

# **ANNEX D**

## **Radiological Emergency Management**



### **STATE OF TEXAS EMERGENCY MANAGEMENT PLAN**

Revised September, 2012/Updated February, 2013



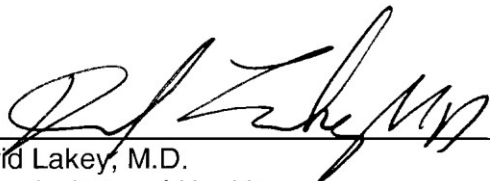
**ANNEX D**

**RADIOLOGICAL EMERGENCY MANAGEMENT**

**APPROVAL AND IMPLEMENTATION**

This plan is hereby accepted for implementation and supersedes the previous edition dated August 15, 2005.

9/10/12  
Date

  
\_\_\_\_\_  
David Lakey, M.D.  
Commissioner of Health  
Texas Department of State Health Services

**ANNEX D**  
**RADIOLOGICAL EMERGENCY MANAGEMENT**

**APPROVAL AND IMPLEMENTATION**

This plan is hereby accepted for implementation and supersedes all previous editions.

9/21/12  
Date

Steven C. McCraw  
Steven McCraw  
Director  
Texas Department of Public Safety  
Texas Homeland Security Advisor


**ANNEX D**

**RADIOLOGICAL EMERGENCY MANAGEMENT**

**APPROVAL AND IMPLEMENTATION**

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9-18-12  
Date

  
Drew DeBerry  
Deputy Commissioner  
Texas Department of Agriculture

**ANNEX D**  
**RADIOLOGICAL EMERGENCY MANAGEMENT**

**APPROVAL AND IMPLEMENTATION**

This plan is hereby accepted for implementation and supersedes all previous editions.

9/26/12  
Date

  
Zak Covar  
Executive Director  
Texas Commission on Environmental Quality

**ANNEX D**

**RADIOLOGICAL EMERGENCY MANAGEMENT**

**APPROVAL AND IMPLEMENTATION**

This plan is hereby accepted for implementation and supersedes all previous editions.

12 September 2012  
Date

  
\_\_\_\_\_  
Carter Smith  
Executive Director  
Texas Parks and Wildlife Department

**ANNEX D**  
**RADIOLOGICAL EMERGENCY MANAGEMENT**

**APPROVAL AND IMPLEMENTATION**

This plan is hereby accepted for implementation and supersedes all previous editions.

October 25, 2012

Handwritten signature of Dee Ellis, D.V.M., M.P.A. in black ink.

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Date

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Dee Ellis, D.V.M., M.P.A.  
Executive Director  
Texas Animal Health Commission



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## **APPENDICES**

1. Radiological Emergency Management Organization
2. Radiological Emergency Management Action Guide
3. Radiological Emergency Management Supporting Documentation

# STATE OF TEXAS

## RADIOLOGICAL EMERGENCY MANAGEMENT PLAN

### I. AUTHORITY AND REFERENCES

This plan applies to emergency management operations during a radiological incident occurring within or impacting the state of Texas. In addition to the authorities outlined in the Texas Emergency Management Basic Plan, strategic planning guidance and authorities governing its enactment and implementation include:

#### A. STATE

1. Texas Radiation Control Act, as amended, Texas Health and Safety Code, Chapter 401.
2. The Texas-Nuclear Regulatory Commission Regulatory Transfer Agreement.
3. Area Quarantine for Environmental or Toxic Agent, Texas Health and Safety Code, Chapter 508.
4. Texas Food, Drug and Cosmetic Act, Texas Health and Safety Code, Chapter 431.

#### B. FEDERAL

1. The Atomic Energy Act of 1954, as amended.
2. NUREG 0654/FEMA REP 1 and Supplements, NRC, FEMA 1980.
3. Price Anderson Act 1957 as amended.
4. Southern Interstate Nuclear Compact Legislation (Public Law 87-563, 87th U.S. Congress).
5. Manual of Protective Action Guides and Protective Actions for Nuclear Incidents (EPA-400-R 92-001, May 1992, U.S. EPA).
6. Accidental Radioactive Contamination of Human Food and Animal Feeds, U.S. Department of Health and Human Services, FDA, August 13, 1998.
7. National Response Framework, Nuclear/Radiological Incident Annex, Department of Homeland Security, June 2008.
8. Presidential Policy Directive 8: National Preparedness, 2011 March
9. Presidential Decision Directive 39: United States Policy on Counterterrorism (Classified), 1995 June

10. Presidential Decision Directive 62, Protection Against Unconventional Threats to the Homeland and Americans Overseas (Classified), 1998 May
11. Defense against Weapons of Mass Destruction Act, Public Law 102-201, 1996 September
12. United States of America Patriot Act of 2001, Uniting and Strengthening America by Providing the Tools Needed to Intercept Terrorism, Public Law 107-56
13. Homeland Security Planning Guidance for Recovery Following Radiological Incidents, May 2009

#### **C. MUTUAL AID AGREEMENTS AND CONTINGENCY PLANS**

1. The Southern Mutual Radiation Assistance Plan, Southern States Energy Board, December 2011.
2. Emergency Management Assistance Compact (EMAC).
3. Interstate Emergency Response Support Plan (IESRP).

#### **D. EVACUATION AUTHORITY**

1. In the event that radioactive material poses a threat to the general public, the County Judge or Mayor of a municipality may order the evacuation of all or part of the population from the threatened area under their authority if they consider the action necessary.
2. Detailed information on evacuation authority can be found in Annex E of the State of Texas Emergency Management Plan.

#### **E. AREA QUARANTINE AND EMERGENCY ORDER AUTHORITIES**

1. In the event that the Commissioner of Health or one or more health authorities determine that the introduction of radioactive material into the environment has occurred, the commissioner or authorities may impose an area quarantine. The area quarantine must be accomplished by the least restrictive means necessary to protect public health.
2. DSHS may issue an emergency order as a result of a situation that requires immediate action to protect the public health and safety and the environment.

## **II. PURPOSE**

### **A. PURPOSE OF THIS PLAN**

1. The purpose of this plan is to establish a coordinated State response to nuclear/radiological incidents in Texas. As the State Radiation Control Agency, the Department of State Health Services (DSHS) is responsible for determining

and implementing measures to protect life, property, and the environment in a radiological emergency. This plan:

- a. Provides guidance for the protection and care of the public during and after a radiological incident;
  - b. Acknowledges that while the types of incidents involving release of radioactive materials may result from either inadvertent or deliberate acts and will vary in severity from the small to the catastrophic, the critical tasks of local and state emergency responders will generally follow the same concept of operations;
  - c. Delineates the roles and responsibilities for state-level response agencies;
  - d. Provides guidelines for interfacing with private sector licensees and federal response agencies involved in radiological incident investigation and response and presents a command and coordination structure based on the type of radiological incident.
2. This plan applies whenever a State response is undertaken unilaterally pursuant to State authorities, when an incident exceeds or is anticipated to exceed tribal or local resources, or when State assistance has been requested by local jurisdictions.
  3. This plan is applicable to all locations and to all agencies, organizations, and personnel with radiological emergency response support responsibilities.

## **B. RELATIONSHIP TO OTHER PLANNING DOCUMENTS**

### **1. Relationship to Local Emergency Management Plans**

This plan provides for coordination with local officials and private industry concerning radiological emergencies and the effective integration of state support for local emergency operations when local officials request state assistance. Local emergency management plans provide guidance for the employment of local emergency resources, mutual aid resources, and specialized local response resources under a local incident commander, who may be supported by a local Emergency Operations Center (EOC). Local emergency plans include specific provisions for requesting and employing state resources to aid in managing and resolving emergency situations for which local resources are inadequate.

