re-entry

More refined protocols and stay time calculations will be provided to the counties from the SEOC as more detailed contamination monitoring, sampling and analysis is completed.

- Radiological monitoring teams will be assigned to work in the evacuated or restricted areas. Monitoring teams have protocols for entering evacuated or restricted areas and their own exposure control procedures.
- Re-entry into the evacuated area must be permitted for essential purposes and people entering the evacuated area should (recommended) have a security escort to ensure they only go to the location indicated in the re-entry request.

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- Re-entry into the evacuated area outside the plume footprint (actual footprint based on monitoring) should not require a radiological stay time projection or an escort since there is no contamination indicated in that area. Stay time should be based on the time needed to complete the task and not exceed a day (eight-hour scheduled work shift). Longer stay times may be authorized on a case-by-case basis.
- Re-entry into an area inside and around a plume footprint (validated by monitoring and sampling) should be permitted for essential purposes. Persons entering may be escorted should have projected stay times based on contamination levels.

Considerations for the Implementation of Re-entry Protocols

The counties must implement protocols and procedures to authorized and track temporary re-entry.

The following guidance may be used in developing the re-entry plan:

- Designate access control points for re-entry in each county and communicate that information to the state.
- Implement a system for receiving requests for re-entry and communicate that information to the state.
- Prioritize Re-entry requests.
- Register all persons re-entering a restricted zone, brief them on radiation exposure and safety, and issue and train them in the use of dosimetry and KI.
- Implement a system to track stay times and dose per individual.
- Provide monitoring and decontamination services at a designated site upon completion of re-entry.
- Communicate any complicating factors in implementing a re-entry program (timeline for implementation, resource requirements, volume of requests) to the state.

The state will provide general guidance on stay times and exposure control for re-entry by geographic area based on contamination levels as soon as detailed monitoring and sampling information is available.

County Considerations for Those Who Re-Enter

- The counties must designate the point or points for controlled access to the contaminated area.
- Anyone who re-enters a restricted zone will be exposed to low levels of radiation. There will be no immediate ill effects as a result of this. Following the procedures given to you by the counties will keep your dose well below established EPA guidelines.
- Anyone re-entering will be issued and trained in the use of dosimetry. It is important this information is watched closely and recorded.
- Persons re-entering an evacuated area outside a projected plume area will be assigned a stay time for how long it is safe to stay in the restricted zone, an eight-hour shift or a maximum dose exposure of 1000 milliRem (turn back limit) whichever occurs first. The county must track the stay time and dose exposure limits closely.
- Persons re-entering inside a confirmed or projected plume area will be assigned a stay time for how long it is safe to stay in the restricted zone.
- Those re-entering may be instructed to wear protective garments, including gloves, shoe covers, and coveralls. It is important to wear these as instructed by a radiation control specialist.
- Avoid rubbing your face with a gloved hand, eating, drinking, or smoking while within the restricted zone; these activities increase your risk of internal contamination.
- Persons leaving the restricted zone will be monitored for contamination, and may need decontamination, before being released.

Discussion Questions for Re-Entry

1. How are requests for re-entry received and processed?
2. How does the county authorize re-entry?
3. When is re-entry permitted?
4. Are there any areas where re-entry is not allowed? Why?
5. What are the procedures to control access to the restricted areas?
6. How will you staff access control on a long term basis?
7. When would the "public" be allowed to re-enter? For what purposes?
8. Is there a special permit or identification for re-entry?

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| 9. How do you track dose limits for people re-entering? | 12. Where is the decontamination and monitoring being done once the emergency worker decontamination facilities are closed? |
| 10. How would you control possible spread of contamination? | 13. How do you prioritize who gets to re-enter and when? |
| 11. Would you anticipate increased criminal activity? | |

Fact Sheet

Radiological Emergency Preparedness Relocation Guide for Emergency Managers

Purpose of this Fact Sheet

This fact sheet is designed to assist in relocation planning following an incident at a nuclear generating plant, helping to coordinate state and local activities. This fact sheet does not supersede any plans, procedures, or guidelines currently in use.

“Relocation” is the removal or continued exclusion of people (households) from contaminated areas to avoid long term exposure to a low level of radiation.

- The initial post plume priority will be to examine areas that have not been evacuated, determining whether contamination levels necessitate relocation.
- The next priority will be to survey contamination levels in evacuated areas, gauging the possibility and timeline for safe return to areas where safe reoccupation can occur.

The Environmental Protection Agency (EPA) has established conservative protective action guidelines (PAG) for the levels of radioactive contamination that indicate the need for relocation:

First-year exposure: 2 rem total effective dose equivalent or higher (TEDE – the whole body internal and external dose).

Any single year following the first year: 0.5 rem TEDE or higher.

Cumulative dose over 50 years: 5 rem TEDE or higher.

