

FEMA REP Recovery Initiative Rolling Summary

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The FEMA REP Recovery Initiative Rolling Summary is a living document summarizing all REP Recovery Initiative events, participant discussion, lessons learned, and key takeaways. This document is updated following the completion of each event.

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OVERVIEW

The Radiological Emergency Preparedness (REP) Recovery Initiative is a platform to discuss recovery issues as they relate to an incident at a nuclear power plant (NPP). Workshops, seminars, and tabletops support addressing identified state recovery planning gaps as they relate to an incident at a NPP.

FEMA Technological Hazards Division (THD), and the REP Program specifically, serves as a connection for the offsite response organizations (OROs) between all-hazards and radiological-specific response and recovery entities. With the REP Recovery Initiative, this role is expanded through not only connecting entities that do not traditionally engage, even within the REP evaluated space, but creating a platform for addressing relatively unfamiliar issues. Recovery activities are not heavily discussed as part of the REP Program or evaluated space, and this new initiative provides the platform to address a recognized gap.

As further outlined below, the Initiative supports the increased focus on core capabilities within the REP Program (REPP) and the increased attention on recovery planning with the field of emergency management. The overall shift of emphasis in conjunction with the implementation of new REPP policy established a strong environment for the implementation of the REP Recovery Initiative. Additionally, these events allow REPP to better assess OROs capabilities in an effort of determining reasonable assurance. The 2019 version of the REP Program Manual (RPM) outlines additional drill topics to be addressed over the 8-year exercise cycle. Numerous topics may be addressed through the coordination of a tailored Initiative event.

The coordination of the REP Recovery Initiative is led by the headquarters component of the REP Program, in conjunction with the state and respective regional office. With the expansion of the scope of the Initiative, events are designed either based on the drill requirement the state is looking to address or based on core capabilities. The list of drill activities can be found in the [History](#) section of this document. Should an event be based on core capability, based on gaps identified as part of the development of the State Preparedness Report (SPR), State(s) identify the desired objectives, core capabilities, and event structure (seminar, workshop, tabletop exercise). The planning team subsequently identifies presentation topics, issues for discussion, and overall event development to meet the state-identified objectives whether to meet a drill activity or address a gap.

INTENT

The purpose of the REP Recovery Initiative is to strengthen recovery capabilities within the REP community, leading to a more informed determination of reasonable assurance.

The following objectives drive the direction of the REP Recovery Initiative:

- Enable FEMA to facilitate and improve overall preparedness as it relates to recovery capabilities
- Further integrate REP community into the use of core capabilities
- Complete various improvement items identified through Southern Exposure 2015 (SE15), as outlined on the SE15 IP Matrix

- Establish a framework/foundation to drive regional delivery for future recovery focused workshops, seminars, and tabletop exercises in support of state identification of recovery gaps and further assess recovery capabilities
- Provide a non-evaluated platform to discuss ingestion, relocation, reentry, and return activities as it relates to an incident at an NPP

The intention of the Initiative is to provide a platform to assist state and local agencies in strengthening recovery capabilities as they relate to an incident at a nuclear power plant, to overall determine reasonable assurance as outlined in 44 Code of Federal Regulations (CFR) 350.

From a federal perspective, the REP Recovery Initiative previously directly supported the following 2014-2018 FEMA Strategic Plan priorities and corresponding objectives:

- Priority 1: Be survivor-centric in mission and program delivery
 - Objective 1.2: Provide support to local leaders and tribal officials to strengthen recovery and mitigation core capabilities
- Priority 2: Become an expeditionary organization
 - Objective 2.1: Improve alignment of FEMA incident operations with the needs of state, local, tribal, and territorial partners
- Priority 3: Posture and build capability for catastrophic disasters
 - Objective 3.1: Strengthen capabilities with the greatest potential to change outcomes on the ground in catastrophic disasters

Currently, the REP Recovery Initiative directly supports the following 2018-2022 FEMA Strategic Plan strategic goals and objectives:

- Strategic Goal 1: Build a Culture of Preparedness
 - Every segment of our society, from individual to government, industry to philanthropy, must be encouraged and empowered with the information it needs to prepare for the inevitable impacts of future disasters.
 - Objective 1.4: Better Learn from Past Disasters, Improve Continuously, and Innovate
- Strategic Goal 2: Ready the Nation for Catastrophic Disasters
 - FEMA will work with its partners across all levels of government to strengthen partnerships and access new sources of scalable capabilities to quickly meet the needs of overwhelming incidents.
 - Objective 2.3: Posture FEMA and the Whole Community to Provide Life-saving and Life-sustaining Commodities, Equipment, and Personnel from All Available Sources
- Strategic Goal 3: Reduce the Complexity of FEMA
 - FEMA must continue to be responsible stewards of the resources we are entrusted to administer. We must also do everything that we can to leverage data to drive decision-making, and reduce the administrative and bureaucratic burdens that impede impacted individuals and communities from quickly receiving the assistance they need.
 - Objective 3.2: Mature the National Disaster Recovery Framework

By aligning with the FEMA Strategic Plan, the REP Recovery Initiative is supporting the overall increased focus on recovery operations and planning. In conjunction with the recent increase in intensity of natural disasters, further emphasis has been placed on the need to address recovery capabilities as part of the planning process to better inform activities following an incident.

HISTORY

In 2015 the REP Program co-led the development and conduct of the SE15 full-participation exercise and the supporting Recovery Tabletop Exercise (TTX). In advance of the TTX, the Recovery Working Group coordinated two workshops to address the National Disaster Recovery Framework (NDRF) and the Price Anderson Act (PAA) and other funding mechanisms. The following gaps were identified during these recovery events. For additional information on these gaps, please reference the SE15 Recovery TTX Discussion Notes or the SE15 After Action Report (AAR).

- PAA and NDRF public and individual assistance gaps
 - Plan of Distribution and Court allotment of funds
- Further understanding resources available
- Available resources
 - Understanding gaps in the absence of a Stafford Declaration
- Duplication of benefits
 - Data sharing
 - Case management
- Waste management/Clean-Up
 - Low level radioactive waste
 - Determining levels publicly acceptable for return

While the subsequent SE15 Improvement Plan (IP) Matrix identified gaps within recovery capabilities and knowledge, the benefit of the SE15 preparatory recovery-focused workshops and the Recovery TTX defined the need to continue addressing recovery activities as it relates to an incident at a NPP.

Following the success of these events, the REP Program decided to support ongoing workshops and recovery-focused events in partnership with the regions and OROs to close the gaps nationwide. With numerous events having been completed and multiple in the planning process, various gaps previously identified have been further discussed as well as the identification of additional areas of concern and potential alternative solutions to such issues.

Ongoing programmatic changes, environmental shifts, and real world disasters underscore the need for further emphasis on recovery activities through the planning process. The Initiative directly supports the previously noted FEMA Strategic Plan objectives and REP Program programmatic shifts.

The Initiative has expanded the scope of workshops and seminars in 2019 to include ingestion, relocation, reentry, and return (RRR) concepts in an effort to prepare for upcoming ingestion exercises. By broadening the scope, the Initiative is able to serve as a platform for discussing these concepts in a no fault environment with an audience that may have not been previously engaged since the last ingestion exercise. As part of the 2019 version of the RPM, the following drill activities were identified to be completed during the 8-year exercise cycle, events that may be met through an Initiative event are denoted with an asterisk:

- Sample plan development
- Analysis of lab results from samples
- Assessment of the impact on foodstuffs and agricultural products*
- Protective decisions for reentry, relocation, return, and reoccupancy*
- Foodstuffs/crop embargo*
- Dissemination of ingestion exposure pathway EPZ information to pre-determined individuals and business*
- Assessment of emergency worker knowledge of ingestion exposure pathway EPZ procedures
- Identification of the individual authorized to make decisions in the ingestion exposure pathway EPZ*

Ultimately, the Initiative is working to support the growth of knowledge as relates to post-emergency activities by OROs in response to an incident at a NPP.

PAST EVENTS

The FEMA REP Recovery Initiative White Paper provides a detailed history of the establishment and development of the Initiative. Since creation, the following events have been conducted with the corresponding regions and for the respective states:

- Region VII Recovery Seminar
 - State: Louisiana
 - December 5, 2017
- Region VI/Texas Recovery Seminar
 - State: Texas
 - March 6-7, 2018
- Region V/Indiana Recovery Seminar
 - State: Indiana
 - June 5-6, 2018
- Region IV/Alabama Recovery Seminar
 - State: Alabama
 - August 1-2, 2018
- Region VI Recovery Seminar
 - State: Louisiana
 - September 12-13, 2017
- Region III Recovery Seminar
 - State: Maryland
 - October 17-18, 2017
- Waterford-3 Recovery Workshop
- Region VII Recovery Seminar
 - States: Iowa, Kansas, Missouri, Nebraska
 - May 3-4, 2017

- Radiological Recovery Training for Washington State (referred to as WA Training)
 - State: Washington
 - September 26, 2018
- Region V/Indianapolis Recovery Seminar
 - State: Indiana
 - February 20-21, 2019
- Region III/West Virginia
 - State: West Virginia
 - May 14, 2019
- Connecticut Ingestion Workshop
 - State: Connecticut
 - September 18, 2019
- Region V/Illinois Ingestion Workshop
 - State: Illinois
 - October 9-10, 2019
- Nebraska Federal Outreach/Training
 - State: Nebraska
 - November 6-7, 2019 (Ingestion component on November 7, 2019)
- St. Lucie Federal Outreach
 - State: Florida
 - January 7-8, 2020
- New Hampshire Ingestion Seminar
 - State: New Hampshire, Massachusetts, Maine
 - January 15, 2020

It is important to note the ongoing real world incidents that occurred during each event, thus impacting available staff for planning efforts as well as participating agencies:

Disaster	Region 7 Recovery Seminar	Region 6/Louisiana Recovery Seminar	Region 3 Recovery Seminar	Waterford-3 Recovery Workshop	WA Training
Missouri Severe Storms, Tornadoes, Straight-line Winds, and Flooding (DR-4317)	X				
Nebraska Severe Winter Storm and Straight-line Winds (DR-4321)	X				
Kansas Severe Winter Storm, Snowstorm, Straight-line Winds, and Flooding (DR-4319)	X				
Louisiana Tropical Storm Harvey (DR-4345)		X	X	X	
Louisiana Tropical Storm Harvey (EM-3382)		X	X	X	
Texas Hurricane Harvey (DR-4332)		X	X	X	
Seminole Tribe of Florida Hurricane Irma - Seminole Tribe Of Florida (DR-4341)		X	X	X	
Georgia Hurricane Irma (DR-4338)		X	X	X	
Alabama Hurricane Irma (EM-3389)		X	X	X	
Florida Hurricane Irma (DR-4337)		X	X	X	
Puerto Rico Hurricane Irma (DR-4336)		X	X	X	
Seminole Tribe of Florida Hurricane Irma (EM-3388)		X	X	X	

Georgia Hurricane Irma (EM-3387)		X	X	X	
South Carolina Hurricane Irma (EM-3386)		X	X	X	
U.S. Virgin Islands Hurricane Irma (DR-4335)		X	X	X	
Florida Hurricane Irma (EM-3385)		X	X	X	
Puerto Rico Hurricane Irma (EM-3384)		X	X	X	
U.S. Virgin Islands Hurricane Irma (EM-3383)		X	X	X	
U.S. Virgin Islands Hurricane Maria (DR-4340)		X	X	X	
Puerto Rico Hurricane Maria (DR-4339)		X	X	X	
Puerto Rico Hurricane Maria (EM-3391)		X	X	X	
U.S. Virgin Islands Hurricane Maria (EM-3390)		X	X	X	
Hurricane Florence DR-4393-NC 4393-SC					X

Presentations and briefings on the Initiative were also given at the following workshops and conferences:

- 2016 Region VII Regional Assistance Committee (RAC) Meeting
- 2017 Region I/II/III REP Program Conference
- 2017 U.S. Nuclear Regulatory Commission (NRC) Region IV Training, Outreach, and Planning (TOP) Workshop
- 2017 National Radiological Emergency Preparedness (NREP) Conference
- 2017 Wisconsin Federal Outreach
- Florida State REP Task Force Recovery Presentation
- 2018 NRC TOP Workshop
- 2018 Ohio October Nuclear Emergency Planning Advisory Committee (NEPAC) Meeting
- 2018 NRC Region IV TOP Workshop
- 2018 NREP Conference
- 2019 NRC Region IV TOP Workshop
- 2019 NREP Conference
- 2019 New York Power Pool Conference
- 2019 Rhode Island Emergency Management Conference
- 2020 Southeast Radiological Emergency Preparedness Workshop

These presentations provided an overview of the REP Recovery Initiative, previous events, and key recovery issues identified including gaps with the PAA and federal support in the absence of a Major Disaster Declaration.

EVENT STRUCTURE

States identify the objective(s) for the event based on self-identified gaps through the SPR. Each state completes an SPR annually which is an assessment of capability levels against capability

targets identified in the Threat and Hazard Identification and Risk Assessment. Following the identification of objectives and overall desired outcomes, the type of event is determined. The alignment of capability targets to conducted events can be found in [Appendix F: State Preparedness Report Alignment](#).

Seminars

The aforementioned seminars have been similarly structured as result of similar desired outcomes and objectives. A previous agenda example can be found in [Appendix A: Agenda Example](#). These events have been a combination of presentations and facilitated discussions.

The following topics have been addressed through the various events; brief summaries of the presentations can be found in the [Presentation Summaries](#) section.

- Agricultural Impacts of a Radiological Incident: Panel
- A-Team Briefing
- Diverse and Flexible Coping Strategies (FLEX) Overview
- FEMA Response
- FEMA R-IV Radiological Emergency Response
- FEMA R-IV Radiological Emergency Response
- FEMA Update
- Indiana Department of Homeland Security: State Response Agencies during an Ingestion Pathway Incident
- Ingestion/RRR Introduction and Overview
- Louisiana Agriculture Update
- NDRF Overview
- Northern Lights Exercise – Insights and Lessons Learned
- NRC Response
- PAA Overview
- REP 101
- SE15 Overview/REP Recovery Initiative
- State and Local Roles in the Ingestion Pathway
- Texas Department of State Health Services
- U.S. Department of Agriculture (USDA) Briefing
- U.S. Environmental Protection Agency (EPA) Briefing/Protective Action Guide (PAG) Update

The following modules have been conducted through these events; additional information about participant discussion and outcomes can be found in the [Facilitated Discussion](#) section:

- Recovery-focused seminars:
 - Unified Coordination Group (UCG) Identification
 - Response
 - Recovery
 - Housing
 - Economic Recovery
- Ingestion/post-plume-focused seminars:
 - Ingestion Activities
 - Relocation Activities
 - Reentry Activities
 - Return Activities

The aforementioned events have been conducted over a two-day period, typically with presentations the first half of the event, followed by facilitated discussion. The structure was intended to better inform, and stimulate participant discussion.

Workshop

Currently, the Waterford-3 Recovery Workshop is the only workshop to be conducted. This event was strictly facilitated discussion with a scenario based on the Waterford-3 Ingestion scenario, building on decisions made during the ingestion discussions. The facilitated discussion was broken into the following sessions:

- Agriculture Impacts
- Fishing/Gaming Impacts

Participant discussion from this workshop is included in the overall summary of discussions in the [Facilitated Discussion](#) section.