### **2. Relationship to Other State Plans**

- a. This plan is intended to supplement the State of Texas Emergency Management Plan. The plan includes general and incident-specific information to guide response to radiological emergencies that may affect the State, and addresses complex issues such as the dissemination of risk communication and interagency coordination.

- b. When the Texas Division of Emergency Management activates Annex D, other appropriate annexes to the State of Texas Emergency Management Plan are incorporated as supporting plans to Annex D, including but not limited to Annex C: Shelter and Mass Care, Annex E: Evacuation, Annex H: Public Health and Medical Services, Annex I: Public Information, Annex Q: Hazmat and Oil Spill Response, and Annex U: Terrorism Incident Response. There are functional appendices to Annex H: Public Health and Medical Services that also may support this plan, including the Mass Fatality Management Plan (Appendix 4 to Annex H), the Disaster Behavioral Health Plan (Appendix 5 to Annex H), and the Medical Countermeasures Plan (Appendix 8 to Annex H).
- c. Detailed radiological emergency management (REM) plans and procedures developed and maintained by DSHS are listed in Appendix 3 and are not provided for public distribution. These plans and procedures assign incident specific responsibilities and detailed instructions for conducting a coordinated response to radiological emergencies.

3. Relationship to Interstate Agreements

Relationship to interstate agreements is provided for in the State of Texas Emergency Management Plan. The Southern Mutual Radiation Assistance Plan has been in place since 1974 and provides a mechanism for coordinating radiological emergency assistance capabilities among the 14 participating states. Federal Emergency Management Agency (FEMA) Region 6 states, Texas, Arkansas, Louisiana, Oklahoma and New Mexico (abbreviated as TALON) entered into an Interstate Emergency Response Support Plan in October 2009 to expedite the provision of interstate assistance during a disaster or catastrophic incident, including a radiological incident.

4. Relationship to Federal Contingency Plans

Relationship to Federal plans is provided for in the State of Texas Emergency Management Plan.

**III. EXPLANATION OF TERMS**

**A. ACRONYMS**

CCEA	(DSHS) Center for Consumer and External Affairs
CDC	Center for Disease Control and Prevention
CPS	(DSHS) Community Preparedness Section
DDC	Disaster District Committee
DOE	Department of Energy
DPS	(Texas) Department of Public Safety
DSHS	(Texas) Department of State Health Services
EOC	Emergency Operations Center
EPA	Environmental Protection Agency
FEMA	Federal Emergency Management Agency
HSR	Health Service Region
ICS	Incident Command Structure

JFO	Joint Field Office
JIS	Joint Information System
JOC	Joint Operations Center
LSS	(DSHS) Laboratory Services Section
MOC	Medical Operation Center
NIMS	National Incident Management System
NPP	Nuclear Power Plant
NRC	Nuclear Regulatory Commission
NRF	National Response Framework
NUREG	Nuclear Regulatory Commission Guidance Documents
PAG	(EPA) Protective Action Guide
PIO	Public Information Officer
PPE	Personnel Protective Equipment
REM	Radiological Emergency Management
RERT	Radiological Emergency Response Team
RMOC	Regional Medical Operations Center
SITREP	Situational Report
SMOC	State Medical Operations Center
SMRAP	Southern Mutual Radiation Assistance Plan
SNS	Strategic National Stockpile
SOC	State Operations Center
SOG	Standard Operating Guidelines
SOP	Standard Operating Procedures
TAHC	Texas Animal Health Commission
TCEQ	Texas Commission on Environmental Quality
TDA	Texas Department of Agriculture
TDEM	Texas Division of Emergency Management
TEPP	Transportation Emergency Preparedness Program
TPWD	Texas Parks and Wildlife Department

## B. DEFINITIONS

1. Contamination (radioactive): The deposition of unwanted radioactive material on the surfaces of structures, areas, objects, or people where it may be external or internal. Radioactive contamination can be external (outside of the body) or internal (inside of the body) or both.
2. Emergency Classification: The classification of a reportable event at a nuclear power plant. The four classifications are:
  - a. Unusual event: Events are in process, or have occurred, which indicate potential degradation in the level of safety of the plant. No release of radioactive material requiring offsite response or monitoring is expected unless further degradation occurs.
  - b. Alert: Events are in process or have occurred that involve an actual or potential substantial degradation in the level of safety of the plant. Any releases of radioactive material from the plant are expected to be limited to a small fraction of the amounts requiring off site protective actions.

- c. Site Area Emergency: A site area emergency involves events in process or which have occurred that result in actual or likely major failures of plant functions needed for protection of the public. Any releases of radioactive material are not expected to exceed the Environmental Protection Agency (EPA) Protective Action Guides (PAGs) except near the site boundary.
  - d. General Emergency: A general emergency involves actual or imminent substantial core damage or melting of reactor fuel with the potential for loss of containment integrity. Radioactive releases during a general emergency can reasonably be expected to require off site protective actions.
3. Ingestion Expose Pathway: The mechanism by which radioactive contaminants may be ingested through water, vegetable and animal product consumption. Consumption of contaminated materials may cause concern for public health due to potential long-term effects.
  4. Joint Information System: Integrates incident information and public affairs into a cohesive organization designed to provide consistent, coordinated, timely information during crisis or incident operations. The mission of the JIS is to provide a structure and system for developing and delivering coordinated interagency messages; developing, recommending, and executing public information plans and strategies on behalf of the Incident Commander (IC); advising the IC concerning public affairs issues that could affect a response effort; and controlling rumors and inaccurate information that could undermine public confidence in the emergency response effort
  5. Joint Operations Center: An interagency command post established by the Federal Bureau of Investigation to manage investigative and intelligence activities during terrorist threats or incidents. The JOC coordinates the necessary local, State, and Federal assets required to support the investigation, and to prepare for, respond to, and resolve the threat or incident.
  6. Nuclear/Radiological Incident: An event or series of events, deliberate or accidental, leading to the release, or potential release, into the environment of radioactive materials in sufficient quantity to warrant consideration of protective actions.
  7. Plume Exposure Pathway: The mechanism by which radiation exposure received from immersion in a radioactive plume of airborne radiation results in a radiation dose from external exposure and inhalation of radioactive materials.
  8. Population Monitoring: The process that begins soon after a radiation incident is reported and continues until all potentially affected people have been monitored and evaluated for:
    - a. Needed medical treatment.
    - b. The presence of radioactive contamination on the body or clothing.
    - c. The intake of radioactive materials into the body.



- d. The removal of external or internal contamination (decontamination).
  - e. The radiation dose received and the resulting health risk from the exposure.
  - f. Long-term health effects.
9. Projected Dose: Future dose calculated for a specified time period on the basis of estimated or measured initial concentrations of radionuclides or exposure rates and in the absence of protective actions.
  10. Protective Action: An activity conducted in response to an incident or potential incident to avoid or reduce radiation dose to members of the public (sometimes called a protective measure).
  11. Radiation: Radiation is energy traveling through material or space. Light, heat and sound are types of radiation. For this plan, radiation is ionizing radiation that deposits energy as it interacts during passage through matter.
  12. Radiation dose: A measure of the energy deposited in a medium by ionizing radiation per unit mass and may be measured as joules per kilogram. As used in this plan, radiation dose is a measure of radiation exposure to humans.
  13. Radiation exposure: As used in this plan, radiation exposure occurs when radiation penetrates tissue. A person can be exposed without physically contacting radioactive material. The person does not become radioactive.
  14. Radiological Dispersal Device (RDD): Any device that causes the purposeful dissemination of radioactive material without a nuclear detonation.
    - a. Dispersal of radioactive material via explosive detonation, i.e., a combination of an Improvised Explosive Device (IED) and radioactive material.
    - b. Other dispersal methods of radioactive material via non-explosive means:
      - 1) Passive or active dispersion of unsealed radioactive sources, e.g., deposit in soil or water, drop from airborne device
      - 2) Radioactive sources can be solid, aerosol, gas, or liquid
  15. Radiological Exposure Device (RED) refers to a sealed radioactive source that is placed in a public place and causes exposure but not contamination to those in proximity. (Note: if an RED were to break open, it would then be similar to an RDD).
  16. Reception Center: A facility established to monitor people and animals for radioactive contamination and provide decontamination services.