These levels are much lower than what could be experienced in the plume phase making relocation not as urgent as evacuation.

Still, timely action is required. With the deposition of a radioactive plume, a population receives most of their first-year exposure in the first week when contamination levels (which decay naturally) are highest.

Protective Action Recommendation

The State Emergency Operations Center (SEOC) will use field team and lab sample data, make calculations and

develop the protective action recommendations (PAR) for relocation as needed.

A map detailing the affected relocation area and a population estimate. A technical advisor will explain this PAR in terms of risk level, so that the SCEMD Director and operations chief can communicate it to the Governor or Governor’s Authorized Representative (GAR), state agencies, and counties. After the PAR is coordinated with state and county agencies, it will be given to the SIM for approval. Once approved, this becomes a protective action decision (PAD).

Relocations may apply inside or outside the 10-mile Emergency Planning Zone (EPZ). A relocation order may be needed, if people evacuated from the EPZ will be unable to return due to radioactivity levels that exceed the EPA protection action guidelines for long term exposure.

A media release about the PAD will be made through the Joint Information Center (JIC). An initial implementation plan will be developed after the PAR is approved.

Considerations for Implementation of Relocation Recommendation

The following guidance may be used to develop an initial relocation implementation plan:

- Establish the boundary of the area where relocation is necessary using roadways and geopolitical boundaries (State, County).
- Set up control points at boundaries to facilitate relocation and prevent entry, and maintain security checkpoints on all roadways. (SCDOT, SChP, County)
- Designate a reception center for people being relocated to go to as needed. This may be the same one as for the 10-mile EPZ, or a new one may be designated.
- Work with hospitals and other facilities with immobile populations to arrange for special transportation and care facilities.
- Provide instructions to people leaving the area (e.g., what to take, what to leave).

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- Assess critical infrastructure and strategies in the relocated area: including electric power and gas, water, water treatment, transportation, food processors and distributors, restaurants, lodging, day care centers, and schools (DHEC, SC Department of Ag, SCDOT, County).
 - Identify a staging area for embargoed products (County).
 - Determine if workers in the relocation area should be classified as occupational radiation workers and require special training and dosimetry control. Establish protocols for the distribution of dosimetry (State, DHEC).
 - Provide accurate and coordinated media releases. Request a public information officer from the county or local jurisdiction to come to the JIC (State, County).
 - Set up a disaster recovery center (State Agencies, FEMA, American Nuclear Insurers).
- Determine how commerce will be affected in the area (County, State).

Discussion Questions for Relocation

1. How will you describe the area that needs to be relocated?
2. What is the number of people to be relocated?
3. How will residents be informed that they must relocate?
4. Are there any special populations affected by the relocation? What would be their concerns?
5. How much time will they be allotted to leave?
6. What will you do if they do not leave their homes?
7. Are any special services needed for relocated individuals?
8. How would you provide transportation assistance to people who need to relocate?

Fact Sheet

Radiological Emergency Preparedness Restricted Zone Guide for Emergency Managers

Purpose of this Fact Sheet

This fact sheet is designed to assist in the planning for restricted zones following an incident at a nuclear generating plant, helping to coordinate state and local activities. This fact sheet does not supersede any plans, procedures, or guidelines currently in use.

Restricted zones are established to protect people from chronic exposure to low-level radiation. Access must be controlled to these areas where the population has been evacuated or relocated.

Access is controlled to these areas in order to protect the public in contaminated areas, preventing long term exposure to radiation. The Environmental Protection Agency (EPA) protective action guidelines (PAG) are used to establish threshold radiation levels for this decision:

- First-year exposure: 2 rem or higher total effective dose equivalent (TEDE – the whole body internal and external dose).
- Any single year following the first year: 0.5 rem TEDE or higher.
- Cumulative dose over 50 years: 5 rem TEDE or greater.

Areas where contamination levels are exceeded must be designated as restricted zones until a combination of

remediation efforts and natural radioactive decay allow for safe long-term residency. Radiation monitoring will be ongoing in any area declared a restricted zone.

Considerations for Implementation of Restricted Zones

The following guidance may be used to develop an initial restricted zone plan:

- Designate traffic control points and staffing to prevent and control entry (SCHP, SCDOT, and County).
- Monitor the situation and maintain security inside the restricted zone and on its boundaries (SCHP, SCDOT, and County).
- Discuss availability of the National Guard to assist.

Re-entry into a restricted zone is limited to essential personnel only.

- All persons entering a restricted zone must be registered, brief on radiation exposure, and issued dosimetry. In some cases a radiation safety escort may be required (State, County).
- All persons leaving a restricted zone will need to be monitored for radiological contamination, and may need to be decontaminated. Existing facilities may be used, or new ones established.