PRESENTATION SUMMARIES

The following presentations have been given at the various seminars noted previously. Presentations are not given as part of the Initiative workshops. The presentations addressed the following topics:

- A-Team Briefing
 - Overview of all A-Team agency roles/responsibilities and the support A-Team can provide
 - The presentation also identifies

- Agricultural Impacts of a Radiological Incident: Panel
 - Panel presentation of various USDA programs and available resources
 - Presenters have included Rural Development, Farm Services Agency, and Economic Research Service
 - be provided for states in the event of a radiological incident
- DOE Assets
 - Overview of DOE resources and response assets
- EPA Briefing/PAG Update
 - Overview of updates to the PAG manual and impacts to recovery discussions
 - Overview of EPA resources
- FEMA Response (also labeled as Federal Coordinating Officer Overview)
 - Overview of the National Response Framework (NRF) and FEMA's role in response operations
- FEMA R-IV Radiological Emergency Response
 - An overview of the Nuclear/Radiological Incident Annex (NRIA), to the Region IV All Hazards Plan (AHP) was provided.
- FEMA Update
 - Overview of ongoing regional activity, REP updates, and any additional updates from the regional or headquarters
- FLEX
 - Utility presentation on FLEX equipment and ongoing implementation
- Indiana Department of Homeland Security (IDHS): State Response Agencies during an Ingestion Pathway Incident
 - IDHS provided an overview of the department's roles, responsibilities, authorities, capabilities, and a general overview of response operations
- Ingestion/RRR Introduction and Overview
 - Provided as part of the facilitated discussion component
 - Outlines key decisions and actions to be made during the ingestion and post-plume phases of response
- Louisiana Agriculture Update
 - Louisiana Department of Agriculture and Forestry (LDAF) updates and overview
 - Louisiana State University (LSU) overview of roles, responsibilities, and resources as it relates to agricultural concerns

- NDRF Overview
 - Overview of the NDRF and FEMA's role in recovery operations
- Northern Lights Exercise – Insights and Lessons Learned
 - Overview of planning process and key findings from exercise
- NRC Response
 - NRC provided overview of the NRC roles and responsibilities as part of the response phase of an incident.
 - The presentation will also include any pending changes to operations as a result of updated or modified guidance or policies.
- PAA Overview
 - American Nuclear Insurers (ANI) presentation about the PAA and ANI's role
 - NRC presentation on NRC's role as outlined by PAA, including Plan of Distribution development
- Radiological Operations Support Specialist (ROSS) Refresher Course- Introduction and Cadre Management Update
 - This presentation provides an overview of the ROSS position and the support that could be available if needed
- REP 101
 - Brief overview, history, and responsibilities of the REP Program
- SE15 Overview/REP Recovery Initiative
 - Recovery components of SE15, areas/issues discussed, and key lessons learned
 - Purpose of REP Recovery Initiative and takeaways from previous events
- State and Local Roles in the Ingestion Pathway
 - Provided by the respective state hosting the event, a high level overview of authorities/responsibilities between state and local agencies in the ingestion pathway
- State REP Mission/Overview
 - Provided by the respective state hosting the event, a high level overview of authorities/responsibilities between state and local agencies as it relates to a radiological incident
- Texas Department of State Health Services (DSHS)
 - DSHS provided an overview of the department's roles, responsibilities, authorities, capabilities, and a general overview of response operations
- USDA Briefing
 - Overview of new technology and research on radiation
 - Lessons learned/findings from Fukushima Daiichi Nuclear Power Plant disaster

Presentation	RVII Recovery Seminar	RVII/Louisiana Recovery Seminar	RVIII Recovery Seminar	RVVI/Texas Recovery Seminar	RVV/Indiana Recovery Seminar	RVIV/Alabama Recovery Seminar	WA Training	RV/Indianapolis Recovery Seminar	RVIII/West Virginia Recovery Seminar	Connecticut REP Program IPX Workshop	RV/Illinois Recovery Seminar	Nebraska Federal Outreach*	St. Lucie Federal Outreach	New Hampshire Ingestion Seminar
Agricultural Impacts of a Radiological Incident: Panel	X	X	X	X	X		X	X	X		X			
A-Team Briefing										X	X	X	X	X
DOE Assets												X	X	X
EPA Briefing/PAG Update	X		X				X					X		
FEMA Response/FCO Overview	X		X	X	X			X	X		X	X	X	
FEMA R-IV Radiological Emergency Response						X								
FEMA Update			X											
FLEX Overview			X											
Indiana Department of Homeland Security					X			X						
Ingestion/RRR Introduction and Overview								X		X	X	X		
Louisiana Agriculture Update		X												
NDRF Overview		X	X	X	X	X	X	X	X		X		X	
Northern Lights Exercise – Insights and Lessons Learned	X													
NRC Response												X	X	
PAA Overview	X	X	X	X	X	X	X	X	X	X	X	X	X	X
REP 101	X		X								X		X	X
SE15 Overview/REP Recovery Initiative	X	X	X	X	X	X	X	X	X			X		
State and Local Roles in the Ingestion Pathway										X				X
State REP Mission/Overview											X		X	
Texas Department of State Health Services				X										
USDA Briefing		X	X	X	X	X		X	X		X	X	X	

*For the purpose of this chart, presentations specific to the outreach component are not included (i.e. FRMAC/DOE Assets for response)

FACILITATED DISCUSSION

The following summarizes the discussions, lessons learned, and identified gaps as part of the ongoing Recovery Initiative events; this section is maintained following the conduct of each event. The discussions are organized by core capability, and while the events were designed to address the aforementioned capabilities, natural player discussion discussed additional capabilities.

Additionally, as part of the SE15 planning process, it was recognized that due to the existence of Price Anderson indemnification, it is unclear which, if either, Stafford Declarations may be made. For planning purposes, and based off SE15 planning discussions, it is anticipated that, at a minimum, an emergency may be declared. This assumption was used for seminar and workshop discussions.

The following events were specifically designed to address the corresponding core capabilities. As a result of natural player discussion, additional core capabilities were addressed, as seen in the individual summaries for each capability.

Recovery Event	Core Capabilities							
	Planning	Public Information and Warning	Operational Coordination	Infrastructure Systems	Economic Recovery	Health and Social Services	Housing	Natural and Cultural Resources
Region 7 Recovery Seminar <i>May 3-4, 2017</i>			X		X		X	
Region 6/Louisiana Recovery Seminar <i>September 12-13, 2017</i>			X		X		X	
Region 3 Recovery Seminar <i>October 17-18, 2017</i>			X		X		X	
Waterford-3 Recovery Workshop <i>December 7, 2017</i>	X	X		X	X			
Region 6/Texas Recovery Seminar <i>March 6-7, 2018</i>			X		X		X	
Region 5/Indiana Recovery Seminar <i>June 5-6, 2018</i>			X		X		X	
Region 4/Alabama Recovery Seminar <i>August 1-2, 2018</i>			X		X			
Radiological Recovery Training for Washington State <i>September 26, 2018</i>			X		X			
Region 5/Indianapolis Recovery Seminar <i>February 20-21, 2019</i>					X		X	
Region 3/West Virginia Recovery Seminar <i>May 14, 2019</i>					X		X	
Connecticut REP Program IPX Workshop <i>September 18, 2019</i>	X		X	X			X	
Region 5/Illinois Recovery Seminar <i>October 9-10, 2019</i>	X		X	X			X	
Nebraska Federal Outreach <i>November 9-7, 2019</i>	X		X	X			X	

Recovery Event	Core Capabilities							
	Planning	Public Information and Warning	Operational Coordination	Infrastructure Systems	Economic Recovery	Health and Social Services	Housing	Natural and Cultural Resources
St. Lucie Federal Outreach <i>January 7-8, 2020</i>	X		X	X			X	
New Hampshire Ingestion Seminar <i>January 15, 2020</i>	X		X	X			X	

Operational Coordination

- State/local priorities may include:
 - Establishing pathways for reentry, restoring schools, and supporting healthcare services
 - Re-opening of businesses, including prioritizing those with critical operations requiring personnel to manage the facility or contain critical functions to response or recovery (e.g. Monsanto, an agriculture company in Missouri)
 - Access for businesses; thus requiring local plans and procedures accounting for these activities, and supporting security controls and dosimetry measures.
 - Prioritizing re-establishing health care and schools which are critical for the return of a population and community
 - Maintaining the confidence of the public throughout the response and recovery process
 - Understand and identify resources and businesses that are impacted
 - Ensuring government services are functioning to support return of population
- The Ingestion Path Coordinating Committee (IPCC) is Maryland's unified coordination group for response operations for an incident at a NPP
 - The IPCC would transition to the State Recovery Center and bring in the State Recovery Support Function (RSF) leads, and Maryland Department of the Environment (MDE) technical experts, as operations begin focusing on the recovery phase.
- Key federal agencies for response and recovery operations include:
 - U.S. Coast Guard (USCG)
 - U.S. Department of Energy (DOE)
 - EPA
 - U.S. Food and Drug Administration (FDA)
 - FEMA
 - NRC
 - USDA
- Key local agencies/entities may include:
 - City/County leadership
 - City engineers

- Sewage/waste treatment
- School superintendents (critical for the reopening of schools)
- Extension programs
- Local airports
- Chambers of Commerce
- Non-governmental organizations may include:
 - Faith-based communities will play a key role in building the public trust
 - Soil and Water Conservation Boards
 - Trade associations- including dairy, beef, hogs, poultry, avian, and farm bureau
- State and local plans should account for influx of, and locations, space, and support for federal resources.
- Would need the support of VOADs as they have a case management system that can track where the population goes and to follow-up. They also have member organizations that can support the communities.
- VAL works with the counties to stand up long term committees or groups. Those groups would tie in with the RSFs for implementing goals. Rural counties may work together to form a group as well. The formation of these groups would start early in the process, prior to transitioning to long term recovery operations.
- Illinois – State may activate the Mass Care plan, requesting support from FEMA Region V (would be dependent on a declaration)
- Governor's office would possibly create a group to focus on economic recovery

Lessons Learned/Best Practices

- Hurricane Michael – States/counties can request representatives or SMEs from JFO; work with feds under their own authority (i.e. USDA) to host town halls to address the issue (had USDA at DRCs to speak with the public)

Economic Recovery (General)

Incentivizes/Resources for Return of Industry

- Subsidies can be used to incentivize people and businesses to move to the impacted areas. Tax rates could be modified for specific industries.
 - Regulations and laws will be a short term solution but will likely not address the long term issue.
 - It is important to remember that the culture of most of the United States is different from that of Japan and Russia and the public response (i.e. staying in the area or consuming the products) will be different.



- Potential resources for encouraging return or re-establish commerce include:
 - Visitors bureau
 - Local Chamber of Commerce
 - Small Business Association (SBA)
 - USDA Rural Development
- Further review of the Economy Act should be conducted as it includes provisions for acquiring supplies or services from another agency, specifically using another agency's contract for obtaining supplies and services. This may be applicable for utilizing current government contracts to assist in the response and recovery from an incident at an NPP.

Open for Business

- The OROs will need to be able to define “open for business”, whether it's returning of businesses, welcoming new, or creating a new use for the area, and how the decision would be made and messaged. This effort should be addressed through planning efforts.
 - Basic infrastructure including power, roads, water, electricity, etc. will be needed to send the “open for business” message.
- An organized campaign will be needed for tourism messaging. Louisiana noted the potential to conduct a “Welcome Back Festival”; best practices from the BP Oil Spill may be applicable.
 - BP gave money to help with marketing/branding campaigns , urging people to eat the seafood, to visit the beaches, may be able to do this in a rad incident
 - Additional partners to include in this effort: Farm Bureau, churches, athletic organizations, healthcare organizations, colleges
 - Electric cooperatives in the State may be another resource to help with campaigning/marketing

Assistance for the Unemployed

- Economic development programs will be engaged for identifying employment opportunities
- USDA, FSA, SBA, U.S. Department of Labor (DOL), and U.S. Department of Commerce (DOC) have additional resources for training and unemployment assistance.
- Some individuals may completely leave the area if unable to find employment.

Alternative Solutions

- The following are alternative uses for land no longer suitable for residential purposes or otherwise abandoned:
 - Industrial use
 - Classification of land under US EPA Brownfield Program
 - Repurpose land with little perceived risk
 - Build windmills/solar panels/infrastructure requiring minimal maintenance
 - Establishing state/public parks

- Using the impacted areas for research on radiation
- Establishing training areas for military or other temporary purposes

Key Gaps and Identified Issues

- Determining and messaging Open for Business Campaign
- Movement of businesses or population away from the area if impact is for an extended period of time
- Further review of the Economy Act to understand restrictions and provisions for utilization of other agency resources and contracts to assist in the response and recovery from an incident at an NPP.

Lessons Learned/Best Practices

- Delmar, MD has included the potential impact to the Eastern Shore poultry industry in their planning efforts.
- Campaigns following the BP Oil Spill could be replicated for encouraging the return of tourism.
- Private industries, universities, and educational institutions could be resources for conducting research on options for the affected areas.
 - Department of USDA partners with extension programs
 - LSU has an Extension Disaster Education Network (EDEN) that could be a potential partner for identifying creative use of land or encouraging return of businesses
 - USDA has many agencies that could provide loan or grant funding to affected areas.
 - Private industries may support clean-up/recovery operations as a way to obtain positive attention.
- Post-Deep Water Horizon messaging and re-opening of ports

Economic Recovery (Agriculture)

Agricultural Considerations

- Wheat, onions, and grass do not uptake a significant amount of Cesium-137 (radiocesium).
- Immediate disposal of livestock is not a top priority, livestock can continue to live and be disposed of at a later time.
- Iodine-131 (radioiodine) is no longer a concern for public health and safety after 90 days due to the radioisotope's half-life.
- Indiana State Board of Animal Health (BOAH) only has the power to quarantine animals if an incident is labeled as an infectious disease. If a radiological incident were to be treated as an infectious disease, the BOAH would have the authority to quarantine animals and would also be able to receive additional funds from the CDC.



Agricultural Impact

- Maryland potentially impacted industries: agriculture, tourism, recreational fishing, businesses tied to the Port of Baltimore.
 - Should Calvert Cliffs have an incident, and the plume travel towards the Eastern Shore, the poultry industry will greatly be impacted. The Eastern Shore is a huge poultry industry (Delmarva Poultry Industry); Delmar, MD has included this in the emergency plan.
- Louisiana potentially impacted industries: seafood, sugarcane, and major employers including Shell, Oxy, and Dow Chemical
- The stigma of this type of incident and the impact on agricultural products will likely cause a significant obstacle to re-establishing confidence in the agricultural industries throughout the region. Public messaging and trust in those providing that message will be critical.
- USDA Economic Research Service (ERS) provides a wealth of data on economic agriculture and outlook analysis. This would be critical to obtain a general assessment on the economic impact at the loss of a product(s).
- A special seal or stamp noting products have been checked for radiation may help with public perception of safety of products. Clearly marking the products from the impacted region as safe may alleviate public concern as well as demonstrate ongoing monitoring efforts. LA 1 supplies the ports and may fall in a plume, depending on weather patterns.
- In St. John Parish, the Port of South LA is the largest agricultural port, 4th largest overall.
- Port of New Orleans is a large freezer warehouse base; one of the largest cold storage in the country.
- Hunting and fishing are big industry and are important to the economy of the state. It can be really important to the locals and to even those that are coming out of state for the sport. Hunting and fishing are industries that draw visitors and feed into the state and local economy.
 - The closure of hunting seasons could impact property value where the sport occurs or impact the industries processing the game or seafood.
- Livestock
 - There are limited resources for moving livestock
 - Stored feed and water is not entirely realistic as there may not be any cover to put the animal under and there may not be feed/water available
 - Poultry houses are not expected to sustain longer than 24 hours
 - May not have enough notification to move the livestock
 - State departments of agriculture tends to be more strict than federal agencies about setting the standard as to what is safe
 - Need to consider that the restrictions on animals may be a longer timeframe than what can be sustained to the outside industries



Agriculture/Industry Resources

- Some agriculture products may be able to be pressed or alternatively used. This will not only help with the economic impact but also waste management.
 - While corn (in husk) may have a dusting of radionuclides and be safe for consumption, there may be a decision to dispose of the product due to perception. Corn could be turned into biofuel.
 - Milk could be repurposed as casein for glue
 - Other crops may be able to be pressed for oil or used for energy.
 - Marketing of any repurposed products would be critical.
- Most USDA programs only address present year loss, not future year loss. Further discussion is needed to identify potential options for compensating producers in the no return areas.
- The USDA Conservation Reserve Program (CRP) is a 15 year contract and if a farmer still owns the land that is contaminated, the contract is still valid.
- It was confirmed that traditional crop insurance covers natural peril and would not cover loss due to a nuclear incident.
 - Loss by farmers may be included as a claimant in the Plan of Distribution for coverage by ANI.
- The portable gamma detection devices briefed during the USDA Presentation can easily test milk and fish samples.
- Many states have GIS capability to identify the location of all farms.
- USDA has programs available that do not require a Stafford Act declaration. FEMA is very limited with the absence of a declaration.
- USDA, or universities, can assist in identifying what may be planted in the contaminated areas.
- Knowing about crops growth/intended use will improve the Federal Radiological Monitoring and Assessment Center (FRMAC) mapping products developed (i.e. timber making cups versus paper)
 - Mapping products are traditionally very conservative and assume high consumption rates
- Current tracking of fishing populations could be utilized for monitoring movement and estimating dose assessments.
- Oak Ridge Reservation has a program that could be used as a model for testing the game
- Texas available resources/primary agencies for agricultural recovery:
 - Matagorda County has robust and engaged agriculture/cattle associations, including several 4-h groups and Texas A&M, who would likely be very be engaged.
 - Texas Department of Ag
 - Texas Farm Bureau



- Texas AgriLife Extension
- Texas Health Commission
- Animal Health Commission
- Matagorda County Economic Development Corporation
- Use of sell barns for storing of cattle
- DSHS has the capability (mobile vehicles) to collect samples and perform monitoring and analysis at the edge of the plume
- Partner with all the appropriate and pertinent animal industry organizations (e.g., NGOs/associations [e.g., Cattle feeders association, Texas Seed Trade Association], FEMA, USDA, TDEM)

The following USDA programs were identified; not all programs would be eligible in an incident at a NPP:

- **Dairy Indemnity Payment Program (DIPP)** – Compensates dairy producers when they have to dump milk from radiation – or other toxic substances
- **Emergency Conservation Program (ECP)** – provides cost share assistance to rehabilitate farmlands and conservation structures damaged or destroyed by natural disasters.
- **Livestock Indemnity Program (LIP)** – provides benefits to livestock producers for livestock deaths in excess of normal mortality caused by adverse weather or by attacks by animals reintroduced into the wild by the Federal Government
- **Emergency Assistance for Livestock, Honeybees, and Farm Raised Fish Program (ELAP)** – financial assistance to eligible producers of livestock, honeybees and farm-raised fish for losses due to disease, certain adverse weather events or loss conditions, including blizzards and wildfires
- **Livestock Forage Program (LFP)** – provides compensation to eligible livestock producers that suffered grazing losses due to a qualifying drought or fire. The land must be native, or improved pastureland with permanent vegetative cover, or land planted to a crop specifically for grazing
- **Noninsured Crop Disaster Assistance Program (NAP)** - provides financial assistance to producers of non-insurable crops when low yields, loss of inventory, or prevented planting occur due to natural disasters
- **Tree Assistance Program (TAP)** - Provides assistance to nurseries and orchardists to replant or rehabilitate eligible trees
- **Emergency Forest Restoration Program (EFRP)** - helps the owners of non-industrial private forests restore forest health damaged by natural disasters.
- Outside of a Presidential Declaration, USDA has the ability to declare a **USDA Secretarial disaster designation** or **FSA Administrator's Physical Loss Notification (APLN)** trigger various loans and programs. The other two designations that can trigger the programs and loans include a Presidential Declaration and a quarantine designation.



- **USDA Secretarial disaster designation** - Damages and losses prompting disaster designations must be due to a natural disaster; and a minimum 30-percent production loss of at least one crop in the county must have occurred.
- An **APLN** offers flexibility and can accommodate other situations such as adverse weather beyond a Secretarial disaster designation or insufficient data available when a Secretarial disaster designation is requested but deferred until sufficient data is provided.
- There are two main programs applicable for this scenario – **Emergency (EM) Loan Program** and the **Disaster Set Aside Program**. Both are initiated based on a Secretarial disaster declaration or a Presidential declaration under the Stafford act following a natural disaster.
 - **EM Loan Program** – Provided for producers that have a production or physical loss due to the incident. The producer must show at least a 30% loss and 100% of their loss, up to \$500,000 will be covered.
 - **Disaster Set Aside Program** – This is an opportunity for current borrowers to set aside a payment due the next year to the end of their note. There is a limited dollar amount per year but it allows for more production before making a payment.