17. Recovery: The process of reducing radiation exposure rates and concentrations of radioactive material into the environment to levels acceptable for unconditional occupancy or use.
18. Reentry: Temporary entry into a restricted zone under controlled conditions.
19. Relocation: The removal or continued exclusion of persons from contaminated areas to avoid chronic radiation exposure.
20. Restricted Zone: The area identified as containing sufficient radioactive contamination to present a health hazard and require only authorized access. The boundaries of the restricted zone will change over time as remediation and weathering reduce radioactive contaminants. The area may have controlled access from which the population has been relocated.
21. Return: The reoccupation of areas cleared for unrestricted residence or use.

#### **IV. SITUATION AND ASSUMPTIONS**

##### **A. SITUATION**

1. The State of Texas recognizes that a large-scale nuclear/radiological incident or a nuclear/radiological terrorist event is possible. Factors which may contribute to Texas' vulnerability for a nuclear/radiological incident include:
  - a. Approximately 2,000 existing radioactive material licensees.
  - b. The two existing nuclear power plants:
    - 1) Comanche Peak Nuclear Power Plant in Somervell County, TX.
    - 2) South Texas Project Electric Generating Station in Matagorda County, TX.
  - c. A nuclear weapons plant ("Pantex Plant") in Carson County, TX.
  - d. Radioactive material shipments that traverse the state.
  - e. A 1,254 mile long international border, which is a potential portal of entry for terrorist activity.
2. The level of State response to a specific incident is based on numerous factors, including the ability of tribal, and local officials to respond; the type, amount, and authority over radioactive material involved; the extent of the impact or potential impact on the public and environment; and the size of the affected area.

3. Radiological terrorists may target critical infrastructure and key resources.
4. Radiological/nuclear terrorism incidents will be handled in accordance with Annex U: Terrorist Incident Response, which names the Texas Department of Public Safety (DPS) as the lead agency for state response.
5. The widespread availability of radioactive material for industrial and medical use provides a broad range of scenarios for the abuse and subsequent exposure of civilian populations to radioactive material in potential terrorist events.
6. Transportation incidents could involve any type of radioactive material and include loss, theft or accidents resulting in release of radioactive material
7. The Plume Exposure Pathway extends outward from the accident scene and includes the area within which individuals could be affected by contamination from or direct exposure to the radioactive materials involved.
8. The Ingestion Exposure Pathway extends outward from the accident scene and includes all of the area in which airborne or waterborne radioactive materials could be deposited in quantities sufficient to result in a hazard to human health. The hazard of most concern in this pathway is the uptake of radioactive materials by plants or animals that constitute parts of the human food chain. Milk and other animal by-products, and animals and plants which are intended for human consumption, must either be protected from contamination, or must be monitored to ensure that they do not contain radioactive materials in quantities which could pose a threat to the consumer.

## **B. ASSUMPTIONS**

1. Radiological incidents may not be immediately recognized as such until the radioactive material is detected or the health effects of radiation exposure are manifested in the population and identified by the public health community.
2. An incident involving the potential release of radioactivity may require implementation of protective measures, such as evacuation or shelter-in-place. State, tribal, and local governments have primary responsibility for implementing protective measures for the public.
3. Federal resources may be necessary to support the response and recovery effort for a radiological emergency in Texas. Federal assistance provided to Texas will be based upon specific requests and priorities provided by the State.
4. Medical effects and countermeasures differ significantly between radiation exposure and radiation contamination. The selection of a medical countermeasure is based on the radionuclide and its properties, the type and amount of radiation exposure received by an individual, and the specific isotope and how much was encountered.
5. While contamination with radioactive materials is not immediately life-threatening, a nuclear/radiological incident may result in acute injuries, long-

term health effects, psychological trauma, and mass panic. Cascading effects may include mass evacuation, a lack of adequate shelter, food, water, medications and medical supplies, health and medical facilities and personnel surge; disruption of communication systems; power outages; and long-term environmental damage.

6. Contamination can be widespread and affect more than one area, therefore evacuation of large populations, along with monitoring and mass decontamination may need to be accomplished. Depending on the extent of the incident, these activities may be followed by controlled reentry to the restricted zone(s), or by relocation of the population that was removed.
7. In the absence of real time measured radiation data, a radiation response zone of approximately 500 meters is a reasonable first estimate. Boundaries of the zone will be refined as data becomes available.
8. The State response to radiological terrorism will be initiated when local and regional responses are overwhelmed, when a radiological terrorism incident warranting a state response is detected, when intrastate and interstate mutual aid agreements related to emergency response and recovery need to be initiated, or when multiple jurisdictions within Texas are affected.
9. The ability of state and local governments to respond to and provide for the safety and welfare of the public during a nuclear/radiological incident is directly influenced by the effectiveness of preparedness, response, and continuity of government operations. The ability of state and local governments to recover and resume normal operations following a disaster is directly influenced by the effectiveness of continuity of government, continuity of operations, and recovery planning.

## **V. COORDINATION AND CONTROL**

Coordination and control of emergency response and recovery operations within Texas will be exercised in accordance with Sections IV, V.C, and VI of the State of Texas Emergency Management Basic Plan. Following the Incident Command Structure (ICS), DSHS radiation staff members will serve as subject matter experts within the DSHS State Medical Operations Center (SMOC), the State Operations Center (SOC), affected Disaster Districts Centers (DDCs), local EOCs and other applicable EOCs, as required. ICS will vary according to the four primary radiological incident types:

1. Nuclear Power Plant incident
  - a. Response will be a Unified Area Command between the Nuclear Power Plant operator (private sector), the Nuclear Regulatory Commission, and the State in the NPP's emergency operations facility. The Disaster District, federal responders and Local jurisdictions are located in individual emergency operations centers and coordination is carried out through liaisons and direct communications between decision makers.

- b. DSHS liaisons are available to co-locate with federal response agencies in the Joint Operations Center or the Federal Emergency Management Agency (FEMA) Joint Field Office and the Federal Radiological Monitoring and Assessment Center (FRMAC) to provide technical expertise and coordinate State health and medical response.
2. Pantex Plant incident
- a. Response will be a Unified Area Command between the Department of Energy (DOE), the State, and the DOE's private sector contractor.
  - b. The Disaster District, federal responders and Local jurisdictions are located in individual emergency operations centers and coordination is carried out through liaisons and direct communications between decision makers.
  - c. DSHS will provide liaisons to Armstrong, Carson and Potter Randall County Emergency Operations Centers. The Operations Chief for DSHS will be located in Amarillo in a pre-selected staging center.
3. Terrorist incident
- a. Incidents will be a Unified Command between the Federal Bureau of Investigation and the State.
  - b. DSHS will provide liaisons to local emergency operations centers, the Disaster District, the SOC and the SMOC.
  - c. DSHS radioactive materials inspectors, in the affected area of the state, may be instructed to begin gathering information from local responders to determine whether licensed radioactive material is involved.
  - d. The SMOC will assist the local medical response to respond to the possible surge of victims of exposure and/or explosion.
4. Transportation-related radiological incident
- a. Response to most transportation incidents will begin with local law enforcement or a State Trooper and managed through the local incident command structure as the threat becomes defined.
  - b. A transportation-related radiological incident could occur on any Texas highway. However, large quantity radioactive shipments (i.e. "WIPP Shipments") are required to travel on preferred routes along interstate highways and could result in an emergency requiring protective actions for the nearby residents and vehicular traffic. Unless the shipment belongs to a federal agency, it is unlikely there will be a need for federal support.