Fact Sheet

Radiological Emergency Preparedness Return Guide for Emergency Managers

Purpose of this Fact Sheet

This fact sheet is designed to augment planning for return of the public to previously evacuated areas following an incident at a nuclear generating plant. It may be used as a tool to coordinate state and local activities. This fact sheet does not supersede any plans, procedures or guidelines currently in use.

“Return” is the reoccupation of areas for unrestricted residence, or resumed use, by previously evacuated or relocated populations and businesses.

The Environmental Protection Agency (EPA) has established protective action guidelines (PAG) for deposited radioactive materials. It must be determined the cumulative exposure will be less than these levels before return to previously evacuated or relocated areas is considered:

- First year exposure: 2 rem
- Any subsequent year: less than 0.5 rem
- Cumulative dose over 50 years: 5 rem

Basis for Return

Return may be thought of occurring in one of the following scenarios:

- A release from the plant did not deposit radioactivity or travel over areas that were initially evacuated.
- Radioactivity was deposited in areas that were evacuated or relocated. Since then remediation efforts and natural radioactive decay have brought levels low enough for inhabitants to return and reoccupy area.

Implementation Considerations for Return

The following guidance may be used to develop an initial return implementation plan:

- The timing of the return must be coordinated between the state and local jurisdictions (County, State).
- If this area is adjacent to a restricted zone, traffic control points and new restricted zone borders must be established before the general population is allowed to return (County, State).
- Will the embargo for this area be lifted? Though safe occupancy is indicated, will specific food controls/restrictions need to remain in place (State)?
- State agencies should identify vital services that need to be restored or extra services that are needed: e.g., water, gas, electric, refuse removal (especially of spoiled foods), and food distribution (State).
- Media releases relating to the return must be coordinated with the Joint Information Center (JIC) (County, State).

Discussion Questions for Return

- Who authorizes return?
- What areas can people be returned to and when?
- Are there areas that people can return to immediately?
- What areas have long term restrictions on use?
- What precautions will people be asked to take when returning?
- How will special populations be returned?
- How do you communicate with the evacuees about return issues that may be scattered throughout the state or country?
- What if people are too afraid and refuse to return?
- When will people be returned and will it be necessary to stage the return or can they all come at once?
- What are allowable radiation levels for return?

Fact Sheet

Radiological Emergency Preparedness Shelter-in-Place Guide for Emergency Managers

Purpose of this Fact Sheet

This fact sheet is designed to assist with sheltering-in-place following an incident at a nuclear generating power plant, helping to coordinate state and local activities. This fact sheet does not supersede any plans, procedures or guidelines currently in use.

Shelter-in-Place is taking shelter/refuge at your location (residence, business, public building, etc.) from potential hazards or exposure to radiation. It is a temporary protective action to evacuation during an emergency and can be implemented immediately. Sheltering can provide equal or greater protection than evacuation for incidents depending upon the type of release, the shelter available, the duration of the plume phase and weather conditions. Sheltering is preferred if evacuation is impeded by site-specific conditions (severe weather, competing disasters, health constraints, immobile or institutionalized persons and local physical factors).

Shelter-in-Place Procedures

If you have been notified to shelter-in-place (EAS – Emergency Alert System by radio, television, PA, etc.), follow the instructions given by local and state authorities.

- Stay calm – don't panic
- Go indoors and stay inside
- Close all structure bents, doors and windows
- Seal gaps with wet towels, plastic, wax paper, aluminum wrap and/or duct tape
- Turn off fans, air conditioning, furnaces, fireplaces or other systems that draw outside air into structure
- Use electrical sources for alternate heating
- Below ground basements provide for the best shelter
- Above-ground interior rooms, away from windows, provide good protection
- Don't leave your shelter or evacuate unless told to do so
- Keep family members and pets indoors

- If you must go outdoors, limit your time to one hour or less, cover your nose and mouth with a wet cloth
- Close windows and air vents if traveling in a motor vehicle in the affected area (tune radio to an EAS station)
- Upon returning indoors, remove clothing, place in a plastic bag and take a shower
- Do not eat wildlife, garden product, plants, fruit, berries, poultry, eggs or dairy products until instructed by authorities
- During sheltering, prepare items for possible evacuation of you, your family and your pet(s)
- During a General Emergency, administer potassium iodide (KI) when directed and if available
- Do not delay your sheltering to locate or administer KI
- Do not use your telephone unless special assistance is needed
- Ensure essential supplies are available (food, water, personal hygiene items, first aid kit, flashlight, portable radio, extra batteries, etc.)

Potassium Iodide (KI)

Potassium iodide is a supplemental protective action to support sheltering-in-place. Taken orally, KI only protects the thyroid gland from exposure to radioactive iodine.

School Children

Children in school will be sheltered-in-place and cared for through their school's emergency preparedness procedures.

Special Needs

Local emergency management officials should be notified in advance on sheltering-in-place for people with special needs. This includes the elderly, physically challenged, hearing impaired, blind or other needs.