Agriculture Industry- Cascading Impacts

- Need to regionalize the affected agriculture crops/livestock to manage public perception
- Companies have previously stopped using products from affected area of disasters.
- The closing of a highway can have a significant impact on economics, travel, and moving products. Traffic and travel could be re-routed, but to minimize a further impact to the economy, re-opening roadways would be a high priority.
 - Truck stops and hotels along transportation routes may notice a decrease in business due to reduction in transportation of goods.
- Producers may no longer source from farmers that are not in the affected area but are now stigmatized for being near the incident.
 - This may be addressed in the NRC draft Plan of Distribution. This class of claimants (farmers not in the contaminated area but impacted due to the stigma) could be entitled to some compensation for loss of income. It is likely that the liability from PAA would be exhausted before compensation would be distributed to this class of claimant and it would be at the discretion of Congress if any compensation would be provided.
- Trucking and processing industries related to the goods produced in the impacted area may suffer.
- Smaller towns would feel the impact more significantly with loss of jobs, taxes, and money flowing within the economy.



- Following the BP Oil Spill, there were some spots in Louisiana that were severely impacted/contaminated. This was the longest period for closure. The impacted areas were popular for fishing and had significant pressure to reopen because of the economic impact for remaining closed. Constant monitoring was conducted and once the levels were appropriate, the scientific data was presented and resulted in a large marketing campaign.
- Indiana – The following industries were identified within the IPZ
 - Tourism: University of Notre Dame and Lake Michigan; both of which are heavy tourism spots for Indiana District 1 and 2.
 - Would require additional coordination for the transient population
 - State and local levels have pre-scripted press releases
 - Agriculture: The same crops are grown year round and there are dairy farms as well.
 - Would work with Purdue extension and BOAH for disposing of milk
 - Further, there are manufacturing plants, meat processors, and slaughter processors
 - Transportation/Commodity Movement: Porter County is home to the Port of Indiana which was not previously aware of location within the IPZ

Lessons Learned/Best Practices

- The following treatment of crops that are unable to be harvested or taken to market:
 - Soybeans can drop and rot in the field, minimal additional risk, no impact to the land.
 - Sugar cane can be turned into biofuel after a couple of rainfalls.
 - Horticulture crops – rotting on the field, will open up potential for disease because it will harbor insects.
- The following alternative uses for crops were identified:
 - Sugarcane can be turned into ethanol
 - Dairy milk can be turned into casein (glue, binder, adhesive)
 - Soybeans can be turned into oil and that oil can be turned into fuel or plastic.
- Pre-packaged alternatives should be identified to be implemented at the time of an incident
- Cesium contaminated crops should not be incinerated because it will turn to Cesium gas, but a pipe/high efficiency particulate air (HEPA) filter could be used to gather the gas
- Campaigns such as “Beef, it’s what for Dinner” can help reinstate public confidence
- Florida has a Business Development-specific ESF
 - Florida used “Visit Florida” following the BP Oil Spill

Gaps and Identified Issues

- Numerous cascading impacts from an impacted agriculture industry
- Developing relationships with other entities to assist in cleanup or remediation (i.e. universities, for-profit businesses).



- Messaging safety of food and products from the area, and ensuring the message is from a trustworthy entity.
- It was requested that additional guidance be provided for agriculture considerations as the topic is not typically addressed in depth.
- Further understanding the impacts to region-specific agriculture products and economies (e.g. sugar cane and shrimp farms in the south; hops and grape growers in Pacific Northwest; corn, soy beans, and grains in the Midwest)

Economic Recovery (Non-Agriculture Business)

Impact to Non-Agriculture Businesses

- ANI continues to pay emergency assistance including lost wages for the duration of the evacuation order.
- As part of the Community Planning and Capacity Building (CPCB) RSF, industries would need to be engaged early on. Engagement will assist with producing a unified message and also the potential for additional funding, should industry look to assist or take part of recovery operations.
- Lost businesses within the plume may be covered under PAA, but this is still a grey area and may be dependent on the decision from the District Court.
- During the Baltimore civil unrest in 2015, the state provide assistance (unclear if it was in the form of loans, grants, or a combination) to businesses that lost revenue during the incident.
- While the tourism industry would likely be affected in the impacted area, there may be a further aversion of tourists visiting any part of the state.

Public Information and Warning

- The public needs to be educated before there is an event. This not only helps ensure the public is informed, but builds trust in the event of an incident at a NPP.
 - Such information should include reiteration that background radiation exists.
- Modified communication methods are essential for working with the Amish and Mennonite communities. Relationships have been established and the state/local government would work with the leadership/bishops to spread the word throughout the community.
- Extension Agents and the NRC website are good resources with educational materials.
- The public can be educated through schools (higher education) and media.
 - Must be attentive because universities and USDA have given contradictory information.
- Need to identify liaisons within each of the major industries to support public education initiatives/bridge the gap of getting key messaging to the public



- LSU Research Department would be able to distribute alternate use of crop information to farmers through the Ag Extension.
 - County Agent offices could answer questions on what to do with crops.
 - Newspaper articles, seminars, newsletters, etc. could be distributed
- Public messaging considerations:
 - Potentially including technical information in messaging
 - Fielding questions with including technical POCs for comprehensive answers/guidance
 - I.e. still operating one unit of a plant if another is damaged; similar reactor designs in other part of the country
 - Traditional media methods (e.g., newspaper, radio) may be utilized to push information and serve as an authoritative source
 - Facebook live has been previously used and proved effective
 - Local representatives will need to be the front face/image of messaging
 - Radiation subject matter expert (SME) is critical for messaging the safety of the area and for return
 - If an incident is close to state borders, the neighboring states should be part of a unified message
- Community discussions, town halls, and public meetings will be critical to both provide information to the public but also understand local concerns
- Will need to look into releasing joint messages with ANI as the impacted population will continue to seek information if receiving financial assistance
- Non-impacted counties will rely on the messaging to keep their economy going
- Media will play an integral in how the public conveys the response and recovery activities. The media is not going to be as focused as heavily on activities within the plant as time passes. Then the licensee questions are slowing down, the formal JIC may be closed which could instill further faith of the public that process is
- Will need visual representation capabilities to illustrate the “safeness”/support messaging and ultimately public confidence
- For incidents that may impact multiple states or jurisdictions, it is critical that messages are coordinated. Concise and coordinated messages will minimize conflicting information being provided to the public.
 - Issues may arise for those located along the state border, or for those that live in one state but work in another.

Key Gaps and Identified Issues

- Ensuring the public is informed ahead of an incident
- Utilizing existing resources and relationships to push a broad message to the public



- Maintaining communication with the public during temporary relocation
- Populations relocating permanently to nearby metropolitan areas

Health and Social Services

Case Management/Tracking

- An issue that arises with case management and tracking is the inability to share personally identifiable information (PII). With a Stafford Act declaration, the FEMA-State agreement identifies who information will be shared with, to include private sector assisting the government (i.e. American Red Cross (ARC)) but ANI is strictly private and unable to share information. It may be necessary to include ANI representation as part of the Disaster Recovery Centers (DRC) so all entities providing services and collecting information will be represented at one location.
- Applicable entities including ANI, ARC, and agencies providing public assistance will need to be co-located at the reception centers. Ensuring all agencies are represented will assist in all applicable agencies collecting the necessary information for providing assistance, tracking the population as they may leave the impacted area, and generally pushing information to the public.
 - In addition to local data, the state/local government will have a better understanding of the impacted population for pushing information.
 - Once the process for applying for funding is announced, it is expected that the impacted population will make contact.
 - The registration of applicants may be delayed if there is no Stafford declaration.
 - The ARC has a system for tracking the shelter population but is unable to share due to PII.
- Mental health will be important with the development of a housing strategy.
- In order to ensure contact information from the impacted population is collected, it is important that individuals are told to report to reception centers.
 - It is important to plan for how to get in contact with those that do not report to the centers
 - Further discussion is needed to determine more efficient methods of collecting evacuee information.

Key Gaps and Identified Issues

- Inclusion of mental health considerations with return efforts
- Inability to share PII across entities, thus risking a gap or duplication of benefits and inability to ensure all of the population is contacted.

Housing

The following were identified as key initial priorities for early-phase recovery housing operations:

- Transfer evacuated population from temporary shelters into permanent housing



- Collect realistic data to determine safe return of evacuated population to their homes
- Identify communities to absorb the evacuated population
- SBA may be able to provide loans for the displaced population to purchase new homes
- FEMA may be able to assist with temporary housing (up to 18 months – with a Declaration)

Return

- The state has the ultimate decision on determining the acceptable level for return. The Advisory Team (A-Team) and FRMAC are resources for assisting in the decision making process, but the state has the ultimate responsibility.
 - While there are DOE standards and PAG relocation standards, there are no regulations on acceptable limits.
- There may be a need to use a scale for “clean” or safe when determining if homes are safe for occupation. A scale may assist with public perception. The state will likely want to ensure there is no liability on the state as a result of the decision made.
- The public will need to be engaged throughout the process of making return decisions.
- Not all of the community would own their home and therefore may not have a reason to return. This will further impact the tax base to fund local government.
 - Even after receiving compensation for loss, homeowners may also choose not to return.
- Indiana State Department of Health (ISDH) can assist with determining stay times for evacuees to return to homes for winterization efforts or to farms for tending to animals.
 - It is important to evaluate the value of conducting winterization efforts if homes may no longer be habitable.
- Key resources and services must be in place and functional to allow for return of the population
- Houses and public facilities would need to be assessed and deemed safe for re-occupancy. This is especially a concern for facilities that may have been uninhabited for an extended period of time and may have suffered damage as a result of utilities having been turned off.
 - The process of coordinating with the home/building owners does pose an additional obstacle.

Temporary Relocation

- ANI would provide Emergency Financial Assistance (EFA) to the population evacuated by the official evacuation order.
 - ANI has a contract in place with a company that will manage the process of distributing funds and specializes in that process.



- FEMA has a Traditional Sheltering Assistance (TSA) program for housing evacuated population in hotels for up to six months.
 - The problem extends beyond the evacuated population having funds for evacuating, but ensuring there are places for them to spend the money to have temporary housing.

Housing Availability/Resources

- FEMA TSA must be requested by the state. TSA can be very costly, so FEMA will first try to find the most cost effective/quickest options first before utilizing TSA (like FEMA Sheltering and Temporary Essential Power [STEP]).
 - Other options may include rehabilitating housing for displaced population, mobile trailer homes, or other home repair programs.
- U.S. Department of Housing and Urban Development (HUD) Community Development Block Grants (CDBG) are available during peace time, but Congress has a disaster response aspect for disaster situations. These grants are broad in spectrum to cover post-disaster. There are supplemental social development block grant – States were able use the funds for post-disaster and meet those gap needs that FEMA could not cover.
 - Funds during peace time can be used to create plans, before the incident.
- USDA has a multi-housing vacancy report that is distributed weekly.
- USDA may have loans to support mental health needs for rural populations
- USDA Rural Development has numerous loan and grant programs that serve rural areas (populations of 35,000 or less). The loans and grants are for hospitals, vehicles, nursery centers, daycare etc.
- USDA Rural Development has two housing programs for single family housing (home buyers) and rental housing programs (for which a bank makes the loan)
- Indiana Housing and Community Development Authority (IHCDA) would need a state declaration to provide support
- Outside of GIS, could also work with tax assessors for identifying impacted parcels. Assessors would have necessary contact information for coordinating with the population as well.
 - 2-1-1 partners would also be collecting information
 - This could feed into a system to track the population movement.

Stakeholders/Partners

- Key agencies/organizations to consider for planning purposes include:
 - Housing/community development
 - U.S. Department of Housing and Urban Development
 - Realtor association
 - Chamber of commerce
 - Better Business Bureau



- Economic Corporation
- Faith based organizations

Potential Alternative Solutions

- Tax incentives may be provided- drastic changes to the community may result in a lowered tax rate
- Incentivizing movement to area through new home buyers a tax credit or mortgage
- State could implement a mortgage program to freeze payment or move payments to the end of the loan for those that are in the evacuated areas. Would work with the mortgage industry on a high level to provide assistance. This has been conducted previously.
- USDA could issue moratorium on payments for USDA homes. This was conducted to support those impacted by the Federal shutdown.

Key Gaps and Identified Issues

- There are currently legal obstacles to sharing information of evacuees and survivors, thus impacting efforts of case management, tracking the population, minimizing the likelihood of duplication of benefits, and ensuring all available resources are provided to all qualifying
- Any potential ANI allocation of funds for damaged property does not result in ANI's purchase of property. The process for determining amount for reimbursement is determined by the Federal District Court. Should a resident receive payment, s/he continues to own the contaminated property. There is potential for abandoned property which could have cascading impacts on the city, tax base, and local government.
- It is unclear how state insurance agencies would coordinate with ANI. Further, it was noted that homeowners insurance generally excludes nuclear incidents.

Lessons Learned/Best Practices

- Calvert County and Maryland both have agreements with real estate organizations that could be resources for long-term relocation.
 - Calvert County has an agreement with Southern Maryland Realtors Association for identifying housing stock available in the tri-county area. This association can also reach out to other Maryland realtors for a state-wide stock availability.
 - Maryland Department of Housing and Authority also has relationships/partners with organizations that may help with temporary housing.
- Matagorda has a memorandum of understanding (MOU) with Comal County for short term sheltering during evacuation which is activated by the Matagorda County Judge authority. Matagorda County Board of Realtors is also a potential partner.
- Applicable lessons learned may come from the ongoing wildfires in northern California as they face a limited housing stock.
 - Recreational facilities and camp grounds may be resources for temporary housing.



- If the decision is to return to background levels prior to the incident, those numbers must be pre-identified. Minnesota noted they did not have any tracking of background levels for the impacted areas as part of the Northern Lights Exercise.

Environmental Response/Health and Safety

Sampling/Cleanup

- Handling of contaminated crop
 - Some products can be sampled during the operation process (e.g., when cotton is made into clothing)
 - This effort will require close coordination with EPA
 - But even if there is a hint a crop/product is contaminated, no one is going to want/buy it (domestically or internationally).
 - If contaminated crops are destroyed, it will require a large, pre-constructed landfill
 - Use the current empty oil wells, inject the burned, bagged contaminated waste into the wells
- Considerations for monitoring animals/food/milk:
 - In a herd, you only have to sample one animal as they are eating the same grass, etc.
 - For milk, FDA will sample sites outside 25 miles (maybe even the 50 miles). Packaged milk would be condemn (even if it is under a roof and uncontaminated)
 - Delineating a buffer zone will be extremely important
 - Something to consider for all food products: consider sampling the carriers, packaging centers
- The model and criterion for remediation are established (i.e. RESRAD) but are dependent on the accepted level.
- Animal Health Inspection Agency would certify the barns to make sure they were clean. The process used for HPAI would be a lesson learn to utilize in determining a process for a radiation incident.
- As part of ANI's process, they must assess damage; there is a need for additional discussion about how those conducting the assessments will be monitored and what personal protective equipment (PPE) will be available. Alternative methods for assessment may be used, such as drones.
- If contamination levels on housing and other property is low, it could be comparatively easy to decontaminate; the concern arises with high levels of contamination
- Need to find interim storage centers for crops/products to be sampled (e.g., stored sugar does not have a roof)
- Monitoring used at ports could be used to demonstrate cleanliness of exports.



- Late Phase Planning Considerations are included in the 2017 EPA PAG Manual. It is up to the community to decide what level of radiation is acceptable in the late phase/political decision.
- Southern Mutual Radiological Assistance Program (SMRAP) is maintained by the Southern States Energy Board. This allows governors to request radiological personnel from other state radiological programs
 - Alabama
 - Arkansas
 - Florida
 - Georgia
 - Kentucky
 - Louisiana
 - Mississippi
 - Missouri
 - North Carolina
 - Oklahoma
 - South Carolina
 - Tennessee
 - Texas
 - Virginia

Waste Management

- During the bird flu epidemic, permits were established to allow for movement within tightly sealed trucks. The governor's agent would hold the permit for allowing movement of contaminated waste.
- Waste could be moved to places where the population would not be able to return, protected by concrete shielding.
- Plans were developed for burial sites of contaminated birds during the avian flu crisis
- Reviewing current waste management strategies such as on-site and current EPA or DOE sites may provide guidance for approaching the technical component of waste management and clean-up

Pets

- There is a concern for outdoor pets/animals that are drinking outside water or spending extended time outside and exposed.
- CFR 10-20 describes when it is okay to discharge a patient and also includes a section for animals (i.e. treatments with radioiodine) which may be applicable

Identified Gaps/Issues:

- Contaminated debris, both monitoring and removal is an anticipated issue. An Emergency Declaration with Public Assistance- Category A (debris removal), may assist with addressing the waste management issue.
 - Beyond the funding of debris removal, the transportation of materials is a potential issue. Following the highly pathogenic avian influenza (HPAI) epidemic in the Midwest, USDA faced an issue of transporting the containers in which chickens were disposed.
- It is estimated that litigation for Yuka Mountain would take 24 years to move waste across state lines.



- Understanding and identified regulations and available contractors for transporting radiological materials
- Regulations and available contractors for transporting radiological materials

Ingestion

As applicable, corresponding states are identified as roles/responsibilities will vary by state.

Who has the authority to make ingestion exposure pathway decisions?