- c. DSHS radiation inspectors will be notified and will coordinate with the incident commander on the scene, the transport company, and the shipper to ensure that radioactive materials are secure, contamination is removed, and the areas affected by the release of radioactive materials are decontaminated and released for unrestricted use.
- d. DSHS will coordinate with local authorities to recommend protective actions for residents and businesses affected by the release. The SMOC will coordinate with the local medical community to assist, as needed.

## **VI. CONCEPT OF OPERATIONS**

### **A. STATE SUPPORT AND ASSISTANCE POLICY**

In accordance with the State of Texas Emergency Management Plan, State emergency support and assistance, if required, will be provided as quickly and as efficiently as feasible. Consistent with priority of need, attempts to provide assistance are outlined in the Concept of Operations section of Annex N: Direction and Control. This provides the state with an effective means to provide emergency assistance in a timely and cost-effective manner. The decision to expend state funds to provide support and assistance will be made only after consideration of both priority of need and cost to the state. However, in situations where lives and property are immediately threatened, the most rapid means of response will be taken.

### **B. RADIOLOGICAL EMERGENCY RESPONSE STRATEGY**

1. DSHS will coordinate and/or manage the overall state effort to detect, identify, contain, decontaminate or minimize releases of radiological materials. This includes assessment of impacts and advising and assisting others where the source of the radioactive materials is known. If the source is unknown or the responsible party is not responding or unable to respond, DSHS will coordinate with other governmental authorities including local government and federal authorities to respond to the emergency.
2. DSHS will coordinate public health, environmental assessment and medical service activities.
3. As noted in Section VII of this annex, several state agencies have predetermined support roles in responding to a radiological emergency. Pursuant to agreements, the Texas Commission on Environmental Quality (TCEQ) and the Department of Public Safety (DPS) will provide personnel to assist and augment the DSHS Radiological Emergency Response Team (RERT).
4. In situations where surveillance of the ingestion pathway is warranted, TCEQ, Texas Parks and Wildlife Department (TPWD), the Texas Department of Agriculture (TDA), Texas Animal Health Commission (TAHC) and the DSHS Food and Drug Program will complement the efforts of the DSHS RERT to ensure that water, fish, game, meat, dairy products, food products and crops

intended for human consumption are not contaminated above acceptable limits.

5. In instances where radiation exposure limits are exceeded, the above agencies will coordinate all public information efforts with TDEM, in accordance with Annex I: Public Information, by establishing a JIS with local, state and federal agencies to help ensure the public is informed and that products are properly disposed of or diverted to other uses that will not result in a health hazard to consumers.
6. If state radiological resources are exceeded, additional federal government resources can be requested pursuant to the National Response Framework (NRF) Nuclear/Radiological Incident Annex. Another option for requesting assistance is the Southern Mutual Radiation Assistance Plan under the Southern States Energy Board. Procedures for obtaining radiological monitoring and assessment assistance are outlined in the Southern Mutual Radiation Assistance Plan. This document is maintained by the Southern States Energy Board and can be found on its website at: <http://www.sseb.org/reference.php>.

### **C. RADIOLOGICAL EMERGENCY RESPONSE PHASES**

#### **1. Detection**

Radiological detection may come from Nuclear Power Plants, DSHS licensees, emergency responders or from DSHS inspection staff. In addition, law enforcement intelligence may identify threats involving radiological or nuclear devices.

##### **a. Nuclear Power Plants**

Nuclear Power Plants (NPP) are required by the Nuclear Regulatory Commission (NRC) to assure radiological emergency response plans are in place to provide for protection of the public and to provide a coordinated response to a radiological emergency resulting from a release of radioactive materials from NPP's. These plans include monitoring to detect accidental or unauthorized releases of radioactive materials.

##### **b. DSHS licensees**

Licensees are required to maintain security of radioactive sources and to monitor to assure that radioactive materials contained in these sources are properly shielded. Licensees are required to report loss, theft or release of radioactive materials to DSHS.

##### **c. First responders**

Emergency responders in large metropolitan areas in Texas are equipped with radiation detection equipment. When approaching an accident scene

or the scene of an apparent malevolent act such as an explosion, responders can detect radioactivity.

d. DSHS radiation inspectors

DSHS radiation inspectors in the Austin office and throughout the state are equipped with radiation detection equipment and may be called on to conduct radiological monitoring at an accident scene or other location where the presence of radioactive materials may be suspected.

2. Notification

This section addresses how DSHS receives notification of a potential threat as well as how, in turn, DSHS notifies response agencies of a potential nuclear/radiological incident.

a. DSHS receives notification of a potential threat from:

1) Nuclear Power Plants

Nuclear Power Plants are required to make timely notification to local and state authorities when one of the following Emergency Classification Level events has occurred:

- a) Unusual Event
- b) Alert
- c) Site Area Emergency
- d) General Emergency

2) Federal Agencies

- a) The Department of Energy's Pantex Plant will make notifications when emergency conditions exist which could result in the need for protective actions outside the site boundaries.
- b) DSHS also receives notifications of nuclear/radiological incidents from the Environmental Protection Agency's National Response Center, the Nuclear Regulatory Commission, Department of Energy and Customs and Border Protection, and FEMA.

3) First Responders

Fire Department and law enforcement personnel responding to accident scenes involving transportation of radioactive sources may contact the DSHS Radiation Program.



4) Law Enforcement

DPS and FBI partners will share pertinent radiological terrorism-related intelligence with DSHS.

5) DSHS/Radiation Program Licensees

Licensees are required to report to DSHS incidents of loss, damage, or theft of radioactive materials. Licensees responsible for security of larger quantities of radioactive materials are required to provide enhanced security for these materials including specific arrangements with local law enforcement.

b. DSHS follows information dissemination protocol to be used throughout the incident outlined in the DSHS State Medical Operations Center Operating Guide. Notifications will be made to the following:

- 1) DSHS Executive Leadership and internal SMEs.
- 2) The SOC and key state leadership offices.
- 3) The CDC, NRC, EPA, and FEMA
- 4) DSHS HSRs and local health departments.

c. DSHS has a role in notifying and providing prompt instruction to the public within the plume exposure pathway.

3. Incident Response

Once notified of a radiological emergency, DSHS will verify the threat, define the incident as requiring significant state public health and medical assistance, activate this plan and the State Medical Operations Center (SMOC), and initiate the first operational period.

a. Situational Awareness

The immediate task following any notification is to identify the scope of the incident and acquire situational awareness for situational reports (SITREP) and the development of an Incident Action Plan (IAP).