- It was clarified that FEMA does not evaluate the seizing of materials and only looks to ensure contaminated materials do not leave the area. FEMA is focused on the embargo process and the associated authorities
- The legal aspects of specific authorities related to this type of incident are fairly unfamiliar
- (CT) CT DEEP works to make the protective action recommendation (PAR) while the governor and unified command makes the protective action decision (PAD)
- (FL) Counties have the authority to control access points to the perimeter of an area
- (FL) Each Emergency Coordinating Officer (ECO) represents a state agency and has the authority to make the agency decisions
- (FL) Fish and game would be controlled by Florida Fish and Wildlife Conservation Commission
- (FL) Florida Department of Agriculture and Consumer Services should have the authority to make the decision to embargo food products. State patrol/control assets would assist in the enforcement of the decision.
- (FL) Florida Department of Health would control the bodies of water
- (FL) Need to understand what the state capabilities are to support the counties (e.g. embargoes) as to better inform the county planning efforts
- (FL) Open drinking water sources is a major obstacle. Further discussion is necessary to find a solution or find alternative methods. There is also the 2017 EPA Drinking Water PAG for guidance. Public messaging, in terms of the different limitations for women/children vs other population, is a challenge in itself. Florida also has a significant watered bottle stock.
- (FL) State plan is an annex to the Comprehensive Emergency Management Plan (CEMP)
- (FL) There is a template for the state Executive Order for an incident at a NPP
- (FL) Water Management Districts would be engaged
- (IL) An embargo would come from the Illinois Department of Agriculture and the Secretary of Agriculture has the authority to require samplings of any product(s).
- (IL) State plans include responsibility charts that may contain additional authority information
- (IL) The chief elected official has the authority to make the decision and then coordinates the implementation with those applicable entities



- (IL) The Extension office does not have farm advisors in every county in Illinois
- (IL) The Illinois Farm Bureau and Illinois Beef Association would be necessary partners for pushing out messages and coordinating with farmers.
 - Extension should be engaged as well as they have relationships with farmers
 - The Wisconsin Dairy Association is very active and would be a trusted voice for farmers

How are decisions coordinated internally and with other jurisdictions?

- (CT) Credentialing process is managed through WebEOC
- (CT) DPH would likely open the EOC to communicate with partners
- (CT) Following the gas leak in Massachusetts, the government essentially advised the company what to do in the response
- (CT) Maintaining communication with the surrounding states will be critical; FEMA can assist with the communication
- (CT) New England State Consortium connects states for communicating decisions. There is a constant flow of communication between the states of ongoing activities. There will likely be time to send/receive liaisons among state counterparts. There are also interoperable radios to communicate with other states.
- (CT) The state maintains awareness of local activities at the State level
- (CT) There is a task force that is used for hurricanes that could be used for identifying areas to dispose of products. The State would need to look if there is a space for contaminated waste.
- (NH/ME/MA) Coordination across border states will be essential to ensure joint decisions and messaging
- (NH/ME/MA) Local utility companies and local PIOs need to maintain control of the JIC and messaging to ensure message control
- (NH/ME/MA) New Hampshire, Massachusetts, and Maine are within the 50-mile planning zone for Seabrook Nuclear Station. The states will not all be using the same version of the PAGs and coordination is necessary to explain the reasoning and ensure consistent messaging

How are boundaries of temporary restricted zones identified?

- Evacuated area will be the start of the restricted zone
- GIS mapping layers will assist in identifying key areas and locations
- Messaging would be pushed through the JIC

What are the state/local requirements to implement embargos or condemnations?

- The important aspect is the coordination of the decision



- Agriculture
 - Maine – Agriculture
 - Massachusetts – Agriculture and Food Protection control at different phases
 - New Hampshire – Food Protection (Agriculture is focused on growth)
- Water
 - Maine – Drinking water program under CDC
 - Massachusetts – DES covers water supplies; wells aren't regulated
 - New Hampshire – DES controls public systems; wells aren't regulated

Who is part of the sampling team?

- (CT) DPH covers public water and private waters. They would use their team for conducting the sampling activities. There is a private well section under PH
- (CT) DPH, DoAg, and DCP will work together with the sampling team providing samples to the DPH lab in Rocky Hill. The data is provided to RD who provides information to the decision makers for determining the PAD.
- (CT) If there is contamination of 1/10th of the derived intervention level (DIL) then the state will have to monitor according to plans
- (CT) The approach would focus on clearing outside materials and then focusing the scope of the impacted area and releasing embargos

How are necessary legal notices delivered?

- (NH/ME/MA) Maine – Food Protective Services
- (NH/ME/MA) New Hampshire – Food Protective Services

Is there current information on harvest times available? From what source is this information obtained?

- Would contact Farm Bureau/Extensions who knows what is/is not ready to be harvested.

Who is responsible to monitor and sample foods on vehicles and where will they be located?

- The time in the life cycle would impact who is the responsible agency

Controlling access

- DOT would clean infrastructure while allowing passage
- Exits would be closed

Public Messaging

- All of the local communities/counties are unique and messaging/coordination will be unique for each
- Local Facebook pages/community groups have potential to create issues/spreading false information



- There will be a need to explain the process for making decisions and pushing a unified message.
- (CT) 211 would be working on materials to distribute to the public
- (CT) Everbridge is also used for public messaging
- (CT) Fishermen- national marine fishery will help with communicating with the commercial fisheries
- (CT) Messaging – social media, press conferences, good relation with Connecticut Conference of Municipalities (CCMs) to push information
- (CT) Messaging is critical throughout the embargo and sampling process

How to communicate the restricted zone for agriculture?

- Messaging will be critical. The individual(s) speaking to the farmers/producers should explain the need for sampling to prove the products are safe so they may be moved to market. The key is to focus on the positive activities such as allowing for sampling results in moving cleared products to market.
- There is the need for sampling to move the product once lifting the quarantine
- (IL) Exelon would have the JIC activated but would probably have messaging going through the Governor's office and PIO. WebEOC has recently been used to coordinate JIC messaging and activities.
- (NE) A temporary restriction of movement may be implemented early in the event with long-term embargoes implemented days-weeks later.
- (NE) Once the GAR has made a decision, pre-developed templates would be updated for news releases and social media updates
- (NE) SEOC would coordinate with Department of Agriculture for any restrictions or embargoes that would be issued.
 - Notification of embargoes and restrictions would be coordinated through the organizational points of contact already implemented.

Embargo for stop products

- (NE) Iowa is a Home Rule State for protective actions for the public. Regarding commerce, Iowa does not have a lot of guidance and would need to coordinate further with the Iowa Department of Agriculture and Land Stewardship (IDALS) for stop movement authorities.
- (NE) Nebraska is a Dillon's Rule state and the DHHS would work with partners to gather data and work with NEMA to make a recommendation to the GAR.
- (NE) Stop movement decisions are to be made by the respective state/local government with the appropriate authority. Should contaminated products cross state lines, the USDA Secretary of Agriculture would issue a stop movement order. It is expected that a regional approach would be taken to prevent the introduction of contaminated materials into the market.



- (NE) The Nebraska DHHS would work with other agencies for collecting and developing data products to understand the impact of contamination. The Nebraska State Patrol would be heavily engaged for purposes of enforcing stop-movement and restricting entry.

How to do stop movements and police it?

- (NE) IDALS would be heavily engaged for awareness of movement and how to utilize lessons learned from the bird flu epidemic.
- (NE) Nebraska State Patrol and local law enforcement would be coordinating to prevent movement and entry.

Formulate protective action information (e.g., brochures, email, text message, etc.) for the general public and food producers and processors. Are there instructions in the protective actions provided on what foods or crops are being affected?

- (NE) Nebraska has developed brochures which are distributed through NDA and partner agencies to agriculture distributors and producers. Further, extension offices support spreading the materials and reaching locals.

American Nuclear Insurers (ANI) Considerations

- (CT) ANI payments may take years to be distributed
- (CT) Community Reception Centers (CRCs) would have ANI representative
- (CT) Need to review what host communities may keep open a CRC for ongoing questions
- (CT) Recommend adding ANI considerations to the state plan, noting the Price Anderson Act (PAA) compensation is similar to FEMA Individual Assistance

Additional resources necessary:

- Coordination with the American Red Cross would help minimize the need for individuals to return back to the impacted area if certain things are easily available (i.e. clothing)
- State-wide mutual agreements would be critical
- (IL) The state would coordinate the sheriff's offices for conducting and maintaining control points. Physical barriers may be implemented due to limited personnel.

NGOs engaged:

- 4-H
- Civil Support Team (CST) has a lot of resources to support as well
- ESF 7- resource support and private sector- works with ESF 15
- There are various USDA and federal programs that may have authorities and funds to provide support
- (CT) Gap exists with the Emergency Management Assistance Compact (EMAC) assistance and the personnel support if there is no Stafford
- (CT) Good relationship with broadcasters association who helps with Emergency Alert System (EAS) Planning/Resources

- (CT) Main four documents of the REP Plan cover a lot and are supplemented by other State plans to conduct specific tasks/address specific issues
- (CT) There is a water task force part of ESF12

Post-Plume

As applicable, corresponding states are identified as roles/responsibilities will vary by state.

Restriction

- Procedures for restricting access:
 - States would establish traffic control points. Individuals reentering require a law enforcement and a radiological health office to escort them, and would be required to wear dosimeters.
 - Long term traffic and access control would start at the local level, tapping into mutual aid agreements with surrounding counties, state troopers, or the National Guard if other resources are exhausted.

Relocation

Decision making authority/process

- (FL) A joint decision would be made to determine the relocation zone with a buffer area, utilizing FRMAC sampling data. This decision would be made with both state and local entities, with any necessary consultation with federal agencies including the A-Team.
- (FL) Considerations would also need to be made for the areas included such as major roadways or potential for future expansion.
- (FL) There will be local sensitivities to what the market can withstand.
- (IL) IEPA closes any water sources and would integrate with the radiological response group to conduct sampling as directed by the SEOC
- (IL) The state/counties do not have legal jurisdiction to remove the public but can prevent re-entry.

Communication

- Communication will not just need to be about who needs to leave but who doesn't need to leave. There is a need to focus on what needs to be in the message and why the population should stay or leave
- Will have to use careful messaging with relocation of the population
- (FL) IPAWS is controlled to the area licensed, if looking to reach a broader area there is a need for collaboration
- (FL) Public information lines would be opened to address public inquiry.
- (NE) Counties would be in contact with evacuees using the information collected at the RCC or from the accessor's office.

- (NE) State Public Information would need to be in contact with counties to ensure they are reaching out to specific evacuees for providing any additional updates.

Using lessons learned from Puerto Rico:

- Income level will largely impact the evacuation and if the population can afford to leave
- Some people would go to family/friends for housing
- Temporary sheltering plans will assist in relocating the public
- (CT) The system used by United Way 211 may be utilized to track the population
- (CT) United Way 211, State Housing, and U.S. Department of Housing and Urban Development (HUD) are critical for addressing relocating of population

ANI

- ANI will provide per diem funds for evacuees, but does not apply to shadow evacuees
- As long as an authorized official has determined the evacuation area they are included in the area covered by ANI
 - An evacuation order would include a buffer zone
- PII can't be shared with ANI or other NGOs. Thus, it is critical for ANI to be co-located with DRCs and shelters.
 - Participants discussed possibly requesting a waiver from evacuees to share information between ANI and FEMA to prevent/identify duplication of benefits.

Planning

- Critical needs evacuees planning would be utilized
- (CT) DPH has relocation plans for hospitals and healthcare

Housing

- Availability of FEMA housing facilities would be dependent on which programs were activated.
- Special considerations for relocating the functional needs population are necessary.
 - Service providers (i.e. medical) would likely ensure the citizen is transferred to another service
- The FEMA NIC is developing a housing guide that has planning guides and checklists that may be applicable.
- When planning for the housing of the displaced population, plans should consider the potential for loss of housing stock as a result of the incident.

Re-entry

Authority for allowing reentry

- (AL) Alabama is a Home Rule State and therefore the County Supervisor would have the authority
 - Alabama reentry and credentialing is a local effort but supported by the state. It is communicated from the county to the State and State partners, as well as other entities supporting reentry to understand requirements and procedures. Furthermore, information would be communicated to the JIC to be provided to the public.
- (CT) Local jurisdictions manage restricted zones, tapping into ESF-13 when resources are depleted. There are limitations regarding the legal enforcement of restricted zones and it is believed that there may not be legal ability to prevent entry of the public.
- (CT) Regional coordinators will be necessary for understanding the local needs, then working with Unified Command for determining the policy for reentry. The regional planning teams will assist in coordinating the reentry process
- (CT) State officials would be consulted for setting priorities for restricted zones.
- (FL) Florida is a Home Rule State and the County would coordinate/consult with surrounding counties and State
- (FL) The counties would make the decision as to how to allow for re-entry to restricted zones
- (GA) Georgia is not a Home Rule State and therefore this would be a joint decision between State/local departments
- (IL) Decisions makers will have to evaluate the risk vs. reward of allowing the public to reentry for personal property
- (IL) The EOC policy group would guide the decisions for re-entry with county chair providing final approval.
- When making reentry decisions, officials will need to evaluate and prioritize the different reasons for return

Process for allowing reentry:

- An option for a re-entry plan would be scheduling when the public is allowed to enter and transporting individuals to/from the destination. Planners may consider vaguely outlining considerations for the process in a local plan as to not lock into a specific operation and to fluctuate based on the incident.
- Considerations may be needed for emergency workers or licensee employees. State and local authorities will have to determine how to qualify responders under emergency or occupational workers for exposure purposes.
- (CT) There are established process for tracking dosimetry which would be modified for a different incident



- (FL) Location and doses would largely impact the strategy the counties would take for reentry. The IAP will outline the daily or weekly approaches.
- (FL) Need to understand what the transportation requirements may be.
- (FL) This would be coordinated similar to hurricane re-entry processes. Law enforcement coordinates entry points and would serve as the foundation for the plan.
- (NE) Nebraska would develop application forms to determine why evacuees may need to re-enter then designate the entry/exit location(s) and the process for monitoring those individuals. Counties would provide the necessary approvals for those individuals.
 - Would likely be a local law enforcement led task when exhausted with support requested from the State.

How are dosimetry and exposure record handled upon exit from the restricted area(s)?

- It is critical to ensure awareness of the action levels that will trigger various activities
- Maine has a limited amount of dosimetry
- Medical Reserve Corps would be critical for KI distribution and other medical needs
- The Compact would be utilized to acquire additional dosimetry equipment to meet the need of the population
- There is a DOE document about dispersal device that includes some guidance for reentry for the public based on the purpose of the purpose of their entry
- Tracking of the population entering, and exposure rates, would be critical for protecting the ORO
- Would be a joint discussion for uniformed message

Procedures for decontaminating those allowed for reentry:

- For the purpose of decontamination, anyone leaving the evacuation area would be treated as an emergency worker.
- (CT) DPH is responsible for public dosimetry and will need to track the dose in the restricted zones for any reentry

Resources

- The National Guard cannot be used for police efforts as they do not have command authority. The Guard can provide administrative assistance (i.e. sandbagging, blocking roads for reentry) but can't enforce any activities.
- (IL) Statewide mutual aid would be needed (ILIAS) for the various response and recovery activities including law enforcement personnel for re-entry control.

Return

What are the top priorities for return of the evacuated population?

- Engaging the local officials is critical for the decision making process
- Safety, utilities, inspections



- The states are structured differently and therefore would follow different decision making processes
- (FL) Re-establish emergency services

The following groups were identified as key resources for making the decision to allow for return:

- Emergency managers
- Key NGOs identified:
 - Access and functional needs groups
 - Faith based
 - Volunteer organizations
 - Civic engagement organizations
- Regional coordinators for understanding status of local communities
- Subject matter experts (SMEs) will support authorizing the return of communities
- (CT) Regional ESF-14 teams will be necessary for long term recovery
 - Municipalities have been pushed to focus on long term recovery planning and these groups think beyond emergency management activities
 - Zoning laws could be an issue depending on contamination levels

What coordination and communications among organizations responsible for implementing protective actions must occur?

- The JIC and social media platforms would be critical for messaging.
- (CT) State plans outline the messaging/communication with other agencies as well as public messaging
- (FL) Public messaging is critical to explain the process of allowing for return
- (FL) Would need to determine what “clean” means, needing to understand “0” is not feasible.

Various concerns for return have been identified:

- Ability to respond to emergencies
- Degradation of infrastructure
- Fires due to turning on utilities
- Individuals may want their homes to be inspected and deemed safe for return. Participants discussed possibly certifying residences as acceptable for return. Inspections may be needed simply if electricity was turned off for a period of time. There may be issues with coordinating access to homes.
- Inspectors would be stressed across the impacted area
- It was noted that 30 days may be the cutoff time for the population to be willing to return; the displaced individuals may re-established in a nearby community.



FEMA

- Public utilities
- Schools have to be accessible
- The tax base would be gone so it unclear where local funding would come from.

FEEDBACK

Feedback Form

The following input was received through the Participant Feedback Form.

Below outlines the number of feedback forms submitted at each event.

Events	Number of Attendees	Number of Agencies Represented	Number of Participant Feedback Forms Submitted	Representation of Feedback Submitted
RVII Recovery Seminar	90	38	25	27%
RVI/Louisiana Recovery Seminar	56	31	37	66%
RIII Recovery Seminar	60	20	27	45%
RVI/Texas Recovery Seminar	59	24	21	36%
RV/Indiana Recovery Seminar	43	25	24	56%
RIV/Alabama Recovery Seminar	79	19	21	27%
RV/Indianapolis Recovery Seminar	48	27	21	44%
RIII/West Virginia Recovery Seminar	47	15	21	43%
Connecticut REP Program IPX Workshop	60	22	19	32%
RV/Illinois Recovery Seminar	46	15	11	24%
Nebraska Federal Outreach	78	19	29	37%
St. Lucie Federal Outreach	46	22	13	28%
New Hampshire Ingestion Seminar	112	27	64	57%



Presentation Assessment: The presentation materials were relevant and informative

Presentations	# Agree/Strongly Agree												
	RVII Recovery Seminar	RV/Louisiana Recovery Seminar	RIII Recovery Seminar	RVI/Texas Recovery Seminar	RV/Indiana Recovery Seminar	RV/Alabama Recovery Seminar	RV/Indianapolis Recovery Seminar	RIII/West Virginia Recovery Seminar	Connecticut REP Program IPX Workshop	RV/Illinois Recovery Seminar	Nebraska Federal Outreach	St. Lucie Federal Outreach	New Hampshire Ingestion Seminar
Advisory Team									18	10	25	11	51
Agricultural Impacts of a Radiological Incident: Panel	22	32	23	17	22		17	17		10			
DOE Assets											28	11	
EPA Briefing/PAG Update	23		16								26		
FEMA Response	21		18	21	23	20	18	16		10	24	9	
FEMA Update			18										
FLEX Overview			21										
Indiana Board of Animal Health							18						
Indiana Department of Homeland Security					24		17						
Louisiana Agriculture Update		33											
NDRF Overview		31	22	20		20	19	18		10		10	
Northern Lights Exercise – Insights and Lessons Learned	22												
NRC Response											24	12	
PAA Overview	21	32	21	18	21	19	19	20		10	26	11	51
REP 101	25		17							10		12	50
SE15 Overview/REP Recovery Initiative	21	33	18	20	23	20	19	15					
State and Local Roles in the Ingestion Pathway									17				52
State REP Mission												9	
Texas Department of State Health Services				19									
USDA Briefing		35	23	18	20	17	20	17		10	24	12	



Presentation Assessment: The presentation materials were relevant and informative

Presentations	% Agree/Strongly Agree												
	RVII Recovery Seminar	RVI/Louisiana Recovery Seminar	RIII Recovery Seminar	RVI/Texas Recovery Seminar	RV/Indiana Recovery Seminar	RIV/Alabama Recovery Seminar	RV/Indianapolis Recovery Seminar	RIII/West Virginia Recovery Seminar	Connecticut REP Program IPX Workshon	RV/Illinois Recovery Seminar	Nebraska Federal Outreach	St. Lucie Federal Outreach	New Hampshire Ingestion Seminar
Advisory Team									89%	91%	93%	85%	81%
Agricultural Impacts of a Radiological Incident: Panel	85%	89%	88%	81%	96%		85%	85%		100%			
DOE Assets											97%	100%	
EPA Briefing/PAG Update	88%		70%								90%		
FEMA Response	81%		78%	100%	100%	95%	95%	76%		100%	97%	90%	
FEMA Update			86%										
FLEX Overview			95%										
Indiana Board of Animal Health							100%						
Indiana Department of Homeland Security					100%		94%						
Louisiana Agriculture Update		89%											
NDRF Overview		94%	92%	95%		95%	100%	86%		100%		91%	
Northern Lights Exercise – Insights and Lessons Learned	85%												
NRC Response											92%	100%	
PAA Overview	81%	94%	91%	90%	91%	90%	100%	95%		100%	96%	100%	81%
REP 101	96%		77%							100%		100%	79%
SE15 Overview/REP Recovery Initiative	81%	97%	86%	95%	100%	95%	95%	67%					
State and Local Roles in the Ingestion Pathway									100%				84%
State REP Mission										100%		70%	
Texas Department of State Health Services				90%									
USDA Briefing		97%	92%	90%	87%	81%	95%	94%		100%	96%	100%	



Module: UCG Identification										
Presentations	Agree/Strongly Agree					% Agree/Strongly Agree				
	RVII/Louisiana Recovery Seminar	RIII Recovery Seminar	RVII/Texas Recovery Seminar	RV/Indiana Recovery Seminar	RV/Alabama Recovery Seminar	RVII/Louisiana Recovery Seminar	RIII Recovery Seminar	RVII/Texas Recovery Seminar	RV/Indiana Recovery Seminar	RV/Alabama Recovery Seminar
The discussion was well structured and organized.	30	23	19	20	17	86%	82%	95%	87%	100%
The topic was plausible and realistic.	33	24	18	21		94%	86%	90%	91%	
The facilitator/controller(s) kept the discussion on target.	31	24	19	18	17	89%	86%	90%	78%	100%
Participation in the discussion was appropriate for someone in my position.	29	24	18	19		83%	86%	90%	83%	
The participants included the right people in terms of level and mix of disciplines.	26	24	19	18	17	74%	86%	95%	78%	100%
This discussion allowed my agency/jurisdiction to practice and improve priority capabilities.	24	21	16	17	17	71%	78%	80%	74%	100%
After this discussion, I believe my agency/jurisdiction is better prepared to deal successfully with the scenario that was exercised.	24	22	17	16	17	69%	81%	81%	70%	100%



Module: Economic Recovery

Presentations	Agree/Strongly Agree						% Agree/Strongly Agree					
	RVII Recovery Seminar	RVII/Louisiana Recovery Seminar	RVIII Recovery Seminar	RVII/Texas Recovery Seminar	RVIV/Alabama Recovery Seminar	RV/Indianapolis Recovery Seminar	RVII Recovery Seminar	RVII/Louisiana Recovery Seminar	RVIII Recovery Seminar	RVII/Texas Recovery Seminar	RVIV/Alabama Recovery Seminar	RV/Indianapolis Recovery Seminar
The exercise was well structured and organized.	19	31	24	15	17	13	73%	94%	89%	79%	94%	87%
The scenario was plausible and realistic	19	31	23	17		13	73%	94%	85%	89%		87%
The facilitator/controller(s) kept the exercise on target.	21	29	24	18	17	13	81%	88%	89%	90%	94%	93%
The exercise documentation provided to assist in preparing for and participating in the exercise was useful	12*						46%*					
Participation in the exercise was appropriate for someone in my position	21	27	22	15	17	13	81%	82%	81%	79%	100%	87%
The participants included the right people in terms of level and mix of disciplines	22	29	22	15	17	11	85%	88%	81%	79%	100%	73%
The exercise allowed my agency/jurisdiction to practice and improve priority capabilities	20	25	20	15	17	12	77%	83%	80%	75%	100%	80%
After the exercise, I believe my agency/jurisdiction is better prepared to deal successfully with the scenario that was exercised.	22	24	20	15		12	85%	75%	80%	75%		80%



Module: Housing

Presentations	Agree/Strongly Agree						% Agree/Strongly Agree					
	RVII Recovery Seminar	RVII/Louisiana Recovery Seminar	RVII Recovery Seminar	RVII/Texas Recovery Seminar	RVII/Indiana Recovery Seminar	RVII/Indianapolis Recovery Seminar	RVII Recovery Seminar	RVII/Louisiana Recovery Seminar	RVII Recovery Seminar	RVII/Texas Recovery Seminar	RVII/Indiana Recovery Seminar	RVII/Indianapolis Recovery Seminar
The discussion was well structured and organized.	18	31	23	18		14	64%	91%	85%	90%		88%
The scenario was plausible and realistic	15	32	23	18	17	15	58%	94%	85%	90%	89%	94%
The facilitator/controller(s) kept the exercise on target.	18	29	23	18	18	16	69%	85%	79%	90%	95%	94%
The exercise documentation provided to assist in preparing for and participating in the exercise was useful	15*				17		58%*				89%	
Participation in the exercise was appropriate for someone in my position	19	25	19	17	17	13	73%	76%	76%	85%	89%	81%
The participants included the right people in terms of level and mix of disciplines	15	28	21	18	13	13	58%	82%	78%	90%	68%	81%
The exercise allowed my agency/jurisdiction to practice and improve priority capabilities	16	23	20	16	15	13	62%	72%	77%	80%	79%	81%
After the exercise, I believe my agency/jurisdiction is better prepared to deal successfully with the scenario that was exercised.	14	23	20	17	14	13	54%	72%	77%	81%	74%	81%

Facilitated Discussion***		
Assessment Factor	Agree/ Strongly Agree	% Agree/ Strongly Agree
	RH/West Virginia Recovery Seminar	RH/West Virginia Recovery Seminar
The discussion was well structured and organized.	13	76%
The topic was plausible and realistic.	12	71%
The facilitator/controller(s) kept the discussion on target.	14	82%
Participation in the discussion was appropriate for someone in my position.	14	82%
The participants included the right people in terms of level and mix of disciplines.	14	82%
This discussion allowed my agency/jurisdiction to practice and improve priority capabilities.	11	65%
After this discussion, I believe my agency/jurisdiction is better prepared to deal successfully with the scenario that was exercised.	12	71%

Module: Ingestion/RRR Concepts****								
Assessment Factor	Agree/ Strongly Agree				% Agree/ Strongly Agree			
	RV/Indianapolis Recovery Seminar	Nebraska Federal Outreach	St. Lucie Federal Outreach	New Hampshire	RV/Indianapolis Recovery Seminar	Nebraska Federal Outreach	St. Lucie Federal Outreach	New Hampshire
The presentation materials were relevant and informative			7	42			88%	70%
The facilitated discussions increased my understanding about and familiarity with the capabilities and resources of other participating organizations.			8	41			100%	68%
The discussion was well structured and organized.	14	19	8	37	93%	90%	100%	62%
The topic was plausible and realistic.	14	17			93%	77%		
The facilitator/controller(s) kept the discussion on target.	14	19			93%	86%		
Participation in the discussion was appropriate for someone in my position.	15	19	8	35	100%	86%	100%	58%
The participants included the right people in terms of level and mix of disciplines.	13	20	7	42	87%	91%	88%	70%
This discussion allowed my agency/jurisdiction to practice and improve priority capabilities.	13	17	8	32	93%	77%	100%	53%
After this discussion, I believe my agency/jurisdiction is better prepared to deal successfully with the scenario that was exercised.	15	17	8	36	100%	77%	100%	60%

Module: Ingestion Activities				
Presentations	Agree/ Strongly Agree		% Agree/ Strongly Agree	
	Connecticut REP Program IPX Workshop	RV/Illinois Recovery Seminar	Connecticut REP Program IPX Workshop	RV/Illinois Recovery Seminar
The presentation materials were relevant and informative	17	9	89%	100%
The facilitated discussions increased my understanding about and familiarity with the capabilities and resources of other participating organizations.	18	9	95%	100%
The discussion was well structured and organized.	19	9	100%	100%
Participation in the discussion was appropriate for someone in my position.	16	8	84%	89%
The participants included the right people in terms of level and mix of disciplines.	19	8	100%	89%
This discussion allowed my agency/jurisdiction to practice and improve priority capabilities.	15	7	80%	88%
After this discussion, I believe my agency/jurisdiction is better prepared to deal successfully with the scenario that was exercised.	16	8	84%	100%

Module: Post-Plume Activities				
Presentations	Agree/ Strongly Agree		% Agree/ Strongly Agree	
	Connecticut REP Program IPX Workshop	RV/Illinois Recovery Seminar	Connecticut REP Program IPX Workshop	RV/Illinois Recovery Seminar
The presentation materials were relevant and informative	17	8	17	8
The facilitated discussions increased my understanding about and familiarity with the capabilities and resources of other participating organizations.	17	8	17	8
The discussion was well structured and organized.	17	8	17	8
Participation in the discussion was appropriate for someone in my position.	16	8	16	8
The participants included the right people in terms of level and mix of disciplines.	16	8	16	8
This discussion allowed my agency/jurisdiction to practice and improve priority capabilities.	14	8	14	8
After this discussion, I believe my agency/jurisdiction is better prepared to deal successfully with the scenario that was exercised.	14	8	14	8

**Due to the number in attendance and the size of document materials, participant materials for the facilitated discussion was provided via Adobe Connect, printed copies were not provided and not all participants were on their computers or mobile devices.*

***The Radiological Recovery Training for the State of Washington utilized different feedback forms that did not collect the above data.*

****Events listed in this chart had a single facilitated discussion component due to time restrictions.*

*****Denotes events in which the ingestion and return, relocation, and reentry components were conducted as a single module.*

Participant Feedback

The following input was collected from the participant hot wash and feedback forms regarding activities to sustain, areas of improvement, and topics for further discussion and presentation:

Sustain:

- Continue addressing discussion questions
- Continue overall workshop/concept of discussions
 - All hazard applicability
 - Active participation and discussion
 - Don't conduct with RAC Meeting
 - Facilitated discussions and questions
 - Include addressing follow-up issues
 - Inclusion of representatives with real world experience
 - Platform for discussing a topic not addressed recently/regularly
- Facilitated discussion
 - Allowed for better understanding funding obstacles
 - Allowed for preparing for upcoming events
 - Continuing to develop better understanding of roles and expectations
 - Discussing applicability of recovery activities to other hazards
 - Discussion regarding waste transportation and storage
 - Discussions expanding into ingestion and RRR phases
 - Displaying discussion questions allowed for following of conversations
 - Economic recovery (agriculture) – focused facilitated discussions
 - Opportunity to discuss how plans function
 - Opportunity to prepare for upcoming exercise (ingestion/post-plume discussions)
 - Reviewing past real-world incidents to identify applicable lessons and strategies
 - Structured discussion
 - Understanding coordination of all hazards plan with ICS
- Participating agencies
 - Advisory Team representation
 - Engagement with other regional states
 - Federal participation
 - Opportunity for networking

- Technical expertise
- Understanding other agency roles/responsibilities
- USDA Office of General Council (OGC)
- Utility engagement (and presentation)
- Presentations provided:
 - Northern Lights Presentation
 - Inclusion of USDA Presentation
 - NRC and ANI Presentations
 - Recovery presentations
- Use of Adobe Connect for file sharing and virtual presentations
 - Including contact information
 - *Note: Adobe Connect has since been replaced with the FEMA Preparedness Toolkit*

Areas for Improvement:

- Facilitated discussion structure:
 - Break down/further outline discussion questions/conversation guidance
 - Breakout discussion topics in series of seminars to allow for more time to address
 - Allow for breakout discussions with smaller groups
 - Provide descriptive maps
- Improve communication between internal divisions/groups
 - To include PAA/Stafford Act Discussions
 - ½ day pre-training (FEMA/Recovery/FEMA Assistance)
- Literal/realistic scenario
 - Some agencies may not view as realistic
 - Ensure the focus of discussions are on the desired outcome for recovery
- Overall structure:
 - Inclusion/engaging virtual participation
 - Provide materials ahead of time and provide hard copies
 - Allocate time for additional facilitated discussion
 - Provide table tents for agency identification and generally organize seating
- Pre-exercise information sharing
 - Include Emergency Classification level overview/handout for non-REP participants; or general REP overview

- Provide presentations and/or discussion questions in advance for review
- Acronym list
- Additional topics for consideration are included in [Appendix C: Additional Topics for Discussion/Presentation](#).
- Inclusion of additional participating agencies (listed in the [Best Practices/Lessons Learned](#))

REP Program Training/Exercise Comments

- Alabama requests ANI senior leaders briefing
- Expand exercises
 - Federal integration
 - Federal observation of exercise before participating to understand the operations of the state (as observer, not player) and then come back later
 - Realistic power plant exercises; and with the time jump
 - Including a TTX component for additional phase (RRR and post-incident)+
 - Too much time between IPX, need more ingestion in routine of off years
 - Single topic for TTX post-exercise (GA rec)
 - Take task force or quarterly meetings to have additional discussions about specific topic(s)
- Georgia previously conducted monthly exercises (“Stump the Stars”) in which staff would identify a REP discussion topic to stimulate discussion and sharing of information
- PIO TTX to talk about stages of messaging and language
- Practice using products from liaison courses
- Regional approach to addressing a radiological event strengthens state’s capabilities

LESSONS LEARNED/BEST PRACTICES- DESIGN

Planning Efforts

The following lessons learned and best practices are derived from both observations and activities through the planning process, as well as participant feedback:

- A single point of contact must be identified for coordinating presentation materials.
- Adequate time must be allotted for planning. The time needed may vary by region and state but planning should begin at least 6 months prior to the identified date.
 - The state should be responsible for coordinating the date, location, and distribution of invitations, ensuring the needed participating agencies are represented.
 - Key federal staff, including FEMA representation, should be coordinated by the Region and FEMA REP HQ as appropriate. It is critical to ensure response and recovery representation from the FEMA regional office, included, but not limited, to participation by the Federal Disaster Recovery Coordinator (FDRC) and Federal Coordinating Officer (FCO).
 - Regular planning calls should be established and increase in frequency (weekly) as approaching conduct.
 - The REP Recovery Initiative Checklist Tracker Table should be used for overall planning and event development.
 - All materials should be agreed upon and finalized at least a month before the event date. This allows adequate time for printing, material assembly, and any final review by State and regional leadership.
- Balance presentations and facilitated discussion for thorough discussion of identified issues and information provided
- Conduct event over two days with ample time for the facilitated discussion
- Coordinate with non-REP Program regional FEMA attendees in advance of the event to ensure understanding of the
- Discussion facilitators must review all materials in advance of conduct and should be engaged throughout the planning process to understand the decision making process and desired outcomes.
- Ensure adequate breaks are given between presentations and facilitated discussions
- Ensure adequate time for conducting the hot wash and completing the feedback form to capture lessons learned, best practices, gaps, areas for improvement, etc.
- Ensure the lead state planner is heavily engaged throughout the entire process, driving the identification of objectives, areas for discussion, event structure, and facilitated discussion questions and materials.

- Facilitated discussion should be driven by a scenario with supporting mapping products. It is critical to ensure the scenario is thoroughly reviewed by planners.
 - The scenario must be reviewed when introducing the facilitated discussion with an explanation of the mapping products.
- Presenters should be contacted once a date is identified, with continual communication and confirmation of their availability throughout the planning process.
 - Some presenters may need invitational travel for supporting the event(s) which will require additional time for coordination.
- The FEMA Preparedness Toolkit can be used for housing all materials pre- and post-event.
- Additional topics for consideration are included in [Appendix C: Additional Topics for Discussion/Presentation](#).