1) Information will be obtained through the following mechanisms:

a) Threat Assessment

DSHS will coordinate with licensees, local jurisdictions and federal entities to conduct environmental surveillance, atmospheric modeling and radiological dose calculations to assess the potential threat to the public and make protective action recommendations to local authorities.

b) Environmental Data

- (1) DSHS will conduct environmental monitoring throughout the emergency and subsequent recovery operations to monitor the threat to public health and make recommendations to release remediated areas for unrestricted use.
- (2) Radiological samples collected from air, water, and soil as well as building and equipment surfaces, will be analyzed by Laboratory Services Section (LSS).
- (3) DSHS will work with impacted jurisdictions and state and federal response agencies to establish a central point for receipt and analysis of all field monitoring data and sample media.

c) Hospital Preparedness Program Contractors

DSHS will obtain healthcare resource information as needed to track and manage hospital surge.

- 2) SITREPs will be shared through multiple channels to the SOC for regular distribution to state partners.
- 3) Situational awareness processes will be maintained and continue through the response, recovery and remediation phases.

b. Coordination of Response Partners

Radiological response activities at the state-level will be coordinated through the SOC in conjunction with the SMOC. Additionally, DSHS Radiological Emergency Response Teams (RERT) will coordinate activities and protective action recommendations with the SMOC and through the local EOC or Incident Command Post. Because the incident may be large and long-lived, a Joint Operations Center (JOC) may be established to coordinate response and recovery activities among local, state, and federal authorities, to include representation from private sector representatives when applicable. SOC, SMOC, and JOC activities will be coordinated according to ICS and NIMS management practices.

When federal resources are requested for a nuclear power plant incident, initial coordination will be with the Advisory Team for Environment, Food and Health or, A Team, a team of federal agencies to provide resources and expertise to assist the state and local jurisdictions in developing incident action plans to address the threat and recover from the emergency. In addition, a Federal Radiological Monitoring and Assessment Center (FRMAC) will be established to support activities to assess the impacts of deposited radioactive materials and assist the state

by conducting radiation monitoring and assessment activities to enhance the recovery process.

- 1) Emergency Public Information Coordination
    - a) DSHS Public Information Officer (PIO) will support and coordinate with local officials to provide important public health alerts.
    - b) TDEM will establish a Joint Information Center to coordinate all emergency public information releases and media inquiries.
    - c) For nuclear power plant incidents, a Joint Information Center will be established near the site.
    - d) For large-scale radiological incidents, the DSHS PIO will fill the lead role at the JIC.
  - 2) Epidemiological Investigation Coordination
    - a) In the event of a radiological incident involving a single jurisdiction, DSHS will be available to provide population monitoring and analysis support if requested.
    - b) In a multi-jurisdictional radiological incident, local, state, and federal public health will participate in population monitoring under a Unified Area Command structure. The lead for population monitoring will be determined through the Area Unified command.
    - c) Data entry and analysis for population monitoring activities will be coordinated by DSHS when a radiological incident involves multiple health jurisdictions.
  - 3) Resource Management Coordination
    - a) The SOC will coordinate law enforcement resources.
    - b) DSHS will coordinate radiological and public health and medical resources.
- c. Gain Control of the Incident
- 1) Public Health Alerts and Risk Communication
    - a) DSHS is the lead agency for developing risk information during a large-scale radiological emergency. For additional information on risk communication and public information refer to Annex I.

- b) The DSHS Center for Consumer and External Affairs (CCEA) will be responsible for sharing information with the general public, media, elected officials and other stakeholders and providing timely information to educate the public about protective actions and prevent panic. CCEA also serves as the primary resource for all media representatives, as well as serving as the primary point of contact for PIOs of all partner agencies whether local, state, or federal.

2) Deployment of Radiological Emergency Response Team (RERT).

The SMOC, in coordination with the Division for Regulatory Services (DRS) will determine if it will be necessary to deploy the RERT.

3) Consequence Management

a) Responder Safety and Health

- (1) DSHS RERT will communicate information to protect the safety and health of responders in a radiological emergency, including the use of personal protective equipment (PPE) and medical countermeasures.
- (2) DSHS RERT will provide personnel monitoring for RERT members as well as persons entering restricted zones and utilize established exposure limits for staff on each work shift.
- (3) DSHS RERT will maintain records of radiation exposure for persons issued dosimetry.

b) Protective Action Recommendations for the Public

(1) Airborne Radioactive Plume

DSHS may recommend evacuation or sheltering of residents to prevent or reduce exposure to the airborne radioactive plume.

(2) Deposited Radioactive Contaminants

- DSHS may recommend populations evacuate or relocate to avoid exposure to deposited and/or re-suspended radioactive particulates.
- DSHS, in coordination with local jurisdictions and other responding agencies may allow some residents

to reenter a restricted zone in order to conduct necessary activities for short periods of time.

- In some cases, where property cannot be remediated to allow return to normal use, populations may be required to relocate.

c) Control of Radioactive Contamination

(1) DSHS will:

- Conduct radiological monitoring and assessment to determine the level and extent of contamination of air, water, vegetation, and soil.
- Develop proposed protective action recommendations for consideration by local and state officials based on projected or actual levels.
- Provide assistance to local governments in the monitoring and decontamination of evacuees, emergency workers, and vehicles.
- Maintain technical liaison with local, state, and federal agencies and industrial facilities having monitoring and assessment capabilities.

(2) A Sample Preparation and Coordination Team will develop and maintain a radiological exposure history for emergency workers active within the restricted zone as part of the State and local government response.

(3) The DSHS Laboratory Services Section maintains a mobile laboratory that can be dispatched to an appropriate location near the site of any major radiological accident/incident. Analysis results will be made available to the RERT.

(4) A Contamination Control Team working with local law enforcement at access control points will monitor all personnel and equipment leaving the restricted zone and direct the decontamination of personnel, vehicles and equipment as necessary.

(5) Population monitoring and decontamination of the general public will be the responsibility of local officials in the affected jurisdiction(s). DSHS will provide teams to each jurisdiction in which a significant decontamination effort is necessary as the result of an accident involving radioactive materials. These teams will provide assistance to local reception centers for radiological detection and decontamination.

(6) DSHS will provide trained contacts for each facility providing emergency medical care for persons injured in accidents involving actual or suspected radiation contamination. Assistance will be provided in accordance with DSHS Radiological Emergency Management Plans and Procedures (see listing in Appendix 3).

d) Shelter-In-Place

DSHS may advise the public to shelter-in-place in homes, businesses, schools, or other structures.

e) Evacuation

The SMOC will coordinate with Regional MOCs to facilitate medical evacuation.

f) Mass Fatality Management

Fatality management operations may be indicated and will be implemented as outlined in Appendix 4 to Annex H (Mass Fatality Management).

g) Medical Countermeasures Distribution

(1) The public health system, starting at the local level, is required to initiate appropriate protective and responsive measures for the affected population, including first responders and other workers engaged in incident-related activities. These measures may include prophylaxis for populations at risk including populations not already exposed, but at risk of exposure from contaminated materials or the environment.

(2) The DSHS Strategic National Stockpile (SNS) Team will coordinate the request and distribution of medical countermeasures in Texas. These procedures are outlined in Appendix 8 to Annex H (Medical Countermeasures Plan).

h) Medical Surge Augmentation

(1) Triage centers will be used for conducting medical triage of individuals and the distribution of prophylactic measures.

(2) DSHS will provide treatment recommendations for medical provider use. Standards of care may vary depending on the size and scope of the incident. It is

likely that some provisions for temporary modification of regulatory requirements at all levels of government will be necessary.

#### 4. Recovery and Remediation

- a. A recovery committee consisting of local jurisdictions, DSHS and support agencies as well as federal agencies will form to oversee and make decisions on remediation activities and release of radioactively contaminated property.
- b. DSHS will conduct post emergency population dose estimates of affected areas.
- c. Disaster Behavioral Health Services
  - 1) DSHS Disaster Behavioral Health Services (DBHS) has the primary responsibility for assessment and coordination of disaster behavioral health services during and after a radiological incident.
  - 2) In addition to the concepts outlined in Appendix 5 to Annex H, DSHS and supporting agencies will:
    - a) Provide consultation to various organizations and the public to mitigate radiological incident related psychological disorders.
    - b) Through DSHS CCEA, develop and release critical information to the public regarding:
      - (1) The psychology of quarantine, isolation, evacuation and sheltering in place.
      - (2) Distinguishing between, and resources for stress-induced behavioral disorders including acute stress disorder, acute posttraumatic stress disorder (PTSD), and delayed-onset PTSD.
    - c) Be prepared to respond to an outbreak of medically unexplainable symptoms (the worried well) due to fear which could further overwhelm healthcare resources.
    - d) Coordinate training to educate triage clinicians to be knowledgeable of the common presentations of behavioral disorders induced by a traumatic radiological incident, as symptoms associated with the anxiety syndromes can be confused with physical signs similar to those associated with a radiological exposure.

d. Remediation and Decontamination

- 1) DSHS will conduct radiological sampling and assessment to determine the effectiveness of remediation plans and to recommend changes to restricted zones
- 2) DSHS will participate with support agencies to develop decontamination plans, coordinate assessment of sample results and recommend release or continued restricted access to contaminated areas.
- 3) TCEQ will provide technical guidance regarding appropriate disposal of radioactive wastes.

e. Post-Incident Surveillance

- 1) After deactivation of response activities coordinated through the SMOC, DSHS will continue to coordinate routine radiological surveillance activities of radiological environmental contaminants remaining in restricted areas. These activities will be shared or coordinated with local jurisdictions and health authorities. DSHS will also respond to and assess reports of radiological effects from citizens, local authorities and media.
- 2) DSHS LSS will coordinate testing of environmental samples with DSHS RERT.

## VII. ORGANIZATION AND ASSIGNMENT OF RESPONSIBILITIES

### A. ORGANIZATION

The SOC is managed by TDEM and composed of personnel and resources from several state agencies and/or organizations. A primary agency is selected on the basis of its authority and capability in a particular functional area. The other agencies and organizations within the SOC are designated as support agencies and organizations based on their ability to provide equipment, personnel, and expertise in support of functional tasks. The agencies and/or organizations that comprise the SOC during a radiological emergency response are listed in Attachment 1.

### B. ASSIGNMENT OF RESPONSIBILITIES

#### 1. General

All agencies and organizations assigned to the radiological emergency response efforts are responsible for the following tasks:

- a. Designating and training representatives of their agency in accordance with applicable NIMS/Incident Command System (ICS) requirements.



- b. Identifying staffing requirements and maintaining current notification procedures to ensure appropriate trained agency personnel are available for both regular and extended emergency duty.
- c. Developing and maintaining procedures to ensure current inventory of agency resources and contact lists are available.
- d. Developing and maintaining procedures for identification, location, commitment, deployment, and accountability of agency emergency support resources.
- e. Providing available personnel, equipment, and other assistance in support of response and recovery operations as capable.
- f. Providing situational and operational status reports in accordance with existing procedures and/or as requested by the primary agency.
- g. Participating in joint drills and exercises to validate procedures and verify personnel training.

## 2. Primary Agency

The primary agency responsible for the coordination of nuclear/radiological emergency response operations is DSHS. DSHS Divisions, Sections, Units, and Branches will accomplish the following tasks and situation reports:

- a. Commissioner of Health
  - 1) Review, as final authority, Annex D (Radiological Incident Management Plan)
  - 2) Oversee the activation and implementation of Annex D (Radiological Incident Management Plan) and related Response Operating Guidelines (ROGs), and Radiological Emergency Management Plans and Procedures.
  - 3) Communicate with the DSHS Council, appropriate state government and legislative leadership, and external partners on radiological incident response activities.
  - 4) Review after-action reports (AARs) and evaluation methodology and approve appropriate changes to plans and procedures.
- b. State Epidemiologist

State Epidemiologist will oversee the DSHS roles in the Epidemiological Investigation Coordination.

c. Community Preparedness Section (CPS)

- 1) Utilize the Texas PHIN to disseminate radiological health alert messages to local and regional public health partners.
- 2) Implement notification procedure and ensure appropriate key personnel are notified of the situation, tasks, and/or deployment requirements.
- 3) Notify and communicate with appropriate DSHS offices/programs; local, regional, and federal public health authorities; state and federal law enforcement groups and emergency response agencies; other state and federal support agencies, external partners; and others.
- 4) Recommend activation and implementation of this Annex and associated Standard Operating Guidelines/Standard Operating Procedures (SOGs/SOPs).
- 5) Activate direction and control facilities and deploy staff and resources.
- 6) Provide continuous support and monitoring of critical communications systems.
- 7) Identify personnel to staff Joint Field Office (JFO), if applicable.
- 8) Coordinate with health and medical volunteers and with health and medical services federal counterparts.
- 9) Assess the ability of affected local health and medical services to continuously support radiological incident response.
- 10) Work with DSHS' SNS Team to coordinate the request, receipt, and distribution of the SNS (if deployed).
- 11) Track and report the status of tasked mission assignments and expenditures.
- 12) Demobilize local, state and/or federal assets.
- 13) Deactivate direction and control facilities.
- 14) Coordinate post-incident evaluations of nuclear/radiological emergency preparedness and response actions.

d. Laboratory Services Section (LSS)

- 1) Provide radiological analysis of air, water, vegetation, soil and surface swipe samples.

- 2) Provide staffing for mobile radiological laboratory resource(s) for near site analysis of radiological samples.
- e. Division for Regulatory Services
- 1) In cooperation with industry partners, conduct training, planning, and exercise activities related to radiological emergency preparedness.
  - 2) Maintain RERT response procedures and incident specific plans related to Division radiological emergency response assignments.
  - 3) Assist jurisdictions, when indicated and requested, to provide radiological monitoring, assessment and protective action recommendations to reduce or avoid exposure to sources of radiation.
  - 4) Utilize regulatory tools available, as needed, including inspection, investigation, detention authority, emergency orders, radiological sampling; as well as criminal, civil, and administrative penalties.
  - 5) Deploy the RERT to identify and respond to radiological emergency situations as rapidly as possible.
  - 6) Coordinate radiological monitoring, assessment and protective action recommendations with federal agency responders such as DOE, NRC, EPA and CDC.
  - 7) Maintain radiological surveillance of affected areas during the recovery phase to identify areas to be returned to unrestricted use.
- f. Disaster Behavioral Health Services (DBHS) Branch
- 1) Coordinate disaster behavioral health services to lessen the adverse mental health effects of a nuclear/radiological incident.
  - 2) Serves as the liaison between DSHS contracted mental health and substance abuse providers and the SMOC.
  - 3) Assess the need for DBHS to survivors, disaster workers, and first responders.
  - 4) Implement and manage the Crisis Counseling Program during federally declared disasters.
  - 5) Coordinate post-incident evaluations of DBHS response activities.
  - 6) Develop contact/call lists to ensure ability to communicate with individuals and locations with responsibilities for DBHS radiological incident response.