Participating Agencies

The following agencies were identified as need to be included in the REP Recovery Initiative events, in addition to traditional REP stakeholders:

- Federal:
 - Civil Support Team (CST)
 - DOC
 - EPA
 - Extension offices
 - FDA
 - HUD
 - NRC or ANI legal representatives
 - Occupational Safety and Health Administration (OSHA)
 - Public Information Officers (PIO)
 - SBA
 - U.S. Department of Health and Human Services (HHS)
 - U.S. Department of Homeland Security (DHS) Infrastructure Protection (IP)
 - U.S. Department of Transportation (DOT)
 - USCG
- USDA Food Safety Inspection Service (FSIS)
- State/Local:
 - First responders
 - HazMat Teams
 - Host counties
 - Industry
 - Legal authorities
 - Local Emergency Planning Committee (LEPC)
 - PIOs
 - Senior decision-makers
 - Sheriff offices
 - State Agriculture
 - State Department of Commerce
 - State Department of Housing and Community Development
 - State Department of Natural Resources (DNR)
 - State Department of Planning
 - State environmental agency

- State medical officer
- State veterinary office
- State/local legal representative
- State-level recovery agencies
- UCG representatives
- Wildlife and fisheries
- Non-Governmental Organization
 - American Nuclear Society (ANS) students
- ARC
- Health physics society
- Hospitals
- Office of Behavioral Health
- Public stakeholders
- Utility
- Voluntary Organization Active in Disasters (VOAD)

Event Conduct

The following lessons learned and best practices are derived from both observations and activities through the planning process, as well as participant feedback:

- Organize room layout to ensure active participation
 - Placing state and local representatives near the front of the room
 - Grouping by ESF or response structure
- Nametags and table tents should be created ahead of time and provided at registration
- Provide printed copies of mapping products- displaying on the projector but also printed
- Provide printed versions of all discussion documents (i.e. Situation Manual)
- Ensure there are adequate microphones and runners for facilitated discussion
- Conduct a pre-event meeting the day prior to review room layout, technological capabilities, and roles/expectations for facilitators and speakers
- Utilize a “parking lot” to address issues either later in the event or at a follow-on workshop
- Utilize charts for displaying information

FUTURE EVENTS

The following events are currently tentatively scheduled:

- LaSalle Ingestion Workshop
 - Region V
 - March 18, 2020
- NREP Conference
 - March 30-April 2, 2020
- Rhode Island Ingestion Workshop
 - Region I
 - April 22, 2020
- Connecticut Recovery Seminar
 - Region I
 - June 25, 2020

- Arkansas Recovery Seminar
 - Region VI
 - July 14-15, 2020
- LaSalle Federal Outreach
 - Region V
 - August 25-28, 2020
- Grand Gulf Federal Outreach
 - Region IV
 - December 7-11, 2020

DRAFT

APPENDIX A: AGENDA EXAMPLE

Recovery Workshop

The following is an agenda from a previous event:

Time	Activities
8:00-9:00	Registration
9:00-9:45	Welcome and Introductions
9:45-10:00	Seminar Overview
10:00-10:20	FEMA REP Recovery Initiative Overview
Break	
10:40-12:30	Price Anderson Act
	Price Anderson Act/American Nuclear Insurers
	NRC Response and the PAA Plan of Distribution
Lunch	
1:30-2:15	National Disaster Recovery Framework Overview
Break	
2:30-2:50	Facilitated Discussion Introduction
2:50-3:05	Module 1: State UCG Identification
3:05-3:35	Module 2: Housing
3:35-4:00	Expectations for Day 2
Adjourn	

Example Agenda: Day 1

Time	Activities
8:00-9:00	Registration
9:00-9:15	Introduction/Overview of Day 2
9:15-10:00	State Agriculture Update
Break	
10:10-10:30	U.S. Department of Agriculture
10:30-12:00	Agricultural Impacts of a Radiological Incident: Panel
Lunch	
1:40-2:50	Module 3: Economic Recovery (Agriculture Focus)
Break	
3:00-3:20	Summary/Hot Wash
3:20-3:30	Closing Comments
Adjourn	

Example Agenda: Day 2

Ingestion Workshop

Ingestion workshops can be combined with federal training and supplemental federal asset presentations in an effort to support the federal outreach conducted in advance of an ingestion exercise.

Time	Activities
8:00—8:30	Welcome, Introductions
8:20—8:30	Seminar Overview
8:30—9:30	State REP Mission, County Expectations
Break	
0945—1015	REP 101
1015—1145	Price Anderson Act
	Price Anderson Act/American Nuclear Insurers
	NRC Response and the PAA Plan of Distribution
Lunch	
1300—1330	FEMA Response
1330—1415	National Disaster Recovery Framework Overview
Break	
1430—1530	A-Team Brief
1530	Expectations for Day 2
Adjourn	

Example Agenda: Day 1

Time	Activities
8:00—8:15	Overview of Day 2
8:15—9:15	APHIS U.S. Department of Agriculture
Break	
9:30—1200	Agricultural Impacts of a Radiological Incident: Panel
Lunch	
1315—1415	Module 1: Ingestion Activities
Break	
1430—1600	Module 2: Relocation, Re-entry, Return Activities
1600—1620	Summary/Hot Wash
1620—1630	Closing Comments
Adjourn	

Example Agenda: Day 2

APPENDIX B: PARTICIPATING AGENCIES

Agency	Organization Type	Region 7 Recovery Seminar	Region 6/Louisiana Recovery Seminar	Region 3 Recovery Seminar	Waterford-3 Recovery Workshop	Region 6/Texas Recovery Seminar	Region V/Indiana Recovery Seminar	Region IV/Alabama Recovery Seminar	WA Training	RV/Indianapolis Recovery Seminar	Connecticut REP Program IPX Workshop	RV/Illinois Recovery Seminar	Nebraska Federal Outreach*	St. Lucie Federal Outreach	New Hampshire Ingestion Seminar
14th Civil Support Team	F										X				
5th Weapons of Mass Destruction (WMD) Civil Support Team (CST)	F											X			
Adams County (Washington)	L								X						
Adams County Emergency Management (Washington)	L								X						
Alabama Department of Agriculture and Industries	S							X							
Alabama Department of Public Health – Radiation Control	S							X							
Alabama Emergency Management Agency	S				X			X							
Alabama Power	N							X							
Ameren	N	X													
American Electric Power	N						X								
American Nuclear Insurers (ANI)	N		X			X			X	X		X		X	X
American Red Cross (ARC)	N	X							X						
Angola Fire Department (Indiana)	L									X					
Arkansas Department of Emergency Management	S				X										

Agency	Organization Type	Region 7 Recovery Seminar	Region 6/Louisiana Recovery Seminar	Region 3 Recovery Seminar	Waterford-3 Recovery Workshop	Region 6/Texas Recovery Seminar	Region V/Indiana Recovery Seminar	Region IV/Alabama Recovery Seminar	WA Training	RV/Indianapolis Recovery Seminar	Connecticut REP Program IPX Workshop	RV/Illinois Recovery Seminar	Nebraska Federal Outreach*	St. Lucie Federal Outreach	New Hampshire Ingestion Seminar
Assumption Parish Office of Homeland Security and Emergency Preparedness (OHSEP)	L		X												
Aurora Emergency Management Agency (Illinois)	L											X			
Benton County	L	X													
Benton County Emergency Management (Washington)	L								X						
Benton-Franklin Council of Governments (Washington)	L								X						
Benton-Franklin Health District (Washington)	L								X						
Berrien County Sheriff's Office	L						X								
Berrien County Sheriff's Department	L						X								
Blakely-Early County Emergency Management Agency	L							X							
Bonneville Power Administration (Washington)	L								X						
Brazoria County Health Department	L					X									
Brevard County Emergency Management (Florida)	L													X	
Callaway (MO) County	L	X													
Calvert County Emergency Management	L			X											

Agency	Organization Type	Region 7 Recovery Seminar	Region 6/Louisiana Recovery Seminar	Region 3 Recovery Seminar	Waterford-3 Recovery Workshop	Region 6/Texas Recovery Seminar	Region V/Indiana Recovery Seminar	Region IV/Alabama Recovery Seminar	WA Training	RV/Indianapolis Recovery Seminar	Connecticut REP Program IPX Workshop	RV/Illinois Recovery Seminar	Nebraska Federal Outreach*	St. Lucie Federal Outreach	New Hampshire Ingestion Seminar
Cass County Emergency Management (Nebraska)	L												X		
Centers for Pain Control	L						X								
City of Gary (Indiana)	L						X								
City of Walla Walla (Washington)	L								X						
Clay Fire (Indiana)	L						X								
Coffey (KS) County	L	X													
Connecticut Department of Administrative Services	S										X				
Connecticut Department of Commerce	S										X				
Connecticut Department of Consumer Protection	S										X				
Connecticut Department of Developmental Services	S										X				
Connecticut Department of Emergency Services and Public Protection	S										X				
Connecticut Department of Energy and Environmental Protection	S										X				
Connecticut Department of Transportation	S										X				
Connecticut Department of Public Health	S										X				
Connecticut Department of Public Health - Drinking Water	S										X				
Connecticut Department of Public Health Laboratory	S										X				

Agency	Organization Type	Region 7 Recovery Seminar	Region 6/Louisiana Recovery Seminar	Region 3 Recovery Seminar	Waterford-3 Recovery Workshop	Region 6/Texas Recovery Seminar	Region V/Indiana Recovery Seminar	Region IV/Alabama Recovery Seminar	WA Training	RV/Indianapolis Recovery Seminar	Connecticut REP Program IPX Workshop	RV/Illinois Recovery Seminar	Nebraska Federal Outreach*	St. Lucie Federal Outreach	New Hampshire Ingestion Seminar
Connecticut Division of Emergency Management and Homeland Security	S										X				
Connecticut National Guard	F										X				
Connecticut Office of Early Childhood	S										X				
Connecticut Office of the Attorney General	S										X				
Consolidated Nuclear Security, LLC, Pantex Plant	N					X									
D.C. Cook Nuclear Plant	N						X								
Dallas Fire-Rescue Department	L					X									
Decatur Township Fire Department (Indiana)	L									X					
Defense Coordinating Element, Region X	F								X						
Department of Energy/National Nuclear Security Administration	F		X					X	X					X	
Department of Energy/Radiological Assistance Program	F					X		X					X		
Department of Justice	F								X						
Department of the Interior (DOI)	F	X													
DeWitt County Emergency Management Agency (Illinois)	L											X			
DHS Office of Emergency Operations (OEO)	S			X											
Dominion Millstone Power Station	N										X				

Agency	Organization Type	Region 7 Recovery Seminar	Region 6/Louisiana Recovery Seminar	Region 3 Recovery Seminar	Waterford-3 Recovery Workshop	Region 6/Texas Recovery Seminar	Region V/Indiana Recovery Seminar	Region IV/Alabama Recovery Seminar	WA Training	RV/Indianapolis Recovery Seminar	Connecticut REP Program IPX Workshop	RV/Illinois Recovery Seminar	Nebraska Federal Outreach*	St. Lucie Federal Outreach	New Hampshire Ingestion Seminar
Dothan/Houston County Emergency Management Agency	L							X							
East Baton Rouge Parish Mayor's OHSEP	L		X												
Elkhart County Emergency Management Agency	L									X					
Entergy	N		X		X										
Exelon	N	X		X								X			
Federal Emergency Management Agency (FEMA)	F	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Federal Radiological Monitoring and Assessment Center (FRMAC)	F		X		X	X							X		X
Florida Bureau of Radiation Control	S							X							
Florida Department of Health	S													X	
Florida Department of Health- Bureau of Radiation Control	S													X	
Florida Division of Emergency Management	S							X						X	
Fountain County Emergency Management Agency	L									X					
Framatome Inc.	N								X						
Franklin County Emergency Management (Washington)	L								X						
Franklin County GIS (Washington)	L								X						

Agency	Organization Type	Region 7 Recovery Seminar	Region 6/Louisiana Recovery Seminar	Region 3 Recovery Seminar	Waterford-3 Recovery Workshop	Region 6/Texas Recovery Seminar	Region V/Indiana Recovery Seminar	Region IV/Alabama Recovery Seminar	WA Training	RV/Indianapolis Recovery Seminar	Connecticut REP Program IPX Workshop	RV/Illinois Recovery Seminar	Nebraska Federal Outreach*	St. Lucie Federal Outreach	New Hampshire Ingestion Seminar
Franklin County Public Works Department (Washington)	L								X						
General Dynamics Electric Boat	N										X				
General Services Administration (GSA)	F	X													
Georgia Department of Agriculture	S							X							
Georgia Department of Natural Resources	S							X							
Georgia Department of Public Health	S							X							
Georgia Emergency Management and Homeland Security Agency	S							X							
Georgia Power	N							X							
Glades County Emergency Management (Florida)	L													X	
Golden Living Fountainview Terrace (Indiana)	N						X								
Golden Living LaPorte (Indiana)	N						X								
Grant County Sheriff's Office (Washington)	L								X						
Hamilton County Health (Indiana)	L									X					
HAMMER Federal Training Center	F								X						
Hanford Communities	F								X						
Harford County Department of Emergency Services	L			X											
Harrison (IA) County	L	X													

Agency	Organization Type	Region 7 Recovery Seminar	Region 6/Louisiana Recovery Seminar	Region 3 Recovery Seminar	Waterford-3 Recovery Workshop	Region 6/Texas Recovery Seminar	Region V/Indiana Recovery Seminar	Region IV/Alabama Recovery Seminar	WA Training	RV/Indianapolis Recovery Seminar	Connecticut REP Program IPX Workshop	RV/Illinois Recovery Seminar	Nebraska Federal Outreach*	St. Lucie Federal Outreach	New Hampshire Ingestion Seminar
Highlands County Emergency Management (Florida)	L													X	
Huntington County Emergency Management Agency (Indiana)	L									X					
Illinois Department of Public Health	S											X			
Illinois Emergency Management Agency (IEMA)	S						X					X			
Illinois National Guard	F											X			
Indian River County Emergency Services Department (Florida)	L													X	
Indiana Department of Environmental Management (IDEM)	S						X								
Indiana Department of Homeland Security (IDHS)	S						X			X					
Indiana Department of Transportation (IDOT)	S						X			X					
Indiana State Board of Animal Health (BOAH)	S						X			X					
Indiana State Department of Health	S									X					
Indiana State Department of Health Food Protection	S									X					
Indiana University	S									X					
Interventional Pain Management (Indiana)	N						X								
Iowa Department of Public Health	S	X													

Agency	Organization Type	Region 7 Recovery Seminar	Region 6/Louisiana Recovery Seminar	Region 3 Recovery Seminar	Waterford-3 Recovery Workshop	Region 6/Texas Recovery Seminar	Region V/Indiana Recovery Seminar	Region IV/Alabama Recovery Seminar	WA Training	RV/Indianapolis Recovery Seminar	Connecticut REP Program IPX Workshop	RV/Illinois Recovery Seminar	Nebraska Federal Outreach*	St. Lucie Federal Outreach	New Hampshire Ingestion Seminar
Iowa Homeland Security and Emergency Management Department (HSEMD)	S	X											X		
Iowa Homeland Security and Emergency Management Department (HSEMD) - Radiological Emergency Preparedness (REP) Program	S												X		
Iowa State University	N	X													
Johnson County Emergency Management Agency (Nebraska)	L												X		
Kansas Adjutant General's Office	S	X													
Kansas Department of Health and Environment	S	X											X		
Kansas Division of Emergency Management	S	X													
Kansas National Guard	F	X													
Kansas Radiation Control Program	S	X													
Lafourche Parish Government	L				X										
Lake Jackson Police Department	L					X									
LaPorte County Hazmat (Indiana)	L						X								
Laporte HazMat (Indiana)	L						X								
LaSalle County Emergency Management Agency (Illinois)	L											X			
Linn (IA) County	L	X													

Agency	Organization Type	Region 7 Recovery Seminar	Region 6/Louisiana Recovery Seminar	Region 3 Recovery Seminar	Waterford-3 Recovery Workshop	Region 6/Texas Recovery Seminar	Region V/Indiana Recovery Seminar	Region IV/Alabama Recovery Seminar	WA Training	RV/Indianapolis Recovery Seminar	Connecticut REP Program IPX Workshop	RV/Illinois Recovery Seminar	Nebraska Federal Outreach*	St. Lucie Federal Outreach	New Hampshire Ingestion Seminar
Livingston Office of Homeland Security and Emergency Preparedness	L				X										
Louisiana Department of Agriculture and Forestry	S		X		X										
Louisiana Department of Environmental Quality	S		X		X										
Louisiana Department of Health	S		X		X										
Louisiana Department of Health-Office of Public Health	S		X		X										
Louisiana Department of Wildlife and Fisheries	S				X										
Louisiana Governors OHSEP (GOHSEP)	S		X		X										
Louisiana State University	N		X		X										
Macon County Emergency Management (Illinois)	L											X			
Maine Emergency Management Agency	S										X				
Marion County Health Department (Indiana)	L									X					
Marshall County Health Department (Indiana)	L						X								
Martin County Emergency Management (Florida)	L													X	
Martin County Fire Rescue (Florida)	L													X	
Maryland Department of Agriculture (MDA)	S			X											

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Maryland Department of Environment (MDE)	S			X											
Maryland Department of General Services (DGS)	S			X											
Maryland Department of Health and Mental Hygiene (MDH)	S			X											
Maryland Department of Human Services (DHS)	S			X											
Maryland Department of Natural Resources (DNR)	S			X											
Maryland Emergency Management Agency (MEMA)	S			X											
Maryland Insurance Administration (MIA)	S			X											
Massachusetts Department of Agriculture Divisions	S														X
Massachusetts Department of Environmental Protection	S														X
Massachusetts Department of Public Health	S														X
Massachusetts Division of Insurance	S														X
Massachusetts Division of Marine Fisheries	S														X
Massachusetts Emergency Management Agency	S														X

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Matagorda County Office of Emergency Management	L				X	X									
McLean County Emergency Management (Illinois)	L											X			
McLean County Farm Bureau (Illinois)	L											X			
MDE Radiological Health Program (RHP)	S			X											
MDH Office of Preparedness and Response (OPR)	S			X											
MDH Rapid Response Team (RRT)	S			X											
Minnesota Department of Homeland Security and Emergency Management	S	X													
Mission Support Alliance	F								X						
Mississippi Emergency Management Agency – Radiological Emergency Preparedness	S							X						X	
Mississippi Rad Health	S				X										
Missouri Adventist Community Services Disaster Response (MOACSDR)/Missouri VOAD (MOVOAD)	S	X													
Missouri Department of Health and Senior Services	S	X													
Missouri State Emergency Management Agency	S	X											X		
Monroe County Emergency Management (Florida)	L													X	

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National Weather Service	F								X						
Nebraska Department of Health and Human Services	S												X		
Nebraska Emergency Management Agency (NEMA)	S	X											X		
Nebraska National Guard	F												X		
Nebraska Public Power District (NPPD)	N	X													
Nemaha (NE) County Emergency Management Agency	L	X													
New Hampshire - Amateur Radio Emergency Services	S														X
New Hampshire Department of Administrative Services	S														X
New Hampshire Department of Agriculture, Markets and Food	S														X
New Hampshire Department of Health and Human Services	S														X
New Hampshire Department of Natural and Cultural Resources	S														X
New Hampshire Department of Safety	S														X
New Hampshire Department of Transportation	S														X
New Hampshire Division of Emergency Services and Communications	S														X

Agency	Organization Type	Region 7 Recovery Seminar	Region 6/Louisiana Recovery Seminar	Region 3 Recovery Seminar	Waterford-3 Recovery Workshop	Region 6/Texas Recovery Seminar	Region V/Indiana Recovery Seminar	Region IV/Alabama Recovery Seminar	WA Training	RV/Indianapolis Recovery Seminar	Connecticut REP Program IPX Workshop	RV/Illinois Recovery Seminar	Nebraska Federal Outreach*	St. Lucie Federal Outreach	New Hampshire Ingestion Seminar
New Hampshire Division of Fire Standards and Training	S														X
New Hampshire Division of State Police	S														X
New Hampshire Fish and Game Department	S														X
New Hampshire Homeland Security and Emergency Management	S														X
New Hampshire National Guard	F														X
New Orleans Office of Homeland Security and Emergency Preparedness	L				X										
NextEra Energy Duane Arnold	N	X													
NextEra Energy Seabrook Station	N														X
Noble County Emergency Management Agency (Indiana)	L									X					
Office of Emergency Preparedness	L		X												
Office of Public Health, LA Department of Health	S		X												
Oregon Department of Energy	S								X						
Otoe (NE) County Emergency Management	L	X													
Otoe County Emergency Management (Nebraska)	L												X		
Palm Beach County Division of Emergency Management (Florida)	L													X	

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Pasco Housing Authority (Washington)	L								X						
Pasco School District (Washington)	L								X						
Pawnee County Emergency Management Agency (Nebraska)	L												X		
Providence St Mary Medical Center (Washington)	N								X						
Purdue University	S									X					
Radiological Assistance Program, Region 2	F				X										
Rhode Island Emergency Management Agency	S										X				
Richardson County Emergency Management (Nebraska)	L	X											X		
Rush County Emergency Management Agency (Indiana)	L									X					
Senior Life Resources/Mid-Columbia Meals on Wheels (Washington)	N								X						
SEWA ALTC- COG	S								X						
South Texas Project Nuclear Operating Company	N				X	X									
St Helena Parish Police Jury	L		X												
St. Bernard Parish Government	L		X		X										
St. Charles Parish	L		X		X										
St. Helena Parish Police Jury	L				X										

Agency	Organization Type	Region 7 Recovery Seminar	Region 6/Louisiana Recovery Seminar	Region 3 Recovery Seminar	Waterford-3 Recovery Workshop	Region 6/Texas Recovery Seminar	Region V/Indiana Recovery Seminar	Region IV/Alabama Recovery Seminar	WA Training	RV/Indianapolis Recovery Seminar	Connecticut REP Program IPX Workshop	RV/Illinois Recovery Seminar	Nebraska Federal Outreach*	St. Lucie Federal Outreach	New Hampshire Ingestion Seminar
St. James Parish Government	L				X										
St. John Parish Office of Homeland Security and Emergency Preparedness	L				X										
St. Lucie County Public Safety Department (Florida)	L													X	
St. Mary's Emergency Management Department	L			X											
Starke County EMA (Indiana)	L						X								
Terrebonne Parish OHSEP	L		X												
Texas A&M AgriLife	S					X									
Texas Animal Health Commission	S					X									
Texas Department of State Health Services	S				X	X									
Texas Division of Emergency Management (TDEM)	S					X									
U.S. Army Corps of Engineers (USACE)	F								X						
U.S. Army Reserve Defense Coordinating Element Region 6	F				X										
U.S. Coast Guard	F										X				X
U.S. Department of Agriculture (USDA)	F	X	X	X	X	X	X	X	X	X				X	
U.S. Department of Housing and Urban Development (HUD)	F	X							X						
U.S. Department of Transportation (DOT)	F	X													

Agency	Organization Type	Region 7 Recovery Seminar	Region 6/Louisiana Recovery Seminar	Region 3 Recovery Seminar	Waterford-3 Recovery Workshop	Region 6/Texas Recovery Seminar	Region V/Indiana Recovery Seminar	Region IV/Alabama Recovery Seminar	WA Training	RV/Indianapolis Recovery Seminar	Connecticut REP Program IPX Workshop	RV/Illinois Recovery Seminar	Nebraska Federal Outreach*	St. Lucie Federal Outreach	New Hampshire Ingestion Seminar
U.S. Environmental Protection Agency (EPA)	F	X	X	X					X	X			X	X	
U.S. Food and Drug Administration (FDA)	F	X	X		X	X									
U.S. Health and Human Services (HHS)	F	X							X						
U.S. Nuclear Regulatory Commission (NRC)	F	X	X	X	X	X	X	X	X	X		X	X	X	
United States Navy	F														X
United Way of Connecticut - 211	N										X				
University of Connecticut	S										X				
University of Nebraska Medical Center	S												X		
USDA - Economic Research Service (ERS)	F	X	X						X			X			
USDA – Farm Services Agency (FSA)	F								X			X			
USDA – Office of Homeland Security and Emergency Coordination (OHSEC)	F			X											
USDA Rural Development (RD)	F	X	X	X		X	X		X	X		X			
USDA-Animal and Plant Health Inspection Service (APHIS)	F	X	X		X	X	X		X	X		X	X	X	
USDA-APHIS-Plant Protection and Quarantine	F		X								X				
USDA-Natural Resources Conservation Service (NRCS)	F		X				X		X	X		X			
USDA-Office of General Counsel (OGC)	F			X						X		X			

Agency	Organization Type	Region 7 Recovery Seminar	Region 6/Louisiana Recovery Seminar	Region 3 Recovery Seminar	Waterford-3 Recovery Workshop	Region 6/Texas Recovery Seminar	Region V/Indiana Recovery Seminar	Region IV/Alabama Recovery Seminar	WA Training	RV/Indianapolis Recovery Seminar	Connecticut REP Program IPX Workshop	RV/Illinois Recovery Seminar	Nebraska Federal Outreach*	St. Lucie Federal Outreach	New Hampshire Ingestion Seminar
Virginia Mason Memorial Hospital (Washington)	N								X						
Walla Walla County (Washington)	L								X						
Walla Walla County Conservation District (Washington)	L								X						
Walla Walla County Department of Community Health (Washington)	L								X						
Walla Walla County Emergency Management (Washington)	L								X						
Walla Walla County Fire District 5 (Washington)	L								X						
Washington Department of Agriculture	S								X						
Washington Department of Ecology	S								X						
Washington Department of Health	S								X						
Washington Military Department	S								X						
Washington Military Department Emergency Management Division	S								X						
Washington State Office of Insurance Commissioner	S								X						
Whiteside County Health Department (Illinois)	L											X			
Will County Emergency Management Agency (Illinois)	L											X			
Wolf Creek Nuclear Operating Corporation (WCNOC)	N	X													

Agency	Organization Type	Region 7 Recovery Seminar	Region 6/Louisiana Recovery Seminar	Region 3 Recovery Seminar	Waterford-3 Recovery Workshop	Region 6/Texas Recovery Seminar	Region V/Indiana Recovery Seminar	Region IV/Alabama Recovery Seminar	WA Training	RV/Indianapolis Recovery Seminar	Connecticut REP Program IPX Workshop	RV/Illinois Recovery Seminar	Nebraska Federal Outreach*	St. Lucie Federal Outreach	New Hampshire Ingestion Seminar
Yakima Valley Office of Emergency Management (Washington)	L								X						
York County Emergency Management Agency (Maine)	L														X

**Federal (F) State (S) Local (L) Non-Governmental Organizations (N)*

APPENDIX C: ADDITIONAL TOPICS FOR DISCUSSION/PRESENTATION:

- Alternative use of crops
- ANI/PAA
- Economic recovery
 - Including non-agriculture
- FRMAC
- Fukushima response lessons learned
- Further differentiation between Stafford vs. Non-Stafford support/resources
 - Including timeline of resource deployment and requirements
- Host and ingestion county impacts
- How to communicate with employees to ensure they are prepared and able to respond
- HUD, SBA, HHS presentations
- Identification of general recovery issues
- Lessons learned and issues identified from previous real world incidents
- Long term continuity of operations (COOP) planning
- Mitigating impacts
- Nuclear/Radiological Incident Annex (NRIA) Update Overview Further discuss USDA assistance for recovery
- Open drinking water sources
- Opportunity to submit written comments/address conversations in breakout groups
- PPD-44
- Presentation from Advisory Team
 - Applicable for facilitated discussion
- Previous facilitated discussion outcomes
- Public messaging
- Rad 101
- Radiological impact to the food chain
- Real world-examples and lessons learned
- REP 101 (though it was noted that it should both be included and not included at various events – participating agencies should drive and determine the need for this overview)

- SE15 Lessons Learned
- State/local-focused presentations
 - Including identification of self-identified issues
- Vulnerable populations
- Waste disposal

DRAFT

APPENDIX D: ROLLUP – FACILITATED DISCUSSION BEST PRACTICES/LESSONS LEARNED

The following best practices/lessons learned are compiled from those identified in the [Facilitated Discussion](#) section.

- Applicable lessons learned may come from the ongoing wildfires in northern California as they face a limited housing stock.
 - Recreational facilities and camp grounds may be resources for temporary housing.
- Calvert County and Maryland both have agreements with real estate organizations that could be resources for long-term relocation.
 - Calvert County has an agreement with Southern Maryland Realtors Association for identifying housing stock available in the tri-county area. This association can also reach out to other Maryland realtors for a state-wide stock availability.
 - Maryland Department of Housing and Authority also has relationships/partners with organizations that may help with temporary housing.
- Campaigns following the BP Oil Spill could be replicated for encouraging the return of tourism.
- Campaigns such as “Beef, it’s what for Dinner” can help reinstate public confidence
- Cesium contaminated crops should not be incinerated because it will turn to Cesium gas, but a pipe/HEPA filter could be used to gather the gas
- Current waste management strategies such as on-site and current EPA or DOE sites
- Delmar, MD has included the potential impact to the Eastern Shore poultry industry in their planning efforts.
- Florida has a Business Development-specific ESF
 - Florida used “Visit Florida” following the BP Oil Spill
- If the decision is to return to background levels prior to the incident, those numbers must be pre-identified. Minnesota noted they did not have any tracking of background levels for the impacted areas as part of the Northern Lights Exercise.
- Matagorda has a memorandum of understanding (MOU) with Comal County for short term sheltering during evacuation which is activated by the Matagorda County Judge authority. Matagorda County Board of Realtors is also a potential partner.
- Post-Deep Water Horizon messaging and re-opening of ports
- Pre-packaged alternatives should be identified to be implemented at the time of an incident
- Private industries, universities, and educational institutions could be resources for conducting research on options for the affected areas.
 - Department of USDA partners with extension programs

- Louisiana State University (LSU) has an Extension Disaster Education Network (EDEN) that could be a potential partner for identifying creative use of land or encouraging return of businesses
 - USDA has many agencies that could provide loan or grant funding to affected areas.
 - Private industries may support clean-up/recovery operations as a way to obtain positive attention.
- The following alternative uses for crops were identified:
 - Sugarcane can be turned into ethanol
 - Dairy milk can be turned into casine (glue, binder, adhesive)
 - Soybeans can be turned into oil and that oil can be turned into fuel or plastic.
- The following treatment of crops that are unable to be harvested or taken to market:
 - Soybeans can drop and rot in the field, minimal additional risk, no impact to the land.
 - Sugar cane can be turned into biofuel after a couple of rainfalls.
 - Horticulture crops – rotting on the field, will open up potential for disease because it will harbor insects.

APPENDIX E: ROLLUP – KEY GAPS/IDENTIFIED ISSUES

The following key gaps/identified issues are compiled from those identified in the [Facilitated Discussion](#) section.

- Any potential ANI allocation of funds for damaged property does not result in ANI's purchase of property. The process for determining amount for reimbursement is determined by the Federal District Court. Should a resident receive payment, s/he continues to own the contaminated property. There is potential for abandoned property which could have cascading impacts on the city, tax base, and local government.
- Contaminated debris, both monitoring and removal is an anticipated issue. An Emergency Declaration with Public Assistance- Category A (debris removal), may assist with addressing the waste management issue.
 - Beyond the funding of debris removal, the transportation of materials is a potential issue. Following the highly pathogenic avian influenza (HPAI) epidemic in the Midwest, USDA faced an issue of transporting the containers in which chickens were disposed.
- Determining and messaging Open for Business Campaign
- Developing relationships with other entities to assist in cleanup or remediation (i.e. universities, for-profit businesses).
- Ensuring the public is informed ahead of an incident
- Further review of the Economy Act to understand restrictions and provisions for utilization of other agency resources and contracts to assist in the response and recovery from an incident at an NPP.
- Further understanding the impacts to region-specific agriculture products and economies (e.g. sugar cane and shrimp farms in the south; hops and grape growers in Pacific Northwest; corn, soy beans, and grains in the Midwest)
- Inability to share PII across entities, thus risking a gap or duplication of benefits and inability to ensure all of the population is contacted.
- Inclusion of mental health considerations with return efforts
- It is estimated that litigation for Yuka Mountain would take 24 years to move waste across state lines.
- It is unclear how state insurance agencies would coordinate with ANI. Further, it was noted that homeowners insurance generally excludes nuclear incidents.
- It was requested that additional guidance be provided for agriculture considerations as the topic is not typically addressed in depth.
- Messaging safety of food and products from the area, and ensuring the message is from a trustworthy entity.
- Movement of businesses or population away from the area if impact is for an extended period of time

- Numerous cascading impacts from an impacted agriculture industry (i.e. processing and packaging facilities, transportation/businesses dependent on movement of goods including hotels and gas stations, end point product sales)
- Regulations and available contractors for transporting radiological materials
- There are currently legal obstacles to sharing information of evacuees and survivors, thus impacting efforts of case management, tracking the population, minimizing the likelihood of duplication of benefits, and ensuring all available resources are provided to all qualifying
- Utilizing existing resources and relationships to push a broad message to the public

APPENDIX F: STATE PREPAREDNESS REPORT ALIGNMENT

The following capability targets were self-identified by the participating states during the 2016 State Preparedness Reports. The furthest right column denotes if this target was discussed through the aforementioned REP recovery event. This chart reflects the aligning of REP Recovery Initiative discussions with state capability targets.

State	Core Capability	Capability Target	Target Discussed
Iowa	Economic Recovery	<ul style="list-style-type: none"> Restore economic and business activities in the impacted disaster area to a sustainable level in accordance with the timeline and milestones identified in the recovery plan to offset estimated total economic costs that could exceed 50 billion dollars from a prolonged disaster. 	X
	Housing	<ul style="list-style-type: none"> Establish a resilient and sustainable housing market that meets the interim and long-term needs of the impacted community within the specified time frame identified in their recovery plans. 	X
	Operational Coordination	<ul style="list-style-type: none"> Establish all (100%) of the appropriate courses of action and provide oversight for complex operations associated with preventing an imminent or follow-on terrorist attack (Prevention) 	
		<ul style="list-style-type: none"> Ensure all (100%) investigative, intelligence, and other activities are coordinated to provide actionable intelligence for cohesive command and control of operations associated to prevent imminent or follow-on terrorist attack (Prevention) 	
		<ul style="list-style-type: none"> Establish and maintain 100% of the operational structures that support networking, planning, and coordination between all protection partners (Protection) 	
		<ul style="list-style-type: none"> Incorporate mitigation efforts that connect mitigation planning to community development decision-making processes (Mitigation) 	X
		<ul style="list-style-type: none"> Within 12 hours, establish and implement activation plans at all levels of government and society, to ensure the mobilization of all critical resources, and establish command, control, and coordination structures within the affected community and other coordinating bodies in surrounding communities and across the State to respond to emergencies in an efficient and cost-effective manner (Response) 	
		<ul style="list-style-type: none"> Within 3 days, enhance and maintain NIMS compliant command, control and coordination structures to meet basic human needs, stabilize the incident and transition to short-term recovery (Recovery) 	
		<ul style="list-style-type: none"> Establish and maintain unified and integrated coordinating structures with critical stakeholders to support state, tribal, and local recovery decision-making processes, goals and objectives, and timelines 	X