- 7) Implement notification procedure and ensure appropriate key personnel are notified of the situation, tasks, and/or deployment requirements.
- 8) Notify and communicate with appropriate local, state, and federal DBHS partners.
- 9) Activate and deploy staff and resources.
- 10) Identify personnel to staff JFO.
- 11) Assess the ability of affected mental health and substance abuse providers to continuously support the provision of behavioral health services.
- 12) Track and report the status of tasked mission assignments and expenditures.
- 13) Provide post-event crisis intervention services to DBHS responders.

g. Center for Consumer and External Affairs (CCEA)

- 1) Maintain updated systems and methods for distributing information to the news media.
- 2) Develop public education materials and public service announcements.
- 3) Provide services for translation of information in English into one or more other languages.
- 4) Provide information to the news media; DSHS PIO directs all DSHS press conferences, media briefings, interviews and responses to news media inquiries.
- 5) Provide information to the news media regarding recovery operations.

h. Office of General Counsel

- 1) Provide legal advice and services to DSHS programs.
- 2) Review radioactive materials statutes for adequacy and recommend needed changes.
- 3) Ensure plans and SOGs reflect current Texas and federal law.
- 4) Recommend legal tools available to control radiological threat.

- 5) Conduct a post-incident evaluation of the legal processes used during the incident to assess how well the public health needs of the state were met.

i. Health Service Regions (HSR)

- 1) Develop detailed standard operating guidelines in support of plans.
- 2) Assist in population monitoring activities within the region.
- 3) Exercise respective regional plans.
- 4) Participate in radiological emergency response exercises.
- 5) Maintain situational awareness and assist in coordination of medical resources with local authorities.
- 6) Assist local health departments and communities in health and medical response efforts.
- 7) In counties with no local health department, lead local health and medical response efforts.
- 8) Lead response efforts for SNS deployment.
- 9) In coordination with the Epidemiology Response Teams (ERTs), conduct epidemiologic investigations and surveillance activities, and recommend control activities as appropriate.
- 10) Evaluate response activities and revise operating guidelines based on lessons learned.

3. Support Agencies/Organizations

All tasked radiological incident response personnel shall be aware of the capabilities of their parent organizations to provide assistance and support and be prepared to provide recommendations to DSHS representatives. Support agency representatives must respond to mission assignments from the designated coordination and control authority for deployment and commit their agency's assets to support the response and recovery effort. Some agencies will provide agency personnel and/or equipment, while support from other agencies will be knowledge and expertise in working with response agencies, the vendor community, or commercial organizations or associations in supplying services, or in restoration of disrupted services.

a. Texas Department of Public Safety (DPS)

Provide vehicles, communications, and personnel for the RERT field monitoring teams.

- b. Texas Department of Agriculture (TDA)  
  
Assemble and report current crop production and location data for the affected area.
- c. Texas Commission on Environmental Quality (TCEQ)
  - 1) Provide technical guidance to ensure proper disposition and/or disposal of radioactive waste.
  - 2) Designate and provide personnel to assist and augment the RERT.
  - 3) Provide technical guidance, and assistance within capabilities, regarding monitoring water quality in areas affected by a radiological incident.
- d. Texas Parks and Wildlife Department (TPWD)
  - 1) Provide radiological response support as directed by DPS with law enforcement, vehicles and communications for the RERT field monitoring teams.
  - 2) Provide hazard advisories or close impacted State Park lands and Wildlife Management areas to hunting, fishing and camping as directed.
- e. Texas Animal Health Commission (TAHC)
  - 1) Work with local officials and animal food production owners, organizations, and associations to determine the best information possible regarding the number and type of livestock located within or in proximity to the affected area.
  - 2) Work with DSHS and other radiological experts in determining the most appropriate actions to take regarding potentially affected livestock.
  - 3) Oversee any necessary euthanasia activities to ensure they are handled appropriately.
  - 4) Work with members of the state's Animal Response Team, DSHS, and local officials to obtain technical advice and personnel to appropriately decontaminate pets accompanying their owners to mass care shelters.
  - 5) Coordinate the appropriate disposal of carcasses of affected livestock and pets.

## **VIII. EMERGENCY RESPONSE LEVELS/ACTION GUIDES**

- A.** See State of Texas Emergency Management Basic Plan, Section VII, for a list of the different Readiness and Response Levels and the kinds of activities that characterize each level.
- B.** Attachment 2 to this Plan contains a supplemental Action Guide which outlines additional actions DSHS and supporting agencies should take at each emergency response level to ensure the state is prepared to respond and support emergency response operations.

## **IX. CONTINUITY OF OPERATIONS**

### **A. LINES OF SUCCESSION**

Continuity of government operations, including lines of succession for personnel with emergency management responsibilities, will be in accordance with existing policies and required emergency management standard operating procedures of each agency or organization.

### **B. TRAINING**

Primary and support agencies will ensure their respective personnel are trained and prepared to operate in the event regular agency members are absent. They will identify alternate or backup personnel, pre-delegate authorities, and task responsibilities of their individual agencies, and ensure appropriate procedures and action guides contain sufficient detail so that alternate/backup personnel can use them in performing their responsibilities.

### **C. RECORD KEEPING**

Primary and support agencies will ensure all records necessary for emergency management operations can be easily obtained from each member agency in an emergency.

## **X. ADMINISTRATION AND SUPPORT**

### **A. SUPPORT**

1. Requests for emergency assistance will be resolved at the lowest-level coordination and control facility with appropriate response resource capabilities. Unresolved assistance requests will normally flow upward from cities to the county and, if unresolved at the county level, continue upward to the response DDC and then to the SOC if required.
2. Refer to Appendix 2 to Annex N of the State of Texas Emergency Management Plan for procedures on requesting assistance.

## **B. AGREEMENTS AND UNDERSTANDINGS**

All agreements and understandings entered into for the purchase, lease, or otherwise use of equipment and services will be in accordance with the provision of state law and procedures. The Proclamation of a State of Disaster issued by the Governor, may suspend selected rules and regulations that affect support operations. The specific impact of the situation will be determined by each agency, and SOC members will be advised accordingly of administration and/or procedural changes that may affect emergency operations.

## **C. STATUS REPORTS**

TDEM will maintain the current status of all assistance requests and track unresolved issues. This information will be summarized into periodic situation reports and collected from the primary and supporting agencies in accordance with SOC operating procedures.

## **D. EXPENDITURES AND RECORD KEEPING**

Each state agency is responsible for establishing administrative controls necessary to manage the expenditure of funds and to provide reasonable accountability and justification for state and federal reimbursement as described throughout the Texas Emergency Management Plan and in accordance with established guidelines.

## **E. AFTER ACTION REPORTS**

Following the conclusion of any significant emergency event, incident or exercise, the primary agency representative will conduct an after action report of activities during the event/incident/exercise. Support agencies will provide written and/or oral inputs for this report, and the primary agency representatives will consolidate all inputs into a final report and submit it to the Assistant Director of Texas Department of Public Safety and Chief of Texas Division of Emergency Management.

# **XI. DEVELOPMENT AND MAINTENANCE**

## **A. DEVELOPMENT**

1. DSHS has the overall responsibility for emergency planning and coordination of state resources in the conduct of radiological incident response operations.
2. Each tasked member agency of the State Emergency Management Council is responsible for the development and maintenance of appropriate planning documents to address responsibilities assigned in this plan, to include standard operating procedures.
3. The Commissioner of Health will ensure appropriate distribution of this plan and any changes thereto.