Kansas	Economic Recovery	<ul style="list-style-type: none"> Within 180 days of an incident, develop a plan with community partners for redeveloping community infrastructures to mitigate for resiliency, accessibility, and sustainability to recover from over 10 billion dollars in direct loss, which includes: 26 schools, 1 hospital, and 105 tourist areas. 	X
	Housing	<ul style="list-style-type: none"> Within 30 days of an incident, assess preliminary housing impacts and needs, identify currently available options for temporary housing for up to 90,000 individuals, and plan for permanent housing for 17,100 individuals affected in an area that covers 25 miles. 	X
	Operational Coordination	<ul style="list-style-type: none"> Response & Recovery: Establish command, control and coordination structures to ensure effective management for an area that covers up to 26 counties, within 2 hours to facilitate the response and recovery to an emergency of any etiology. 	X
		<ul style="list-style-type: none"> Prevention, Protection, Mitigation: Identify and execute 100% of the prevention, protection, and mitigation strategies to reduce the risk to the affected areas and to preserve the integrity of 5 investor owned utilities, 25+ municipality utilities, 25 Rural Electric Cooperative Utilities, 25,405 miles of pipeline and all communication systems that could potentially affect 105 counties. 	X
Louisiana	Economic Recovery	<ul style="list-style-type: none"> Within 14 months of an incident, both long- and short-term economic recovery plans have been fully implemented in order to restore local, state, and national economies to pre-incident levels. 	X
	Housing	<ul style="list-style-type: none"> Within 14 days of incident, assess the temporary, transitional, and long-term housing needs for 5,000 households and identify available options for temporary housing and transfer of up to 62,000 households from shelters to temporary housing. 	X
	Operational Coordination	<ul style="list-style-type: none"> Maintain the ability to staff the State EOC to appropriate level using all necessary state agencies within 24 hours. Enhance operational coordination with all 64 parish EOCs, and 28 state agencies, federal partners, non-governmental organizations, and the private sector. Maintain multi-agency coordination system integrating all critical stakeholders to an incident. 	X
Maryland	Economic Recovery	<ul style="list-style-type: none"> Work with the Long-Term Recovery Committee to establish and accomplish applicable milestones to support agricultural recovery. 	X
		<ul style="list-style-type: none"> Work with the Long-Term Recovery Committee to establish and accomplish applicable milestones to support tourism recovery. 	X
		<ul style="list-style-type: none"> Upon the transition to recovery operations, conduct public messaging to alert tourists about the status of attractions and tourist destinations statewide through the duration of recovery operations. 	X

		<ul style="list-style-type: none"> • Within 1 month of the event, contact Destination Marketing Organizations (DMOs) and County Tourism representatives in each impacted jurisdiction to identify ways to support outreach efforts. 	X
		<ul style="list-style-type: none"> • Work with the Long-Term Recovery Committee to establish and accomplish applicable milestones to support small business recovery. 	X
		<ul style="list-style-type: none"> • Within 2-6 weeks of the transition to recovery operations, Economic Recovery Support Function (RSF) partners identify and prioritize the distribution of available resources to support economic recovery operations 	X
		<ul style="list-style-type: none"> • Make staffing available for all open Essential Service Centers (or Disaster Recovery Centers, if applicable) statewide within 1 week of opening, as needed. 	X
		<ul style="list-style-type: none"> • Work with the Long-Term Recovery Committee to establish and accomplish applicable milestones to support economic recovery of other industries. 	X
		<ul style="list-style-type: none"> • Provide data to inform the request for a Presidential Disaster Declaration with 1-4 weeks of an event. 	X
		<ul style="list-style-type: none"> • Provide impact assessment data to the Community Planning Capacity Building Recovery Support Function (RSF) to inform the development of the State Recovery Support Strategy (SRSS) within 6 months of an event. 	X
		<ul style="list-style-type: none"> • Within 24 hours of receipt of a Presidential Disaster Declaration, coordinate with Economic Recovery Support Function (RSF) partners to send a unified message to businesses and the community regarding the process for requesting and receiving assistance. 	X
		<ul style="list-style-type: none"> • Within 1 year of an event, assist local recovery organizations with identifying the needs of existing businesses, as well as potential new business and employment opportunities. 	X
	Housing	<ul style="list-style-type: none"> • Provide data to inform the request for a Presidential Disaster Declaration with 1-4 weeks of an event. 	
		<ul style="list-style-type: none"> • Process 100% of received loan applications for impacted and eligible residents within 1 year of an incident or in accordance with grant program requirements 	X
		<ul style="list-style-type: none"> • Convene a housing task force within 48 hours post event and determine residential damage assessment methods and strategies. 	X
		<ul style="list-style-type: none"> • Conduct assessments to determine how to fund programs and services using various available grant programs and sources. 	X
		<ul style="list-style-type: none"> • Assess whether the Maryland Housing Assistance Program (MDHAP) needs to be setup, and begin taking steps to provide services, if needed, if money is appropriated to the Maryland Housing Assistance Program. 	X
		<ul style="list-style-type: none"> • Administer MDHAP within 48 hours of the program being funded. 	X

		<ul style="list-style-type: none"> Staff at least 1 Essential Services Center per impacted jurisdiction with appropriate personnel knowledgeable in available programs to assist applicants. 	
		<ul style="list-style-type: none"> Staff 1 disaster recovery center per impacted jurisdiction to help eligible residents with applying to loan programs, as requested. 	X
		<ul style="list-style-type: none"> Provide information about loan assistance programs and eligibility to impacted individuals within 1 week of the transition to recovery operations or in accordance with grant program requirements. 	X
		<ul style="list-style-type: none"> Determine the eligibility and intake requirements that will be used for loan programs within 1 week post incident or in accordance with grant program requirements. 	X
		<ul style="list-style-type: none"> Determine resources and requirements necessary to process 100% of received loan applications for impacted and eligible residents within 1 month of the incident or in accordance with grant program requirements. 	X
	Operational Coordination	<ul style="list-style-type: none"> Execute the SPPOP on an ongoing basis as part of steady state operations in Maryland. 	
		<ul style="list-style-type: none"> As credible terrorist threat information is received and verified, coordinate law enforcement operations with Federal partners through Joint Terrorism Taskforce (JTTF). - As criminal threats/actions occur, coordinate operations through MSP Special Operations Division. 	
		<ul style="list-style-type: none"> The CMC will coordinate with MEMA to activate the SEOC (if needed) for consequence management coordination within XX hours of receiving a credible threat. 	
		<ul style="list-style-type: none"> Provide operational guidance and support for local law enforcement partners within XX hours of receiving a credible threat. 	
		<ul style="list-style-type: none"> Coordinate with FBI in establishing a Joint Operations Center (JOC) to synthesize investigative activities within XX hours of receiving a credible threat. 	
		<ul style="list-style-type: none"> Execute appropriate courses of action within XX hours of receiving an actionable credible threat to the State of Maryland. 	
		<ul style="list-style-type: none"> Before the start of the first operational period, or within the first operational period of a no-notice event, determine which crisis action and contingency plans are relevant. 	
		<ul style="list-style-type: none"> Within seventy-two hours of the conclusion of life-saving operations, determine which mitigation strategies and projects were involved in the operation. 	
		<ul style="list-style-type: none"> Within one week of an event, communicate any unmet mitigation needs identified in the operation to the Mitigation Grants Program. 	X
		<ul style="list-style-type: none"> Ensure operational readiness of the Maryland Joint Operation Center (MJOC) and State Emergency Operations Center (SEOC), to include alternate and backup facilities 24/7/365. 	

		<ul style="list-style-type: none"> • Maintain 24/7/365 coordination of state, local, and federal emergency management operations in anticipation of a potential incident. 	
		<ul style="list-style-type: none"> • Coordinate activities with the Prevention/Protection Mission Area. 	
		<ul style="list-style-type: none"> • Escalate State Response Operational Status Level, as appropriate within 30 minutes of incident assessment. Staff 100% of necessary SEOC positions within 2 hours of notification. 	
		<ul style="list-style-type: none"> • Coordinate with 100% of known impacted local jurisdictions, contiguous states, the National Capital Region, Delaware Emergency Task Force, FEMA Region III, and all necessary federal, non-governmental organizations and private-sector partners. 	X
		<ul style="list-style-type: none"> • Appoint a State Disaster Recovery Coordinator (SDRC) within 24 hours of a State Emergency Declaration for incidents. 	X
		<ul style="list-style-type: none"> • De-escalate the State Response Operational Status Level when life safety, property protection, and outstanding response missions have been completed. 	
		<ul style="list-style-type: none"> • Upon determination by the MEMA Executive Director that a recovery operation is necessary, appoint the State Disaster Recovery Coordinator. 	X
		<ul style="list-style-type: none"> • Within 72 hours of appointing the SDRC, create and release the State Response Organization chart. 	X
		<ul style="list-style-type: none"> • Within 24 hours of a request from a local emergency manager or RLO, meet with local emergency managers to support local-level disaster recovery operations. 	
		<ul style="list-style-type: none"> • Within 96 hours of the appointment of the SDRC, assess the ability of all recovery agencies to meet goals. 	X
		<ul style="list-style-type: none"> • Within 1 week of the appointment of the SDRC, assess the capacity of all relevant private businesses and non-profits. 	X
		<ul style="list-style-type: none"> • Provide data to inform the request for a Presidential Disaster Declaration with 1-4 weeks of an event. 	X
Missouri	Economic Recovery	<ul style="list-style-type: none"> • Recovery. Return economic and business activities (including food and agriculture) to a healthy state and develop new business and employment opportunities that result in an economically viable community. Be able to transition from response to recover, per Incident Action Plan (IAP). 	X
	Housing	<ul style="list-style-type: none"> • Recovery. Implement housing solutions that effectively support the needs of the whole community and contribute to its sustainability and resilience. Be able to transition from response to recover, per Incident Action Plan (IAP). 	X
	Operational Coordination	<ul style="list-style-type: none"> • Prevention. Establish and maintain a unified and coordinated operational structure and process that appropriately integrates all critical stakeholders and supports the execution of core capabilities. 	
		<ul style="list-style-type: none"> • Protection. Establish and maintain a unified and coordinated operational structure and process that appropriately integrates 	

		all critical stakeholders and supports the execution of core capabilities	
		<ul style="list-style-type: none"> • Mitigation. Establish and maintain a unified and coordinated operational structure and process that appropriately integrates all critical stakeholders and supports the execution of core capabilities 	
		<ul style="list-style-type: none"> • Response. Establish and maintain a unified and coordinated operational structure and process that appropriately integrates all critical stakeholders and supports the execution of core capabilities. Within two (2) hours of activation and for each operational period IAW the Incident Action Plan (IAP) 	X
Nebraska	Economic Recovery	<ul style="list-style-type: none"> • Facilitate and leverage state resources to restore \$24,000,000,000 in economic losses and improve economic and business activities (including agricultural) in accordance with local recovery planning efforts and timelines. 	X
	Housing	<ul style="list-style-type: none"> • Establish a resilient and sustainable housing market that meets the interim and long-term needs of 10,000 people in the impact area in accordance with local recovery planning efforts and timelines. 	X
	Operational Coordination	<ul style="list-style-type: none"> • Within 24 hours, implement activation plans at state and all 93 counties, to ensure the mobilization of resources, and establish command, control and coordination structures within the state, ultimately working toward stability. 	

APPENDIX G: ACRONYMS

Acronym	Term
AAR	After Action Report
AHP	All Hazards Plan
AMS	Aerial Measuring System
ANI	American Nuclear Insurers
ANS	American Nuclear Society
APHIS	Animal and Plant Health Inspection Service
APLN	Administrator's Physical Loss Notification
ARC	American Red Cross
A-Team	Advisory Team
BOAH	Indiana State Board of Animal Health
BSE	Bovine spongiform encephalopathy
CDBG	Community Development Block Grants
CDC	U.S. Centers for Disease Control and Prevention
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulation
CPCB	Community Planning and Capacity Building
CRCPD	Conference of Radiation Control Program Directors
CRP	Conservation Reserve Program
CS	Cesium
CST	Civil Support Team
DAFP	Deputy Administrator for Farm Programs
DGS	Maryland Department of General Services
DHS	U.S. Department of Homeland Security
DIL	Derived intervention level
DIPP	Dairy Indemnity Payment Program
DNR	Department of Natural Resources
DOC	U.S. Department of Commerce
DOE	U.S. Department of Energy
DOI	U.S. Department of Interior
DOL	U.S. Department of Labor
DOT	U.S. Department of Transportation
DRC	Disaster Recovery Center
DRC	Disaster Reception Center
DSHS	Texas Department of State Health Services
ECP	Emergency Conservation Program
ED	U.S. Department of Education
EDA	Economic Development Administration
EDEN	Extension Disaster Education Network
EFA	Emergency Financial Assistance
EFRP	Emergency Forest Restoration Program
ELAP	Emergency Livestock Assistance Program
EM	Emergency
EM	Emergency Declaration
EMA	Emergency Management Agency
EMAC	Emergency Management Assistance Compact

Acronym	Term
EMD	Emergency Management Division
EMT	Emergency Medical Technician
ENO	Extraordinary Nuclear Occurrence
EOC	Emergency Operations Center
EPA	U.S. Environmental Protection Agency
EPZ	Emergency Planning Zone
ERS	Economic Research Service
ESF	Emergency Support Function
FCC	Federal Communications Commission
FCO	Federal Coordinating Officer
FDA	U.S. Food and Drug Administration
FDC	Federal District Court
FDRC	Federal Disaster Recovery Coordinator
FDRO	Federal Disaster Recovery Officer
FEMA	Federal Emergency Management Agency
FERN	Food Emergency Response Network
FIOP	Federal Interagency Operational Plan
FLEX	Diverse and Flexible Coping Strategies
FRMAC	Federal Radiological Monitoring and Assessment Center
FRPCC	Federal Radiological Preparedness Coordinating Committee
FSA	Federal Staging Areas
FSA	Farm Services Agency
FSIS	Food Safety Inspection Service
GEOP	Georgia Emergency Operations Plan
GIS	Geographic Information System
GOHSEP	Louisiana Governor's Office of Homeland Security and Emergency Preparedness
GSA	General Services Administration
HAB	Hostile Action Based
HEPA	High efficiency particulate air
HHS	U.S. Department of Health and Human Services
HPAI	highly pathogenic avian influenza
HQ	Headquarters
HSEMD	Homeland Security and Emergency Management Department
HUD	U.S. Department of Housing and Urban Development
I	Iodine
IA	Individual Assistance
IDEM	Indiana Department of Environmental Management
IDHS	Indiana Department of Homeland Security
IDOT	Indiana Department of Transportation
IEMA	Illinois Emergency Management Agency
IMAT	Incident Management Assistance Team
IND	Improvised nuclear device
IP	Improvement Plan
IP	Infrastructure Protection
IPCC	Ingestion Path Coordinating Committee
IRCT	Incident Response Coordination Team
JFO	Joint Field Office

Acronym	Term
JIC	Joint Information Center
LDAF	Louisiana Department of Agriculture and Forestry
LDRM	Local Disaster Recovery Manager
LEPC	Local Emergency Planning Committee
LFP	Livestock Forage Program
LIP	Livestock Indemnity Program
LNO	Liaison Officer
LOPE	Letter of Priority of Entitlement
LRC	Local Recovery Coordinator
LSU	Louisiana State University
MDA	Maryland Department of Agriculture
MDE	Maryland Department of the Environment
MDH	Maryland Department of Health and Mental Hygiene
MEMA	Maryland Emergency Management Agency
MIA	Maryland Insurance Administration
MOACSDR	Missouri Adventist Community Services Disaster Response
MOVOAD	Missouri VOAD
MSA	Mission Scope Assessment
NAFTA	North Atlantic Free Trade Agreement
NAP	Noninsured Crop Disaster Assistance Program
NAP	Noninsured Crop Disaster Program
NDRF	National Disaster Recovery Framework
NEMA	Nebraska Emergency Management Agency
NGO	Non-Governmental Organization
NIFA	National Institute of Food and Agriculture
NIMS	National Incident Management System
NIPF	Non-Industrial Private Forest
NLE13	National Level Exercise 2013
NNSA	National Nuclear Security Administration
NPP	Nuclear Power Plant
NRC	U.S. Nuclear Regulatory Commission
NRCS	Natural Resources Conservation Service
NREP	National Radiological Emergency Preparedness
NRF	National Response Framework
NRIA	Nuclear/Radiological Incident Annex
OEO	Office of Emergency Operations
OFA	Other federal agency
OFAC	Office of Foreign Assets Control
OGC	Office of General Council
OHSEC	Office of Homeland Security and Emergency Coordination
OHSEP	Office of Homeland Security and Emergency Preparedness
OPR	Office of Preparedness and Response
ORO	Offsite Response Organization
PA	Public Assistance
PAA	Price Anderson Act
PAG	Protective Action Guide
PII	Personally identifiable information

Acronym	Term
PIO	Public Information Officer
PKEMRA	Post-Katrina Emergency Management Reform Act
PLA	Public Liability Action
PPE	personal protective equipment
RA	Regional Administrator
RAC	Regional Assistance Committee
RAP	Radiological Assistance Program
RBS	Rural Business-Cooperative Service
RD	Rural Development
RDD	Radiological Dispersal Device
REAC/TS	Radiation Emergency Assistance Center/Training Site
REAP	Rural Energy for America Program
REP	Radiological Emergency Preparedness
REPP	Radiological Emergency Preparedness Program
RHP	Radiological Health Program
RMA	Risk Management Agency
RPM	REP Program Manual
RRCC	Regional Response Coordination Center
RRR	Return, Reentry, Relocation
RRT	Rapid Response Team
RSF	Recovery Support Function
RSS	Recovery Support Strategy
RUS	Rural Utility Services
RWC	Regional Watch Center
SA	Situational Awareness
SBA	U.S. Small Business Administration
SCO	State Coordinating Officer
SDRC	State Disaster Recovery Coordinator
SE15	Southern Exposure 2015 Exercise
SEOC	State Emergency Operations Center
SME	Subject Matter Expert
SMRAP	Southern Mutual Radiological Assistance Program
SPR	State Preparedness Report
STEP	Sheltering and Temporary Essential Power
STORM	Systematic Tracking for Optimal Reporting
TAP	Tree Assistance Program
TDEM	Texas Department of Emergency Management
THD	Technological Hazards Division
TOP	Training, Outreach, and Planning
TRACs	Trail Assessment and Condition Surveys
TSA	Traditional Sheltering Assistance
TTX	Tabletop Exercise
UCG	Unified Coordination Group
USACE	U.S. Army Corps of Engineers
USCG	U.S. Coast Guard
USDA	U.S. Department of Agriculture
USDA-FSA	USDA – Farm Services Agency

Acronym	Term
VA	Veterans Affairs
VAL	Voluntary Agency Liaison
VOAD	Voluntary Organizations Active in Disaster
WA	Washington
WCNOC	Wolf Creek Nuclear Operating Corporation
WEAC	Winchester Engineering and Analytic Center
WEP	Water & Environmental Programs

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