## **B. MAINTENANCE**

1. The Commissioner of Health at DSHS will authorize and issue changes to this plan until such time as the plan is superseded.
2. DSHS will maintain and update this plan, as required. State Emergency Management Council member representatives may recommend changes and will provide information concerning capability changes which impact their emergency management responsibilities.
3. Tasked State Emergency Management Council agencies are responsible for participating in the annual review of the plan. The Commissioner of Health at DSHS will coordinate all review and revision efforts, and ensure the plan is updated as necessary, based on lessons learned during actual biological terrorism incidents and exercises, and other changes in organization, technology and/or capabilities.
4. Council members have the responsibility for maintaining annexes, standard operating procedures, notification lists, and resource data to ensure prompt and effective response to biological terrorism incidents. Agency resource data must be accessible to agency representatives at the SOC and at each affected Disaster District EOC to facilitate the capability of each agency to support its emergency management responsibilities. Council member agencies are also required to conduct and/or participate in training activities designed to enhance their ability to accomplish their responsibilities as assigned by this plan.
5. This plan shall be exercised at least annually in the form of a simulated or real emergency in order to provide practical, controlled, and operational experience to those who have SOC responsibilities. This requirement is applicable to the SOC and each Disaster District EOC.

## **APPENDIX 1 TO ANNEX D**

### **RADIOLOGICALEMERGENCY MANAGEMENT ORGANIZATION**

**PRIMARY AGENCY:** Texas Department of State Health Services (DSHS)

**SUPPORT AGENCIES:** Texas Department of Agriculture (TDA)  
Texas Department of Public Safety (DPS)  
Texas Commission on Environmental Quality (TCEQ)  
Texas Parks and Wildlife Department (TPWD)  
Texas Animal Health Commission (TAHC)

## APPENDIX 2 TO ANNEX D

### RADIOLOGICAL EMERGENCY MANAGEMENT ACTION GUIDE

#### A. RESPONSE LEVEL IV – NORMAL CONDITIONS

The following Preparedness elements will be reviewed and updated as required and will be in compliance with NIMS operating principles and protocol.

##### 1. Training

- a. Emergency Workers (State Agencies) - Exercises, Drills, Transportation Emergency Preparedness Program (TEPP), and response specific training in accordance with NRF guidelines & DSHS REM plans & procedures.
- b. County & Locals (County Judges, Mayors, Fire Fighters, Law Enforcement, and Volunteers) - Exercises, Drills, and response specific training in accordance with NRF guidelines & DSHS REM plans & procedures.
- c. Reception Center/Population Monitoring Centers - Exercise, Drills, and response specific training.
- d. Hospital Personnel – Medical Service (MS) 1 drills.

##### 2. Planning

- a. Annex D – Radiological Incident Management and all Radiological Emergency Management Plans & Procedures.
- b. Annex H – Public Health and Medical Services.
- c. Annex U –Terrorist Incident Response (If designated, DSHS will become the lead agency for incidents involving releases of radiological material during a terrorism event).
- d. DSHS Radiological Incident Response Operating Guide.
- e. State-wide preparedness and preventative detection planning.
- f. Hospital radiological emergency plans for receiving contaminated patients.
- g. Nuclear Regulation (NUREG)-0654/FEMA REP1, Rev.1 (Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in support of Nuclear Power Plants).
- h. EPA 400 (Actions for Nuclear Incidents).

- i. Emergency contact list (Federal, State, & County).
  - j. 24- Hour Emergency Response capability 512-458-7460.
  - k. Radiological Emergency Call List.
3. Maintenance/Inventory
- a. Fixed Laboratory Facility.
  - b. Mobile Analysis Laboratory - 32 foot gooseneck trailer.
  - c. Emergency Response Vehicle - ambulance-type vehicle (equipped).
  - d. Miscellaneous Radiation & Environmental Monitoring Equipment - including miscellaneous equipment available for incident response.
  - e. Personnel Protective Equipment (PPE) & Misc. Supplies.
4. Administration
- a. Procedure forms.
  - b. Procedures for incoming notifications.
  - c. Supplies/inventories stored at each facility.

**B. RESPONSE LEVEL III – INCREASED READINESS CONDITION**

- 1. Receive notification from local responders or licensee.
- 2. Notify emergency response personnel at DSHS headquarters and affected region.
- 3. Notify county and local officials (County Judge, Mayor, or County Emergency Management Coordinator).
- 4. Notify SOC and other appropriate state agencies.
- 5. Notify Federal Emergency Management (FEMA) and other appropriate federal agencies:
  - a. Advisory Team (EPA, US Department of Agriculture (USDA), Food and Drug Administration (FDA), & DHS)
  - b. NRC
  - c. DOE
- 6. Prepare equipment and supplies for response and pre-stage if appropriate.

### **C. RESPONSE LEVEL II – ESCALATED RESPONSE CONDITION**

1. Deploy emergency response teams & vehicles.
2. Establish communications from N110 at the Exchange Building with:
  - a. Emergency response teams
  - b. Field teams
  - c. County and local officials
  - d. Applicable state agencies (TDEM, TCEQ, & DPS)
  - e. Federal Emergency Management Agency (FEMA)
  - f. JFO
  - g. SMOC
3. Arrange for transportation and hotel accommodations.
4. Activate the DSHS SMOC, as needed.
5. Assist in Governor's request package (i.e., Proclamation, letter, attachments, as needed).

### **D. RESPONSE LEVEL I – EMERGENCY CONDITIONS**

1. Provide protective actions recommendations.
2. Provide results of sampling of ground deposition and air monitoring.
3. Schedule a media briefing.

### **E. POST-DISASTER ACTIVITIES - RECOVERY**

1. Relocation

For the inability to restore affected areas to unrestricted use, people are removed or excluded from these areas to avoid chronic radiation exposures in excess of established limits. Factors on which decisions to relocate or attempt restoration will be based include both technological and economic considerations.

2. Re-entry
  - a. Perform detailed radiation dose rate surveys.
  - b. Conduct environmental samplings.

- c. Provide protective actions recommendations.
  - d. Provide results of sampling of ground deposition and air monitoring to the RERT Accident Assessment team for re-entry decision making.
3. Return
- a. Individuals are permitted to re-occupy previously restricted areas.
  - b. Depending on residual exposure rates and the potential for re-suspension precautions or limitations may be recommended.
  - c. Ceilings on exposure and total dose commitment are considered.
4. Restoration
- a. Reduce exposure rates and concentrations in the environment to acceptable levels before unrestricted use begins.
  - b. Develop recovery criteria and oversee the various tasks necessary to achieve the goal of environmental restoration.

## APPENDIX 3 TO ANNEX D

### RADIOLOGICAL EMERGENCY MANAGEMENT SUPPORTING DOCUMENTATION

#### A. RADIOLOGICAL EMERGENCY RESPONSE:

- Tab 1: Fixed Nuclear Facility Accident Response
  - Chapter 1: Comanche Peak Nuclear Power Plant
  - Chapter 2: South Texas Project
- Tab 2: Production / Utilization Facility Accident Response
  - Chapter 1: Pantex
- Tab 3: Radiological Terrorism Response
- Tab 4: Transportation Events

#### B. RADIOLOGICAL EMERGENCY MANAGEMENT PROCEDURES:

1. Accident Assessment: Plume Exposure Pathway
2. Accident Assessment: Ingestion Exposure Pathway
3. Contamination Survey Techniques
4. Tool and Equipment Decontamination
5. Personnel Monitoring and Decontamination
6. Area Decontamination Methods
7. Personnel Dosimetry
8. Respiratory Protection
9. Radioprotective Drugs
10. Monitoring and Sampling Airborne Gamma Releases
11. Monitoring and Sampling Airborne Alpha Releases
13. Emergency Notification and Deployment
14. Public Information
17. Radio Communications
22. Recovery Operations
24. Contamination Control Team Operations
25. Decontamination Assistance Team
26. Selection and Use of Protective Clothing